DEBT SUSTAINABILITY ANALYSIS REPORT 2019/20

DECEMBER 2020

MINISTRY OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT

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Preface

Debt Sustainability Analysis (DSA) is an important facet of debt management and an avenue by which risks and vulnerabilities associated with the country's debt trajectory can be identified and mitigated. It is best practice for countries periodically undertake this exercise. This report presents findings of Uganda's standing at end-June 2020.

The analysis comes at a time when the world is faced with the worst health crisis in a generation – the COVID-19 pandemic. The global and domestic response to pandemic has had far reaching implications for the economy, with real GDP growth slowing to 2.9 percent during FY2019/20 from 6.8 percent the year before.

The slowdown in growth posed several challenges for fiscal management, including a sharp decline in domestic revenues. This, combined with additional expenditure requirements to finance Government's COVID-19 response further constrained fiscal space and necessitated additional borrowing.

While public debt is projected to increase in the next few years, debt levels remain manageable and below those in most countries in the region. Moreover, a reliance on mostly concessional financing has helped ensure that our debt remains sustainable in both the medium and long term. Nonetheless, the increase in the pace of borrowing has heightened the risks and vulnerabilities associated with the debt trajectory, resulting in a shift in categorization from low to moderate risk of debt distress. We shall continue to give priority to borrowing for transformative infrastructure projects which will help foster economic growth and increase domestic revenues, and hence reduce our reliance on debt. In addition, Government will enhance efforts to improve on the efficiency of public expenditure, particularly infrastructure and agro processing. In addition, Government will increase investments in the oil and gas as well as mineral subsectors; as a new base for growth of the economy and revenues.

This DSA Report was prepared by a team led by the Macroeconomic Policy Department of the Ministry. The team also included officials from the Directorate of Debt and Cash Policy, the Accountant General's Office, the Bank of Uganda and the Parliament Budget Office.

Patrick Ocailap

For: PERMANENT SECRETARY / SECRETARY TO THE TREASURY

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List of Acronyms

ATM	Average Time to Maturity
ATR	Average Time to Re-fixing
COVID-19	Corona Virus Disease-2019
CPIA	Country Policy and Institutional Assessment
CI	Composite Indicator
DOD	Disbursed and Outstanding Debt
DSA	Debt Sustainability Analysis
DSF	Debt Sustainability Framework
EAC	East African Community
EAMU	East African Community Monetary Union
FDI	Foreign Direct Investment
FY	Financial Year
GDP	Gross Domestic Product
IDA	International Development Association
IMF	International Monetary Fund
LIBOR	London Interbank Offered Rate
LICs	Low Income Countries
MDAs	Ministries, Departments and Agencies
MEPD	Macroeconomic Policy Department.
NDP	National Development Plan
PDMF	Public Debt Management Framework
PPG	Public and Publicly Guaranteed
PV	Present Value
SOEs	State Owned Enterprises
UGX	Uganda Shillings
US$	United States Dollar
WAIR	Weighted Average Interest Rate
WEO	World Economic Outlook

Executive Summary

The stock of total public debt grew from US$ 12.55 billion at end June 2019 to US$ 15.27 billion (UGX 56.94 Trillion) by end June 2020, representing an increase of 21.7 percent. Of this, external debt was US$ 10.45 billion (UGX 38.97 Trillion), while domestic debt was US$ 4.82 billion (UGX 17.98 Trillion). This represents an increase in nominal debt to GDP from 35.3 percent in June 2019 to 41.0 percent in June 2020. Measured in present value terms, the stock of public debt amounted to 31.8 percent of GDP up from 26.7 percent the previous financial year.

The outbreak of the COVID-19 pandemic greatly impacted on the Ugandan economy through disruption of trade which saw a decline in both imports and exports. The Government response to mitigate the spread, including a domestic lockdown, led to a slump in domestic economic activity and consequently shortfalls in revenue. The revenue shortfall, coupled with additional expenditure requirements to support Government's economic and health response to COVID-19, necessitated higher than anticipated borrowing.

In the next few years, public debt is projected to increase on account of the increase in the pace of borrowing to finance key infrastructure projects, especially in the transport and oil & gas sectors. **Nominal public debt** is projected to increase to 49.9 percent of GDP by end June 2021 and peak at 54.1 percent in 2022/23 before starting to gradually decline. In **present value terms,** total public debt will follow a similar trend, increasing to 39.3 percent of GDP in FY2020/21 and then peaking at 42.9 percent in FY2022/23, well below the ceiling of 50 percent in the Charter for Fiscal Responsibility and convergence criteria under the East African Monetary Union protocol. .

While this DSA reveals increased risks and vulnerabilities in the next few years, public debt is projected to remain sustainable. The escalation in **risks increases Uganda risk of debt distress from low to moderate.** The major vulnerabilities to the outlook relate to the slow growth of exports and the increasing debt service burden. Debt service as a percentage of revenue has increased over recent years to over 20 percent, a level usually seen in low income countries faced with high risk of debt distress. The increase in debt service has majorly been a result of increased domestic borrowing (which is typically costlier) and non-concessional / commercial external debt.

To enhance debt sustainability, Government will continue to work towards accelerating economic growth and also slow down the pace of contracting commercial external financing and domestic debt which are associated with high interest costs and relatively short maturity periods. In order to reduce the reliance on borrowing, Government is committed to increasing domestic resources by fast tracking the implementation of the Domestic Revenue Mobilization Strategy, which addresses major bottlenecks / inefficiencies in tax administration. This will result in more revenue collections and consequently reduce reliance on borrowing. Moreover, Government intends to reduce expenditure to GDP, particularly in the post-COVID-19 period.

1.0 INTRODUCTION

The Government of Uganda conducts an annual Debt Sustainability Analysis (DSA) exercise in fulfilment of requirements in the Charter for Fiscal Responsibility, and therefore the Public Finance Management Act (2015).

The DSA exercise is done with a view to ascertaining the sustainability of the country's current and future debt, as well as identifying the key risks and vulnerabilities associated with the public debt portfolio. The exercise involves the preparation of baseline macro and debt assumptions by a multi-disciplinary team of experts from different Government institutions. Based on these assumptions, the model projects public debt over the medium to long term and compares the projected levels to country-specific thresholds to assess the risk of debt distress.

The purpose of this 2020 DSA was twofold. First, to assess the impact of the COVID-19 shock on the country's debt sustainability. COVID-19 affected the country's GDP growth, leading to lower revenues. Moreover, the required response by Government on the economic and health fronts entailed additional expenditure, some of which was financed through borrowing. Second, this DSA sought to assess the impact of NDP III flagship projects on debt sustainability. These included the midstream & downstream infrastructure needed to deliver first oil, as well as key transport projects such as the Standard Gauge Railway.

The DSA informs decision making at different levels of Government, and is a key input into Government's Medium Term Debt Strategy, the National Budget Strategy, the Medium Term Fiscal Framework, and the Fiscal Risks Statement. It is also used to track progress on Government's commitments under the Charter for Fiscal Responsibility and the East African Monetary Union (EAMU) Protocol.

In this report, public debt takes into account both domestic and Public and Publically Guaranteed (PPG) external debt. External debt stock is captured as disbursed and outstanding debt (DOD), with undisbursed debt feeding into the projections for future years. Domestic debt is captured at cost value, except for treasury bonds issued at a premium, which are captured at face value. The distinction between domestic and external debt is based on the currency of issuance, rather than the residence of the creditor. This means that all debt issued in Uganda shillings is defined as domestic debt, while all debt issued in foreign currency is defined as external debt.

The rest of this report is structured as follows: Section 2 sets the context for the report, highlighting the existing levels of debt and its cost and risk profile. Section 3 discusses the assumptions underpinning the baseline projections, while Section 4 provides an overview of the methodology used and discusses the results of the analysis. Section 5 concludes.

2.0 RECENT DEVELOPMENTS IN PUBLIC AND PUBLICLY GUARANTEED DEBT

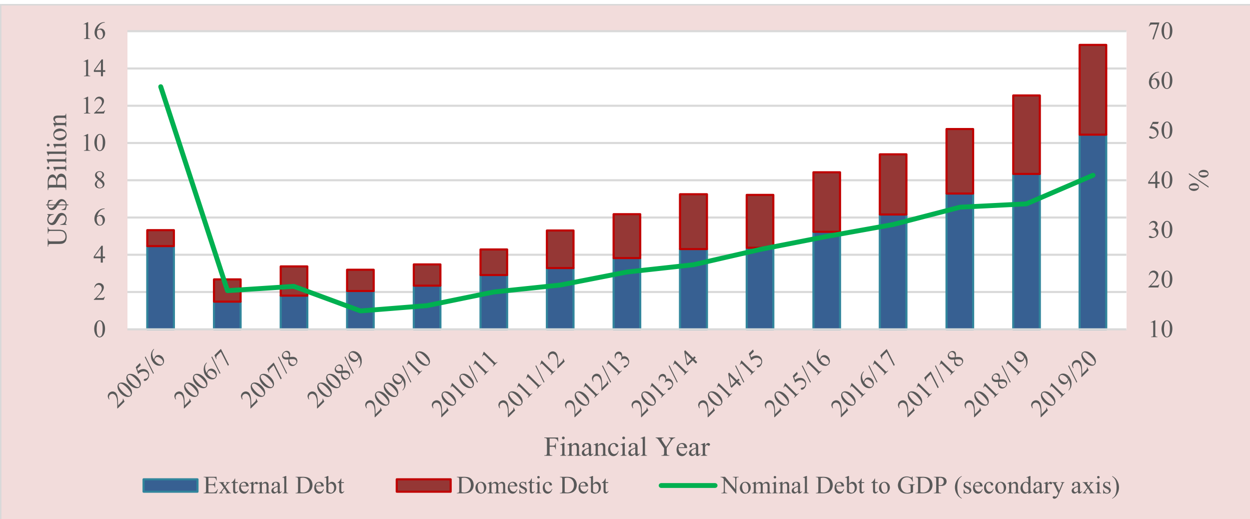
2.1 Overview of Uganda's Debt Profile

The stock of public sector debt increased from US$ 12.55 billion in FY 2018/19 to US$ 15.27 billion in FY 2019/20. External debt increased from US$ 8.35 billion in FY 2018/19 to US$ 10.45 billion in FY 2019/20, while domestic debt measured in US Dollars increased from US$ 4.20 billion to US$ 4.82 billion over the same period.

As a percentage of GDP, public sector debt rose from 35.3 percent in FY 2018/19 to 41.0 percent in FY 2019/20. Of this, external debt contributed 28.1 percent of GDP, while domestic debt contributed 12.9 percent of GDP. In Present Value (PV) terms[1], public sector debt amounted to 31.8 percent at end June 2020 up from 26.7 percent a year before.

The increased rate of debt accumulation during FY 2019/20 is largely explained by the impact of the COVID-19 outbreak on the economy, and the containment measures enacted to curb the disease spread. The COVID-19 outbreak and the disease containment measures enacted (lockdown) resulted in a slowdown in both global and domestic economic activity, leading to large revenue shortfalls. Moreover, Government's emergency response to the COVID-19 shock led to additional expenditure pressures towards the health sector and enhancing the welfare of the vulnerable during this period. The combination of a revenue shortfall and increase in expenditure led to additional borrowing.

Figure 1: Evolution of Public Debt



Source: MEPD, Ministry of Finance, Planning and Economic Development

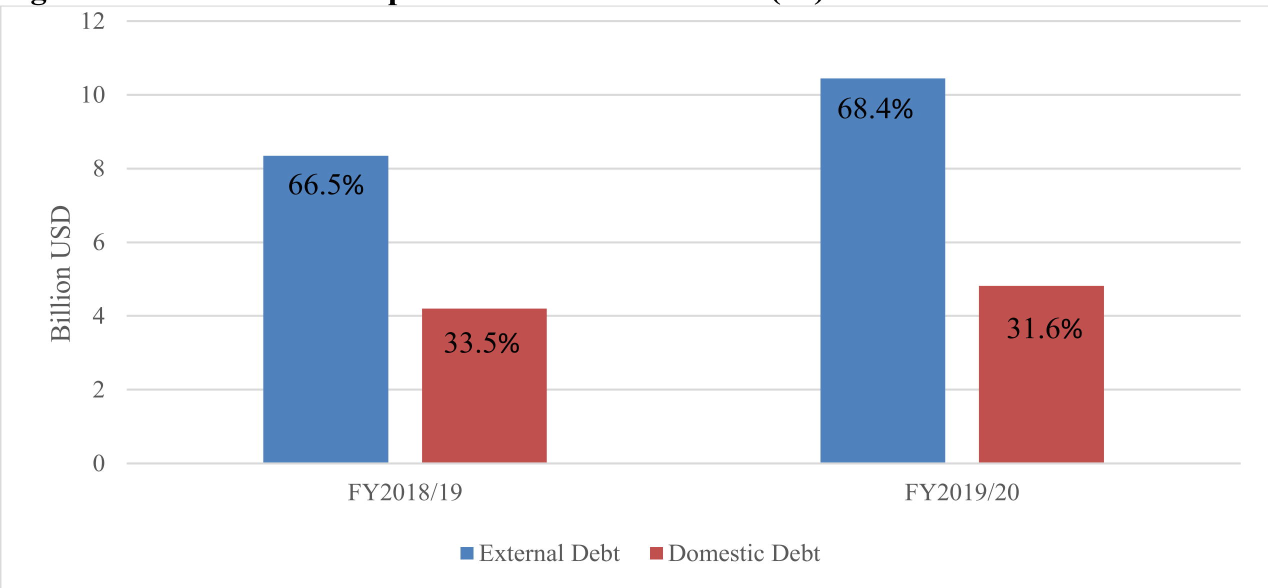
[1] PV captures the degree of concessionality of the debt stock. The more concessional the debt, the lower the PV compared to the nominal value. The benchmarks by which Uganda is assessed, such as those in the LIC-DSF; the PDMF and the EAMU convergence criteria, are all specified in PV terms

Figure 1 shows the evolution of public debt in billions of US Dollars between 2005/6 and 2019/20. The figure also plots trends in total nominal debt to GDP.

2.2 Composition of Public Debt[2]

As at June 2020, external debt comprised 68.4 percent of total public debt up from 66.5 percent the previous financial year. The increase in external debt is majorly on account of the COVID-19 related borrowing to meet both the revenue shortfalls that arose and additional expenditure requirements. The share of domestic debt in total public debt reduced from 33.5 percent to 31.6 percent.

Figure 2: Public Debt Composition at End June 2020 (%)



Source: MEPD, Ministry of Finance, Planning and Economic Development

2.2.1 Composition of External Public Debt

The share of external debt owed to commercial banks increased significantly, from 1.8 percent of total external debt in FY2018/19 to 7.2 percent in FY2019/20. The increase was largely on account of a commercial budget support loan acquired by Government to finance the emergency response to the COVID-19 pandemic, particularly in light of large domestic revenue shortfalls.

As in recent years, there was a further reduction in the stock of debt owed to multilateral lenders (particularly IDA) in favour of non-concessional borrowing, particularly from commercial banks. The share owed to multilateral lenders amounted to 61.9 percent of total external debt, of which 34.6 percent was from IDA compared to 40.1 percent a year ago. Bilateral creditors

[2] This DSA Report defines domestic and external debt based on the currency of issuance, rather than the residence of the creditor. This means that all debt issued in Uganda shillings is defined as domestic debt, while all debt issued in foreign currency is defined as external debt.

accounted for 30.9 percent of the total external disbursed and outstanding debt stock in FY2019/20.

Uganda's development financing needs become larger, meaning that concessional sources alone are insufficient and a recourse to more non-concessional borrowing is now necessary.

The reduction in concessional debt as a share of the stock is consistent with what we see in peer countries.

Table 1 provides the distribution of external debt by creditor category.

Table 1: Distribution of External Debt Stock by Creditor Category (percent)

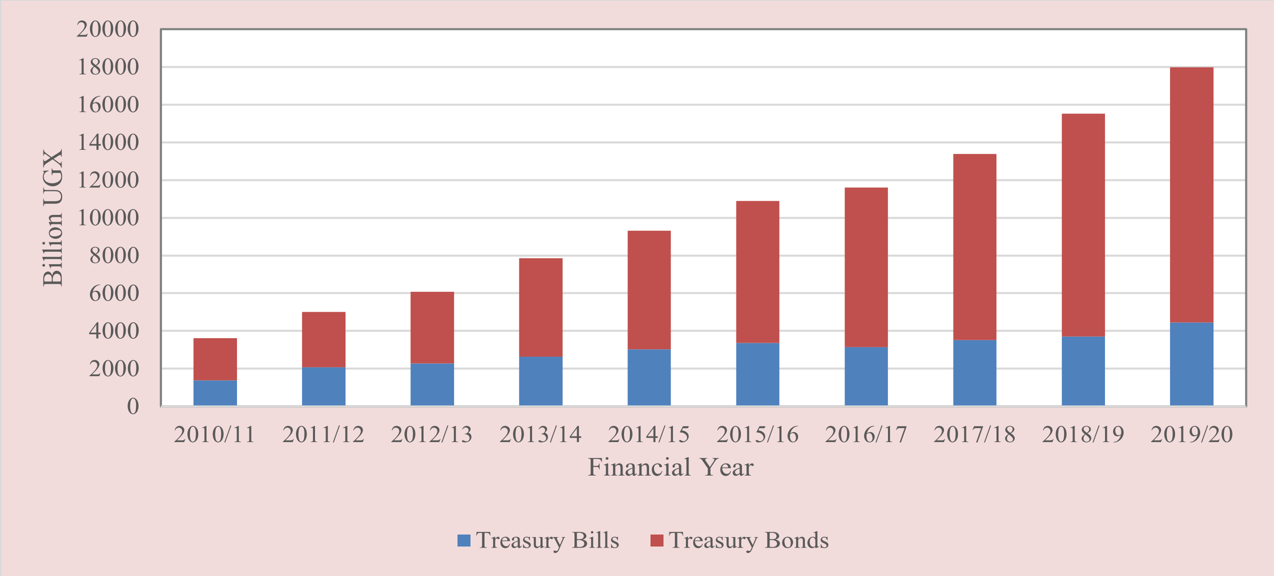
Creditor Category	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Multilateral Creditors	90.1	87.9	86.9	87.4	85.5	76.6	70.8	67.8	64.5	61.9
o/w IDA	61.9	59.4	58.6	58.3	55.8	48.9	45.2	42.2	40.1	34.6
Bilateral Creditors	9.9	12.1	13.1	12.6	14.5	23.4	26.6	31.5	33.7	30.9
Non Paris Club	8.0	10.4	11.3	10.4	12.3	20.4	22.8	25.1	27.5	23.6
o/w China	3.3	7.0	8.0	7.7	9.6	17.8	20.3	24.2	26.5	22.6
Paris Club	1.9	1.6	1.8	2.2	2.2	3.0	3.8	6.5	6.2	7.3
o/w Japan	0.7	0.7	0.9	1.3	1.7	2.4	3.0	4.0	2.5	3
Commercial Banks	-	-	-	-	-	-	2.6	0.7	1.8	7.2

Source: MEPD, Ministry of Finance, Planning and Economic Development

2.2.2 Composition of Domestic Debt

Consistent with Government's deliberate decision to issue more long-term debt, the share of longer term dated instruments (treasury bonds) in public domestic debt has been increasing over the years (Figure 3). This is in attempt to reduce the refinancing risk associated with the portfolio, and to smoothen the redemption / repayment profile. As at end June 2020, short-term debt (treasury bills) constituted 24.8 percent of total domestic debt down from 26.3 percent a year before, while long-term debt (treasury bonds) accounted for the remaining 75.2 percent up from 73.7 percent at end June 2019. Figure 3 plots the trend in domestic debt stock, broken down into treasury bills and treasury bonds.

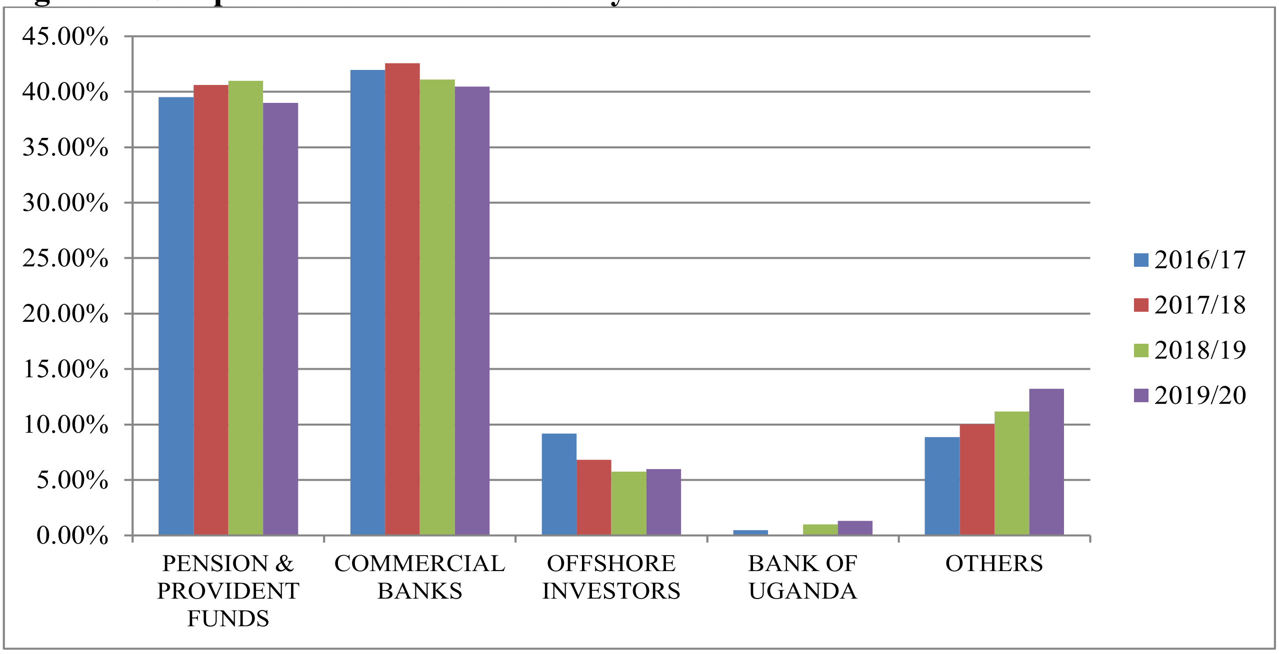
Figure 3: Composition of Domestic Debt Stock by Treasury Instrument Type



Source: Bank of Uganda

Composition of Domestic Debt by Holder

Figure 4: Composition of Domestic Debt by Holder[3]



Source: Bank of Uganda

As at end June 2020, the largest share of public domestic debt was owed to commercial banks, which held about 40.5 percent of the outstanding stock. These were followed by pension and provident funds at 39.0 percent, with the dominant player under this category being the National

[3] "Others" includes Retail Investors, Institutional Investors, Insurance Companies, Deposit Protection Funds, and Other Market Intermediaries.

Social Security Fund. There has been a consistent increase in the share of domestic debt held by the "Others" category, from 8.9 percent in FY2016/17 to 13.2 percent in FY 2019/20. This shows that there has been some deepening of the market for Government securities as there is increased diversification of market participants.

2.3 Drivers of Debt Accumulation

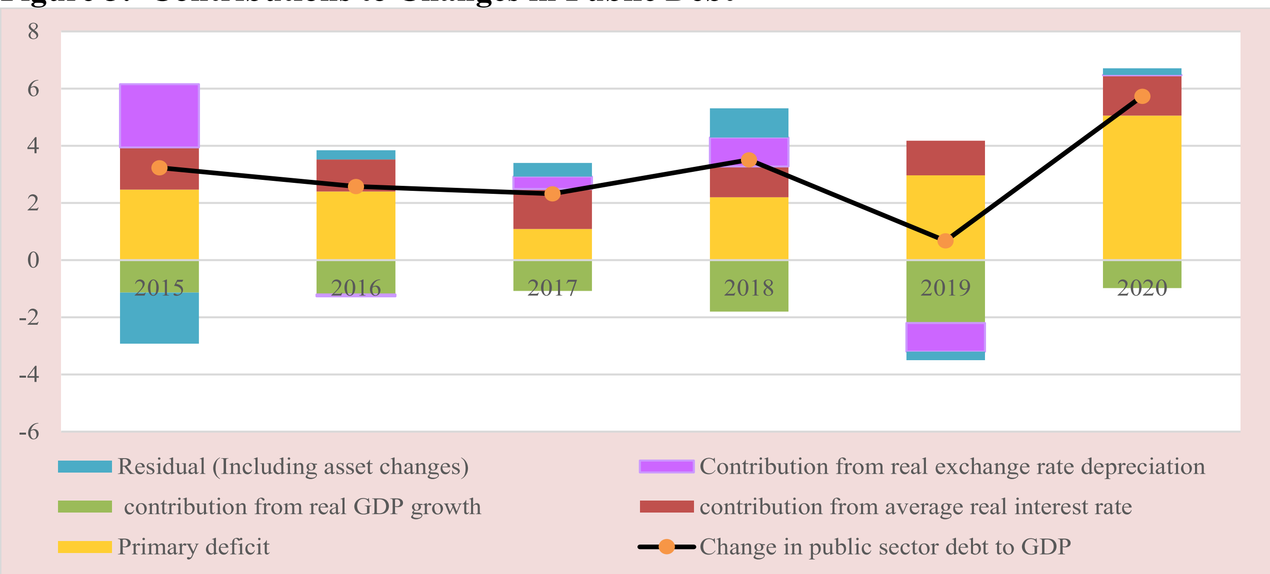
Consistent with Government's policy of closing the infrastructure gap in order to enhance the country's productive capacities, the primary deficit has been the major driver of the increase in Uganda's debt over the last five years. Infrastructure development, coupled with the economic shock occasioned by the COVID-19 pandemic, resulted in a significant rise in the country's primary deficit in FY2019/20. Consequently, Debt to GDP increased by 5.7 percentage points in FY2019/20, which is more than twice the average of 2.5 percentage points recorded over the 5 years before.

The other notable contributor to rising debt levels has been the average real interest rate on public debt. This is consistent with the increasingly less concessional external debt being contracted by Government which comes at a higher cost.

The main factor mitigating the increase in debt over recent years was real GDP growth. This continued to be the case in FY2019/20, although at a much smaller scale as economic growth was affected by COVID-19 and the containment measures instituted to curb its spread.

For debt to remain sustainable, the rate of growth of real GDP must exceed the average real interest rate on Government debt. A situation where the real interest rate on public debt is consistently higher than the real GDP growth rate would result in unsustainable debt dynamics.

Figure 5: Contributions to Changes in Public Debt



Source: MEPD, Ministry of Finance, Planning and Economic Development

2.4 Cost and Risk Profile of the Existing Debt

2.4.1 Cost of Debt

The two indicators used in assessing the cost of debt are: the ratio of interest payments to GDP and the Weighted Average Interest Rate (WAIR). Interest payments as a percentage of GDP continue to rise, from 2.0 percent by end June 2019 to 2.3 percent at end June 2020. This was driven by an increase in the stock of public debt, which led to higher interest payments for both domestic and external debt. Domestic interest payments continued to form the bulk of interest payments (78.3% of total) owing to the high interest rates associated with domestic debt compared to external debt. Domestic interest payments increased from 1.7 to 1.8 percent of GDP compared to an increase of just 0.1 percent of GDP for external interest payments, from 0.4 to 0.5 percent.

On the other hand, the portfolio weighted average interest rate (WAIR) dropped slightly from 5.7 percent in June 2019 to 5.6 percent in June 2020 largely as a result of the drop in the domestic debt WAIR by 20 basis points to 13.8 percent in June 2020. However, this drop was moderated by an increase in the external debt WAIR, from 1.6 percent in June 2019 to 1.8 percent in June 2020. The increase in the external WAIR was on account of increased contraction of debt on non-concessional / commercial terms.

2.4.2 Refinancing / Rollover risk

The average time to maturity (ATM) of the overall debt portfolio decreased from 11.9 years to 10.9, which represents an increase in the refinancing risk.

The ATM for domestic debt increased from 3.9 years in June 2019 to 4.3 in June 2020, following the issuance of more longer dated domestic securities. This increase, however, was more than offset by the decline in the ATM for external debt from 14.7 to 13.1 years, reflecting higher issuance of non-concessional debt, which tends to have a shorter maturity period.

The debt maturing in one year as a percentage to the total debt remained relatively stable at approximately 10.8 percent, with the increase on the external side being offset by the decline on the domestic side. However, debt maturing in one year as a percentage of GDP increased from 4.9 percent in June 2019 to 5.5 percent in June 2020. This increase reflects the higher size of public debt as a share of GDP, and was observed in both domestic and external debt. Table 2 summarizes the cost and risk profile of the existing debt portfolio.

Table 2: Cost and Risk Profile of Public Debt

Cost and Risk indicators		Jun-19			Jun-20		
		External	Domestic	Total	External	Domestic	Total
Cost of debt	Interest payment as percent of GDP	0.4	1.7	2.0	0.5	1.8	2.3
	Weighted Av. IR (percent)	1.6	14.0	5.7	1.8	13.8	5.6
Refinancing risk	ATM (years)	14.7	3.9	11.9	13.1	4.3	10.9
	Debt maturing in 1 yr (percent of total)	1.6	36.5	10.8	1.9	37.0	10.8
	Debt maturing in 1 yr (percent of GDP)	0.5	4.3	4.9	0.7	4.8	5.5
Interest rate risk	ATR (years)	14.2	3.9	11.5	12.5	4.3	10.4
	Debt refixing in 1 yr (percent of total)	9.2	36.5	16.4	10.3	37.0	17.0
	T-bills (percent of total)	0.0	26.3	6.4	-	24.8	6.3
	Fixed rate debt (percent of total)	92.3	100.0	94.4	91.3	100.0	93.5
FX risk	FX debt (percent of total debt)			66.5			68.4
	ST FX debt (percent of reserves)			5.6			6.5

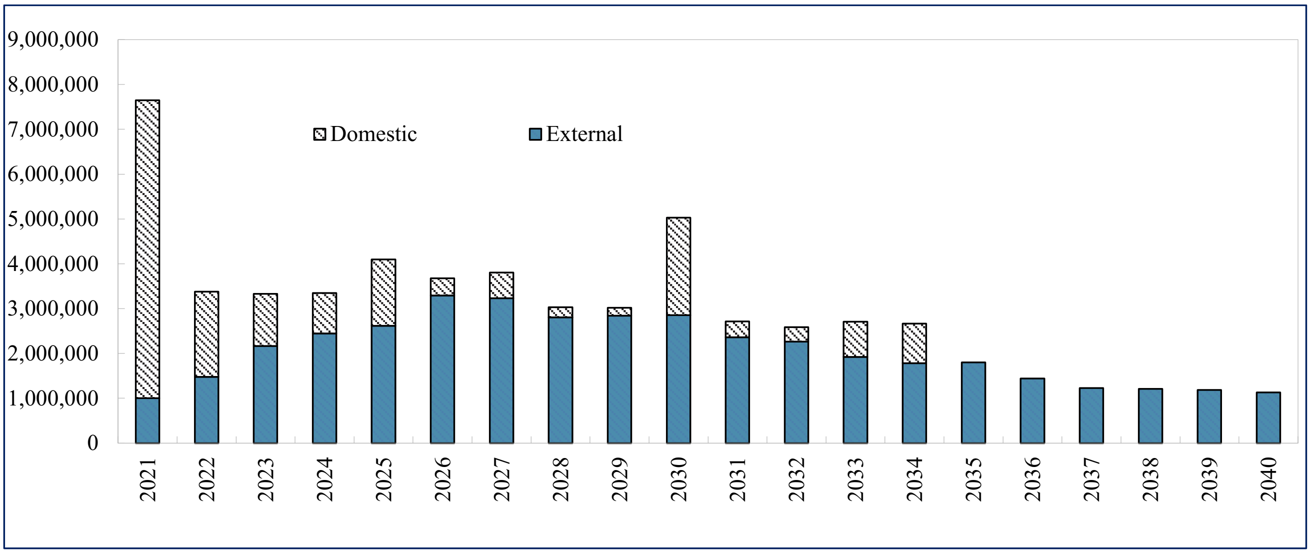
Source: Ministry of Finance, Planning and Economic Development

Redemption Profile

The redemption profile (Figure 6) indicates that a large share of domestic debt matures in the first year (2021), illustrating the refinancing risk associated with this type of debt. The redemption profile for domestic debt becomes smooth in subsequent years, except in 2030, when a number of 10 and 15- year treasury bonds are scheduled to mature.

The maturity profile for external debt is much smoother, reflecting the dominance of concessional debt in the portfolio. Based on existing debt, maturities of external debt will peak in 2026 and 2027, when a number of commercial loans are scheduled to mature.

Figure 6: Redemption Profile as at end June 2020 (Billion UGX)



Source: Bank of Uganda, Ministry of Finance, Planning and Economic Development

2.4.3 Interest Rate Risk

The average time to re-fixing (ATR) of the portfolio decreased from 11.5 years in June 2019 to 10.4 years in June 2020 largely driven by a further decrease in the external debt ATR, from 14.2 years in June 2019 to 12.5 years in June 2020. This means that Government's external debt on average will be subjected to changes in interest rates in a shorter period (less by 1.7 years) from the 14.2 years in June 2019. This is largely on account of an increase in the volume of variable rate loans, particularly from commercial lenders.

On the domestic front, the ratio of bills to bonds improved from 26:74 in June 2019 to 24:76 in June 2020 largely on account of implementation of Government's strategy to increase the issuance of longer-dated paper, achieved mainly re-opening existing treasury bonds throughout the financial year.

2.4.4 Exchange Rate Risk

The share of debt denominated in foreign currency and the ratio of short term foreign debt to foreign currency reserves are the key measures of exchange rate risk. Both these measures increased in FY 2019/20. The share of external debt to the total debt increased from 66.5 percent in FY2018/19 to 68.5 percent in FY2019/20, depicting increased exposure to movements in the exchange rate. In addition, the requirement of the country's international reserves to meet short term debt maturities increased from 5.6 percent in June 2019 to 6.5 percent in June 2020 given the larger take up of commercial loans whose grace periods are usually short term.

3.0 BASELINE ASSUMPTIONS[4]

3.1 Macroeconomic Assumptions

The outbreak of the COVID-19 pandemic in the second half of FY2019/20 had significant repercussions for the key macroeconomic assumptions upon which the projections rely. The pandemic not only caused disruptions in international trade, but also resulted in constriction of domestic economic activity following the containment measures (lockdown) imposed to control the disease spread. Consequently, real GDP growth, initially projected at 6.3 percent for FY2019/20, turned out to be 2.9 percent.

Real GDP is projected to pick up slightly, growing by 3.1 percent in FY2020/21 before improving to 5.2 percent in FY2021/22, as the economy gradually recovers from the shock. Thereafter, the economy is expected to return to the pre-shock growth levels averaging 6 percent over the medium term before increasing to an average of 7 percent in the outer years.

In the near term, growth will be supported by improvement in both global and domestic demand, continued pick up in industrial production, increased production and productivity in agriculture, as well as increased public & private sector investment. The accommodative monetary policy stance coupled with financial sector stability are also expected to benefit economic growth by supporting further recovery in private sector credit which will subsequently enhance the private sector's contribution to economic growth. Growth over the medium to long term will be mainly driven by the commencement of oil and gas production, as well as increased general productivity in the economy following the completion of several major infrastructure projects.

The growth forecast is however faced with a number of risks, including: the uncertainty about the duration and intensity of the COVID-19 pandemic which could prompt further containment measures; adverse weather conditions as well as locust infestation which can affect agriculture; delays in the final investment decision in the oil sector which would delay commercial oil production; and slower than expected implementation of key Government projects. Sluggish global growth and geo-political tensions, coupled with volatility in global prices of Uganda's primary exports could also affect the medium term growth outlook.

Annual headline inflation is projected to increase to an average of 5.6 percent in FY 2020/21 from 3.0 percent in FY 2019/20. This increase will mainly be driven by cost push pressures

[4] Please note, these assumptions are as at December 2020.

emanating largely from higher production costs due to supply chain disruptions and some of the COVID-19 related Standard Operating Procedures (SOPs) such as social distancing. Headline inflation is projected to gradually decline thereafter, remaining well below the 8 percent EAMU convergence criterion in the medium term, largely supported by subdued food crop prices and a relatively stable exchange rate.

3.1.1 Fiscal Assumptions

Domestic revenue as a percentage of GDP is projected to increase by 0.3 percentage points from 12.5 percent in FY2019/20 to 12.8 percent in FY2020/21, resulting from both additional tax measures and expected improvements in tax administration. In the medium term, revenue to GDP ratio is projected to increase on average by 0.5 percentage points per annum and peak at 19.3 percent of GDP in the long run. In the medium term, the increase in revenue will mainly be supported by efficiency gains from the implementation of the Domestic Revenue Mobilization Strategy (DRMS) while the long-term period will majorly benefit from oil and gas related revenues.

Expenditure is projected to increase significantly in FY2020/21, mainly driven by Government's response to the economic and social impacts of the COVID-19 outbreak, as well as election-related spending. Over the medium term, expenditure will also be driven by the implementation of a number of development projects identified in the NDPIII. As a share of GDP, Government expenditure is projected to increase from 20.4 percent in FY2019/20 to 24.7 percent in FY2020/21 before reducing to an average of 19.8 percent per annum for the rest of the medium term. In the outer years, Government expenditure is projected at an average of 20.3 percent of GDP.

The fiscal deficit including grants is projected to expand from 7.2 percent of GDP in FY2019/20 to 10.7 percent in FY2020/21, before reducing to an average of 5.3 percent per annum in the medium term. In the long run, the deficit is projected to average at 1.8 percent due to an increase in domestic revenue from oil receipts, as well as the completion of a number of major infrastructure projects. Table 3 summarizes the fiscal assumptions used for this DSA.

Table 3: Summary of Fiscal Assumptions.

FY	2019/20 Outturns	2020/21	2021/22	2022/23	2023/24	2024/25
Fiscal projections (Shs Bn)						
Revenue and Grants	18,442	21,022	23,243	25,567	29,209	35,246
o/w Revenue	17,286	19,303	21,909	24,713	28,486	34,551
Primary Expenditure	25,460	33,071	29,523	31,710	33,147	36,883
Total Interest Expenditure	2,932	4,182	4,989	5,190	5,559	5,859
Total Expenditure	28,393	37,252	34,512	36,900	38,706	42,742
Primary Deficit	7,018	12,048	6,280	6,143	3,938	1,637
Overall Budget Deficit	9,950	16,230	11,269	11,333	9,497	7,496
As a percentage of GDP						
Revenue and Grants	13.3	13.9	14.1	14.1	14.5	15.6
o/w Revenue	12.5	12.8	13.3	13.6	14.1	15.3
Total Expenditure	20.4	24.7	20.9	20.3	19.2	18.9
Primary Deficit	5.1	8.0	3.8	3.4	2.0	0.7
Overall Budget Deficit	7.2	10.7	6.8	6.2	4.7	3.3
Memorandum Items						
Real GDP Growth (percent)	2.9	3.1	5.2	6.4	7.0	7.2
Nominal GDP (Shs Bn)	138,841	151,051	165,225	181,404	201,697	226,291

Source: MEPD, Ministry of Finance, Planning and Economic Development, December 2020

3.1.2 Financing Assumptions

Deficit financing will largely rely on external resources, given the higher risks and costs associated with domestic debt. Consequently, Government will gradually scale back on domestic borrowing in the medium to long term to no more than 1 percent of GDP per annum.

Despite the preference for concessional external resources, Government is cognizant of the fact that such resources are insufficient to meet Uganda's development financing needs. Therefore, Uganda will continue to utilize some non-concessional financing, although this will be pursued with caution so as to safeguard debt sustainability.

3.2 Balance of Payments Assumptions

In the medium term, commodity prices for both exports and imports are taken from the IMF's World Economic Outlook (WEO), while growth in volumes is based on real growth rates of the relevant sub-sectors. Exports of services are projected to grow in line with nominal GDP growth of advanced economies, while imports of services are broadly forecast to grow in line with imports of goods.

In the outer years, the values of both exports and imports of goods and services are forecast as a constant share of GDP based on the value of the last year of the medium term. Oil import volumes are projected to decline by 75 percent from financial year 2025/26, to the end of the projection period as we switch to domestically produced oil. An average price of USD$50 per barrel was used for valuation of oil volumes for the entire projection period.

Interest income inflows/outflows throughout the projection period were derived as the stock of financial assets/liabilities in the previous period, multiplied by LIBOR. LIBOR projections are taken from the IMF's WEO.

Inflows of private transfers are forecast to grow in line with nominal GDP growth of advanced economies in the medium term, and thereafter grow at an average rate of 2.6 percent per year.

Foreign Direct Investment (FDI) and capital inflows are projected to grow in line with Ugandan nominal GDP growth in dollar terms in the medium term. In the outer years FDI is forecast to grow at a fixed rate of 2.3 percent, derived as the average growth rate over the medium term.

The stock of gross reserves is fixed at 4.5 months of future import cover throughout the outer years in line with the East African Community (EAC) Monetary Union convergence criteria.

4.0 DSA METHODOLOGY AND RESULTS

The main finding is that Uganda's risk of external debt distress increased from **low** to **moderate**. This follows a breach of the threshold for the PV of external debt to exports ratio. This deterioration notwithstanding, the analysis finds that Uganda's debt remains sustainable in the medium to long term.

4.1 Methodology

This DSA was conducted using the 2018 revised World Bank/IMF Low-Income Countries Debt Sustainability Framework (LIC-DSF) analytical tool. The DSF uses a benchmark for total public debt and indicative thresholds for external Public and Publicly Guaranteed (PPG) debt burden indicators, which depend on each country's debt carrying capacity. Countries differ significantly in their ability to carry debt, depending on their policy and institutional strengths; macroeconomic performance; and buffers to absorb shocks.

The LIC DSF uses the Composite Indicator (CI) to determine each country's debt - carrying capacity. The CI is computed using country specific information, specifically: Country Policy and Institutional Assessment (CPIA)[5] score, the country's real GDP growth, remittances, international reserves, and world growth. Based on this approach, Uganda was classified as a strong performer at the last DSA time with a CI score of 3.11. However, the recent COVID-19 global pandemic has had devastating effects on the country's real GDP growth (reduced from 6.8 percent in FY18/19 to 2.9 percent in FY2019/20), world economic growth (projected to be -4.4 percent for 2020, according to the IMF[6]), as well as remittances to the country. Following this, Uganda's debt carrying capacity was downgraded from a strong to a medium performer with an estimated CI score of 2.95, which lies within the range of 2.69≤ CI ≤ 3.05 for medium performers.

The LIC-DSF provides results for the baseline assumptions and stress test scenarios against the applicable thresholds / benchmark. The reclassification of Uganda's debt - carrying capacity from a strong to a medium performer implies that the country's debt level will now be assessed against more stringent (lower) thresholds than previously.

[5] The CPIA is an index computed annually by the World Bank for Low Income Countries. It uses 16 indicators, and assigns countries a score ranging from 1 to 6, with higher figures representing better institutional capacity.
[6] World Economic Outlook, October 2020.

The applicable debt burden thresholds for external debt and benchmark for total public debt for Uganda are those for a medium performer as shown in Table 5 below.

Table 5: Debt Burden Thresholds/ Benchmark by Classification.

	Weak Performer CI < 2.69	**Medium Performer 2.69 ≤ CI ≤ 3.05**	**Strong Performer CI > 3.05**
External Debt Burden Thresholds			
Solvency Ratios			
PV of debt in percent of Exports	140	180	240
PV of debt in percent of GDP	30	40	55
Liquidity Ratios			
Debt service in percent of Exports	10	15	21
Debt service in percent of Revenue	14	18	23
Total Public Debt Benchmark			
PV of total public debt in percent of GDP	35	55	70

Source: IMF/World Bank Low-Income Countries' Debt Sustainability Framework.

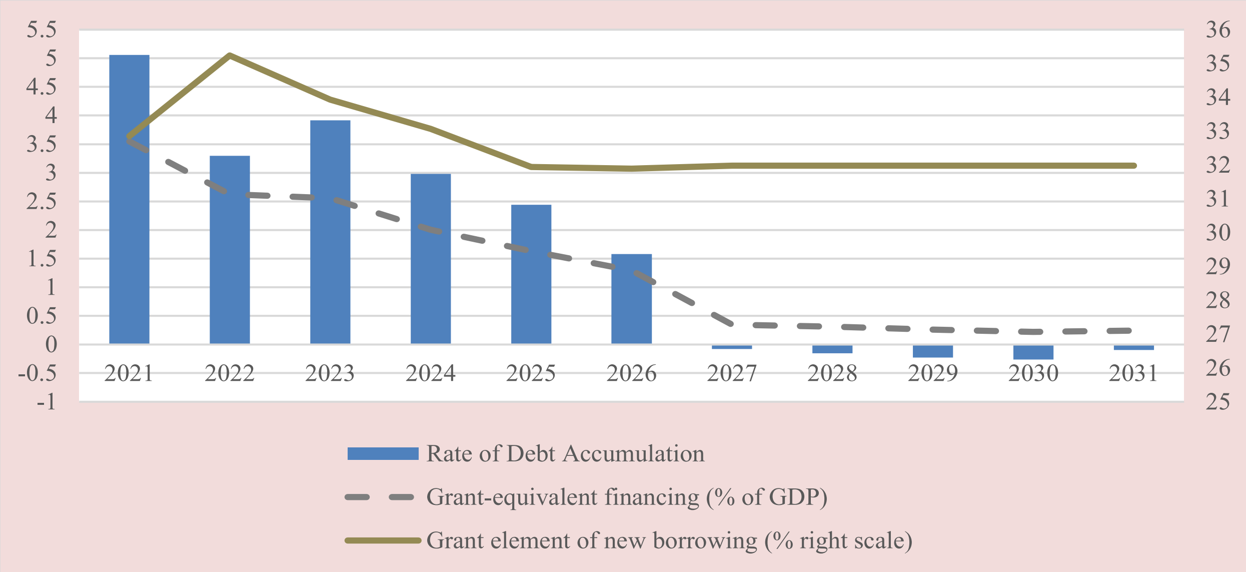
4.2 DSA Results

4.2.1 Sustainability of Public and Publicly Guaranteed External Debt

External debt is projected to increase in the medium term, as Government implements key infrastructure projects especially in the transport and oil & gas sectors. The rate of debt accumulation (see Figure 7) is projected to decline significantly after the medium term as GDP growth returns to its potential following the end of the COVID-19 shock. This, together with the onset of commercial oil production, will imply more revenues and lower borrowing after the medium term.

As shown in Figure 7, the grant element of new external borrowing is projected to increase between FY2020/21 and FY2021/22 as the country benefits from concessional financing, particularly from the International Monetary Fund and the World Bank. In the medium to long term, there will be a reduction in both the grant-equivalent financing as a percentage of GDP and the grant element of new borrowing, as the country is expected to progress towards middle income status and thus have less access to concessional loans.

Figure 7: External Debt Accumulation



Source: MEPD, Ministry of Finance Planning and Economic Development

4.2.1.1 External Debt Burden Indicators

The debt service indicators are projected to remain below their respective indicative thresholds[7] in the baseline scenario, showing that Uganda is unlikely to face liquidity challenges in servicing external debt, despite the recent increase in the rate of debt accumulation. This is largely explained by the fact that most of Uganda's external debt is on concessional terms. That notwithstanding, the solvency ratios and in particular the indicator of present value of external debt to exports, points to an increase in vulnerabilities to external debt sustainability related to the slow growth of exports. Table 6 shows the external DSA results under the baseline scenario.

Table 6: Summary of External Debt Sustainability Indicators (percent)

	LIC DSF Thresholds	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
PV of External Debt to GDP	40	**15.4**	18.8	22.5	24.0	25.5	25.6	25.3	24.3
PV of External Debt to Exports	180	**89.8**	125.8	170.1	170.2	185.4	194.1	191.3	183.9
External Debt Service to Exports	15	**7.8**	6.7	7.8	9.4	11.6	13.6	13.6	15.1
External Debt Service to Revenue	18	**10.3**	8.0	8.1	10.0	11.7	12.7	11.8	11.9

Source: MEPD, Ministry of Finance Planning and Economic Development

Solvency Indicators

PV of External Debt to GDP Ratio.

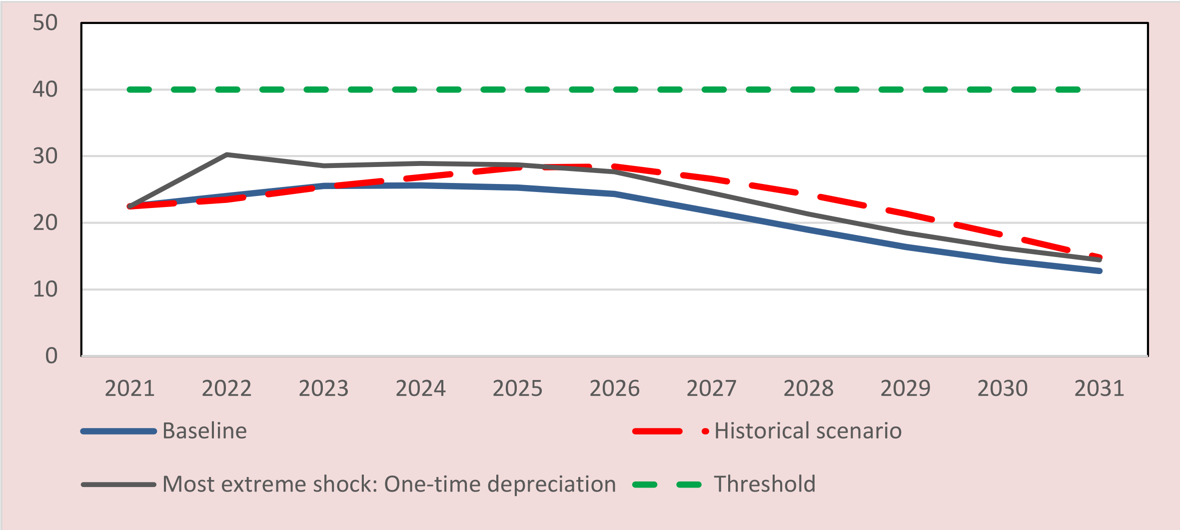
The PV of external debt to GDP is projected to increase from 18.8 percent in FY2019/20 to 22.5 percent in FY2020/21. This ratio is projected to increase and peak at 25.6 percent in FY2023/24, before starting to decline to as low as 18.9 percent in FY 2027/28. Despite the

[7] The LIC-DSF automatically disregards a breach of one year.

increased rate of external debt accumulation, this ratio is forecast to remain well below its indicative threshold of 40% throughout the projection period as shown in Figure 8.

In nominal terms, the external debt to GDP ratio is projected to increase from 28.1 percent in FY2019/20 to 33.4 percent in FY2020/21 and peak at 37.2 percent in FY2022/23 &2023/24. This ratio will gradually decline thereafter.

Figure 8: PV of External Debt to GDP (percent)



Source: MEPD, Ministry of Finance Planning & Economic Development

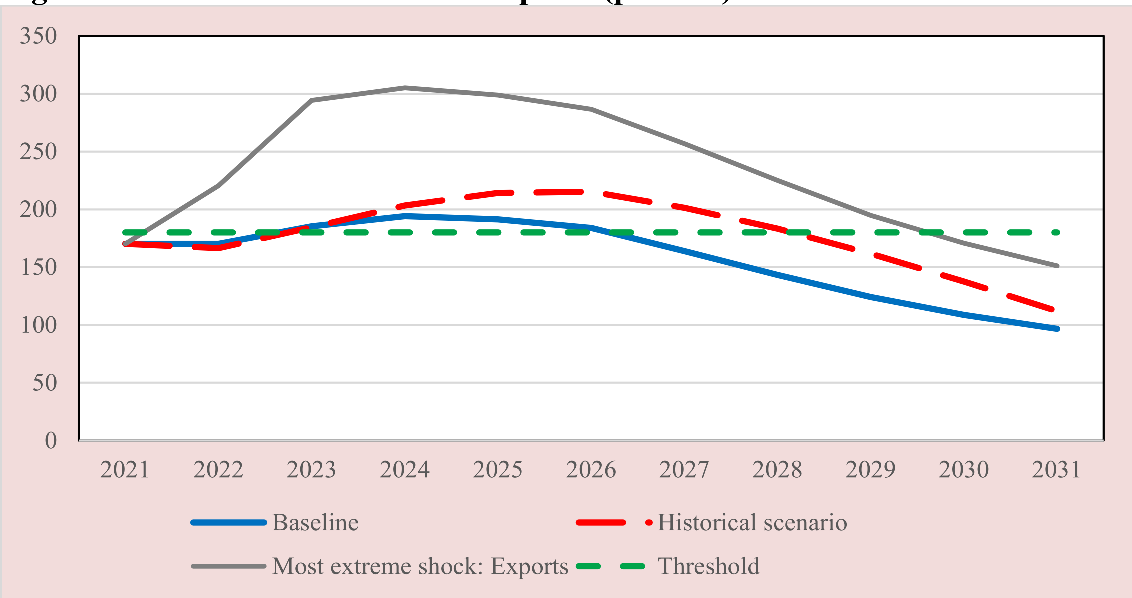
PV of External Debt to Exports

The PV of external debt to exports of goods and services is projected to breach its indicative threshold in both the baseline and most extreme shock scenarios[8]. This implies an increase in the risk of external debt distress especially in the event of an economic shock that would dampen export growth, as the case has been with the COVID-19 pandemic. The breach in the baseline, however, is of a small magnitude and short duration.

Exports constitute an important variable in the analysis of external debt sustainability since they are a crucial source of foreign currency, which a country needs to service its foreign currency- denominated debt. A breach in this indicator underscores the need to reinforce efforts towards export promotion especially in the medium term so as to enhance debt sustainability. Figure 9 shows the evolution of the PV of external debt to exports through the projection period.

[8] The most extreme shock in this case is that exports grow at their historical average minus one standard deviation.

Figure 9: PV of External Debt to Exports (percent)



Source: MEPD, Ministry of Finance Planning and Economic Development

Liquidity Indicators

The LIC-DSF uses two liquidity indicators for external debt service i.e. external debt service to exports of goods and services; and external debt service to domestic revenue.

As shown in figure 10, all through the medium term there's a significant breach of the threshold in the event of the most extreme shock[9] and a slight breach[10] under the baseline scenario in FY 2025/26 for the indicator of external debt service to exports of goods and services. As with the PV of external debt to exports ratio, this breach illustrates that the external debt portfolio is vulnerable to a shock to exports. Nevertheless, this ratio is projected to decline after FY2025/26 and remain below the threshold for the rest of the projection period.

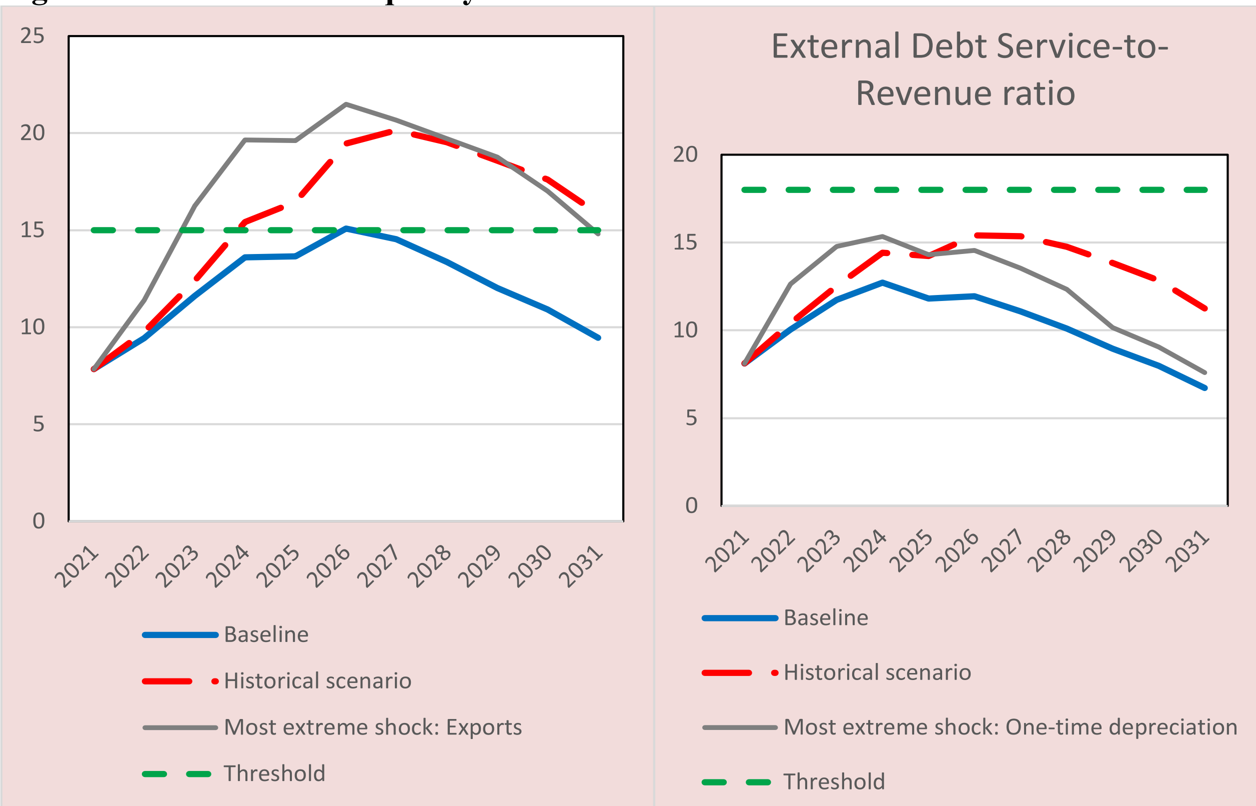
External debt service to domestic revenue remains below its threshold throughout the projection period in both the baseline and most extreme shock scenarios. However, it is important to note that the increase of this ratio from 8.1 percent in FY2020/21 to a peak of 12.7 percent in FY2023/24 highlights an increasing external debt service burden driven by the increased rate of borrowing, particularly on non-concessional terms. The increase in this ratio means that external debt service is growing faster than domestic revenue in the medium term. Debt service will therefore take up an increasing share of revenue, at the expense of welfare enhancing sectors of the economy. This underscores the importance of current Government efforts to

[9] The shock in this case is that exports grow at their historical average minus one standard deviation.

[10] Note: In assigning the risk rating, the LIC-DSF automatically disregards a breach of one year.

enhance domestic revenue mobilization and reduce borrowing, particularly on non-concessional / commercial terms.

Figure 10: Evolution of Liquidity Indicators for External Debt



Source: MEPD, Ministry of Finance, Planning and Economic development

4.2.2 Sustainability of Total Public Debt

Total Public debt is a more comprehensive measure of the country's indebtedness, as it encompasses both domestic and external debt. The DSF uses a benchmark for PV of total public debt to GDP to help flag risks from broader debt exposures. This benchmark, which is dependent on the country's CI classification, helps to highlight the risks stemming from a combination of domestic and external debt. Public debt ratios (see Table 7) show that despite the increased rate of debt accumulation in the medium term, Uganda's public debt will remain below the benchmark. This implies that currently, Uganda's debt is sustainable over the medium to long term.

Table 7: Summary of Public Debt Sustainability Indicators (percent)

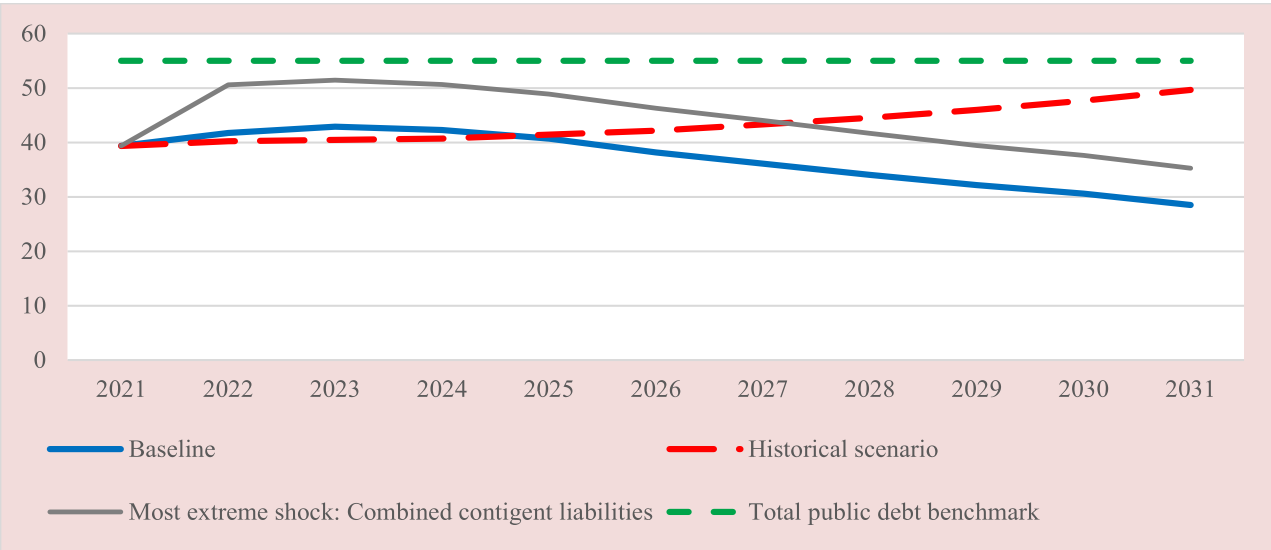
Financial Year	LIC DSF Benchmark	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Nominal debt to GDP		35.3	41.0	49.9	52.4	54.1	53.4	51.3	48.2
PV of Debt to GDP	55	26.7	31.8	39.3	41.7	42.9	42.3	40.7	38.2

Source: MEPD, Ministry of Finance Planning and Economic Development

Nominal public sector debt is projected to increase from 41.0 percent of GDP in FY2019/20 to a peak of 54.1 percent of GDP in FY2022/23. The PV of public sector debt to GDP is projected to increase from 31.8 percent in FY2019/20 to a peak of 42.9 percent in FY2022/23. This still remains below the threshold of 50 percent of Debt to GDP contained in the current Charter for Fiscal Responsibility (CFR), the Public Debt Management Framework (PDMF 2018) and the convergence criteria of the EAMU Protocol. As earlier stated, this ratio is also below the LIC DSF benchmark of 55 percent.

Nonetheless, the high rate of debt accumulation in the medium term compared to previous years has increased risks and vulnerabilities. Reducing these risks will require a slowdown in the pace of debt acquisition. Figure 11 maps the evolution of the PV of total public debt to GDP over the next ten years against the applicable LIC DSF benchmark. The black line depicts the trajectory of this ratio in the event of the most extreme shock. Under this scenario, the ratio goes above Government's CFR and EAMU target of 50 percent, but still remains below the DSF benchmark of 55 percent. This implies that a shock could drive public debt above the CFR and EAMU target of 50 percent, illustrating the need to moderate the pace of debt accumulation.

Figure 11: PV of Public Debt to GDP



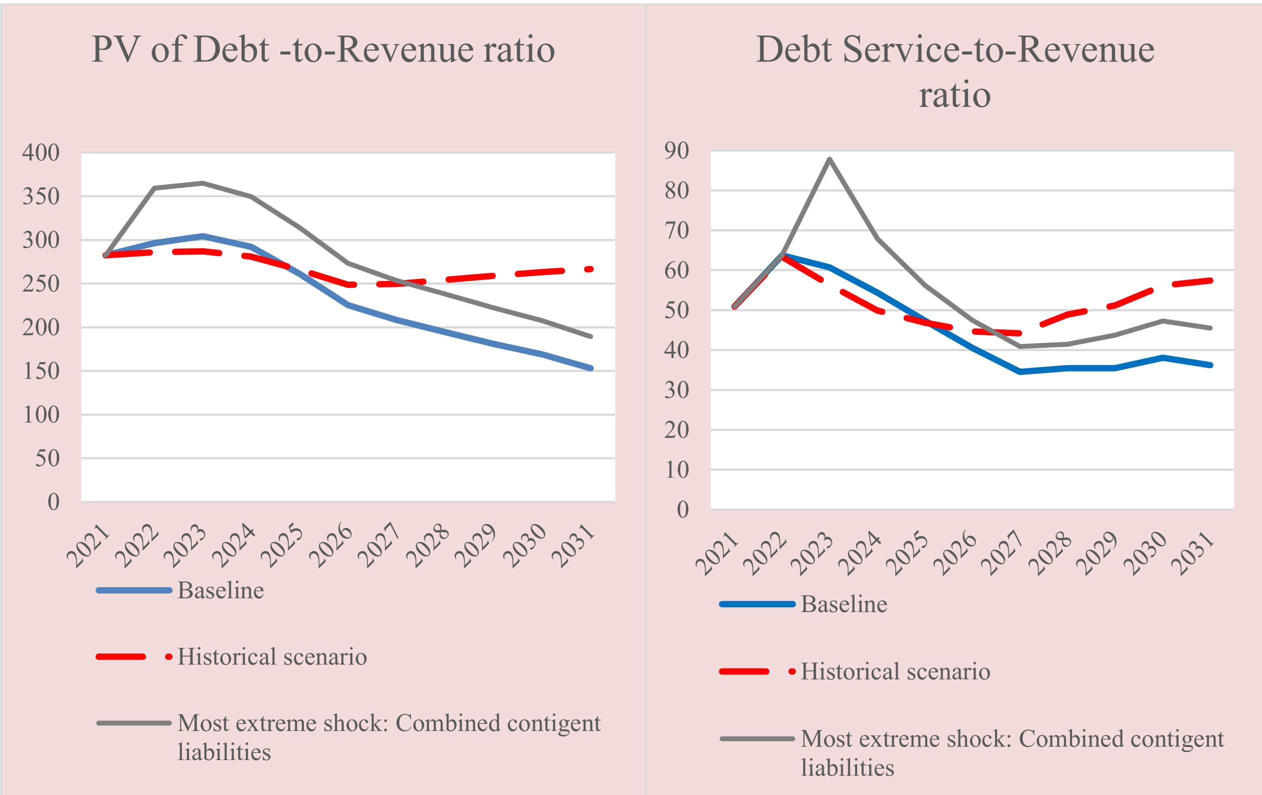
Source: MEPD, Ministry of Finance, Planning and Economic Development

The projected increase in public debt over the next fiscal year will largely be driven by Government's borrowing to meet the economic stimulus package to support economic recovery. Over the medium term public debt will mainly go towards infrastructure investment targeting the transport and energy sectors. Special focus will be placed upon the downstream infrastructure needed to accelerate commercial production of Uganda's substantial oil reserves in the Albertine Graben.

The Public DSA also provides ratios for total public debt service-to-revenue and PV of public debt service-to-revenue as shown in Figure 12 below. These, however, do not have any associated thresholds / benchmarks. Both ratios are projected to increase in the medium term, before declining in the outer years. Of key concern is the ratio of debt service to revenue, which shows the share of domestic revenue allocated to debt service. An increase in this ratio means that less resources will be available for other sectors in the budget, which may constrain service delivery and impair the pace of economic growth.

The recent sharp increase in this ratio is mainly on account of increased external commercial and domestic borrowing which typically have high interest rates and short maturity periods. To reverse this trend, Government will reduce the level of domestic borrowing in the medium term and prioritize concessional external financing.

Figure 12: Other Total Public DSA Ratios



Source: MEPD, Ministry of Finance, Planning and Economic Development

4.3 Uganda's Overall Risk Rating

The model-based signal for the risk of public external debt distress is derived by comparing the projected external debt indicators with their indicative thresholds for the first 10 years of the projection both under the baseline and stress-test scenarios and this is determined as in Table 8.

However, in addition to the rating signalled by the model, the LIC-DSF allows for the use of judgement in arriving at the final risk rating, taking into account the gravity of the breaches and other country specific factors that are not fully accounted for in the model.

Table 8: Mechanical Approach for Risk Rating (Criteria)

	Number of Debt burden indicators breaching threshold under baseline assumptions	Number of Debt burden Indicators breaching threshold under stress tests
Low Risk	0	0
Moderate Risk	0	1 or more
High Risk	1 or more	1 or more
In debt Distress	Country is already having problems servicing its debt (Having debt arrears)	

Source: IMF/WB LIC-DSF Guidance Note.

Notwithstanding the signal from the mechanical approach above, judgement was used to assign a rating of **Moderate risk of debt distress for External debt**. The use of judgement was premised upon the small magnitude and short duration of the breach of the threshold in the ratio of PV of external debt to exports of goods and services. In circumstances such as these, the option to use judgement is available to the users of the DSF.

The DSF also provides a signal for the overall risk of public debt distress. This signal is derived based on joint information from the five debt burden indicators: the four from the external block, which are compared with their indicative thresholds, plus the PV of total public debt-to-GDP, which is compared with its indicative benchmark. The risk signal is determined as follows:

• **Low overall risk of public debt distress** if the external debt has a low risk signal and the PV of total public debt-to-GDP ratio remains below its benchmark under the baseline and the most extreme shock.

• **Moderate overall risk of public debt distress** if the external debt has a moderate risk signal or if the external debt has low risk signal but the public debt burden indicator breaches its benchmark under the stress test.

• **High overall risk of public debt distress** if any of the four external debt burden indicators or the total public debt burden indicator breach their corresponding thresholds/benchmark under the baseline.

Although the PV of total public debt-to-GDP ratio remains below its indicative benchmark under both the baseline and the most extreme shock (figure 11), external debt has a moderate risk signal. This, therefore, means that Uganda's debt profile is now faced with increased risk of debt distress, and the rating has deteriorated from **low** to **Moderate overall risk of public debt distress**.

4.4 Further Analysis of Public Debt

In Uganda, public debt management is guided by, among other considerations, the provisions of the PDMF (2018), which provides a number of benchmarks associated with public debt. Some of these benchmarks, along with the performance in recent years, are provided in Table 9.

Table 9: Domestic Debt Sustainability Benchmarks (percent)

	Benchmark	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Domestic interest /Domestic revenue (excluding grants)	<12.5	10.6	12.8	15.1	13.3	12.1	13.7
Domestic interest /Total Government Expenditure	<10	7.4	8.8	11.2	9.6	8.3	8.3
Total Debt Service[11]/Domestic Revenue (Excluding grants)		14.4	17.3	21.1	21.2	22.4	21.7
Total Debt Service[12]/ Total Government Expenditure		10.1	11.9	15.7	15.2	15.3	13.2
Public domestic debt stock/Private Sector credit		85.1	95.0	95.7	99.9	102.8	105.9

Source: MEPD, Public Debt Management Framework (2018)

The analysis of domestic debt service against some of the benchmarks contained in the PDMF reveals vulnerabilities relating to high and increasing domestic interest burden on the budget and domestic revenues. The analysis also points to public domestic borrowing crowding out the private sector.

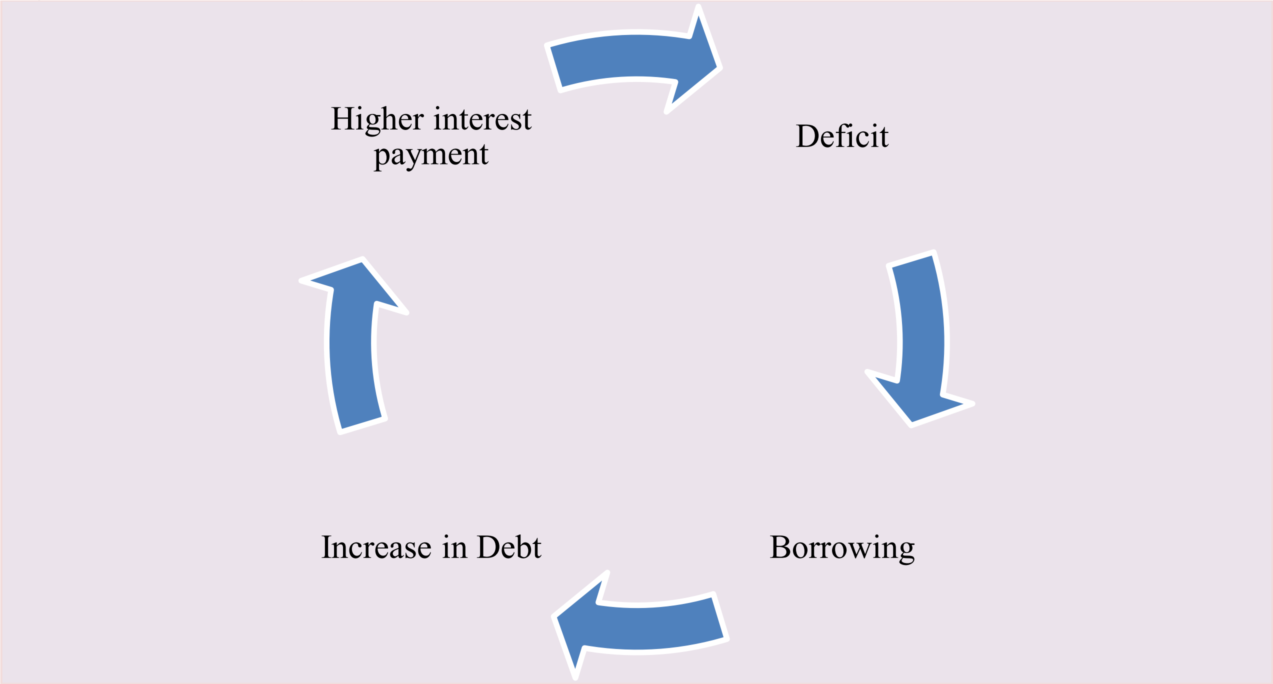
The indicator of domestic interest cost to domestic revenue measures the extent to which revenue resources are allocated to domestic interest payment. The results indicate that interest payments for domestic debt are taking up an increasing share of domestic revenue (13.7 percent of total expenditure in FY 2019/20, above the PDMF benchmark of 12.5 percent), and thereby limiting the amount of resources left for allocation to welfare-enhancing areas of the budget. This hampers service delivery and slows poverty alleviation.

Additionally, total debt service in FY2019/20 was equivalent to 21.7 percent of the country's domestic revenue. This ratio compares with low income countries that are already in debt distress. An increasing debt service burden constrains fiscal space in the budget, accentuating the need for more borrowing, which in turn implies more debt service expenses for the future periods. This results in a vicious debt cycle as illustrated below.

[11] This does not include domestic debt amortization.

[12] This does not include domestic debt amortization.

Figure 13: Vicious Cycle of Deficit and Debt



The ratio of the public domestic debt stock to the stock of outstanding private sector credit (PSC) is monitored closely, as it provides an indication of the extent to which Government is competing with the private sector for the same resources in the domestic financial system. The private sector plays a key role in investment growth, and requires a healthy supply of credit to enhance its contribution to economic growth and development. Government actions that hamper private sector credit growth also hamper private investment growth. Table 9 shows that the stock of public domestic debt as a percentage of PSC has increased steadily in recent years, from 85.1 percent in FY2014/15 to 105.9 percent in FY2019/20.

To address these vulnerabilities, Government is committed to reducing domestic borrowing to no more than 1 percent of GDP per year, in the medium to long term. This is because domestic debt comes at relatively higher interest costs and is associated with a more elevated refinancing risk because of its relatively shorter maturities. Government will also continue to pursue concessional credit over non concessional loans to the extent possible, so as to keep its cost of debt at a minimum.

5.0 CONCLUSION

This DSA finds that Uganda's debt remains sustainable in the medium to long term. However, the analysis also shows that the risk of debt distress increased from **low** to **moderate**. This follows a breach of the threshold for the PV of external debt to exports ratio under the most extreme shock scenario.

The outbreak of the COVID-19 pandemic greatly impacted on the Ugandan Economy through disruption of trade which saw a decline in both imports and exports. A lockdown which was imposed to limit the spread of the virus led to a slump in domestic economic activity and consequently shortfalls in revenue. This revenue shortfall, coupled with the need for additional expenditure to support Government's economic and health response to COVID-19, necessitated higher than anticipated borrowing.

In the next few years, public debt is projected to increase on account of borrowing to finance key infrastructure projects, especially in the transport and oil & gas sectors. Nominal debt is projected to increase from 41.0 percent in FY2019/20 to a peak of 54.1 percent of GDP in FY2022/23 and to decline thereafter.

A key area of concern is the large and increasing burden of debt service on the budget. As at end June 2020, debt service amounted to 21.7 percent of domestic revenue. For low income countries, debt service to revenue levels above 20 percent are typical of countries at high risk of debt distress, or those already in debt distress.

Other major risks to the debt outlook relate to the increased rate of debt accumulation, particularly on non-concessional terms; low GDP growth, low tax revenues; the increase in domestic borrowing; the slow rate of export growth; and challenges in the project management cycle, which delay project benefits and often lead to cost overruns.

To mitigate these risks, a number of initiatives have been put in place to enhance Export promotion and import substitution in order to increase foreign currency inflows and reduce the outflows. These among many others include the development of several industrial parks around the country. External debt accounts for more than half of our debt stock and we require foreign currency to meet this obligation when due.

In order to reduce the cost of debt, concessional financing will be prioritised to the extent possible before considering non-concessional credit. Government will also work towards reducing domestic debt for deficit financing to not more than 1 percent of GDP so as to reduce on the high interest payments arising out of domestic debt.

Government is currently implementing the medium term Domestic Revenue Mobilisation Strategy (DRMS), which targets to increase domestic revenue to GDP by 0.5 percentage points per annum. An increase in domestic revenue will reduce the country's gross financing needs and hence the need to borrow. Further efforts aimed at fiscal consolidation will involve reducing the ratio of expenditure to GDP in the medium term.

Government has developed an integrated bank of ready projects, from which it is able to sequence projects, with priority given to those generating a bigger growth dividend. In addition, Government will also continue to enhance project execution by fully implementing the reforms under the Public Investment Management Strategy (PIMS), for timely realization of their benefits and subsequently their impact on economic growth.

GLOSSARY

1. **Average Time to Maturity:** ATM gives information on how long it takes on average to rollover or refinance the debt portfolio. Low value of ATM indicates that a high share of debt will be due for payment or roll over in the near future, implying a substantial exposure to refinancing risk if resources are not available to meet or roll over maturing debt. On the other hand, a high value of ATM indicates that a low proportion of debt will be maturing in the near future, implying a low exposure to refinancing risk.

2. **Average Time to Re-fixing:** ATR provides a measure for the average length of time it takes for interest rates to be reset. The longer the period, the lower the interest rate exposure.

3. **Concessionality:** Concessional loans are those whose grant element is not less than 35 percent. These typically come from multilateral creditors such as the IDA and the African Development Fund/African Development Bank.

4. **Debt Sustainability:** A country's public debt is considered sustainable if the government is able to meet all its current and future debt payment obligations without exceptional financial assistance/ debt relief of restructuring or going into default (accumulation of debt arrears).

5. **External Debt Service/ Domestic Budget Revenue:** This ratio describes the ratio of domestic revenue inflows to external outflows used for servicing external debt. An indicator used to measure liquidity risk.

6. **External Debt Service/ Exports (goods & services):** This ratio describes the share of foreign exchange earning inflows from exports to external outflows used for servicing external debt. This indicator is used to measure liquidity risk.

7. **External Debt/ Domestic Budget Revenue:** This ratio describes the share of total domestic budget revenues that is directed to pay external debt.

8. **Liquidity Risk:** A situation where available financing and liquid assets are insufficient to meet maturing obligations. The DSF includes indicative thresholds that facilitate the assessment of solvency and liquidity risk (Staff Guidance note on the DSF for LICs, IMF 2013).

9. **Percent maturing in any year after year one**: To avoid refinancing requirements being particularly concentrated in any single year, it is recommended to spread maturities evenly

over the maturity curve. This risk control measure helps prevent rollover risk from being simply shifted to a later period, for example from year one to year two.

10. **Percent Maturing in One Year:** This is the share of debt maturing in the next twelve months. High proportions are indicative of high levels of interest rate or rollover risk. The risk is more pronounced in less liquid markets.

11. **Present Value (PV):** PV captures the degree of concessionality of the debt stock. The more concessional the debt, the lower the PV compared to the nominal value. The benchmarks by which Uganda is assessed, such as those in the LIC-DSF; the PDMF and the EAMU convergence criteria, are all specified in PV terms.

12. **Public and Publicly Guaranteed Debt**: Total Public Debt plus debt guaranteed by Government. However, in regard to guaranteed debt, the DSA only includes guaranteed debt that has become a liability to Government upon default by the responsible debtor.

13. **Public Debt/GDP (Nominal):** A measure of the level of total public/Government debt (external & domestic) relative to the size of the economy.

14. **Refinancing Risk:** Refinancing risk is the possibility of having the debt to be rolled over at a higher interest rate. In this report, two measures are used to assess the exposure of Uganda's public debt to refinancing risk: Redemption profile of debt and Average Time to Maturity (ATM) of debt stock.

15. **Solvency:** An economic agent (or a sector of an economy, or a country as a whole) is solvent if the present value of its income stream is at least as large as the PV of its expenditure plus any initial debt.

APPENDICES

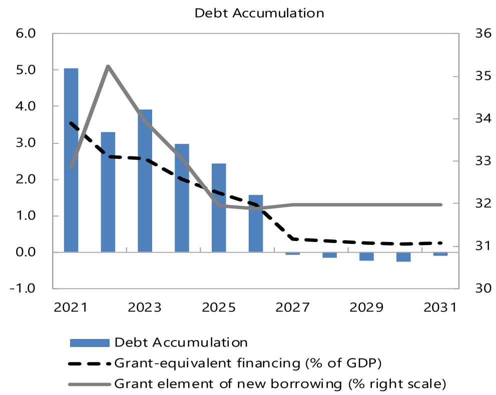
Go to the detailed External Baseline sheet (Baseline- external)

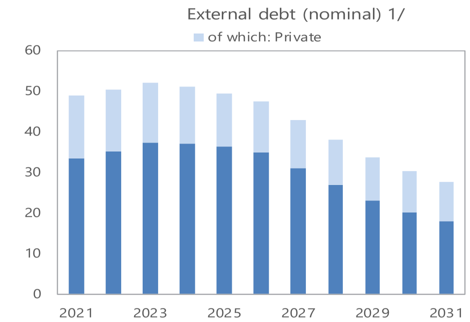
Table 1. Uganda: External Debt Sustainability Framework, Baseline Scenario, 2018-2041

(In percent of GDP, unless otherwise indicated)

	Actual			Projections							Average 8/	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2031	Historical	Projections
External debt (nominal) 1/	39.1	38.8	43.4	48.9	50.4	52.0	51.2	49.5	47.4	27.6	31.8	42.9
of which: public and publicly guaranteed (PPG)	23.5	23.5	28.1	33.4	35.2	37.2	37.2	36.3	34.8	17.9	18.0	30.3
Change in external debt	3.0	-0.3	4.6	5.4	1.6	1.5	-0.8	-1.7	-2.1	-2.7		
Identified net debt-creating flows	-1.5	0.2	-1.1	4.0	1.2	0.1	-0.8	-1.8	-0.7	3.2	0.9	0.8
Non-interest current account deficit	4.8	6.5	5.1	8.2	7.2	6.4	5.6	4.7	5.1	6.9	5.3	6.2
Deficit in balance of goods and services	7.2	9.2	9.1	10.3	9.8	9.1	8.3	7.0	9.3	9.3	8.6	9.1
Exports	16.9	18.3	14.9	13.2	14.1	13.8	13.2	13.2	13.2	13.2		
Imports	24.1	27.4	24.0	23.5	23.9	22.9	21.5	20.3	22.5	22.5		
Net current transfers (negative = inflow)	-4.8	-5.0	-5.0	-3.9	-4.3	-4.1	-4.0	-3.8	-3.5	-2.2	-4.8	-3.3
of which: official	-0.4	-0.4	-0.4	-0.7	-0.4	-0.3	-0.3	-0.2	-0.2	-0.1		
Other current account flows (negative = net inflow)	2.3	2.3	1.0	1.8	1.7	1.4	1.3	1.4	-0.6	-0.3	1.6	0.4
Net FDI (negative = inflow)	-4.4	-4.5	-4.6	-3.1	-3.9	-3.8	-3.7	-3.6	-3.4	-2.1	-3.8	-3.1
Endogenous debt dynamics 2/	-1.9	-1.7	-1.7	-1.1	-2.2	-2.4	-2.7	-2.9	-2.5	-1.6		
Contribution from nominal interest rate	0.5	0.8	0.6	0.2	0.2	0.5	0.6	0.4	0.7	0.3		
Contribution from real GDP growth	-2.1	-2.5	-1.0	-1.3	-2.4	-2.9	-3.3	-3.3	-3.1	-1.9		
Contribution from price and exchange rate changes	-0.3	0.0	-1.3	...	...	...	...	...	...	...		
Residual 3/	4.5	-0.5	5.8	1.5	0.4	1.4	0.0	0.2	-1.4	-5.9	1.5	-2.3
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators												
PV of PPG external debt-to-GDP ratio	...	...	18.8	22.5	24.0	25.5	25.6	25.3	24.3	12.8		
PV of PPG external debt-to-exports ratio	...	...	125.8	170.1	170.2	185.4	194.1	191.3	183.9	96.6		
PPG debt service-to-exports ratio	6.5	8.0	6.7	7.8	9.4	11.6	13.6	13.6	15.1	9.5		
PPG debt service-to-revenue ratio	9.1	11.5	8.0	8.1	10.0	11.7	12.7	11.8	11.9	6.7		
Gross external financing need (Billion of U.S. dollars)	1.3	2.2	1.5	3.3	3.0	3.0	3.1	3.0	3.9	9.6		
Key macroeconomic assumptions												
Real GDP growth (in percent)	6.2	6.8	2.9	3.1	5.2	6.4	7.0	7.2	7.0	7.0	5.2	6.9
GDP deflator in US dollar terms (change in percent)	0.8	0.0	3.3	2.7	2.1	2.9	4.0	3.5	3.3	4.5	-1.4	3.7
Effective interest rate (percent) 4/	1.5	2.1	1.7	0.5	0.5	1.1	1.3	1.0	1.5	1.2	1.3	1.2
Growth of exports of G&S (US dollar terms, in percent)	12.0	15.5	-13.2	-6.1	14.6	6.8	6.7	11.1	10.5	11.9	5.3	9.7
Growth of imports of G&S (US dollar terms, in percent)	18.0	21.4	-6.9	3.6	9.2	4.8	4.3	4.8	22.7	11.9	5.1	10.3
Grant element of new public sector borrowing (in percent)	...	...	...	32.9	35.2	33.9	33.1	31.9	31.9	32.0	...	32.6
Government revenues (excluding grants, in percent of GDP)	12.0	12.7	12.5	12.8	13.3	13.6	14.1	15.3	16.7	18.6	11.1	15.9
Aid flows (in Billion of US dollars) 5/	0.2	0.3	0.3	1.9	1.2	1.3	1.0	0.9	0.7	0.2		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	3.5	2.6	2.6	2.0	1.6	1.3	0.2	...	1.4
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	41.9	44.0	38.6	37.6	36.6	36.4	32.0	...	35.9
Nominal GDP (Billion of US dollars)	33	35	37	40	43	47	52	57	63	115		
Nominal dollar GDP growth	7.0	6.8	6.3	5.9	7.4	9.4	11.3	10.9	10.5	11.9	3.7	10.8
Memorandum items:												
PV of external debt 7/	...	...	34.1	38.0	39.3	40.3	39.6	38.5	36.9	22.4		
In percent of exports	...	...	228.8	287.0	278.4	292.6	299.9	291.1	278.8	169.6		
Total external debt service-to-exports ratio	20.9	24.2	24.0	25.6	25.9	28.5	31.2	31.1	32.5	26.5		
PV of PPG external debt (in Billion of US dollars)			7.0	8.9	10.2	11.9	13.3	14.5	15.4	14.8		
(PVt-PVt-1)/GDPt-1 (in percent)				5.1	3.3	3.9	3.0	2.4	1.6	-0.1		
Non-interest current account deficit that stabilizes debt ratio	1.8	6.7	0.5	2.7	5.6	4.9	6.4	6.3	7.2	9.6		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No





Sources: Country authorities; and 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/ 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.

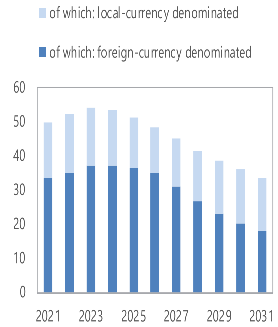
Table 2. Uganda: Public Sector Debt Sustainability Framework, Baseline Scenario, 2018-2041

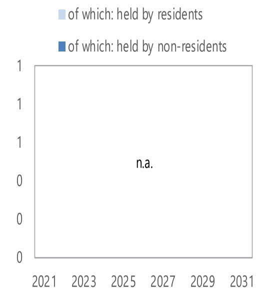
(In percent of GDP, unless otherwise indicated)

	Actual			Projections																Average 6/	
	2018	2019	2020	2021	2022	2023	2024	2025	2026	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	Historical	Projections
Public sector debt 1/	34.6	35.3	41.0	49.9	52.4	54.1	53.4	51.3	48.2	33.4	30.4	27.5	24.6	22.0	19.6	17.5	15.3	13.1	10.8	27.8	45.8
of which: external debt	23.5	23.5	28.1	33.4	35.2	37.2	37.2	36.3	34.8	17.9	15.9	14.3	13.2	12.5	12.1	12.1	12.3	12.6	13.1	18.0	30.3
Change in public sector debt	3.5	0.7	5.7	8.8	2.6	1.7	-0.7	-2.1	-3.0	-2.8	-3.0	-2.9	-2.9	-2.6	-2.4	-2.2	-2.2	-2.2	-2.3		
Identified debt-creating flows	2.5	1.0	5.5	7.5	2.5	1.6	-0.7	-2.2	-2.9	-2.8	-3.0	-2.8	-2.9	-2.6	-2.3	-2.2	-2.2	-2.2	-2.3	2.3	-0.7
Primary deficit	2.2	3.0	5.1	8.0	3.8	3.4	2.0	0.7	-0.5	-1.3	-1.8	-2.0	-2.1	-1.9	-1.6	-1.5	-1.4	-1.4	-1.4	2.4	1.4
Revenue and grants	12.7	13.6	13.3	13.9	14.1	14.1	14.5	15.6	16.9	18.6	19.0	19.1	19.3	19.1	19.0	18.9	18.8	18.7	18.7	12.2	16.2
of which: grants	0.6	0.9	0.8	1.1	0.8	0.5	0.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Primary (noninterest) expenditure	14.9	16.5	18.3	21.9	17.9	17.5	16.4	16.3	16.4	17.3	17.2	17.2	17.2	17.3	17.3	17.4	17.4	17.3	17.3	14.5	17.6
Automatic debt dynamics	0.3	-2.0	0.4	-0.5	-1.3	-1.8	-2.7	-2.9	-2.4	-1.5	-1.1	-0.9	-0.8	-0.7	-0.7	-0.7	-0.7	-0.8	-0.9		
Contribution from interest rate/growth differential	-0.7	-1.0	0.4	-0.5	-1.3	-1.4	-1.9	-2.4	-2.0	-1.0	-0.8	-0.6	-0.5	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7		
of which: contribution from average real interest rate	1.1	1.2	1.4	0.7	1.1	1.7	1.6	1.2	1.4	1.3	1.4	1.3	1.2	1.1	0.9	0.7	0.5	0.3	0.1		
of which: contribution from real GDP growth	-1.8	-2.2	-1.0	-1.2	-2.5	-3.1	-3.5	-3.6	-3.4	-2.4	-2.1	-1.8	-1.7	-1.5	-1.3	-1.2	-1.1	-0.9	-0.8		
Contribution from real exchange rate depreciation	1.0	-1.0	0.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	1.0	-0.3	0.2	1.4	0.1	-0.3	-0.7	-0.5	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.2	-0.2	-0.2	-0.2	0.3	-0.4
Sustainability indicators																					
PV of public debt-to-GDP ratio 2/	...	...	31.8	39.3	41.7	42.9	42.3	40.7	38.2	28.5	26.1	23.7	21.1	18.7	16.5	14.3	12.1	9.9	7.4		
PV of public debt-to-revenue and grants ratio	...	...	239.4	282.7	296.6	304.3	292.0	261.4	225.5	153.1	137.0	123.8	109.2	97.8	86.8	75.9	64.5	52.6	39.8		
Debt service-to-revenue and grants ratio 3/	51.4	51.1	52.4	50.9	63.7	60.7	54.4	47.4	40.5	36.2	33.8	31.2	27.0	21.9	17.0	12.9	8.8	4.9	0.8		
Gross financing need 4/	8.7	9.9	12.0	15.1	12.8	11.9	9.8	8.1	6.4	5.5	4.6	4.0	3.1	2.3	1.6	0.9	0.2	-0.5	-1.3		
Key macroeconomic and fiscal assumptions																					
Real GDP growth (in percent)	6.2	6.8	2.9	3.1	5.2	6.4	7.0	7.2	7.0	7.0	6.9	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	5.2	6.9
Average nominal interest rate on external debt (in percent)	1.4	1.9	1.8	0.5	0.5	1.4	1.7	1.2	1.9	1.6	1.8	1.6	1.5	1.8	1.7	1.6	1.7	1.8	1.8	1.4	1.5
Average real interest rate on domestic debt (in percent)	11.6	12.6	12.2	7.9	10.7	11.3	10.5	9.7	9.9	9.6	9.7	9.9	10.0	10.2	10.4	11.1	11.3	12.0	19.1	10.1	10.0
Real exchange rate depreciation (in percent, + indicates depreciation)	5.3	-4.5	0.0	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1.6	...
Inflation rate (GDP deflator, in percent)	4.5	2.2	2.7	5.5	4.0	3.2	3.9	4.7	4.8	5.4	5.4	5.3	5.3	5.2	5.2	4.7	4.7	4.7	4.7	4.6	4.7
Growth of real primary spending (deflated by GDP deflator, in percent)	13.7	18.7	14.0	23.1	-14.1	4.1	0.6	6.3	8.0	4.9	6.3	6.0	6.6	6.9	6.9	6.7	6.5	6.3	6.2	9.9	6.7
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-1.3	2.3	-0.7	-0.9	1.2	1.7	2.7	2.9	2.5	1.5	1.2	0.9	0.8	0.7	0.7	0.6	0.7	0.8	0.9	0.1	2.1
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	Currency-based
Is there a material difference between the two criteria?	No

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government plus social security, central bank, government-guaranteed debt . Definition of external debt is Currency-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.

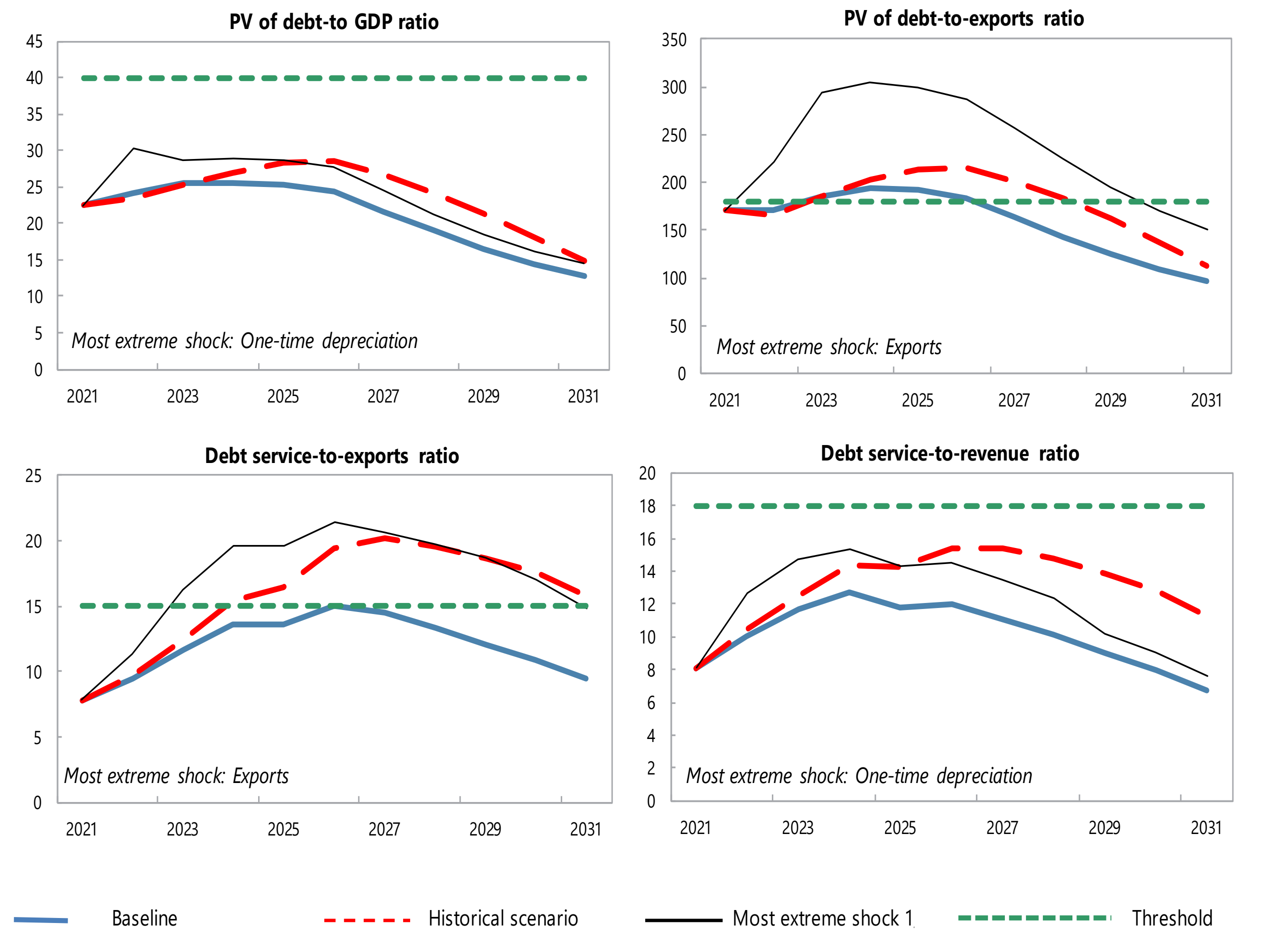
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

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.

Figure 1. Uganda: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2021-2031



Customization of Default Settings		
	Size	Interactions
Tailored Stress		
Combined CL	No	
Natural disaster	n.a.	n.a.
Commodity price	No	No
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 on additional financing needs resulting from the 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	2.1%	2.1%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	23	23
Avg. grace period	5	5

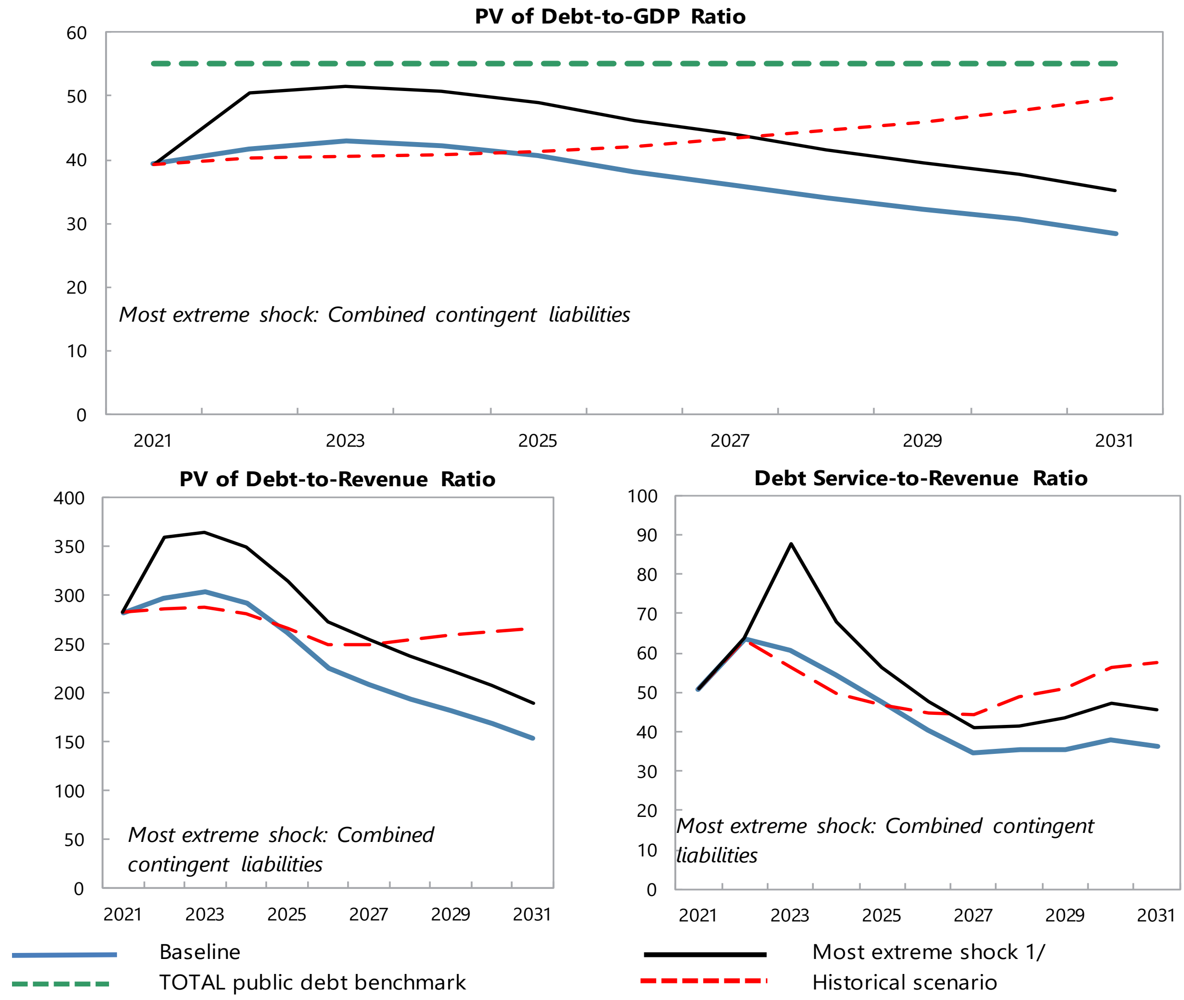
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2031. 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.

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, 2021-2031



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	33%	33%
Domestic medium and long-term	33%	33%
Domestic short-term	34%	34%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	2.1%	2.1%
Avg. maturity (incl. grace period)	23	23
Avg. grace period	5	5
Domestic MLT debt		
Avg. real interest rate on new borrowing	11.3%	11.3%
Avg. maturity (incl. grace period)	9	9
Avg. grace period	6	6
Domestic short-term debt		
Avg. real interest rate	7.9%	7.9%

* 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 2031. 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.

Table 3. Uganda: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2021-2031

(In percent)

	Projections 1/										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
PV of debt-to GDP ratio											
Baseline	22	24	26	26	25	24	22	19	16	14	13
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	22	23	25	27	28	28	27	24	21	18	15
B. Bound Tests											
B1. Real GDP growth	22	25	28	28	27	26	23	20	18	16	14
B2. Primary balance	22	24	26	26	26	25	22	20	17	15	13
B3. Exports	22	26	30	30	29	28	25	22	19	17	15
B4. Other flows 3/	22	25	27	27	27	26	23	20	17	15	14
B5. Depreciation	22	30	29	29	29	28	25	21	18	16	14
B6. Combination of B1-B5	22	28	29	29	29	28	25	22	19	16	15
C. Tailored Tests											
C1. Combined contingent liabilities	22	26	29	29	29	28	25	22	20	18	16
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	22	24	26	26	25	24	22	19	16	14	13
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	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	170	170	**185**	**194**	**191**	**184**	164	143	124	109	97
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	170	166	**184**	**203**	**214**	**215**	**201**	**183**	162	138	112
B. Bound Tests											
B1. Real GDP growth	170	170	**185**	**194**	**191**	**184**	164	143	124	109	97
B2. Primary balance	170	172	**190**	**199**	**197**	**190**	169	149	129	114	102
B3. Exports	170	**220**	**294**	**305**	**299**	**286**	**257**	**225**	**195**	171	151
B4. Other flows 3/	170	177	**198**	**207**	**203**	**195**	174	152	132	116	103
B5. Depreciation	170	170	165	174	172	166	147	128	111	97	87
B6. Combination of B1-B5	170	**211**	**196**	**249**	**245**	**236**	**210**	**183**	159	139	124
C. Tailored Tests											
C1. Combined contingent liabilities	170	**187**	**208**	**219**	**217**	**210**	**189**	168	149	135	123
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	170	170	**185**	**194**	**191**	**184**	164	143	124	109	97
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	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	8	9	12	14	14	15	15	13	12	11	9
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	8	10	12	15	16	19	20	20	19	18	16
B. Bound Tests											
B1. Real GDP growth	8	9	12	14	14	15	15	13	12	11	9
B2. Primary balance	8	9	12	14	14	15	15	14	12	11	10
B3. Exports	8	11	16	20	20	21	21	20	19	17	15
B4. Other flows 3/	8	9	12	14	14	15	15	14	13	12	10
B5. Depreciation	8	9	12	13	13	15	14	13	11	10	8
B6. Combination of B1-B5	8	11	15	17	17	19	18	17	15	14	12
C. Tailored Tests											
C1. Combined contingent liabilities	8	9	12	14	14	16	15	14	13	12	10
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	8	9	12	14	14	15	15	13	12	11	9
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	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	8	10	12	13	12	12	11	10	9	8	7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	8	10	13	14	14	15	15	15	14	13	11
B. Bound Tests											
B1. Real GDP growth	8	10	13	14	13	13	12	11	10	9	7
B2. Primary balance	8	10	12	13	12	12	11	10	9	8	7
B3. Exports	8	10	12	14	13	13	12	11	10	9	8
B4. Other flows 3/	8	10	12	13	12	12	11	10	10	8	7
B5. Depreciation	8	13	15	15	14	15	14	12	10	9	8
B6. Combination of B1-B5	8	11	13	14	13	13	12	12	10	9	8
C. Tailored Tests											
C1. Combined contingent liabilities	8	10	12	13	12	12	12	11	9	8	7
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	8	10	12	13	12	12	11	10	9	8	7
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	18	18	18	18	18	18	18	18	18	18	18

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ 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.
3/ Includes official and private transfers and FDI.

Table 4. Uganda: Sensitivity Analysis for Key Indicators of Public Debt , 2021-2031

	Projections 1/										
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
PV of Debt-to-GDP Ratio											
Baseline	39	42	43	42	41	38	36	34	32	31	28
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	39	40	40	41	41	42	43	45	46	48	50
B. Bound Tests											
B1. Real GDP growth	39	43	48	48	47	46	45	44	43	42	41
B2. Primary balance	39	43	45	44	43	40	38	36	34	32	30
B3. Exports	39	43	47	46	45	42	39	37	35	33	30
B4. Other flows 3/	39	43	45	44	42	40	38	35	33	32	29
B5. Depreciation	39	45	44	42	39	36	33	30	28	25	23
B6. Combination of B1-B5	39	41	43	42	40	38	36	34	32	30	28
C. Tailored Tests											
C1. Combined contingent liabilities	39	51	51	51	49	46	44	42	39	38	35
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	39	42	44	45	44	43	42	41	40	39	38
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.
TOTAL public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio											
Baseline	283	297	304	292	261	225	208	194	181	169	153
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	283	286	287	281	266	249	250	254	259	263	267
B. Bound Tests											
B1. Real GDP growth	283	308	338	331	304	271	258	249	240	232	219
B2. Primary balance	283	304	318	305	273	236	218	204	190	178	161
B3. Exports	283	309	335	320	286	247	227	212	196	181	164
B4. Other flows 3/	283	303	317	304	272	234	216	202	187	174	157
B5. Depreciation	283	324	316	292	253	212	190	172	155	140	122
B6. Combination of B1-B5	283	292	305	290	258	223	205	192	179	167	151
C. Tailored Tests											
C1. Combined contingent liabilities	283	359	365	350	314	273	254	238	222	208	189
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	283	300	315	309	284	252	240	233	224	217	206
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	51	64	61	54	47	41	35	35	35	38	36
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2021-2031 2/	51	63	56	50	47	45	44	49	51	56	57
B. Bound Tests											
B1. Real GDP growth	51	66	67	62	56	49	44	46	47	51	50
B2. Primary balance	51	64	64	59	50	42	36	37	37	40	38
B3. Exports	51	64	61	55	48	41	35	36	37	39	37
B4. Other flows 3/	51	64	61	55	48	41	35	36	36	39	37
B5. Depreciation	51	61	60	54	48	41	36	36	35	37	35
B6. Combination of B1-B5	51	62	60	55	47	40	34	36	36	38	36
C. Tailored Tests											
C1. Combined contingent liabilities	51	64	88	68	56	47	41	41	44	47	46
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	51	64	62	58	52	46	41	43	44	47	47
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/ A bold value indicates a breach of the benchmark.
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.
3/ Includes official and private transfers and FDI.

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