March 2008
IMF Country Report No. 08/98

Papua New Guinea: 2007 Article IV Consultation—Staff Report; and Public Information Notice on the Executive Board Discussion 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 2007 Article IV consultation with the Papua New Guinea, the following documents have been released and are included in this package:

- The staff report for the 2007 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on November 14, 2007, 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 January 18, 2008. 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 February 15, 2008 discussion of the staff report that concluded the Article IV consultation.

The document listed below has been or will be separately released.

Selected Issues Paper and Statistical Appendix

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

To assist the IMF in evaluating the publication policy, reader comments are invited and may be sent by e-mail to publicationpolicy@imf.org.

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INTERNATIONAL MONETARY FUND

PAPUA NEW GUINEA

Staff Report for the 2007 Article IV Consultation

Prepared by the Staff Representatives for the
2007 Consultations with Papua New Guinea

Approved by Steven Dunaway and Michael Hadjimichael

January 18, 2008

- **This report is based on discussions held in Port Moresby, November 1–14, 2007.** The staff team consisted of Ms. Creane (head), Mr. Hussain, Ms. Mineshima, and Mr. Thomas (all APD), Ms. He (STA), and Mr. Faal (Resident Representative). Mr. Duggan (OED) participated. The team also coordinated with the World Bank and Asian Development Bank.

- **Counterparts:** The team met with Treasurer and Finance Minister Pruaitch, Bank of Papua New Guinea Governor Kamit, other senior officials, and private sector, donor and nongovernment representatives.

- **Previous Article IV consultation:** The last Article IV consultation was concluded on March 7, 2007, and Directors' comments may be found at http://www.imf.org/external/np/sec/pn/2007/pn0736.htm.

- **Papua New Guinea's exchange rate regime is a managed float.** Papua New Guinea is an Article VIII country and maintains an exchange system free of restrictions on payments and transfers for current international transactions (Annex I).

- **Economic statistics remain weak** (Annex V). The quality and timing of national accounts, prices, balances of payments, and government finance data need improvement.

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Executive Summary

Background

- Macroeconomic performance was positive in 2007 with strong growth and low inflation, reflecting reasonably prudent policies and high world prices for key mineral exports. Still, the country remains poor with significant underlying vulnerabilities, and risks to the outlook have increased.

- Temporarily large mineral revenue inflows have intensified spending pressures and the 2008 budget includes large expenditure increases. These could result in increased inflationary pressures and waste in the near term, given the absence of implementation and absorptive capacity, and the need for considerable fiscal consolidation as mineral revenue inflows ease over the medium term.

- The structural reform agenda to improve the investment climate has seen little progress. The recent economic performance is an improvement relative to the recent past, however, the growth performance gap relative to peers continues to grow.

Policy recommendations

- The staff and authorities agree that budget expenditure should be managed carefully to contain inflationary pressures and meet critical development needs. This would involve shifting spending toward investment and other priority areas that will aid economic growth, improving public financial management, and further reducing debt as a form of saving the temporarily large mineral revenue inflows.

- The monetary stance remains appropriate for now, with the central bank successfully keeping inflation under control. However, the authorities reconfirmed they stand ready to tighten if the expected looser fiscal policy stokes inflationary pressures.

- The current exchange rate level is not out of line with fundamentals. The managed float exchange rate policy, allowing some reserve build up while protecting competitiveness, remains generally appropriate given the expected near-term decline in mineral revenue inflows. However, in the staff's view, additional flexibility would be needed in the face of sustained pressures.

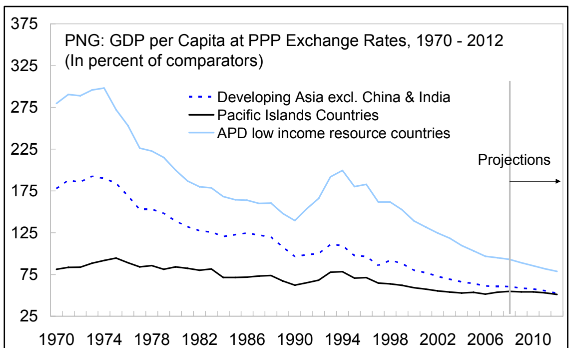
- The government is urged to accelerate progress on structural reform, without which the outlook for more rapid nonmineral sector growth, job creation, and poverty alleviation is dim.

I. Introduction

A. Background

1. **Papua New Guinea's economic performance has strengthened since the last Article IV consultation.** Supported by a combination of prudent fiscal and monetary policies and high global prices for key mineral export commodities, growth has accelerated over the past five years with increasing momentum from the nonmineral sector since the recession ended in 2003. Inflation has remained in the low single digits, and international reserves are at a record high.

2. **Still, the country remains poor with significant underlying vulnerabilities.** There has been little improvement in development indicators (Figure 1), and urban unemployment is estimated at around 40 percent. The economy is exposed to commodity price shocks, and mineral production is expected to decline over the medium to longer term (Box 1). An unattractive investment environment, including weak infrastructure and governance, constrains more rapid and sustained growth of the nonmineral sector (Box 2). Papua New Guinea's recent growth performance is an improvement relative to the past; however, it is unlikely to be sustained and falls short of that needed to reduce poverty, raise development, and close the performance gap with respect to comparator countries over time.



Sources: IMF, *World Economic Outlook;* and Fund staff estimates.

3. The political environment has stabilized. Prime Minister Somare has returned for an unprecedented second-consecutive term following the mid-2007 parliamentary elections. After several years of inactivity following differences of opinion with the authorities on forestry sector governance, the World Bank has recently re-engaged with new project lending.

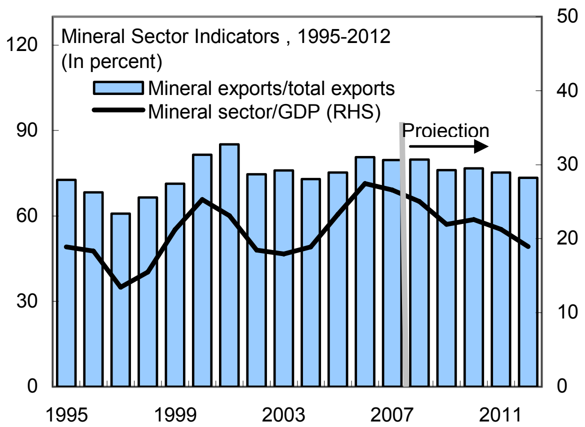
B. The Current Economic Setting

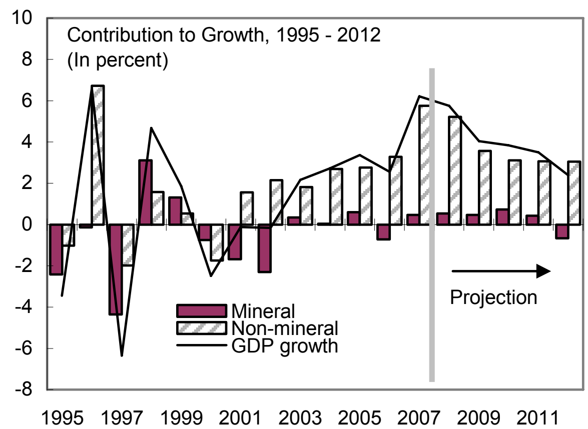
4. **The near-term macroeconomic prospects are positive** (Figure 2 and Table 1).

- **Buoyant growth of over 6 percent is estimated for 2007, based on robust mineral and nonmineral growth.** The pickup reflects the combination of several one-off factors, including a strong rebound in mineral and agriculture production following

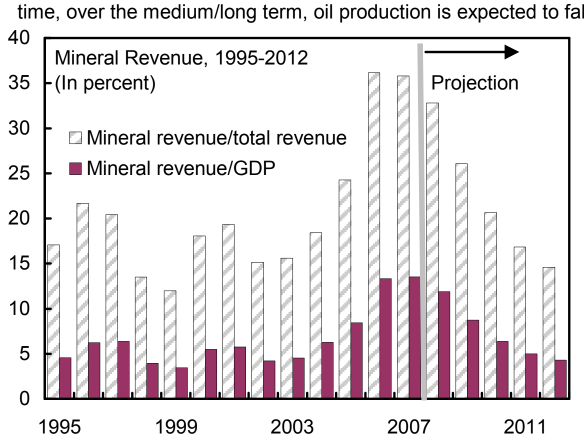
Box 1. Papua New Guinea: Mining-Sector Role Waning Over Medium Term

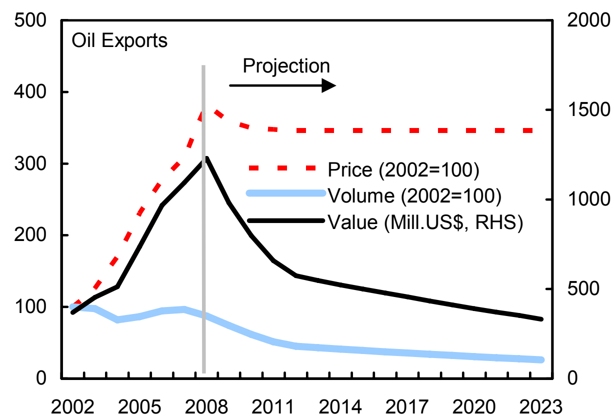
Mining, including petroleum, is the largest sector in the economy, dominating exports...but its enclave nature and declining role mean the non-mineral sector must drive growth over the longer term.



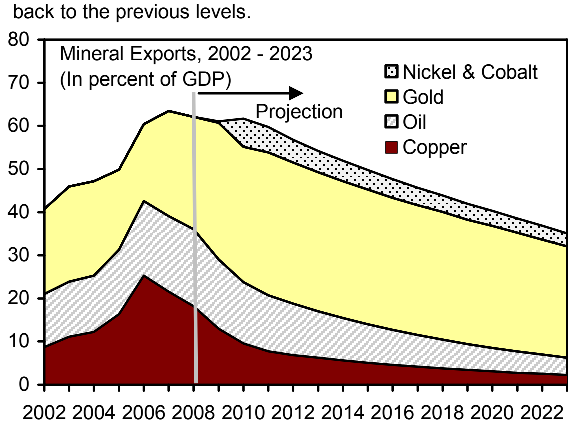


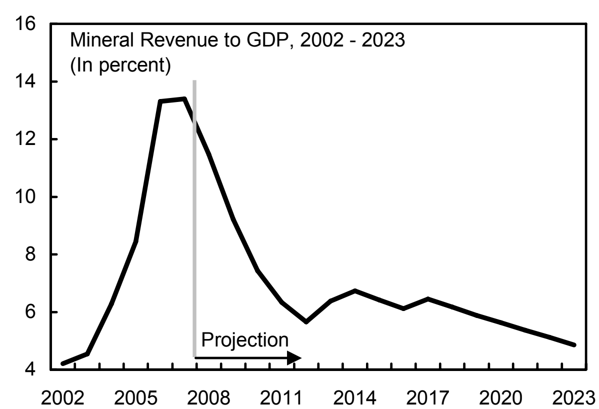
Current high world prices have brought fiscal revenue to all time highs, but also emphasize the vulnerability to shocks. At the same time, over the medium/long term, oil production is expected to fall.





Other mineral price/production assumptions point also to export value falling over the long term...with total mineral revenue dropping back to the previous levels.

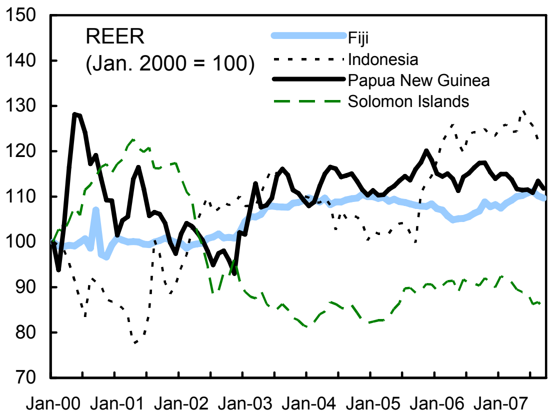


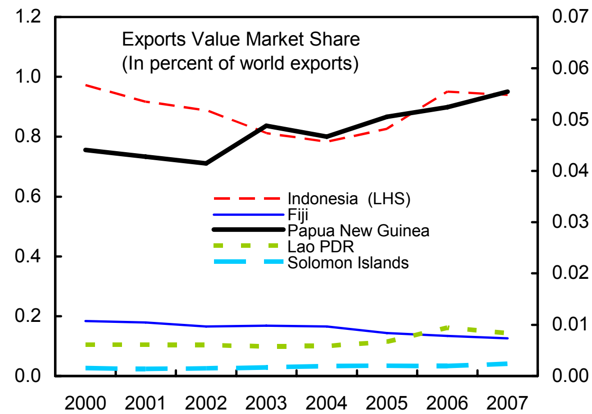


Sources: PNG authorities; and Fund staff estimates.

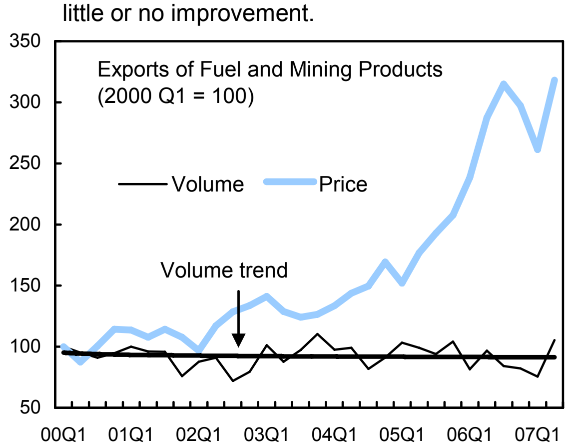
Box 2. Is Papua New Guinea's Nonmineral Sector Competitive?

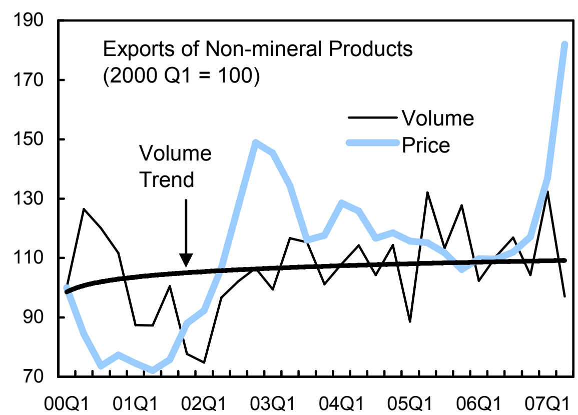
Papua New Guinea's REER has remained largely stable and in line with competitors since 2004. Its export market share has increased on a value basis.



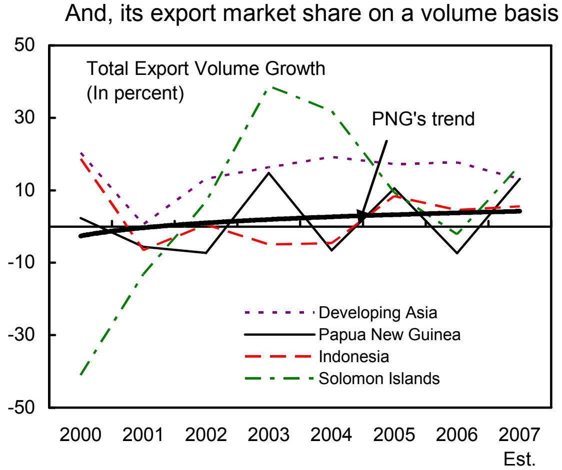


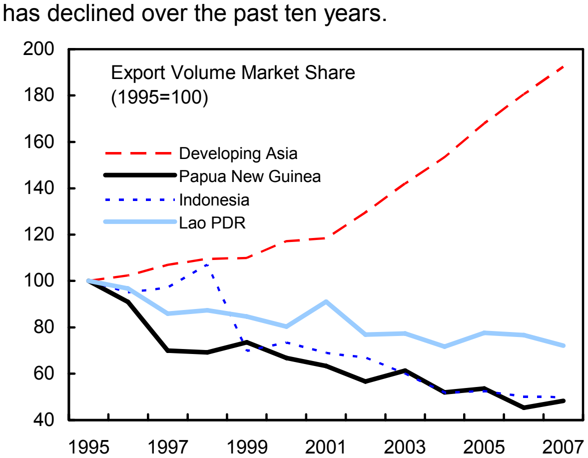
However, this reflects higher export prices, especially for mineral exports, as volumes have shown little or no improvement.





And, its export market share on a volume basis has declined over the past ten years.





Sources: PNG authorities; IMF *Information Notice System, Direction of Trade Statistics*, and *World Economic Outlook* database; and Fund staff estimates.

Box 2. Is Papua New Guinea's Nonmineral Sector Competitive? (Concluded)

Papua New Guinea maintains one of the least restrictive trade regimes in the region. However, domestic structural rigidities, including weak and costly basic utilities and poor transportation, communication, and electric power infrastructure, low skills and literacy, high crime, and weak governance continue to hamper competitiveness and growth, particularly of the core nonmineral sector.

	APD Resource-rich Low-income Countries					
	Lao P.D.R	Mongolia	**Papua New Guinea**	Timor-Leste	Vietnam	Asia average[2]
Indicators of human and physical capital						
Public infrastructure quality (most recent year)						
Paved roads (percent of total roads)	14.1	3.5	**3.5**	Poor	25.1	58.0
Water quality (percent of population with access)	30.0	59.0	**44.0**	36.0	61.0	58.3
Human capital quality Index						
Adult literacy rate (percent of ages 15 and over)	68.7	97.8	**57.3**	58.6	90.3	87.9
Life expectancy at birth (years)	55.1	64.5	**55.7**	56.0	70.8	72.1
Indicators of country capacity to spend[1]						
Country Policy and Institutional Assessment (CPIA)	3.5	2.5	**1.5**	n.a.	3.5	n.a.
Government effectiveness	-1.1	-0.4	**-1.0**	-1.0	-0.3	0.6
Rule of law	-1.1	-0.3	**-0.9**	-0.5	-0.4	0.3
Political stability	-0.3	0.9	**-0.8**	-0.7	0.3	-0.2

Sources: World Bank, World Development Indicators; and Kaufamm, Krayy and Mastruzzi (2005).

[1] The World Bank Country Policy and Institutional Assessment rates eligible countries against 16 criteria grouped in four clusters: (a) economic management; (b) structural policies; (c) policies for social inclusion and equity; and (d) public sector management and institutions. Scores range from 1-6, with higher scores reflecting better performance. Other indicators range between ±2.5, with higher positive outcomes reflecting better outcomes. See www.worldbank.org. 2/ Coverage varies depending on data availability.

Although Papua New Guinea's ranking in the World Bank's ease-of-doing business database compares relatively favorably with others in the region, enforcing contracts, dealing with licenses, and getting credit are relatively more cumbersome.

Doing Business: Papua New Guinea and Comparators 1/

	Overall Ease	Starting a Business	Dealing w/ Licenses	Employing Workers	Getting Credit	Protecting Investors	Trading	Enforcing Contracts	Closing a Business
Papua New Guinea	**84**	**76**	**118**	**31**	**115**	**33**	**82**	**162**	**97**
East Asia and Pacific 2/	77	82	66	54	99	77	75	86	98
South Asia 2/	107	58	112	82	102	70	116	132	113

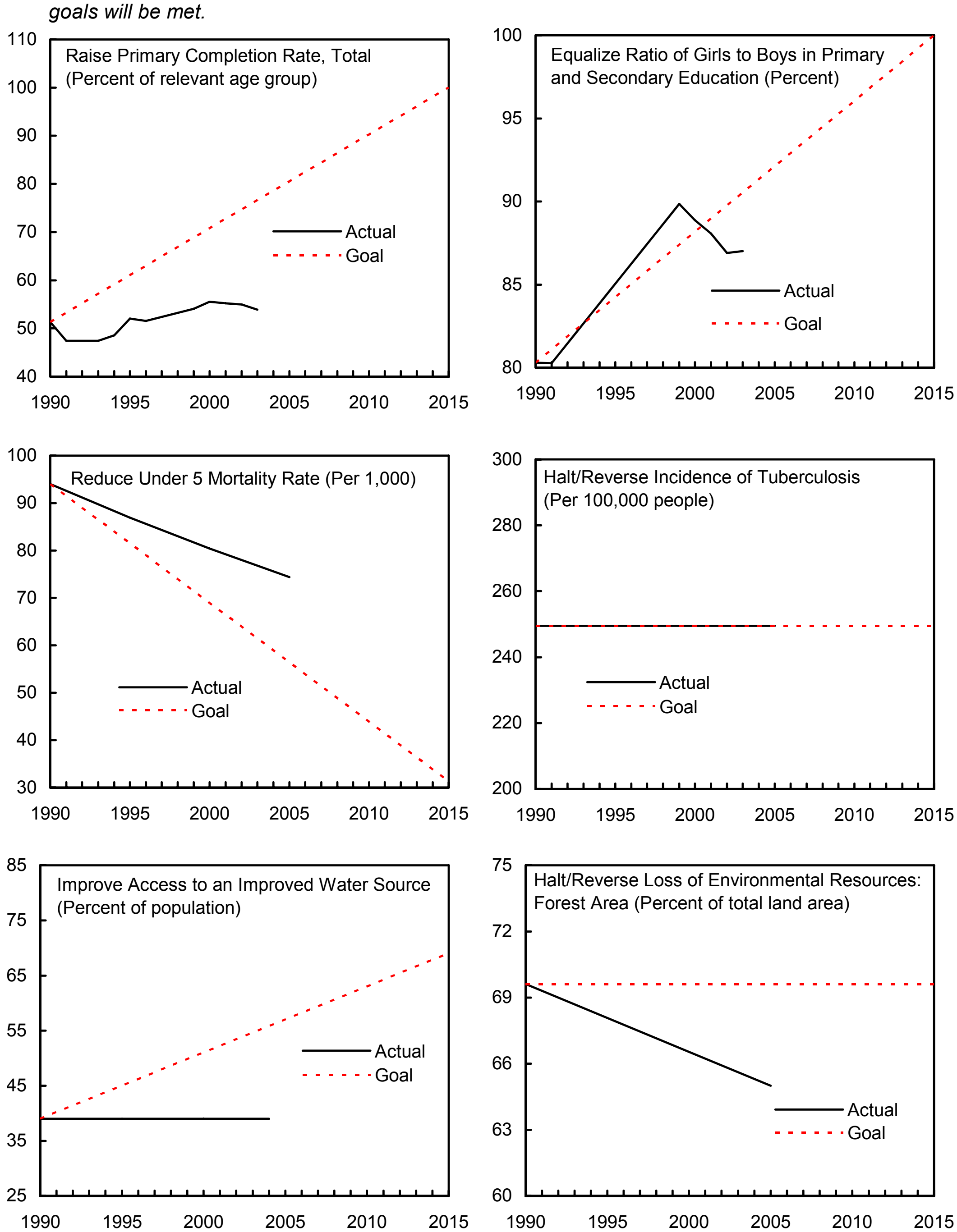
Source: World Bank, *Doing Business Indicators*, 2008.

1/ Economies are ranked on their ease of doing business, from 1-178, with first place being the best.

2/ Simple average of countries in the region.

Figure 1. Papua New Guinea: Progress Toward Selected Millennium Development Goals 1/

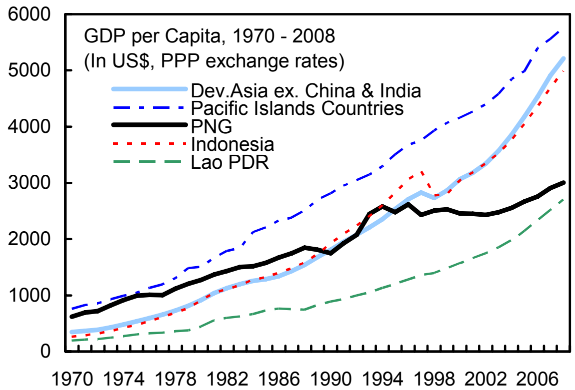
Although some progress has been made, there remains considerable distance before MDG goals will be met.



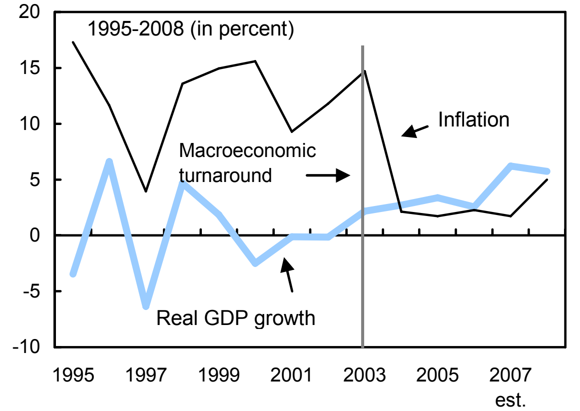
Source: World Bank, *World Development Indicators* database, April 2007.
1/ Progress is measured against a linear projection between the 1990 level and the MDG. Data points may not be available for each intervening year.

Figure 2. Papua New Guinea: Real Sector Developments

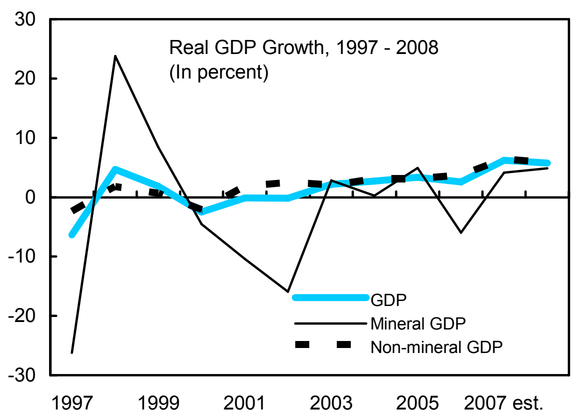
Poor economic management and rapid population growth resulted in GDP per capita little improved from mid-1990s to early-2000s...



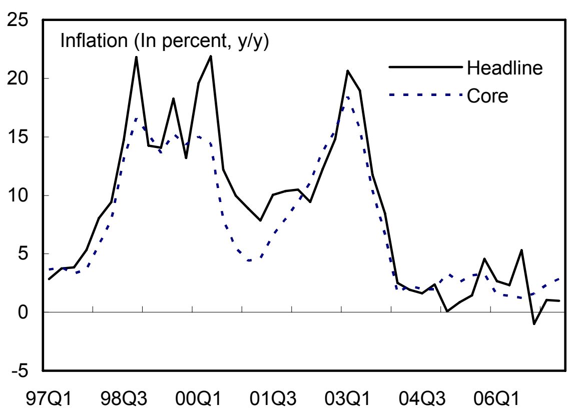
However, PNG is now enjoying its 5th year of recovery ...



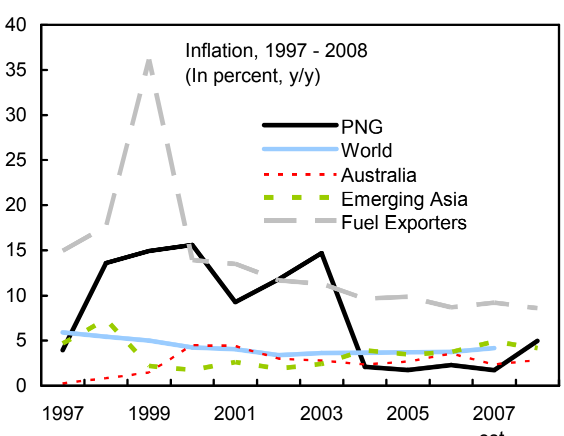
...with increasing momentum from the nonmineral sector.



Inflation has been in the low single digits thanks to a combination of reasonably prudent fiscal and monetary policies, resulting in...



...inflation being low relative to comparators, though expected to trend upward toward the middle single digits over 2007-08.



While, with delayed structural reform, human development indicators remain poor.

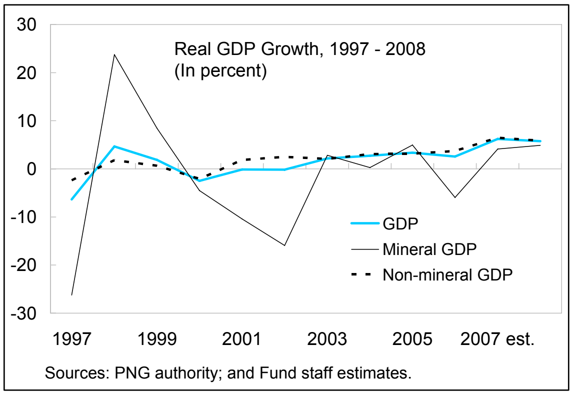
PNG and Comparator Countries

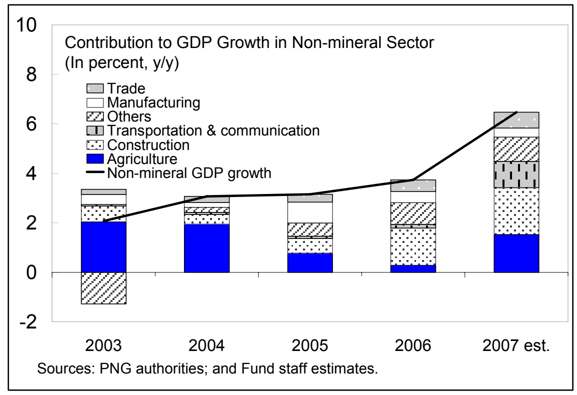
	HDI Rank, (2007-08) 1/	GDP per Capita in US$ (2006)	Real GDP per Capita Avg Growth 2002-06
Pacific Islands	96	2374	2.13
Developing Asia	108	1396	7.31
Cambodia	131	513	7.84
Papua New Guinea	145	943	-0.26
Sub Sahara Africa	147	944	2.51

1/ Human Development Indicators, higher rank = lower level of development.

Sources: PNG authorities; IMF, *World Economic Outlook*; UN, *Human Development Report 2007/08*; and Fund staff estimates.

drought in 2006, and expansion in telecommunications and mining-related construction. Strong nonmineral activity should continue in 2008, with some easing.





- **Annual average CPI inflation is estimated at under 2 percent in 2007.**

- **Positive debt dynamics and some repayment lowered the public debt-to-GDP ratio** to about 35 percent at end-2007, down sharply from a peak of 77 percent in 2002 (Figure 3 and Table 2).

- **Large foreign exchange inflows related to buoyant mineral exports boosted official reserves to over $2 billion at end-2007,** equivalent to about 5 months of goods and services imports, and kept the current account balance in surplus (Figure 4 and Table 3).

- **Monetary aggregates continue to grow rapidly, although at a decelerated pace** (Figure 5 and Table 4). Low inflation and real interest rates, and improved financial intermediation have contributed to a decline in broad money velocity.

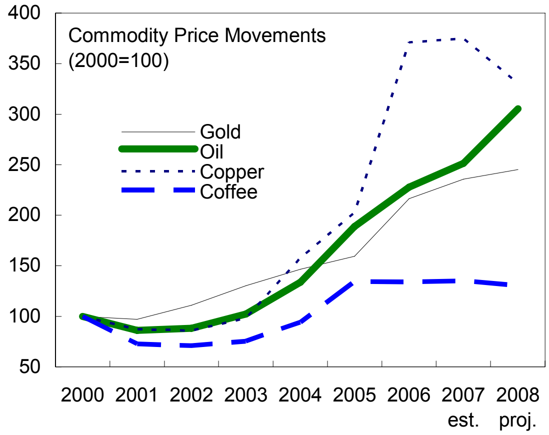
- **The kina continued to appreciate against the U.S. dollar, 7 percent over the year to November.** On a nominal and real effective basis, it depreciated by about 4 and 5 percent, respectively, over the year through September.

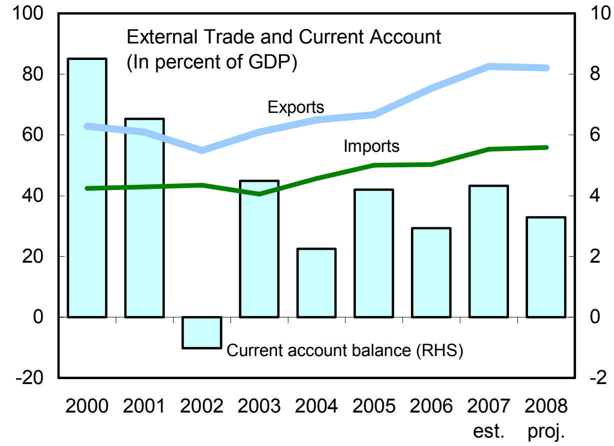
- **The financial sector appears sound, based on backward-looking indicators.** Reflecting the improved growth prospects and low interest rates, credit growth continues to be strong, though decelerating (Figure 5 and Table 4). Financial sector assets have grown to 71 percent of GDP at June 2007, from 45 percent at end-2003.

- **Reflecting the improved fiscal and external situation, Standard & Poor's upgraded Papua New Guinea's credit rating** to 'B+' on its foreign currency long-term debt and 'BB-' on its local currency rating (Table 6).

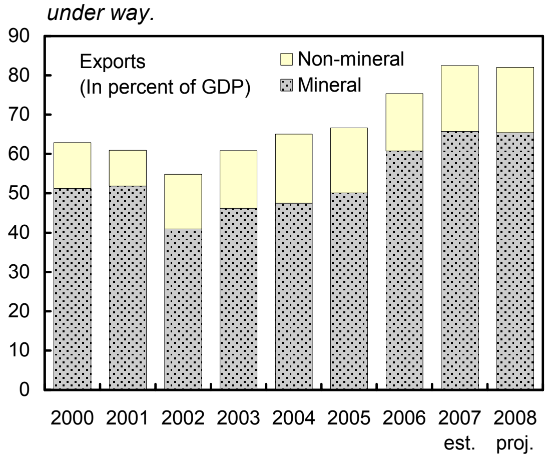
Figure 3. Papua New Guinea: External Sector Developments

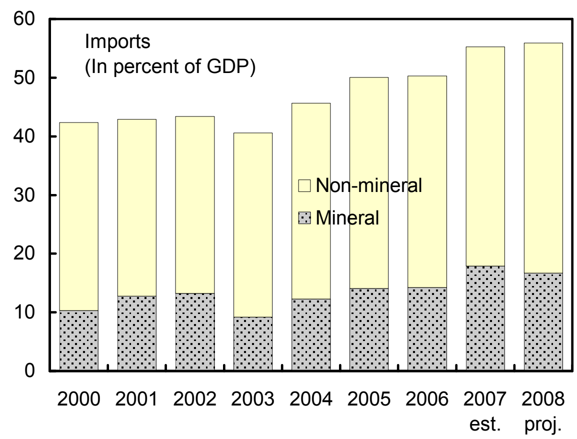
High world prices for key export commodities are driving surpluses on the external accounts. In 2007-08, the start of production at new gold mines is further boosting exports.



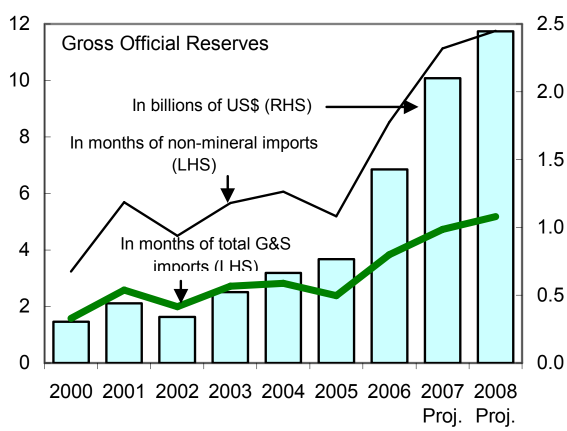


High mineral prices are pushing up both mineral sector exports and imports, as construction on new mines is under way.

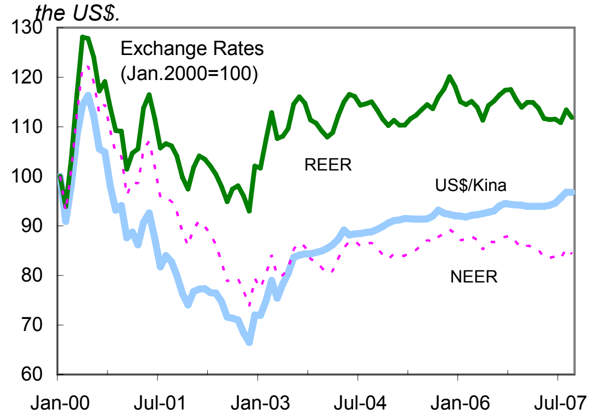




International reserves are growing.



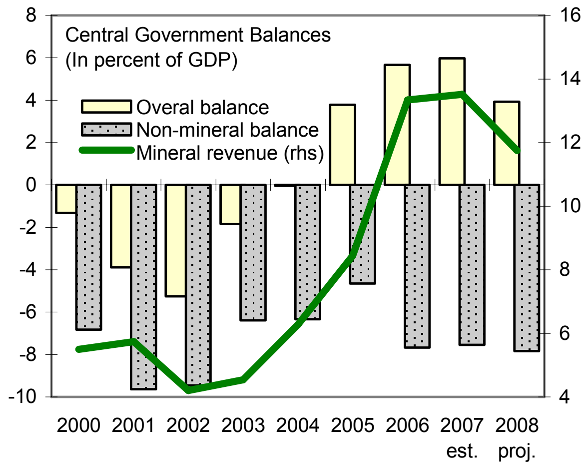
The kina depreciated somewhat recently on a real effective basis, while still gradually appreciating against the US$.

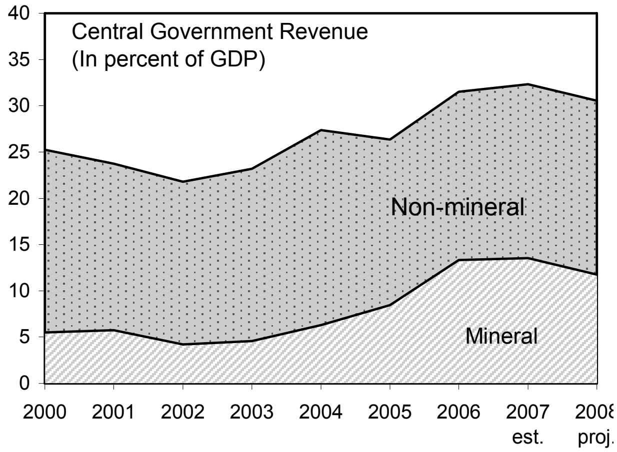


Sources: PNG authorities; IMF *World Economic Outlook* and *Information Notice System*; and Fund staff estimates.

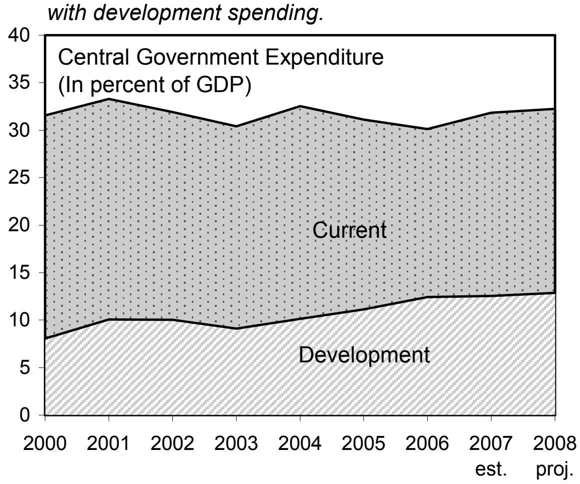
Figure 4. Papua New Guinea: Fiscal Sector Developments

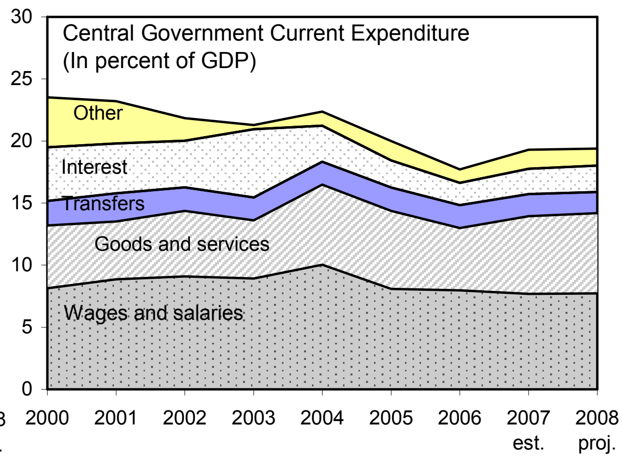
An overall fiscal surplus is expected for the 3rd year in 2007. Nonmineral imbalances are widening through 2008, however, reflecting higher current and development spending financed by record mineral revenue inflows.



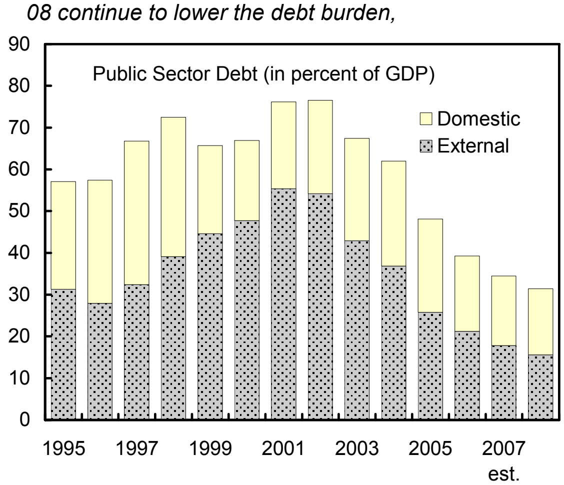


The fiscal consolidation begun in 2002 has faltered, with current spending on goods and services rising along with development spending.

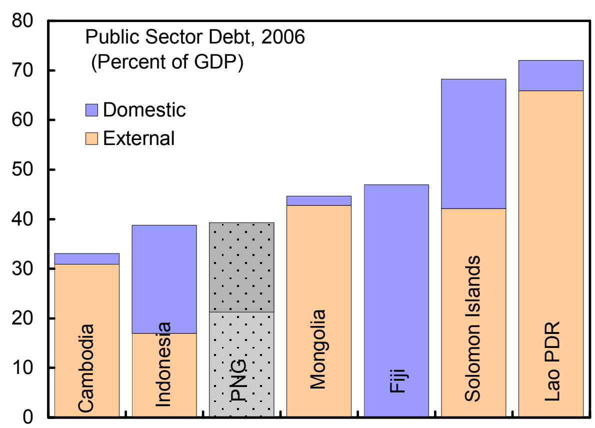




Positive debt dynamics and repayment of debt in 2006-08 continue to lower the debt burden,



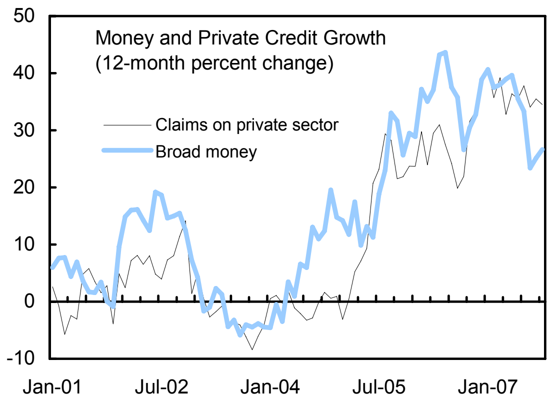
signaling an improvement relative to regional comparators.

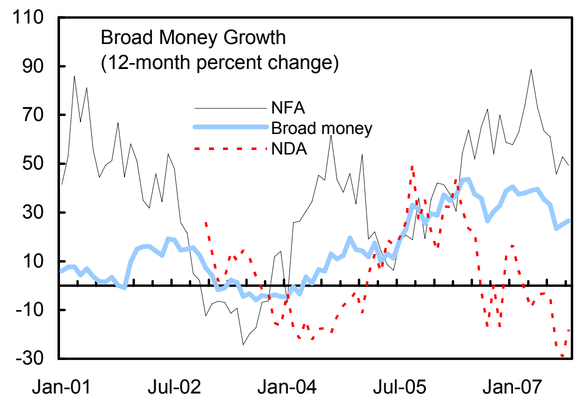


Sources: Papua New Guinea authority; IMF, *World Economic Outlook*; and Fund staff estimates.

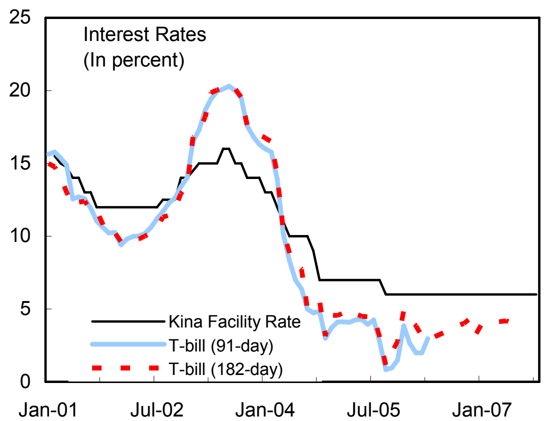
Figure 5-A. Papua New Guinea: Monetary Developments

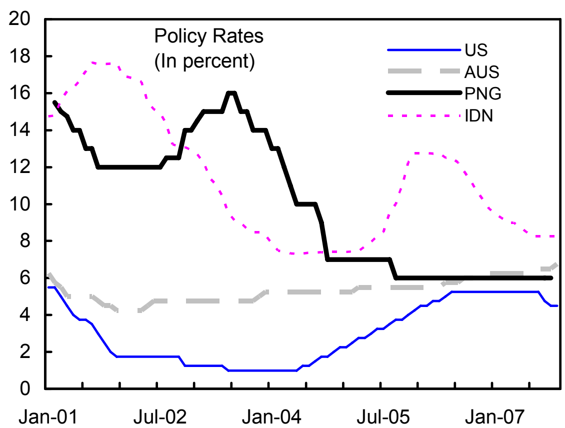
In spite of continued rapid growth in broad money and private credit, inflation remains subdued.





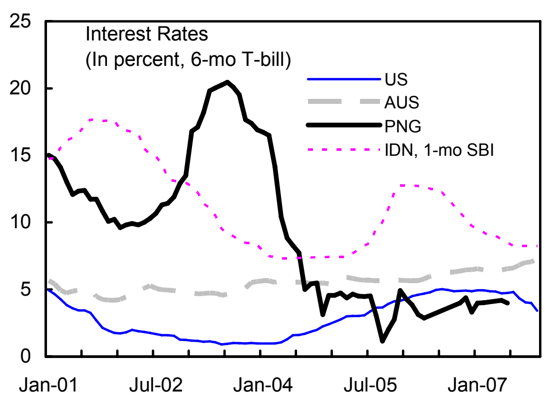
PNG's policy rate has remained unchanged since September 2005, and short-term interest rates remain low...

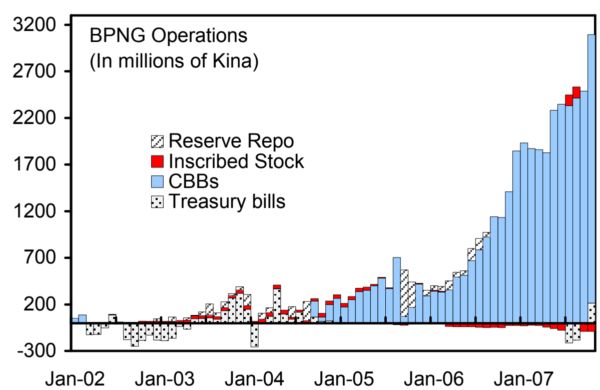




…even relative to regional market rates.

The BPNG absorbs liquidity through OMOs...

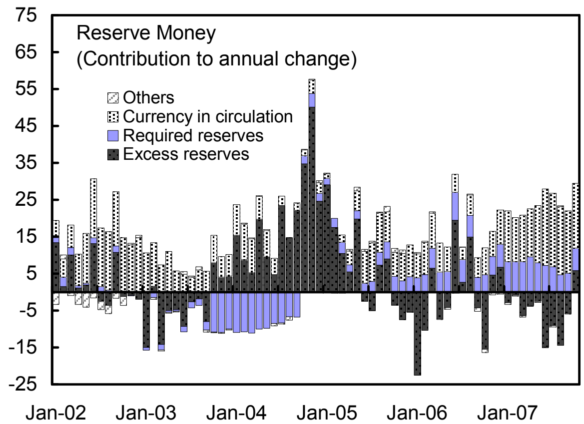




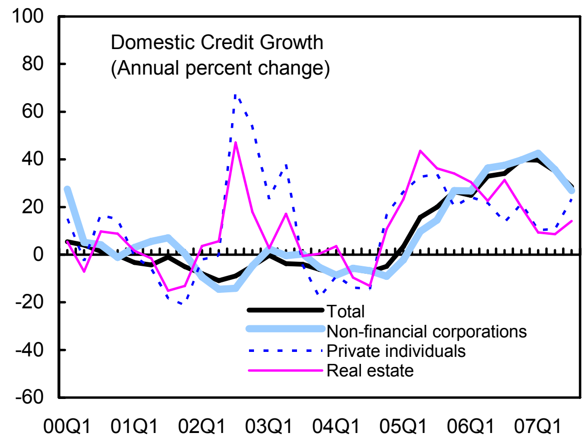
Sources: IMF, *Monetary and Financial Statistics*; Bloomberg; Country authorities; and Fund staff calculations.

Figure 5-B. Papua New Guinea: Monetary Developments (continued)

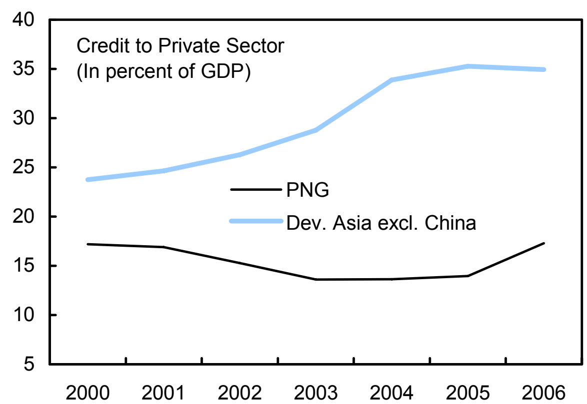
...To keep reserve money within target range.

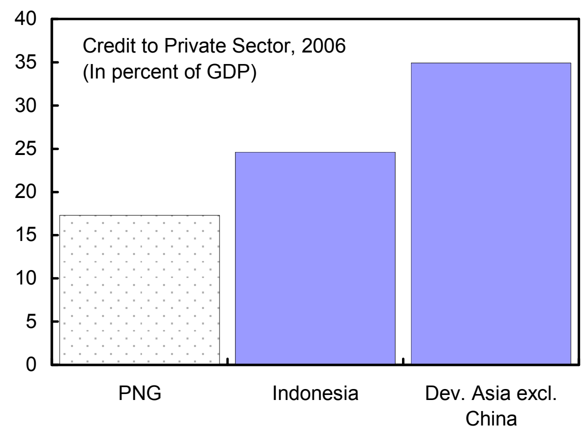


Domestic credit growth appears relatively broad based.

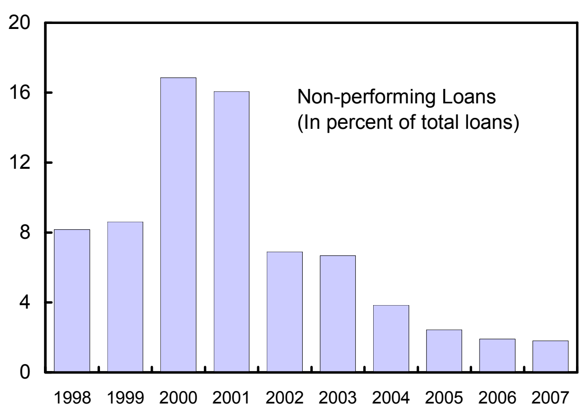


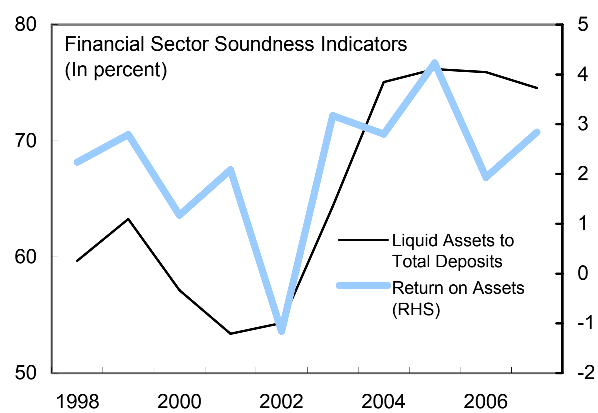
Although private credit has fully recovered from its past downturn, it is still low in a share-of-GDP basis relative to its comparators.





Backward indicators suggest the financial sector remains in a healthy condition with low NPLs.



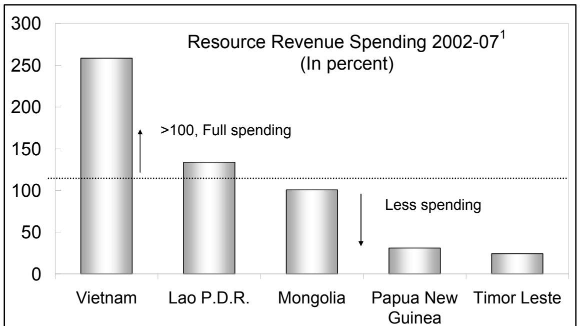


Sources: IMF, *International Financial Statistics* and *World Economic Outlook;* Papua New Guinea authority; and Fund staff calculations.

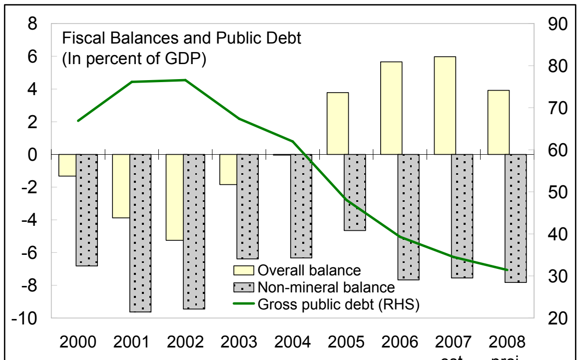
5. At the same time, policy challenges to improving and sustaining the recent strong performance have intensified.

- **Annual average inflation is expected to trend upward toward the middle single digits** over 2008, with pass-through of rising petroleum prices, some kina depreciation on an NEER basis, and higher demand pressure from increased budget spending.

- **Overall fiscal surpluses will continue through 2007–08.** High mineral revenue inflows, combined with restraint of recurrent costs and implementation capacity constraints, helped boost fiscal savings since 2002 relative to comparators. However, the nonmineral deficit, measured on a cash basis, is now likely to further worsen as mineral revenue eases and spending increases.



Sources: IMF, World Economic Outlook; IMF country reports; and Fund staff estimates.
[1] Defined as the ratio of the increase in non-resource fiscal deficit (in 2002- 2007) to the increase in resource revenues.



Sources: PNG authorities and Fund staff estimates.

Papua New Guinea: Summary of Central Government Operations, 2006–08
(in percent of GDP)

	2006	2007			2008	
	Staff Est.	Budget	Revised Budget 1/	Staff Est.	Budget	Staff Proj.
Revenue and grants	36.9	28.8	38.6	37.8	36.1	36.1
Nonmineral revenue	18.2	16.0	18.6	18.8	18.8	18.8
Mineral revenue	13.3	8.0	14.6	13.5	11.6	11.8
Grants	5.4	4.7	5.5	5.5	5.7	5.6
Total expenditure and net lending	30.1	29.0	36.9	31.8	35.1	32.2
Recurrent expenditure	17.7	18.5	19.2	19.3	18.5	19.4
Salaries and wages	8.0	7.5	7.7	7.7	7.8	7.7
Goods and services	5.0	5.7	6.3	6.3	5.8	6.5
Other	4.7	5.2	5.3	5.3	4.9	5.2
Development expenditures, of which	12.4	10.5	17.7	12.5	16.7	12.8
Additional Priority Expenditures 2/	3.4	2.2	8.6	3.6	7.5	3.7
Overall balance 3/	6.8	-0.2	1.7	6.0	1.0	3.9
Nonmineral overall balance 3/	-6.6	-8.2	-12.9	-7.5	-10.6	-7.8

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

1/ Includes November 2007 Supplementary Budget.
2/ The 2005–08 government budgets classify earmarked funds that are transferred to government trust funds as expenditure. Under the staff's cash presentation, these funds are reclassified on a cash balances basis (consistent with Government Finance Statistics), and expenditure is counted as occuring only when money is disbursed from the trust funds.
3/ Measured from above the line.

- **Progress on the structural reform agenda set out under the Medium-Term Development Strategy (MTDS) has stalled** over the past year, particularly with respect to public sector reform.[1]

- **Constraints to private activity remain formidable,** including unreliable services from basic utilities, poor transportation infrastructure, high crime, low public sector capacity to provide services, unclear licensing and regulation policies, weak human capacity, delays in work-visas, and land tenure issues. For these reasons, foreign and domestic investment outside of the enclave mineral sector is low.

- **As a result, competitiveness of the nonmineral sector has not improved over the recent period, resulting in little or no increase in nonmineral export volumes** (Box 2). Agricultural exports, the largest share of nonmineral exports, were additionally affected by bad weather in 2005–06.

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[1] The MTDS sets out the government's development priorities through 2010. For details, see IMF Country Report 07/111.

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Authorities' Response to Recent Fund Policy Advice	
Advice from the 2006 Article IV Discussions	**Action Taken**
Monetary and Exchange Rate Policy	
Authorities should stand ready to tighten monetary policy should signs of inflation pressure emerge.	BPNG successfully kept inflation under control, through use of open market operations, to absorb liquidity, and other tools. It has reaffirmed its commitment to tighten its stance as necessary.
Guarding against loss of nonmineral sector competitiveness and accumulating reserves is a pragmatic response to temporarily large mineral revenue inflows, but sustained pressures should not be resisted.	Rate of appreciation against the US$ increased over past year. Upward pressure on kina/US$ rate should ease from 2008 forward as mineral revenue declines. Greater focus on NEER developments.
Fiscal Policy	
Avoid election-related spending excesses.	Fiscal surplus in 2007 due to high mineral revenues and expenditure restraint. Public debt lowered to 35 percent of GDP from 39 percent of GDP in 2006.
Minimize nonpriority spending, strengthen budget execution, and increase transparency.	Budget continues to focus on development spending, but there are new allocations to districts and provinces where implementation capacity is especially weak. Little improvement on transparency.
Debt prepayment advocated, as form of saving, especially if further windfall revenue materializes, including of unfunded pension liability.	Prepayment of external debt and pension liabilities totaled 4 percent of GDP in 2007-08 budgets.
Introduce medium-term fiscal strategy targeting non-mineral balances to address mineral revenue volatility.	A new medium-term fiscal strategy has been proposed that focuses on nonmineral balances.
Financial Sector Policy	
Follow through with expansion of supervision to non-banking financial institutions, tighten propriety controls, and implement AML/CFT legislation.	Planned extension of BPNG supervision to insurance companies. Propriety controls being tightened with MCM assistance. AML/CFT implementation still incomplete.
Plans to expand development bank into microfinance must comply with appropriate oversight conditions.	Legislation passed to allow development bank to expand into microfinance.
Structural Reforms	
Renew momentum on structural reform to improve the investment environment, including reform of the public sector.	Little progress, including on reform of state enterprises. "Rightsizing" report to streamline public sector employment completed, but no plans for implementation.
Improve quality of macroeconomic data.	No change in data quality. However, authorities are discussing with the Fund and other donors steps to reform governance and improve statistics.

C. Medium-Term Outlook: Prospects and Risks

6. **In the absence of a change to current policy trends, the staff and authorities agreed that the outlook is for a return to moderate growth over the medium term, with increased downside risks** (Table 5).

- **The baseline projection expects growth to average about 3.5 percent over the medium term,** mainly reflecting the onset of production at new mines. Nonmineral growth is expected to decelerate from current peaks to trend growth rates in the absence of structural reform. Inflation should remain in the middle single digits.

- **This scenario assumes:** (i) current fiscal policy continues to be implemented relatively well, with higher but not excessive fiscal spending in the near term and with the ability to ensure reasonable expenditure quality, (ii) monetary policy continues to contain inflation, and (iii) limited structural reforms are undertaken.

- **Regarding external prospects,** the medium-term outlook assumes that (i) mineral exports and revenue inflows decline from their current peak, based on government production estimates, (ii) the exchange rate continues to be managed flexibly, and (iii) the external current account position deteriorates in line with the decline in mineral exports and with no improvement in nonmineral exports in the absence of reform to improve the investment climate.

- **However, significant macroeconomic and external vulnerabilities remain.** In particular, there is potential for higher unproductive fiscal spending to raise demand pressures and spur inflation. Additional downside risks include a weaker global economy leading to lower commodity prices, and no action or a reversal of progress on the structural reform agenda, both of which would adversely affect growth and the external accounts.[2] Upside risks include global developments leading to sustained higher commodity prices, further crowding-in of private activity from the increase in public investment, and additional production from existing or new gas and mining projects.[3]

- **The baseline nonmineral GDP growth rate needs to roughly double over a sustained period to meet the objectives of reduced poverty, significant job creation, and higher development.** Given Papua New Guinea's resources, these higher growth rates could be realized if a fiscal-monetary policy mix is pursued that maintains macroeconomic stability, mineral revenues are used productively, and structural reforms are undertaken to remove rigidities constraining private activity so that productivity and investment are raised and sustained.

7. **The debt sustainability analysis (DSA) suggests that Papua New Guinea's public debt burden faces a moderate risk of debt distress** (Appendix I).[4] External debt sustainability is vulnerable to shocks that lower export growth below the baseline. The debt outlook is sensitive to a number of risk factors, including an escalation in public spending, declines in world mineral prices, and larger public sector borrowing—including by state-owned enterprises (SOEs). The authorities recognize these risks, and their debt strategy continues to bar new net debt.

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[2] Mineral revenue is highly sensitive to changes in global prices: a 10 percent reduction in export prices reduces mineral revenue by 0.5 percent of GDP annually.

[3] A US$10 billion LNG project, with production expected in 2013, has completed pre-feasibility studies.

[4] The DSA used the low-income country framework. The results were discussed with the World Bank.

II. Policy Issues

8. **Against the background of temporarily high mineral revenue inflows and increased downside risks, the discussion focused on the agreed need for a fiscal and monetary policy mix that maintains macroeconomic stability.** In particular, the authorities were keen to ensure that the current large fiscal surpluses were managed well to avoid inflationary pressures while still promoting growth. The monetary authorities emphasized their continued commitment to keeping inflation under control, notwithstanding expected additional price pressures. Given existing conditions, the staff and authorities agreed on the continued appropriateness of the current exchange rate level and regime. Against the background of the recent growth in the financial sector, the authorities further maintained their commitment to continue strengthening its supervisory and regulatory framework. The discussions also considered how structural reforms could capitalize on the current favorable domestic and external conditions to improve prospects for sustained higher nonmineral growth.

A. Fiscal Policy and Public Debt

9. **Elements of the recent budgets are welcome; however, aspects of the underlying easing of the fiscal stance are a concern.** The 2007 and 2008 budgets aimed to manage the temporarily large inflows of mineral revenue through a combination of higher development spending and debt repayment.

- The one-off spending increases to meet priority infrastructure and social development needs aligned with the MTDS are appropriate. In addition, the staff welcomed the pre-payment of external debt and reduction in unfunded civil service pension liabilities.[5]

- However, staff cautioned about the potential scale of fiscal relaxation over the near term. A large amount of additional mineral revenue set aside in 2008 and earlier budgets is expected to be spent over 2008–12, which will result in the nonmineral deficit rising from 4.7 percent of GDP in 2005 to 8 percent by 2009. Given absorptive and implementation capacity constraints, the increased spending could add to domestic demand and price pressure, and lead to waste.

- A large amount of spending has been allocated to projects outside the MTDS, of which the new spending directed to the provinces and districts raise particular

[5] Prepayments of external debt and pension liabilities totaled a cumulative 4 percent of GDP in the FY07–08 budgets.

concern, due to the lack of capacity to prioritize and deliver projects, weak financial controls, and near absence of reporting in local governments.[6]

- In addition, given the projected fall off in mineral revenue from 2008 onward, the new expenditure pattern raises the prospect of need for considerable and sustained fiscal consolidation over the medium term.

- Consequently, the staff recommended containing the actual (cash) expenditure to more sustainable and stable levels, while ensuring that windfall mineral revenue is used for well-designed MTDS-prioritized development spending and debt reduction.

- The authorities argued that high development needs and a legacy of under funding in the rural areas had driven the plans to increase spending for infrastructure in the provinces and districts. At the same time, they acknowledged the concerns raised and emphasized the intention to introduce new procedures that would improve oversight and strengthen subnational government capacity. As a result, the increase in spending to these areas would likely be phased over several years.

10. **A new proposal to update the Medium-Term Fiscal Strategy (MTFS) appropriately emphasizes a stable and sustainable nonmineral fiscal balance** (Box 3). The proposal builds on the existing strategy of overall budget balance and no new net debt accumulation by recommending using only “normal” mineral revenue for ongoing spending programs. Additional mineral revenue would be used for either public investment or debt reduction. The staff encouraged the authorities to formally approve this proposal to replace the current policy under the existing MTFS. It particularly welcomed the new emphasis on the nonmineral balance, as well as the need to ensure that actual (cash) spending is evenly spent over time, given absorptive and administrative capacity constraints. Staff noted, however, that implementation would require also investment prioritization and an improvement in financial management.

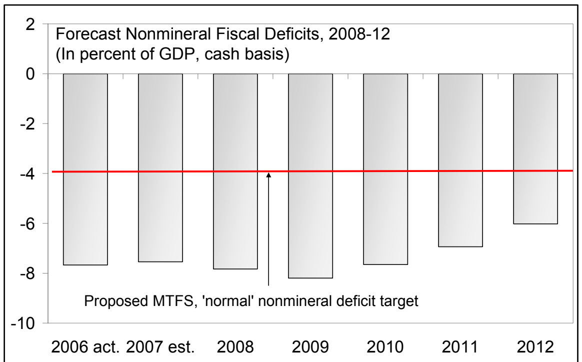
11. **The staff welcomed the recent impressive improvement in public debt levels, but noted it could be quickly reversed.** A large proportion of the debt reduction has occurred due to positive debt dynamics (real GDP growth, the impact of the rise in mineral prices on the GDP deflator, and kina appreciation) as opposed to discrete policy decisions.

[6] The FY07–08 budgets set aside a cumulative total of about 4.5 percent of GDP for districts and provinces.

Box 3. A Proposed New Medium-Term Fiscal Strategy

The Treasury has proposed to the cabinet a new Medium Term Fiscal Strategy (MTFS) covering 2008–12, that would update the expiring version for 2002–07. This new strategy has not yet been considered or approved by the cabinet or parliament and is thus not current policy. The proposal seeks to address some of the issues that arise from the government's reliance on volatile mineral revenues more directly than the current MTFS policy which focuses on a fiscal target of overall balance.

A new fiscal target: Using backward and forward-looking indicators, the proposal identifies a "*normal component*" of mining and petroleum revenue prudently expected over the long term of 4 percent of GDP. Ongoing spending, including development spending, would then be limited to the amount of total "*normal revenue*"—or the sum of nonmineral revenue and the 4 percent of GDP expected from the mineral sector. This effectively targets an underlying non-mineral budget deficit of 4 percent of GDP. The target would be reviewed at minimum biannually and spending cuts or temporary deficits incurred in case of a mineral revenue shortfall. *Additional mineral revenue*, i.e., that above 4 percent of GDP, would be spent as described below.



Source: Fund staff estimates.

Expenditure smoothing: The proposed MTFS suggests that spending the *additional mineral revenue* should be: (i) used to benefit future generations either through investment or debt reduction; (ii) phased over a number of years to avoid disruptive fluctuations in domestic or import demand; and (iii) carefully designed and implemented to ensure positive net benefit and reflect limited implementation capacity.

Public investment and debt prepayment: The proposed MTFS additionally suggests that roughly 60 percent of *additional mineral revenue* be used for public investment and 40 percent for debt prepayment. Prepaying debt and other fiscal liabilities is viewed as prudent way of creating fiscal space to address upcoming challenges, notably from the winding down of major resource projects within the decade, the AIDS epidemic, and the costs from natural disasters and climate change. Debt prepayment would be reduced, rather than investment, should expected additional revenue not materialize.

- Staff cautioned that proposals to increase public borrowing to fund large-scale investment projects were a concern without a prioritized, costed, and publicly-consulted assessment of investment needs aligned to the MTDS. In addition, staff noted that the assessment of a moderate risk of debt distress under the DSA is based on a continuation of the government's "no new net debt" policy. Finally, the absence of reforms to address continued poor management in the SOEs cast doubt on the efficiency of additional investment in that sector.

- The authorities agreed with the need to proceed cautiously with the contracting of additional debt, particularly given the progress made in reducing exposure to external debt and lengthening the maturity structure. They observed that the improvement to date reflects the government's strategy to reduce debt as a form of saving, to create additional fiscal space, and to reduce fiscal risks. They also acknowledged the potential concentration of risks associated with further equity investment in the volatile mineral sector. Finally, the authorities highlighted their long-standing policy under the medium-term debt strategy of contracting external debt only on concessional terms.

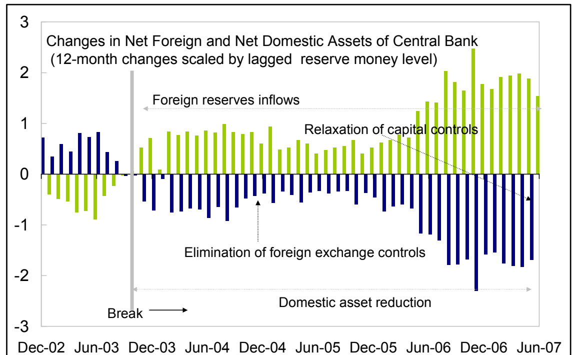
12. **The resumption of public sector reform plans is urgently needed to help improve implementation capacity, and strengthen monitoring, accountability, and transparency.** Plans to strengthen financial management and streamline public sector employment (under the "right-sizing" initiative) appear stalled. The increased use of trust funds is also a concern, given past experience with abuse.[7] The authorities were in full agreement with the need for reform. They pointed to government-wide plans to strengthen financial management, including tightening expenditure controls and removing dormant trust funds, while increasing accountability on remaining trust funds considered necessary to smooth spending from the mineral revenue over the medium term. In addition, discussions had begun to map the way forward for the multi-donor financial management reform program.

13. **The staff welcomed new measures to control tax concessions.** The use of special arrangements for individual projects had resulted in a growing list of ad hoc tax concessions that could undermine the tax base. As a result, a high level committee was recently created to review requests with respect to their economic benefits and ensure consistency with tax laws. In addition, the government agreed to consider a review of the tax system that would, among other things, ensure fair treatment across sectors and a fair share of mineral sector profits for the government.

[7] Government trust fund balances are estimated at 10.5 percent of GDP for end-2007, including 2.7 percent of GDP for participation in a gas project.

B. Monetary and Exchange Rate Policy

14. **The staff views the monetary stance as appropriate for now, given the Bank of Papua New Guinea (BPNG)'s ability to contain inflation to date.** To limit the expansionary consequences of the large but temporary foreign exchange inflows, the BPNG has sterilized inflows through open market operations to maintain reserve money growth within its target. It additionally relaxed restrictions on outward capital flows. Net costs of the sterilized intervention have been negative.



Sources: IMF, *International Financial Statistics*; and Fund staff estimates.

15. **However, the BPNG should stand ready to tighten given the expectation of a looser fiscal stance.**

- Although CPI data indicate inflation remains low, the additional fiscal stimulus, some recent NEER depreciation, and pass through of higher oil prices, are contributing to rising underlying inflationary pressure.[8] In addition, monetary and credit aggregate growth rates are still rapid, though no longer accelerating, and liquidity in the banking system remains high. As a result, the expectation of a need for tightening has increased in recent months.

- The central bank agreed with this analysis, and reconfirmed its commitment to tighten the monetary stance if necessary. They noted that experience and recent studies indicate that tightening through open market operations and upward changes in the policy rate would have a rapid impact on restraining inflation.[9] Given weaknesses in the CPI data, the BPNG was also developing alternative information sources, including a survey of business inflation expectations to complement its own retail price index and improve responsiveness to potential changes in macroeconomic conditions.

16. **The staff continues to support the current exchange rate policy.** The kina trades in a thin market characterized by volatile mineral-related foreign exchange flows. Under its managed float exchange rate regime, the BPNG has been leaning against the wind to prevent too rapid exchange rate appreciation against the U.S. dollar.

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[8] See Selected Issues chapter "Sources of Inflation in Papua New Guinea."

[9] See Selected Issues chapter "The Monetary Transmission Mechanism in Papua New Guinea."

- The rate of appreciation against the U.S. dollar has increased over the past year reflecting rising upward pressure. Associated intervention during this period eased relative to past years.

- At the same time, the BPNG has been balancing concerns regarding the potential inflationary impact of nominal depreciation on a trade-weighted basis that occurred early in 2007, most of which has been since unwound. The staff welcomed this shift of attention toward the nominal effective exchange rate.

- While the authorities have also used this opportunity to build reserves, with mineral revenue inflows currently expected to peak in 2007, foreign exchange reserves should level off at about 5 months of imports of goods and services—which is still low relative to peer resource-rich countries (although a record level for Papua New Guinea).

- Staff analysis suggests that the current level of the exchange rate is broadly in line with macroeconomic fundamentals (Box 4)—notwithstanding the improved terms of trade—and the expectation of no improvement in nonmineral sector competitiveness over the medium term in the absence of progress on structural reform (Box 2).[10]

- In the staff's view, this broad approach on exchange rate policy is appropriate as the temporary nature of current mineral revenue inflows suggests that permanent real exchange rate appreciation is not needed. However, the exchange rate should be allowed to move flexibly as needed should upward pressure be sustained or downward pressure unexpectedly materialize.

C. Financial Sector

17. **The financial sector appears sound, a key positive factor given the importance of financial intermediation for future growth** (Figure 5).

- Backward-looking financial sector indicators remain strong relative to other countries that have experienced rapid credit growth. Stress tests show that the banking system is

[10] See Selected Issues chapter "Export Performance and Competitiveness in Papua New Guinea."

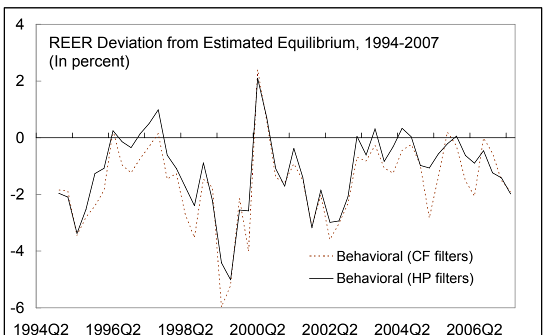
Box 4. An Assessment of the Exchange Rate Level

Analyses of the real exchange rate indicate that the current level of the kina exchange rate is broadly in line with fundamentals:

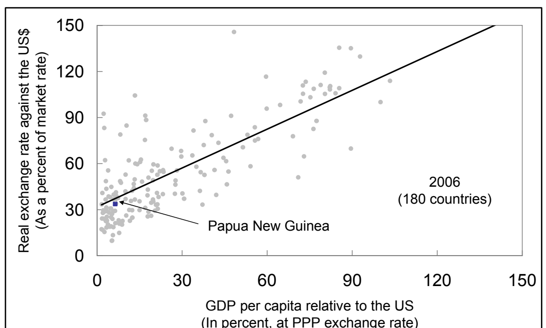
- The *behavioral equilibrium exchange rate* (BEER) approach shows the kina has been slightly undervalued compared to its long-run equilibrium REER since the move to a floating exchange rate regime in 1994. The deviation for 2Q–2007 remains small (about 2 percent using both Hodrick-Prescott and Christiano-Fitzerald filtering methods to derive the EREER, Figure 1).

- The *macroeconomic balance* (MB) approach suggests that only a marginal REER appreciation (by about 0.4 percent) is needed to close the gap between the current account norm (1.8 percent of nominal GDP), and the underlying current account balance—the projection for 2012 (-3.3 percent of nominal GDP). The norm is the equilibrium current account consistent with fundamentals, including the saving rate, net foreign assets, fiscal balances, income and real interest rates relative to the major trading partner, and mineral exports.

- The *purchasing power parity* (PPP) indicates that the real exchange rate of the kina is 9.7 percent lower than its "long-run level." However, the deviation is relatively small compared to other countries (Figure 2).



Source: Fund staff estimates.

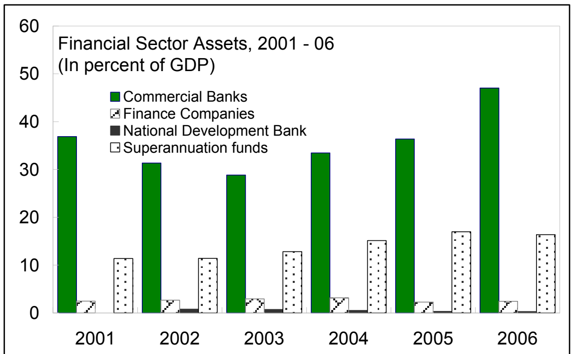


Source: Fund staff estimates.

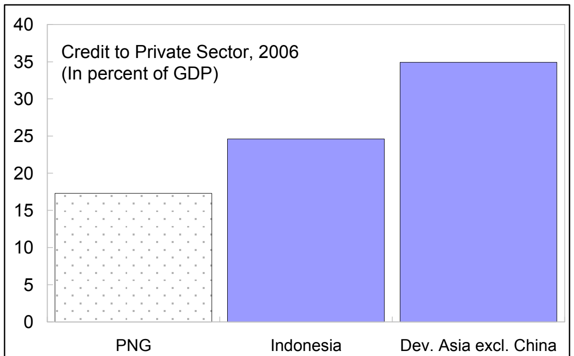
resilient to moderate shocks to the credit portfolio that may arise from falling commodity prices and weak economic policy.[11]

- Nevertheless, continued rapid credit growth raises concern about a potential deterioration in banks' loan portfolios, which may only manifest itself with a lag. For that reason, the staff welcomed efforts underway to strengthen bank regulation and supervision and to form a credit registry.

- Notwithstanding the rapid credit growth over the past two years, financial intermediation still remains low relative to peers, pointing to the need to overcome the underlying structural rigidities that are constraining development, including weak enforcement of contracts and creditor rights.



Sources: PNG authorities and Fund staff estimates.



Source: IMF, International Financial System.

- The authorities agreed with these concerns, reaffirmed their commitment to continue enhancing sector regulation and supervision, and expressed interest in a Financial Sector Assessment Program (FSAP) to evaluate recent growth in the financial sector and provide recommendations for deepening and strengthening the sector further.

18. **The staff raised concerns regarding the recently revived development bank, while welcoming the intention to operate it without political interference.**

- Given the domestic and global experience, and the development bank's continued reliance on budget transfers for its capital base, concerns remain about the potential for funds being directed to political interests, a weakening of credit culture, and renewed fiscal liabilities, which would introduce risks for the financial sector.

- The staff further urged that the bank not engage in expensive borrowing and that expansion into microfinance comply with due diligence and commercial criteria.

[11] See Selected Issues chapter on "Financial Sector Developments in Papua New Guinea."

D. Structural Reform

19. **Structural reforms faltered over the past year.** The staff and the authorities agreed that broader reforms are necessary to lift medium-term growth by boosting productivity, and to strengthen international competitiveness and resilience to external shocks. The authorities noted their intention to create the necessary environment conducive for private business, as set out in the MTDS.

- Immediate steps are needed to address the long-standing barriers to private activity and investment in the nonmineral sector—the source of long-term growth and job creation. The constraints include poor and costly transportation and public communications and power infrastructure, weak governance, high crime and weak prosecution, weak land tenure system, and poor education resulting in high illiteracy and low skills.

- The government's willingness to consider private equity participation in SOEs would be a welcome first step toward improving management, oversight, and provision of basic services. The staff also encouraged completion of the needed regulatory environment, and opening of the public enterprise sectors to competition. It noted the demonstrated benefits of recent private participation in the telecommunications, air, and financial sectors.

- Publication of the completed 2004–06 audited central government accounts would be a strong signal of the commitment to public sector transparency and accountability. Additional resources are needed to extend the coverage of external audits to subnational governments. The staff also urges swift implementation of the planned internal management audit committees for government ministries.

20. **Both staff and the authorities agreed that intensive efforts to improve macroeconomic statistics are needed to address shortcomings in the quality, coverage and timeliness of macroeconomic data.** Analysis of recent economic developments is increasingly constrained by data weaknesses and utmost priority should be given to mobilizing the needed expertise to improve statistics. The staff encourages rapid implementation of steps needed to trigger implementation of the multi-donor technical assistance plan as set out in the Aide Memoire of December 2007 STA mission.

III. Staff Appraisal

21. **Papua New Guinea's economic performance remains positive, reflecting a combination of prudent policies and favorable external factors in recent years.** The current economic conditions and political stability provide an ideal opportunity to push ahead with the reforms set out in the MTDS to lift Papua New Guinea's long-term economic

growth. Given Papua New Guinea's resources, higher growth rates—which have been achieved by its peers—could be realized if the appropriate fiscal-monetary policy mix maintains macroeconomic stability, mineral revenues are used productively, and structural reforms are undertaken to remove rigidities constraining private activity.

22. **Although macroeconomic fundamentals have improved, significant underlying vulnerabilities remain.** Growth has accelerated, inflation is low, and for the near-term, external and fiscal vulnerabilities have declined. However, development indicators have shown little improvement, and the economy remains highly sensitive to commodity price shocks and dependent on mineral sector developments. An unattractive investment environment discourages activity in the nonmineral sector, which must lead economic and employment growth in the future.

23. **The potential fiscal stimulus resulting from increased spending under recent budgets is a concern.** Given absorptive and capacity constraints, it could add to domestic demand and price pressures. In addition, higher expenditure should be aligned with the MTDS, and with the capacity to implement and closely monitor spending—especially the spending allocated to local governments.

24. **Other elements of recent budgets are appropriate.** These include the one-off spending increases to meet priority infrastructure and social development needs aligned with the MTDS, and the prepayment of public debt.

25. **Proposals for a new medium-term fiscal strategy that focuses on a stable and sustainable underlying nonmineral deficit are welcomed.** The new strategy's approval is encouraged as it would represent an effective extension of the recent prudent fiscal policies followed by the government, particularly if supported by prioritization and financial management improvements. Preserving the integrity of the nonmineral tax base, including limiting exemptions, is also key to ensuring long-term fiscal sustainability and reducing exposure to volatile mineral resources.

26. **Continuation of the government's strategy to reduce debt as a form of saving** is urged, as a means to create additional fiscal space and reduce risks. Complementary measures include avoiding the contracting of new external debt on commercial terms, and recognizing the concentration of risks associated with further equity investment in the volatile mineral sector. Recent improvements in public debt levels could be quickly reversed with rapid new borrowing—including by the SOEs—and a change in debt dynamics.

27. **The resumption of public sector reform is urgently needed to help improve implementation capacity, and strengthen financial management and transparency.** Steps should be taken to resume the right-sizing initiative, follow through with the public expenditure reform plans supported by a multi-donor effort, expand public sector audits, and publish central government audited accounts on a timely basis.

28. **The monetary stance is appropriate.** The central bank has successfully managed to keep inflation within the low single digits. However, with pressures on prices building, including with the additional fiscal stimulus, the authorities should stand ready to tighten as needed.

29. **The level of the exchange rate is broadly in line with macroeconomic fundamentals.** Analyses of the exchange rate indicates that the kina is now close to its equilibrium level. The managed float exchange rate policy, which allows some reserve build up while protecting competitiveness, remains generally appropriate given the expected near-term decline in mineral revenue inflows. However, should sustained pressures emerge, additional flexibility should be shown.

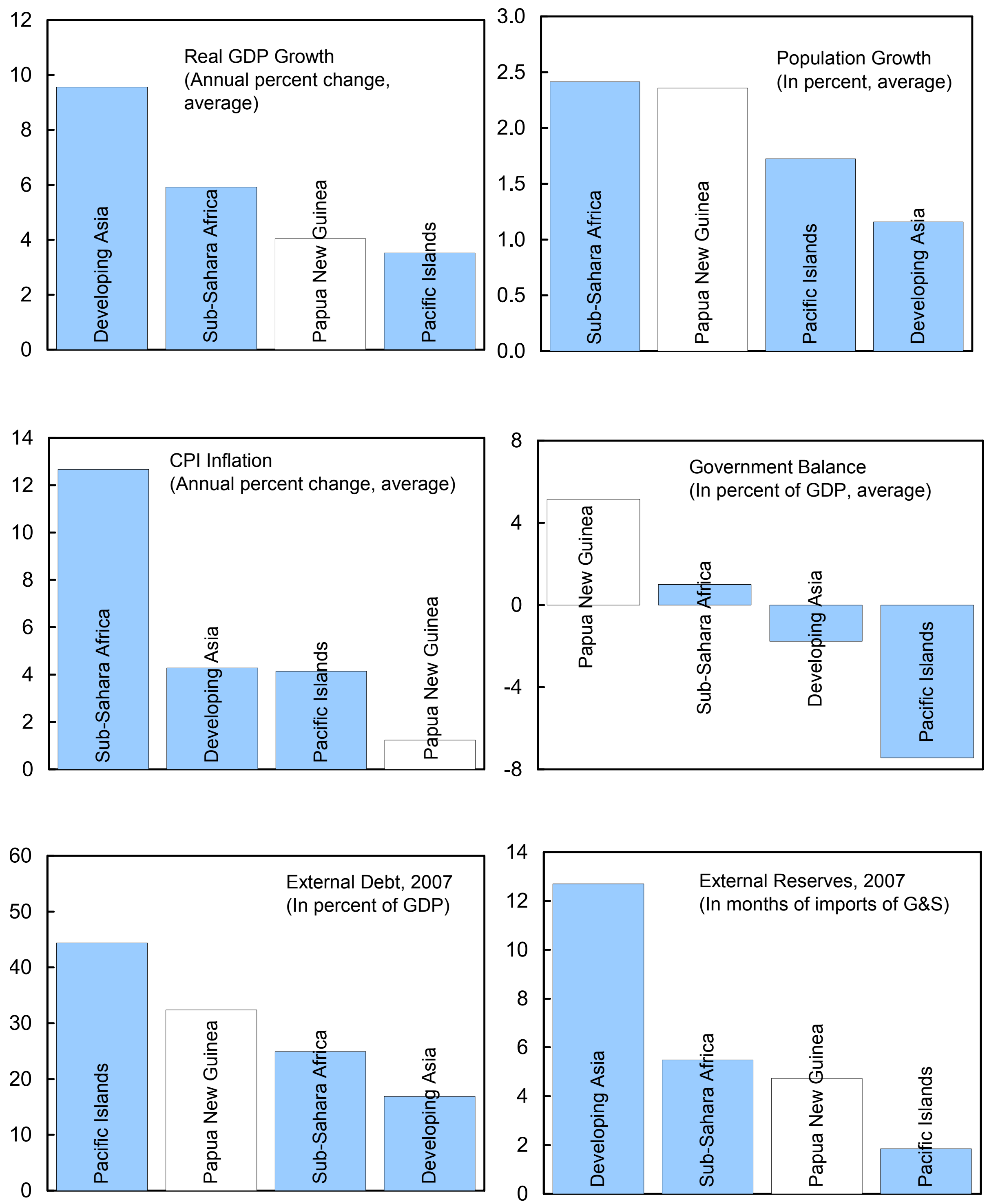
30. **Reforms to improve and deepen financial intermediation are rightfully high on the authorities' agenda, given its importance for growth.** Weaknesses in the underlying institutional environment need to be addressed, including weak enforcement of creditor rights and contracts.

31. **Broader structural reforms are necessary to raise growth and to strengthen export competitiveness and resilience to external shocks.** The recent experience of private competition with state monopolies has had an important impact on growth and shows the benefits of such approaches.

32. **Although data provision is generally adequate for surveillance purposes, significant weaknesses in the quality and timeliness of statistics hamper monitoring of macroeconomic developments.** The authorities should accelerate their efforts to strengthen the statistical framework, in line with STA mission recommendations.

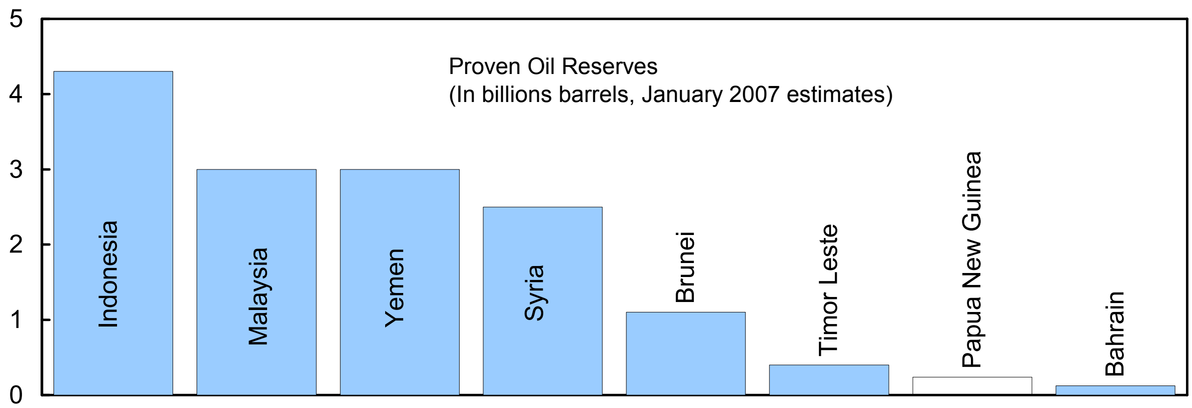
33. **The staff recommends that the next Article IV consultation be held on the standard 12-month cycle.**

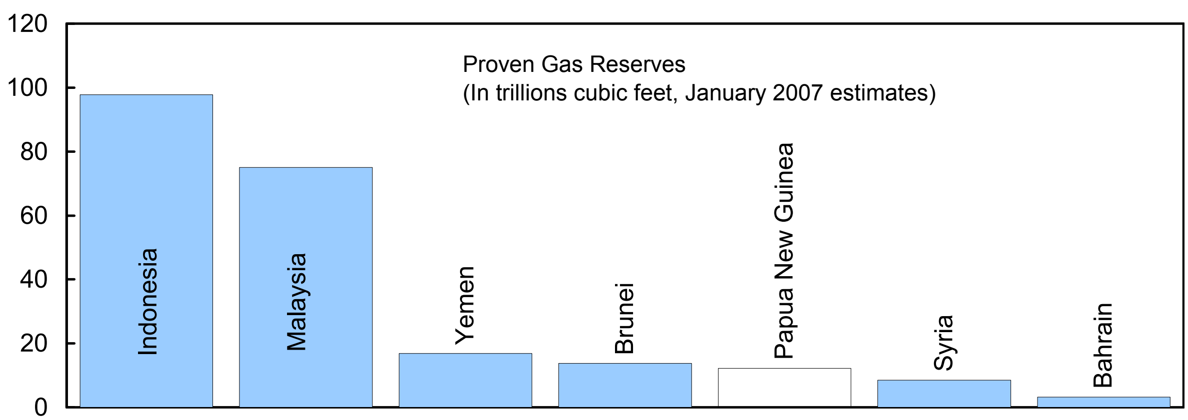
Figure 6-A. Papua New Guinea: Regional and Global Comparators, 2005 - 07

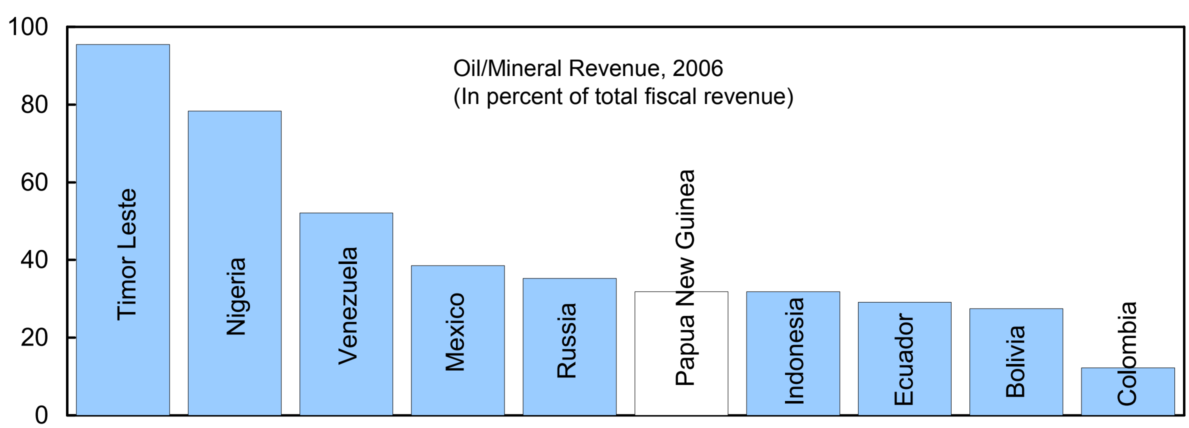


Sources: IMF, *World Economic Outlook*; Papua New Guinea authorities; and Fund staff calculations.

Figure 6-B. Papua New Guinea: Regional and Global Comparators







Sources: Country authorities; and Oil & Gas Journal.

Table 1. Papua New Guinea: Selected Economic Indicators, 2003–08

Nominal GDP (2006): US$5.58 billion
Population (2006): 5.9 million
GDP per capita (2006): US$943
Quota: SDR 131.6 million

	2003	2004	2005	2006	2007 Est. 1/	2008 Proj.
Real sector (percent change)						
Real GDP growth 2/	2.2	2.7	3.4	2.6	6.2	5.8
Mineral	2.8	0.3	5.0	-5.9	4.1	4.9
Nonmineral	2.1	3.1	3.1	3.7	6.5	5.9
CPI (annual average)	14.7	2.1	1.7	2.3	1.7	5.0
CPI (end -period)	8.4	2.4	4.6	-1.0	4.5	5.5
Central government operations (percent of GDP)						
Revenue and grants	29.2	34.1	34.8	36.9	37.8	36.1
Expenditure and net lending	30.3	32.4	31.1	30.1	31.8	32.2
Overall balance, cash basis (including grants) 3/	-1.2	1.7	3.7	6.8	6.0	3.9
Overall balance, cash basis (including grants) 4/	-1.8	0.0	3.8	5.7	6.0	3.9
Domestic financing (net) 5/	4.0	1.8	-2.7	-4.3	-3.8	-2.5
External financing (net)	-2.1	-1.8	-1.1	-1.3	-2.1	-1.4
Nonmineral balance 4/	-6.4	-6.3	-4.7	-7.7	-7.5	-7.8
Central government debt (percent of GDP)	63.6	60.0	47.5	39.3	34.5	31.4
Money and credit (end-period percentage change)						
Domestic credit	-7.1	0.7	8.6	19.4	3.7	5.7
Credit to the private sector	-4.1	0.9	23.7	38.2	29.7	19.8
Broad money	-4.4	14.8	29.5	38.9	24.7	18.0
Interest rate (182-day T-bills; period average)	18.7	3.1	3.8	3.7	4.1	...
Balance of payments (millions of U.S. dollars)						
Exports, f.o.b.	2,153	2,554	3,278	4,205	4,994	5,220
Of which: Mineral	1,635	1,863	2,467	3,391	3,977	4,162
Imports, c.i.f.	-1,435	-1,794	-2,462	-2,805	-3,346	-3,557
Current account (including grants)	159	88	207	163	262	209
(In percent of GDP)	4.5	2.2	4.2	2.9	4.3	3.3
Overall balance	187	206	161	662	673	345
Reserves and external debt (end-period; millions of U.S. dollars)						
Net international reserves	399	599	765	1,427	2,100	2,445
(In months of nonmining imports, c.i.f.)	4.3	5.5	5.2	8.5	11.1	11.8
(In months of goods and services imports)	2.1	2.6	2.4	3.8	4.7	5.2
Public external debt-service-ratio (percent of exports) 6/	7.5	8.7	6.0	3.5	4.0	3.5
Public external debt-to-GDP ratio (in percent) 6/	42.9	36.8	25.8	21.2	17.8	15.6
Exchange rates						
US$/kina (period-average)	0.2814	0.3104	0.3224	0.3272	0.3332	...
US$/kina (end-period)	0.3000	0.3200	0.3230	0.3300	0.3400	...
NEER (2000=100, end-period)	74.4	76.0	80.7	78.0	76.9	...
REER (2000=100, end-period)	96.2	97.1	104.0	100.4	98.5	...
Nominal GDP (millions of kina)	12,567	12,652	15,263	17,051	18,551	20,070

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

1/ September figures for interest rate and exchange rates.
2/ Based on new official national account estimates (1998 prices).
3/ Measured from above the line in the fiscal accounts.
4/ Measured from below the line in the fiscal accounts.
5/ Includes changes in check float.
6/ Includes central government, central bank external debt, and statutory authorities.

Table 2. Papua New Guinea: Summary of Central Government Operations, 2004–08

(In percent of GDP)

	2004	2005	2006	2007			2008	
			Est.	Budget	Revised Budget 1/	Est.	Budget	Proj.
Revenue and grants	34.1	34.8	36.9	28.8	38.6	37.8	36.1	36.1
Revenue	27.4	26.4	31.5	24.0	33.2	32.3	30.4	30.5
Tax revenue	25.4	24.5	29.0	22.3	30.7	29.8	28.0	28.1
Mineral taxes	5.8	7.5	11.7	7.1	13.0	11.9	10.3	10.3
Nonmineral taxes	19.6	17.0	17.3	15.2	17.7	17.9	17.7	17.7
Nontax revenue	1.9	1.8	2.5	1.8	2.5	2.5	2.5	2.5
o/w mineral non-tax revenue	0.5	0.9	1.6	0.9	1.6	1.6	1.3	1.4
Grants	6.7	8.4	5.4	4.7	5.5	5.5	5.7	5.6
Total expenditure and net lending	32.4	31.1	30.1	29.0	36.9	31.8	35.1	32.2
Recurrent expenditure	22.4	20.0	17.7	18.5	19.2	19.3	18.5	19.4
National departments	12.5	12.0	9.8	10.7	12.0	12.0	11.5	12.1
Salaries and wages	5.4	4.5	4.1	4.4	4.6	4.6	4.7	4.6
Arrears payments	0.3	0.6	0.6	0.3	0.4	0.4	0.3	0.4
Goods and services	5.9	5.9	4.6	5.4	5.9	5.9	5.5	6.1
Other	0.8	1.0	0.4	0.6	1.1	1.1	1.0	1.0
Provinces	5.4	4.4	4.8	4.0	4.0	4.0	3.9	4.0
Salaries and wages	4.7	3.6	3.9	3.1	3.1	3.1	3.0	3.1
Goods and services	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3
Conditional grants/Bougainville 2/	0.2	0.5	0.5	0.6	0.6	0.6	0.6	0.6
Statutory authorities	1.6	1.4	1.4	1.2	1.2	1.2	1.1	1.1
Interest	2.9	2.2	1.8	2.6	2.0	2.0	1.9	2.1
Domestic	1.9	1.4	1.1	1.9	1.4	1.4	1.4	1.5
Foreign	1.0	0.8	0.7	0.6	0.6	0.7	0.5	0.7
Development expenditures and net lending	10.1	11.1	12.4	10.5	17.7	12.5	16.7	12.8
Development expenditure	10.1	11.1	12.4	10.5	17.7	12.6	16.7	12.9
Foreign financed	7.5	9.3	6.2	5.6	6.3	6.2	6.5	6.6
Project grants	6.7	8.4	5.4	4.7	5.5	5.5	5.7	5.6
Project concessional loans	0.6	0.9	0.9	0.9	0.9	0.7	0.8	1.0
Nonconcessional loans	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestically funded	2.6	1.8	6.2	4.9	11.3	6.4	10.2	6.3
o/w "Additional Priority Expenditures" 3/	0.0	0.0	3.4	2.2	8.6	3.6	7.5	3.7
Net lending	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overall balance (from above the line)	1.7	3.7	6.8	-0.2	1.7	6.0	1.0	3.9
Residual deficit	-1.7	0.1	-1.1	0.0	0.0	0.0	0.0	0.0
Overall balance (from below the line)	0.0	3.8	5.7	-0.2	1.7	6.0	1.0	3.9
Financing	0.0	-3.8	-5.7	0.2	-1.7	-6.0	-1.0	-3.9
External financing (net)	-1.8	-1.1	-1.3	-0.5	-1.9	-2.1	-1.4	-1.4
Disbursements	1.4	0.9	0.9	0.9	0.9	0.7	0.8	1.0
Amortization 4/	-3.2	-2.0	-2.2	-1.3	-2.8	-2.9	-2.2	-2.4
Domestic financing (net)	1.8	-2.7	-4.3	0.6	0.2	-3.8	0.4	-2.5
Banking sector	0.3	-1.2	-0.9	0.0	0.0	-3.9	0.0	-2.6
Nonbanks	0.2	-1.5	-3.5	0.0	0.0	0.0	0.0	0.1
Memoranda items:								
Nonmineral balance (below the line)	-6.3	-4.7	-7.7	-8.2	-12.9	-7.5	-10.6	-7.8
Nonmineral primary balance	-3.4	-2.5	-5.9	-5.6	-10.9	-5.5	-8.7	-5.7
Total central govt. gross debt (% of GDP)	60.0	47.5	39.3	...	...	34.5	...	31.4
Nominal GDP (in millions of kina)	12,652	15,263	17,051	18,551	18,551	18,551	19,724	20,070

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

1/ Includes the November 2007 Supplementary budget.
2/ Since 2005, this includes transfers to Bougainville.
3/ The 2005-08 government budgets classify earmarked funds that are transferred to government trust funds as expenditure. Under the staff's cash presentation, these funds are reclassified on a cash accounting basis (consistent with Government Finance Statistics), and expenditure is counted as occuring only when money is disbursed from the trust funds.
4/ In 2006 and 2007, includes budget expenditure for all loan prepayments.

Table 3. Papua New Guinea: Balance of Payments, 2003–08

(In millions of U. S. dollars)

	2003	2004	2005	2006	2007 Est.	2008 Proj.
Current account balance	159	88	207	163	262	209
Mineral	728	793	1,044	1,364	1,452	1,591
Nonmineral	-569	-705	-837	-1,201	-1,190	-1,382
Trade balance	718	760	816	1,400	1,648	1,662
Exports (f.o.b.)	2,153	2,554	3,278	4,205	4,994	5,220
Mineral	1,635	1,863	2,467	3,391	3,977	4,162
Nonmineral	518	690	811	814	1,017	1,058
Imports (c.i.f.)	-1,435	-1,794	-2,462	-2,805	-3,346	-3,557
Mineral	-325	-482	-693	-795	-1,083	-1,062
Nonmineral	-1,109	-1,312	-1,769	-2,010	-2,263	-2,495
Services	-388	-485	-674	-882	-1,102	-1,175
Income	-407	-368	-369	-632	-648	-671
Current Transfers	235	182	434	276	365	393
Capital and financial account balance	-23	35	0	470	411	136
Direct investment	97	26	68	193	287	142
Other investment	-120	10	-68	277	124	-6
Medium- and long-term loan disbursements	-151	-213	-175	-137	-216	-180
Commercial banks	-60	-1	-87	77	-136	-54
Other	90	224	194	337	476	229
Net errors and omissions	52	82	-46	29	0	0
Overall balance	187	206	161	662	673	345
Financing	-187	-206	-161	-662	-673	-345
Reserve assets	-184	-140	-102	-662	-673	-345
Use of IMF credit	-6	-62	-59	0	0	0
Purchases	0	0	0	0	0	0
Repurchases	-6	-62	-59	0	0	0
Other foreign liabilities	3	-4	0	0	0	0
Memorandum items:						
Current account (in percent of GDP)	4.5	2.2	4.2	2.9	4.3	3.3
Mineral	20.6	20.2	21.2	24.4	24.0	25.0
Nonmineral	-16.1	-17.9	-17.0	-21.5	-19.7	-21.7
Gross official reserves (end-year)						
In millions of U.S. dollars	523	663	765	1,427	2,100	2,445
In months of nonmineral imports	5.7	6.1	5.2	8.5	11.1	11.8
In months of imports of goods and nonfactor services	2.7	2.8	2.4	3.8	4.7	5.2
Public external debt-service-exports ratio (in percent)	7.5	8.7	6.0	3.5	4.0	3.5
Public external debt-GDP ratio (in percent) 1/	42.9	36.8	25.8	21.2	17.8	15.6

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

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

Table 4. Papua New Guinea: Summary Accounts of the Banking System, 2004–08

	2004	2005	2006	2007 Est.	2008 Proj.
Bank of Papua New Guinea	(In millions of kina; end of period)				
Net foreign assets	1,869	2,367	4,319	6,511	7,843
Foreign assets	2,072	2,368	4,326	6,513	7,844
Foreign liabilities	203	1	6	1	1
Net domestic assets	-998	-1,432	-3,181	-5,191	-6,397
Domestic credit	7	-502	-601	-1,230	-1,760
Net credit to government	-26	-538	-659	-1,288	-1,818
Claims	79	108	144	166	181
Central government deposits	105	646	803	1,454	1,999
Credit to other sectors	34	36	58	58	58
Other items, net	-1,006	-929	-2,580	-3,961	-4,637
Reserve money	871	935	1,138	1,320	1,446
Currency in circulation	531	606	693	754	816
Deposits of other depository corporations	332	322	442	564	627
Other deposits	8	8	3	3	3
Monetary Survey	(In millions of kina; end of period)				
Net foreign assets	2,165	2,929	4,648	7,262	8,760
Net domestic assets	1,750	2,141	2,392	1,517	1,600
Domestic credit	3,066	3,329	3,975	4,122	4,357
Net credit to central government	1,293	1,114	966	238	-285
Claims on other sectors	1,773	2,215	3,009	3,884	4,642
Claims on the private sector	1,724	2,133	2,947	3,822	4,580
Other items, net	-1,316	-1,188	-1,582	-2,604	-2,757
Broad money	3,915	5,069	7,041	8,780	10,360
Narrow money	2,232	3,017	3,792	5,141	6,285
Currency outside banks	400	445	520	582	652
Demand deposits	1,832	2,572	3,272	4,559	5,633
Quasi money	1,683	2,052	3,249	3,639	4,076
	(Annual percentage change)				
Net foreign assets	33.5	35.3	58.7	56.2	20.6
Net domestic assets	-2.2	22.3	11.8	-36.6	5.5
Net domestic credit	0.7	8.6	19.4	3.7	5.7
Of which: Private sector	0.9	23.7	38.2	29.7	19.8
Broad money	14.8	29.5	38.9	24.7	18.0
Memorandum items:					
Reserve money (percentage change)	30.2	7.4	21.7	16.0	9.5
Gross international reserves (in millions of US dollar	663	765	1,427	2,100	2,445
Broad money velocity	3.2	3.0	2.4	2.1	1.9
Nominal nonmineral GDP/Broad money	2.6	2.3	1.8	1.6	1.5

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

Table 5. Papua New Guinea: Medium-Term Scenario, 2004–13

				Est.	Projections					
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Growth and prices (change in percent)										
Real GDP	2.7	3.4	2.6	6.2	5.8	4.7	4.1	3.5	2.4	2.6
Mineral	0.3	5.0	-5.9	4.1	4.9	4.4	6.7	3.8	-5.9	-3.4
Nonmineral	3.1	3.1	3.7	6.5	5.9	4.7	3.8	3.5	3.4	3.3
CPI (period average)	2.1	1.7	2.3	1.7	5.0	5.0	4.5	4.2	4.0	4.0
Savings and investment (in percent of GDP)										
Foreign savings	2.2	4.2	2.9	4.3	3.3	1.7	1.3	-0.9	-3.3	-3.7
Public saving-investment balance 1/	0.0	3.8	5.7	6.0	3.9	0.6	-1.2	-1.9	-1.7	-0.4
Private saving-investment balance	-2.2	-8.0	-8.6	-10.3	-7.2	-2.2	-0.1	2.8	5.0	4.1
Central government operations (in percent of GDP)										
Total revenue and grants	34.1	34.8	36.9	37.8	36.1	33.6	30.8	29.6	29.4	29.6
Total revenue	27.4	26.4	31.5	32.3	30.5	27.7	25.1	24.0	23.7	24.1
Of which: Mineral tax revenue	5.8	7.5	11.7	11.9	10.3	7.7	5.7	4.4	3.8	4.1
Grants	6.7	8.4	5.4	5.5	5.6	5.9	5.7	5.6	5.7	5.5
Total expenditure	32.4	31.1	30.1	31.8	32.2	33.0	32.0	31.5	31.1	30.0
Primary balance 2/	2.9	6.0	7.5	8.0	6.1	2.7	0.8	0.0	0.1	1.6
Nonmineral balance 2/	-6.3	-4.7	-7.7	-7.5	-7.8	-8.2	-7.7	-6.9	-6.0	-5.0
Overall balance 2/	0.0	3.8	5.7	6.0	3.9	0.6	-1.2	-1.9	-1.7	-0.4
Domestic financing (net) 3/	1.8	-2.7	-4.3	-3.8	-2.5	-0.4	1.4	1.9	1.6	0.3
Foreign financing (net)	-1.8	-1.1	-1.3	-2.1	-1.4	-0.2	-0.2	-0.1	0.1	0.1
Gross public debt (in percent of GDP) 4/	62.0	48.1	39.3	34.5	31.4	30.3	28.4	27.5	26.9	26.2
Domestic	25.2	22.3	18.1	16.7	15.8	15.4	14.6	14.1	13.9	13.4
External	36.8	25.8	21.2	17.8	15.6	14.9	13.8	13.3	13.1	12.8
Balance of payments (in millions of U.S. dollars)										
Exports, f.o.b.	2,554	3,278	4,205	4,994	5,220	5,024	5,054	4,908	4,779	4,727
Of which: Mineral	1,863	2,467	3,391	3,977	4,162	3,826	3,883	3,702	3,512	3,409
Imports, c.i.f.	-1,794	-2,462	-2,805	-3,346	-3,557	-3,447	-3,605	-3,715	-3,830	-3,907
Current account	88	207	163	262	209	108	90	-66	-247	-284
(In percent of GDP)	2.2	4.2	2.9	4.3	3.3	1.7	1.3	-0.9	-3.3	-3.7
Overall balance (including exceptional financing)	206	161	662	673	345	75	30	-80	-255	-300
Net official reserves (in millions of U.S. dollars)	599	765	1,427	2,100	2,445	2,520	2,550	2,470	2,215	1,915
(In months of goods and services imports, c.i.f.)	2.6	2.4	3.8	4.7	5.2	5.3	5.3	5.1	4.5	3.9
Public external debt service-export ratio (in percent)	8.7	6.0	3.5	4.0	3.5	2.7	2.5	2.6	2.6	2.4
Memorandum items:										
Nominal GDP (in millions of kina)	12,652	15,263	17,051	18,551	20,070	21,207	23,141	24,493	25,569	26,951
Nominal GDP (in millions of U.S. dollars)	3,927	4,921	5,579	6,052	6,364	6,532	6,962	7,215	7,393	7,648
Assumed commodity prices: 5/										
Gold (US$/oz)	398	403	548	596	621	648	680	707	720	720
Copper (US$/ton)	2,753	3,563	6,523	6,591	5,814	4,361	3,392	2,907	2,810	2,810
Oil (US$/barrel)	41	55	67	74	89	87	87	86	86	86

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

1/ Central government operations only.
2/ Measured from below-the-line in the fiscal accounts.
3/ Includes changes in check float.
4/ Includes central government, central bank external debt, and statutory authorities. Movements in gross debt stocks reflect an initial accumulation and then drawdown of government deposits.
5/ WEO for projections.

Table 6. Papua New Guinea: Indicators of External Vulnerability, 2002–07

(In percent of GDP, unless otherwise indicated)

	2002	2003	2004	2005	2006	2007 Est.
Financial indicators						
Gross public debt 1/ 2/	76.6	67.4	62.0	48.1	39.3	34.5
Broad money (percent change, 12-month basis)	7.3	-4.4	14.8	29.5	38.9	24.7
Private sector credit (percent change, 12 month basis)	1.4	-4.1	0.9	23.7	38.2	29.7
Interest rate (182-day T-bills; period average) 3/	10.9	18.7	3.1	3.8	3.7	4.1
External indicators						
Exports (percent change, 12-month basis in U.S. dollars)	-12.4	30.8	18.6	28.4	28.3	18.7
Imports (percent change, 12-month basis in U.S. dollars)	-1.5	10.2	25.1	37.2	13.9	19.3
Current account balance	-1.0	4.5	2.2	4.2	2.9	4.3
Capital and financial account balance (millions of U.S. dollars)	-104.2	-23.4	35.4	-0.1	469.8	411.4
Of which: Inward foreign direct investment	77.4	99.8	25.8	103.0	212.9	287.9
Gross official reserves (millions of U.S. dollars)	339.0	523.0	663.1	764.9	1427.0	2100.0
Central Bank short-term foreign liabilities (millions of U.S. dollars)	1.0	4.0	0.4	0.4	2.1	0.4
Commerical bank foreign assets (millions of U.S. dollars)	153.5	106.7	116.6	212.4	141.8	285.3
Commerical bank foreign liabilities (millions of U.S. dollars)	26.0	16.9	21.9	31.0	33.2	43.2
Gross official reserves (months of nonmineral imports, c.i.f.)	4.5	5.7	6.1	5.2	8.5	11.1
Broad money to gross reserves (ratio)	2.6	2.0	1.9	2.1	1.6	1.3
Total short-term external debt to reserves (percent) 4/	7.7	3.2	3.3	4.1	2.3	2.1
Public external debt to GDP ratio (in percent)	54.2	42.9	36.8	25.8	21.2	17.8
Public external debt service to exports (percent)	7.9	7.5	8.7	6.0	3.5	4.0
Exchange rate (per U.S. dollar; period average) 3/	3.9	3.6	3.2	3.1	3.1	3.0
Financial market indicators						
Foreign currency long-term government debt rating 1/						
Moody's 5/	B1(stab.)	B1(stab.)	B1(stab.)	B1(stab.)	Ba2	Ba2
Standard & Poors 6/	B(neg.)	B(stab.)	B(pos.)	B(pos.)	B	B+

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

1/ End of period.
2/ Includes central government, central bank external debt, and statutory authorities.
3/ Figures for 2007 are as of September.
4/ Covers only banking system short-term external debt.
5/ Initial rating of B1 (stable) in January 1999.
6/ Initial rating of B+ (stable) in January 1999. The rating was upgraded to B+ in September 2007.

Table 7. Papua New Guinea: Millennium Development Goals Progress, 1990–2005

	1990	1995	1998	2000	2005
Goal 1: Eradicate extreme poverty and hunger					
Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day					
Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger					
Income share held by lowest 20%	..	*5*	..	..	..
Poverty headcount, national (% of population)	..	*38*	..	..	..
Prevalence of underweight in children (under five years of age)	..	..	*15*	..	*13*
Goal 2: Achieve universal primary education					
Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling					
Primary completion rate, total (% of relevant age group)	51.3	52	52.4	56	*53.9*
Persistence to grade 5, total (% of cohort)	*69*	..	..	*51*	..
Youth literacy rate (% ages 15-24)	69	..	..	..	*67*
Goal 3: Promote gender equality and empower women					
Target 4: 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 parliament (%)	0	0	2	2	1
Ratio of girls to boys in primary and secondary education (%)	*80.3*	..	88.9	87	*87*
Ratio of young literate females to males (% ages 15-24)	83.9	..	..	..	*92.7*
Share of women employed in the nonagricultural sector (%)	20	25	30	32.1	*35*
Goal 4: Reduce child mortality					
Target 5: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate					
Immunization, measles (% of children ages 12-23 months)	67	42	59	62	60
Infant mortality rate (per 1,000 live births)	69	64	..	*60*	55
Under 5 mortality rate (per 1,000)	94	87	..	*80*	74
Goal 5: Improve maternal health					
Target 6: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio					
Births attended by skilled health staff (% of total)	..	*53.2*	..	41	..
Maternal mortality ratio (modeled estimate, per 100,000 live births)	..	..	..	300	..
Goal 6: Combat HIV/AIDS, malaria, and other diseases					
Target 7: Have halted by 2015 and begun to reverse the spread of HIV/AIDS					
Prevalence of HIV, total (% of population aged 15-49)	..	..	..	..	2
Target 8: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases					
Contraceptive prevalence rate (% of women ages 15-49)	..	*26*	..	..	..
Incidence of tuberculosis (per 100,000 people)	267	250	..	250	250
Tuberculosis cases detected under DOTS (%)	..	1	7.4	7	21
Goal 7: Ensure environmental sustainability					
Target 9: Integrate the principles of sustainable development into country policies and program and reverse the loss of environmental resources					
Forest area (% of total land area)	70	..	..	*67*	65
Nationally protected areas (% of total land area)	..	..	..	..	1.6
Target 10: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation					
Access to an improved water source (% of population)	39	..	..	..	*39*
Target 11: Have achieved, by 2020, a significant improvement in the lives of at least 100 million slum dwellers					
Access to improved sanitation (% of population)	44	..	..	..	*44*
CO_2 emissions (metric tons per capita)	0.6	0.5	0.5	0.5	0.4
Goal 8: Develop a global partnership for development					
Target 12: Various					
Aid per capita (current US$)	100.4	79.2	71.5	*52*	45
Debt service (% of exports)	18	10	8	8.1	5.9
Fixed line and mobile phone subscribers (per 1,000 people)	7.3	9.3	12.4	14	15
Internet users (per 1,000 people)	0	*0*	2.4	8	23
Personal computers (per 1,000 people)	..	..	39.5	53	*63.6*

Source: *World Development Indicators* database, April 2007.
Figures in italics refer to periods other than those specified.

APPENDIX I. PAPUA NEW GUINEA: PUBLIC AND EXTERNAL DEBT SUSTAINABILITY[12]

This supplement summarizes the debt sustainability analysis (DSA) for Papua New Guinea using the framework for low-income countries. The baseline macroeconomic scenario underlying this DSA is the medium-term outlook discussed in the staff report. This supplement also assesses the impact of various exogenous shocks on the sustainability of public sector debt and external debt under the baseline scenario.

A. Main Assumptions

- Real GDP growth is projected to grow at about 4 percent in 2008–2012 with moderate growth in the nonmineral sectors, including the agricultural sector, and several mining projects coming on stream. The latter will offset a steady decline in petroleum production.

- Monetary policy continues to be geared toward achieving low inflation and smoothing exchange rate volatility.

- Fiscal policy, as measured by actual spending and the nonmineral balance, is expected to improve gradually after 2009. Overall fiscal surpluses are expected to decline due to falling mineral revenues and spending of preceding years' mineral windfall revenues (having been temporarily saved in trust funds).

- Consistent with the medium-term debt strategy, debt levels continue to be lowered, to a sustainable level, and financial risks reduced, e.g., by reducing the exposure to foreign debt and lengthening the maturity of domestic bonds.

- Prices of key commodities are in line with assumptions.

- Structural reforms outlined under the authorities' Medium-Term Development Strategy, particularly those on public sector reform, are delayed or implemented at a slow pace.

- Real GDP growth is expected to average 2.6 percent in the long-term. This outcome envisages a return to the long-run average growth rate. It is predicated on the gradual implementation of structural reforms to enhance private sector activity, the maintenance of a stable macroeconomic environment and ongoing slow

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[12] As Papua New Guinea is an IBRD/IDA blend country, this DSA was prepared by Fund staff only under the IMF-WB DSA framework for Low-Income Countries. See *Staff Guidance Note on the Application of the Joint Fund-Bank Sustainability Framework for Low-Income Countries (http://www.imf.org/external/np/pp/2007/eng/041607.pdf)*.

improvements in public infrastructure and services that should raise help productivity. There is also upside potential from the development of new mineral and gas projects.

B. Total Public Sector Debt Sustainability

The public sector debt ratio declined from 62 percent of GDP at end-2004 to an estimated 34.5 percent of GDP at end-2007 (Table 1). This improvement reflects prudent fiscal policy, favorable mineral sector developments (in particular, strong export prices in recent years), kina appreciation, lower interest rates, and a sustained recovery since mid-2002. Of total public debt, approximately 52 percent is external debt, of which 41 percent of loans are in U.S. dollars. The maturity structure of public domestic debt has increased significantly since 2003, when most debt was short-term; by end-2007 around 70 percent of the debt stock was issued with maturities of 2–10 years. Multilateral debt (AsDB and World Bank) accounts for about three-quarters of external debt. Japan is the main bilateral creditor. Under the authorities' Medium-Term Debt Strategy, foreign-currency loans are considered only if they are concessional (with a grant element of at least 35 percent), and new loans from the World Bank and AsDB will meet this criteria.

Under the baseline, the public sector debt ratio is projected to decline to 26.9 percent of GDP by 2012 and 10.9 percent by 2027. The projected improvement stems mainly from the expectation of a continued prudent fiscal policy, as set out in the MTFS (see Box 3), and favorable debt dynamics. The NPV of public debt would decline from 39.2 percent of GDP in 2006 to 34.6 percent of GDP in 2007, and continue to decline to 26.6 percent of GDP by 2012 and to 10.3 percent of GDP by 2027. The public debt service-to-revenue ratio fell significantly between 2004-06, to a trough of 10.8 percent in 2006, due to increasing mineral revenues. It is expected to rise somewhat during 2007–08, as the government uses some of its 'mineral windfall' to pre-pay external debt, and to fall gradually over the medium term.

The paths for the public debt ratios are particularly sensitive to changes in real GDP growth (Table 2 and Figure 1). Compared to 2007, a sustained reduction in real GDP growth, by one standard deviation below the baseline spread over the projection period, would raise the NPV of public debt to GDP ratio by around 11 percentage points by 2017. A shock to real GDP growth during 2008-09, of the historical average growth rate minus one standard deviation, would result in a sustained increase in the NPV of public debt to GDP ratio, rising to around 90 percent by 2027. A one-time 30 percent real exchange rate depreciation in 2007 would raise the NPV of debt to GDP ratio by about 8 percentage points over the medium term.

Fiscal sustainability is sensitive to developments in pension fund liabilities and borrowing to fund large-scale investment projects, by the central government and state-owned enterprises (SOEs). Unfunded civil service pension liabilities are equivalent to about 11 percent of GDP. While the government will make partial repayments in 2007–08 and from 2009 it should be fully funding its share of new pension contributions the balance, will remain sizeable. Borrowing by SOEs is also reportedly significant and growing, although information is limited. Among a number of proposed investments, the government is considering borrowing to finance equity in the potentially large gas sector, which would further concentrate risks associated with the volatile mineral sector. Better disclosure of such information would greatly enhance the assessment of debt sustainability.

C. External Debt Sustainability

Papua New Guinea's total external debt has declined from 55 percent of GDP in 2004 to 32.4 percent in 2007 (Table 3). External debt as a percent of exports is also estimated to have declined significantly, from a peak of 127 percent in 2002 to 37 percent in 2007. Based on available data, private external debt was estimated at 14.7 percent of GDP at end-2007. Private external debt is expected to decline over the long term, as large mineral projects that accounted for a high proportion of debt reach completion.

External public debt dynamics are sustainable under the baseline scenario. By 2006 all five debt indicators—the NPV of public external debt in percent of GDP, exports, and revenue, and the ratio of debt service to exports and revenue—were below the policy dependent thresholds.[13] All the indicators continue to improve over the medium and long term period, with the exception of the ratio of the NPV of public external debt to government revenue, which temporarily increases over the medium term as mineral revenues decline (though it remains well below the threshold).

External debt sustainability is most vulnerable to shocks from lower export growth (Table 4). A decline in export value growth in 2008–09, by one standard deviation below its historical average, would raise the NPV of public external debt-to-GDP by over 20 percentage points over the medium term, and only fall below the 30 percent threshold in 2021. Similarly, the export shock would raise the NPV of external debt-to-exports and external debt-to-revenue closer to (though still under) their thresholds for the first ten years, before falling over the long term. While a combination of shocks would also push the external debt-to-GDP ratio to just above the threshold over the medium term, neither of the ratios for debt service approach their thresholds.

Papua New Guinea faces a moderate risk of debt distress under the IMF-WB DSA framework for LICs. While the baseline scenario does not indicate a breach of any of the

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[13] Papua New Guinea is rated a weak performer for its policies and institutions for the purposes of the IMF-WB LIC DSA framework. Consequently, applicable thresholds for external public debt are: (i) 100 percent for NPV of external debt-to-exports, (ii) 30 percent for NPV of external debt-to-GDP, and (iii) 200 percent for NPV of external debt-to-fiscal revenue; and for debt service: (i) 15 percent of exports and (ii) 25 percent of revenues.

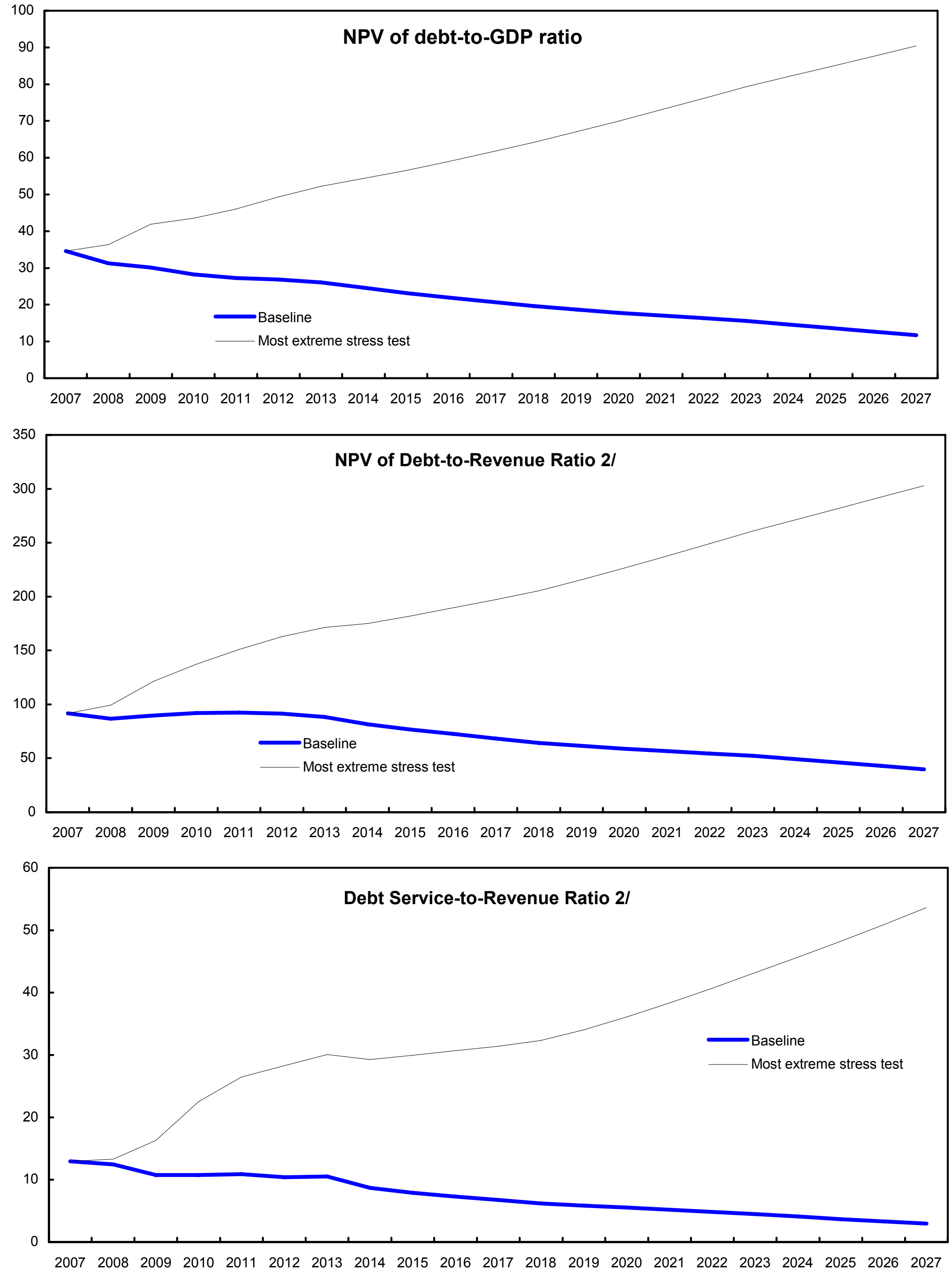
thresholds, the NPV of external public debt to GDP ratio exceeds the threshold under the stress test for lower export value growth (and approaches the threshold for two other indicators).

D. Conclusions

While Papua New Guinea has made significant progress in reducing its public debt burden, continued prudent management of debt over the medium-to-long term will be required to mitigate the risks to public debt sustainability. While most indicators show that the economy's debt is manageable, Papua New Guinea still faces a moderate risk of debt distress. The outlook is particularly sensitive to changes in real GDP and export growth, highlighting the vulnerability of the debt dynamics to potential shocks and the need to avoid policy slippages. Papua New Guinea could also further guard against these vulnerabilities by ensuring that any external borrowing is obtained on concessional terms and by carefully managing other fiscal liabilities, e.g., from pensions, state-owned enterprises or the development bank. These recommendations are consistent with the current medium-term debt strategy and the proposed MTFS (see Box 3).

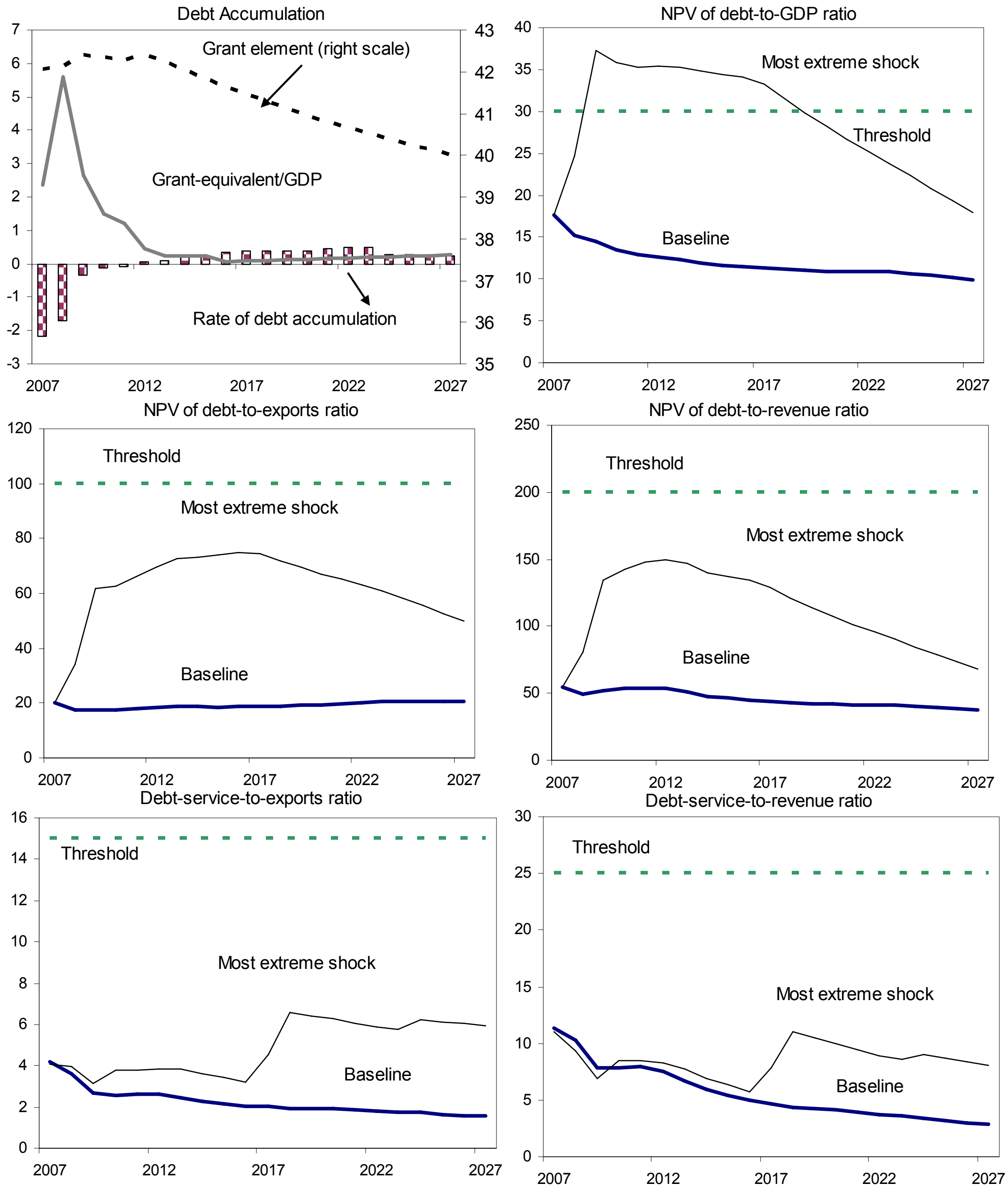
Figure 1. Papua New Guinea: Indicators of Public Debt Under Alternative Scenarios, 2007–2027 1/

(In percent)



Source: Staff projections and simulations.
1/ Most extreme stress test is test that yields highest ratio in 2017.
2/ Revenue including grants

Figure 2. Papua New Guinea: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2007–2027 (In Percent)



Source: Staff projections and simulations.

Table 1 . Papua New Guinea: Public Sector Debt Sustainability Framework, Baseline Scenario, 2004-2027

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2004	2005	2006	Historical Average 5/	Standard Deviation 5/	2007	2008	2009	2010	2011	2012	2007-12 Average	2017	2027	2013-27 Average
Public sector debt 1/	62.0	48.1	39.3			34.5	31.4	30.3	28.4	27.5	26.9		20.4	10.9	
o/w foreign-currency denominated	36.8	25.8	21.2			17.8	15.6	14.9	13.8	13.3	13.1		11.7	10.6	
Change in public sector debt	-5.4	-13.9	-8.8			-4.8	-3.1	-1.1	-1.9	-0.9	-0.5		-1.3	-0.7	
Identified debt-creating flows	-3.1	-14.7	-11.2			-8.7	-6.0	-1.9	-1.0	0.5	0.7		-1.3	-0.7	
Primary deficit	-2.9	-6.0	-7.5	-2.6	2.8	-8.0	-6.1	-2.7	-0.8	-0.1	-0.2	-2.9	-1.4	-0.6	-1.1
Revenue and grants	34.1	34.8	36.9			37.8	36.1	33.6	30.8	29.6	29.4		30.5	29.4	
of which: grants	6.7	8.4	5.4			5.5	5.6	5.9	5.7	5.6	5.7		4.6	2.9	
Primary (noninterest) expenditure	31.2	28.8	29.4			29.8	30.1	30.9	30.0	29.6	29.3		29.1	28.8	
Automatic debt dynamics	-0.3	-8.7	-3.7			-0.7	0.1	0.8	-0.2	0.6	0.9		0.1	-0.1	
Contribution from interest rate/growth differential	0.7	-4.0	-1.4			-0.9	-0.3	0.3	-0.2	0.3	0.6		0.1	-0.1	
of which: contribution from average real interest rate	2.5	-2.0	-0.2			1.4	1.6	1.7	1.0	1.3	1.3		0.6	0.2	
of which: contribution from real GDP growth	-1.8	-2.0	-1.2			-2.3	-1.9	-1.4	-1.2	-1.0	-0.6		-0.6	-0.3	
Contribution from real exchange rate depreciation	-1.0	-4.7	-2.3			0.3	0.4	0.5	0.0	0.2	0.3		...	...	
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	-2.2	0.8	2.4			3.9	-2.8	0.8	-0.9	-1.5	-1.2		0.0	0.0	
NPV of public sector debt	58.8	48.2	39.2			34.6	31.3	30.0	28.2	27.1	26.6		20.1	10.3	
o/w foreign-currency denominated	33.6	25.8	21.2			**17.9**	15.4	14.6	13.6	13.0	12.8		11.4	10.0	
o/w external	33.6	25.8	21.2			17.9	15.4	14.6	13.6	13.0	12.8		11.4	10.0	
NPV of contingent liabilities (not included in public sector debt)	12.8	10.6	9.5			11.0	10.7	10.8	10.6	10.7	10.9		8.0	8.0	
Gross financing need 2/	24.5	11.0	5.4			1.6	1.7	3.4	4.3	4.7	4.1		1.4	0.6	
NPV of public sector debt-to-revenue and grants ratio (in percent)	172.4	138.6	106.3			91.5	86.5	89.3	91.4	91.7	90.7		65.8	35.1	
NPV of public sector debt-to-revenue ratio (in percent)	214.7	182.8	124.4			107.0	102.3	108.2	112.0	113.3	112.6		77.6	39.0	
o/w external 3/	...	...	67.1			55.3	50.5	52.7	54.1	54.2	53.9		44.1	37.8	
Debt service-to-revenue and grants ratio (in percent) 4/	17.9	11.9	10.8			13.0	12.5	10.7	10.7	10.9	10.4		6.6	3.0	
Debt service-to-revenue ratio (in percent) 4/	22.3	15.7	12.6			15.2	14.7	13.0	13.2	13.5	12.9		7.8	2.9	
Primary deficit that stabilizes the debt-to-GDP ratio	2.5	8.0	1.3			-3.2	-3.0	-1.6	1.1	1.0	0.4		-0.1	0.1	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	2.7	3.4	2.6	0.8	3.2	6.2	5.8	4.7	4.1	3.5	2.4	4.4	2.6	2.6	2.6
Average nominal interest rate on forex debt (in percent)	2.4	2.5	3.0	1.8	1.4	3.5	4.2	4.6	4.5	4.2	4.0	4.2	3.7	4.0	3.7
Average real interest rate on domestic currency debt (in percent)	10.0	-8.5	-3.1	6.0	16.0	5.6	7.0	8.6	4.6	7.3	7.4	6.7	4.8	2.6	4.2
Real exchange rate depreciation (in percent, + indicates depreciation)	-2.3	-13.1	-9.1	2.5	14.5	1.4	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	-2.0	16.7	8.9	8.9	5.2	2.4	2.3	0.9	4.8	2.3	1.9	2.5	4.0	4.0	3.9
Growth of real primary spending (deflated by GDP deflator, in percent)	25.7	-4.6	4.7	1.7	12.2	7.5	6.9	7.5	1.2	2.0	1.2	4.3	3.6	2.7	2.6
Grant element of new external borrowing (in percent)	...	...	...	...	...	0.0	...	...	...	...	...	...	...	...	...

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

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

Table 2. Papua New Guinea: Sensitivity Analysis for Key Indicators of Public Debt, 2007-2027
(In percent)

	Projections							
	2007	2008	2009	2010	2011	2012	2017	2027
NPV of Debt-to-GDP Ratio								
Baseline	35	31	30	28	27	27	20	10
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	35	36	37	34	32	29	21	...
A2. Primary balance is unchanged from 2007	35	29	23	15	6	...	...	...
A3. Permanently lower GDP growth 1/	35	32	31	30	30	30	31	52
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2008-2009	35	36	42	43	46	49	61	89
B2. Primary balance is at historical average minus one standard deviations in 2008-2009	35	37	39	37	36	35	29	19
B3. Combination of B1-B2 using one half standard deviation shocks	35	38	41	38	36	35	26	11
B4. One-time 30 percent real depreciation in 2008	35	39	38	36	35	34	27	17
B5. 10 percent of GDP increase in other debt-creating flows in 2008	35	41	39	37	36	36	29	19
NPV of Debt-to-Revenue Ratio								
Baseline	92	86	89	91	92	91	66	35
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	92	100	108	109	104	97	66	...
A2. Primary balance is unchanged from 2007	92	81	69	47	...	...	...	...
A3. Permanently lower GDP growth 1/	92	88	92	96	100	102	101	174
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2008-2009	92	99	121	137	150	162	194	297
B2. Primary balance is at historical average minus one standard deviations in 2008-2009	92	103	116	119	121	121	95	64
B3. Combination of B1-B2 using one half standard deviation shocks	92	105	119	121	120	117	83	39
B4. One-time 30 percent real depreciation in 2008	92	109	113	117	118	117	90	59
B5. 10 percent of GDP increase in other debt-creating flows in 2008	92	113	117	121	123	122	97	66
Debt Service-to-Revenue Ratio 2/								
Baseline	13	12	11	11	11	10	7	3
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	13	13	18	17	13	8	5	...
A2. Primary balance is unchanged from 2007	13	12	8	0	...	...	...	...
A3. Permanently lower GDP growth 1/	13	13	11	12	13	13	14	30
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2008-2009	13	13	16	23	26	28	31	53
B2. Primary balance is at historical average minus one standard deviations in 2008-2009	13	12	21	23	19	16	10	9
B3. Combination of B1-B2 using one half standard deviation shocks	13	13	20	21	17	14	7	4
B4. One-time 30 percent real depreciation in 2008	13	13	12	12	13	12	9	6
B5. 10 percent of GDP increase in other debt-creating flows in 2008	13	12	26	22	19	16	10	10

Sources: Papua New Guinea authorities; and Fund staff estimates and projections.
1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of 20 (i.e., the length of the projection period).
2/ Revenues are defined inclusive of grants.

Table 3. Papua New Guinea: External Debt Sustainability Framework, Baseline Scenario, 2004–2027 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 6/	Standard Deviation 6/	Est	Projections								
	2004	2005	2006			2007	2008	2009	2010	2011	2012	2007-12 Average	2017	2027	2013-27 Average
External debt (nominal) 1/	55.0	41.6	39.0			32.4	27.9	25.5	22.6	20.6	19.1		15.7	12.2	
o/w public and publicly guaranteed (PPG)	38.0	25.9	21.4			17.6	15.3	14.7	13.7	13.2	12.9		11.6	10.6	
Change in external debt	-10.4	-13.3	-2.6			-6.6	-4.4	-2.5	-2.9	-2.0	-1.5		-0.5	-0.3	
Identified net debt-creating flows	-9.4	-16.7	-11.3			-11.3	-7.3	-4.4	-3.5	-1.1	1.7		0.9	0.5	
Non-interest current account deficit	-4.0	-5.5	-5.6	-6.4	2.8	-6.8	-5.7	-4.0	-3.5	-1.1	1.4		0.7	0.2	0.6
Deficit in balance of goods and services	-17.2	-15.8	-25.0			-25.1	-22.9	-18.3	-16.0	-12.4	-9.3		-8.1	-6.6	
Exports	70.2	71.4	80.3			87.5	86.9	81.6	76.9	72.2	68.6		60.3	48.5	
Imports	53.1	55.6	55.2			62.4	64.0	63.3	60.9	59.7	59.3		52.1	42.0	
Net current transfers (negative = inflow)	-4.6	-8.8	-5.0	-5.6	1.4	-6.0	-6.2	-6.4	-6.2	-6.1	-6.2		-4.9	-3.0	-4.3
o/w official	-3.6	-8.0	-5.4			-5.5	-5.6	-5.9	-5.7	-5.6	-5.7		-4.6	-2.9	
Other current account flows (negative = net inflow)	17.8	19.1	24.4			24.4	23.4	20.7	18.7	17.4	16.8		13.7	9.9	
Net FDI (negative = inflow)	-0.7	-1.4	-3.5	-2.7	2.4	-4.7	-2.2	-1.5	-1.2	-1.2	-1.2		-1.0	-0.7	-0.9
Endogenous debt dynamics 2/	-4.8	-9.8	-2.3			0.2	0.6	1.0	1.2	1.3	1.5		1.2	0.9	
Contribution from nominal interest rate	1.7	1.3	2.6			2.5	2.4	2.3	2.2	2.0	2.0		1.6	1.3	
Contribution from real GDP growth	-1.6	-1.5	-0.9			-2.2	-1.8	-1.3	-1.0	-0.8	-0.5		-0.4	-0.3	
Contribution from price and exchange rate changes	-4.9	-9.6	-4.0			…	…	…	…	…	…		…	…	
Residual (3-4) 3/	-1.0	3.3	8.6			4.7	2.9	2.0	0.6	-0.9	-3.2		-1.4	-0.9	
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	
NPV of external debt 4/	...	...	38.9			32.4	27.8	25.2	22.4	20.2	18.8		15.4	11.6	
In percent of exports	...	...	48.5			37.0	32.0	30.9	29.1	28.0	27.4		25.6	23.9	
NPV of PPG external debt	...	...	21.3			17.7	15.2	14.4	13.4	12.9	12.6		11.3	10.0	
In percent of exports	...	...	26.6			20.2	17.5	17.7	17.5	17.8	18.4		18.8	20.5	
In percent of government revenues	...	...	67.7			54.6	49.7	52.1	53.4	53.7	53.4		43.8	37.6	
Debt service-to-exports ratio (in percent)	12.7	9.9	8.4			8.2	7.7	7.1	7.0	7.2	7.4		6.5	5.8	
PPG debt service-to-exports ratio (in percent)	9.0	6.2	3.7			4.2	3.6	2.7	2.5	2.6	2.6		2.0	1.6	
PPG debt service-to-revenue ratio (in percent)	23.2	16.9	9.4			11.3	10.2	7.9	7.8	7.9	7.5		4.7	2.8	
Total gross financing need (billions of U.S. dollars)	0.2	0.0	-0.1			-0.3	-0.1	0.0	0.1	0.2	0.4		0.3	0.4	
Non-interest current account deficit that stabilizes debt ratio	6.4	7.8	-2.9			-0.2	-1.2	-1.5	-0.6	0.9	2.9		1.1	0.6	
Key macroeconomic assumptions															
Real GDP growth (in percent)	2.7	3.4	2.6	0.8	3.2	6.2	5.8	4.7	4.1	3.5	2.4	4.4	2.6	2.6	2.6
GDP deflator in US dollar terms (change in percent)	8.1	21.2	10.5	1.0	14.3	2.1	-0.6	-1.9	2.4	0.1	0.1	0.4	1.9	1.9	1.8
Effective interest rate (percent) 5/	2.9	3.0	7.2	4.5	1.2	6.9	7.7	8.5	9.0	9.3	9.8	8.5	10.5	10.5	10.5
Growth of exports of G&S (US dollar terms, in percent)	15.8	27.3	27.5	5.9	19.5	18.3	4.3	-3.6	0.4	-2.7	-2.7	2.4	2.6	2.5	2.2
Growth of imports of G&S (US dollar terms, in percent)	21.7	31.2	12.7	5.2	16.8	22.6	7.8	1.5	2.6	1.6	1.7	6.3	2.1	2.5	2.2
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	39.3	41.9	39.5	38.6	38.4	37.8	39.2	37.5	37.6	37.5
Aid flows (in billions of US dollars) 7/	0.9	1.3	1.0			1.1	1.2	1.3	1.4	1.5	1.6		1.7	2.1	
o/w Grants	0.3	0.4	0.3			0.3	0.4	0.4	0.4	0.4	0.4		0.4	0.4	
o/w Concessional loans	0.0	0.0	0.1			0.0	0.1	0.1	0.1	0.1	0.1		0.1	0.1	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			5.8	5.9	6.2	6.2	6.1	6.2		5.1	3.3	4.5
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			91.2	93.8	91.2	88.5	89.0	87.8		87.2	85.9	86.9
Memorandum items:															
Nominal GDP (billions of US dollars)	3.9	4.9	5.6			6.1	6.4	6.5	7.0	7.2	7.4		9.2	14.4	
(NPVt-NPVt-1)/GDPt-1 (in percent)						-2.2	-1.7	-0.3	-0.1	-0.1	0.1	-0.7	0.4	0.2	0.3

Source: Staff simulations.

1/ Includes both public and private sector external debt.
2/ Derived as [r - g - r(1+g)]/(1+g+r+gr) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and r = 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 NPV 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 NPV of new debt).

Table 4 (part 1). Papua New Guinea: Sensitivity Analyses for Key Indicators of Public and Publicly Guaranteed External Debt, 2007–27
(In percent)

	Projections							
	2007	2008	2009	2010	2011	2012	**2017**	2027
NPV of debt-to-GDP ratio								
Baseline	18	15	14	13	13	13	**11**	10
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008–27 1/	18	16	13	11	7	1	...	...
A2. New public sector loans on less favorable terms in 2008–27 2/	18	15	15	14	14	14	**14**	15
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2008–09	18	16	17	16	15	15	**13**	12
B2. Export value growth at historical average minus one standard deviation in 2008–09 3/	18	25	37	36	35	35	**33**	18
B3. US dollar GDP deflator at historical average minus one standard deviation in 2008–09	18	17	19	17	17	16	**15**	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2008–09 4/	18	18	19	18	17	17	**16**	12
B5. Combination of B1-B4 using one-half standard deviation shocks	18	23	32	30	30	30	**28**	17
B6. One-time 30 percent nominal depreciation relative to the baseline in 2008 5/	18	22	21	19	18	18	**16**	14
NPV of debt-to-exports ratio								
Baseline	20	17	18	17	18	18	**19**	21
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2007–26 1/	20	18	16	14	9	2	...	...
A2. New public sector loans on less favorable terms in 2007–26 2/	20	18	18	18	19	20	**23**	30
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2008–09	20	17	18	17	18	18	**19**	21
B2. Export value growth at historical average minus one standard deviation in 2008–09 3/	20	34	62	63	66	70	**75**	50
B3. US dollar GDP deflator at historical average minus one standard deviation in 2008–09	20	17	18	17	18	18	**19**	21
B4. Net non-debt creating flows at historical average minus one standard deviation in 2008–09 4/	20	20	23	23	24	25	**26**	24
B5. Combination of B1-B4 using one-half standard deviation shocks	20	26	34	35	36	38	**40**	31
B6. One-time 30 percent nominal depreciation relative to the baseline in 2008 5/	20	17	18	17	18	18	**19**	21
NPV of debt-to-revenue ratio								
Baseline	55	50	52	53	54	53	**44**	38
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2007–26 1/	55	51	48	43	29	6	...	...
A2. New public sector loans on less favorable terms in 2007–26 2/	55	50	54	56	58	59	**54**	55
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2008–09	55	54	61	62	62	62	**51**	44
B2. Export value growth at historical average minus one standard deviation in 2008–09 3/	55	81	135	142	147	150	**129**	68
B3. US dollar GDP deflator at historical average minus one standard deviation in 2008–09	55	57	68	69	70	69	**57**	49
B4. Net non-debt creating flows at historical average minus one standard deviation in 2008–09 4/	55	58	69	72	73	73	**61**	44
B5. Combination of B1-B4 using one-half standard deviation shocks	55	76	116	121	125	126	**107**	65
B6. One-time 30 percent nominal depreciation relative to the baseline in 2008 5/	55	71	75	77	77	76	**63**	54

Source: Staff projections and simulations.

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.

Table 4. Papua New Guinea: Sensitivity Analyses for Key Indicators of Public and Publicly Guaranteed External Debt, 2007–27 (concluded)
(In percent)

	Projections							
	2007	2008	2009	2010	2011	2012	**2017**	2027
Debt service-to-exports ratio								
Baseline	4	4	3	3	3	3	**2**	2
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008–27 1/	4	3	2	2	2	2	**1**	...
A2. New public sector loans on less favorable terms in 2008–27 2/	4	3	2	2	2	2	**2**	2
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2008–09	4	3	2	2	2	2	**2**	2
B2. Export value growth at historical average minus one standard deviation in 2008–09 3/	4	4	3	4	4	4	**5**	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2008–09	4	3	2	2	2	2	**2**	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2008–09 4/	4	3	2	2	2	2	**2**	2
B5. Combination of B1-B4 using one-half standard deviation shocks	4	4	2	3	3	3	**3**	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2008 5/	4	3	2	2	2	2	**2**	2
Debt service-to-revenue ratio								
Baseline	11	10	8	8	8	8	**5**	3
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2008–27 1/	11	10	6	7	7	6	**1**	...
A2. New public sector loans on less favorable terms in 2008–27 2/	11	9	6	6	6	6	**4**	4
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2008–09	11	10	7	7	7	7	**4**	4
B2. Export value growth at historical average minus one standard deviation in 2008–09 3/	11	9	7	9	8	8	**8**	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2008–09	11	11	8	8	8	8	**5**	4
B4. Net non-debt creating flows at historical average minus one standard deviation in 2008–09 4/	11	9	6	7	7	6	**5**	4
B5. Combination of B1-B4 using one-half standard deviation shocks	11	11	8	9	9	9	**7**	7
B6. One-time 30 percent nominal depreciation relative to the baseline in 2008 5/	11	13	9	9	9	9	**5**	4
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	37	37	37	37	37	37	**37**	37

Source: Staff projections and simulations.

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 II. Papua New Guinea: Summary of Annexes

Fund Relations

Papua New Guinea joined the Fund in October 1975, and has no outstanding purchases or loans. The last stand-by arrangement expired in September 2001. Papua New Guinea has a managed floating exchange rate arrangement; the exchange rate of the kina is determined in the interbank market in which authorized banks participate. The 2006 Article IV consultation was concluded by the Executive Board on March 7, 2007 (IMF Country Report, No. 07/111).

Relations with the World Bank Group

Papua New Guinea has received 36 IBRD loans and 14 IDA credits amounting to $787 million and $152 million, respectively. At present, there are two active loans, totaling $63 million, of which a $25 million project is scheduled to close at end-2007, and one active grant project. The new Country Assistance Strategy (approved in December 2007) envisions up to three IDA credits per fiscal year totaling $45 million in FY2008 and $30–32 million per fiscal year thereafter.[14] The Bank is involved in public expenditure management, infrastructure, health and education, and HIV/AIDS. The IFC has currently committed $1.2 million and has entered into negotiations with Digicel PNG Ltd on a $40 million line of credit.

Relations with PFTAC

Assistance to Papua New Guinea in recent years has been limited due to the presence of extensive assistance under the Australian Enhanced Cooperation Program (ECP). In all, there have been 24 missions, and Papua New Guinea has sent over 50 officials to the PFTAC's regional seminars, workshops, and training courses since 2000. PFTAC technical assistance includes public financial management, tax administration and policy, financial sector regulation and supervision, and economic and financial statistics.

Relations with the Asian Development Bank

Papua New Guinea has been approved 60 loans totaling $1,027 million for 47 projects and $51.6 million for 133 technical assistance projects. Currently, there are 12 active loans involving 9 projects (and one special fund grant-financed project). The AsDB strategy for Papua New Guinea (approved in July 2006) and country operations business plan for 2008–2010 (approved in August 2007) are in line with the government's Medium-Term

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[14] PNG is formally a blend IBRD-IDA country. No immediate IBRD lending to PNG is envisioned.

Development Strategy, focusing on public finance management, private sector development, transport sector, health and HIV/AIDS, and public enterprise reform. Total lending of $262 million is expected for 2008–2010. The AsDB's non-lending assistance program envisages annual grant-financed technical assistance of about $2 million per year for 2008–2010.

Statistical Issues

Although data provision to the Fund is generally adequate for surveillance purposes, inadequate coverage and timeliness of key macroeconomic data continue to hinder the conduct of macroeconomic policy. The September 2006 STA multisector statistics mission assessed the institutional arrangements, methodological foundations, and accuracy and reliability of data and found serious shortcomings. A follow-up high level STA mission in December 2007, joined by senior officials of the Australian Bureau of Statistics, discussed a strategy to improve macroeconomic statistics.

INTERNATIONAL MONETARY FUND

PAPUA NEW GUINEA

Staff Report for the 2007 Article IV Consultation—Informational Annexes

Prepared by the Asia and Pacific Department

January 17, 2008

Contents Page

ANNEX I: PAPUA NEW GUINEA—FUND RELATIONS
(As of November 30, 2007)

I. Membership Status: Joined October 9, 1975; Article VIII

II. 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

III. SDR Department:

	SDR Million	Percent Allocation
Net cumulative allocation	9.30	100.00
Holdings	0.06	0.63

IV. Outstanding Purchases and Loans: None

V. Financial Arrangements:

Type	Approval Date	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
Stand-by	4/25/90	6/24/91	26.36	0.00
Stand-by	7/31/91	9/30/92	26.36	0.00
Stand-by	7/14/95	12/15/97	71.48	35.34
Stand-by	3/29/00	9/28/01	85.54	85.54

VI. Projected Obligations to Fund (SDR million; based on existing use of resources and present holdings of SDRs):

	Forthcoming				
	2007	**2008**	**2009**	**2010**	**2011**
Principal	0.00	0.00	0.00	0.00	0.00
Charges/interest	0.00	0.33	0.33	0.33	0.33
Total	0.00	0.33	0.33	0.33	0.33

VII. Safeguards Assessments:

Under the Fund's safeguards assessment policy, the Bank of Papua New Guinea (BPNG) was subject to a transitional assessment based on its Stand By Arrangement (SBY) 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 policy.

VIII. Exchange Rate Arrangement:

Papua New Guinea has a managed 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.

IX. Article IV Consultation:

Papua New Guinea is on the standard 12-month consultation cycle. The previous Article IV consultation discussions were held during November 6–17, 2006. The staff report (IMF Country Report No. 07/111) was considered by the Executive Board and the consultation concluded on March 7, 2007.

X. 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 Department of Finance and Treasury 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: A mission in November 2001 reviewed foreign exchange management. A mission in June 2001 assessed the monetary policy implementation framework. 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), medium-term monetary policy formulation (October 2004 and September 2005), reserve management (June 2006–September 2007), internal audits (2004–August 2007), and accounting (September/October 2006–February 2007).

STA: Four missions in 1995–96 provided advice on the compilation of national accounts. A mission reviewed monetary and financial statistics in April 2005 and a follow-up mission took place in May 2006. Subsequently, a multisector mission visited in September 2006. A high level STA mission to follow up on the multisector mission visited Port Moresby in December 2007, joined by the Australian Bureau of Statistics and AusAid.

XI. Resident Representative:

A post was opened in Port Moresby in May 2000 and is currently filled by Mr. E. Faal.

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

(As of December 2007)

Assistance to Papua New Guinea (PNG) in recent years has been coordinated with the IMF Resident Representative in Port Moresby, and with the extensive assistance provided by the Australian Enhanced Cooperation Program (ECP). Since 2000, PFTAC has provided 24 missions to PNG, and the Government has sent over 50 officials to the Centre's regional seminars, workshops, and training courses in this period.

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. The PFTAC PFM Advisor is expected to participate in a joint PEFA assessment, with ADB and other donors, in mid-February 2008.

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. It is expected that the new law will shortly be passed by the Parliament.

In 2006, the Commissioner General of the IRC requested assistance to obtain an independent strategic assessment of the existing IT system looking five years out. A PFTAC expert has undertaken technical assistance through a series of short missions. The first mission was completed in July 2006, the second in October 2006, the third in January 2007, the fourth in May 2007 and the fifth in September 2007. PFTAC is considering a further request from the IRC to provide technical assistance to prepare the business case to Government for the purpose of purchasing of a technology system and associated applications.

[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.

Financial Sector Regulation and Supervision

There is no current PFTAC involvement in this area, as technical assistance is provided by MCM, but the Advisor visited BPNG in September 2004 and July 2005 to identify areas where technical assistance could be provided. 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.

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.

ANNEX III: PAPUA NEW GUINEA—RELATIONS WITH THE WORLD BANK GROUP
(As of December 6, 2007)

Papua New Guinea (PNG) formally became a member of the World Bank upon gaining independence in 1975 but had been a recipient of loans from the World Bank since 1968. To date, the World Bank has provided PNG with 36 IBRD loans totaling US$786.6 million and 14 IDA credits totaling US$152.2 million in commitments. The World Bank portfolio in PNG currently consists of two active loans totaling US$62.3 million in commitments: Gazelle Restoration Project (US$25 million; the project is scheduled to close at the end of 2007) and the Road Maintenance and Rehabilitation Project (US$37.3 million). In addition, the Bank is implementing a Global Environment Facility-supported Teachers' Solar Lighting Project (US$0.99 million).

The Bank's relationship with the Government of PNG in recent years was not even. Following a suspension and later cancellation of the Forestry and Conservation Project in 2003–05 due to noncompliance with some loan covenants, the World Bank prepared an Interim Strategy Note (ISN) covering an 18-month period, in lieu of a full 4-year Country Assistance Strategy (CAS). The ISN was approved by the Bank's Board on April 12, 2005.

Under the ISN the Bank's work in PNG focused primarily on priority analytical/advisory services, capacity building and community outreach activities. In particular, the Bank, jointly with AusAID and ADB, has participated in the programmatic Public Expenditure Review and Rationalization process (FY04-present). The Bank also prepared Country Procurement Assessment Report (FY04), Report on Strategic Directions for Human Development (FY06), Community Driven Development Stocktaking and Roadmap (FY07), and Telecommunications Sector Review (FY07). In April 2007 the Bank also approved a US$37.3 million IDA credit to supplement funding for an earlier project for road maintenance and rehabilitation. In 2006 the Bank, with support from domestic and foreign donors, also organized a Youth Competition Program (Development Marketplace) which attracted a large number of quality development proposals. A second round of the Program was launched in November 2007. The Bank has also been involved in a number of community outreach activities supported by its Global Development Learning Network and Public Information Center.

Following a significant improvement in macroeconomic performance and a number of other areas since the ISN was prepared, the Bank is now strengthening its commitment to PNG. In close consultation with the Government the Bank has prepared a full four-year CAS. The Strategy, expected to be approved by the Bank's Board of Directors in mid-December, 2007, is designed to launch a long-term partnership between the Bank and PNG aimed at supporting sound management of economy and natural resources, and addressing immediate service delivery needs while also building a foundation for tackling longer-term institutional and accountability challenges.

As part of the new CAS, the World Bank is increasing concessional financial resources available to Papua New Guinea and will assist the country to access global and regional grant funds such as Global Environmental Facility. In particular, the CAS envisions up to three

IDA credits per fiscal year totaling US$45 million in FY08 and US$30–32 million per fiscal year thereafter.[2] Within this envelope, the Bank has prepared a Smallholder Agriculture Development Project (US$27.5 million) which is expected to be approved in mid-December, 2007, together with the CAS. Another project, Mining Sector Technical Assistance, is at an advanced state of preparation. The Bank is also expanding the staff of its Port Moresby office. To reaffirm the Bank's commitment to PNG, the country was also visited in November 2007 by the Bank's Regional Vice President for East Asia and Pacific, the most senior Bank staff visit to PNG in recent years.

PNG's debt outstanding to the World Bank as end-November, 2007 stood at US$313.8 million. However, as part of its strategy to reduce the public debt level, the Government of PNG has expressed interest in early repayment of the less concessional part of the debt and selected for early repayment seven IBRD loans totaling around US$56 million. The early repayment of these loans is expected to be completed in early 2008.

The Bank's private sector arm, International Financial Corporation, has also strengthened the level of its engagement in PNG over the past two year. IFC's Private Enterprise Partnership for the Pacific (PEP-Pacific) established a full-time presence in PNG in early 2006, co-located with the World Bank. Since then IFC advisory service activity in PNG has increased considerably, with a focus on access to finance, tourism, the business environment, and infrastructure.

Within these programs PEP-Pacific is working to: improve the capacity of commercial banks to provide credit; increase the availability of finance and financial services for the poor, including investment in PNG Microfinance; assist in building financial infrastructure, including establishment of a credit referral bureau; support a survey of PNG's informal economy to inform development of a national informal sector policy and ultimately enhancing livelihood opportunities for the poor; improve the business environment by working on a sub-set of the Doing Business indicators, in collaboration with the Foreign Investment Advisory Service; strengthen the tourism sector; improve agribusiness production, quality, supply chains and marketing; and explore –jointly with the Bank– opportunities to support growth in the commercial fisheries sector.

The IFC's current investment portfolio in PNG consists of a $1.2 million equity commitment to PNG Microfinance Limited, of which $756 thousand has already been disbursed, giving the IFC a 19 percent shareholding in the bank. The equity investment is supported by a $2 million institutional capacity building program presently under procurement. The IFC has also entered into negotiations with Digicel PNG Ltd on a $40 million line of credit to support the roll-out of its national mobile telephony network. In addition, the IFC is tracking investment opportunities in agribusiness, gas and mining, infrastructure, and forestry.

The Multilateral Investment Guarantee Agency (MIGA) has provided one guarantee in PNG. The guarantee worth US$76.6 million in gross exposure covers a portion of equity

[2] PNG is formally a blend IBRD-IDA country. No immediate IBRD lending to PNG is envisioned.

investment and a loan by a syndicate of commercial lending institutions for the Lihir open-pit gold mine. The guarantee facilitated several hundred million US$ in foreign investment in PNG.

Papua New Guinea: IBRD/IDA Lending Operations
(In millions of U.S. dollars)

Fiscal Year	2000	2001	2002	2003	2004	2005	2006	2007	2008*
Commitments	132.3	0	57.3	0	0	0	0	37.3	0
Disbursements	39.8	11.3	65.1	7.3	7.8	10.9	22.4	20.7	1.4
Undisbursed balance	134.5	114.1	106.4	85.8	77.1	51.1	28.3	45.4	45.9
Debt service	49.9	43.8	39.3	37.7	36.0	32.8	39.8	40.3	19.4

Note: Fiscal year is July–June.
* As of November 30, 2007.

ANNEX IV: PAPUA NEW GUINEA—RELATIONS WITH THE ASIAN DEVELOPMENT BANK[3]

(As of December 2007)

The Asian Development Bank (AsDB) has approved 60 loans to Papua New Guinea (PNG) totaling $1,027 million for 47 projects, of which 26 loans ($558 million) have been extended from ordinary capital resources while 35 loans ($469 million) from special funds resources. The special fund resources were also used for one grant amounting $15 million. In addition, $51.6 million has been provided for 133 technical assistance projects. There are currently 12 active loans involving 9 projects (and one special fund grant-financed project).

The AsDB strategy for PNG (approved in July 2006) and country operations business plan for 2008–2010 (approved in August 2007) are in line with the PNG government's Medium-Term Development Strategy, focusing more on key areas: (i) public financial management, (ii) private sector development, (iii) transport sector, and (iv) health and HIV/AIDS. Reforming public sector enterprises has remained focused. A modest lending is envisaged, reflecting both a tighter focus of the AsDB operations in PNG and the government's wish to continue its successful reduction of overall public debt. In line with the government's commitment to developing its own results-management framework, the AsDB is supporting and adopting the government's performance targets and indicators.

The AsDB's lending to PNG for 2008–2010 is expected to remain a blend from the Asian Development Fund (ADF) and ordinary capital resources (OCR). The indicative cumulative value for 2008–2010 is $262.2 million, comprising the $140 million OCR lending program that includes (i) Highlands Highway Rehabilitation Project ($30.0 million), (ii) Power Sector Project ($10 million), and (iii) PNG Gas Project ($100.0 million) and the $122.5 million ADF lending program that includes (i) Private Sector Development and Governance ($32.5 million), (ii) Power Sector Project ($15 million), (iii) Highlands Highway Rehabilitation ($30.0 million), and (iv) Transport Multi-Tranche Financing Facility ($20 million).

The AsDB's non-lending assistance program envisages annual grant-financed technical assistance about $2 million per year for 2008–2010, totaling of $6 million. Consistent with the Country Strategy and Planning document, non-lending assistance continues to focus on project preparation, strengthening governance, and improving public sector management.

In 2007, a $100 million loan for Lae Port Development Project and a $15 million project for Lae Port Livelihood and Social Improvement (Japan Fund for Poverty Reduction) were approved. In addition, three technical assistance projects totaling $1.9 million were approved for Highlands Highway project, power sector development plan, and support for public expenditure review and rationalization.

Papua New Guinea: Loan Approvals and Disbursements, 2001–2007
(In millions of U.S. dollars)

	2001	2002	2003	2004	2005	2006	2007
Loan approvals	75.9	5.7	0.0	19.0	0.0	53.0	100.0
Loan disbursements	44.7	14.0	13.8	19.2	21.5	29.3	26.0*

*The 2007 disbursement figure will be revised at the end of the year.

[3] Prepared by AsDB staff.

ANNEX V: PAPUA NEW GUINEA—STATISTICAL ISSUES

Data provision for surveillance purposes is generally adequate. However, inadequate coverage and timeliness of key macroeconomic data continues to hinder the conduct of macroeconomic policy. The September 2006 STA multisector statistics mission assessed the institutional arrangements, methodological foundations, and accuracy and reliability of data and found serious shortcomings. Shortcomings in institutional arrangements, insufficient resources, and inadequate priorities have given rise to gaps in the quality of macroeconomic statistics. There are considerable uncertainties about the accuracy and reliability of data on GDP, imports, exports, and price statistics, with very limited coverage of the government finance statistics. The paucity of good source data and methodological shortcomings render estimates of the savings-investment balance, GDP components, and trade balance highly questionable. As a follow-up to the multisector statistics mission, a high level STA mission joined by senior officials of the Australian Bureau of Statistics visited Port Moresby in December 2007 to provide a strategy to substantially improve macroeconomic statistics.

The National Statistical Office (NSO) is underfunded and lacks sufficient staff with computer training. It faces difficulties in obtaining and collating data from businesses and other government departments although it does have the relevant legal power. As a result, the only economic release produced on a somewhat timely basis is the Consumer Price Index (CPI). The Bank of Papua New Guinea (BPNG) and the Department of Treasury produce the most current data. The NSO, with assistance from AusAID, completed data collection for the 2000 Population Census and released preliminary results in July 2001. Papua New Guinea participates in the Pacific Regional General Data Dissemination System (GDDS) Project and was represented at the GDDS workshop held in Suva in November 2002. A GDDS coordinator has been nominated and metadata are being developed prior to formal participation in the GDDS.

In mid-2000, the NSO released a set of national accounts 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 System of National Accounts*. 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 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 GFS—has actually assumed the role of estimating the NA for 2002 to the present.

The NSO currently compiles a new quarterly wholesale price index (which it does not publish) and a CPI. Main deficiencies in the CPI include outdated weights that are based on consumption studies conducted in the mid-1970s and weaknesses in data collection practices. The NSO intends to use the results of the planned Household Income Expenditure Survey

(HIES) to rebase the CPI; however, this has been delayed for a long time. Moreover, technical assistance is needed to computerize the collection and production of the index.

Annual government finance statistics (GFS) reported to STA suffer from insufficient coverage and timeliness. 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 accrual trust accounts are available. While interest payment records are accurate, there are timing issues regarding the recording of interest on discount securities. No data are available for deferred pension liabilities to civil servants, provincial and local government budgets, off-budget outlays and corresponding liabilities, or transfers between the government and a large number of public enterprises. These weaknesses contribute to discrepancies in domestic financing between estimates from monetary and debt data and those derived from fiscal records. The 2006 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. The latest data reported and published in the *GFS Yearbook* and *IFS* are for 1999-2002 and cover only budgetary central government.

Monetary data are now being produced on a regular basis and reporting to STA has improved. Two monetary and financial statistics missions (April 2005 and May 2006) visited Papua New Guinea which 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) prepare the standardized report forms (SRFs) for reporting monetary data of the central bank, other depository corporations (ODCs), and monetary aggregates; and (iv) finalize the integrated monetary database that meets the data needs of the BPNG, STA, and APD. The 2006 multisector statistics mission ensured that the data used and disseminated by the BPNG is in line with the *MFSM*; assisted the authorities in the design of a new call report form to be used by the BPNG to collect balance sheet data from ODCs and other financial corporations (OFCs); and introduced measures to better identify the positions with the central government. The BPNG now reports monetary data for the central bank, ODCs, and monetary aggregates using the SRFs, which are published in *IFS* and the *IFS Supplement on Monetary and Financial Statistics*. The BPNG, in close cooperation with STA, will introduce the new call report form in early 2008. This will permit the compilation of a financial corporations survey, which is very important as the assets of the OFCs (superannuation funds, insurance companies, and other financial intermediaries) represent about 50 percent of the total assets of the financial corporations sector. A follow-up mission is scheduled for end-FY08 to compile the surveys for the OFCs and financial corporations.

Annual balance of payments statistics are reported to the Fund for publication. These data are based on the International Transactions Recording 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. In many cases, donors and lenders disburse funds directly to contractors for the purchase of goods and services, effectively bypassing the ITRS. Therefore, a substantial proportion of current account and capital flows are not recorded. The 2006 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. This will require identifying transactors in the ITRS and intensifying cooperation with Customs to obtain more timely and accurate ASYCUDA data.

PAPUA NEW GUINEA: TABLE OF COMMON INDICATORS REQUIRED FOR SURVEILLANCE
(As of January 5, 2008)

	Date of Latest Observation	Date Received	Frequency of Data[6]	Frequency of Reporting[6]	Frequency of Publication[6]
Exchange rates	01/04/08	01/05/08	D	W	W
International reserve assets and reserve liabilities of the monetary authorities[1]	12/14/07	12/21/07	W	W	Q
Reserve/base money	10/07	12/04/07	M	M	Q
Broad money	10/07	12/04/07	M	M	Q
Central bank balance sheet	10/07	12/04/07	M	M	Q
Consolidated balance sheet of the banking system	10/07	12/04/07	M	M	Q
Interest rates[2]	12/14/07	12/21/07	W	W	Q
Consumer price index	09/07	12/07	Q	Q	Q
Revenue, expenditure, balance and composition of financing[3]—general government[4]	N/A	N/A	N/A	N/A	N/A
Revenue, expenditure, balance and composition of financing[3]—central government	08/07	12/07	M	Q	Q
Stocks of central government and central government-guaranteed debt[5]	09/07	11/07	Q	Q	Q
External current account balance	06/07	09/07	Q	Q	Q
Exports and imports of goods and services	06/07	09/07	Q	Q	Q
GDP/GNI	2006	07/07	A	A	A
Gross external debt	2006	06/07	Q	A	A

[1] Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.
[2] Both market-based and officially determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.
[3] Foreign, domestic bank, and domestic nonbank financing.
[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.
[5] Including currency and maturity composition.
[6] Daily (D), Weekly (W), Monthly (M), Quarterly (Q), Annually (A); Irregular (I); and Not Available (NA).

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IMF Executive Board Concludes 2007 Article IV Consultation with Papua New Guinea

On February 15, 2008, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Papua New Guinea.[1]

Background

Supported by a combination of prudent fiscal and monetary policies and high global prices for key mineral export commodities, Papua New Guinea's growth has accelerated over the past five years with increasing momentum from the nonmineral sector since the recession ended in 2003. Inflation has remained in the low single digits, and international reserves are at a record high.

At the same time, the country has significant underlying vulnerabilities. There has been little improvement in development indicators, and urban unemployment is estimated at around 40 percent. The economy is exposed to commodity price shocks, and mineral production is expected to decline over the medium to longer term. An unattractive investment environment, including weak infrastructure and governance, constrains more rapid and sustained growth of the nonmineral sector. Although Papua New Guinea's recent growth performance is an improvement relative to the past, it is not expected to be sustained and falls short of that

[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.

needed to reduce poverty, raise development, and close the performance gap with respect to comparator countries over time.

Buoyant growth of over 6 percent is estimated for 2007, based on robust mineral and nonmineral growth. The pickup reflects the combination of several one-off factors, including a strong rebound in mineral and agriculture production following drought in 2006, and expansion in telecommunications and mining-related construction. Strong nonmineral activity should continue in 2008, with some easing. Annual average CPI inflation is estimated at under 2 percent in 2007. In 2008, annual average inflation is expected to trend upward toward the middle single digits, with pass-through of rising petroleum prices, some kina depreciation on a nominal effective exchange rate (NEER) basis, and higher demand pressure from increased budget spending.

Large foreign exchange inflows related to buoyant mineral exports boosted official reserves to over $2 billion at end-2007, equivalent to about 5 months of goods and services imports, and kept the current account balance in surplus. The kina continued to appreciate against the U.S. dollar, 7 percent over the year to November. On a nominal and real effective basis, it depreciated by about 4 and 5 percent, respectively, over the year through September.

Overall fiscal surpluses will continue through 2007–08. High mineral revenue inflows, combined with restraint of recurrent costs and implementation capacity constraints, helped boost fiscal savings since 2002 relative to comparators. However, the nonmineral deficit, measured on a cash basis, is now likely to further worsen as mineral revenue eases and spending increases. Positive debt dynamics and some repayment lowered the public debt-to-GDP ratio to about 35 percent at end-2007, down sharply from a peak of 77 percent in 2002.

The financial sector appears sound, based on backward-looking indicators. Reflecting the improved growth prospects and low interest rates, credit growth continues to be strong, though decelerating.

Progress on the structural reform agenda set out under the Medium-Term Development Strategy (MTDS) has stalled over the past year, particularly with respect to public sector reform. Constraints to private activity remain formidable, including unreliable services from basic utilities, poor transportation infrastructure, high crime, low public sector capacity to provide services, unclear licensing and regulation policies, weak human capacity, delays in work-visas, and land tenure issues. For these reasons, foreign and domestic investment outside of the enclave mineral sector is low.

Competitiveness of the nonmineral sector has not improved over the recent period, resulting in little or no increase in nonmineral export volumes. Agricultural exports, the largest share of nonmineral exports, were additionally affected by bad weather in the recent period.

Over the medium term, the outlook is for a return to moderate growth of about 3.5 percent, mainly reflecting the onset of production at new mines. Nonmineral growth is expected to decelerate from current peaks to trend growth rates in the absence of structural reform. Inflation should remain in the middle single digits.

However, macroeconomic vulnerabilities have intensified, in particular, the potential for higher unproductive fiscal spending to raise demand pressures and spur inflation. Additional downside risks include a weaker global economy leading to lower commodity prices, and no action or a reversal of progress on the structural reform agenda. Upside risks include further sustained higher commodity prices, crowding-in of private activity from the increase in public investment, and additional production from existing or new gas and mining projects.

The baseline nonmineral GDP growth rate needs to roughly double over a sustained period to meet the objectives of reduced poverty, significant job creation, and higher development. Given Papua New Guinea's resources, these higher growth rates could be realized if a fiscal-monetary policy mix is pursued that maintains macroeconomic stability, mineral revenues are used productively, and structural reforms are undertaken to remove rigidities constraining private activity so that productivity and investment are raised and sustained.

Executive Board Assessment

Executive Directors commended Papua New Guinea's recent strong economic performance, which reflects a combination of prudent policies and high mineral export prices. Growth has accelerated, inflation has remained low, and external and fiscal vulnerabilities have declined.

While welcoming these achievements, Directors noted that important challenges remain. In particular, conditions need to be created for achieving sustained higher economic growth and putting Papua New Guinea on a solid track to achieve the Millennium Development Goals. Directors encouraged the authorities to continue following an appropriate fiscal-monetary policy mix that would maintain macroeconomic stability, to make productive use of mineral resources, and to accelerate structural reforms in order to remove constraints on non-mineral private-sector activity.

Directors welcomed the generally prudent fiscal policies followed in recent years. They commended the one-off spending increases that have been undertaken to meet infrastructure and social development needs in line with the Medium Term Development Strategy, and the prepayment of public debt. At the same time, Directors stressed that the authorities need to give careful thought to the scale of fiscal expansion over the medium term, given absorptive and administrative capacity constraints and the projected downturn in mineral revenue. They welcomed the authorities' plans to improve expenditure management capacity at the subnational level, and underscored the importance of focusing expenditure on the Medium Term Development Strategy priorities.

Directors encouraged approval of the proposed new Medium-Term Fiscal Strategy, which appropriately focuses on maintaining a stable and sustainable non-mineral fiscal balance. They welcomed the government's debt strategy and the intention to contract new debt only on concessional terms. Directors encouraged the authorities to reinvigorate public sector reforms, particularly measures to improve transparency and accountability, notably with respect to trust funds, publication of audited central government accounts, and public administration. They welcomed recent initiatives to limit tax exemptions and encouraged a resumption of the right-sizing initiative.

Directors considered the current stance of monetary policy to be appropriate, given its success in maintaining low inflation. With the risk of price pressures building from additional fiscal stimulus, Directors welcomed the authorities' readiness to tighten monetary policy as needed, while noting that a tighter fiscal stance may have to contribute to keeping inflation in check. Directors considered that the current managed floating exchange rate policy, which has allowed some reserve build up while protecting competitiveness, is appropriate. They noted the assessment that the level of the exchange rate is broadly in line with fundamentals, and agreed that greater exchange rate flexibility will be needed should sustained pressures emerge.

Directors welcomed the indications that Papua New Guinea's financial sector remains sound. They looked forward to steps to further deepen financial intermediation, strengthen supervision and regulation, and remove institutional rigidities such as weak enforcement of creditor rights and contracts. They also encouraged the authorities to follow through on their stated intention to request a Financial Sector Assessment Program. Regarding the recently-revived Development Bank, Directors recommended that its lending activities be based on proper credit evaluation without political interference.

Directors encouraged the authorities to accelerate structural reform and improve infrastructure. This will be crucial to enhance the investment environment and the competitiveness of the non-mining sectors of the economy, and ultimately to diversify the economic base. Directors highlighted, in particular, the need to strengthen the transportation, communication and power infrastructure, the legal and institutional framework, labor skills and education, and governance. They also noted the improvements in service provision and efficiency that would result from further opening the state-owned enterprise sector to competition.

Directors welcomed the authorities' intention to accelerate efforts to strengthen the quality and timeliness of macroeconomic statistics. They encouraged the authorities to take the steps needed to trigger implementation of the multi-donor technical assistance plan.

Public Information Notices (PINs) form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case. The staff report (use the free Adobe Acrobat Reader to view this pdf file) for the 2007 Article IV Consultation with Papua New Guinea is also available.

Papua New Guinea: Selected Economic Indicators, 2003–07

	2003	2004	2005	2006	2007 Est.
Real sector (percent change)					
Real GDP growth	2.2	2.7	3.4	2.6	6.2
Mineral	2.8	0.3	5.0	-5.9	4.1
Nonmineral	2.1	3.1	3.1	3.7	6.5
CPI (annual average)	14.7	2.1	1.7	2.3	1.7
Central government budget (percent of GDP)					
Revenue and grants	29.2	34.1	34.8	36.9	37.8
Expenditure and net lending	30.3	32.4	31.1	30.1	31.8
Overall balance, cash basis (including grants) 1/	-1.8	0.0	3.8	5.7	6.0
Domestic financing (net) 2/	4.0	1.8	-2.7	-4.3	-3.8
Of which: Banking system	-0.9	0.3	-1.2	-1.8	-3.9
External financing (net)	-2.1	-1.8	-1.1	-1.3	-2.1
Money and credit (end-period percentage change)					
Domestic credit	-7.1	0.7	8.6	19.4	3.7
Net credit to government	-8.3	3.2	-13.9	-13.3	-75.3
Credit to the private sector	-4.1	0.9	23.7	38.2	29.7
Broad money	-4.4	14.8	29.5	38.9	24.7
Interest rate (182-day T-bills, period average) 3/	18.7	3.1	3.8	3.4	4.1
Balance of payments (in millions of U.S. dollars)					
Exports, f.o.b.	2,153	2,554	3,278	4,205	4,994
Imports, c.i.f.	-1,435	-1,794	-2,462	-2,805	-3,346
Current account (including grants)	159	88	207	163	262
(In percent of GDP)	4.5	2.2	4.2	2.9	4.3
Overall balance	187	206	161	662	673
Reserves and external debt (end-period, in millions of U.S. dollars)					
Net international reserves	399	599	765	1,427	2,100
(In months of nonmining imports, c.i.f.)	4.3	5.5	5.2	8.5	11.1
(In months of goods and services imports)	2.1	2.6	2.4	3.8	4.7
Public external debt-to-GDP ratio (in percent) 4/	42.9	36.8	25.8	21.2	17.8
Public external debt-service ratio (percent of GNFS)	7.5	8.7	6.0	3.5	4.0
Exchange rates 3/					
US$/kina (period average)	0.2814	0.3104	0.3224	0.3272	0.3332
US$/kina (end-period)	0.3000	0.3200	0.3230	0.3300	0.3400
Nominal GDP (millions of kina)	12,567	12,652	15,263	17,051	18,551

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

1/ Measured from below the line in the fiscal accounts.
2/ Includes changes in check float.
3/ Figures for 2007 are as of September.
4/ Includes central government, central bank external debt, and statutory authorities.