INTERNATIONAL DEVELOPMENT ASSOCIATION
INTERNATIONAL MONETARY FUND

UGANDA

Joint World Bank-IMF Debt Sustainability Analysis

May 2020

Prepared jointly by the staffs of the International Development Association (IDA)
And the International Monetary Fund (IMF)

Approved by Marcello Estevão (IDA), Annalisa Fedelino and Chris Lane (IMF)

Uganda: Joint Bank-Fund Debt Sustainability Analysis	
Risk of external debt distress:	Low[1]
Overall risk of debt distress	Low
Granularity in the risk rating	Not applicable
Application of judgment	No

Uganda's debt is sustainable, with a low risk of external and overall debt distress under the Covid pandemic macro-framework.[2] So far, the impact of the pandemic on Uganda's economy is felt through supply chain disruptions; and lower commodity export prices, remittances, tourism, and capital inflows leading to a deterioration in the current and financial accounts. In addition, as a response to the crisis, the fiscal position is expected to deteriorate and be financed with debt. Updates with respect to economic impact of Covid- are rapidly evolving, and risks are tilted to the downside. As a result, the debt-to-GDP burden trajectories are higher than anticipated in the last Debt Sustainability Analysis (DSA) despite the recent rebasing of the national accounts that have increased nominal GDP. All external debt and total public debt burden trajectories remain below their respective indicative thresholds under the baseline scenarios. However, the higher debt burden has let multiple indicators to nearly breach their indicative thresholds under the stress test scenario. Debt service-to-revenue remains elevated and indicate heightened vulnerabilities, especially as budget revenues decline due to the pandemic. In FY2019/20, financing needs are expected to be fully met through reserves drawdown, use of Fund credit under the Rapid Credit Facility (RCF), and World Bank financial support. In addition, the Ugandan authorities are interested in seeking debt service relief under the G-20 Covid-19 debt service relief initiative. They have initiated steps to contact their bilateral creditors, and have noted their intention to adhere to the needed commitments. Large near-term external financing needs are assumed to be covered by drawing down existing reserve buffers, IMF resources, World Bank resources, and resources from other development partners still under discussion. Considering the country's significant vulnerability to shocks, sound fiscal management over the medium term remains critical to ensure fiscal sustainability.

[1] Uganda's Composite Indicator signals a strong debt-carrying capacity based on the October 2019 WEO and CPIA 2019.

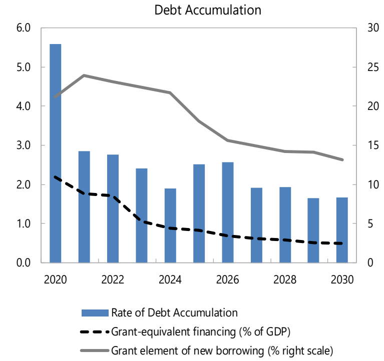
[2] This DSA updates the joint World Bank-IMF analysis of May 2019 (2019 Article IV consultation) using the post COVID pandemic macro-framework as the new baseline. The debt coverage remains the same as in the 2019 DSA, and includes central, state and local governments plus social security, central bank and government guaranteed debt.

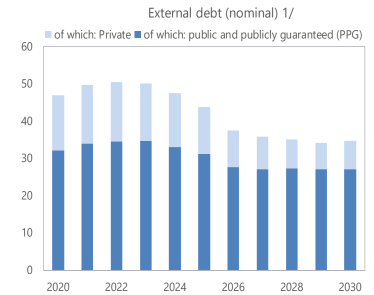
Table 1. Uganda: External Debt Sustainability Framework, Baseline Scenario, 2016/17–2029/30

(In percent of GDP, unless otherwise indicated)

	Actual			Projections							Average 8/	
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2029/30	Historical	Projections
External debt (nominal) 1/	**35.9**	**37.6**	**39.8**	**46.9**	**49.6**	**50.4**	**50.0**	**47.4**	**43.8**	**34.8**	**31.0**	**42.3**
of which: public and publicly guaranteed (PPG)	**21.8**	**24.4**	**26.0**	**32.0**	**33.9**	**34.5**	**34.7**	**33.1**	**31.1**	**27.1**	**18.2**	**30.8**
Change in external debt	1.6	1.7	2.2	7.1	2.7	0.8	-0.4	-2.6	-3.6	0.6		
Identified net debt-creating flows	**-0.9**	**0.2**	**2.6**	**6.1**	**4.1**	**-1.1**	**-1.9**	**-2.2**	**-5.4**	**-0.4**	**0.8**	**-0.9**
Non-interest current account deficit	**2.6**	**4.7**	**7.6**	**8.9**	**6.9**	**3.5**	**2.9**	**1.6**	**0.0**	**0.0**	**5.9**	**2.2**
Deficit in balance of goods and services	-0.6	0.7	2.3	3.6	2.5	-0.4	-0.9	-1.6	-4.2	-7.8	**1.4**	**-2.8**
Exports	16.2	16.5	17.6	13.6	14.1	15.8	16.1	16.1	19.2	20.9		
Imports	15.6	17.2	19.9	17.2	16.7	15.4	15.2	14.5	15.0	13.1		
Net current transfers (negative = inflow)	-4.8	-4.8	-5.3	-3.5	-3.3	-4.1	-3.9	-3.6	-3.2	-2.3	**-5.3**	**-3.2**
of which: official	-0.6	-0.4	-0.4	-0.4	-0.5	-0.4	-0.1	-0.1	-0.1	0.0		
Other current account flows (negative = net inflow)	8.0	8.8	10.6	8.9	7.7	8.0	7.6	6.8	7.4	10.0	**9.8**	**8.2**
Net FDI (negative = inflow)	**-2.3**	**-3.0**	**-4.2**	**-2.7**	**-2.9**	**-3.9**	**-4.1**	**-3.3**	**-3.6**	**-0.3**	**-3.3**	**-2.3**
Endogenous debt dynamics 2/	**-1.2**	**-1.6**	**-0.7**	**-0.1**	**0.0**	**-0.7**	**-0.7**	**-0.6**	**-1.8**	**-0.1**		
Contribution from nominal interest rate	0.7	0.7	1.1	1.2	1.7	1.9	2.1	2.2	2.0	1.4		
Contribution from real GDP growth	-1.3	-2.1	-2.3	-1.3	-1.7	-2.6	-2.8	-2.7	-3.8	-1.6		
Contribution from price and exchange rate changes	-0.7	-0.2	0.6	...	...	...	...	...	...	...		
Residual 3/	**2.5**	**1.5**	**-0.5**	**1.0**	**-1.4**	**1.8**	**1.6**	**-0.4**	**1.8**	**1.1**	**0.5**	**0.3**
of which: exceptional financing	0.0	0.0	0.0	0.0	-0.2	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators												
PV of PPG external debt-to-GDP ratio	**...**	**...**	**17.9**	**22.5**	**24.5**	**25.4**	**25.9**	**25.3**	**24.0**	**22.0**		
PV of PPG external debt-to-exports ratio	**...**	**...**	**101.9**	**165.3**	**173.7**	**160.3**	**160.9**	**157.2**	**125.1**	**105.2**		
PPG debt service-to-exports ratio	**14.4**	**14.8**	**9.4**	**9.7**	**13.1**	**12.2**	**14.4**	**15.6**	**13.4**	**13.9**		
PPG debt service-to-revenue ratio	**19.5**	**19.9**	**12.7**	**10.2**	**14.1**	**14.5**	**16.7**	**17.4**	**17.2**	**16.6**		
Gross external financing need (Million of U.S. dollars)	1345.5	1790.9	2709.2	4101.6	3605.4	2223.7	1926.6	2042.8	916.0	3487.6		
				13900.1								
Key macroeconomic assumptions												
Real GDP growth (in percent)	3.9	6.2	6.5	3.3	3.7	5.7	6.0	6.0	9.2	4.9	**4.6**	**5.7**
GDP deflator in US dollar terms (change in percent)	2.0	0.5	-1.5	0.8	-0.2	1.7	1.3	3.7	6.0	1.7	**6.7**	**2.2**
Effective interest rate (percent) 4/	2.2	2.1	3.0	3.1	3.8	4.1	4.5	4.7	4.8	4.5	**1.9**	**4.2**
Growth of exports of G&S (US dollar terms, in percent)	6.3	8.5	11.8	-19.1	7.2	20.6	9.0	9.9	38.1	5.9	**7.0**	**11.0**
Growth of imports of G&S (US dollar terms, in percent)	1.6	17.9	21.5	-9.8	0.1	-0.6	5.9	4.8	20.0	5.1	**5.7**	**3.4**
Grant element of new public sector borrowing (in percent)	...	...	...	21.2	23.9	23.1	22.4	21.7	18.1	13.2	**...**	**21.7**
Government revenues (excluding grants, in percent of GDP)	12.0	12.2	13.0	12.9	13.1	13.4	13.9	14.4	15.0	17.5	**11.6**	**13.8**
Aid flows (in Million of US dollars) 5/	519.8	261.2	566.9	910.9	950.0	975.2	760.4	695.1	760.6	764.5		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	2.2	1.8	1.7	1.1	0.9	0.8	0.5	**...**	**1.4**
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	27.6	35.6	35.5	26.0	25.6	20.8	14.2	**...**	**28.5**
Nominal GDP (Million of US dollars)	30,654	32,697	34,307	35,743	36,982	39,749	42,681	46,911	54,320	90,659		
Nominal dollar GDP growth	5.9	6.7	4.9	4.2	3.5	7.5	7.4	9.9	15.8	6.7	**11.5**	**8.0**
Memorandum items:												
PV of external debt 7/	...	...	31.6	37.4	40.3	41.3	41.3	39.6	36.7	29.6		
In percent of exports	...	...	180.1	274.3	285.4	260.4	256.4	246.1	191.2	141.8		
Total external debt service-to-exports ratio	23.1	21.5	25.9	34.4	39.6	36.4	34.7	36.0	26.5	18.8		
PV of PPG external debt (in Million of US dollars)			6140.4	8057.2	9073.9	10095.7	11053.3	11867.4	13049.8	19911.9		
(PVt-PVt-1)/GDPt-1 (in percent)				5.6	2.8	2.8	2.4	1.9	2.5	1.7		
Non-interest current account deficit that stabilizes debt ratio	1.0	3.0	5.4	1.8	4.2	2.8	3.3	4.3	3.6	-0.7		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g) + \varepsilon\alpha(1+r)]/(1+g+\rho+g\rho)$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency, and α= share of local currency-denominated external debt in total external debt.

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

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

6/ 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).

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

8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

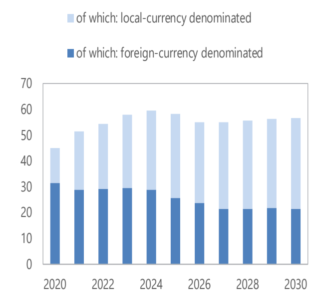
Table 2. Uganda: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016/17–2029/30

(In percent of GDP, unless otherwise indicated)

	Actual			Projections							Average 6/	
	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2029/30	Historical	Projections
Public sector debt 1/	32.0	35.0	37.3	45.1	51.5	54.4	57.9	59.6	58.4	56.7	27.7	54.9
of which: external debt	21.8	24.4	26.0	32.0	33.9	34.5	34.7	33.1	31.1	27.1	18.2	30.8
Change in public sector debt	1.8	3.0	2.3	7.9	6.4	2.9	3.4	1.7	-1.2	0.4		
Identified debt-creating flows	2.1	2.8	2.0	7.3	7.5	3.7	4.2	2.7	-0.6	1.3	1.2	2.6
Primary deficit	1.1	2.1	3.1	5.0	6.2	3.0	3.2	2.5	1.6	-1.5	2.3	2.1
Revenue and grants	12.8	12.8	13.5	13.6	13.9	14.1	14.1	14.5	15.2	17.5	12.8	15.6
of which: grants	0.9	0.6	0.5	0.6	0.8	0.8	0.2	0.2	0.1	0.0		
Primary (noninterest) expenditure	13.9	15.0	16.6	18.5	20.0	17.1	17.3	17.1	16.7	16.0	15.1	17.7
Automatic debt dynamics	1.0	0.7	-1.1	2.2	1.0	0.7	1.0	0.1	-2.2	2.8		
Contribution from interest rate/growth differential	0.5	-0.5	-0.3	1.0	1.0	0.6	0.9	1.0	-1.2	3.0		
of which: contribution from average real interest rate	1.7	1.3	1.8	2.3	2.6	3.4	3.9	4.2	3.8	5.6		
of which: contribution from real GDP growth	-1.1	-1.9	-2.1	-1.2	-1.6	-2.8	-3.1	-3.3	-5.0	-2.6		
Contribution from real exchange rate depreciation	0.4	1.2	-0.7	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.1	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0	0.1	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		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.1	0.0	0.0	0.2	0.3	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		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	-0.4	0.2	0.3	0.5	-1.2	-0.7	-0.8	-0.9	-0.6	-0.9	-0.1	-1.0
Sustainability indicators												
PV of public debt-to-GDP ratio 2/	...	...	28.9	36.3	42.6	45.8	49.5	51.8	51.4	51.8		
PV of public debt-to-revenue and grants ratio	...	...	214.8	267.7	306.9	323.5	351.5	356.6	339.3	295.8		
Debt service-to-revenue and grants ratio 3/	45.5	44.5	41.3	40.2	53.2	70.0	80.9	86.4	91.8	92.8		
Gross financing need 4/	5.1	6.0	8.7	10.6	13.9	12.9	14.6	15.1	15.5	14.7		
Key macroeconomic and fiscal assumptions												
Real GDP growth (in percent)	3.9	6.2	6.5	3.3	3.7	5.7	6.0	6.0	9.2	4.9	4.6	6.2
Average nominal interest rate on external debt (in percent)	2.3	2.0	2.4	1.9	2.5	2.4	2.7	3.0	3.3	4.0	1.7	3.1
Average real interest rate on domestic debt (in percent)	0.8	-0.2	0.3	0.7	1.2	0.5	0.7	1.0	1.3	3.0	0.0	1.6
Real exchange rate depreciation (in percent, + indicates depreciation)	2.4	6.0	-3.3	...	...	...	...	...	...	...	-1.9	...
Inflation rate (GDP deflator, in percent)	4.5	4.2	0.6	2.8	4.6	5.3	4.6	5.2	6.6	4.3	14.1	4.9
Growth of real primary spending (deflated by GDP deflator, in percent)	-4.1	14.1	17.9	15.5	12.1	-9.8	7.3	4.5	6.9	0.0	5.5	6.6
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-0.7	-0.9	0.8	-2.9	-0.2	0.0	-0.2	0.8	2.8	-1.9	-0.2	0.2
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**

Public sector debt 1/



Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central, state, and local governments plus social security, central bank, government-guaranteed debt. Definition of external debt is Residency-based.

2/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

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

4/ 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 and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

6/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 3. Uganda: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2019/20–2029/30

(In percent)

	Projections										
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
PV of debt-to GDP ratio											
Baseline	**22.5**	**24.5**	**25.4**	**25.9**	**25.3**	**24.0**	**21.4**	**21.3**	**21.7**	**21.8**	**22.0**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	22.5	22.1	23.8	25.6	26.8	29.7	31.3	32.0	32.8	33.4	33.4
A2. Alternative Scenario: Oil price shock	22.5	22.5	23.9	24.5	22.9	21.9	17.4	12.7	8.4	5.6	3.4
B. Bound Tests											
B1. Real GDP growth	22.5	25.9	28.3	28.9	28.2	26.8	23.9	23.8	24.2	24.3	24.5
B2. Primary balance	22.5	24.8	26.0	26.6	26.0	24.8	22.2	22.1	22.5	22.6	22.8
B3. Exports	22.5	25.1	28.1	28.5	27.8	26.3	23.3	23.1	23.4	23.4	23.4
B4. Other flows 2/	22.5	25.8	27.8	28.2	27.5	26.0	23.1	22.9	23.1	23.1	23.2
B6. One-time 30 percent nominal depreciation	22.5	30.9	30.7	31.4	30.7	29.2	26.2	26.1	26.5	26.7	27.0
B6. Combination of B1-B5	22.5	27.1	29.1	29.6	28.9	27.4	24.4	24.2	24.5	24.6	24.7
C. Tailored Tests											
C1. Combined contingent liabilities	22.5	29.5	31.7	32.6	32.1	31.9	29.1	29.3	29.8	30.5	31.1
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**	**55**
PV of debt-to-exports ratio											
Baseline	**165.3**	**173.7**	**160.3**	**160.9**	**157.2**	**125.1**	**111.6**	**106.9**	**104.6**	**103.4**	**105.2**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	165.3	156.1	150.4	158.8	166.8	154.7	162.7	160.3	158.4	158.5	159.9
A2. Alternative Scenario: Oil price shock	165.3	159.4	150.6	152.4	142.1	117.0	94.5	65.8	41.5	27.0	16.4
B. Bound Tests											
B1. Real GDP growth	165.3	173.7	160.3	160.9	157.2	125.1	111.6	106.9	104.6	103.4	105.2
B2. Primary balance	165.3	175.5	163.9	165.1	161.5	129.0	115.6	110.8	108.5	107.4	109.4
B3. Exports	165.3	192.3	232.9	232.7	226.6	179.5	159.4	152.0	148.2	145.6	147.4
B4. Other flows 2/	165.3	182.4	175.5	175.4	170.9	135.4	120.3	114.8	111.8	110.0	111.3
B6. One-time 30 percent nominal depreciation	165.3	172.6	153.1	154.1	150.7	120.3	107.5	103.2	101.2	100.3	102.2
B6. Combination of B1-B5	165.3	188.2	168.7	205.6	200.5	159.2	141.7	135.4	132.1	130.2	132.1
C. Tailored Tests											
C1. Combined contingent liabilities	165.3	208.7	199.8	202.7	199.5	166.3	151.6	146.6	144.0	144.8	149.1
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**240**	**240**	**240**	**240**	**240**	**240**	**240**	**240**	**240**	**240**	**240**
Debt service-to-exports ratio											
Baseline	**9.7**	**13.1**	**12.2**	**14.4**	**15.6**	**13.4**	**14.0**	**13.8**	**13.1**	**13.4**	**13.9**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	9.7	12.2	10.8	12.6	13.7	12.5	14.7	14.5	13.3	13.4	13.7
A2. Alternative Scenario: Oil price shock	9.7	12.7	11.6	13.7	14.8	13.5	15.5	13.3	10.5	9.3	**8.5**
B. Bound Tests											
B1. Real GDP growth	9.7	13.1	12.2	14.4	15.6	13.4	14.0	13.8	13.1	13.4	13.9
B2. Primary balance	9.7	13.1	12.3	14.6	15.8	13.6	14.2	14.1	13.4	13.7	14.2
B3. Exports	9.7	14.2	16.2	19.5	20.9	18.1	18.7	18.4	17.6	18.3	18.8
B4. Other flows 2/	9.7	13.1	12.4	14.8	15.9	13.7	14.2	14.0	13.4	13.8	14.3
B6. One-time 30 percent nominal depreciation	9.7	13.1	12.2	14.3	15.4	13.3	13.9	13.7	13.0	13.2	13.7
B6. Combination of B1-B5	9.7	13.7	15.1	17.8	19.2	16.5	17.2	16.9	16.2	16.6	17.1
C. Tailored Tests											
C1. Combined contingent liabilities	9.7	13.1	13.8	16.5	17.7	15.1	15.8	15.8	15.1	15.4	16.0
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**	**21**
Debt service-to-revenue ratio											
Baseline	**10.2**	**14.1**	**14.5**	**16.7**	**17.4**	**17.2**	**15.8**	**15.4**	**15.1**	**15.9**	**16.6**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	10.2	13.1	12.8	14.6	15.3	16.0	16.6	16.2	15.4	15.9	16.4
A2. Alternative Scenario: Oil price shock	10.2	13.6	13.7	15.8	16.6	16.9	16.7	14.3	12.0	10.9	**10.1**
B. Bound Tests	10.2	13.6	13.7	15.8	16.6	16.9	16.7	14.3	12.0	10.9	**10.1**
B1. Real GDP growth	10.2	14.9	16.2	18.7	19.4	19.2	17.6	17.2	16.9	17.7	18.5
B2. Primary balance	10.2	14.1	14.6	17.0	17.7	17.4	16.0	15.8	15.5	16.3	17.0
B3. Exports	10.2	14.1	14.6	17.3	17.9	17.6	16.1	15.7	15.5	16.5	17.2
B4. Other flows 2/	10.2	14.1	14.7	17.2	17.8	17.5	16.0	15.6	15.5	16.4	17.1
B6. One-time 30 percent nominal depreciation	10.2	17.9	18.3	20.9	21.8	21.6	19.8	19.4	19.0	19.8	20.7
B6. Combination of B1-B5	10.2	15.0	16.0	18.5	19.2	18.9	17.3	16.9	16.8	17.6	18.4
C. Tailored Tests											
C1. Combined contingent liabilities	10.2	14.1	16.4	19.1	19.8	19.4	17.8	17.6	17.4	18.3	19.2
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**	**23**

Sources: Country authorities; and staff estimates and projections.

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

2/ Includes official and private transfers and FDI.

Table 4. Uganda: Sensitivity Analysis for Key Indicators of Public Debt 2019/20–2029/30

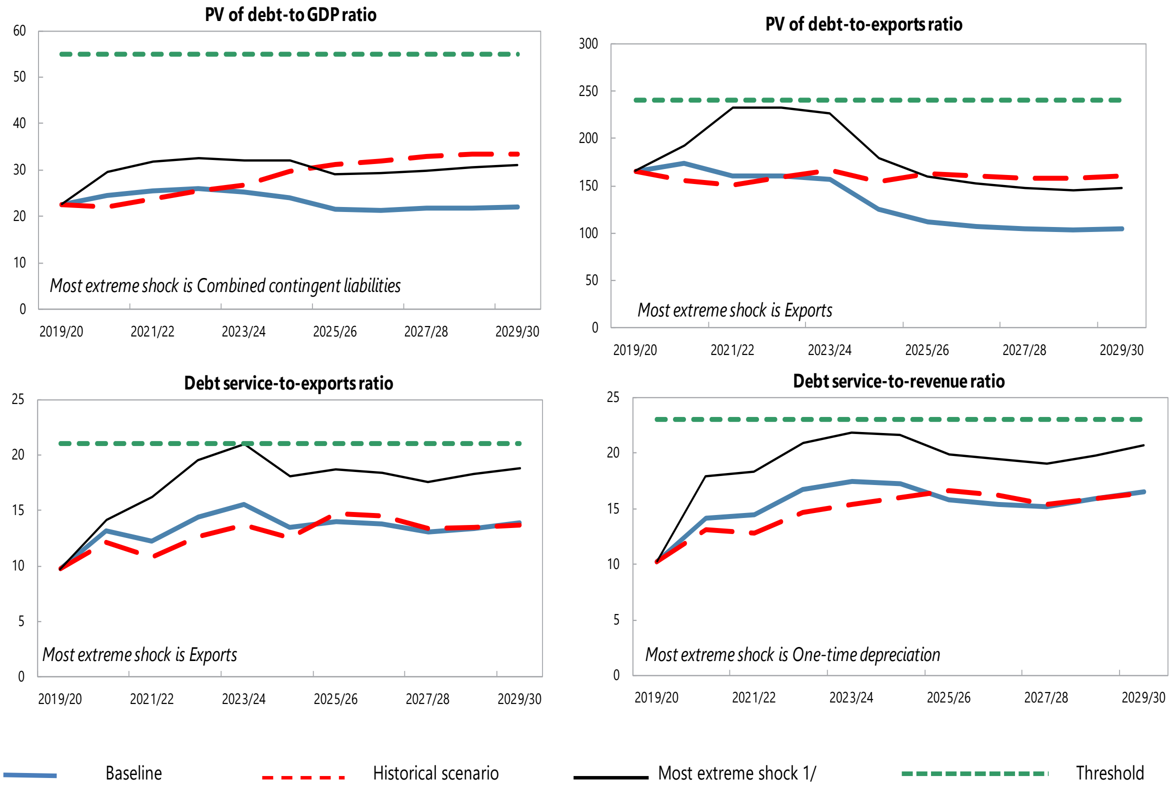
	Projections										
	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
PV of Debt-to-GDP Ratio											
Baseline	**36.3**	**42.6**	**45.8**	**49.5**	**51.8**	**51.4**	**49.0**	**49.4**	**50.4**	**51.2**	**51.8**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	36	35	35	35	34	34	33	34	34	35	35
B. Bound Tests											
B1. Real GDP growth	36	46	52	57	61	62	60	62	65	67	70
B2. Primary balance	36	43	47	50	51	51	48	48	48	49	49
B3. Exports	36	43	48	52	54	54	51	51	52	53	53
B4. Other flows 2/	36	44	48	52	54	53	51	51	52	53	53
B6. One-time 30 percent nominal depreciation	36	46	47	48	49	46	42	41	41	40	39
B6. Combination of B1-B5	36	42	45	47	49	48	46	46	46	47	47
C. Tailored Tests											
C1. Combined contingent liabilities	36	59	62	65	67	65	61	61	62	62	63
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Public debt benchmark	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**	**70**
PV of Debt-to-Revenue Ratio											
Baseline	**267.7**	**306.9**	**323.5**	**351.5**	**356.6**	**339.3**	**285.9**	**275.5**	**280.4**	**288.0**	**295.8**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	268	256	249	247	236	227	194	189	191	195	200
B. Bound Tests											
B1. Real GDP growth	268	327	368	407	418	406	349	346	360	379	399
B2. Primary balance	268	312	330	354	354	335	278	267	270	275	281
B3. Exports	268	311	343	370	373	354	297	285	290	297	304
B4. Other flows 2/	268	316	341	368	372	352	296	284	289	296	303
B6. One-time 30 percent nominal depreciation	268	334	333	344	334	307	246	230	226	225	225
B6. Combination of B1-B5	268	303	319	337	338	320	266	255	258	263	268
C. Tailored Tests											
C1. Combined contingent liabilities	268	428	438	463	459	432	357	341	344	351	358
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	**40.2**	**53.2**	**70.0**	**80.9**	**86.4**	**91.8**	**80.7**	**81.0**	**84.4**	**87.4**	**92.8**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2020-2040 1/	40	49	53	62	62	60	57	54	53	51	51
B. Bound Tests											
B1. Real GDP growth	40	56	79	95	102	111	100	103	109	115	125
B2. Primary balance	40	53	72	84	88	95	84	83	86	89	95
B3. Exports	40	53	70	81	87	92	81	81	85	88	93
B4. Other flows 2/	40	53	70	81	87	92	81	81	85	88	93
B6. One-time 30 percent nominal depreciation	40	52	68	78	85	88	79	79	82	85	89
B6. Combination of B1-B5	40	52	69	80	86	91	80	80	84	87	92
C. Tailored Tests											
C1. Combined contingent liabilities	40	53	110	102	103	137	107	98	99	109	113
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

2/ Includes official and private transfers and FDI.

Figure 1. Uganda: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2019/20–2029/30 [1/]



Customization of Default Settings	Size	Interactions
Tailored Tests		
Combined CLs	Yes	
Natural Disasters	n.a.	n.a.
Commodity Prices [2/]	n.a.	n.a.
Market Financing	n.a.	n.a.

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	5.5%	1.5%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	18	38
Avg. grace period	4	6

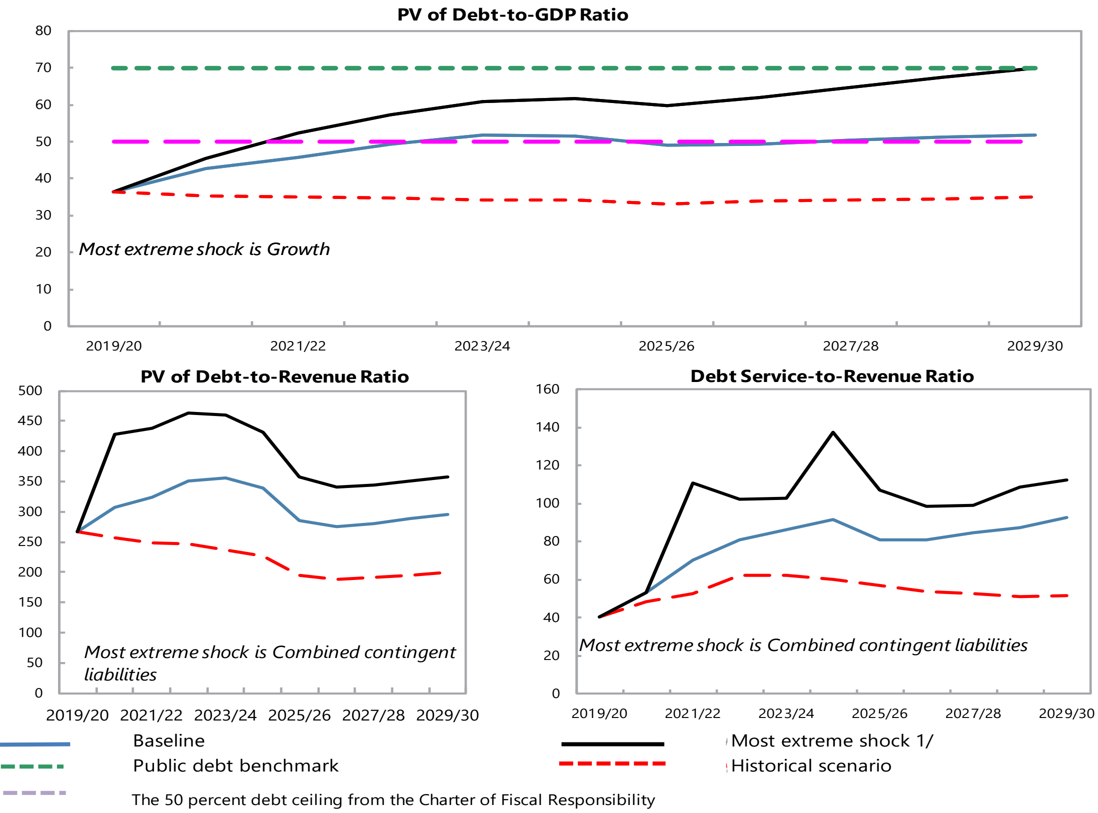
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. Stress tests with one-off breaches are also presented (if any), while these one-off breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

Figure 2. Uganda: Indicators of Public Debt Under Alternative Scenarios, 2019/20–2029/30



Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	29%	29%
Domestic medium and long-term	44%	44%
Domestic short-term	25%	27%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	5.5%	5.5%
Avg. maturity (incl. grace period)	18	18
Avg. grace period	4	4
Domestic MLT debt		
Avg. real interest rate on new borrowing	9.2%	9.2%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	3	3
Domestic short-term debt		
Avg. real interest rate	6%	6.0%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.