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FIFTH REVIEW UNDER THE POLICY SUPPORT INSTRUMENT AND REQUEST FOR WAIVER OF AN ASSESSMENT CRITERION AND MODIFICATION OF ASSESSMENT CRITERIA—DEBT SUSTAINABILITY ANALYSIS

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Risk of external debt distress:	**Low**
Augmented by significant risks stemming from domestic public and/or private external debt?	**No**

The Debt Sustainability Analysis (DSA) update indicates that Uganda remains at low risk of debt distress.[1] *The recent large depreciation of the shilling and the downgrade in the Country Policy and Institutional Assessment (CPIA) rating have however raised the external debt burden and lowered its sustainability thresholds. In response to this the authorities have indicated their intention to adjust their medium term borrowing plan to maintain debt at low risk of distress. Relatively weak exports and low revenues as well as the short maturity nature of domestic debt pose risks to debt prospects.*

[1] The last full Debt Sustainability Analysis (DSA) was conducted at the time of the 2015 Article IV Consultation and Fourth PSI Review in June 2015 (IMF Country Report No. 15/175). Under the Country Policy and Institutional Assessment (CPIA), Uganda was shifted from strong to medium performer in July 2015. All data refer to fiscal years running from July to June (e.g., FY2015/16 covers July 2015 to June 2016). External debt is defined as foreign-currency denominated debt.

RECENT DEVELOPMENTS

1. **A large shilling depreciation and a downgrade in Uganda's CPIA rating from strong to medium performer have raised the external debt burden and lowered its sustainability thresholds.** A real exchange rate depreciation of about 10 percent (y/y) resulted in an increase in the ratio of public and publicly guaranteed (PPG) external debt-to-GDP to 19 percent at end-FY2014/15 (18 percent in the previous DSA). At the same time, the change in the CPIA rating—mainly due to slow improvement in the index that measures transparency, accountability and corruption in the public sector since 2012—lowered the thresholds for external debt indicators, leading to reduced borrowing capacity (Box 1).

2. **Weak export performance, relatively low tax revenues, and the short-term nature of domestic debt add to the debt burden.** While medium-term gains from the real depreciation could be expected, the value of exports of goods has not recovered, owing to weak demand from trading partners and falling commodity prices. Government revenues have significantly improved and are expected to further benefit from planned administration gains, but remain low by regional standards. The average maturity of domestic debt remains short, reflecting structural market inefficiencies and an increased preference for short-term financial investments in the run-up to elections.

3. **In response to these developments, the authorities have decided to adjust their medium-term borrowing plan to keep the risk of debt distress low.** To this end, they have committed to postpone some externally-financed investments (amounting on average to about ½ percent of GDP annually) between FY2016/17 and FY2019/20 while protecting high priority projects and those that have already started, including the hydropower plant projects (HPPs).

Box 1. Uganda CPIA Rating

The CPIA downgrade took place in July 2015 because average ratings over 2012-2014, compiled by the World Bank, remained below the threshold. The Staff Guidance Note on the Application of the Joint Bank-Fund Debt Sustainability Framework for Low-Income Countries (www.imf.org) sets a three-year CPIA average to determine the threshold used for the DSA. In the case of Uganda, the improvement in the 2014 CPIA rating was not enough to bring the average for 2012-2014 above the threshold, prompting the use of more stringent thresholds for the external debt indicators (Box Table 1).

Box Table 1. PPG External Debt Thresholds

		Strong performer	Medium performer
PV of debt in percent of	Exports	200	150
	GDP	50	40
	Revenue	300	250
Debt service in percent of	Exports	25	20
	Revenue	22	20

The CPIA downgrade highlights the importance of reinforcing ongoing efforts to address governance issues. The deterioration of the overall CPIA index was triggered by declines in 2012 in (1) the quality of budgetary and financial management; and (2) the level of transparency, accountability, and corruption in the public sector. Although the former index improved in 2014, the latter stayed constant since its decline in 2012. Improvements in governance, transparency, and financial management, notably when the government implements large investment projects, are essential.

Changes in the Underlying Macroeconomic Assumptions

4. **The macroeconomic assumptions used in this DSA are aligned to those corresponding to the authorities' framework supported by the PSI.** The baseline scenario assumes implementation of the authorities' economic policies and structural reforms. Compared to the previous DSA, the main changes are (1) a decline over the projection period in nominal GDP measured in U.S. dollars reflecting the base effect of the recent depreciation; (2) the planned adjustment in the authorities' fiscal investment plan; and (3) lower estimates for oil-related revenue following a downward revision in oil price assumptions from 74 to 63 dollars per barrel in FY2020/21, in line with the latest WEO projections (Text Table 1).

- *Growth* is projected at 6½ percent, on average, over the medium term (½ percentage point lower than in the previous DSA) reflecting the re-phasing of investment projects. Oil production is projected to raise real GDP growth by 0.8 percentage points, on average, during FY2022-2026 (compared to 0.9 percent in the previous DSA). Oil production would now account for 7 percent of Uganda's GDP during the peak extraction period (previously, 10 percent).

- *The GDP deflator* is projected at 4 percent over the medium term. It is lower than in the last DSA because the higher-than-projected depreciation is offset by improvements in terms-of-trade projections stemming from weaker commodity prices. The deflator is projected to pick up as growth recovers over the medium term, while converging to 4 percent in the long run.

- *The external current account deficit* is estimated at 11 percent of GDP, on average, over the medium term (1 percent of GDP lower than in the last DSA). This reflects the combined impact of the real effective exchange rate depreciation and the planned reductions in investment. Oil exports are projected to narrow the current account balance by 2 percent of GDP, on average, in the next 20 years, compared to 2½ percent in the last DSA.

- *The fiscal deficit* is estimated to average 5½ percent of GDP a year over the long run—a decline of ¼ percentage point compared to the last DSA. The re-phasing of the public investment projects is projected to push the deficit down through FY2019/20 (by ½ percent of GDP) and raise it afterwards. In addition, over the long term, the deficit is set to increase by ¼ percent of GDP to account for the oil price decline. Conservatively, oil revenue projections have been revised down by ¾ percentage point to 3 percent of GDP, on average, once oil production reaches full capacity.

- *Nonconcessional borrowing* is projected to remain unchanged at about $8 billion over the medium term (cumulative from June 28, 2013), but disbursements before FY2019/20 are now anticipated to be lower due to the re-phasing of some non-essential projects (Text Table 2). Debt to be contracted by end-December 2015 ($3 billion) will finance the construction of the Karuma and Isimba dams, industrial substations, the Entebbe Airport rehabilitation, and road construction projects.

Text Table 1. Selected Macroeconomic Indicators – Compared to the Previous DSA

	FY2016	FY2017-21 Average	FY2022-26 Average	FY2027-31 Average	FY2032-36 Average
Real GDP growth (percent)					
Baseline	5.0	6.6	8.0	5.4	4.9
excl. oil production	5.0	6.3	7.2	5.7	5.3
Previous DSA	5.8	7.0	8.1	5.3	4.8
Inflation (GDP deflator, national currency, percent)					
Baseline	8.2	4.0	4.6	3.9	3.9
excl. oil production	8.2	3.8	4.4	4.0	4.0
Previous DSA	5.1	4.5	4.6	3.9	3.9
Nominal GDP (US$ billion)					
Baseline	22.8	32.2	57.5	95.6	145.0
excl. oil production	22.8	32.0	54.0	89.4	138.9
Previous DSA	27.0	34.5	62.8	104.2	149.3
Current account balance (percent of GDP)					
Baseline	-9.6	-11.0	-5.7	-4.9	-4.4
excl. oil production	-9.6	-5.7	-8.0	-7.3	-5.8
Previous DSA	-11.0	-12.0	-5.0	-3.8	-4.2
Overall fiscal balance (percent of GDP)					
Baseline	-6.6	-5.3	-2.0	-1.1	-1.3
excl. oil production	-6.6	-5.4	-3.5	-3.0	-2.8
Previous DSA	-7.0	-5.5	-1.8	-0.8	-1.2
Oil-related Revenue (percent of GDP)					
Baseline	0.0	0.4	2.6	3.4	2.6
excl. oil production	0.0	0.0	0.0	0.0	0.0
Previous DSA	0.0	0.4	3.0	4.2	3.2

Source: IMF staff projections.

Text Table 2. Summary Table on External Borrowing Program

PPG external debt contracted or guaranteed	Volume of new debt[1]	Present value of new debt[1]
Year 1: FY2015/16	(Millions of U.S. dollars)	
Source of debt financing	**2,684**	**1,862**
Concessional debt, of which[2]	1,845	1,107
Multilateral debt	1,414	848
Bilateral debt	432	259
Non-concessional debt, of which[2]	839	755
Semi-concessional debt[3]	839	755
Commercial-term debt[4]	-	-
Use of debt financing	**2,684**	**1,862**
Infrastructure	2,684	1,862
Budget financing	-	-
Memorandum items		
Indicative projections		
Year 2: FY2016/17	821	723
Year 3: FY2017/18	2,371	2,134

Sources: Ugandan authorities and IMF staff projections.

[1] Contracting and guaranteeing of new debt, defined as debt approval by a resolution of Parliament as required in Section 36 (5) and 39 (1) of the Public Finance and Management Act, 2015. The present value of debt is calculated using the terms of individual loans and applying the 5 percent program discount rate.

[2] Debt with a grant element that exceeds a minimum threshold (35 percent).

[3] Debt with a positive grant element which does not meet the minimum threshold.

[4] Debt without a positive grant element. For commercial debt, the present value would be defined as the nominal/face value.

EXTERNAL DEBT SUSTAINABILITY

5. **Public and publicly guaranteed (PPG) external debt is assessed to be sustainable over the projection period.** The PV of PPG external debt-to-GDP ratio is expected to peak at 27 percent in FY2020/21, while nominal PPG external debt would stay below 36 percent of GDP in the projection period. All debt burden indicators—under the baseline scenario and the standardized stress tests—are projected to remain below Uganda's country-specific debt burden thresholds (Figure 1, Tables 1, and 3). Compared to the last full DSA, the debt burden indicators remain at similar levels, after taking into account the authorities' policy response to the increased risks.

6. **Nonetheless, more stringent thresholds limit the capacity for additional external borrowing**. Extreme stress tests—mainly the 30 percent one-time depreciation scenario—now show that debt burden indicators peak close to the threshold. To increase the space for external borrowing while maintaining debt sustainability, it is important to strengthen the quality of reforms and institution building, in particular by making progress in governance, transparency, and public financial management issues.

7. **Risks stemming from the uncertainty about oil production remain limited.** A customized alternative scenario, where no oil revenues or oil exports materialize, shows a limited increase in the debt burden indicators, reflecting the authorities' prudent debt accumulation plan. Given the high uncertainty, especially regarding oil prices, keeping a prudent fiscal plan that does not rely on oil proceeds is warranted.

PUBLIC DEBT SUSTAINABILITY

8. **Total public debt (external and domestic) is assessed to be sustainable over the projection period.** The PV of public debt-to-GDP ratio is projected to peak at about 41 percent in FY2020/21, well below the benchmark level of 56 percent associated with heightened public debt vulnerabilities for medium performers. However, the relatively short average maturity of domestic debt combined with a low revenue base continue to be a matter of concern, leading to a debt service-to-revenue ratio of about 41 percent in FY2019/20, among the highest in countries of Uganda's level of income, and increasing rollover and interest rate risks. These risks need to be mitigated by a combination of stronger revenue mobilization and determined efforts to extend average maturities over the medium term.

9. **Stress tests indicate the importance of fiscal consolidation over time.** An illustrative scenario with a fixed primary deficit over the projection period indicates a significantly high PV of public debt-to-GDP ratio, breaching the benchmark level of 56 percent of GDP in FY2024/25 (Figure 2, Tables 2 and 4). This highlights the importance of reducing fiscal deficits immediately after the planned scaling up of public investment has been completed. The customized alternative scenario without oil flows indicate higher but limited risks stemming from uncertainty about oil revenues, as in the case for the external debt analysis.

10. **The authorities have made efforts to strengthen public debt management in recent years.** With assistance from the World Bank, the authorities have developed a medium term debt management strategy and an assessment of debt management performance (Debt Management Performance Assessment, DeMPA). They are also establishing a Debt and Cash Management Directorate in the Ministry of Finance, Planning and Economic Development, with a plan to transfer debt management functions from the Bank of Uganda. Currently, the World Bank is providing technical assistance in drafting a debt

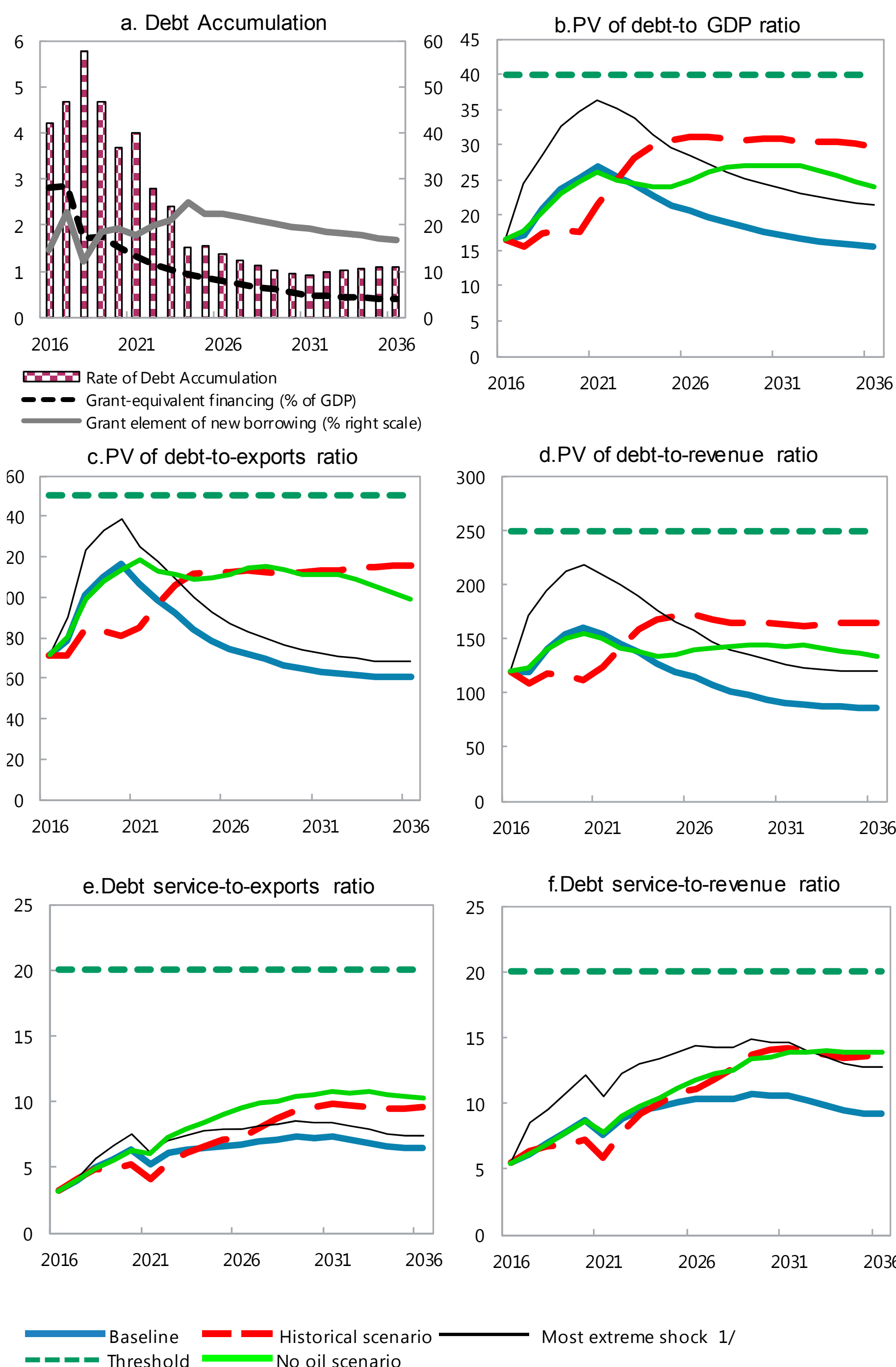
management reform action plan, focusing on the internal organization of debt management and the establishment of a framework for managing contingent liabilities. Further technical assistance is planned by the end of CY2015 to update Uganda's debt management strategy.

CONCLUSION

11. **Uganda's risk of external debt distress remains low.** Although the recent large depreciation of the shilling raises the external debt burden, the planned reduction in the pace of public investment mitigates the increased risks. Adhering to this revised plan; carefully assessing projects' financial and economic viability; selecting the best possible borrowing terms; and avoiding reliance on uncertain oil flows remain essential preconditions for debt sustainability. Making progress in governance issues is also critical considering that large public investments are coming on stream.

12. **The authorities concurred with staff's views.** They remain committed to ensuring debt sustainability through long-term prudent debt management, as outlined in their Medium Term Debt Management Framework, which aims at minimizing costs and risks associated with public investment project financing. The authorities acknowledged the increased risks stemming from the exchange rate depreciation and weak exports as well as the challenges highlighted by the CPIA downgrading, and intend to stick to the revised investment plan, and closely monitor developments to assess if further policy adjustments are needed to ensure maintenance of debt sustainability. They also agreed to make progress in governance and transparency issues, and intend to continue to engage with IDA/IMF staff on debt management issues. The authorities continue to address the short maturity of domestic debt by building policy credibility, deepening the markets, and reforming auction modalities.

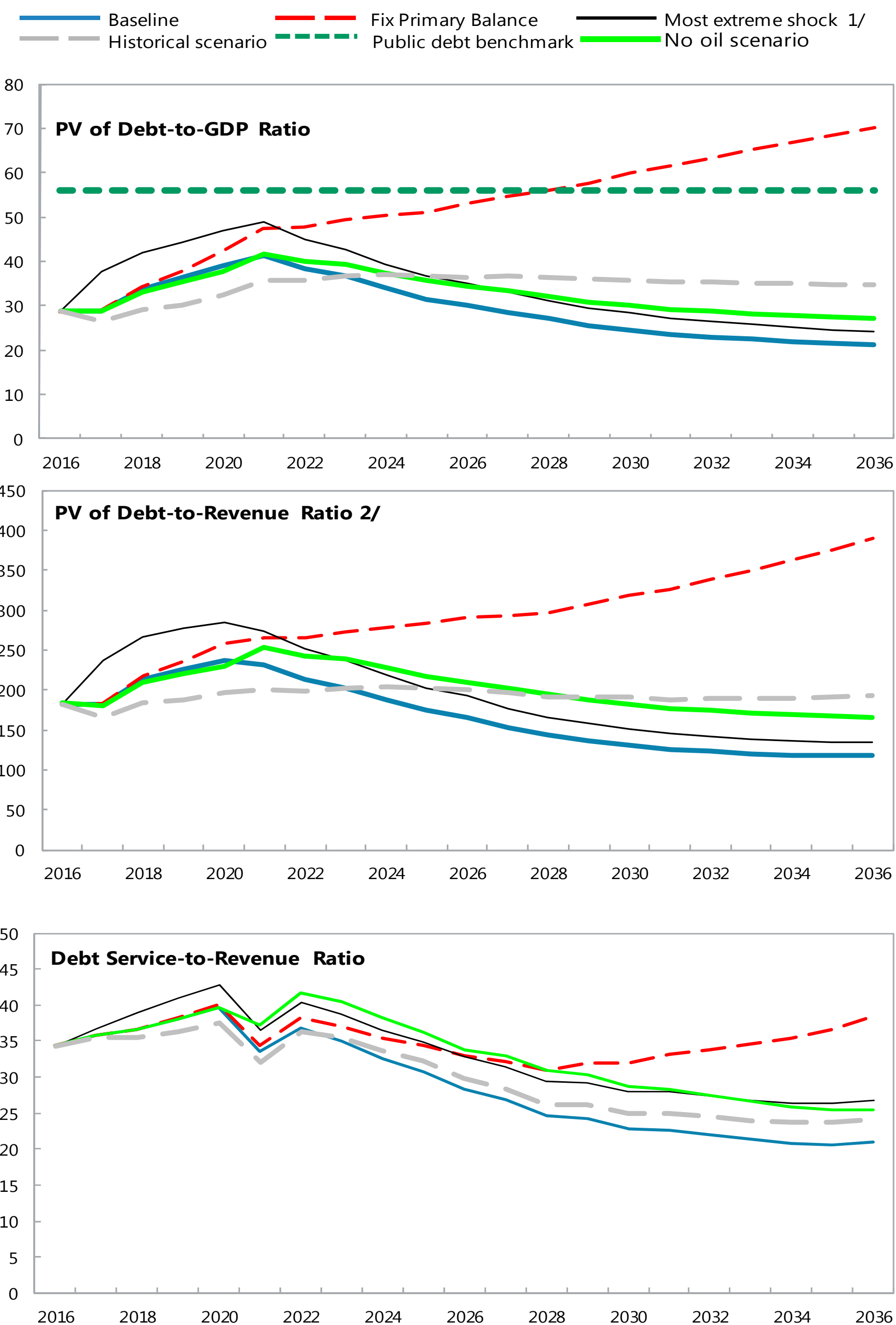
Figure 1. Uganda: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2016-2036 1/



Sources: Ugandan authorities; and IMF staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock; and in figure f. to a One-time depreciation shock.

Figure 2.Uganda: Indicators of Public Debt Under Alternative Scenarios, 2016-2036 1/



Sources: Ugandan authorities; and IMFstaff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2025.
2/ Revenues are defined inclusive of grants.

Table 1. Uganda: External Debt Sustainability Framework, Baseline Scenario, 2012-2036 [1/]

(In percent of GDP, unless otherwise indicated)

	Actual				Historical [6/] Average	Standard [6/] Deviation	Projections									
	2012	2013	2014	2015			2016	2017	2018	2019	2020	2021	2016-2021 Average	2026	2036	2022-2036 Average
External debt (nominal) 1/	**26.6**	**29.3**	**30.8**	**36.8**			**45.6**	**43.9**	**47.0**	**50.6**	**53.1**	**51.4**		**32.3**	**25.0**	
of which: public and publicly guaranteed (PPG)	13.2	15.2	16.1	19.3			25.8	25.5	29.3	32.4	34.0	35.5		27.2	20.8	
Change in external debt	-1.3	2.8	1.4	6.0			8.9	-1.8	3.1	3.6	2.6	-1.7		-0.9	-0.1	
Identified net debt-creating flows	2.2	3.1	2.5	6.5			4.8	4.3	4.7	4.0	3.4	-1.9		-0.3	0.2	
Non-interest current account deficit	**8.1**	**6.3**	**6.7**	**6.9**	**5.7**	**2.5**	**7.4**	**8.2**	**8.0**	**9.6**	**10.7**	**6.0**		**4.2**	**3.5**	3.7
Deficit in balance of goods and services	12.9	10.2	9.9	11.3			12.2	12.3	11.6	12.9	13.9	8.7		3.8	5.6	
Exports	20.2	20.5	18.8	18.8			23.1	21.8	20.8	21.5	21.7	25.3		27.7	25.6	
Imports	33.1	30.7	28.8	30.1			35.4	34.2	32.4	34.4	35.7	34.0		31.5	31.2	
Net current transfers (negative = inflow)	-5.3	-4.9	-4.0	-5.0	-6.2	1.7	-5.6	-5.0	-4.6	-4.4	-4.2	-4.0		-3.4	-3.1	-3.3
of which: official	-1.7	-0.3	-0.3	-0.5			-0.5	-0.4	-0.3	-0.3	-0.2	-0.2		-0.2	0.0	
Other current account flows (negative = net inflow)	0.6	0.9	0.8	0.6			0.8	0.9	1.0	1.1	1.0	1.2		3.8	1.0	
Net FDI (negative = inflow)	**-3.9**	**-2.9**	**-3.8**	**-3.3**	**-3.7**	**1.1**	**-2.8**	**-4.0**	**-3.3**	**-5.3**	**-6.9**	**-6.4**		**-4.1**	**-3.2**	-4.1
Endogenous debt dynamics 2/	**-2.1**	**-0.3**	**-0.4**	**2.9**			**0.3**	**0.1**	**0.0**	**-0.2**	**-0.4**	**-1.5**		**-0.5**	**-0.1**	
Contribution from nominal interest rate	1.5	1.2	2.1	2.3			2.4	2.4	2.3	2.5	2.6	2.6		1.3	1.0	
Contribution from real GDP growth	-1.1	-0.8	-1.2	-1.6			-2.1	-2.3	-2.4	-2.7	-3.0	-4.1		-1.8	-1.1	
Contribution from price and exchange rate changes	-2.5	-0.7	-1.2	2.1			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**-3.5**	**-0.3**	**-1.1**	**-0.5**			**4.0**	**-6.1**	**-1.6**	**-0.4**	**-0.9**	**0.2**		**-0.6**	**-0.3**	
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	0.0	
PV of external debt 4/	...	...	...	28.4			36.4	35.5	38.6	41.9	44.5	42.8		25.8	19.8	
In percent of exports	...	...	...	150.9			157.1	162.3	185.6	194.8	204.6	169.5		93.1	77.2	
PV of PPG external debt	**...**	**...**	**...**	**10.9**			**16.5**	**17.1**	**20.9**	**23.7**	**25.3**	**26.9**		**20.6**	**15.6**	
In percent of exports	**...**	**...**	**...**	**58.1**			**71.2**	**78.1**	**100.7**	**110.2**	**116.5**	**106.3**		**74.5**	**60.7**	
In percent of government revenues	**...**	**...**	**...**	**80.7**			**120.1**	**119.5**	**141.4**	**154.8**	**160.1**	**154.7**		**114.7**	**86.8**	
Debt service-to-exports ratio (in percent)	**9.7**	**9.0**	**15.1**	**15.8**			**17.2**	**18.5**	**16.2**	**18.2**	**17.3**	**14.9**		**11.8**	**11.8**	
PPG debt service-to-exports ratio (in percent)	**2.4**	**2.3**	**2.8**	**2.5**			**3.2**	**4.0**	**4.9**	**5.6**	**6.4**	**5.3**		**6.7**	**6.5**	
PPG debt service-to-revenue ratio (in percent)	**4.3**	**4.1**	**4.5**	**3.5**			**5.4**	**6.1**	**6.9**	**7.8**	**8.8**	**7.7**		**10.4**	**9.2**	
Total gross financing need (billions of U.S. dollars)	1.7	1.6	1.8	2.1			2.3	2.5	2.7	2.9	2.9	1.5		2.9	6.7	
Non-interest current account deficit that stabilizes debt ratio	9.5	3.5	5.3	0.9			-1.5	10.0	4.9	6.0	8.2	7.7		5.2	3.6	
Key macroeconomic assumptions																
Real GDP growth (in percent)	4.4	3.3	4.6	5.0	6.7	2.6	5.0	5.8	6.1	6.3	6.5	8.5	6.4	5.8	4.8	6.1
GDP deflator in US dollar terms (change in percent)	9.8	2.8	4.4	-6.5	4.5	9.7	-17.9	8.2	6.9	1.9	1.9	1.6	0.4	4.3	3.5	4.1
Effective interest rate (percent) 5/	6.2	5.0	7.7	7.3	7.1	2.3	5.7	6.1	6.0	5.8	5.5	5.4	5.7	4.3	4.4	4.3
Growth of exports of G&S (US dollar terms, in percent)	22.7	7.5	0.3	-1.9	14.8	11.9	6.1	8.1	8.0	12.1	9.4	28.2	12.0	12.5	6.8	10.6
Growth of imports of G&S (US dollar terms, in percent)	12.3	-1.4	2.2	2.8	14.8	12.8	1.2	10.7	7.4	15.2	12.3	5.0	8.7	10.3	8.4	9.8
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	...	14.7	22.9	12.1	18.7	19.2	17.7	17.6	22.3	16.8	20.1
Government revenues (excluding grants, in percent of GDP)	11.2	11.4	11.9	13.5			13.7	14.3	14.8	15.3	15.8	17.4		18.0	17.9	18.3
Aid flows (in billions of US dollars) 7/	0.8	1.0	0.5	0.3			0.7	0.9	0.6	0.8	0.7	0.7		0.8	1.1	
of which: Grants	0.4	0.4	0.3	0.3			0.4	0.4	0.3	0.2	0.2	0.2		0.1	0.0	
of which: Concessional loans	0.3	0.6	0.2	0.0			0.3	0.5	0.3	0.5	0.5	0.5		0.7	1.1	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...	...			2.8	2.8	1.7	1.8	1.5	1.3		0.8	0.4	0.7
Grant-equivalent financing (in percent of external financing) 8/	...	...	...	...			36.0	39.9	24.2	27.8	29.2	26.0		27.2	16.8	23.0
Memorandum items:																
Nominal GDP (Billions of US dollars)	23.2	24.7	26.9	26.4			22.8	26.1	29.6	32.1	34.8	38.3		71.6	169.7	
Nominal dollar GDP growth	14.7	6.1	9.2	-1.8			-13.8	14.5	13.4	8.4	8.4	10.2	6.9	10.4	8.4	10.4
PV of PPG external debt (in billions of US dollars)				2.5			3.6	4.6	6.2	7.5	8.7	10.1		14.8	26.4	
(PVt-PVt-1)/GDPt-1 (in percent)							4.2	4.7	5.8	4.7	3.7	4.0	4.5	1.4	1.1	1.3
Gross workers' remittances (billions of US dollars)	0.8	1.1	1.0	1.2			1.2	1.2	1.3	1.3	1.4	1.4		2.8	6.0	
PV of PPG external debt (in percent of GDP + remittances)		...	...	10.5			15.7	16.3	20.1	22.8	24.4	25.9		19.8	15.0	
PV of PPG external debt (in percent of exports + remittances)		...	...	47.0			58.3	64.3	83.5	92.6	98.5	92.6		65.2	53.3	
Debt service of PPG external debt (in percent of exports + remittances)		...	...	2.1			2.6	3.3	4.1	4.7	5.4	4.6		5.9	5.7	

Sources: Ugandan authorities; and IMF staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

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

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

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

Table 2. Uganda: Public Sector Debt Sustainability Framework, Baseline Scenario, 2013-2036

(In percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2013	2014	2015	Average 5/	Standard Deviation 5/	2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	23.3	26.4	31.1			37.9	37.3	42.0	44.9	47.6	50.0		36.7	26.5	
of which: foreign-currency denominated	15.2	16.1	19.3			25.8	25.5	29.3	32.4	34.0	35.5		27.2	20.8	
Change in public sector debt	1.1	3.0	4.7			6.8	-0.6	4.7	2.9	2.8	2.4		-1.5	-0.4	
Identified debt-creating flows	2.6	2.6	6.7			6.3	1.2	4.0	4.5	3.3	-0.3		-2.0	-0.6	
Primary deficit	2.2	2.7	3.0	1.7	1.2	4.6	4.4	3.9	3.6	2.4	1.5	3.4	-0.3	0.3	-0.3
Revenue and grants	12.9	13.0	14.8			15.7	15.8	15.8	16.0	16.5	17.9		18.2	17.9	
of which: grants	1.5	1.0	1.2			1.9	1.6	1.0	0.7	0.6	0.5		0.2	0.0	
Primary (noninterest) expenditure	15.1	15.7	17.8			20.2	20.3	19.7	19.6	18.8	19.4		17.9	18.2	
Automatic debt dynamics	0.4	-0.1	3.3			1.4	-4.2	-0.6	-1.1	-1.4	-2.3		-1.7	-0.9	
Contribution from interest rate/growth differential	0.1	0.0	-0.3			-0.5	-0.7	-0.7	-1.2	-1.5	-2.7		-1.2	-0.6	
of which: contribution from average real interest rate	0.8	1.0	1.0			1.0	1.4	1.5	1.3	1.2	1.0		1.0	0.6	
of which: contribution from real GDP growth	-0.7	-1.0	-1.3			-1.5	-2.1	-2.2	-2.5	-2.7	-3.7		-2.1	-1.2	
Contribution from real exchange rate depreciation	0.3	-0.1	3.6			2.0	-3.5	0.1	0.1	0.1	0.4		...	...	
Other identified debt-creating flows	0.0	0.0	0.3			0.2	1.0	0.7	2.0	2.3	0.5		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.0	0.0	0.0			0.0	0.6	0.6	1.9	2.3	0.5		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 (e.g., bank recapitalization)	0.0	0.0	0.3			0.2	0.4	0.1	0.1	0.0	0.0		0.0	0.0	
Residual, including asset changes	-1.5	0.4	-1.9			0.5	-1.9	0.7	-1.6	-0.5	2.6		0.4	0.3	
Other Sustainability Indicators															
PV of public sector debt	...	...	22.7			28.6	28.9	33.6	36.3	39.0	41.4		30.1	21.2	
of which: foreign-currency denominated	...	...	10.9			16.5	17.1	20.9	23.7	25.3	26.9		20.6	15.6	
of which: external	...	...	10.9			16.5	17.1	20.9	23.7	25.3	26.9		20.6	15.6	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	6.5	10.3	11.7			14.1	14.4	13.9	14.1	13.2	12.1		8.2	5.7	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	153.6			182.8	182.2	212.9	226.0	236.8	231.5		166.0	118.4	
PV of public sector debt-to-revenue ratio (in percent)	...	...	167.7			208.6	202.3	226.9	236.5	246.5	238.4		167.7	118.4	
of which: external 3/	...	...	80.7			120.1	119.5	141.4	154.8	160.1	154.7		114.7	86.8	
Debt service-to-revenue and grants ratio (in percent) 4/	31.6	35.3	33.4			34.3	35.7	36.6	38.1	39.7	33.5		28.3	21.0	
Debt service-to-revenue ratio (in percent) 4/	35.7	38.3	36.5			39.1	39.6	39.0	39.9	41.3	34.5		28.6	21.0	
Primary deficit that stabilizes the debt-to-GDP ratio	1.1	-0.3	-1.7			-2.2	5.0	-0.8	0.7	-0.4	-0.8		1.2	0.6	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	3.3	4.6	5.0	6.7	2.6	5.0	5.8	6.1	6.3	6.5	8.5	6.4	5.8	4.8	6.1
Average nominal interest rate on forex debt (in percent)	1.2	1.3	0.9	1.2	0.4	1.5	2.1	2.6	2.9	3.0	3.2	2.5	3.2	3.3	3.2
Average real interest rate on domestic debt (in percent)	10.1	13.8	10.7	5.3	6.3	8.1	11.0	11.8	9.1	8.1	5.4	8.9	6.6	6.9	7.0
Real exchange rate depreciation (in percent, + indicates depreciation	2.5	-0.4	23.5	-1.4	16.8	10.6	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.1	2.3	4.2	9.5	6.9	8.2	4.0	3.2	3.8	4.0	4.8	4.7	3.9	3.8	4.1
Growth of real primary spending (deflated by GDP deflator, in percer	6.6	8.6	19.4	3.5	6.4	19.5	5.8	3.3	5.8	2.1	12.0	8.1	7.6	3.9	5.7
Grant element of new external borrowing (in percent)	...	...	...	...	...	14.7	22.9	12.1	18.7	19.2	17.7	17.6	22.3	16.8	...

Sources: Ugandan authorities; and IMF staff estimates and projections.

1/ The public sector includes the central government only and gross debt is used for all presentations.

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 3. Uganda: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-2036

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
PV of debt-to GDP ratio								
Baseline	16	17	21	24	25	27	**21**	16
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	16	16	17	18	18	21	**31**	30
A2. New public sector loans on less favorable terms in 2016-2036 2/	16	19	23	27	30	32	**28**	26
A3. Alternative Scenario : No Oil Scenario	16	18	21	23	25	26	**25**	24
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	16	18	22	24	26	27	**21**	16
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	16	19	23	26	27	29	**22**	16
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	16	20	27	30	32	34	**26**	20
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	16	19	23	26	27	28	**22**	16
B5. Combination of B1-B4 using one-half standard deviation shocks	16	20	26	29	31	32	**25**	18
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	16	25	29	32	35	36	**28**	21
PV of debt-to-exports ratio								
Baseline	71	78	101	110	117	106	**75**	61
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	71	71	84	83	81	85	**112**	115
A2. New public sector loans on less favorable terms in 2016-2036 2/	71	88	113	128	138	128	**102**	102
A3. Alternative Scenario : No Oil Scenario	71	81	99	108	113	118	**112**	99
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	71	81	100	109	115	104	**74**	61
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	71	90	124	133	139	124	**87**	68
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	71	81	100	109	115	104	**74**	61
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	71	89	111	119	125	112	**78**	62
B5. Combination of B1-B4 using one-half standard deviation shocks	71	85	104	113	119	107	**75**	60
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	71	81	100	109	115	104	**74**	61
PV of debt-to-revenue ratio								
Baseline	120	119	141	155	160	155	**115**	87
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	120	109	118	117	112	124	**172**	165
A2. New public sector loans on less favorable terms in 2016-2036 2/	120	135	158	179	190	186	**157**	146
A3. Alternative Scenario : No Oil Scenario	120	124	139	151	156	150	**139**	134
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	120	126	145	159	164	157	**119**	90
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	120	131	157	169	173	164	**121**	88
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	120	142	180	197	204	195	**147**	111
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	120	136	156	168	172	163	**121**	88
B5. Combination of B1-B4 using one-half standard deviation shocks	120	143	175	189	195	186	**139**	103
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	120	172	194	212	219	210	**159**	120

Table 3. Uganda: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016-2036 (concluded)

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
Debt service-to-exports ratio								
Baseline	3	4	5	6	6	5	**7**	6
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	3	4	5	5	5	4	**7**	10
A2. New public sector loans on less favorable terms in 2016-2036 2/	3	4	4	5	6	5	**7**	9
A3. Alternative Scenario : No Oil Scenario	3	4	5	6	6	6	**9**	10
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	3	4	5	6	6	5	**7**	6
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	3	4	6	7	8	6	**8**	7
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	3	4	5	6	6	5	**7**	6
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	3	4	5	6	7	6	**7**	7
B5. Combination of B1-B4 using one-half standard deviation shocks	3	4	5	6	7	5	**7**	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	3	4	5	6	6	5	**7**	6
Debt service-to-revenue ratio								
Baseline	5	6	7	8	9	8	**10**	9
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	5	6	7	7	7	6	**11**	14
A2. New public sector loans on less favorable terms in 2016-2036 2/	5	6	6	7	9	8	**11**	13
A3. Alternative Scenario : No Oil Scenario	5	6	7	8	9	8	**12**	14
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	5	6	7	8	9	8	**11**	10
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	5	6	7	8	9	8	**11**	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	5	7	9	10	11	10	**13**	12
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	5	6	7	8	9	8	**11**	10
B5. Combination of B1-B4 using one-half standard deviation shocks	5	7	8	10	11	9	**13**	11
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	5	8	10	11	12	11	**14**	13
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	13	13	13	13	13	13	**13**	13

Sources: Ugandan authorities; and IMF 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 assumingan offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

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

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

Table 4. Uganda: Sensitivity Analysis for Key Indicators of Public Debt 2016-2036

(In percent)

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	29	29	34	36	39	41	30	21
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	29	26	29	30	32	36	37	35
A2. Primary balance is unchanged from 2016	29	29	34	38	42	47	53	70
A3. Permanently lower GDP growth 1/	29	29	34	37	41	44	35	38
A4. Alternative Scenario : No Oil Scenario	29	29	33	35	38	42	34	27
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	29	30	35	39	42	45	35	29
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	29	28	31	34	37	39	29	21
B3. Combination of B1-B2 using one half standard deviation shocks	29	27	31	34	37	39	30	22
B4. One-time 30 percent real depreciation in 2017	29	33	38	40	43	45	33	24
B5. 10 percent of GDP increase in other debt-creating flows in 2017	29	38	42	44	47	49	35	24
PV of Debt-to-Revenue Ratio 2/								
Baseline	183	182	213	226	237	231	166	118
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	183	166	184	188	197	200	201	193
A2. Primary balance is unchanged from 2016	183	183	217	236	258	265	291	390
A3. Permanently lower GDP growth 1/	183	184	216	232	246	243	195	212
A4. Alternative Scenario : No Oil Scenario	184	181	210	221	230	253	209	165
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	183	186	224	240	254	250	192	162
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	183	174	199	213	225	221	159	114
B3. Combination of B1-B2 using one half standard deviation shocks	183	171	194	210	223	220	163	124
B4. One-time 30 percent real depreciation in 2017	183	211	240	250	260	253	179	134
B5. 10 percent of GDP increase in other debt-creating flows in 2017	183	237	266	276	284	273	192	134
Debt Service-to-Revenue Ratio 2/								
Baseline	34	36	37	38	40	34	28	21
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	34	35	36	36	38	32	30	24
A2. Primary balance is unchanged from 2016	34	36	37	38	40	34	33	38
A3. Permanently lower GDP growth 1/	34	36	37	39	41	35	31	28
A4. Alternative Scenario : No Oil Scenario	34	36	37	38	40	37	34	26
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	34	36	38	40	41	35	30	24
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	34	36	36	38	39	33	28	21
B3. Combination of B1-B2 using one half standard deviation shocks	34	36	36	38	39	33	28	21
B4. One-time 30 percent real depreciation in 2017	34	37	39	41	43	36	33	27
B5. 10 percent of GDP increase in other debt-creating flows in 2017	34	36	39	41	42	35	31	23

Sources: Ugandan authorities; and IMF 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.