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# PAPUA NEW GUINEA

November 2015

2015 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR PAPUA NEW GUINEA

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2015 Article IV consultation with Papua New Guinea, the following documents have been released and are included in this package:

- A **Press Release** summarizing the views of the Executive Board as expressed during its October 30, 2015 consideration of the staff report that concluded the Article IV consultation with Papua New Guinea.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on October 30, 2015, following discussions that ended on August 21, 2015 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 October 8, 2015.
- An Informational Annex prepared by the IMF staff.
- A **Debt Sustainability Analysis** prepared by the staffs of the IMF and the World Bank.
- A Staff Statement updating information on recent developments.
- A Statement by the Executive Director for Papua New Guinea.

The documents listed below has been separately released.

Selected Issues

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## International Monetary Fund Washington, D.C.



Press Release No. 15/526 FOR IMMEDIATE RELEASE November 18, 2015 International Monetary Fund 700 19<sup>th</sup> Street, NW Washington, D. C. 20431 USA

## IMF Executive Board Concludes 2015 Article IV Consultation with Papua New Guinea

On October 30, the Executive Board of the International Monetary Fund (IMF) concluded the 2015 Article IV consultation<sup>1</sup> with Papua New Guinea.

Papua New Guinea is facing strong headwinds from lower global commodity prices. While the commencement of liquefied natural gas (LNG) production has boosted overall GDP growth in 2014–15, the slow growth of the non-resource sector calls for a renewed policy focus on inclusive growth in the post-LNG construction period. Falling commodity prices and temporary suspension of a large mining operation have lowered government revenue prospects substantially, reducing the country's fiscal space and leading to an increase in government debt, which is likely to exceed the legislated targets in 2015.

With LNG production and exports now coming on stream, resource sector growth is projected to expand strongly in 2015 but spillovers to the rest of the economy may be limited. Inflation remains contained, as the effects of the kina depreciation are offset by lower oil and commodity prices. Meanwhile, the current account balance is expected to turn into a surplus as the LNG plant has its first full year of operation. Nevertheless, lower commodity prices and a reduction in LNG project-related capital inflows have led to depreciation pressure on the kina since mid-2013. In early June 2014, the Bank of Papua New Guinea (BPNG) introduced measures to require authorized dealers to transact with their customers within a trading band of 150 basis

<sup>&</sup>lt;sup>1</sup> 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.

points around the official (interbank) exchange rate. This move caused a large *de facto* currency appreciation. Since then, the kina has depreciated vis-à-vis the U.S. dollar.

Risks to the outlook are increasingly skewed to the downside. Fiscal consolidation necessitated by weaker-than-anticipated revenue performance will dampen non-resource growth over the short run, and a weak global economy could further dampen external demand and commodity prices. Over the longer term, LNG developments in Australia and shale gas developments around the world could continue to put downward pressure on LNG prices and government revenue. Global financial market instability could also affect prospects for external commercial financing or foreign direct investment. Upside risks include the potential for a second LNG project, further mineral resource development, and scope for increasing trade with Asia.

## **Executive Board Assessment**<sup>2</sup>

Executive Directors commended the authorities for achieving impressive economic growth in recent years. While growth remains robust this year, the sharp drop in commodity prices and slowing growth in non-resource sectors has adversely affected fiscal and external sector performance and poses challenges going forward. Against this background, Directors stressed the need to maintain prudent macroeconomic policies to ensure debt sustainability and safeguard the external position. They also encouraged prompt implementation of structural reforms to diversify the economy, boost growth potential, and promote inclusiveness in the longer run.

Directors agreed that strong fiscal consolidation is needed to keep the government debt-to-GDP ratio on a downward trajectory over the medium term, while safeguarding key social outlays. They stressed the importance of strengthening expenditure prioritization and public financial management, as well as developing a medium-term debt management strategy. Directors also welcomed the government's efforts to set up a Sovereign Wealth Fund and supported their plans to make the fund operational soon. They emphasized the need to channel resource revenues from the fund through the budget to ensure transparency and accountability.

<sup>&</sup>lt;sup>2</sup> At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: <u>http://www.imf.org/external/np/sec/misc/qualifiers.htm</u>.

Directors called for greater exchange rate flexibility, and generally saw scope for further depreciation, to safeguard external buffers and eliminate imbalances in the foreign exchange market, supported by appropriately tight fiscal and monetary policies. They agreed that the exchange rate should be allowed to move more quickly to a market-clearing rate, and that the authorities should mop up excess liquidity to strengthen monetary policy effectiveness.

Directors underscored the importance of decisive implementation of structural reforms to boost medium-term growth prospects. Priorities include improving infrastructure and law and order, investing in health and education, strengthening the agricultural and small- and medium-size enterprise sectors and their access to finance, increasing competition in the banking sector, and reducing business costs. It will also be important to accelerate the reform of state-owned enterprises. Directors welcomed the progress made on anti-money laundering and combating the financing of terrorism (AML/CFT) legislation and encouraged its timely implementation.

Directors welcomed the recent progress to improve statistics, and called for further efforts to enhance institutional capacity.

Selected Economic and Financial Indicators, 2011–16

Nominal GDP (2014):	US\$16.8 billion 1/
Population (2014):	7.5 million
GDP per capita (2014):	US\$2,232
Quota:	SDR 131.6 million

Real sector	2011	2012	2013	2014	2015	2016	
Real sector							
Real sector				Est.	Pr	oj.	
Real sector		(P	ercentage	e change)			
	107	0.1		0.5	0.0	2.1	
Real GDP growth	10.7	8.1	5.5	8.5	9.0	3.1	
Resource 2/	-11.8	-7.4	7.2	134.2	60.2	0.1	
Nonresource	12.8	9.2	5.4	0.7	1.5	3.8	
CPI (annual average)	4.4	4.5	5.0	5.3	6.0	6.0	
CPI (end-period)	4.4	5.8	2.9	6.3	6.0	6.0	
Control government exerctions		(1	n percent	of GDP)			
Central government operations	20.4	20.2	20.2	27.2	247	25.2	
Revenue and grants	30.4	29.2	28.2	27.3	24.7	25.7	
<i>Of which</i> : Resource revenue	7.4	3.4	1.9	3.1	1.4	1.9	
Expenditure and net lending	28.7	32.4	36.1	34.5	32.3	31.2	
Net lending(+)/borrowing(-) [Overall balance] (Revenue - expenditure)	1.7	-3.2	-8.0	-7.2	-7.6	-5.5	
Nonresource net lending(+)/borrowing(-)	-5.7	-6.6	-9.9	-10.3	-9.0	-7.4	
		(P	ercentage	e change)			
Money and credit (percentage change)							
Domestic credit	-5.2	37.7	40.9	23.5	11.6	12.5	
Credit to the private sector	7.9	12.1	17.5	3.5	8.0	11.2	
Broad money	17.3	10.9	6.7	3.4	9.9	6.7	
Interest rate (182-day Treasury bills; period average)	4.3	5.8	5.0	5.1	6.7	7.0	
	(In billions of U.S. dollars)						
Balance of payments							
Exports, f.o.b.	6.9	6.3	5.4	7.4	9.2	9.2	
<i>Of which</i> : Resource	4.9	4.5	3.8	5.4	6.9	6.9	
Imports, c.i.f.	-6.3	-7.7	-5.5	-4.4	-4.5	-4.8	
Current account (including grants)	-3.0	-8.2	-4.9	-0.7	0.8	0.7	
(In percent of GDP)	-23.6	-53.6	-31.8	-4.2	4.6	3.8	
Gross official international reserves	4.3	4.0	2.8	2.3	2.1	2.2	
(In months of goods and services imports)	4.1	5.0	4.3	3.6	3.1	3.3	
		(1	n percent	of GDP)			
Government debt							
Government gross debt	23.0	26.7	34.0	35.6	39.4	41.1	
External debt-to-GDP ratio (in percent) 3/	8.3	7.3	8.1	8.7	12.4	13.1	
External debt-service ratio (percent of exports) 3/	1.3	1.5	1.5	1.5	0.9	3.1	
Exchange rates							
US\$/kina (end-period)	0.4665	0.4755	0.4130	0.3938			
NEER (2005=100, end-period)	107.8	124.6	120.6	114.2			
REER (2005=100, end-period)	108.7	128.1	126.9	123.5			
Terms of trade (2010=100, end-period)	118.0	114.7	103.0	110.9	129.1	125.3	
Nominal GDP (in billions of kina)	30.5	32.1	34.6	41.7	45.3	48.3	
Nonresource nominal GDP (in billions of kina)	24.9	27.5	30.0	31.9	34.3	37.4	

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

1/ Based on period average exchange rate.

2/ Resource sector includes production of mineral, petroleum, and gas and directly related activities such as mining and quarrying, but excludes indirectly related activities such as transportation and construction.

3/ Public external debt includes external debt of the central government, the central bank, and statutory authorities.



# PAPUA NEW GUINEA

## **STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION**

October 8, 2015

## **KEY ISSUES**

### **Context: Facing headwinds from lower commodity prices**

 Despite strong growth relating to a large liquefied natural gas (LNG) project, Papua New Guinea (PNG) faces strong headwinds from severe revenue shortfalls due to lower global commodity prices and temporary suspension of a large mining operation.

### Policy agenda: Maintaining macroeconomic stability by...

### ... a measured but ambitious medium-term fiscal consolidation path...

 Given the large drop in government revenues, decisive consolidation will be needed to keep the government debt-to-GDP ratio on a downward trajectory over the medium term. To this end, expenditure growth should slow and budget resources should focus on high-impact spending, while safeguarding social outlays.

### ... measures to reduce excess liquidity...

- In the near term, given the challenging fiscal environment, excess liquidity needs to be mopped up to increase the effectiveness of monetary policy transmission, and dampen downward pressures on the kina.
- ... and greater exchange rate flexibility...
- Although the kina has depreciated by 16 percent vis-à-vis the U.S. dollar since June 2014 when Bank of Papua New Guinea (BPNG) brought the market rates within a trading band around the official rate, there is still excess demand for foreign exchange (FX). The kina exchange rate should be allowed to depreciate more quickly to a market clearing level, supported by appropriate fiscal and monetary policy adjustment.

### ... while laying the basis for inclusive growth

 A strong non-resource sector will be crucial for inclusive growth in PNG. Key reform elements for inclusive growth include continued investment in health and education, improvement in infrastructure, law and order, and macroeconomic statistics, increased productivity in the agricultural sector, financial development and inclusion, and strengthening of public financial management (PFM).

## Approved By Hoe Ee Khor and Steven Barnett

Discussions took place in Port Moresby during August 9-21, 2015. The staff team comprised Clinton Shiells (head), Kazuaki Washimi, Shelvin Karan (both APD), and Henry Mooney (FIN). Mr. Sterland (Executive Director), Mr. South (OED), and staff from the World Bank and the ADB joined the discussions. Leni Hunter (APD) assisted from HQ.

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## CONTEXT

1. PNG has abundant resources including agriculture, cultural diversity, fisheries, forestry, minerals, and petroleum/LNG. Despite a series of mineral and petroleum/LNG discoveries since independence in 1975 that have provided the main growth drivers, PNG remains one of the lowest income countries in the region. Moreover, growth has been volatile over the past decade, reflecting the pace of new discoveries and fluctuations in international commodity prices. While the commencement of LNG production boosted overall GDP growth in 2014-15, slow growth outside of the mineral and petroleum/LNG sectors calls for a renewed policy focus on economic transformation through developing PNG's many renewable resources and non-resource industries while continuing to tap its non-renewable resources in an environmentally sustainable manner that benefits the entire population.

2. Lack of access to finance is a key constraint on inclusive growth, in tandem with poor infrastructure and chronic law and order problems. PNG is among the least-banked countries in the region, despite the fact that systemic liquidity is ample, and banks and other financial intermediaries are seeking alternatives to public sector financing given their large exposures to government debt. While there has been good progress with mobile banking, very little bank credit is allocated to rural businesses and households. Factors contributing to limited financial access include the country's level of income and economic development, relatively-skewed income distribution, lack of competition in the banking sector, weak contract enforcement, customary land ownership that impedes the use of land as collateral, large rural population with limited access to urban centers and banking services, and the large informal sector.

3. Falling commodity prices and the temporary suspension of a large mining operation pose challenges for macroeconomic management in the near term. Revenue prospects have worsened significantly relative to the 2015 budget. A comprehensive policy response to these and related shocks is urgently needed that allows for a measured but ambitious medium-term fiscal consolidation path to safeguard fiscal sustainability, improved cash and treasury management practices, measures to reduce excess liquidity, and greater exchange rate flexibility. Although PNG's medium-term external position looks favorable given the large projected LNG earnings and prospective new mineral and LNG projects, BPNG should allow the kina to move more quickly to restore equilibrium in the FX market and maintain an adequate level of international reserves.

**4. Political setting.** The political situation is stable, with the coalition government representing almost all members of parliament. Governance reforms present an ongoing challenge. The next general election is scheduled to be held in 2017.

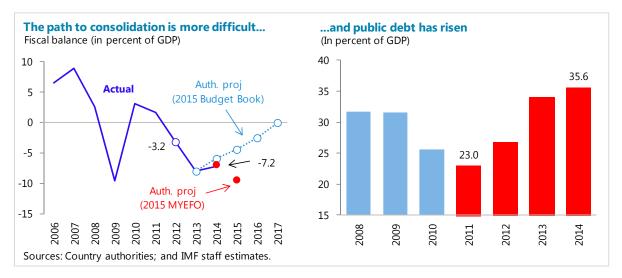
## **RECENT DEVELOPMENTS, OUTLOOK AND RISKS**

## A. Recent Developments

**5. Growth is robust and inflation remains contained**. Real GDP is expected to expand strongly by about 9 percent in 2015, reflecting mostly the coming on stream of LNG production (Box 1) and notwithstanding temporary closure of a large copper and gold mine (OK Tedi). Non-resource GDP is likely to grow by 1½ percent this year and by about 3½ percent in 2016 with agriculture and construction dampened by unfavorable weather conditions and lower government spending, respectively. CPI inflation is projected to stabilize at around 6 percent in 2015, as the effects of lower oil and commodity prices are offset by the kina depreciation.

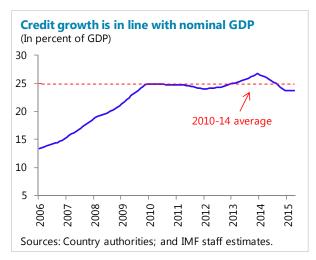
6. The external current account balance is expected to turn into a surplus while international reserves remain below the staff's assessment of reserve adequacy. The current account is expected to turn from deficit to surplus in 2015 as the LNG plant has its first full year of operation, while the overall balance of payments is expected to be near zero including since most commodity export receipts are kept offshore. Gross international reserves are projected to remain at around \$2 billion in 2015 (equivalent to 3 months of total goods and nonfactor services imports) and to strengthen modestly over the medium term.

7. Fiscal consolidation has become more difficult and the public debt to GDP ratio is rising, albeit from a low level. The Mid-Year Economic and Fiscal Outlook (MYEFO) released in early August projected a K 2.5 billion revenue shortfall in 2015 (equivalent to 5.5 percent of GDP) compared to the K 1.3 billion shortfall expected in the budget. Non-resource revenues are also expected to be lower mainly due to the second round effects of lower commodity prices on the broader economy. Staff estimates that medium-term fiscal targets (i.e., a balanced budget by 2017 and debt-to-GDP ratio of below 30 percent by 2016 as envisaged in the Medium-Term Fiscal Strategy (MTFS)) are no longer feasible. Public debt has increased from 23 to 36 percent of GDP



during 2011-14, as a result of a large expansion of the fiscal deficit, from 3.2 percent in 2012 to 7.2 percent of GDP in 2014. The non-resource primary balance (NRPB) also widened over this period.

8. There are no signs of a generalized credit boom. Overall credit growth has continued at a moderate pace, broadly in line with nominal GDP growth since 2010. Commercial banks have solid capital buffers and the ratio of NPLs to total loans remains low. Nevertheless, PNG's ratio of domestic private credit to GDP was well below the average for countries at a similar level of development in the region and elsewhere (e.g., Pacific Island small states with 63 percent). Other indicators also point to low levels of financial development and access to finance (see Selected Issues Paper on financial inclusion).



## **B. Outlook and Risks**

**9.** Medium-term growth is expected to converge to about 3 percent, supported by agriculture and preparations for the hosting of APEC 2018. The government plans to spend K 3 billion over 2015-18 on the preparations for APEC 2018 (e.g., upgrading the airport). Thus, 2018 will see a winding down of construction activity, with overall growth projected to slow down to 1<sup>1</sup>/<sub>2</sub> percent in 2018 and stabilize at 3 percent over the longer term.<sup>1</sup> Inflation is expected to stabilize at around 5 percent, which is in line with its ten-year historical average, as imported price inflation remains stable and domestic agricultural supply continues to expand.

**10. Risks to the outlook are increasingly skewed to the downside.** Fiscal consolidation necessitated by weaker-than-anticipated revenue performance will dampen non-resource growth over the short run, and a weak global economy could further dampen external demand and commodity prices. Over the longer term, LNG developments in Australia and shale gas developments around the world could continue to put downward pressure on LNG prices and government revenue. Global financial market instability could also affect prospects for external commercial financing or foreign direct investment. Upside risks include the potential for a second LNG project, further mineral resource development, and scope for increasing trade with Asia. The mission stressed that the prospect of new mineral and LNG projects should not divert attention from the need to tighten fiscal and monetary policy now and allow for greater exchange rate flexibility.

**11. Authorities' views**. The authorities broadly concurred with the outlook. They noted that the longer-lasting drought caused by El Niño could prolong a temporary mine closure and worsen a

<sup>&</sup>lt;sup>1</sup> The historical average for the last 20 years is around 3 percent for total real GDP growth and 4 percent for non-resource real GDP growth.

poor harvest of crops. They placed somewhat greater emphasis than the staff on an upside to growth from a number of prospective extractive sector projects, including a second LNG project and several major gold-copper projects, over the longer term.

## **POLICY DISCUSSIONS**

**12.** Discussions centered on the policies needed to maintain macroeconomic stability in the near term and raise growth in the medium term. The staff's view is that this will require a measured but ambitious medium-term fiscal consolidation path, measures to reduce excess liquidity and tighten monetary policy, and greater exchange rate flexibility. In the medium term, structural reforms are necessary to improve financial deepening and resilience and boost inclusive growth.

## A. Maintaining Macroeconomic Stability

#### **Fiscal Policy**

13. The mission strongly encouraged the authorities to adopt a more ambitious package of fiscal measures. The baseline shows that the authorities' plan to cut expenditures by K 1.3 billion in 2015 would still yield an increase in the debt-to-GDP ratio (from 36 to 45 percent) over the medium term despite lower fiscal deficits from 2016-20 (see the text chart below). Staff encouraged the authorities to limit debt to 35 percent of GDP by 2020, as specified in the staff's alternative adjustment scenario, which would require a more ambitious set of measures totaling K 2.0 billion in 2015 and lower deficits relative to the baseline by 1 percent of GDP in 2016, and by about 2 percent of GDP from 2017 through 2019. The under-execution of expenditure suggests there is room for cuts and reprioritization. This more ambitious set of measures aims to balance the need for stronger fiscal consolidation to ensure debt sustainability with the need to avoid an overly contractionary fiscal stance and protect vulnerable groups. Given the inherent volatility of resource GDP and revenue,<sup>2</sup> the mission encouraged the authorities to consider using the NRPB as an underlying fiscal target. Use of the NRPB as a policy target can help insulate fiscal policy from resource revenue volatility and help capture the underlying fiscal policy stance, while using the overall balance as a fiscal target tends to promote pro-cyclical spending.<sup>3</sup>

## 14. A multi-pronged approach, including strengthening revenue performance and curbing low-impact expenditures, is needed to address the immediate fiscal pressures.

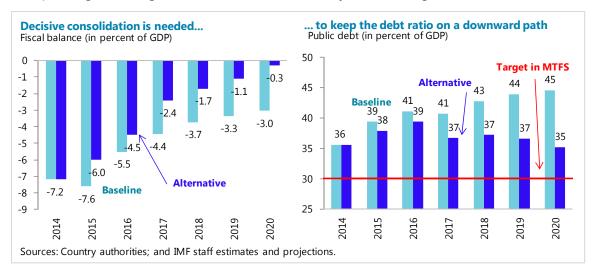
• **Revenue measures.** Staff would encourage the authorities to adopt measures to strengthen revenue collection, including by suspending the Infrastructure Tax Credit until the Internal

<sup>&</sup>lt;sup>2</sup> Box 2 considers the effects of an additional 20 percent decline in commodity prices on the external and fiscal positions.

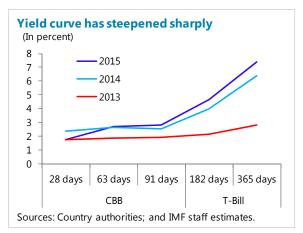
<sup>&</sup>lt;sup>3</sup> See IMF (2012) "Macroeconomic Policy Frameworks for Resource-Rich Developing Countries." For example, the NRPB identifies the impact of government operations on domestic demand, since resource revenues typically originate abroad. A higher non-resource primary deficit would indicate an expansionary fiscal stance.

Revenue Commission (IRC) makes recommendations based on an audit of the scheme, and other measures recommended by the Tax Review Committee.<sup>4</sup> Revenue measures would, however, likely yield significant additional revenue only starting in 2016.

Expenditure cuts. The bulk of the fiscal adjustment will have to come from reductions and reprioritizations of expenditure. The staff's adjustment scenario requires a net expenditure reduction of about K 2.0 billion in 2015 (about 30 percent from goods and services and 70 percent from low-impact capital expenditures), and continued spending restraint in subsequent years, while focusing on improving the quality of spending (see the Selected Issues Paper on structural reforms for discussion of government spending inefficiencies). Care should be taken to ensure that consolidation does not affect high priority social spending, including in health, education, law and justice, and agriculture.



**15. A sound framework for budgetary financing needs to be put in place**. Identifying sufficient financing in 2015 is expected to be challenging, as planned asset sales are likely to be delayed due to complications associated with asset pricing, financing options, and negotiations with the large group of landowners. Given that the banks and superannuation funds have mostly reached their internal limits on sovereign exposure, there is limited appetite for holding additional government securities, which has led to a sharp rise in T-bill yields. Announcement of a



<sup>&</sup>lt;sup>4</sup> The Tax Review Committee is currently recommending: (1) an increase of the goods and services tax rate from 10 percent to 15 percent; (2) raising the income tax threshold from K 10,000 to K 15,000; while (3) reducing the corporate income tax rate from 30 percent to 25 percent. They are also reviewing mining and petroleum taxes in line with IMF technical assistance.

suitably ambitious fiscal adjustment plan at an early date would be important to bolster market confidence, particularly given rising financing needs and a planned debut US\$1 billion sovereign Eurobond placement in the coming months. In this context, it will also be important to put in place a Medium-Term Debt Management Strategy (MTDS) to increase the efficiency of financing and minimize the costs and risks associated with new external funding options. The central bank should refrain from providing direct financing to the government. An updated Debt Sustainability Analysis (DSA) indicates that PNG's risk of external debt distress remains low. However, there has been a significant increase in overall public debt, which amounts to about 56 percent of GDP once arrears to a superannuation fund and other liabilities are taken into account.<sup>5</sup>

#### 16. Stronger PFM is needed to improve the quality of spending and development

**outcomes.** Implementing further reforms identified in the recent Public Expenditure and Financial Accountability (PEFA) assessment, including improving cash management and the Integrated Financial Management System (IFMS) rollout, will be important to support the authorities' fiscal consolidation, building upon the recent publication of the PEFA document and the final roadmap. SOE reform is also needed to minimize fiscal risk and enhance transparency and governance. For example, the return on equity (ROE) averaged 10.5 percent between 2003 and 2007, but fell to 3.4 percent in 2007–12, outperformed by regional peers. Sustained political commitment is needed to improve the efficiency of SOEs by placing them on a sound commercial footing and ensuring adequate and timely disclosure and transparency.

#### 17. It is important to ensure that the proposed Sovereign Wealth Fund (SWF) is

**adequately resourced and effectively managed.** The final stage of the legislation has been approved by the Cabinet. Ensuring that all resource revenues flow through the budget will help to improve transparency and better target national priorities for resource revenue use. The Kumul Trust, which will consolidate the PNG government's interests in petroleum, mining, and other stateowned enterprises, under three holding companies, should be designed to ensure that transparency and efficiency of public investment are enhanced, with governance structures that can support the achievement of stated corporate goals. Continued commitment to implementing the Extractive Industry Transparency Initiative (EITI) will also be important.

**18. Authorities' views**. The authorities concurred with the need for ambitious fiscal consolidation while avoiding cuts in key priority areas such as infrastructure, health and education, and law and order. They acknowledged the importance of agreeing and communicating the budget adjustment measures ahead of the Eurobond issuance to reassure potential investors. For 2015, they will consider postponement of some lower-priority projects. The authorities reiterated commitment to adhering to the Santiago Principles in the operation of the SWF, while noting that little resource revenue would be saved in the near term owing to PNG's huge development needs. They will also

<sup>&</sup>lt;sup>5</sup> This includes the arrears to a superannuation fund (6.5 percent of GDP), SOE debt (7.5 percent of GDP), and the UBS loan (6.8 percent of GDP).

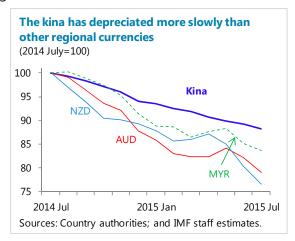
consider IMF technical assistance to support development of a MTDS that will help to provide a sound framework for future financing.

#### **Monetary Policy and Exchange Rate**

#### 19. The kina exchange rate should be allowed to move more quickly to a market clearing

**level.** FX queues have reportedly increased despite the slow but steady depreciation of the kina visà-vis the U.S. dollar since the trading band was introduced in June 2014, amid reports that BPNG has intervened in the FX market. The restricted range of USD/kina movement resulted in a change in the *de facto* exchange rate regime classification, from floating to a crawl-like arrangement, effective April 2014. The mission stressed that the slow pace of depreciation would prolong the market imbalance, giving rise to the potential for costly disruptions to business activities. Given that the currencies of other commodity exporters had depreciated more against the U.S. dollar than the kina, the mission

stressed that the kina should be allowed to depreciate more quickly to a level that would clear the FX market. This would also help restore the external competitiveness of non-resource exports, and is consistent with limited balance sheet currency mismatches. Should inflationary pressures arise from exchange rate pass-through, BPNG should tighten monetary policy. The mission also supported BPNG's intention to maintain an adequate level of international reserves. Staff agreed that the FX trading band could be maintained in the near term to help avoid a sharp



widening of bid/ask spreads. Over time, however, a plan should be developed to improve the efficiency and transparency of the FX market, drawing upon follow-up IMF TA, and underpinned by sound fiscal and monetary policies. It should be noted in this context that the medium-term, real effective exchange rate (REER) assessment produced mixed results (Box 3), while PNG's external position is expected to strengthen as LNG exports increase over the medium term. PNG maintains an exchange restriction subject to IMF approval under Article VIII, Section 2(a) of the IMF's Articles of Agreement arising from the requirement to obtain a tax clearance certificate evidencing the payment of all taxes prior to making payments or transfers for certain current international transactions.

20. The mission advised the authorities to mop up excess liquidity to increase the effectiveness of monetary policy transmission, tighten the monetary stance, and dampen downward pressures on the kina. It also advised the government to support BPNG's efforts to deploy effective monetary policy tools including by maintaining a tighter fiscal stance and avoiding recourse to central bank financing. In the near term, given the challenging fiscal environment, BPNG was advised to focus on withdrawing excess liquidity, including by increasing the cash reserve requirement (CRR), encouraging the transfer of government balances from commercial bank accounts to BPNG, and stepping up the use of open market operations. Staff also encouraged BPNG

to establish an interbank interest rate corridor as recommended by recent IMF technical assistance. As noted below, commercial banks are highly liquid, have sound capital positions, and are among the most profitable in the world. In this context, banks are in a strong position to adapt to reduced liquidity and a more rapid depreciation of the kina exchange rate in line with market forces without significant adverse balance sheet effects. Accordingly, staff does not anticipate that significant real sector effects would result from monetary tightening, particularly given the massive expansion in LNG production this year. Staff also advised BPNG to refrain from providing any direct financing to the government to safeguard its independence and operational effectiveness, and help maintain macroeconomic stability.

21. Authorities' views. The authorities emphasized that the USD/kina rate was market determined and that the market, not BPNG, was keeping the rate at its current level. Import payments were not, in their view, being unduly delayed as reflected in the absence of importer bankruptcies. They stressed the need to avoid undue exchange rate volatility and high bid/ask spreads. They also emphasized past experience has shown that a faster pace of depreciation may not necessarily have the desired results of stimulating FX supply and clearing the market, and would be inflationary as PNG is heavily reliant on imports. The authorities acknowledged that excess liquidity inhibits the monetary transmission mechanism while noting that, thus far, inflationary pressures had remained contained despite persistent excess liquidity. They agreed that suitablytight monetary and fiscal policies were a precondition for the proper functioning of any FX market. BPNG nevertheless reiterated its request for follow-up IMF TA regarding its participation in the FX market, and will work on clarifying its focus. It stands ready to absorb excess liquidity and tighten monetary policy should inflationary pressures intensify. BPNG also reiterated its intention to avoid any direct financing of the government budget deficit. It saw no need to reform the Central Banking Act or to strengthen its balance sheet, given that negative capital was largely attributable to valuation losses on international reserves driven by the rapid appreciation of the kina in 2011-12. BPNG's balance sheet has improved following the depreciation of the kina and a partial recapitalization of BPNG by the government using non-tradable securities.

#### **Financial Sector**

**22.** The mission stressed that BPNG should remain vigilant to emerging sector-specific risks. PNG's financial system appears robust given strong indicators of bank capital adequacy, asset quality, liquidity, and profitability. Looking forward, BPNG, banks, and superannuation funds should carefully consider the potential impact of lower government spending and the temporary suspension of a large mining operation for assets exposed to affected sectors, including real estate, transport and logistics.

**23.** Going forward, macroprudential policies should play an important role by limiting any buildup of systemic vulnerabilities. BPNG should continue to move forward to enhance the function of a macroprudential policy division, which is in the process of being established, and set up a comprehensive database including sectoral loan data and household and corporate debt measures.

**24.** The authorities are encouraged to continue strengthening the AML/CFT regime. Key legislation aimed at improving compliance with international standards for AML/CFT has been passed, which could facilitate removal from the Financial Action Task Force's (FATF's) gray list. They should continue to implement AML/CFT tools effectively to address risks of politically exposed persons and ensure robust domestic and international cooperation on AML/CFT matters.

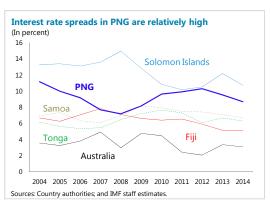
**25. Authorities' views.** The authorities pointed out that commercial banks' balance sheets and future earnings prospects are strong. They saw banks' exposure to the construction sector through lending as a potential systemic risk, but thus far, NPLs have remained low and have not increased. They reiterated their commitment to further strengthening monitoring of potential systemic risks and implementing the legislation relating to AML/CFT.

## **B.** Promoting Financial Sector Development and Resilience

**26.** Structural improvements in the financial sector will be important to enhance resilience to shocks and access to finance. As enumerated above, PNG suffers from a number of structural barriers to improving financial access and development that have impeded growth and hampered new investment.

27. To promote financial development, greater efforts are required to, *inter alia*, address the lack of competition, facilitate development of the capital market, and improve the functioning of the FX market. Lack of competition for financial services impedes access to finance and economic diversification. For instance, small farmers and agribusiness entrepreneurs are facing credit constraints to scale up their business and invest in new processing capacity that is critical to achieving yield and quality improvements. Underdeveloped capital markets limit the sources of financing for government, enterprises, and individuals, while a shallow and inefficient FX market distorts the expectations and commercial behavior of market participants, and constrains the role of the exchange rate as a shock absorber.

 Lack of competition. Three large banks (two Australian banks and one domestic bank) play a dominant role in providing credit to the economy. Wide interest rate spreads in PNG are associated with the oligopolistic nature of the banking system, while also reflecting the costs and risks of doing business.<sup>6</sup> Similarly, a lack of competition can lead to relatively high levels of profitability,<sup>7</sup> which can limit incentives for



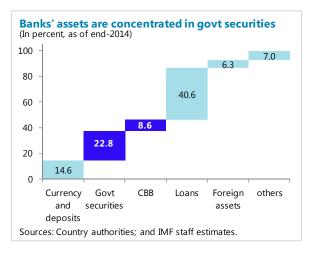
<sup>&</sup>lt;sup>6</sup> See IMF Working Paper (WP/15/96) "What Drives Interest Rate Spreads in Pacific Island Countries? An Empirical Investigation," by Jamaludin, Klyuev, and Serechetapongse.

<sup>&</sup>lt;sup>7</sup> PNG's banking sector was the fourth most profitable of 177 comparable countries in 2011, measured by return on equity.

banks to innovate and seek out new customers in order to expand their customer base. In this context, the priority is to facilitate financial deepening by reducing entry barriers, including for microfinance institutions, and encouraging the development and adoption of

new technologies such as mobile banking and microfinance products.

 Underdeveloped capital markets. Commercial banks' assets are largely concentrated in government securities reflecting few investment alternatives, while at the same time, excess liquidity suggests that government borrowing has not crowded out private sector borrowing. Banks and superannuation funds are reaching their internal limits for exposure to the government, forcing



the authorities to diversify its financing sources, including via a prospective Eurobond offering of US\$1 billion. Looking forward, authorities should promote development of the domestic capital market over the medium term, including by taking measures required to develop a secondary market for government securities.

• **Shallow FX market.** The interbank FX market is currently one-sided given the overvalued exchange rate and there is a structural shortage of FX. Mineral tax receipts account for about two-thirds of FX inflows, while FX transactions are highly regulated by the BPNG. The authorities should focus on measures that would help to eliminate FX market distortions (see Selected Issues Paper on the FX market).

**28.** *Authorities' views.* The authorities broadly concurred with the need to promote financial development, improve the capital market, and reform the FX regime over the medium term. BPNG has put in place legislation for micro-insurance products and mobile banking services, and is taking steps to enhance financial literacy through education and safeguard consumer protection. Meanwhile, they have authorized five microfinance institutions.

## C. Boosting Inclusive Growth

**29.** The government's structural reform agenda appropriately emphasizes agriculture and an enabling environment for business. In agriculture, the government should continue to move forward with the Asian Development Bank (ADB) and the World Bank to enhance productivity (i.e., the Productive Partnerships in Agriculture Project for smallholder coffee and cocoa producers), fill the infrastructure gap, and facilitate access to finance (see Selected Issues Paper on structural reforms). The government also needs to concentrate on reforms to lower the cost of doing business and increase competition. Continued investment in health and education will be important in this respect, as will improvements in infrastructure and law and order.

- **Infrastructure.** In agriculture, lack of access to market is identified as a major obstacle to increasing the supply of perishable products. Lack of access to affordable electricity is also a critical constraint on development. The electrification rate in PNG is among the lowest in the world.
- Health and education. Social indicators point to the challenges of basic needs, despite recent efforts to improve access to health and education (including vocational training). Provision of services and necessary facilities such as health clinics should be expanded and improved, especially in rural areas.
- Law and order. Chronic law and order problems need to be addressed to enhance ease of doing business, promote more business startups, and unleash the potential in tourism. According to the 2014 World Bank Enterprise Survey, 81 percent of businesses reported that their decisions for further investment or expansion of their operations were adversely affected by the poor security situation in the country. Indeed, 67 percent of firms identified crime as a problem; this is more than four times the regional average for firms in East Asia and the Pacific (16 percent) and higher than all of the regional averages.

**30.** Continued efforts to increase access to finance will also be important to support private sector development and growth. As noted above, PNG remains among the most underbanked economies in the region, despite recent efforts to promote financial sector development and financial inclusion. The high level of collateralization required to obtain loans, and the large share of customary land that cannot be used as collateral are the main obstacles to obtaining bank credit, including for SMEs. It will thus be important to address these constraints to allow better financial access for SMEs and support growth.

**31. Authorities' views.** The authorities agreed that agriculture is a key area for inclusive growth given that a majority of the population relies on the sector, including those in the informal sector. They noted that increased competition in public utilities and telecommunications is also important. The authorities agreed that development of essential financial infrastructure is a priority, as set out in the 2014-15 National Financial Inclusion and Literacy Strategy. They are roughly halfway towards the goal of reaching 1 million previously un-banked citizens, 32 percent of which are women. Going forward, BPNG will begin considering a follow-up strategy for the coming year, benefiting from recent work and support from the World Bank, ADB, and Pacific Financial Inclusion Programme (PFIP).

## **OTHER ISSUES**

**32.** The authorities are firmly committed to improving macroeconomic statistics. They recognized the importance of sound macroeconomic statistics for informed policy decisions and IMF surveillance. More decisive reform is needed to address institutional weaknesses in the National Statistics Office (NSO) and enhance the coordination with other stakeholders. The authorities are moving forward with the publication of new GDP estimates for 2007-13, planned for late this year.

## **STAFF APPRAISAL**

**33. PNG is facing strong headwinds from lower commodity prices.** While growth is expected to increase to 9 percent this year reflecting the full year effect of LNG production which started last year, fiscal and external performance this year have been adversely affected by the sharp drop in LNG and other major export commodity prices. Prudent macroeconomic policies are therefore essential to maintaining debt sustainability and safeguarding the external position.

**34.** Decisive fiscal consolidation will be needed to keep the government debt to GDP ratio on a downward trajectory over the medium term. Given the large drop in government revenues due to commodity prices and recent disruptions in the mining sector, the authorities are strongly encouraged to adopt a more ambitious package of fiscal measures to narrow the fiscal deficit this year and over the medium term. They are also encouraged to adopt medium-term fiscal anchors appropriate to the context of a commodity producer in order to help guide policy development and assessment.

**35. Better expenditure prioritization and improvement in PFM will be crucial for improving development outcomes.** High priority should be given to implementing high-impact projects and improving the delivery of frontline health and education services. While recent progress on strengthening PFM is welcomed, including having published the PEFA document and finalized a roadmap, the authorities are encouraged to implement its recommendations, including to strengthen cash and treasury management practices.

**36.** The SWF should be put into operation as soon as practicable. It is important to ensure that all public resource revenues are channeled through the budget. This would improve transparency and better target national priorities for resource revenue use and is consistent with the SWF's role in macroeconomic stabilization and wealth sharing.

**37. A further depreciation is needed to safeguard external buffers and eliminate imbalances in the FX market.** To these ends, BPNG should allow the exchange rate to be more market-determined and move quickly to a market-clearing rate. This should be supported by suitably-tight fiscal and monetary policies. To facilitate this adjustment and improve monetary policy effectiveness, BPNG should mop up excess liquidity in the banking system. Staff does not recommend Fund approval of the tax clearance certificate regime as it is not temporary and has not been imposed for balance of payments reasons.

**38. Moving decisively to implement structural reforms will help boost medium-term growth prospects.** Continued efforts are needed to improve infrastructure, and law and order, invest in health and education, attract more FDI, accelerate SOE reforms, and reduce business costs. A revival of agriculture and a strengthening of the SME sector supported by innovations in financial inclusion will also be vital for improving the livelihood of the majority of the population.

#### 39. While staff welcomes the recent progress, more decisive action is needed to improve

**macroeconomic statistics.** The authorities' commitment to reforming the National Statistical Office is a strong step in this direction, with IMF TA continuing to assist reform efforts and improve capacity. Staff looks forward to the publication of new GDP estimates later this year.

# 40. It is proposed that the next Article IV consultation with PNG will be held on the standard 12-month cycle.

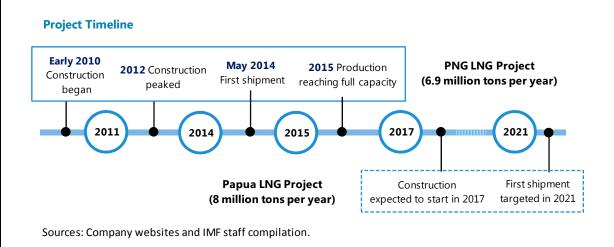
#### Box 1. Papua New Guinea—Update on the LNG and Mineral Projects

Successful commencement of LNG production has boosted the overall growth performance but brought weaker-than-expected revenue due to falling commodity prices. There is significant upside in terms of exploration from the second LNG project and other mining projects planned over the medium term.

#### **PNG LNG Project**

**Production is expected to reach full capacity of 6.9 million tons per year in 2015.** The project started in 2010, led by ExxonMobile, with a total cost of US\$19 billion. The first LNG shipment from the PNG LNG project took place in May 2014, ahead of schedule. The main buyers are Japan, mainland China, and Taiwan POC, with the contract price linked to the oil price (Japan Crude Cocktail). The expected operational life of the project is 30 years.

A sizable portion of earnings will be diverted to loan repayments and partially offset by accelerated depreciation allowances. The construction costs are financed by a mix of 30 percent equity and 70 percent debt. While export earnings are more than adequate to cover the loan repayments, significant tax revenues from the LNG project are not expected before 2021-22, largely due to accelerated depreciation allowances.



#### Papua LNG (Elk-Antelope) Project

**Industry analysis suggests Elk-Antelope will be the most competitive newly-built LNG project in the world, with production estimated at 8 million tons per year.** The joint venture consists of French oil major Total SA as operator (40.1 percent), InterOil (36.5 percent) and Oil Search (about 23 percent). Under the proposed project schedule, early works would begin in the third quarter of 2016, with a final investment decision and construction starting in 2017. The total cost is estimated at around US\$15 billion, which would have a significant impact on the economy.

#### **Other Major Mining Projects**

**PNG has several mine projects that are scheduled to begin production over the medium term.** Among them are Wafi-Golpu (gold and copper), Frieda River (a global top 10 undeveloped open pit copper mine), Solwara 1 (deep sea mining of gold and copper), Yandera (copper), Mt. Kare (gold), Imwauna (gold), and new deposits/mine within the vicinity of PNG's oldest operating mine, OK Tedi (gold and copper).

#### Box 2. Papua New Guinea—Alternative Commodity Price Scenario

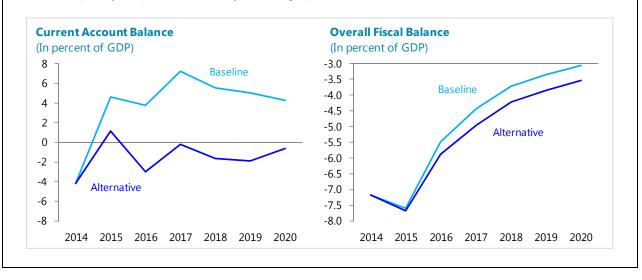
An alternative commodity price scenario suggests that the external current account balance is highly sensitive to the commodity price projections, whereas the fiscal position would be affected to a lesser extent, largely reflecting the base effects of the previous downward revision in resource revenues from K 2.4 billion to K 0.6 billion for 2015.

#### Alternative Scenario (a further 20 percent decline in commodity prices)

**Assumptions.** All mineral prices (LNG, crude oil, gold and other metals) would fall further by 20 percent over 2015-20, with no change in the volume. For 2015, the price decline is assumed to take effect during the second half of the year.

**External balance.** The current account would decline by around 7 percent of GDP relative to the baseline, and would be expected to remain in deficit over 2016-20. The size of the impact on the current account is roughly the same as the earlier LNG price drop of about 50 percent. The impact on the overall balance of payments would be almost entirely offset by the impact on the financial account since most commodity export receipts are kept offshore. As a result, the international reserves would remain broadly unchanged compared to the baseline.

**Fiscal position.** Revenue and the overall balance would decline by about 0.5 percent of GDP on average, relative to the baseline, owing to lower mineral tax revenues and LNG dividends. Compared to the impact of the previous commodity price adjustment, the impact would be much smaller because the level of resource revenue had already fallen from K 2.4 billion (in the 2015 budget) to K 0.6 billion (under the baseline) for 2015, reflecting lower commodity prices and the temporary suspension of a major mining operation.



#### Box 3. Papua New Guinea—External Sector Assessment

Staff's overall assessment is that the medium-term external position is broadly in line with fundamentals and desirable policies. The medium-term real effective exchange rate assessment produced mixed results.

The kina has been weakening since 2013, as commodity prices fell and capital inflows associated with the LNG project passed their peak. The kina has depreciated by 16 percent against the U.S. dollar from June 2014, when the exchange rate band was introduced, to early October 2015, but excess demand for foreign exchange persists.

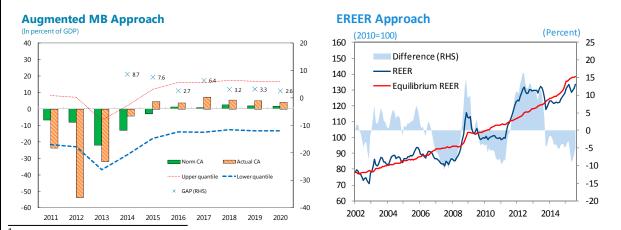
Assessme	ent: Baseline Re	sults							
(In percent)									
C/	REER								
Norm	Underlying 1/	Overvaluation							
		-19.0							
		25.1							
1.6	4.3	-7.9							
		-3.6							
	(In percer CA Norm  1.6	CA/GDP           Norm         Underlying 1/                   1.6         4.3							

2/ CA norm stabilizing NFA at -30.8 percent of GDP, assuming a nominal GDP growth rate of 6.9 percent.

3/ Beidas-Strom and Cashin, IMF WP/11/195, Table 2.A. specification IV. Based on a semi-elasticity of the CA/GDP with respect to the REER of -0.31. 4/ Overvaluation is assessed relative to August 2015.

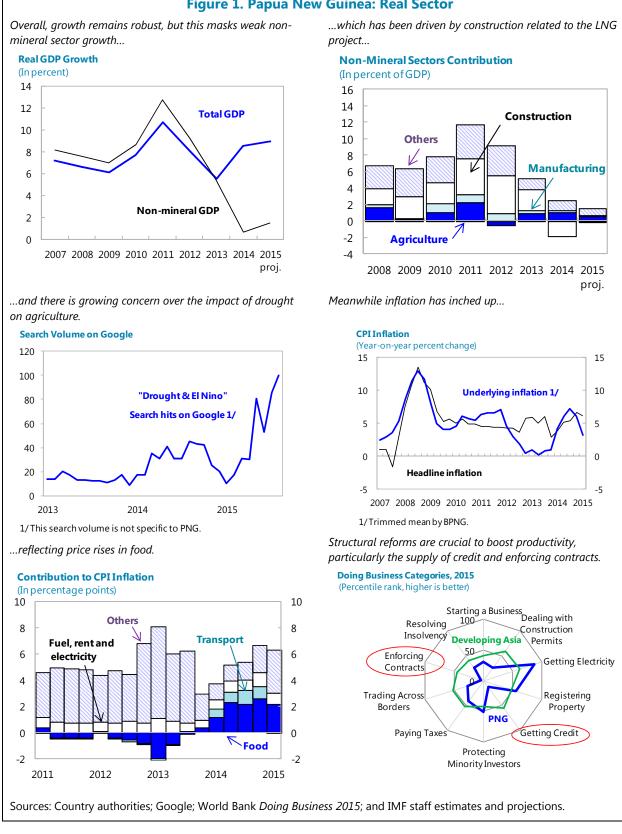
CGER-like estimates produced mixed results. The PPP approach suggests a 25 percent overvaluation, while the other three approaches indicate a range of 4-19 percent of undervaluation. These results suggest that the medium term current account is not out of line with fundamentals and desirable policies. As suggested in the 2012 Board paper, "Macroeconomic Policy Frameworks for Resource-Rich Developing Countries," the augmented MB approach incorporates oil-related variables such as the oil trade balance and oil wealth including LNG, and the ERER approach is conducted based on the long-run relationship between the REER and real oil price.

The reserve metric approach suggests that PNG's current reserve holdings are below the level deemed adequate (estimated to be close to 5 months of imports).<sup>1</sup> On the other hand, the optimal reserve approach indicates that the current holdings are well above the optimal level (about 2.5 months of imports for the fixed regime).<sup>2</sup> This latter result depends critically on the long-term opportunity cost of holding reserves, which is currently estimated to be 8.7 percent. Given that poor data quality may hamper the credibility of the estimated opportunity cost, more weight should be placed on the results of the reserve metric approach.



<sup>1</sup>These metrics are based on the specifications in Nkunde Mwase's IMF Working Paper (WP/12/205). The metric is 4.2 months of imports for the floating exchange rate regime and 4.9 months of imports for the fixed exchange rate regime.

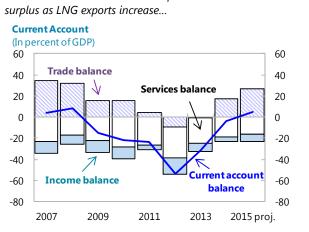
<sup>2</sup> See IMF Working Paper "Optimal Precautionary Reserves for Low-Income Countries: A Cost-Benefit Analysis" (WP/11/249).



#### Figure 1. Papua New Guinea: Real Sector

20 INTERNATIONAL MONETARY FUND

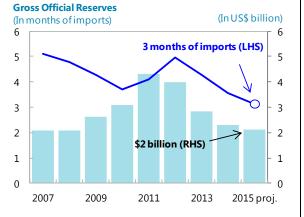
proj.



#### Figure 2. Papua New Guinea: External Sector

The current account balance is expected to turn into a

...with reserves stabilizing at around 2 billion (equivalent



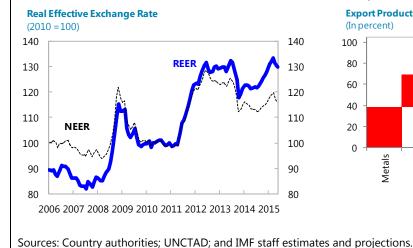
...as capital inflows associated with the LNG project passed their peak.

#### **Exchange Rate**



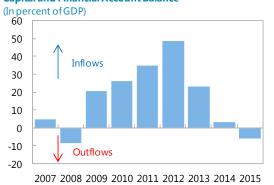
The kina has depreciated relative to the U.S. dollar...

In real effective terms, the kina has appreciated over the last decade ...

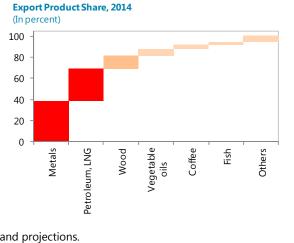


to about 3 months of imports).





...eroding external competitiveness and constraining diversification.



2015...

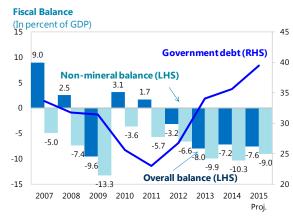
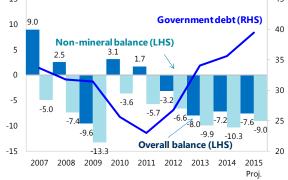
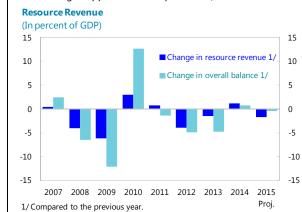


Figure 3. Papua New Guinea: Fiscal Sector

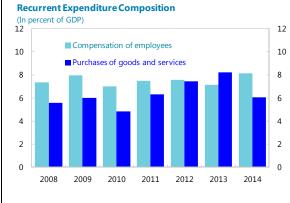
The overall deficit is expected to remain substantial in ...but government debt remains low relative to the average of APD low-income countries.

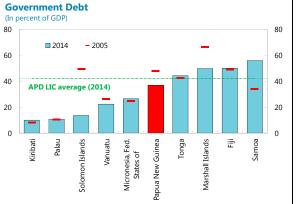


Mineral revenues are expected to fall by half in 2015, while changes appear small in percent of GDP terms...

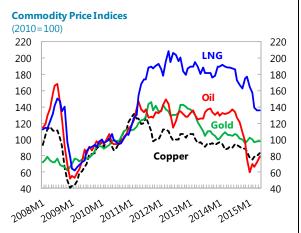


In the recurrent budget, spending on salaries has been stable relative to spending on goods and services.

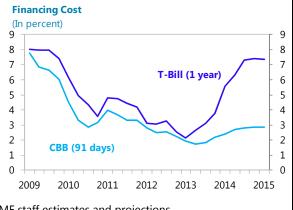




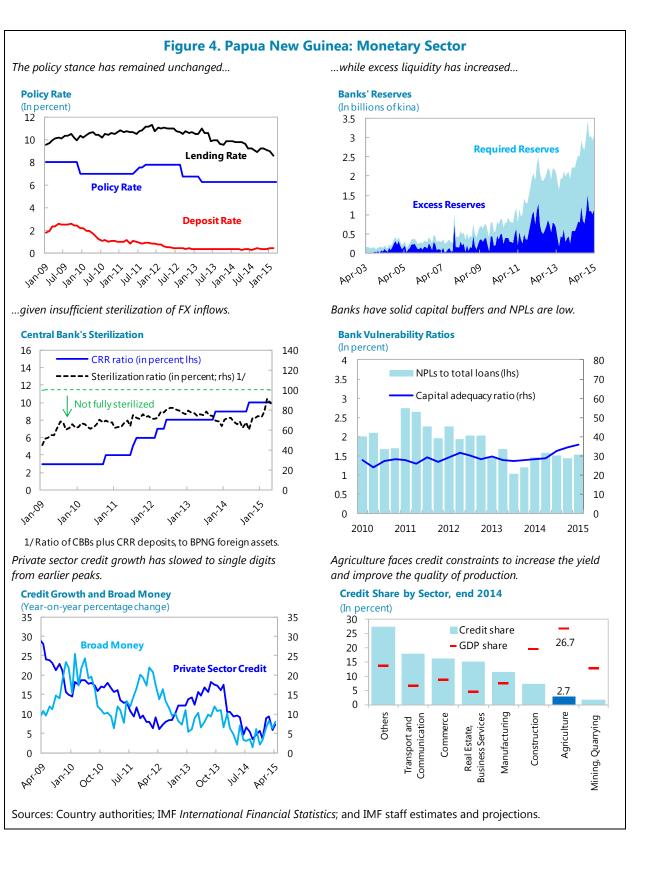
...due to lower commodity prices.



Meanwhile, the cost of domestic financing has risen sharply.



Sources: Country authorities; IMF World Economic Outlook; and IMF staff estimates and projections.



INTERNATIONAL MONETARY FUND

23

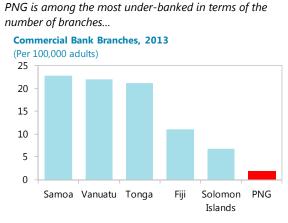
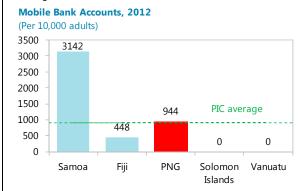
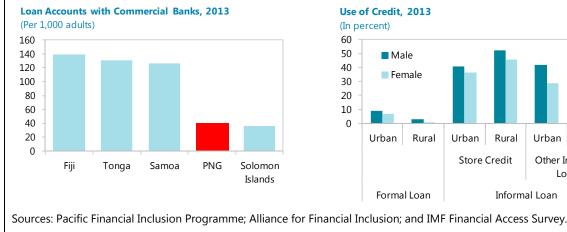


Figure 5. Papua New Guinea: Financial Access Indicators

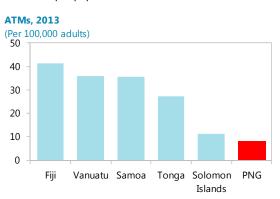
...while there has been some progress in expanding mobile banking.



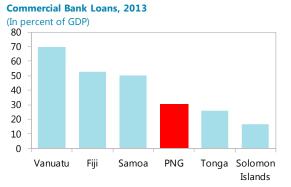
Loan account penetration in PNG is also substantially low...



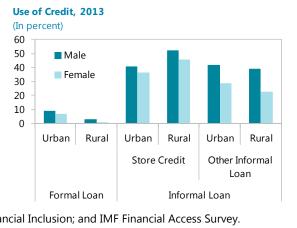
... and ATMs per population ...



Overall credit is low relative to other Pacific Island countries.



areas.



...and people rely on informal loans especially in rural

## Table 1. Papua New Guinea: Selected Economic and Financial Indicators, 2011-16

 Nominal GDP (2014):
 US\$16.8 billion 1/

 Population (2014):
 7.5 million

 GDP per capita (2014):
 US\$2,232

 Quota:
 SDR 131.6 million

	2011	2012	2013	2014 Est.	2015 Proj	2016
		/1	Percentage		10	•
Real sector		(1	rencentage	e change)		
Real GDP growth	10.7	8.1	5.5	8.5	9.0	3.1
Resource 2/	-11.8	-7.4	7.2	134.2	60.2	0.1
Nonresource	12.8	9.2	5.4	0.7	1.5	3.8
CPI (annual average)	4.4	4.5	5.0	5.3	6.0	6.0
CPI (end-period)	4.4	5.8	2.9	6.3	6.0	6.0
					0.0	0.0
		(	In percent	of GDP)		
Central government operations						
Revenue and grants	30.4	29.2	28.2	27.3	24.7	25.
Of which: Resource revenue	7.4	3.4	1.9	3.1	1.4	1.9
Expenditure and net lending	28.7	32.4	36.1	34.5	32.3	31.2
Net lending(+)/borrowing(-) [Overall balance] (Revenue - expenditure)	1.7	-3.2	-8.0	-7.2	-7.6	-5.
Nonresource net lending(+)/borrowing(-)	-5.7	-6.6	-9.9	-10.3	-9.0	-7.4
		(	Percentage	e change)		
Money and credit (percentage change)						
Domestic credit	-5.2	37.7	40.9	23.5	11.6	12.
Credit to the private sector	7.9	12.1	17.5	3.5	8.0	11.2
Broad money	17.3	10.9	6.7	3.4	9.9	6.
Interest rate (182-day Treasury bills; period average)	4.3	5.8	5.0	5.1	6.7	7.0
		(In l	oillions of U	J.S. dollars	)	
Balance of payments						
Exports, f.o.b.	6.9	6.3	5.4	7.4	9.2	9.2
Of which: Resource	4.9	4.5	3.8	5.4	6.9	6.9
Imports, c.i.f.	-6.3	-7.7	-5.5	-4.4	-4.5	-4.8
Current account (including grants)	-3.0	-8.2	-4.9	-0.7	0.8	0.7
(In percent of GDP)	-23.6	-53.6	-31.8	-4.2	4.6	3.8
Gross official international reserves	4.3	4.0	2.8	2.3	2.1	2.2
(In months of goods and services imports)	4.1	5.0	4.3	3.6	3.1	3.3
			_			
Government debt		(	In percent	of GDP)		
Government gross debt	23.0	26.7	34.0	35.6	39.4	41.3
External debt-to-GDP ratio (in percent) 3/	8.3	7.3	8.1	8.7	12.4	13.2
External debt to obtain the (in percent) 3/	1.3	1.5	1.5	1.5	0.9	3.1
	1.5	1.5	1.5	1.5	0.5	5.1
Exchange rates						
US\$/kina (end-period)	0.4665	0.4755	0.4130	0.3938		
NEER (2005=100, end-period)	107.8	124.6	120.6	114.2		
REER (2005=100, end-period)	108.7	128.1	126.9	123.5		
Terms of trade (2010=100, end-period)	118.0	114.7	103.0	110.9	129.1	125.
Nominal GDP (in billions of kina)	30.5	32.1	34.6	41.7	45.3	48.
Nonresource nominal GDP (in billions of kina)	24.9	27.5	30.0	31.9	34.3	37.4

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

1/ Based on period average exchange rate.

2/ Resource sector includes production of mineral, petroleum, and gas and directly related activities such as mining and quarrying, indirectly related activities such as transportation and construction.

3/ Public external debt includes external debt of the central government, the central bank, and statutory authorities.

	2011	2012	2013	2014	201	5	2016			
					Budget	Proj.				
		(In mill	ions of kina,	unless other	vise indicate	d)				
Revenue and grants	9,280	9,358	9,740	11,365	13,720	11,174	12.40			
Nonresource revenue	5,991	7,324	8,196	9,189	9,876	9,129	10,07			
Resource revenue	2,264	1,103	667	1,308	2,448	648	93			
Grants	1,025	931	878	868	1,396	1,396	1,39			
Expenditure 1/	8,764	10,383	12,500	14,357	15,984	14,613	15,05			
Expense (old classification)	5,348	6,200	9,123	10,977	11,530	9,992	10,06			
Expense (new classification)	n.a.	9,165	10,303	10,977	11,530	9,992	10,06			
Expense	5,348	6,200	9,123	10,977	11,530	9,992	10,00			
Net acquisition of nonfinancial assets	3,416	4,184	3,377	3,380	4,454	4,622	4,99			
Gross operating balance	3,932	3,158	617	387	2,190	1,182	2,34			
Net lending(+)/borrowing(-) [Overall balance]	516	-1,026	-2,760	-2,992	-2,265	-3,440	-2,65			
Primary balance	932	-592	-2,275	-2,039	-1,134	-2,387	-1,18			
Nonresource overall balance 2/	-1,748	-2,129	-3,427	-4,300	-4,712	-4,088	-3,58			
Nonresource primary balance	-1,332	-1,696	-2,942	-3,347	-3,582	-3,036	-2,11			
Cash flows from financing activities: 3/										
Financing (excluding trust accounts)	-825	2,706	2,711	2,405	2,272	3,448	2,65			
Asset sales	0	0	0	0	2,500	0				
Net acquisition of financial assets	-1,763	359	-186	-353	0	0				
Net incurrence of liabilities	938	2,347	2,896	2,758	-228	3,448	2,65			
Domestic	906	2,182	2,535	2,374	-1,039	1,333	1,26			
Foreign	31	165	361	384	811	2,115	1,38			
	(In percent of GDP)									
Revenue and grants	30.4	29.2	28.2	27.3	26.8	24.7	25.			
Nonresource revenue	19.6	22.8	23.7	22.1	19.3	20.2	20.			
Resource revenue	7.4	3.4	1.9	3.1	4.8	1.4	1.			
Grants	3.4	2.9	2.5	2.1	2.7	3.1	2.			
Expenditure 1/	28.7	32.4	36.1	34.5	31.2	32.3	31.			
Expense (old classification)	17.5	19.3	26.4	26.3	22.5	22.1	20.			
Expense	17.5	19.3	26.4	26.3	22.5	22.1	20.			
Net acquisition of nonfinancial assets (old classification)	11.2	13.0	9.8	8.1	8.7	10.2	10.			
Net acquisition of nonfinancial assets	11.2	13.0	9.8	8.1	8.7	10.2	10.			
Gross operating balance	12.9	9.8	1.8	0.9	4.3	2.6	4.			
Net lending(+)/borrowing(-) [Overall balance]	1.7	-3.2	-8.0	-7.2	-4.4	-7.6	-5.			
Primary balance	3.1	-1.8	-6.6	-4.9	-2.2	-5.3	-2.			
Nonresource overall balance 2/	-5.7	-6.6	-9.9	-10.3	-9.2	-9.0	-7.			
Nonresource primary balance	-4.4	-5.3	-8.5	-8.0	-7.0	-6.7	-4.			
Net incurrence of liabilities 3/	3.1	7.3	8.4	6.6	-0.4	7.6	5.			
	(In percent of nonresource GDP)									
Gross operating balance	15.8	11.5	2.1	1.2	6.3	3.5	6.			
Net lending(+)/borrowing(-) [Overall balance] Nonresource primary balance	2.1 -5.4	-3.7 -6.2	-9.2 -9.8	-9.4 -10.5	-6.5 -10.3	-10.0 -8.9	-7. -5.			
Memorandum items:										
Government deposits (in percent of GDP)	15.8	11.7	11.4	10.4	-	9.6	9.			
Gross government debt (in percent of GDP)	23.0	26.7	34.0	35.6	27.8	39.4	41.			
Domestic (in percent of GDP)	15.5	19.3	25.2	26.7	19.0	26.7	27.			
External (in percent of GDP)	7.5	7.4	8.8	8.9	8.8	12.7	13.			
Contingent liabilities (in percent of GDP) 4/	19.5	17.8	16.8	12.7	-	12.2	12.			
Nonresource GDP at current prices (in millions of kina)	24,853	27,500	29,982	31,938	34,929	34,253	37,39			
GDP at current prices (in millions of kina)	30,522	32,070	34,595	41,668	51,207	45,262	48,28			

#### Table 2. Papua New Guinea: Summary Operations of the Central Government, 2011-16

Sources: Department of Treasury; and IMF staff estimates and projections.

1/ As the authorities integrated the recurrent and development budgets from 2014 there is a discontinuity in the classification.

2/ Nonresource net lending(+)/borrowing(-).

3/ Discrepancies between the overall balance and financing arise because transactions of trust accounts are not fully accounted for

due to data weaknesses.

4/ Contingent liabilities include future unfunded superannuation liabilities, and IPBC borrowings.

## Table 3. Papua New Guinea: Balance of Payments, 2011-20

(In millions of U.S. dollars)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
				Est.			Proj.				
Current account balance 1/	-3,040	-8,244	-4,895	-703	794	659	1,329	1,059	1,011	911	
Resource	-2,772	-5,241	-2,525	1,238	2,534	2,623	3,498	3,360	3,411	3,390	
Nonresource	-1,477	-3,022	-2,370	-1,941	-1,740	-1,964	-2,170	-2,301	-2,401	-2,479	
Trade balance	628	-1,439	-70	2,990	4,666	4,350	5,173	4,976	4,951	4,909	
Exports (f.o.b.)	6,906	6,267	5,447	7,386	9,177	9,175	10,135	10,152	10,348	10,468	
Resource 2/	4,854	4,502	3,826	5,386	6,926	6,912	7,835	7,821	7,973	8,070	
Nonresource	2,052	1,765	1,621	2,000	2,251	2,263	2,300	2,332	2,375	2,397	
Imports (c.i.f.)	-6,278	-7,705	-5,517	-4,396	-4,512	-4,825	-4,962	-5,176	-5,397	-5,559	
Resource	-3,625	-4,726	-2,930	-1,700	-1,744	-1,784	-1,697	-1,748	-1,797	-1,851	
Nonresource	-2,654	-2,980	-2,587	-2,696	-2,768	-3,041	-3,265	-3,428	-3,600	-3,708	
Services	-3,360	-4,432	-3,767	-3,125	-2,824	-2,792	-2,739	-2,821	-2,905	-2,993	
Income	-553	-2,492	-1,223	-776	-1,231	-1,064	-1,274	-1,303	-1,297	-1,309	
Current Transfers	246	119	165	208	183	165	168	207	261	303	
Capital and financial account balance	4,467	7,487	3,563	520	-995	-545	-1,070	-975	-933	-847	
Direct investment	1,024	1,883	904	864	1,061	907	835	858	881	904	
Other investment	3,443	5,604	2,659	-1,344	-2,056	-1,452	-1,905	-1,832	-1,814	-1,751	
Medium- and long-term loans	4,367	8,221	-193	-902	-1,547	-1,017	-1,455	-1,359	-1,253	-1,167	
Official (net)	27	57	127	213	675	161	-271	10	-34	-47	
Private capital flows (net)	4,340	8,163	-320	-1,114	-2,222	-1,178	-1,184	-1,369	-1,219	-1,120	
Commercial banks	76	-88	-6	-47	-27	-37	-32	-35	-100	-100	
Other	-1,000	-2,528	2,858	-395	-482	-398	-418	-439	-461	-484	
Net errors and omissions	-197	436	0	0	0	0	0	0	0	0	
Overall balance	1,231	-321	-1,332	-183	-201	114	259	84	78	64	
Financing	-1,231	321	1,332	183	201	-114	-259	-84	-78	-64	
Reserve assets	-1,231	321	1,332	183	201	-114	-259	-84	-78	-64	
Memorandum items:											
Current account (in percent of GDP)	-23.6	-53.6	-31.8	-4.2	4.6	3.8	7.2	5.6	5.0	4.3	
Resource	-21.5	-34.1	-16.4	7.4	14.6	15.0	19.0	17.7	16.9	15.8	
Nonresource	-11.5	-19.6	-15.4	-11.5	-10.0	-11.2	-11.8	-12.1	-11.9	-11.6	
Net international reserves (end-year)											
In millions of U.S. dollars	4,126	3,804	2,629	2,108	1,908	2,022	2,280	2,365	2,442	2,506	
Gross official reserves (end-year)											
In millions of U.S. dollars	4,323	4,001	2,826	2,305	2,105	2,219	2,478	2,562	2,640	2,704	
In months of imports of goods and services	4.1	5.0	4.3	3.6	3.1	3.3	3.5	3.5	3.5	3.5	
Public external debt-service-exports ratio (in percent) 3/	1.3	1.5	1.5	1.5	0.9	3.1	2.8	2.9	3.0	2.9	
Public external debt-GDP ratio (in percent) 3/	8.3	7.3	8.1	8.7	12.4	13.1	11.0	10.7	10.0	9.2	

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

1/ Includes staff's estimates related to the PNG LNG project.
 2/ Temporary suspension of a mining operation is expected to dampen resource exports in 2015 and 2016.

3/ Public external debt includes external debt of the central government, the central bank, and statutory authorities.

	2011	2012	2013	2014	2015	2016					
					Proj.						
Bank of Papua New Guinea		(In mil	lions of kina; ei								
Net foreign assets	8,847	8,004	6,363	5,501	4,910	5,206					
Foreign assets	9,266	8,415	6,842	5,980	5,440	5,762					
Foreign liabilities	419	412	479	479	531	556					
Net domestic assets	-5,589	-4,170	-2,510	-218	219	219					
Domestic credit	-1,423	-438	-99	1,362	1,561	1,56					
Net credit to government	-1,501	-487	-156	1,301	1,501	1,50					
Claims	431	499	863	2,353	2,553	2,55					
Central government deposits	1,933	985	1,019	1,052	1,052	1,05					
Credit to other sectors	79	49	56	60	60	6					
Other items, net	-4,166	-3,732	-2,411	-1,580	-1,343	-1,343					
Of which: Central bank securities	-5,687	-5,149	-3,199	-2,312	-1,965	-1,96					
Reserve money	3,259	3,834	3,853	5,283	5,128	5,424					
Currency in circulation	1,532	1,679	1,749	1,852	2,011	2,14					
Deposits of other depository corporations	1,724	2,142	2,101	3,431	3,117	3,27					
Required reserves	945	1,391	1,652	1,910	2,104	2,24					
Excess reserves	779	751	449	1,521	1,013	1,03					
Other deposits	3	13	3	0	0	_,					
Depository Corporations Survey	(In millions of kina; end of period)										
Net foreign assets	10,117	9,475	8,269	6,547	6,046	6,41					
Net domestic assets	5,176	7,491	9,835	12,169	14,528	15,52					
Domestic credit	6,630	9,131	12,862	15,888	17,729	19,94					
Net credit to central government	-1,077	297	2,755	4,164	5,178	6,14					
Claims on other sectors	7,707	8,834	10,107	11,724	12,551	13,79					
Claims on the private sector	7,522	8,434	9,914	10,264	11,085	12,32					
Other items, net	-1,454	-1,639	-3,028	-3,719	-3,201	-4,41					
Broad money	15,293	16,967	18,104	18,716	20,574	21,94					
Narrow money	9,620	11,148	12,047	13,440	14,880	15,94					
Currency outside other depository corporations	1,188	1,214	1,300	1,392	1,503	1,58					
Demand deposits	8,431	9,934	10,746	12,048	13,377	14,36					
Quasi-money	5,612	5,756	5,995	5,215	5,632	5,93					
Securities other than shares	62	62	62	62	62	6					
	(Annual percentage change)										
Net foreign assets	12.8	-6.3	-12.7	-20.8	-7.7	6.					
Net domestic assets	27.3	44.7	31.3	23.7	19.4	6.					
Net domestic credit	-5.2	37.7	41	23.5	11.6	12.					
Of which: Private sector	7.9	12.1	17.5	3.5	8.0	11.					
Broad money	17.3	10.9	6.7	3.4	9.9	6.					
Memorandum items:											
Reserve money (percentage change)	61.7	17.6	0.5	37.1	-2.9	5.					
Gross international reserves (in millions of U.S. dollars)	4,323	4,001	2,826	2,305	2,105	2,21					
Nominal nonresource GDP/Broad money	1.6	1.6	1.7	1.7	1.7	. 1.					

## Table 4 Panua New Guinea: Monetary Developments 2011-16

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
				Est.			Pr	oj.		
Growth and prices (percentage change)										
Real GDP 1/	10.7	8.1	5.5	8.5	9.0	3.1	4.4	1.4	3.2	3.2
Resource	-11.8	-7.4	7.2	134.2	60.2	0.1	-0.6	-0.6	-0.6	-0.6
Nonresource	12.8	9.2	5.4	0.7	1.5	3.8	5.5	1.9	4.0	4.0
CPI (period average)	4.4	4.5	5.0	5.3	6.0	6.0	5.0	5.0	5.0	5.0
CPI (end-period)	4.4	5.8	2.9	6.3	6.0	6.0	5.0	5.0	5.0	5.0
Central government operations (in percent of GDP)										
Total revenue and grants	30.4	29.2	28.2	27.3	24.7	25.7	26.3	26.2	26.2	26.3
Total revenue	27.0	26.3	25.6	25.2	21.6	22.8	23.6	23.7	23.9	24.1
Of which: Resource revenue	7.4	3.4	1.9	3.1	1.4	1.9	2.5	2.5	2.5	2.5
Grants	3.4	2.9	2.5	2.1	3.1	2.9	2.7	2.5	2.3	2.2
Total expenditure	28.7	32.4	36.1	34.5	32.3	31.2	30.7	29.9	29.5	29.3
Expense		19.3	26.4	22.4	22.1	20.8	23.2	24.4	24.8	25.4
Net acquisition of nonfinancial assets		13.0	9.8	11.5	10.2	10.3	7.5	5.5	4.7	3.9
Primary balance	3.1	-1.8	-6.6	-4.9	-5.3	-2.5	-1.2	0.1	0.7	1.2
Nonresource net lending(+)/borrowing(-) (Revenue - expenditure)	-5.7	-6.6	-9.9	-10.3	-9.0	-7.4	-7.0	-6.2	-5.8	-5.5
Net lending(+)/borrowing(-) [Overall balance]	1.7	-3.2	-8.0	-7.2	-7.6	-5.5	-4.4	-3.7	-3.3	-3.0
Nonresource primary balance (in percent of nonresource GDP)	-5.4	-6.2	-9.8	-10.5	-8.9	-5.7	-4.8	-3.0	-2.3	-1.5
Gross public debt (in percent of GDP) 2/	23.0	26.7	34.0	35.6	39.4	41.1	40.7	42.8	43.9	44.6
Domestic	14.7	19.4	25.9	26.9	27.1	28.0	29.6	32.0	33.9	35.4
External	8.3	7.3	8.1	8.7	12.4	13.1	11.0	10.7	10.0	9.2
Balance of payments (in millions of U.S. dollars) 3/										
Exports, f.o.b.	6,906	6,267	5,447	7,386	9,177	9,175	10,135	10,152	10,348	10,468
Of which: Resource	4,854	4,502	3,826	5,386	6,926	6,912	7,835	7,821	7,973	8,070
Imports, c.i.f.	-6,278	-7,705	-5,517	-4,396	-4,512	-4,825	-4,962	-5,176	-5,397	-5,559
Current account	-3,040	-8,244	-4,895	-703	794	659	1,329	1,059	1,011	911
(In percent of GDP)	-23.6	-53.6	-31.8	-4.2	4.6	3.8	7.2	5.6	5.0	4.3
Overall balance (including exceptional financing)	1,231	-321	-1,332	-183	-201	114	259	84	78	64
Gross official reserves (in millions of U.S. dollars)	4,323	4,001	2,826	2,305	2,105	2,219	2,478	2,562	2,640	2,704
(In months of goods and services imports, c.i.f.)	4.1	5.0	4.3	3.6	3.1	3.3	3.5	3.5	3.5	3.5
(In months of nonmining imports, c.i.f.)	10.4	11.6	8.1	6.6	5.8	5.8	6.2	6.2	6.2	6.1
Public external debt service-export ratio (in percent) 4/	1.3	1.5	1.5	1.5	0.9	3.1	2.8	2.9	3.0	2.9
Memorandum items:										
Nominal GDP (in millions of U.S. dollars)	12,873	15,391	15,413	16,809	17,323	17,537	18,387	18,998	20,147	21,432
Assumed commodity prices: 5/										
Gold (U.S. dollars per ounce)	1,569	1,669	1,411	1,266	1,277	1,283	1,295	1,311	1,329	1,385
Copper (U.S. dollars per ton)	8,823	7,959	7,331	6,863	5,644	5,603	5,595	5,582	5,559	5,546
Oil (U.S. dollars per barrel)	104	105	104	96	51	59	64	67	68	68

#### Table 5. Papua New Guinea: Medium-Term Scenario, 2011-20

1/ Real GDP growth projections are based on the chained Laspeyres measure.

2/ Public external debt includes external debt of the central government, the central bank, and statutory authorities.

3/ Includes staff's estimates related to the PNG LNG project.

4/ Public external debt service includes changes in check float.

5/ July 2015 IMF WEO projections.

	2010	2011	2012	2013	2014
Capital Adequacy					
Capital to risk-weighted assets 2/	28.3	26.9	28.0	27.9	34.
Tier 1 capital to risk-weighted assets	21.1	19.6	20.1	21.0	27.
Asset Quality					
Nonperforming loans to total loans	1.7	2.0	2.0	1.2	1.
Past due loans to total loans	2.2	5.1	2.8	2.2	2.
Provision for losses to NPL	173.6	158.2	170.9	288.0	240.
Earnings and Profitability					
Return on assets	2.2	2.2	2.3	2.4	2.
Return on equity 3/	21.8	23.1	23.7	21.2	26.
Liquidity					
Liquid assets to total assets	56.6	58.5	56.6	55.2	51.
Loan-to-deposit ratio	49.9	46.3	46.9	50.3	57.
Other					
Capital to total assets 2/	13.7	12.8	13.6	15.2	16.
Risk-weighted assets to total assets	48.5	47.5	48.7	54.5	46.

3/ Return on equity is calculated with Tier 1 capital.

## Table 7. Papua New Guinea: Status of Millennium Development Goals

Geal 1: Eradicate extreme poverty and hunger           Target 1: A: Haive, between 1990 and 2015, the proportion of people whose income is less than \$1 a day           Poverty gap 2: 12: 25 aday (PPP) (% of population)           Income share held by fivest 2014           Powerty headcount ratio at 51: 25 a day (PPP) (% of population)           Target 1: B: Arbieve full and productive employment do decent work for all, including women and young peopl           Employment-to-population ratio, ages 15: 4, total (%)           Employment-to-population ratio, ages 15: 4, total (%)           Goal 2: Achieve numbered provident do and 2015, the proportion of people who suffer from hunger           Mainuttion prevalence, weight for age (% of chifdren under 5)           Goal 2: Achieve numbered provident do gaps 15: 24)           Literacy rate, youth finale (% of dages 7: 2)           Trinary completion rate, total (% of ages 7: 2)           Trinary completion rate, total (% of ages 7: 2)           Primary completion rate, total (% of ages 7: 2)           Ratio of female be male provident de male triang and scondary education, preferably by 2005, and in all levele           Proportion of seats held by women in national parliament (%)           Ratio of female to male triang and scondary education, preferably by 2005, and in all levele           Proportion of seats held by women in national parliament (%)           Ratio of female to male triang and conthid meastrescondary enrollment (%)					20
arget 1.A: Haive, between 1990 and 2015, the proportion of people whose income is less than \$1 a day         Poverty the add. 12.5 a day (PPP) (%)         Poverty the dat 0.12 so day (PPP) (%)         Poverty the dat 0.12 so day (PPP) (%)         The add of the day lowes 20%         arget 1.B: Achieve full and productive employment and decent work for all, including women and young peopl         Prolyment-to-oppulation ratio, ages 15-24, total (%)       70.1         Employment-to-population ratio, ages 15-24, total (%)       56.9         arget 1.C: Haby, between 1990 and 2015, the proportion of people who suffer from hunger       Main and 2015, the proportion of people whose suffer from hunger         Maint 2.K: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours       Literacy rate, youth male (% of females ages 15-24)          Literacy rate, youth male (% of females ages 15-24)            Prinary completion rate, total (% of ages 7-13)       45.1           Stata 61 do male entry encolment (%)       66.2           Ratio of female to male prinary enclosent (%)       64.4       4.4       Ratio of female to male prinary enclosent (%)       65.2         Stata 64 do women employeed in the nonagricultural sector (% of total nonagricultural employment 27.9					
Poverty fieldcount ratio at \$1.25 a day (PPP) (% of population)	y				
Income share held by lowest 20% Income share held by lowest 15,240 Income share held by lowest 16% Income share held held lowest 16% Income					
arget 1.B. Achieve full and productive employment and decent work for all, including women and young people periporment-to-population ratio. 164: total (%) 56.9 arget 1.C: Haby, between 1990 and 2015, the proportion of people who suffer from hunger Malnutrition prevalence, weight for age (% of children under 5) and 2: Achieve universal primary education arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours Literacy rate, youth male (% of females ages 15-24) Primary completion rate, total (% of ages 7-13) 45.1 Catal Stromote gender equality and empower women arget 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels Proportion of seats held by women in national parliament (%) 80.0 Ratio of female to male size any enrollment (%) Share of women employed in the nonagricultural sector (% of total nonagricultural employment 27.9 and 4: Reduce child mortality arget 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate Immunization, measles (% of children ages 12-23 months) 67.0 Mortality rate, inder 1.000 live births) 65.0 Mortality rate, unders (ber 1.000 live births) 65.0 Mortality rate, unders (ber 1.000 live births) 65.0 Mortality rate, unders (ber 4.000 women ages 15-19) arget 5.B: Achieve, by 2015, universal access to reproductive health care Contracoptive prevalence (% of women ages 15-49) Adolescent fertility rate (births per 1.000 women ages 15-19) Prevalence of HIV, female (% ages 15-24) Prevalence of HIV, total (% of population ages 15-49) Adolescent fertility rate (births per 1.000 women ages 15-19) Prevalence of HIV, total (% of population ages 15-49) Prevalence of HIV, total (% of population ages 15-49) Adolescent fertility rate (births per 1.000 women ages 15-19) Prevalence of HIV, total (% of population ages 15-49) Adolescent fertility rate (births per 1.000 women ages 15-19) Prevalence of HIV, total (% of popu					
Employment-to-population ratio, 15+, total (%)         70.1           Employment-to-population ratio, ages 15-24, total (%)         56.9           and 2: Achieve universal primary education         ages 15-24, total (%)           arget 1.2: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours         alist Achieve universal primary education           arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours         alist Complex to the male (% of males ages 15-24)	4.5				
Employment-to-population ratio, ages 15-24, total (%) 56.9 arget 1.C: Have, between 1990 and 2015, the proportion of people who suffer from hunger Valnutrition prevalence, weight for age (% of children under 5) ad 2: Achieve universal primary education arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours  Literacy rate, youth male (% of females ages 15-24) Primary completion rate, total (% of ages 7-13) 45.1 ad 3: Promote gender equality and empower women arget 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels Proportion of seats held by women in national parliament (%) 84.4 Satio of female to male secondary enrollment (%) Share of women employed in the nonagricultural sector (% of total nonagricultural employme: 27.9 od 4: Reduce child mortality arget 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate munization, measles (% of children ages 12-23 months) 67.0 Mortality rate, inder 1.000 live births) 89.1 od 5: Improve maternal health arget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio arget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio arget 5.B: Achieve, by 2015, universal access to reproductive health care Dontraceptive prevalence (% of women ages 15-49) Adolescent fertility rate (undeel estimate, per 100,000 live births) arget 5.B: Achieve, by 2015, universal access to reproductive health care Dontraceptive prevalence (% of women ages 15-49) Achieves and the V. (total) % or women ages 15-19) Prevalence of HIV, total (% degs 15-24) Prevalence of HIV, total (% degs 15-24) Prevalence of HIV, total (% ages 15-24) Prevalence of HIV, total (% ages 15-24) Prevalence of HIV, total (% degs 15-24) Prevalence of HIV, total (% ages 15-24) Prevalence of HIV, total (% ages 15-24) Prevalence of HIV, total (% ages 15		70.1	70.9	70.6	70
arget 1.C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger Walnutrition prevalence, weight for age (% of children under 5) arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours arget 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels "proportion of seats held by women in national parliament (%) atto of female to male primary enrollment (%) atto of female to male secondary enrollment (%) arget 4.A: Reduce child mortality arget 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate munization, measles (% of children ages 12-22 months) arget 5.B: Achildren ages 12-23 months) arget 5.B: Achildren ages 15-24) arget 4.B: Have, by 2015, universal access to reproductive health care Contraceptive prevalence (% of women ages 15-49) arget 5.B: Achildren ages 15-24) ar		56.0	70.9 56.8	70.6 54.7	54
Valinutrition prevalence, weight for age (% of children under 5)          call 2: Achieve universal primary education arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours 		50.0	50.0	54.7	0-
arget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours ilteracy rate, youth female (% of males ages 15-24) Primary completion rate, total (% of ages 7-13) 45.1 action of seats held by women in national parliament (%) 0.0 action of seats held by women in national parliament (%) 84.4 Tatio of female to male primary enrollment (%) 84.4 Tatio of female to male primary enrollment (%) 84.4 Tatio of female to male primary enrollment (%) 85.2 Statio of female to male primary enrollment (%) 85.2 Statio of female to male primary enrollment (%) 85.2 Statio of female to male trained period the secondary education, preferably by 2005, and in all levels or defined to male trained period the secondary enrollment (%) 85.2 Statio of female to male trained period the secondary enrollment (%) 85.2 Statio of female to male trained period the secondary enrollment (%) 85.2 Statio of female to male trained period to live births) 86.1 Statio of female to male trained period to live births) 86.1 Mortality rate, inder 5 (per 1,000 live births) 86.1 Statis attended by skilled health staff (% of total) 85.1 Statis attended by skilled health staff (% of total) 85.4 Adolescent fertility rate (under 5 between 1990 and 2015, the maternal mortality ratio Maternal mortality ratio (modeled estimate, per 100,000 live births) 470.0 Statis attended by skilled health staff (% of total) Prevalence of HIV, Female (% ages 15-49) Prevalence of HIV, female (% ages 1			18.1		
riget 2.A: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full cours iteracy rate, youth fremale (% of males ages 15-24) tirracy rate, youth fremale (% of males ages 15-24) tirracy rate, youth male (% of males ages 12-23 months) tatio of female to male torinary enrollment (%) tatio of female to male torinary enrollment (%) tatio of female to male torinary enrollment (%) target A.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate mmunization, measles (% of children ages 12-23 months) dortality rate, inder of 1,000 live births) tortality rate, under-5 (per 1,000 live births) tortality rate, under-5 (per 1,000 live births) tortality rate, under-5 (per 1,000 live births) tortacy by skilled health staff (% of total) tortacy by skilled health staff (% of total) tortarcacy the prevalence (% of women ages 15-49) tortarcacy the prevalence (% of women ages 15-49) tortarcacy the prevalence (% of women ages 15-49) thereal enco of HIV, female (% ages 15-24) trevalence of HIV, female (% ages 15-24) trevalence of HIV, female (% ages 15-24) trevalence of HIV, female (% ages 15-24) thereal enco of the constages the the incidence of malaria and other major diseases ncidence of tuberculosis (per 100,000 people) toper 1.2. Reduce biodiversity (bas, achieving, by 2010, a significant reduction in the rate of loss torest area (% of fond area) 1.9. torest area (% of fond are					
<ul> <li>iteracy rate, youth male (% of males ages 15-24)</li> <li>iteracy rate, youth male (% of ages 7-13)</li> <li>45.1</li> <li>iteracy completion rate, total (% of ages 7-3)</li> <li>45.1</li> <li>iteracy completion rate, total (% of ages 7-3)</li> <li>45.1</li> <li>iteracy completion rate, total (% of ages 7-3)</li> <li>45.1</li> <li>iteracy completion rate, total (% of ages 7-13)</li> <li>45.1</li> <li>iteracy completion rate, total (%)</li> <li>45.1</li> <li>iteracy completion rate, total (%)</li> <li>46.1</li> <li>iteracy completion rate, total (%)</li> <li>46.2</li> <li>iteracy completion rate, total (%)</li> <li>46.2</li> <li>iteracy completion rate, total (%)</li> <li>46.4</li> <li>iteracy completion rate, total (%)</li> <li>47.4</li> <li>iteracy completion rate, total (%)</li> <li>iteracy completion rate, total (%)<td>Il course of prima</td><td>ary schooling</td><td></td><td></td><td></td></li></ul>	Il course of prima	ary schooling			
htmany completion rate, total (% of ages 7-13)       45.1         bit al 3: Promote gender equality and empower women       yet 3.A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels roportion of seats held by women in national parliament (%)       0.0         tatio of female to male primary enrollment (%)       84.4         tatio of female to male secondary enrollment (%)       65.2         tatio of female to male secondary enrollment (%)       65.2         tatio of female to male secondary enrollment (%)       67.0         fortater drownen employed in the nonagricultural sector (% of total nonagricultural employme: 27.9       7.9         pal 4: Reduce by thore the nonagricultural sector (% of total nonagricultural employme: 27.9       67.0         fortality rate, under-5 (per 1,000 live births)       67.0         fortality rate, under-5 (per 1,000 live births)       89.1         variativ rate, under-5 (per 1,000 live births)       89.1         variaterial mortality ratio (modeled estimate, per 100,000 live births)       470.0         valternal mortality rate (under set (res 1,000 women ages 15-19)          vale 6 A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS          revalence of HIV, tatal (% of oppulation ages 15-49)          vale 6 A: Have halted by 2015 and begun to reverse the incidence of malaria and other malor diseases </td <td></td> <td>64.1</td> <td></td> <td>n.a.</td> <td></td>		64.1		n.a.	
bal 3: Promote gender equality and empower women         riget 3.: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels         rigoption of seats held by women in national parliament (%)       84.4         tatio of female to male secondary enrollment (%)       84.4         tatio of female to male secondary enrollment (%)       84.4         tatio of female to male tertilary enrollment (%)       84.2         tatio of female to male tertilary enrollment (%)       87.2         tatio of female to male tertilary enrollment (%)       87.2         tatio of female to male tertilary enrollment (%)       87.0         tatis the other on thirds, between 1990 and 2015, the under-five mortality rate infart (per 1,000 live births)       89.1         bal 4: Reduce by two-thirds, between 1990 and 2015, the maternal mortality ratio (modeled estimate, per 100,000 live births)       470.0         tifts attended by skilled health staff (% of total)           tifts attended by skilled health staff (% of total)           tifts attended by skilled health staff (% of total)           tifts attended by skilled health staff (% of total)           tifts attended by skilled health staff (% of total)           tifts attended by skilled health staff (% of total)       <		69.1		n.a.	
riget 3.4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels roportion of seats held by women in national parliament (%) 0.0 datio of female to male primary enrollment (%) 84.4 datio of female to male primary enrollment (%) 65.2 datio of female to male primary enrollment (%) 6.2 data of the primary enrollment (%) 6.2 data of the primary enrollment (%) 7.9 data data data data data data data data	5.1 50.0	55.1			
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tatio of female to male primary enrollment (%)       84.4         tatio of female to male secondary enrollment (%)       65.2         tatio of female to male tertiary enrollment (%)       65.2         share of women employed in the nonagricultural sector (% of total nonagricultural employme)       27.9         share of women employed in the nonagricultural sector (% of total nonagricultural employme)       27.9         share of women employed in the nonagricultural sector (% of total nonagricultural employme)       27.9         share of women employed in the nonagricultural sector (% of total nonagricultural employme)       27.9         share of women employed in the nonagricultural sector (% of total nonagricultural employme)       27.9         share of the nonagricultural sector (% of total nonagricultural employme)       65.0         hortality rate, indra (per 1,000 live births)       89.1         start for the nodeled estimate, per 100,000 live births)       470.0         sifts attended by skilled health staff (% of total)       .         start per 5.18: Achieve, by 2015, universal access to reproductive health care       .         contraceptive prevalence (% of women ages 15-49)       .         tregarant women receiving prenatal care (%)       .         start HIV/ADS, malaria, and other diseases       .         revalence of HIV, female (% ages 15-24)       .         revalence of HIV, temploy					
tatio of female to male secondary enrollment (%) 65.2 tatio of female to male tertiary enrollment (%) 65.2 tatio of female to male tertiary enrollment (%) 77.9 tatio of meme employed in the nonagricultural sector (% of total nonagricultural employmei 27.9 tat 4. Reduce child mortality reget 4. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate mmunization, measles (% of children ages 12-23 months) 65.0 totrality rate, infant (per 1.000 live births) 89.1 al 5: Improve maternal health reget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (modeled estimate, per 100,000 live births) 470.0 taternal mortality ratio (modeled estimate, per 100,000 live births) 470.0 taternal mortality ratio (modeled estimate, per 100,000 live births) 470.0 taternal mortality ratio (modeled estimate, per 100,000 live births) 5.1 contraceptive prevalence (% of women ages 15-49) contraceptive prevalence (% of women ages 15-49) reget 6.3: Have halted by 2015 and begun to reverse the spread of HIV/AIDS revalence of HIV, fotal (% ages 15-24) revalence of HIV, fotal (% of population ages 15-49) 0.1 revalence of HIV, fotal (% of population ages 15-49) 0.1 reget 7.2: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases criedence of HUV, fotal (% of population ages 15-49) 0.1 revalence of HIV, fotal (% of population ages 15-49) 0.1 reget 7.2: Integrate the principles of sustainable development into country policies and programs and reverse forest area (% of land area) 0.5 farine protected areas (% of total land area) 1.9 reget 8: Various feet 10D Areceived per capita (current US\$) 0.0 felt ODA received per capita (current US\$) 0.0 felt opone (% of population with access) 0.3 and as and as there is total (births per woman) 4.8 iNI per capita, Atlas method (current US\$) (billions) 3.4		1.8	0.9	0.9	
atio of female to male tertiary enrollment (%)		86.3	85.0		
hare of women employed in the nonagricultural sector (% of total nonagricultural employme: 27.9 aid 4: Reduce child mortality rget 4. A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate mnunization, measles (% of children ages 12-23 months) 67.0 fortality rate, infant (per 1,000 live births) 83.1 bit 15: Improve maternal health rget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio laternal mortality ratio (moledle estimate, per 100,000 live births) 470.0 irths attended by skilled health staff (% of total) 470.0 irths attended by skilled health staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of total) 470.0 irths attended by skilled nealth staff (% of population ages 15-49) 470.0 irths attende of HIV, Attal (% ages 15-24) 470.0 irths attende to the principles of sustainabile development into country policies and programs and reverse rget 7.B: Reduce bidnersity loss, achieving, by 2010, a significant reduction in the rate of loss orest area (% of land area) 55 irther s	17.0	 57.3			
al 4: Reduce child mortality         rget 4. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate numization, measles (% of children ages 12-23 months)       67.0         ortality rate, infant (per 1,000 live births)       89.1         al 5: Improve maternal health       gget 5.4: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio (modeled estimate, per 100,000 live births)       470.0         inths attended by skilled health staff (% of total)           gget 5.8: Reduce, by other quarters, between 1990 and 2015, the maternal mortality ratio (modeled estimate, per 100,000 live births)       470.0         inths attended by skilled health staff (% of total)           gget 5.8: Achieve, by 2015, universal access to reproductive health care           ontraceptive prevalence (% of women ages 15-49)           odescent fertility rate (hilds per 1,000 women ages 15-49)           revalence of HIV, fmale (% ages 15-24)           revalence of HIV, total (% of population ages 15-49)       0.1          revalence of HIV, total (% of population ages 15-49)       0.1          revalence of HIV, total (% of population ges 15-49)       0.1          revalence of HIV, total (% of population ges 15-49)       0.1 <tr< td=""><td></td><td>32.1</td><td></td><td></td><td></td></tr<>		32.1			
rget 4.A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate       67.0         munuization, measles (% of children ages 12-23 months)       65.0         ortality rate, infant (per 1,000 live births)       89.1         al 5: Improve maternal health       89.1         rget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio       70.0         riths attended by skilled health staff (% of total)          rget 5.B: Achieve, by 2015, universal access to reproductive health care          ontraceptive prevalence (% of women ages 15-49)          al 6: Combat HIV/AIDS, malaria, and other diseases          reget 6.A: Ache halted by 2015 and begun to reverse the spread of HIV/AIDS          revalence of HIV, fmale (% ages 15-24)          revalence of HIV, fmale (% ages 15-24)          revalence of HIV, fmale (% ages 15-24)          revalence of HIV, fmale (%, ages 15-24)          revalence of HIV, fmale (%, ages 15-24)          revalence of HIV, fmale (%, all forms)       19.0         al 7: Ensure environmental sustainability          reget 6.C: Have, halted by 2015 and begun to reverse the incidence of malaria and other major diseases         cidence of tuberculosis (per 100.000 people)       .0.0		52.1			
munication, measles (% of children ages 12-23 months)         67.0           lordality rate, infant (per 1,000 live births)         65.0           lordality rate, under-5 (per 1,000 live births)         89.1           val 5: Improve maternal health         89.1           rget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio         1470.0           laternal mortality ratio (modeled estimate, per 100,000 live births)         470.0           irths attended by skilled health staff (% of total)            ontraceptive prevalence (% of wormen ages 15-49)            dolescent fertility rate (births per 1,000 wormen ages 15-19)            revalence of HIV, female (% ages 15-24)            revalence of HIV, male (% ages 15-24)            revalence of HIV, total (% of population ages 15-49)         0.1           rget 6.2: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases            revalence of HIV, total (% of population ages 15-49)         0.1           rget 6.2: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases            revalence of HIV, total (% of population ages 15-49)         0.1           rget 7.2: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss            orest					
totality rate, infant (per 1,000 live births)       65.0         tortality rate, under-5 (per 1,000 live births)       89.1         spal 5: Improve maternal health       reget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio         taternal mortality ratio (modeled estimate, per 100,000 live births)       470.0         irths attended by skilled health staff (% of total)          reget 5.B: Achieve, by 2015, universal access to reproductive health care          contraceptive prevalence (% of women ages 15-49)          dolescent fertility rate (births per 1,000 women ages 15-19)          cagnant women receiving prenatal care (%)          val 6: Combat HIV/AIDS, malaria, and other diseases          revalence of HIV, fende (% ages 15-24)          revalence of HIV, futal (% of population ages 15-49)       0.1         revalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of population ages 15-49)       0.1         revalence of HIV, total (% of population ages 15-49)       0.1         revalence of tuberculosis (per 100,000 people)          uberculosis (per 100,000 people)       0.1         revalence of tuberculosis (per 100,000 people)       0.5         C2 emissions (kg per PPP \$ of GDP)       0.5	42.0	62.0	62.0	<b>FF</b> 0	-
fortality rate, under-5 (per 1,000 live births)       89.1         pal 5: Improve maternal health       riget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio         faternal mortality ratio (modeled estimate, per 100,000 live births)       470.0         irths attended by skilled health staff (% of total)          riget 5.B: Achieve, by 2015, universal access to reproductive health care          iontraceptive prevalence (% of women ages 15-49)           regnant women receiving prenatal care (%)          al 6: Combat HU/AIDS, malaria, and other diseases          revalence of HIV, female (% ages 15-24)          trevalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of population ages 15-49)          revalence of HIV, total (% of opopulation ages 15-49)          revalence of HIV, total (% ages 16-24)          revalence of HIV, total (% of BOP)          0.21       restare (% of a darea)		62.0 58.2	63.0 55.7	55.0 50.7	7 4
a1 5: Improve maternal health         rget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio         riths attended by skilled health staff (% of total)         rget 5.B: Achieve, by 2015, universal access to reproductive health care         ontraceptive prevalence (% of women ages 15-49)         dolescent fertility rate (bitths per 1,000 women ages 15-19)         reget 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS         revalence of HIV, female (% ages 15-24)         revalence of HIV, total (% of ges 15-24)         revalence of HIV, total (% of population ages 15-49)         output of the statistical of th		78.4	74.5	66.7	6
rget 5.A: Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio laternal mortality ratio (modeled estimate, per 100,000 live births) 470.0 irths attended by skilled health staff (% of total)	02.0	70.4	14.0	00.7	, c
taternal mortality ratio (modeled estimate, per 100,000 live births)       470.0         iriths attended by skilled health staff (% of total)          gref 5.B: Achieve, by 2015, universal access to reproductive health care          contraceptive prevalence (% of women ages 15-49)          dolescent fertility rate (births per 1,000 women ages 15-19)          regnant women receiving prenatal care (%)          at 6: Combat HIV/AIDS, malaria, and other diseases          gret 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS          revalence of HIV, female (% ages 15-24)          revalence of HIV, total (% of population ages 15-49)       0.1         uper culosis case detection rate (%, all forms)       19.0         Dat 7: Ensure environmental sustainability          revalence of HIV, total (% of population gy 2010, a significant reduction in the rate of loss creat area (% of land area)          x02 emissions (kg per PPP \$ of GDP)       0.5          x02 emissions (kg per PPP \$ of GDP)       0.5          x03 errestrial protected areas (% of total land area)       1.9          revalence (% of population with access)           x03 errestrial protected areas (% of total land area)					
irths attended by skilled health staff (% of total) rget 5.B: Achieve, by 2015, universal access to reproductive health care iontraceptive prevalence (% of women ages 15-49) dolescent fertility rate (births per 1,000 women ages 15-19) regnant women receiving prenatal care (%) al 6: Combat HIV/AIDS, malaria, and other diseases rget 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS revalence of HIV, finale (% ages 15-24) revalence of HIV, total (% of population ages 15-49) revalence of HIV, total (% of population ages 15-49) revalence of tuberculosis (per 100,000 people) solution of the solution of the solution in the rate of loss orest area (% of land area) of a fine protected areas (% of total land area) solution (metric tons per capita) solution of people without sustainable access to safe drinking water and bas norved water source (% of population with access) and 8: Develop a global partnership for development rget 8: Various solution for the solution (per poportion of people without sustainable access to safe drinking water and bas norved water source (PPG and IMF only, % of exports of goods, services and primary income) solution (per 100 people) solution (per apita, Atlas method (current US\$) solution (per apita, Atlas method (current US\$) solution (per apita, Atlas method (c	0.0 370.0	340.0	280.0	240.0	22
Irget 5.B: Achieve, by 2015, universal access to reproductive health care         Contraceptive prevalence (% of women ages 15-49)          Videloscent fertility rate (births per 1,000 women ages 15-19)          Viegnant women receiving prenatal care (%)          Dat 6: Combat HIV/AIDS, malaria, and other diseases          Irget 6.A: Have halted by 2015 and begun to reverse the spread of HIV/AIDS          Irevalence of HIV, female (% ages 15-24)          revalence of HIV, total (% of population ages 15-49)       0.1         urget 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases          revalence of HIV, total (% of population ages 15-49)       0.1         urget 6.C: Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases          cidence of tuberculosis (per 100,000 people)       309.0         'uberculosis case detection rate (%, all forms)       19.0         Dat 7: Ensure environmental sustainability          Urget 7.B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss       69.6         C02 emissions (metric tons per capita)       0.5         Aiarine protected areas (% of total land area)       0.5         protect areas (% of population with access)       20.2         m	10.0	41.0	42.0	240.0	22
The second se	42.0	41.0	42.0		
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ielephone lines (per 100 people)     0.7       her	0.0 0.0	0.8	1.7	1.3	
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ross capital tormation (% of GUP) 24.4		3.3	4.2	8.9	1
		21.9			
ife expectancy at birth, total (years) 55.7		58.8	60.6	62.0	
.iteracy rate, adult total (% of people ages 15 and above) Population, total (millions) 4.2		57.3	 6.1	 6.9	
Copulation, total (minions)         4.2           Frade (% of GDP)         89.6		5.4 115.0	0.1	0.9	

### Appendix I. Papua New Guinea: Risk Assessment Matrix<sup>1</sup>/

	Risk	Relative Likelihood	Impact if Realized	Potential Impact	Staff Advice on Policy Response	
	Persistently low energy prices triggered by supply factors reversing only gradually, and weaker demand	Μ	M H Lower LNG prices would reduce fiscal revenue, export proceeds, and foreign reserves. Development of future LNG projects may be jeopardized.		Allow the kina to depreciate and accelerate structural reforms to boost non-resource exports; tighten the fiscal stance to buttress the external position; reprioritize spending to support export-oriented infrastructure.	
External Risks	Structurally weak growth in key advanced and emerging economies (the "new mediocre")	M/H	Н	Potential for a further drop in commodity prices (see above). Lower export demand would worsen the trade balance, weaken fiscal revenue/reserves.	Allow the kina to depreciate to boost non-resource exports; accelerate structural reforms to improve competitiveness.	
	Tighter or more volatile global financial conditions	Н	L/M	Volatility may affect the climate for raising external debt. However, the low external debt stock and financial integration would limit impacts on PNG.	Slow or cut expenditure growth to avoid external debt issuance. Accelerate structural reforms to take advantage of any competitiveness improvement.	
	Further shortfalls in asset sales to lead to monetization of the fiscal deficit and/or spending cuts in priority areas	Н	M/H	Monetization of the deficit would add to excess liquidity and create inflation or depreciation pressures. Spending cuts to infrastructure/front line services would impact growth.	Avoid deficit financing by the central bank, and focus spending cuts on low impact areas. Improve cash management to ensure effective utilization of existing financial resources.	
Domestic Risks	Political instability and worsening security	L	M/H	Potential increase in rent- seeking behavior and non- productive expenditures. Confidence and investment could falter.	Resist monetary accommodation of a fiscal expansion, focusing any increased spending on improving security, but with greater fiscal transparency.	
	Natural disasters	Μ	M/H	Given PNG's poor infrastructure and weak capacity, the economic impact could be significant.	Ensure fiscal buffers are adequate to support affected groups and spend more on preparation and prevention; encourage take-up of disaster insurance.	

**Potential Deviations from Baseline** 

1/ The Risk Assessment Matrix (RAM) shows events that could materially alter the baseline path (the scenario most likely to materialize in the view of IMF staff). The relative likelihood of risks listed is the staff's subjective assessment of the risks surrounding the baseline ("low" is meant to indicate a probability below 10 percent, "medium" a probability between 10 and 30 percent, and "high" a probability of 30 percent or more). The RAM reflects staff views on the source of risks and overall level of concern as of the time of discussions with the authorities. Non-mutually exclusive risks may interact and materialize jointly.

### Appendix II. Papua New Guinea: Authorities' Responses to Fund Advice

Fund Recommendation	Policy Actions
Monetary, Financial and Exchange Rate	Policies
<ul> <li>Remove excess liquidity to improve monetary policy effectiveness and redu downside pressure on the kina exchangerate.</li> </ul>	
<ul> <li>Maintain a floating exchange rate regir to help absorb external shocks.</li> </ul>	The official interbank exchange rate was unchanged from October 2013 to early June 2014, when the BPNG introduced a foreign exchange (FX) trading band of 150 basis points around the official interbank rate, leading to a de facto kina appreciation of around 17 percent. Since then the exchange rate has depreciated by 16 percent, but excess demand for foreign currency has persisted.
<ul> <li>Implement FATF AML/CFT recommendations.</li> </ul>	Five AML/CFT bills have recently been enacted, and guidelines will be issued to complement the Anti-Money Laundering and Counter Terrorist Financing Bill 2015. A National Coordinating Committee has been established across 15 different institutions.
Fiscal Policy	
<ul> <li>Adopt a fiscal policy stance consistent putting public debt in line with the government's targets and ensuring deb sustainability.</li> </ul>	and plan to cut spending in 2015 with the possibility of a
• Improving the quality of spending.	A draft PEFA assessment was completed in April 2015, and identified several areas of weakness, including weak cash management. The authorities have recently published the PEFA assessment and finalized the PFM roadmap. Priorities include the completion of the IFMS rollout, to address shortcomings in collection and recording of accounting information.
• Improving revenue collection through improved tax compliance and rationaliz tax exemptions and concessions.	The authorities are continuing efforts to improve revenue collection. The 2015 budget included a review of fees and charges, measures to improve GST and rental income tax compliance, tougher penalties for convicted tax offenders, and an increase in tobacco excise duties. Further measures are expected to result from the comprehensive tax review, which is nearing completion.
<ul> <li>Safeguard the integrity of the SWF for play a key role in managing PNG's reso revenues.</li> </ul>	

### Appendix II. Papua New Guinea: Authorities' Responses to Fund Advice (concluded)

	Fund Recommendation	Policy Actions
Str	ructural Reform	
•	Improve revenue transparency, including taking required steps to secure EITI membership.	EITI candidacy was attained in March 2014. Achievements have included the recruitment of a National Head of Secretariat, and progress on the first EITI report which is due in December 2015. PNG expects to undertake EITI validation by early 2017.
•	Improve governance and accountability of public enterprises.	The 2015 Budget announced work to develop and implement several SOE policies including: a dividend policy; an on-lending and guarantee policy; and a community service obligation policy. Legislation enacted in 2015 will see state-owned assets previously held in IPBC transfer to Kumul Consolidated Holdings.
•	Ensure the Kumul trust and companies' political independence and focus on stated corporate goals.	Legislation has recently been passed for the establishment of three Kumul subsidiaries.
Sta	atistics	
	Develop a strategic plan to resolve the long-standing shortcomings in the CPI and national accounts statistics.	The authorities have initiated a three-stage plan to reform the NSO. Meanwhile, the NSO has shown signs of improvement, as reflected in recent data releases.



INTERNATIONAL MONETARY FUND

# PAPUA NEW GUINEA

**STAFF REPORT FOR THE 2015 ARTICLE IV** 

October 8, 2015

**CONSULTATION—INFORMATIONAL ANNEX** 

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

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### **FUND RELATIONS**

(As of August 30, 2015)

#### **Membership Status**

Joined: October 9, 1975; Article VIII

#### **General Resources Account**

	SDR Million	Percent Quota
Quota	131.60	100.00
Fund holdings of currency	131.16	99.66
Reserve position in Funds	0.45	0.34

#### **SDR Department**

		reitent
	SDR Million	Allocation
Net cumulative allocation	125.49	100.00
Holdings	9.19	7.32

#### **Outstanding Purchases and Loans**

SDR Million	Percent Quota
0.00	0.00

Dorcont

#### **Latest Financial Arrangements**

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

#### **Projected Payments to Fund<sup>1</sup>**

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

	Forthcoming							
	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>			
Principal								
Charges/interest	0.01	0.06	0.06	0.06	0.06			
Total	0.01	0.06	0.06	0.06	0.06			

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

#### **Safeguards Assessments**

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

#### **Exchange Rate Arrangement**

Papua New Guinea's de jure exchange rate arrangement is floating. From April 2014, the Kina has reduced its volatility and followed a trend within a 2 percent band against the U.S. dollar. Accordingly, the de facto exchange rate arrangement was reclassified from floating to a crawl-like arrangement, effective April 11, 2014. Papua New Guinea maintains an exchange restriction subject to IMF approval under Article VIII, Section 2(a) of the IMF's Articles of Agreement arising from the requirement to obtain a tax clearance certificate evidencing the payment of all taxes prior to making payments or transfers for certain current international transactions.

#### **Article IV Consultations**

The 2014 Article IV consultation discussions were held during August 8-22, 2014. The staff report was discussed by the Executive Board and the consultation completed on November 10, 2014 (IMF Country Report No. 14/325). Papua New Guinea is on the standard 12–month consultation cycle.

#### **Technical Assistance from Headquarters**

**FAD:** A joint FAD/PFTAC mission in March 2000 assisted the authorities in preparing a Report on the Observance of Standards and Codes Fiscal Transparency Module, published in October 2000. A mission in December 2000 provided advice on the reconciliation of large and volatile differences in fiscal reporting based on information provided by the Treasury Department and information reported by the Bank of Papua New Guinea. A mission in February 2002 assessed progress in improving fiscal transparency. A joint FAD/PFTAC mission visited PNG to provide advice on the sovereign wealth fund management in May 2011. A mission in March 2013 provided advice on reform of the extractive industries fiscal regime.

**LEG:** 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:** Technical assistance through peripatetic visits was delivered on bank regulation and supervision (2001, February–March 2007, July–August 2009, and February 2010), medium-term monetary policy formulation (October 2004 and September 2005), reserve management (June 2006, September 2007, March/July–August 2009, January–February 2010), internal audits (2004, August 2007), accounting (September–October 2006, February 2007, February–March/June–July/November 2009), liquidity management (January 2009), monetary and forex operations (July–

August 2009, February 2010), macroprudential oversight and financial stability (September 2012), the sovereign wealth fund (July 2013), and effectiveness of monetary policy (February-March 2015).

**STA:** A multisector statistics mission occurred in September 2006 followed by a high-level STA visit in December 2007, in collaboration with the ABS. Technical assistance was provided on monetary and financial statistics (April 2005, May 2006, April 2008, November 2009 May 2010, and February 2013); balance of payments and the international investment position (June 2008, November 2009, May-June 2013, February 2014, and July 2015); government finance statistics (2012, May and October 2013, April-May and October 2014, April 2015, and September 2015); and GDDS metadata (January 2012). A joint mission with the ABS discussed statistical capacity building and in particular reform of the National Statistical Office in July-August 2014.

#### **Resident Representative**

The Regional Resident Representative Office for Pacific Island Countries based in Suva, Fiji was opened on September 13, 2010 and the office covers Fiji, Kiribati, Marshall Islands, Micronesia, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, and Vanuatu. Mr. Tubagus Feridhanusetyawan is the current resident representative.

### RELATIONS WITH THE PACIFIC FINANCIAL TECHNICAL ASSISTANCE CENTRE

(As of September 2015)

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, the European Union, 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, Timor-Leste, Tokelau, Tonga, Tuvalu, and Vanuatu.

#### A. Public Financial Management

The PFTAC assisted in the preparation of a ROSC, which was published in October 2000. The PFTAC PFM Advisor has participated in occasional FAD technical assistance missions, and an attachment of one PNG official to PFTAC was completed in April 2007. PNG participated, with four officials, in the U.S. Treasury study visit in September 2008. In May 2011, the PFTAC macroeconomic advisor participated in an FAD mission on advising PNG on the SWF. In July 2013, a PFTAC PFM Advisor visited PNG at the request of the Treasury Minister to review the budget preparation process, and discuss with authorities plans for training in the PEFA methodology. In May-June 2014, PFTAC provided information, communication, and technology (ICT) assessment mission and recommended comprehensive reform strategy to better support of operation of the Department of Finance.

In 2014, however, PFTAC PFM assistance expanded heavily. Starting early in 2014, and continuing through early 2015, PFTAC began training PNG staff to carry out a PEFA Self-Assessment. Subsequently in March 2015 PFTAC and a team from FAD conducted an external PEFA assessment which corroborated most of the findings of the Self-Assessment. PFTAC and FAD then worked with Department of Finance officials to develop a PFM Reform Roadmap to address major deficiencies identified by the PEFA Assessment.

PFTAC also sponsored several short-term missions by an ICT specialist starting in May 2014 and continuing into mid-2015 to assess ICT operations and design and implement a comprehensive reform strategy to better support expansion of a modern IFMS by the Department of Finance.

In addition, during 2015 PFTAC supported short-term missions to review cash management, reconciliation, and reporting processes.

#### **B.** Tax Administration and Policy

PFTAC has not supported the Internal Revenue Commission (IRC) in revenue administration as they are strongly supported by two Australian Programs: (1) the Strongim Gavman Program (SGP) which is

used to engage senior ATO advisors to the IRC; and (2) the Economic Public Sector Program (EPSP) which provides support for strategic, governance, integrity matters and IT support.

A new IT system continues to be rolled out which includes new applications for withholding taxes, Goods and Services Tax and Corporate Income Tax. Peripheral modules will follow over the next twelve months with project completion by 2017.

A tax review diagnostic, conducted by an accounting firm, has issued a report and various issues papers which are currently under discussion.

#### C. Financial Sector Regulation and Supervision

There is no current PFTAC involvement in this area. In September 2014, 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 the Bank of Papua New Guinea to assist the Cook Islands' supervisory authority to undertake an on-site examination of a domestic bank. In 2008, PFTAC funded an attachment of one supervisor to assist the Reserve Bank of Fiji under an on-site examination of a local branch of a PNG-based bank. PFTAC has not received any subsequent request for assistance from the BPNG.

#### **D. Economic and Financial Statistics**

In February 2006, an Advisor briefly assessed the BOP compilation with a view to improving its quality, and to assessing progress with regard to 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. In 2008 and 2009 the Advisor undertook BOP statistics missions to review statistics prerequisites, progress in improving compilation methods and source data, as well as to assist BPNG statistics staff in assessing the feasibility of electronic data collection. Since 2013, PFTAC has conducted a series of six TA missions to assist the national statistics office (NSO), the BPNG, and the Department of Treasury in improving national accounts statistics. PFTAC has increasingly focused its TA on improving capacities at the NSO in the broader context of the NSO reform process initiated by the authorities in 2014. Support has been provided in close collaboration with the ABS which has provided statistical leadership and management advice as well as TA on data collection issues including business and household surveys with the secondment of two ABS staff to the PNG NSO since July 2015 and until June 2016.

#### E. Macroeconomic Analysis

Following a request by the BPNG for assistance in building up financial programming capacity, the development of a PNG-specific financial programming framework started in 2011. Training in the use and updating of the framework was provided to staffs of both BPNG and the Department of Treasury and staffs from both institutions also participated in training in financial programming techniques provided jointly by PFTAC and the Singapore Regional Training Institute during a regional workshop

in Fiji in December 2012. A separate work program with the Department of Treasury and BPNG developed in collaboration with the APD country team and the IMF's Research Department modeling tools for exploring the macroeconomic impact of the surge in natural resource revenues from the LNG project. Further development of the financial programming framework started in 2014 as it was found to contain a high level of detail that is resource intensive to update and not needed in day-to-day monitoring and projection activities. More recently work has been undertaken to improving the BPNG's inflation forecasting methodology following major revisions to the consumer price index (CPI) by the National Statistics Office (NSO) in June 2014.

### JOINT MATRIX OF BANK-FUND COLLABORATION

Title		Products	Provisional Timing	C	Delivery Date (tentative)			
		A Mutual Informa	of Missions A. Mutual Information on Relevant Work Programs					
Dankwark	Danua Mau	Guinea Economic	Ongoing		d online in 02 2012 01 2012			
Bank work program	Briefing	Guinea Economic	Ongoing	Published online in Q2 2012, Q and Q4 2013, next Briefing exp Q4 2014.				
	Notes	Guinea Economic Policy	Completed	presente Decembe				
	disseminati Papua New Income and	r analysis and on of the 2009-2010 r Guinea Household d Expenditure Survey	Completed	March 20	015			
	Support for implementa	r the development and ation of the PNG Wealth Fund	Completed	October	2012, January 2013.			
	Social prote	ection technical assistance	Completed	June 201				
	Cost of crin	ne and violence	Completed	July 2014	4			
	Education p	oublic expenditure review	Completed	January 2	2015			
	(1) review c provincial a line rural he	ncing and PFM analysis: of expenditure by idministrations on front ealth; (2) analysis of health 3) health facility efficiency	Ongoing	expendit survey ex March 20 held in C	nation of policy notes on cure; health facility efficiency xpected to be completed by 016. Health flagship course to be October 2015.			
		T analytical tool for the public expenditure data	Completed	Demonstration conducted in January 2014, delivery and training expected in November 2014.				
	Report on 0 and Codes Audit	Dbservance of Standards (ROSC) - Accounting &	Completed	March 20	015			
	Developme National Fi	) Financial Services ent Strategy: developing a nancial Services Strategy nentation Plan	Ongoing	Final delivery expected in March 2016 Final delivery expected in November 2016				
	Governmer implement	ection NLTA 2: to help the nt of PNG to design and a national social sability scheme	Ongoing					
	Guinea: Ext	CSOs in Papua New ractive Industry cy Initiative (EITI)	Ongoing	Final deli	ivery expected in January 2016			
	Urban Safe Lae	ty in Port Moresby and	Ongoing	Final deli	dings presented in August 2015 ivery expected in May 2018.			
	mapping a	Energy Resource nd geospatial planning	Ongoing	expected				
	PG: Connec	tivity analysis	Completed	Final presentation shared with the PNG Government and stakeholders in September 2015.				
IMF work	2015 Staff	√isit	May-June 2015					
program	2015 Article	e IV mission	August 2014	Board discussion expected in October 2015				
			for Work Program Inpu					
Fund request	t to Bank	Information sharing	Semi-annual or more fr	requent	Ongoing			
Bank request	to Fund	Information sharing	Semi-annual or more fr	requent	Ongoing			

### **RELATIONS WITH THE ASIAN DEVELOPMENT BANK**

(As of August 31, 2015)

Papua New Guinea (PNG) joined the Asian Development Bank (AsDB) in 1971. The 2011-2015 country partnership strategy (CPS) guided AsDB's engagement in PNG since 2011. The CPS aimed to help PNG deliver its second Medium-Term Development Plan (MTDP), 2011–2015. The CPS emphasized AsDB support for transport, energy, private sector development (PSD), health, regional cooperation and integration, and public sector management (PSM). PNG significantly scaled up its use of AsDB resources during this period, with the active portfolio expanding from \$350 million in 2010 to \$1.1 billion in 2014.

In line with the government's development agenda and AsDB's Strategy 2020 midterm review priorities, the 2016-2020 CPS will assist the country in planning and implementing a successful conversion of its resource wealth into inclusive and environmentally sustainable economic growth. The indicative resources for 2016–2018 total \$637.0 million. Indicative country allocations of Asian Development Fund (ADF) resources for PNG during 2016–2018 amount to \$133.0 million. The final allocations of ADF resources will depend on the available ADF commitment authority and the outcome of the country performance assessments. The indicative non-lending program for 2016–2018 totals \$3.2 million, of which \$1.5 million is for project preparatory technical assistance.

The government favors a programmatic approach to its partnership with AsDB, featuring multitranche financing facility (MFF) which provide long-term, predictable finance for executing agencies as well as supporting development partner coordination and strengthened country financial management. AsDB will maximize the development impact of its operations by remaining focused on a small number of larger high-impact activities, prioritizing opportunities for knowledge transfer and capacity development. AsDB will also mainstream gender in its interventions and identify gender-specific targets within each of its core sectors of operations.

Providing knowledge solutions will be a focus of AsDB support: the PNG country knowledge plan outlines a targeted pipeline of activities that promote public sector transparency and improved sustainability and impact of AsDB operations. AsDB will use implementation structures established under ongoing AsDB-funded projects to partner more closely with community groups and civil society, particularly to manage environmental and social safeguards risks. Considering PNG's significant capacity constraints, and to ensure the sustainability of investments, training and capacity development will be incorporated into all sector operations.

The majority of AsDB assistance will be in two core sectors: transport and energy. The remainder of the financial envelope will be allocated to supporting rural primary health delivery, water and other urban infrastructure and services, and PSM. AsDB will take the following approaches in each of these sectors:

i. **Transport.** A strong portfolio and forward pipeline has been developed in land transport and civil aviation, with possible future opportunities in maritime transport. AsDB will support

improved sustainability through ongoing sector dialogue, support for public–private partnerships (PPPs), as well as knowledge management and technical assistance (TA) to improve maintenance and operating cost financing. Where established implementation structures have a demonstrated capacity to use funds effectively, AsDB will emphasize attracting cofinancing.

- ii. **Energy.** AsDB will continue to support investments in renewable energy generation and improving transmission and distribution efficiencies on main power grids. AsDB will also support improving electricity services to provincial centers through least-cost hydro power projects and improved distribution systems. This will include expanding the existing power grids to peri-urban areas and promoting innovative models led by the private sector for off-grid power delivery. This approach will help address a lack of access to affordable and reliable power, which currently reaches only 12 percent of the population.
- iii. **Health.** In response to government and development partner requests, AsDB will continue its operations in rural health access and service improvement. Support will focus on the country's key health challenges of maternal and child health, HIV/AIDS, and other infectious diseases through an integrated approach to health system strengthening. Program lending will be utilized to support regulatory and management reform as well as health workforce recruitment and the country's weak referral system. A focus will be placed on strengthening partnerships with civil society and attracting new sources of cofinancing and counterpart funding.
- iv. Water and other urban infrastructure and services. PNG's treated water supply is characterized by low coverage (around 20 percent), intermittent supply, and poor standards and quality. Eighty percent of urban households lack access to latrines, 94 percent of all cities and towns are unsewered, and 80 percent of all sewage generated is discharged untreated. AsDB will extend efforts to promote improved water, sanitation, and hygiene (WASH) outcomes. Assistance will emphasize creating a regulatory environment conducive to private sector investment and public sector efficiency.
- v. **Public sector management.** AsDB will emphasize increasing PSM accountability and transparency so that the government can more effectively and efficiently translate growing public revenues into delivering services and providing infrastructure. Building upon lessons from previous PSM reform efforts, and responding to the slow sector-wide reform progress, AsDB will focus its support on more transparent and accountable budgeting practices, with an emphasis on natural resource revenue management and improved infrastructure budgeting and coordination.

Papua New Guinea: Public Sector Loan Approvals and Disbursements, 2004–2015												
				(In mi	llions o	f U.S. d	ollars)					
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015 <sup>1</sup>
Loan approvals	19.0	0.0	53.0	100.0	100.0	120.0	70.3	195.8	41.5	305.9	0.0	0.0
Loan disbursements	19.2	21.5	29.3	27.4	19.8	17.4	27.9	26.2	74.46	177.0	133.73	111.25
Source: Asian Development Bank												
<sup>1</sup> 2015 disburseme	<sup>1</sup> 2015 disbursements are projections as at August 31, 2015.											

### **STATISTICAL ISSUES**

#### PAPUA NEW GUINEA — STATISTICAL ISSUES APPENDIX

As of September 24, 2015

#### I. Assessment of Data Adequacy for Surveillance

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

National Accounts: The accuracy and reliability of the statistics are affected by inadequate source data. The most recent official national accounts statistics were published by the National Statistical Office (NSO) for National Income, Expenditure and Product, for reference years 1993–98. These estimates were compiled using the System of National Accounts 1968 (1968 SNA). Subsequently, a preliminary set of national accounts (NA) estimates using the 1993 SNA for 1994–2004, rebased to 1998 prices, was compiled. However, as these estimates were still in need of substantial improvements, the 2006 STA multisector mission recommended against publication of the new GDP statistics until the needed revisions were made. No further data have been provided by the NSO to STA since that time. In an attempt to fill the vacuum, the Treasury Department began estimating the NA since reference year 2002. The Bank of Papua New Guinea also compiles, but does not publish, its own estimates of GDP. Since August 2013, six TA missions have been conducted by PFTAC to review the methodologies and the data sources used to compile the national accounts statistics. These missions identified shortcomings and advised on improving the use of administrative data, including tax data. A detailed work plan has been prepared in collaboration with the ABS for the NSO to produce GDP estimates in current prices for the period 2007-13. These estimates should be released in November 2015 and GDP estimates in constant prices should be released later in 2016. PFTAC conducted two sub-regional training courses during 2014 and 2015 to support this development work. Reforming the NSO is underway with support from the ABS.

**Price Statistics**: The NSO currently compiles a quarterly wholesale price index (WPI) (which it does not publish) and a quarterly consumer price index (CPI). In May 2014, the NSO began to publish a new CPI series based on the data from the 2009-10 Household Income Expenditure Survey, ending 35 years of the CPI using a consumption basket from the late 1970s. However, the most recent CPI published on the NSO website is for Quarter 4, 2014.

**Government Finance Statistics:** Annual government finance statistics (GFS) have not been reported to STA since 2002. Data received to that point in time suffered from insufficient coverage and timeliness. Central government tax revenue, nontax revenue, and public expenditure data are deficient. Development budget expenditures and the utilization of grants and project loans are recorded with long lags, and few records on the use of trust accounts are available. Tax revenues collected by authorities (extra-budgetary units) are generally not reflected in the central government's financial information; this includes the portion of value-added tax directly transferred to provinces by the revenue agency. While interest payment records are accurate, there are timing issues regarding the recording of interest on discounted securities. These weaknesses contribute to discrepancies in domestic financing between estimates from monetary and debt data and those derived from fiscal records. Currently the Papua New Guinea Government is preparing to migrate to *Government Finance Statistics Manual 2014 (GFSM 2014)*, with a goal of using this methodology for budget estimate and outturn presentations in the future. For the migration, the authorities are participating in the Japan Administered Account (JSA)-funded three-year regional GFS capacity-building project since 2013. JSA funding for GFS TA to PNG has been extended through 2018.

**Monetary and Financial Statistics:** Monetary data are now being produced and reported to STA on a regular basis. Progress has been achieved by the Bank of Papua New Guinea (BPNG) in many areas in the collection, compilation, and dissemination of monetary and financial statistics (MFS), leading to the introduction of the standardized report form (SRF) for the central bank, other depository corporations (ODCs), and the other financial corporations (OFCs). The 2013 mission introduced general insurance companies in the institutional coverage of OFCs and an improved SRF for OFCs. Most of the monetary statistics published in *International Financial Statistics (IFS)* are currently aligned with the *Monetary and Financial Statistics Manual (MFSM*).

**Financial sector surveillance:** In the area of financial soundness indicators (FSIs), the BPNG has compiled selected FSIs for deposit takers to support the financial sector assessment. Papua New Guinea is participating in a three-year (FY2014–FY2016) TA project on FSIs for selected AFR and APD countries funded by the Government of Japan and is expected to submit FSI data and metadata to STA for posting on the IMF's <u>FSI website</u> well before the end of the project.

**External Sector Statistics:** The latest balance of payments data reported to STA are those for 2012. Annual balance of payments data are derived from the International Transactions Reporting System (ITRS). The ITRS coverage of data is lower than that of custom declarations database. 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 area of private external debt and foreign direct investment. The use of administrative data for PNG Liquefied Natural Gas project's transactions, a large component of PNG's economy, is highly required for improvement of ESS. Three TA missions have been provided under the JSA Project on the improvement of external sector statistics (ESS) since May 2013. Despite those TA missions, overall improvements in the quality of ESS have been very modest.

#### **II. Data Standards and Quality**

No data ROSC assessment has been done for Papua
New Guinea.

#### **III. Reporting to STA**

Papua New Guinea last reported GFS for publication in *Government Finance Statistics Yearbook* and *IFS* for 1999–2002, covering only the budgetary central government. Monetary data are reported to STA for publication in *IFS* on a regular monthly basis. BOP data for 2010 were reported to STA for publication in *Balance of Payments Yearbook* and *IFS*. National accounts data for 2004 were reported to STA for publication in *IFS*.

Papua New Guinea: Table of C	Common Ind	icators Re	quired for <b>S</b>	Surveillance	9
(As of	September 2	24, 2015)			
	Date of Latest Observation	Date Received	Frequency of Data <sup>1</sup>	Frequency of Reporting <sup>1</sup>	Frequency of Publication <sup>1</sup>
Exchange Rates	09/22/15	09/22/15	D	D	D
International Reserve Assets and Reserve Liabilities of the Monetary Authorities <sup>2</sup>	07/15	08/14/15	W	W	Q
Reserve/Base Money	07/15	08/14/15	М	М	Q
Broad Money	07/15	08/14/15	М	М	Q
Central Bank Balance Sheet	07/15	08/14/15	М	М	Q
Consolidated Balance Sheet of the Banking System	07/15	08/14/15	М	М	Q
Interest Rates <sup>3</sup>	07/15	08/14/15	W	W	Q
Consumer Price Index	06/15	07/31/15	Q	Q	Q
Revenue, Expenditure, Balance and Composition of Financing <sup>4</sup> —General Government <sup>5, 8</sup>	N/A	N/A	N/A	N/A	N/A
Revenue, Expenditure, Balance and Composition of Financing <sup>4</sup> —Central Government	2014	07/31/15	А	А	А
Stocks of Central Government and Central Government-Guaranteed Debt <sup>6</sup>	06/15	07/31/15	Q	Q	Q
External Current Account Balance	06/15	07/31/15	Q	Q	Q
Exports and Imports of Goods and Services	06/15	07/31/15	Q	Q	Q
GDP/GNP	2014	07/31/15	А	А	А
Gross External Debt	06/15	07/31/15	Q	А	А
International Investment Position <sup>7, 8</sup>	N/A	N/A	N/A	N/A	N/A

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

<sup>2</sup> Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

<sup>3</sup> Both market-based and officially-determined, including discount rates, money market rates, rates on treasury bills, notes, and bonds.

<sup>4</sup> Foreign, domestic bank, and domestic nonbank financing.

<sup>5</sup> The general government consists of the central government (budgetary funds, extra-budgetary funds, and social security funds) and state and local governments.

<sup>6</sup> Including currency and maturity composition.

<sup>7</sup> Includes external gross financial asset and liability positions vis-à-vis nonresidents.

<sup>8</sup> Lack of capacity prevented the authorities from providing the data.



# PAPUA NEW GUINEA

October 8, 2015

STAFF REPORT FOR THE 2015 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

Approved By Hoe Ee Khor and Steven Barnett (IMF) Satu Kahkonen (IDA) Prepared by the staffs of the International Monetary Fund (IMF) and the International Development Association (IDA)<sup>1</sup>

This Debt Sustainability Analysis (DSA) indicates that Papua New Guinea's (PNG) risk of debt distress remains low based on an assessment of public and publicly-guaranteed (PPG) external debt, in line with the results of the DSA for the 2014 Article IV consultation.<sup>2</sup> However, factoring in public domestic and private external debt and contingent liabilities, the overall risk of debt distress remains heightened, and a failure to consolidate the fiscal position would worsen debt dynamics.

<sup>&</sup>lt;sup>1</sup> This DSA was prepared jointly with the World Bank, in accordance with the Debt Sustainability Framework for low-income countries approved by the Executive Boards of the IMF and the IDA.

<sup>&</sup>lt;sup>2</sup> Papua New Guinea is rated as a medium performer for its policies and institutions for the purposes of the IMF-World Bank low-income country DSA framework.

### BACKGROUND

**1. PNG's public and external debt burdens have fallen significantly over the past decade.** Public debt declined from 62 percent of GDP at end-2004 to about 22 percent of GDP in 2011, but rose to around 42<sup>1</sup>/<sub>2</sub> percent in 2014.<sup>3</sup> Public and publicly guaranteed (PPG) external debt also declined sharply, from a peak of over 50 percent of GDP in 2001 to around 16 percent in 2014. Around 70 percent of current public external debt is owed to the Asian Development Bank and the World Bank. Domestic debt consists of treasury bills (45 percent) and inscribed stocks (55 percent) with an average maturity of 5 years. The main creditors are resident banks and superannuation funds. The government is planning to issue a sovereign bond of around US\$1 billion in 2015.<sup>4</sup>

### **UNDERLYING ASSUMPTIONS**

2. Over the medium term, PNG's growth prospects and current account developments will be heavily influenced by its extractive sector and the LNG price outlook. Box 1 summarizes the medium-term macroeconomic framework underlying this DSA update. Economic activity is projected to continue to grow in 2015, reflecting the fact that liquefied natural gas (LNG) production reaches full capacity. The current account deficit narrowed in 2014 due to the winding down of the construction of the LNG project. With LNG exports coming on stream this year, the deficit is expected to turn into a surplus in 2015, while the temporary suspension of a major mining operation will dampen mineral exports.

### **EXTERNAL DSA**

**3.** The baseline scenario indicates that all PPG external debt ratios stay well below the indicative thresholds, while there is a short-lived breach in the extenal debt service-to-revenue ratio due to the inclusion of a loan which has been moved to a public enterprise. The present value of the external debt stock is expected to rise in the near term because of an Australian \$1.2 billion loan (6.8 percent of GDP) that government took in early 2014, but fall over the medium term as this loan is repaid and with the expectation that new external borrowing will be moderate (Figure 1).<sup>5</sup> The public external debt service ratios follow a similar profile, with higher debt service initially rising as a result of this loan but subsequently falling to very low levels, reflecting PNG's relatively small external debt stock as well as the fact that most of its public external debt is highly

<sup>&</sup>lt;sup>3</sup> For 2014, this DSA assessment includes the UBS loan in public debt. If the UBS loan is excluded, public debt is 35½ percent of GDP and PPG external debt is around 9 percent of GDP in 2014.

<sup>&</sup>lt;sup>4</sup> The terms and conditions have not been disclosed. For the analytical purposes, this DSA assumes 10-year maturity with a 10 percent interest rate and that a sovereign bond will be rolled over when it matures.

<sup>&</sup>lt;sup>5</sup> The government contracted this loan from UBS in March 2014 to finance the purchase of a 10 percent stake in the Oil Search Limited, an oil and gas company. It has been moved off the government balance sheet to the National Petroleum Company PNG (NPCP). The terms and conditions of this loan have not been disclosed. For the purpose of this DSA, staff has assumed a two-year loan maturity with 8 percent annual interest and included it as part of publicly guaranteed external debt.

concessional. There is a breach of the external debt service-to-revenue ratio in 2016. However, the breach is short-lived and is mainly due to the inclusion of the UBS loan which has been moved off the government balance sheet to the NPCP. Without this loan, the indicator would remain below the indicative threshold and the risk to debt sustainability therefore appears to be manageable. High levels of private external debt could potentially create balance of payments pressures by competing with the public sector for foreign exchange. Nevertheless, such risks are mitigated by the fact that a large part of the loans are adequately backed by expected cash flows from the LNG project.

4. PNG is vulnerable to certain extreme shocks despite the currently low external debt burden, but these shocks have a low probability of materializing. There is a protracted breach of the PV of the debt-to-GDP ratio under the historical scenario and a near breach under the export shock scenario. Also, there is a near breach of the external debt service-to-revenue ratio under the export shock scenario, when the sovereign bond is rolled over. However, these scenarios could be thought of as circumstances where the LNG project has completely failed or suffered a major delay. In the historical scenario, for instance, when the current account deficit is fixed at the ten-year average of 2005–14, the simulation effectively keeps imports at levels elevated by the LNG project and rules out the expected large increases in LNG exports going forward. Given that LNG production has already commenced and is set to reach a full capacity this year, such an outcome is very unlikely, while there is potential risk of a further commodity price decline and rollover risk stemming from the planned sovereign bond.

### **PUBLIC DSA**

**5. The public debt dynamics for PNG remains stable, but there are risks to this outlook.**<sup>6</sup> The public debt burden is expected to decline continuously over the projection period under the baseline (Figure 2). However, failures to consolidate the fiscal position would significantly increase debt burden. There are also risks arising from unfunded superannuation and public enterprise liabilities. The former are estimated to be about 6½ percent of GDP at end-2014 and the latter about 7½ of GDP, but data on the latter are incomplete and not up to date. Once these liabilities are taken into account, there would be a noticeable increase in the public debt burden over the medium term, as shown in the customized scenario ("All other liabilities") for the public DSA.<sup>7</sup>

### **AUTHORITIES' VIEWS**

6. The authorities agreed with the DSA findings, noting that the current risk of debt distress is low, but fiscal consolidation is crucial for debt sustainability. The authorities acknowledged that a continuation of the current fiscal stance is not sustainable and that expenditure restraint is needed to keep the debt on a downward path. They also recognized the

<sup>&</sup>lt;sup>6</sup> Public debt includes domestic central government debt and external public and publicly guaranteed debt.

<sup>&</sup>lt;sup>7</sup> This scenario assumes that the full amount of superannuation arrears is added to the debt stock, and 100 percent of SOEs debt is realized to become actual liabilities and added to the debt stock. The SOEs debt stock is assumed to grow in line with nominal GDP.

importance of more comprehensive data on debt and other liabilities, in particular, off-budget and public enterprise debt, in assessing PNG's overall debt burdens. They will consider an IMF technical assistance mission on the Medium-Term Debt Management Strategy (MTDS) to provide a sound framework for future budgetary financing.

### CONCLUSION

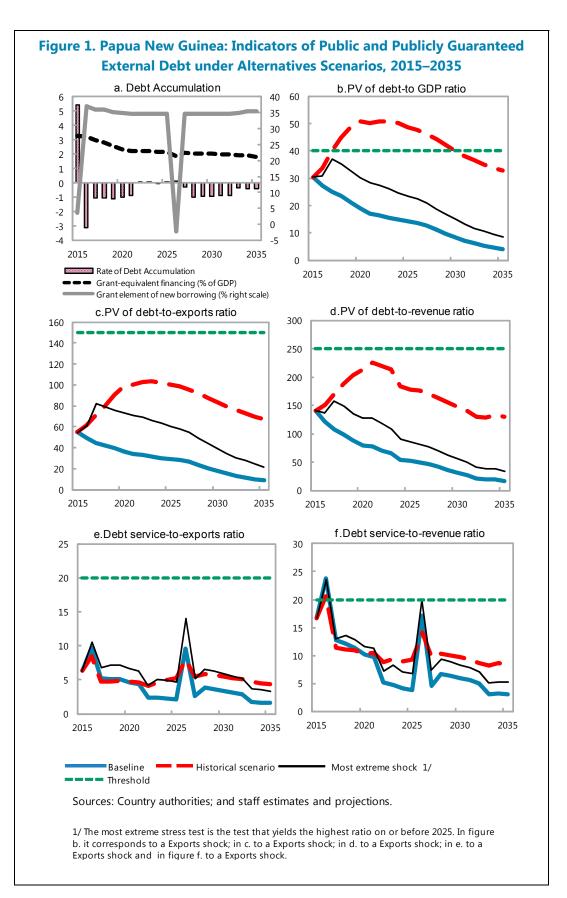
7. Papua New Guinea's PPG external debt remains at low risk of debt stress. However, the overall risk of public debt distress has remained heightened, given the rising stock of public domestic debt in recent years. Contingent and non-contingent liabilities significantly increase the public debt burden, and a failure to consolidate the fiscal position would result in unsustainable debt dynamics. The government needs to bring the public debt on a downward trajectory over the medium term, while focusing on improving spending quality to make the most out of a restrained resource envelope in meeting the country's development needs. The terms and conditions of all loans including the UBS loan should also be published to ensure fiscal transparency and debt sustainability. Going forward, a planned debut sovereign bond issuance should be used to improve the debt profile and terms and cover existing commitments rather than finance new projects.

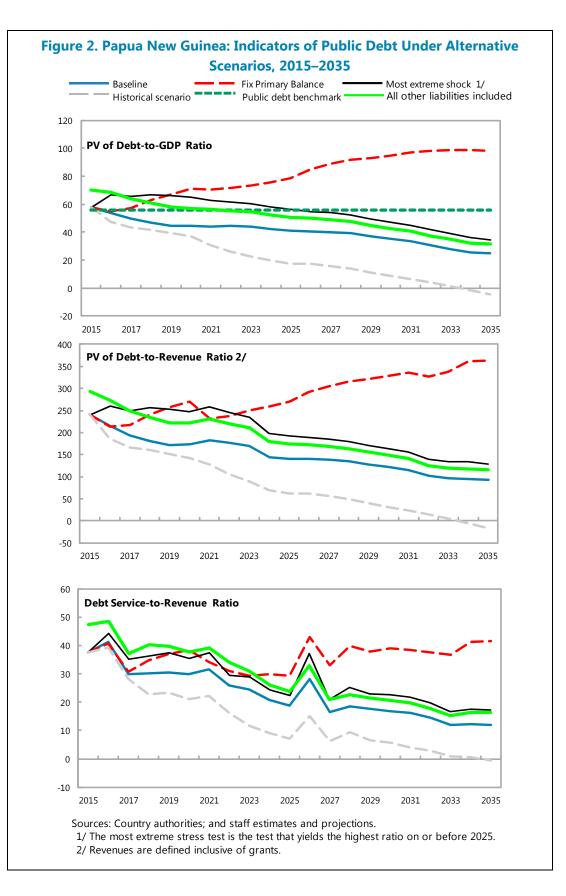
#### Box 1. Macroeconomic Assumptions Underlying the DSA Update

Macroeconomic assumptions for this DSA are generally more conservative than those for the previous DSA. In particular, projections of GDP growth and external current account are somewhat lower than those for the 2014 DSA, as are projections of the primary fiscal balance. This largely reflects a less favorable outlook for the resource sector owing to lower commodity prices and a temporary mine closure. LNG prices are assumed to decline by about 30 percent in 2015 and by around 5 percent in 2016, reflecting the recent plunge in oil prices.

- **Real GDP growth** is projected at around 4 percent on average over the medium term<sup>8</sup>, and to slow to 3 percent in the long run.
- **Inflation** is expected to be about 3<sup>1</sup>/<sub>2</sub> percent over the medium term and will stabilize at 5 percent in the long run.
- **The current account** (including grants) will turn into a surplus in 2015 as LNG production comes on stream and imports related to the LNG project subside, and is projected to be 5 percent of GDP on average during 2015-20.
- **The grant element of loans** is expected to average around 35 percent. A sovereign bond reduces the grant element of loans when it is issued and rolled over with a 10-year interval.
- **The primary fiscal balance** is estimated to be in deficit of 5 percent of GDP in 2015. During the current medium-term fiscal strategy period (2013-17), a continuous primary deficit of 4 percent of GDP on average is expected. After 2024, the primary fiscal balance is projected to turn into a surplus, with an average of 0.4 percent of GDP during 2024–34.

<sup>&</sup>lt;sup>8</sup> The government plans to spend K 3 billion over 2015-18 on the preparations for APEC 2018. Thus, 2018 will see a winding down of construction activity, with overall growth projected to slow down to  $1\frac{1}{2}$  percent in 2018 and stabilize at 3 percent over the longer term.





#### Table 1a. Papua New Guinea: External Debt Sustainability Framework, **Baseline Scenario, 2012–2035**

(In percent o	GDP, unless	otherwise indi	cated)
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-		Actual			<sup>5/</sup> Standard <sup>6/</sup>			Projec	tions						
	2012	2012	2014	Average	Deviation	2015	2010	2017	201.0	2010	2020	2015-2020	2025	2025	2021-203
	2012	2013	2014			2015	2016	2017	2018	2019	2020	Average	2025	2035	Averag
External debt (nominal) 1/	143.4	146.0	135.2			124.2	109.0	94.1	82.1	69.6	57.9		17.6	6.4	
of which: public and publicly guaranteed (PPG)	7.4	8.8	15.8			18.8	14.0	11.8	11.3	10.5	9.7		7.4	5.5	
Change in external debt	43.1	2.6	-10.8			-11.0	-15.2	-14.8	-12.0	-12.5	-11.8		-4.8	-0.4	
identified net debt-creating flows	24.9	25.7	-13.1			-22.5	-13.4	-15.5	-12.2	-12.6	-11.0		-4.3	0.0	
Non-interest current account deficit	51.9	30.3	2.8	11.2	20.6	-6.1	-6.1	-7.9	-7.6	-6.9	-5.6		-0.7	2.4	0.
Deficit in balance of goods and services	38.1	24.9	0.8			-10.6	-9.5	-12.4	-12.1	-10.9	-9.4		-4.3	0.3	
Exports	43.8	37.9	46.5			55.6	55.0	56.2	56.1	53.9	51.4		48.6	48.8	
Imports	82.0	62.8	47.3			44.9	45.5	43.7	43.9	43.0	42.0		44.3	49.1	
Net current transfers (negative = inflow)	-0.8	-1.1	-1.2	-2.8	2.4	-1.1	-0.9	-0.9	-1.1	-1.3	-1.4		-1.1	0.2	-0.
of which: official	-2.8	-2.7	-2.2			-2.1	-2.1	-2.2	-2.2	-2.1	-2.1		-2.0	-1.8	
Other current account flows (negative = net inflow)	14.5	6.5	3.2			5.6	4.4	5.5	5.6	5.3	5.1		4.7	1.9	
Net FDI (negative = inflow)	-12.2	-5.9	-5.1	-6.6	5.1	-6.1	-5.2	-4.5	-4.5	-4.4	-4.2		-3.8	-3.0	-3.
Endogenous debt dynamics 2/	-14.7	1.2	-10.7	0.0	5.2	-10.2	-2.2	-3.1	-0.1	-1.4	-1.1		0.2	0.6	5.
Contribution from nominal interest rate	1.7	1.5	1.4			1.5	1.6	1.4	1.3	1.1	1.0		0.2	0.6	
Contribution from real GDP growth	-6.8	-7.9	-11.4			-11.8	-3.8	-4.6	-1.3	-2.5	-2.1		-0.6	0.0	
Contribution from price and exchange rate changes	-0.8	-7.9	-11.4			-11.0	-5.0		-1.5	-2.5	-2.1			0.0	
Residual (3-4) 3/	-9.6 18.1	-23.1	-0.7			 11.5	-1.8	0.7	0.2	0.2	-0.8		-0.5	-0.3	
	0.0	-25.1	2.5			0.0	-1.8	0.7	0.2	0.2	-0.8		-0.5	-0.5	
of which: exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 4/			145.5			135.7	122.1	107.5	94.3	80.3	67.0		24.3	5.1	
In percent of exports			312.9			244.2	222.0	191.4	168.2	149.0	130.3		49.9	10.4	
PV of PPG external debt			26.1			30.3	27.1	25.1	23.4	21.1	18.8		14.1	4.1	
In percent of exports			56.1			54.5	49.4	44.7	41.8	39.2	36.6		29.1	8.5	
In percent of government revenues			98.5			140.5	120.2	107.0	98.5	87.8	79.5		51.9	16.5	
Debt service-to-exports ratio (in percent)	15.4	10.2	31.7			26.4	27.3	20.7	21.6	19.8	19.9		10.5	1.7	
PPG debt service-to-exports ratio (in percent)	1.4	1.4	1.4			6.3	9.7	5.2	5.1	5.0	4.6		2.1	1.6	
PPG debt service-to-revenue ratio (in percent)	2.3	2.3	2.7			16.7	23.9	12.8	12.1	11.4	10.1		3.8	3.1	
Total gross financing need (Billions of U.S. dollars)	7.1	4.4	2.1			0.4	0.7	-0.1	0.0	-0.1	0.1		0.2	0.1	
Non-interest current account deficit that stabilizes debt ratio	8.8	27.7	13.6			4.9	9.2	7.0	4.4	5.6	6.2		4.1	2.7	
Key macroeconomic assumptions															
Real GDP growth (in percent)	8.1	5.5	8.5	6.7	2.4	9.0	3.1	4.4	1.4	3.2	3.2	4.1	3.0	0.0	2.
GDP deflator in US dollar terms (change in percent)	10.6	-5.1	0.5	8.1	8.7	-5.4	-1.8	0.4	1.8	2.8	2.9	0.1	1.9	4.9	2.3
Effective interest rate (percent) 5/	2.0	1.0	1.0	2.8	1.6	1.2	1.3	1.4	1.4	1.4	1.5	1.4	4.0	8.5	7.
Growth of exports of G&S (US dollar terms, in percent)	-8.0	-13.3	33.8	12.7	20.2	23.1	0.2	7.1	3.1	2.0	1.2	6.1	4.2	6.0	4.
Growth of imports of G&S (US dollar terms, in percent)	25.3	-23.3	-17.9	14.7	22.5	-2.1	2.4	0.9	3.8	3.7	3.8	2.1	6.0	6.0	6.
Grant element of new public sector borrowing (in percent)						3.5	37.0	36.1	36.0	35.3	35.1	30.5	34.6	35.5	32
Government revenues (excluding grants, in percent of GDP)	23.1	24.0	26.5			21.6	22.6	23.5	23.8	24.1	23.7		27.2	25.2	26
Aid flows (in Billions of US dollars) 7/	0.6	0.6	0.6			0.7	0.6	0.6	0.6	0.6	0.5		0.6	0.8	
of which: Grants	0.4	0.4	0.3			0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.8	
of which: Concessional loans	0.1	0.2	0.3			0.2	0.1	0.1	0.1	0.1	0.1		0.1	0.0	
Grant-equivalent financing (in percent of GDP) 8/						3.3	3.2	3.0	2.8	2.6	2.4		2.1	1.8	2
Grant-equivalent financing (in percent of external financing) 8/						31.0	82.0	82.6	82.6	83.1	83.5		86.8	92.9	84
Memorandum items:															
Nominal GDP (Billions of US dollars)	15.4	15.4	16.8			17.3	17.5	18.4	19.0	20.1	21.4		27.2	43.9	
Nominal dollar GDP growth	19.6	0.1	9.1			3.1	1.2	4.9	3.3	6.1	6.2	4.1	4.9	4.9	4
PV of PPG external debt (in Billions of US dollars)			4.5			5.4	4.9	4.7	4.5	4.3	4.1		3.9	1.8	
(PVt-PVt-1)/GDPt-1 (in percent)						5.4	-3.1	-1.0	-1.0	-1.1	-1.0	-0.3	0.0	-0.4	-0
Gross workers' remittances (Billions of US dollars)	-0.3	-0.2	-0.2			-0.2	-0.2	-0.2	-0.2	-0.2	-0.1		-0.3	-0.9	
PV of PPG external debt (in percent of GDP + remittances)			26.4			30.6	27.5	25.4	23.7	21.3	18.9		14.3	4.2	
PV of PPG external debt (in percent of exports + remittances)			57.4			55.6	50.4	45.7	42.6	39.8	37.1		29.6	8.8	
			57.4			55.0	50.4	-J./	72.0	55.0	57.1		20.0	0.0	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - p(1+g)]/(1+g+p+gp) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms. 3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Assumes that PV of private sector debt is equivalent to its face value. 5/ Current-year interest payments divided by previous period debt stock.

Of Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
 7/ Defined as grants, concessional loans, and debt relief.

8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

# Table 1b. Papua New Guinea: Sensitivity Analysis for Key Indicators of Public and PubliclyGuaranteed External Debt, 2015–2035

(In percent)

PV of debt-to GDP ratio           Baseline         30           A Alternative Scenarios         30           A. Key variables at their historical averages in 2015-2035 1/         30           A. New public sector loans on less favorable terms in 2015-2035 2         30           B. Bound Tests         8           B1. Real GDP growth at historical average minus one standard deviation in 2016-2017         30           B2. Sport value growth at historical average minus one standard deviation in 2016-2017         30           B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017         30           B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017         30           B5. Combination of B1-B4 using one-half standard deviation shocks         30           B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/         30           B2. Key variables at their historical average minus one standard deviation in 2016-2017         55           A2. New public sector loans on less favorable terms in 2015-2035 2         55           B. Deand Tests         81           B1. Aeal GDP growth at historical average minus one standard deviation in 2016-2017         55           A2. New public sector loans on less favorable terms in 2015-2035 2         55           B. Meal GDP growth at historical average minus one standard deviat	2016 27 34 28 27 31 27 31 25 40 49 62 51 61 51 56	2017 25 40 26 25 37 25 31 22 37 45 45 45 45 45	2018 23 45 25 23 35 24 30 20 34 34 42 80 44 42 79	2019 21 49 23 21 33 21 27 18 31 39 39 91 42 40	2020 19 51 21 19 30 19 25 16 28 37 98 40 37	2025 14 49 17 14 23 14 19 12 21 29 29 100 35	203 3 6 1
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A2. New public sector loans on less favorable terms in 2015-2035 2       30         B. Bound Tests       81         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 / 30       30         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 / 30       30         B4. Honon-debt creating flows at historical average minus one standard deviation in 2016-2017 / 30       30         B5. Ornbination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5 / 30       30         B6. Alternative Scenarios       50         A1. Key variables at their historical averages in 2015-2035 1/ 32. New public sector loans on less favorable terms in 2015-2035 2       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 / 55       55         B2. Soldiar GDP deflator at historical average minus one standard deviation in 2016-2017 / 55       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 / 55       55         B2. Soldiar GDP deflator at historical average minus one standard deviation in 2016-2017 / 55       55         B2. Combination of B1-B4 using one-half standard deviation in 2016-2017 / 55       55         B3. Of dollar GDP deflator at historical average minus one standard deviation in 2016-2017 / 55       55         B4. Net non-debt creati	28 27 31 27 31 25 40 49 62 51 51 61 51 51 56	26 37 25 31 22 37 45 71 47 45 82	25 23 35 24 30 20 34 42 80 44	23 21 33 21 27 18 31 39 91 42	21 19 30 19 25 16 28 37 37 98 40	17 14 23 14 19 12 21 29 100 35	ć
A2. New public sector loans on less favorable terms in 2015-2035 2       30         B. Bound Tests       81         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 3       30         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 3       30         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 3       30         B5. Orobination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5       30         B4. Net non-debt creating flows at historical averages in 2015-2035 1/       30         B4. Net variables at their historical averages in 2015-2035 1/       55         B4. Net variables at their historical averages in 2015-2035 1/       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Orobination of B1-B4 using one-half standard deviation in 2016-2017 1/       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 1/       55         B5. Orobination of B1-B4 using one-half standard deviation in 2016-2017 1/       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Orobination of B1-B4 using one-half standard deviation shocks       55 <td>27 31 27 31 25 40 49 62 51 51 61 51 51 56</td> <td>25 37 25 31 22 37 45 71 45 71 47</td> <td>23 35 24 30 20 34 42 42 80 44</td> <td>21 33 21 27 18 31 39 91 42</td> <td>19 30 19 25 16 28 37 37 98 40</td> <td>14 23 14 19 12 21 29 100 35</td> <td></td>	27 31 27 31 25 40 49 62 51 51 61 51 51 56	25 37 25 31 22 37 45 71 45 71 47	23 35 24 30 20 34 42 42 80 44	21 33 21 27 18 31 39 91 42	19 30 19 25 16 28 37 37 98 40	14 23 14 19 12 21 29 100 35	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 3       30         B2. Export value growth at historical average minus one standard deviation in 2016-2017 3       30         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 4       30         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4       30         B5. Ombination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         B7 <b>A Idernative Scenarios</b> 50         A1. Key variables at their historical averages in 2015-2035 1/       55         A2. New public sector loans on less favorable terms in 2015-2035 2       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 3       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017 3       55         B2. Solollar GDP growth at historical average minus one standard deviation in 2016-2017 3       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 3       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 3       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4       55 <td< td=""><td>31 27 31 25 40 49 62 51 51 61 51 56</td><td>37 25 31 22 37 45 71 47 45 82</td><td>35 24 30 20 34 42 80 44</td><td>33 21 27 18 31 39 91 42</td><td>30 19 25 16 28 37 98 40</td><td>23 14 19 12 21 29 100 35</td><td></td></td<>	31 27 31 25 40 49 62 51 51 61 51 56	37 25 31 22 37 45 71 47 45 82	35 24 30 20 34 42 80 44	33 21 27 18 31 39 91 42	30 19 25 16 28 37 98 40	23 14 19 12 21 29 100 35	
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/       30         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 3/       30         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 3/       30         B5. Combination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         B7       A Iternative Scenarios       55         A. Alternative Scenarios       55         A1. Key variables at their historical average minus one standard deviation in 2016-2017 3/       55         B8. Bound Tests       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 55       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017 55       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017 55       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 55       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 55       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 55       55         B5. Combination of B1-B4 using one-half standard deviation shocks	31 27 31 25 40 49 62 51 51 61 51 56	37 25 31 22 37 45 71 47 45 82	35 24 30 20 34 42 80 44	33 21 27 18 31 39 91 42	30 19 25 16 28 37 98 40	23 14 19 12 21 29 100 35	
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/       30         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 3/       30         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 3/       30         B5. Combination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         B7       A Iternative Scenarios       55         A. Alternative Scenarios       55         A. New public sector loans on less favorable terms in 2015-2035 1/       55         B8. Bound Tests       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 3/       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/       55         B2. Suport value growth at historical average minus one standard deviation in 2016-2017 55       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 55       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 55       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 55       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55     <	31 27 31 25 40 49 62 51 51 61 51 56	37 25 31 22 37 45 71 47 45 82	35 24 30 20 34 42 80 44	33 21 27 18 31 39 91 42	30 19 25 16 28 37 98 40	23 14 19 12 21 29 100 35	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       30         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       30         B5. Combination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         B7       Alternative Scenarios       55         A. Alternative Scenarios       55         A1. Key variables at their historical average minus one standard deviation in 2016-2017       55         B8. Bound Tests       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B3. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         B6. On	31 25 40 49 62 51 51 61 51 51 56	31 22 37 45 71 47 45 82	30 20 34 42 80 44	27 18 31 39 91 42	25 16 28 37 98 40	19 12 21 29 100 35	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       30         B5. Combination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30 <b>PV of debt-to-exports ratio Baseline A Alternative Scenarios</b> A1. Key variables at their historical averages in 2015-2035 1/         A So <b>B. Bound Tests</b> B1. Real GDP growth at historical average minus one standard deviation in 2016-2017       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B3. Of collar GDP deflator at historical average minus one standard deviation in 2016-2017 4/       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation rela	31 25 40 49 62 51 51 61 51 51 56	31 22 37 45 71 47 45 82	20 34 42 80 44	27 18 31 39 91 42	25 16 28 37 98 40	12 21 29 100 35 30	
B5. Combination of B1-B4 using one-half standard deviation shocks       30         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         PV of debt-to-exports ratio         Baseline         A Alternative Scenarios         A1. Key variables at their historical averages in 2015-2035 1/       55         A2. New public sector loans on less favorable terms in 2015-2035 2       55         B Bound Tests       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 4/       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio	40 49 62 51 51 61 51 56	37 45 71 47 45 82	34 42 80 44	31 39 91 42	28 37 98 40	21 29 100 35 30	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       30         PV of debt-to-exports ratio         Baseline       55         A Alternative Scenarios         A1. Key variables at their historical averages in 2015-2035 1/       55         A2. New public sector loans on less favorable terms in 2015-2035 2       55         B. Bound Tests         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio	40 49 62 51 51 61 51 56	37 45 71 47 45 82	34 42 80 44	31 39 91 42	28 37 98 40	21 29 100 35 30	
Baseline       55         A. Alternative Scenarios       55         A1. Key variables at their historical averages in 2015-2035 1/       55         A2. New public sector loans on less favorable terms in 2015-2035 2       55         B. Bound Tests       55         B1. Real GDP growth at historical average minus one standard deviation in 2016-2017       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55	62 51 51 61 51 51 56	71 47 45 82	80 44 42	91 42	98 40	100 35 30	
A. Alternative Scenarios A. I. Key variables at their historical averages in 2015-2035 1/ 55 A. New public sector loans on less favorable terms in 2015-2035 2 55 B. Bound Tests B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 55 B2. Export value growth at historical average minus one standard deviation in 2016-2017 55 B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 55 B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/ 55 B5. Combination of B1-B4 using one-half standard deviation shocks 55 B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/ 55 PV of debt-to-revenue ratio	62 51 51 61 51 51 56	71 47 45 82	80 44 42	91 42	98 40	100 35 30	
A. Alternative Scenarios A. Alternative Scenarios A. Key variables at their historical averages in 2015-2035 1/ 55 A. New public sector loans on less favorable terms in 2015-2035 2 55 B. Bound Tests B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 55 B2. Export value growth at historical average minus one standard deviation in 2016-2017 55 B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 55 B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/ 55 B5. Combination of B1-B4 using one-half standard deviation shocks 55 B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/ 55	62 51 51 61 51 51 56	71 47 45 82	80 44 42	91 42	98 40	100 35 30	
A2. New public sector loans on less favorable terms in 2015-2035 2 55 B. Bound Tests B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 55 B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/ 55 B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 4/ 55 B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/ 55 B5. Combination of B1-B4 using one-half standard deviation shocks 55 B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/ 55 PV of debt-to-revenue ratio	51 51 61 51 56	47 45 82	44	42	40	35 30	
A2. New public sector loans on less favorable terms in 2015-2035 2 55 B. Bound Tests B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 55 B2. Export value growth at historical average minus one standard deviation in 2016-2017 3 55 B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 4 55 B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4 55 B5. Combination of B1-B4 using one-half standard deviation shocks 55 B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/ 55 PV of debt-to-revenue ratio	51 61 51 56	45 82	42			30	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017       55         B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio	61 51 56	82		40	37		
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/       55         B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio       55	61 51 56	82		40	37		
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017       55         B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio	51 56		79				
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio	56	45	, ,	76	73	60	
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/       55         B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio			42	40	37	30	
B5. Combination of B1-B4 using one-half standard deviation shocks       55         B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/       55         PV of debt-to-revenue ratio		56	53	50	48	39	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/ 55 PV of debt-to-revenue ratio	48	45	42	39	36	29	
	51	45	42	40	37	30	
Baseline 140							
	120	107	99	88	79	52	
A. Alternative Scenarios							
A1. Key variables at their historical averages in 2015-2035 1/       140         A2. New public sector loans on less favorable terms in 2015-2035 2       140	150 124	170 112	189 104	203 94	214 88	178 62	1
			201	51		-	
B. Bound Tests							
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017 140	122	108	99	88	80	52	
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/ 140	137	157	148	135	127	86	
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017 140	122	108	99	88	81	53	
84. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/ 140	137	133	124	112	105	69	
B5. Combination of B1-B4 using one-half standard deviation shocks 140	110	93	85	75	69	45	
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/ 140			144	128	117	76	

Baseline A. Alternative Scenarios	<b>tio</b> 6	10															
Baseline A. Alternative Scenarios		10															
A. Alternative Scenarios	6	10	_	Debt service-to-exports ratio													
			5	5	5	5	2	2									
A1. Key variables at their historical averages in 2015-2035 1/	6	8	5	5	5	5	5	4									
A2. New public sector loans on less favorable terms in 2015-2035 2	6	10	3	3	3	2	2	1									
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	6	10	5	5	5	5	2	2									
B2. Export value growth at historical average minus one standard deviation in 2016-2017 3/	6	10	7	7	7	7	5	3									
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	6	10	5	5	5	5	2	2									
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	6	10	5	5	5	5	3	2									
B5. Combination of B1-B4 using one-half standard deviation shocks	6	9	5	5	5	5	2	2									
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	6	10	5	5	5	5	2	2									
Debt service-to-revenue rat	tio																
Baseline	17	24	13	12	11	10	4	3									
A. Alternative Scenarios																	
A1. Key variables at their historical averages in 2015-2035 1/	17	21	11	11	11	10	9	8									
A2. New public sector loans on less favorable terms in 2015-2035 2	17	24	6	6	6	5	3	2									
B. Bound Tests																	
B1. Real GDP growth at historical average minus one standard deviation in 2016-2017	17	23	12	12	11	10	4	3									
	17	24	13	14	13	12	7	5									
B3. US dollar GDP deflator at historical average minus one standard deviation in 2016-2017	17	23	13	12	11	10	4	3									
B4. Net non-debt creating flows at historical average minus one standard deviation in 2016-2017 4/	17	24	13	13	12	11	5	4									
	17	22	11	10	10	9	3	3									
B6. One-time 30 percent nominal depreciation relative to the baseline in 2016 5/	17	34	18	17	16	15	6	4									
Memorandum item:																	
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	27	27	27	27	27	27	27	27									

Sources: Country authorities; and staff estimates and projections.

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

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline. 3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

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

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

#### Table 2a. Papua New Guinea: Public Sector Debt Sustainability Framework, Baseline Scenario, 2012–2035

-		Actual				Estimate		Projections									
	2012	2013	2014	Average	<sup>/</sup> Standard <sup>5/</sup> Deviation	2015	2016	2017	2018	2019	2020	2015-20 Average	2025		2021-35 Average		
Public sector debt 1/ of which: foreign-currency denominated	26.7 7.4	34.0 8.8	42.4 15.8			46.4 18.8	41.7 14.0	41.2 11.8	43.3 11.3	44.4 10.5	45.0 9.7		43.4 7.4	35.1 5.5			
Change in public sector debt	3.8	7.3	8.4			4.0	-4.7	-0.5	2.1	1.1	0.6		-0.4	-0.6			
Identified debt-creating flows	-1.3	4.9	3.6			2.8	4.3	2.1	2.2	1.0	-0.6		0.0	5.3			
Primary deficit	1.8	6.6	4.9	-1.8	6.6	5.3	2.5	1.2	-0.1	-0.7	-1.2	1.2	-1.1	2.4	-0.3		
Revenue and grants	29.2	28.2	27.3			24.7	25.7	26.3	26.2	26.2	26.3		29.2	26.9			
of which: grants	2.9	2.5	2.1			3.1	2.9	2.6	2.5	2.3	2.1		2.0	1.7			
Primary (noninterest) expenditure	31.0	34.8	32.2			30.0	28.2	27.5	26.1	25.5	25.0		28.1	29.3			
Automatic debt dynamics	-3.1	-1.7	-1.3			0.3	1.8	0.9	2.3	1.7	0.6		1.1	2.9			
Contribution from interest rate/growth differential	-1.7	-1.7	-1.8			-0.7	0.9	0.5	2.2	1.7	0.8		1.1	3.2			
of which: contribution from average real interest rate	0.0	-0.3	0.9			2.7	2.4	2.3	2.8	3.0	2.2		2.3	3.2			
of which: contribution from real GDP growth	-1.7	-1.4	-2.7			-3.5	-1.4	-1.8	-0.6	-1.3	-1.4		-1.3	0.0			
Contribution from real exchange rate depreciation	-1.3	0.0	0.5			1.1	0.8	0.3	0.1	0.0	-0.2		1.0				
Other identified debt-creating flows	0.0	0.0	0.0			-2.9	0.0	0.0	0.0	0.0	0.0		0.0	0.0			
Privatization receipts (negative)	0.0	0.0	0.0			-2.9	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	5.1	2.4	4.8			1.2	-9.0	-2.6	-0.1	0.1	1.2		-0.4	-5.9			
Other Sustainability Indicators																	
PV of public sector debt			53.8			57.6	53.8	49.8	47.0	44.8	44.4		41.1	24.7			
of which: foreign-currency denominated			26.1			30.3	27.1	25.1	23.4	21.1	18.8		14.1	4.1			
of which: external			26.1			30.3	27.1	25.1	23.4	21.1	18.8		14.1	4.1			
PV of contingent liabilities (not included in public sector debt)																	
Gross financing need 2/	12.1	18.5	20.3			23.4	22.3	18.3	16.8	16.2	15.3		13.6	13.1			
PV of public sector debt-to-revenue and grants ratio (in percent)			197.0			233.5	209.5	189.3	179.6	170.9	169.0		141.0	92.0			
PV of public sector debt-to-revenue ratio (in percent) of which: external 3/			213.2 103.4			266.9 140.4	236.1 119.0	210.3 106.1	198.4 99.0	187.5 88.5	183.7 77.8		151.2 51.9	98.3 16.5			
Debt service-to-revenue and grants ratio (in percent) 4/	19.5	21.3	24.6			37.6	41.3	29.9	30.1	30.5	30.0		18.8	11.9			
Debt service-to-revenue ratio (in percent) 4/	21.7	23.4	26.6			43.0	46.5	33.3	33.3	33.4	32.6		20.2	12.7			
Primary deficit that stabilizes the debt-to-GDP ratio	-2.0	-0.7	-3.5			1.4	7.2	1.7	-2.2	-1.8	-1.9		-0.7	3.0			
Key macroeconomic and fiscal assumptions																	
Real GDP growth (in percent)	8.1	5.5	8.5	6.7	2.4	9.0	3.1	4.4	1.4	3.2	3.2	4.1	3.0	0.0	2.8		
Average nominal interest rate on forex debt (in percent)	1.5	1.3	1.6	2.1	0.7	6.1	5.8	6.5	6.4	6.4	6.4	6.3	11.4	9.5	13.0		
Average real interest rate on domestic debt (in percent)	-0.1	-1.4	3.7	2.3	6.4	8.7	6.2	6.5	7.8	8.3	5.4	7.1	4.7	8.8	5.0		
Real exchange rate depreciation (in percent, + indicates depreciation	-17.6	0.1	6.6	-5.6	8.6	7.0											
Inflation rate (GDP deflator, in percent)	8.5 9.1	9.3	5.4	5.7 2.7	5.7	0.2	2.8	3.5	3.9	3.9	6.1	3.4	5.0	1.3	4.8		
Growth of real primary spending (deflated by GDP deflator, in percer	9.1	10.2	7.0	2.7	4.3	-3.0	-1.3	3.5	-1.7	3.2	1.4	0.3	4.0	5.4	3.9		
Grant element of new external borrowing (in percent)						3.5	37.0	36.1	36.0	35.3	35.1	30.5	34.6	35.5			

nt of CDP unless otherwise indicated) (In parc

Sources: Country authorities; and staff estimates and projections. 1/ Public debt includes domestic central government debt, external public debt, and the guarantee for the UBS Ioan.

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 2b. Papua New Guinea: Sensitivity Analysis for Key Indicatorsof Public Debt 2015–2035

-	Projections           2015         2016         2017         2018         2019         2020         2							
	2015	2016	2017	2018	2019	2020	2025	203
PV of Debt-to-GDP Ratio								
Baseline	58	54	50	47	45	44	41	2
A. Alternative scenarios								
1. Real GDP growth and primary balance are at historical averages	58	48	43	41	39	37	17	
2. Primary balance is unchanged from 2015	58	55	57	63	67	71	79	
3. Permanently lower GDP growth 1/	58	53	52	54	55	55	53	
3. Bound tests								
81. Real GDP growth is at historical average minus one standard deviations in 2016-20	58	52	51	52	52	51	43	
32. Primary balance is at historical average minus one standard deviations in 2016-201	58	55	57	58	58	57	49	
33. Combination of B1-B2 using one half standard deviation shocks	58	51	50	51	50	49	39	
34. One-time 30 percent real depreciation in 2016	58	67	65	67	66	65	56	
35. 10 percent of GDP increase in other debt-creating flows in 2016	58	60	59	61	60	59	52	
PV of Debt-to-Revenue Ratio 2	2/							
Baseline	240	215	194	181	172	173	141	
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages 42. Primary balance is unchanged from 2015	240 240	187 214	166 218	160 240	151 257	142 271	61 270	- 3
A3. Permanently lower GDP growth 1/	240	205	199	208	210	209	179	1
3. Bound tests								
81. Real GDP growth is at historical average minus one standard deviations in 2016-20	240	201	193	199	197	194	146	
32. Primary balance is at historical average minus one standard deviations in 2016-201	240	213	215	222	221	217	169	1
<ol> <li>Combination of B1-B2 using one half standard deviation shocks</li> <li>One-time 30 percent real depreciation in 2016</li> </ol>	240 240	199 260	190 249	194 256	191 253	186 247	133 193	1
35. 10 percent of GDP increase in other debt-creating flows in 2016	240	235	226	232	231	226	177	1
Debt Service-to-Revenue Ratio	2/							
Baseline	38	41	30	30	30	30	19	
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	38	39	28	23	23	21	7	
A2. Primary balance is unchanged from 2015	38	41	31	35	37	38	29	
N3. Permanently lower GDP growth 1/	38	41	31	31	32	31	22	
3. Bound tests								
81. Real GDP growth is at historical average minus one standard deviations in 2016-20	38	40	30	30	30	29	18	
32. Primary balance is at historical average minus one standard deviations in 2016-201	38	41	31	34	36	31		
33. Combination of B1-B2 using one half standard deviation shocks	38	40	29		30	27		
34. One-time 30 percent real depreciation in 2016	38	44		36	37	35		
35. 10 percent of GDP increase in other debt-creating flows in 2016	38	41	32			34		

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period. 2/ Revenues are defined inclusive of grants.

#### Statement by the Staff Representative on Papua New Guinea October 30, 2015

1. On October 19, 2015, the Government of Papua New Guinea (PNG) released the 2016 Budget Strategy Paper. Highlights are as follows. The projected fiscal deficit in 2015, at 4.5 percent of GDP, is 3.1 percentage points of GDP lower than the staff's projection (Table 1), and close to the 2015 budget of 4.4 percent. Revenues are projected to be K 1.1 billion higher than budgeted and expenditures K 1.4 billion lower. The debt-to-GDP ratio is projected to be 34.4 percent, slightly below the 35 percent of GDP ceiling in 2015 (lower than staff's projection of 39.4 percent). Staff welcomes the intention for faster consolidation and is looking forward to hearing more about the measures underpinning this effort.

2. The government envisages further fiscal consolidation beyond 2015, with a gradual reduction of deficit for 2016–19 leading to a balanced budget in 2020. Underpinning this more ambitious consolidation than envisaged by staff are further expenditure prioritization, the planned refining of the tax regime, and structural reforms in public enterprises. The 2016 budget and the medium-term strategy continue to give priority to the core development enablers, namely, health, education, law and order, agriculture, and infrastructure.

3. The 2016 Budget will be reported under the GFSM 2014 methodology, and aggregate numbers for total revenue and expenditure will be revised accordingly.<sup>1</sup> The macroeconomic and fiscal forecasts will be updated with the 2016 budget to reflect any changes in economic and financial conditions.

## 4. The proposed 2016 budget strategy does not change the staff assessment as reported in the staff report.

	2014	20	15	2016		2017		20	)18	20	)19	20	020
		Staff Report	2016 Budget Strategy										
						(Perc	entage cha	nge)					
Real GDP growth	8.5	9.0	11.0	3.1	3.0	4.4	2.4	1.4	2.6	3.2	2.7	3.2	3.1
Nonresource	0.7	1.5	3.3	3.8	3.4	5.5	3.3	1.9	3.3	4.0	3.6	4.0	3.9
CPI Inflation	5.3	6.0	4.9	6.0	5.6	5.0	5.2	5.0	5.1	5.0	5.0	5.0	5.4
						(In p	ercent of G	GDP)					
Overall balance	-7.2	-7.6	-4.5	-5.5	-3.1	-4.4	-1.8	-3.7	-1.2	-3.3	-0.4	-3.0	0.0
Government gross debt	35.6	39.4	34.4	41.1	34.8	40.7	34.6	42.8	33.8	43.9	32.3	44.6	30.2

Table 1. Papua New Guinea: Selected Budget Indicators

Sources: Department of Treasury, and IMF staff estimates and projections.

<sup>&</sup>lt;sup>1</sup> In the 2016 Budget Strategy Paper, total revenue in 2016 is projected at approximately K 10.4 billion with K 9.9 billion tax revenue and K 0.6 billion non-tax revenue. Total expenditure in 2016 is projected at K 13.4 billion.

#### Statement by Barry Sterland, Executive Director for Papua New Guinea and Ian South, Advisor to Executive Director October 30, 2015

#### We thank staff for the quality of engagement with our authorities and the useful staff report.

As a resource rich economy, Papua New Guinea (PNG) is undergoing a significant transition associated with the sharp downturn in global commodity prices. While growth remains robust, the headwinds of declining commodity prices and tightening financial conditions have required the authorities to adjust policies, including as a result of their established macroeconomic frameworks.

In the face of the challenging external environment, the authorities are making timely fiscal adjustments to contain public debt to prudent levels. At the same time, the authorities are focused on continuing to meet the considerable development needs of the country by prioritizing and improving the quality of expenditure. Monetary policy remains neutral, supporting growth objectives as inflation remains at moderate levels. The authorities are also supporting flexibility in the exchange rate to act as a shock absorber and help the economy adapt to the changing external conditions.

The authorities continue to strive for a stronger and more diversified economy by translating gains from the resources sector into sustainable investments and structural reforms in other sectors such as education, health, law and order, energy, transport, tourism and agriculture.

#### **OUTLOOK AND RISKS**

**PNG will grow strongly in 2015, but the economy has been impacted by lower commodity prices and slowing growth in non-resource sectors.** PNG will record its 14<sup>th</sup> consecutive year of economic growth in 2015, its longest period of sustained growth. The economy is expected to grow strongly at 9 percent this year, though this represents a significant downward revision as a result of the impact of lower international commodity prices and the El Niño weather pattern affecting the mining, agriculture, forestry and fisheries sectors. Despite weaker commodity prices and the temporary closure of the Ok Tedi copper and gold mine, the resource sector is growing strongly, largely as a result of the commencement of the PNG LNG project. However, the non-resource sectors are growing more slowly. Lower activity in the construction and manufacturing is expected to largely offset growth in non-resource other sectors.

The medium term outlook is for growth to return to its long term average. However, the authorities recognize there are a range of risks to this baseline. Further falls in commodity prices or a worsening of the drought would impact the outlook further. A worsening of the drought could prolong the closure of the Ok Tedi mine beyond the first quarter of 2016. An extended drought would also further affect agricultural output, which

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would particularly impact on large numbers of subsistence farmers. On the upside, the authorities note that there continue to be prospects for further resource projects in the medium-term (including for a second major LNG project), given the highly competitive characteristics of PNG's natural resource endowment and its record in delivering world-class resource projects.

#### FISCAL POLICY AND PUBLIC DEBT MANAGEMENT

The authorities have responded to considerably lower resource revenues in 2015 with a package of responsible fiscal measures. With lower international commodity prices and the weather-related temporary shutdown of the Ok Tedi mine, resource revenues will be significantly lower than budgeted in 2015. The authorities have responded prudently to these developments by identifying expenditure savings of 1.4 billion kina, while avoiding cuts in priority areas of education, health, infrastructure, and law and order so as to continue supporting inclusive and sustainable development. At the same time, the authorities have also announced revenue measures to raise an additional 1.1 billion kina from tax collections and dividends from state entities. Together, these adjustments will contain the 2015 budget deficit to 4.5 percent of GDP, which is close to the originally budgeted deficit of 4.4 percent of GDP and broadly in line with staff advice.

While the level of public debt remains manageable, the authorities agree with staff on the need to restrain its growth, particularly as financing conditions tighten. While PNG's public debt continues to be at a moderate level by international standards, the authorities recognize that the recent growth should be curtailed and that steps are required to move debt to a pathway that is consistent with a credible medium term strategy. PNG continues to finance the deficit mainly from domestic sources. Although the domestic market has sufficient liquidity to finance the deficit and also meet private sector borrowing needs, some institutional investors are approaching their limits for government securities. The authorities have therefore commenced a process to issue an international sovereign bond, and intend to use a significant proportion of the proceeds to buy back securities and reposition the debt portfolio. The government recognizes the importance of announcing the detail of its fiscal strategy ahead of the bond issuance. In the coming weeks, the authorities will provide further detail of the immediate fiscal adjustments by way of a supplementary 2015 budget. These fiscal adjustments will assist in reducing financing pressures and interest costs generally. The authorities have recently published the 2016 Budget Strategy, which lays out the medium-term plans for fiscal consolidation, while ensuring the pace of this consolidation is sensitive to the impact on growth and employment. This strategy aims to prioritize and improve the quality of expenditure while broadening the tax base, with the immediate aim of stabilizing public debt at 35 percent of GDP. Looking ahead, the authorities aim to return to a balanced budget and bring debt to GDP back to 30 percent by 2020. The authorities are considering the role the non-resource primary balance could play in anchoring fiscal policy and look forward to further discussions with staff on this approach. The authorities have also

expressed interest in IMF technical assistance to review and update the existing medium-term debt strategy to provide a sound framework for debt management and future debt financing.

The comprehensive tax review will provide options to modernize PNG's revenue system with the aim of improving the efficiency and competitiveness of the PNG economy. The authorities commissioned the tax review in late-2013 as an important part of the medium term fiscal strategy. As the tax review comes to its conclusion, it will present options on securing a broader, more efficient and more stable revenue base, including on how best to leverage revenues from the resources sector, that will sustainably support PNG's development objectives. The authorities appreciate the IMF technical assistance received throughout the review process and look forward to further support when considering the implementation of these significant tax reforms.

The authorities are strengthening public financial management (PFM) to improve the quality of cash management and effectiveness of spending. The recent Public Expenditure and Financial Accountability (PEFA) assessment made several significant recommendations to improve cash management, including the overnight reconciliation of cash from a wide variety of sources into a single public account and the greater use of electronic funds transfer. The PFM roadmap that resulted from the PEFA assessment highlights improved cash management among the key reforms to be implemented. The authorities are also committed to improving the quality of expenditure and improving the rate of project execution. PNG's *'Vision 2050'* document highlights the focus on a new service delivery model to ensure that spending yields tangible development outcomes. The authorities continue to embed a multi-year budgeting framework, along with sector-led budgeting that gives priority to projects and activities with demonstrated outputs, outcomes and impacts.

The authorities are establishing a new Sovereign Wealth Fund (SWF) to better manage the revenues from PNG's considerable endowment of non-renewable resources. Drawing on past IMF advice, the authorities have developed legislation for the SWF, which was passed by Parliament in July 2015. As noted in the staff report, the authorities remain committed to operating the SWF consistent with the Santiago Principles, so as to properly manage the macroeconomic impacts of volatile resource revenues and to ensure this endowment is safeguarded to meet PNG's development objectives. A stabilization fund will help protect the economy from the volatility associated with commodity cycles, while providing a reliable source of revenues to the budget for social and development spending. A savings fund will invest the real value of extracted mineral and petroleum resources overseas to help with macroeconomic management and seek the best returns for future generations. All investments will be managed by an independent and qualified board.

#### MONETARY POLICY AND EXCHANGE RATE

**Inflation is contained and monetary policy remains neutral for the time being.** Headline inflation is projected to be around 6 percent for 2015. Inflationary pressures are expected to

remain in check due to the lower growth outlook for the domestic economy, lower foreign inflation from PNG's major trading partners, and a low pass-through of kina depreciation to domestic prices. The BPNG continues to maintain a neutral monetary policy stance, though it stands ready to absorb excess liquidity and tighten monetary policy should inflationary pressures emerge.

**Consistent with market forces, the kina has depreciated by over 16 percent relative to the US dollar in the last year.** As a result of lower international prices for PNG's key export commodities, the supply of foreign currency has been lower than demand, which has contributed to the depreciation of the kina. The authorities consider that the exchange rate continues to be market determined, though structural issues in the market have been responsible for the persistent excess demand for foreign currency. Consistent with its mandate, the BPNG has been intervening to meet some of the excess demand in the foreign exchange market and to avoid any undue delay in meeting import orders. While staff has suggested that a faster depreciation would be desirable, the authorities note that structural issues associated with PNG's commodity-export oriented economy mean that this may not necessarily stimulate the necessary supply to smoothly clear the market. In addition, past experience has shown that this can exert inflationary pressures, as PNG is heavily reliant on imports. At the same time, the authorities also emphasize the need to avoid excessive volatility in the exchange rate. Nevertheless, the authorities are exploring options to improve the operation of the foreign exchange market, and have requested further technical assistance.

The authorities are committed to ensuring that international reserves are adequate and do not fall below current levels. By the end of 2015, the level of international reserves is projected to be close to USD 2 billion, which staff estimates would provide import coverage for 3.1 months.<sup>1</sup> The decline in reserves over recent years mainly reflects lower foreign direct investment since the completion of the LNG project construction, while foreign exchange outflows have increased due to a rise in import demand. Looking ahead, the proceeds from the planned sovereign bond issuance and the anticipated sale of the PNG government's equity in the LNG project to local governments and landowners would be expected to increase holdings of international reserves.

#### FINANCIAL SECTOR AND STRUCTURAL REFORMS

**PNG's financial sector is sound, with ongoing efforts to promote financial development and increase access to finance.** The financial sector is robust, with commercial banks maintaining strong balance sheets and the number of non-performing loans remaining low. The authorities recognize the need to promote further financial sector development to facilitate better access to finance and support greater diversity in the economy. PNG has

<sup>&</sup>lt;sup>1</sup> BPNG measures this as sufficient to cover 7.9 months of total imports and 15.6 months of non-mineral imports (excluding non-factor services and on the basis of 2015 figures).

made considerable progress in broadening access to financial services through the use of mobile banking, though the authorities recognize that access to branches and ATMs remains difficult for significant parts of the population, including the high proportion of citizens that live in rural areas. The BPNG has been promoting an ambitious strategy to enhance financial inclusion and literacy, which within two years has brought over half a million people into the banking system for the first time, with nearly a third of these being women. The authorities have also made progress implementing AML/CFT legislation, which is expected to facilitate removal from the Financial Action Task Force's gray list.

The authorities are committed to inclusive growth policies and investments in nonresource sectors that will support sustainable and broader-based growth in the medium to long-term. In particular, the authorities are committed to supporting the development of a more vibrant agricultural sector, given that a majority of the population relies on this sector. Public investments in roads and increased access to finance will help to create opportunities for a more dynamic and productive agricultural sector. Likewise, the authorities are investing in the considerable potential of other sustainable sectors including forestry, fisheries, and tourism. The Competition Review and the Financial Sector Services Review are currently underway and will help identify areas for future reform. These reforms together with ongoing transparency and governance reforms, enhanced secured lending arrangements and efforts to reduce unnecessary regulatory burdens will also help improve the business environment, including for SMEs. PNG's participation in the Extractive Industries Transparency Initiative will also contribute to an improved investment climate. Governance reforms will promote greater efficiency and improved management of state-owned enterprises.