



# PAPUA NEW GUINEA

## STAFF REPORT FOR THE 2016 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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*The Debt Sustainability Analysis (DSA) indicates that the risk of debt distress in Papua New Guinea (PNG) remains low, based on an assessment of public and publicly-guaranteed (PPG) external debt.<sup>2</sup> In line with the DSA for the 2015 Article IV consultation, factoring in public domestic and private external debt, the overall risk of debt distress remains heightened. A failure to consolidate the fiscal position – including through obtaining more cost-effective and longer-term financing – would worsen debt dynamics.*

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

## BACKGROUND

**1. Although PNG's public and external debt burdens remain low relative to peer countries and the risk of debt distress is low, risks remain.** The ratio of central government debt to GDP remains low, at 30 percent as of end-2015. However, liquidity risks remain high. In addition, central government debt has more than doubled between 2012 and 2015, and interest payments have also doubled over the same period (expected to triple in 2016) – such that debt servicing costs now exceed national spending on either education or health. At the same time, the expected refinancing of a large public sector loan has added to the liquidity risk associated with external debt, while central government domestic financing has become increasingly shorter-term.

## 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. The longer term growth outlook has been revised up slightly by 0.4 percent, following the incorporation of revised historical data, which has shifted GDP composition. Despite this, the sectoral growth outlook has remained largely unchanged. The current account surplus, which was established in 2014 with the commencement of LNG exports, increased in 2015 due to LNG export growth and strong import compression. The current account surplus is projected to decline, as imports recover. The possibility of significant capacity expansion in the resource sector poses a key upside risk to the baseline outlook for the economy.

## EXTERNAL DSA

**3. Under the baseline scenario, all PPG external debt ratios stay well below the indicative thresholds.** The baseline scenario is heavily affected by a reported new US\$500 million loan from a commercial bank, taken in 2016.<sup>3</sup> However, it is only in the historical scenario that large breaches occur. As has been the case in past DSAs, the historical shock scenario shows large threshold breaches. However, in this case the historical scenario is not considered indicative of future risks, as the 10-year averages used for the underlying macroeconomic assumptions encompass the construction phase for PNG LNG and an extremely elevated current account deficit. 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.

<sup>3</sup> The loan, reportedly from Credit Suisse, is assumed to have a 5-year term at 7 percent. At present, we assume that the loan is continually refinanced through the projection period.

## PUBLIC DSA

### 4. **Although public debt dynamics for PNG remain stable, there are risks to the outlook.**

Similar to last year's DSA, the public debt dynamics are stable and the public debt burden is expected to decline continuously over the projection period. However, liquidity risks are masked as the debt service-to-revenue ratio is calculated using medium-long term amortization projections. For example, Treasury bills (less than 1 year to maturity) increased as a share of total domestic financing, from 45 percent in 2012, to 48 percent in 2015. Using total PPG amortization, and including amortization of Treasury bills, would raise the debt service-to-revenue ratio to over 100 percent. In addition, the budget remains exposed to the unfunded superannuation liabilities estimated at 3½ percent of 2016 GDP.

## AUTHORITIES' VIEWS

5. **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 further fiscal restraint is needed to keep the debt on a downward path. They also recognized the importance of more comprehensive data on debt and other liabilities, in particular, off-budget and public enterprise debt, in assessing PNG's overall debt burden.

## CONCLUSION

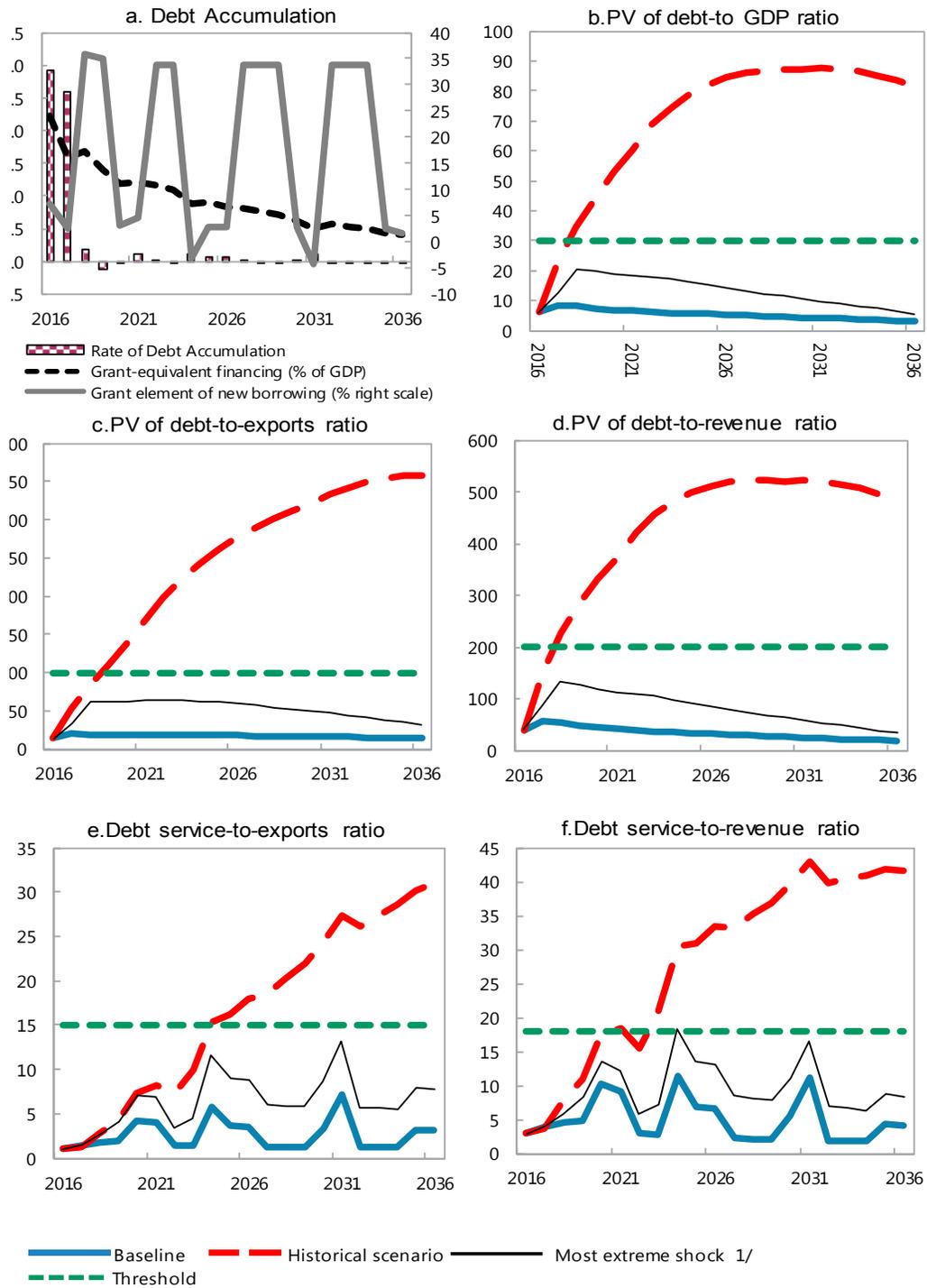
6. **PNG's risk of external debt distress remains low, but the overall risk of public debt distress is heightened.** As was the case in the 2015 DSA, the heightened risk of overall public debt distress reflects the increased stock of domestic debt with a higher share of short-term Treasury bills – even though the stock remains low relative to peers. External debt has also become shorter-term and less concessionary, due to a new US\$500 million commercial bank loan.

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

Compared to the 2015 DSA, the macroeconomic assumptions underpinning this DSA are largely unchanged in terms of the sectoral growth outlook – although a slight upward revision occurred in aggregate growth, due to the effects of revised historical data on GDP component shares. The current account is also projected to be in surplus for much longer, due to the downward revision in imports. A more conservative view is taken of the long-term fiscal balance.

- **Real GDP growth** is projected to average 3.4 percent in the medium/long run, a slight increase above the 3 percent long term average growth rate used for the 2015 DSA.
- **Inflation** is expected to peak at 7.5 percent in 2017, before falling back to 6 percent in the medium/long term. This is an increase of 1 percent above the previous medium/long term projection, and reflects the baseline projection of continued nominal depreciation.
- **The current account** (including grants) turned to surplus in 2014 due to the commencement of LNG exports and import compression. However, the current account is expected to decline in the near term, reflecting in part a weak outlook for commodity exports. In the medium/long term gradual erosion of the current account surplus is projected, as imports recover.
- **The grant element of new loans.** The proportion of PNG's debt on concessional terms has likely reduced, given reports of a new US\$500 million commercial bank loan that was reportedly contracted in 2016 to finance the budget. This has lowered the grant element of loans in the updated DSA in 2016, and will continue to do so in the projection due to assumed refinancing.
- **The primary fiscal balance** is estimated to be 2.0 percent of GDP in deficit in 2016. Thereafter the primary deficit is projected to gradually improve to a deficit of around 0.3 percent.

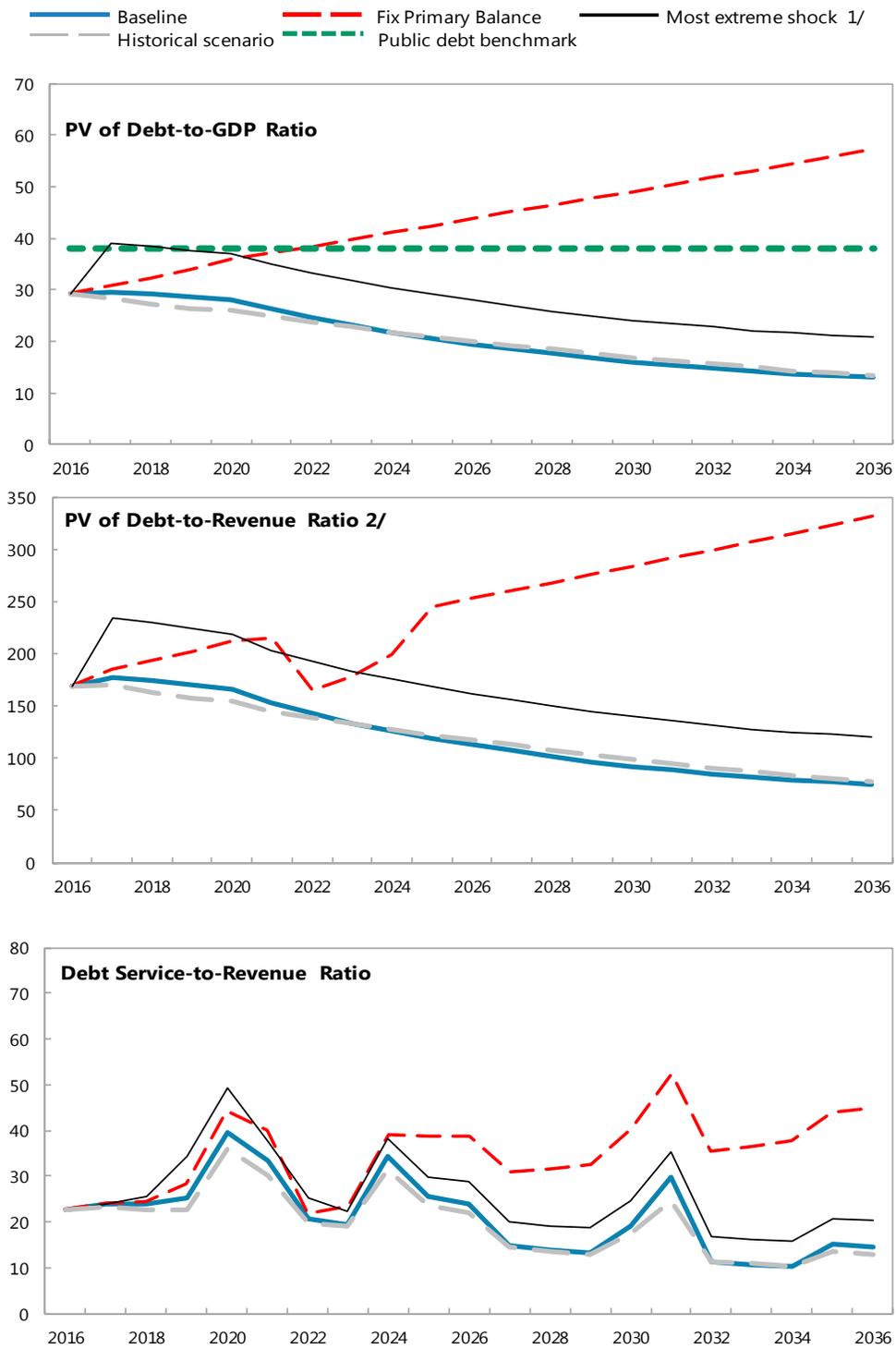
**Figure 1. Papua New Guinea: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2016-2036**



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2025. In pannels b-f it corresponds to an exports shock.

**Figure 2. Papua New Guinea: Indicators of Public Debt Under Alternative Scenarios, 2016-2036**



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026.

2/ Revenues are defined inclusive of grants.

**Table 1a. Papua New Guinea: External Debt Sustainability Framework,  
Baseline Scenario, 2016-2036**

	Actual			Historical Average	Standard Deviation	Projections						2016-2021 Average	2026	2036	2022-2036 Average
	2013	2014	2015			2016	2017	2018	2019	2020	2021				
<b>External debt (nominal) 1/</b>	106.4	98.5	92.0			91.1	82.1	73.1	63.6	54.9	47.1		20.8	5.2	
<i>of which: public and publicly guaranteed (PPG)</i>	6.4	6.5	6.9			10.3	12.5	12.2	11.4	10.7	10.1		8.2	5.1	
Change in external debt	2.7	-7.9	-6.4			-0.9	-9.0	-9.0	-9.5	-8.8	-7.8		-4.3	-0.3	
Identified net debt-creating flows	32.7	-8.1	-9.0			-11.4	-10.6	-9.8	-8.7	-7.6	-7.0		-4.7	-0.2	
Non-interest current account deficit	30.4	-4.1	-11.6	9.0	16.7	-8.4	-7.3	-6.6	-6.0	-5.1	-4.7		-3.4	0.3	-2.4
Deficit in balance of goods and services	26.4	-6.9	-15.8			-12.2	-11.9	-11.0	-9.8	-8.5	-7.9		-6.7	-2.9	
Exports	30.1	41.1	44.1			44.1	43.3	42.1	40.3	38.3	36.2		30.5	22.7	
Imports	56.6	34.2	28.3			31.9	31.4	31.2	30.5	29.7	28.2		23.9	19.8	
Net current transfers (negative = inflow)	-0.6	-0.5	-0.9	-1.3	0.7	-0.8	-0.8	-0.9	-1.1	-1.2	-1.3		-0.7	0.2	-0.4
<i>of which: official</i>	-1.9	-1.7	-1.7			-1.8	-1.9	-1.9	-1.8	-1.8	-1.7		-1.6	-1.4	
Other current account flows (negative = net inflow)	4.6	3.3	5.1			4.7	5.4	5.3	4.9	4.7	4.5		3.9	3.0	
Net FDI (negative = inflow)	0.5	-1.8	-1.1	-1.6	1.5	-1.2	-1.5	-1.3	-1.0	-1.1	-1.0		-0.8	-0.5	-0.7
Endogenous debt dynamics 2/	1.7	-2.2	3.7			-1.8	-1.9	-1.8	-1.7	-1.4	-1.2		-0.5	0.0	
Contribution from nominal interest rate	1.1	1.1	0.7			0.6	0.7	0.7	0.6	0.6	0.5		0.3	0.2	
Contribution from real GDP growth	-4.9	-7.6	-6.7			-2.4	-2.6	-2.5	-2.3	-2.0	-1.7		-0.8	-0.2	
Contribution from price and exchange rate changes	5.5	4.3	9.7			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	-30.0	0.1	2.6			10.5	1.6	0.7	-0.8	-1.2	-0.8		0.4	-0.1	
<i>of which: exceptional financing</i>	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/	...	...	88.1			86.9	78.1	69.0	59.7	51.1	43.5		17.9	3.2	
In percent of exports	...	...	199.6			197.2	180.2	163.9	147.9	133.5	120.3		58.5	14.0	
PV of PPG external debt	...	...	2.9			6.2	8.4	8.1	7.4	6.9	6.5		5.3	3.1	
In percent of exports	...	...	6.6			14.0	19.3	19.2	18.4	18.1	18.0		17.3	13.8	
In percent of government revenues	...	...	17.3			39.9	55.3	52.6	47.6	43.5	40.4		32.0	18.6	
Debt service-to-exports ratio (in percent)	9.4	27.4	23.8			23.8	19.2	15.7	15.3	17.3	16.1		14.0	3.3	
PPG debt service-to-exports ratio (in percent)	1.3	1.0	0.6			1.0	1.4	1.7	1.9	4.2	4.0		3.5	3.1	
PPG debt service-to-revenue ratio (in percent)	2.1	2.1	1.7			2.9	4.0	4.6	4.9	10.2	9.0		6.6	4.1	
Total gross financing need (Billions of U.S. dollars)	7.2	1.2	-0.5			0.2	-0.1	-0.3	-0.2	0.1	0.0		0.0	0.4	
Non-interest current account deficit that stabilizes debt ratio	27.8	3.9	-5.1			-7.4	1.7	2.4	3.5	3.7	3.0		0.9	0.6	
<b>Key macroeconomic assumptions</b>															
Real GDP growth (in percent)	4.7	7.4	6.6	5.8	2.9	2.5	3.0	3.2	3.4	3.4	3.4	3.1	3.4	3.4	3.4
GDP deflator in US dollar terms (change in percent)	-5.1	-3.9	-9.0	5.7	10.5	-8.1	1.9	1.6	2.9	3.4	3.9	0.9	1.8	1.8	1.9
Effective interest rate (percent) 5/	1.0	1.0	0.7	2.6	1.7	0.7	0.8	0.9	0.9	0.9	1.0	0.9	1.1	3.2	2.1
Growth of exports of G&S (US dollar terms, in percent)	-6.5	40.8	4.3	11.8	20.5	-5.9	3.1	2.0	1.8	1.4	1.6	0.7	2.0	2.2	2.1
Growth of imports of G&S (US dollar terms, in percent)	-10.2	-37.5	-19.7	11.4	29.1	6.0	3.5	4.0	4.1	4.2	2.1	4.0	2.1	4.4	2.9
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	7.1	2.6	35.9	35.0	3.2	4.6	14.7	2.8	1.6	18.4
Government revenues (excluding grants, in percent of GDP)	19.0	20.1	16.9			15.4	15.1	15.3	15.6	15.9	16.1		16.5	16.9	16.6
Aid flows (in Billions of US dollars) 7/	0.6	0.5	0.3			0.6	0.4	0.4	0.3	0.3	0.3		0.3	0.3	
<i>of which: Grants</i>	0.4	0.3	0.3			0.4	0.3	0.3	0.3	0.3	0.3		0.3	0.2	
<i>of which: Concessional loans</i>	0.2	0.2	0.0			0.2	0.1	0.1	0.1	0.0	0.0		0.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			2.2	1.6	1.7	1.4	1.2	1.2		0.8	0.4	0.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			40.3	36.4	77.2	84.3	49.0	49.3		48.4	44.1	65.2
<b>Memorandum items:</b>															
Nominal GDP (Billions of US dollars)	21.1	21.8	21.2			20.0	20.9	22.0	23.4	25.0	26.8		35.1	58.4	
Nominal dollar GDP growth	-0.6	3.2	-2.9			-5.8	4.9	4.9	6.3	6.9	7.5	4.1	5.2	5.2	5.3
PV of PPG external debt (in Billions of US dollars)	...	...	0.6			1.2	1.7	1.7	1.7	1.7	1.7		1.8	1.8	
(Pvt-Pvt-1)/GDPt-1 (in percent)	...	...	...			2.9	2.6	0.2	-0.1	0.0	0.1	0.9	0.1	0.0	0.0
Gross workers' remittances (Billions of US dollars)	-0.3	-0.3	-0.2			-0.2	-0.2	-0.2	-0.2	-0.1	-0.1		-0.3	-1.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	2.9			6.2	8.5	8.1	7.5	7.0	6.5		5.3	3.2	
PV of PPG external debt (in percent of exports + remittances)	...	...	6.7			14.3	19.8	19.6	18.7	18.3	18.2		17.8	14.9	
Debt service of PPG external debt (in percent of exports + remittances)	...	...	0.7			1.1	1.4	1.7	1.9	4.3	4.1		3.7	3.3	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as  $[r - g - \rho(1+g)] / (1+g+\rho+g)$  times previous period debt ratio, with  $r$  = nominal interest rate;  $g$  = real GDP growth rate, and  $\rho$  = growth rate of GDP deflator in U.S. dollar terms.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

4/ Assumes that PV of private sector debt is equivalent to its face value.

5/ Current-year interest payments divided by previous period debt stock.

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

7/ Defined as grants, concessional loans, and debt relief.

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

**Table 1b. Papua New Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-2036**  
(In percent)

	Projections											
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2036
<b>PV of debt-to GDP ratio</b>												
<b>Baseline</b>	6	8	8	7	7	7	6	6	6	5	5	3
<b>A. Alternative Scenarios</b>												
A1. Key variables at their historical averages in 2016-2036 1/	6	23	35	44	53	60	68	74	79	82	84	81
A2. New public sector loans on less favorable terms in 2016-2036 2	6	9	9	8	8	8	7	7	7	7	7	5
<b>B. Bound Tests</b>												
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	6	8	8	7	7	7	6	6	6	5	5	3
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	6	13	21	20	19	18	18	17	16	15	14	6
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	6	9	9	8	8	7	7	7	6	6	6	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	6	10	11	10	10	9	9	8	8	8	7	4
B5. Combination of B1-B4 using one-half standard deviation shocks	6	9	10	10	9	9	8	8	7	7	7	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	6	12	11	10	10	9	9	8	8	8	7	4
<b>PV of debt-to-exports ratio</b>												
<b>Baseline</b>	14	19	19	18	18	18	18	18	18	17	17	14
<b>A. Alternative Scenarios</b>												
A1. Key variables at their historical averages in 2016-2036 1/	14	53	82	110	138	167	198	221	242	260	276	358
A2. New public sector loans on less favorable terms in 2016-2036 2	14	20	21	20	20	21	21	21	21	21	21	21
<b>B. Bound Tests</b>												
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	14	19	19	18	18	18	18	17	17	17	17	13
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	14	33	62	62	63	64	64	64	63	61	59	31
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	14	19	19	18	18	18	18	17	17	17	17	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	14	22	26	25	25	25	25	25	25	24	24	16
B5. Combination of B1-B4 using one-half standard deviation shocks	14	22	25	24	24	24	24	23	23	23	22	16
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	14	19	19	18	18	18	18	17	17	17	17	13
<b>PV of debt-to-revenue ratio</b>												
<b>Baseline</b>	40	55	53	48	43	40	38	36	35	33	32	19
<b>A. Alternative Scenarios</b>												
A1. Key variables at their historical averages in 2016-2036 1/	40	151	226	284	333	374	421	455	481	499	512	482
A2. New public sector loans on less favorable terms in 2016-2036 2	40	58	57	53	49	47	44	42	41	40	39	28
<b>B. Bound Tests</b>												
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	40	54	52	47	43	40	38	35	34	33	31	18
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	40	84	134	127	119	113	109	105	98	92	86	33
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	40	58	59	54	49	46	43	40	39	37	36	21
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	40	64	71	65	61	57	54	51	49	46	44	21
B5. Combination of B1-B4 using one-half standard deviation shocks	40	61	66	61	57	53	50	47	45	43	41	21
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	40	76	73	67	61	57	53	50	48	46	44	26

**Table 1b. Papua New Guinea: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-2036 (concluded)**

(In percent)

<b>Debt service-to-exports ratio</b>												
<b>Baseline</b>	1	1	2	2	4	4	1	1	6	4	4	3
<b>A. Alternative Scenarios</b>												
A1. Key variables at their historical averages in 2016-2036 1/	1	1	3	4	7	8	7	10	15	16	18	31
A2. New public sector loans on less favorable terms in 2016-2036 2	1	1	1	2	1	1	1	2	2	2	2	1
<b>B. Bound Tests</b>												
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	1	1	2	2	4	4	1	1	6	4	4	3
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	1	2	3	4	7	7	3	4	12	9	9	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	1	1	2	2	4	4	1	1	6	4	4	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	1	1	2	2	5	4	2	2	6	4	4	4
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	2	2	5	4	2	2	6	4	4	4
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	1	1	2	2	4	4	1	1	6	4	4	3
<b>Debt service-to-revenue ratio</b>												
<b>Baseline</b>	3	4	5	5	10	9	3	3	11	7	7	4
<b>A. Alternative Scenarios</b>												
A1. Key variables at their historical averages in 2016-2036 1/	3	4	8	11	18	18	16	21	30	31	33	42
A2. New public sector loans on less favorable terms in 2016-2036 2	3	4	4	4	3	3	2	4	4	4	4	2
<b>B. Bound Tests</b>												
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	3	4	5	5	10	9	3	3	11	7	7	4
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	3	4	6	8	13	12	6	7	18	14	13	8
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	3	4	5	6	12	10	3	3	13	8	8	5
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	3	4	5	6	11	10	4	4	13	8	8	5
B5. Combination of B1-B4 using one-half standard deviation shocks	3	4	5	5	11	10	3	4	13	8	8	5
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	3	6	7	7	14	13	4	4	16	10	9	6
<b>Memorandum item:</b>												
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	8	8	8	8	8	8	8	8	8	8	8	8

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 2. Papua New Guinea: Public Sector Debt Sustainability Framework,  
Baseline Scenario, 2016-2036**  
(In percent of GDP unless otherwise indicated)

	Actual			Average	s/	Standard	s/	Estimate			Projections					
	2013	2014	2015					2016	2017	2018	2019	2020	2021	2016-21		2026
											Average		Average			
<b>Public sector debt 1/</b>	33.9	38.4	30.4					33.5	33.7	33.2	32.6	31.9	29.9		22.4	15.0
<i>of which: foreign-currency denominated</i>	6.4	6.5	6.9					10.3	12.5	12.2	11.4	10.7	10.1		8.2	5.1
Change in public sector debt	8.5	4.5	-7.9					3.1	0.1	-0.4	-0.7	-0.6	-2.1		-1.2	-0.4
Identified debt-creating flows	18.2	11.6	11.9					7.5	3.6	3.3	2.6	1.8	0.9		0.7	0.3
Primary deficit	5.7	4.8	3.2	-0.2	4.7			1.8	0.4	-0.2	-0.6	-1.0	-1.5	-0.2	-0.9	-0.3
Revenue and grants	20.9	21.7	18.3					17.4	16.7	16.7	16.9	17.1	17.3		17.3	17.3
<i>of which: grants</i>	1.8	1.6	1.4					2.0	1.5	1.4	1.3	1.2	1.2		0.8	0.4
Primary (noninterest) expenditure	26.6	26.5	21.5					19.2	17.1	16.6	16.3	16.0	15.8		16.4	17.0
Automatic debt dynamics	0.3	-2.3	0.0					1.6	-0.5	0.1	0.0	0.0	-0.2		0.0	0.1
Contribution from interest rate/growth differential	-0.5	-2.4	-1.0					1.2	-0.5	0.2	0.2	0.2	0.0		0.0	0.0
<i>of which: contribution from average real interest rate</i>	0.7	0.0	1.4					2.0	0.5	1.2	1.3	1.3	1.1		0.8	0.6
<i>of which: contribution from real GDP growth</i>	-1.1	-2.3	-2.4					-0.7	-1.0	-1.1	-1.1	-1.1	-1.0		-0.8	-0.5
Contribution from real exchange rate depreciation	0.7	0.1	1.0					0.4	0.0	-0.1	-0.2	-0.2	-0.3		...	...
Other identified debt-creating flows	12.2	9.1	8.6					4.0	3.6	3.3	3.1	2.8	2.6		1.5	0.6
Privatization receipts (negative)	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Recognition of implicit or contingent liabilities	12.2	9.1	8.6					4.0	3.6	3.3	3.1	2.8	2.6		1.5	0.6
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	-9.7	-7.1	-19.8					-4.4	-3.5	-3.7	-3.2	-2.5	-2.9		-1.9	-0.7
<b>Other Sustainability Indicators</b>																
<b>PV of public sector debt</b>	...	...	26.5					29.4	29.6	29.1	28.6	28.2	26.3		19.5	13.0
<i>of which: foreign-currency denominated</i>	...	...	2.9					6.2	8.4	8.1	7.4	6.9	6.5		5.3	3.1
<i>of which: external</i>	...	...	2.9					6.2	8.4	8.1	7.4	6.9	6.5		5.3	3.1
PV of contingent liabilities (not included in public sector debt)	...	...	...					...	...	...	...	...	...		...	...
Gross financing need 2/	13.7	15.6	15.9					16.6	14.5	13.2	13.1	15.2	13.8		10.1	6.8
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	145.1					168.7	177.6	173.9	169.5	165.2	152.2		112.9	75.1
PV of public sector debt-to-revenue ratio (in percent)	...	...	157.0					190.3	195.4	189.8	183.2	177.2	163.1		118.4	76.9
<i>of which: external 3/</i>	...	...	17.3					39.9	55.3	52.6	47.6	43.5	40.4		32.0	18.6
Debt service-to-revenue and grants ratio (in percent) 4/	10.4	14.4	17.4					22.7	24.0	24.1	25.3	39.6	33.3		24.0	14.5
Debt service-to-revenue ratio (in percent) 4/	11.4	15.5	18.8					25.6	26.4	26.3	27.3	42.5	35.7		25.2	14.8
Primary deficit that stabilizes the debt-to-GDP ratio	-2.8	0.2	11.2					-1.3	0.3	0.3	0.1	-0.4	0.6		0.3	0.1
<b>Key macroeconomic and fiscal assumptions</b>																
Real GDP growth (in percent)	4.7	7.4	6.6	5.8	2.9			2.5	3.0	3.2	3.4	3.4	3.4	3.1	3.4	3.4
Average nominal interest rate on forex debt (in percent)	2.9	4.5	3.2	2.8	0.9			6.5	7.7	6.9	6.7	6.6	6.7	6.8	6.8	7.0
Average nominal interest rate on domestic debt (in percent)	5.4	6.4	5.7	7.4	1.6			9.6	7.6	9.3	9.3	9.3	8.7	9.0	8.8	9.2
Average real interest rate (in percent)	2.7	-0.1	3.9	2.4	3.1			6.6	1.5	3.8	4.0	4.0	3.6	3.9	3.4	3.7
Average real interest rate on foreign-currency debt (in percent)	-1.4	-1.6	-1.7	-1.7	0.6			-1.8	-1.9	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8	-1.8
Average real interest rate on domestic debt (in percent)	3.1	-0.8	4.4	3.3	4.9			7.2	-0.3	3.1	3.7	3.6	3.0	3.4	2.6	3.0
Real exchange rate depreciation (in percent, + indicates depreciation)	14.3	1.5	16.5	-1.8	11.7			5.8	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	2.3	7.3	1.3	4.1	4.2			2.3	7.9	6.0	5.5	5.5	5.5	5.4	6.0	6.0
Growth of real primary spending (deflated by GDP deflator, in percent)	30.5	6.9	-13.5	2.4	11.1			-8.2	-8.5	0.1	1.6	1.7	1.9	-1.9	4.0	3.6
Grant element of new external borrowing (in percent)	...	...	...	...	...			7.1	2.6	35.9	35.0	3.2	4.6	14.7	2.8	1.6

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 loan.

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.