



DEBT SUSTAINABILITY ANALYSIS REPORT

FY2020/21



DECEMBER 2021

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 to periodically undertake this exercise. This report presents findings of Uganda's debt standing at end June 2021.

This report is the second to be published during the COVID-19 pandemic, which has slowed down Uganda's growth momentum. From a pre-pandemic level of 6.4 percent in FY 2018/19, growth slowed to 3.0 percent in FY2019/20 before recovering to 3.4 percent in FY2020/21. The reduction in growth led to shortfalls in revenue which, 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 two years, debt levels remain manageable and below those in most countries in the region. In addition, a reliance on mostly concessional financing has helped ensure that our debt remains sustainable in both the medium and long term. Nonetheless, increased vulnerabilities in form of a weaker export growth outlook and increased debt service have heightened the risk of debt distress to moderate levels.

To mitigate the risks to sustainability of our debt, Government will continue to give priority to borrowing for growth generating and welfare enhancing sectors of the economy which will help foster higher and inclusive growth. This will in turn contribute to increased domestic revenue mobilisation, and consequently reduce our reliance on debt in the foreseeable future. In addition, Government has accelerated reforms aimed at improving the efficiency of public expenditure and augmenting support for export growth.

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 Budgetary Office.



Ramathan Ggoobi
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 Inter Bank 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 increased by 21.7 percent from US\$ 15.34 billion (UGX 57,215 billion at end June 2020 to US\$ 19.54 billion (UGX 69,512 billion) by end June 2021. Of this, external debt amounted to US\$ 12.39 Billion (UGX 44,061 billion), while domestic debt was US\$ 7.2 Billion (UGX 25451 billion). In nominal terms, the level of debt in proportion to GDP increased from 41.0 percent in June 2020 to 47.0 percent in June 2021. Measured in present value terms, the stock of public debt amounted to 37.5 percent of GDP up from 31.8 percent the previous financial year.

As was the case in FY2019/20, several COVID-19 related restrictions remained in place during FY2020/21, including stricter lockdowns for the entertainment and education sub-sectors, which affected the pace of economic activity. The slow-down in economic activity adversely affected revenue mobilisation and resulted into significant shortfalls, which necessitated increased borrowing to meet budgetary requirements and the additional spending needs that arose as part of the pandemic response effort.

In the near term, public debt is projected to increase moderately as Government continues to invest in critical infrastructure, especially in the energy, transport and oil & gas sectors. **Nominal public debt** is projected to increase to 51.6 percent of GDP by the end of June 2022 and peak at 52.9 percent in 2022/23 before gradually declining in the medium term. Debt in **present value terms** is projected to follow a similar trend, increasing to 41.6 percent of GDP in FY2021/22 and peaking at 42.9 percent in FY2022/23, which is below the ceiling of 50 percent stipulated by the convergence criteria under the East African Monetary Union protocol.

The findings of this DSA indicate that **public debt is projected to remain sustainable over the medium to long-term**. Debt sustainability will majorly be supported by a recovery in GDP growth as the economy fully reopens; a slow-down in the pace of borrowing as some major infrastructure projects come to a completion in the medium term; and the impact of the expected scaling-up of investments in the oil and gas sector.

Nonetheless, the debt outlook is faced with **moderate risk of debt distress**, with the major vulnerabilities to the outlook relating to the slow growth of exports and the increasing debt service burden. Debt service as a percentage of revenue has increased in recent years to over 20 percent, which constrains resources to other growth enhancing sectors of the economy. The increase in debt service has majorly been a result of increased domestic borrowing (which is typically costlier) and non-concessional/commercial external debt.

The analysis also indicates that Uganda has limited space to absorb shocks, meaning that an extreme economic shock could potentially lead to a deterioration in the rating to high risk of debt distress.

Measures to mitigate against the increased debt vulnerabilities include: sustaining efforts to ensure a full economic recovery; increasing domestic revenue collections through the full operationalization of reforms under the Domestic Revenue Mobilization Strategy; and increasing the efficiency and effectiveness of Government expenditure, particularly focusing on strengthening public investment management and allocating more resources to growth-enhancing areas. Government will also continue to prioritize concessional financing over domestic and commercial external debt.

1.0 INTRODUCTION

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

With a view to ascertaining the sustainability of public debt over the medium to long term, the analysis focuses on key debt burden indicators, such as the size of debt relative to GDP as well as the share of domestic revenues needed to meet debt service obligations. The DSA also identifies risks and vulnerabilities associated with the debt portfolio and proposes remedial policy interventions to mitigate such risks and vulnerabilities.

The DSA exercise involves simulations of medium to long term projections for key macroeconomic and debt variables and comparing the projections to country-specific thresholds/benchmarks to assess the risk of debt distress.

This 2021 DSA is the second to be conducted during the COVID-19 pandemic, whose adverse impact on the economy has been significant. The global and domestic response to the outbreak of the COVID-19 pandemic adversely affected economic activity resulting in lower revenue collections. In addition, there were additional expenditure requirements to contain the health crisis and mitigate against the economic impact of the pandemic on households and businesses. The easing of restrictions in the first half of FY2020/21 contributed to a gradual recovery in economic activity but was interrupted by a second lockdown towards the end of the fiscal year – in response to the emergence of a highly infectious covid variant – delta. Lower revenues and increased spending requirements dented public finances resulting in higher Government borrowing. This DSA assesses the impact of Government’s borrowing decisions on debt sustainability for the foreseeable future.

The analysis informs decision making 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 in the Charter for Fiscal Responsibility and the convergence targets under the East African Monetary Union (EAMU) Protocol.

In this report, public debt considers 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, while domestic debt is captured

at cost 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 debt issued in foreign currency is considered as external.

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. Section 4 provides an overview of the methodology used, while the analysis and discussion are presented in section 5. Section 6 concludes.

2.0 DEBT PORTFOLIO REVIEW

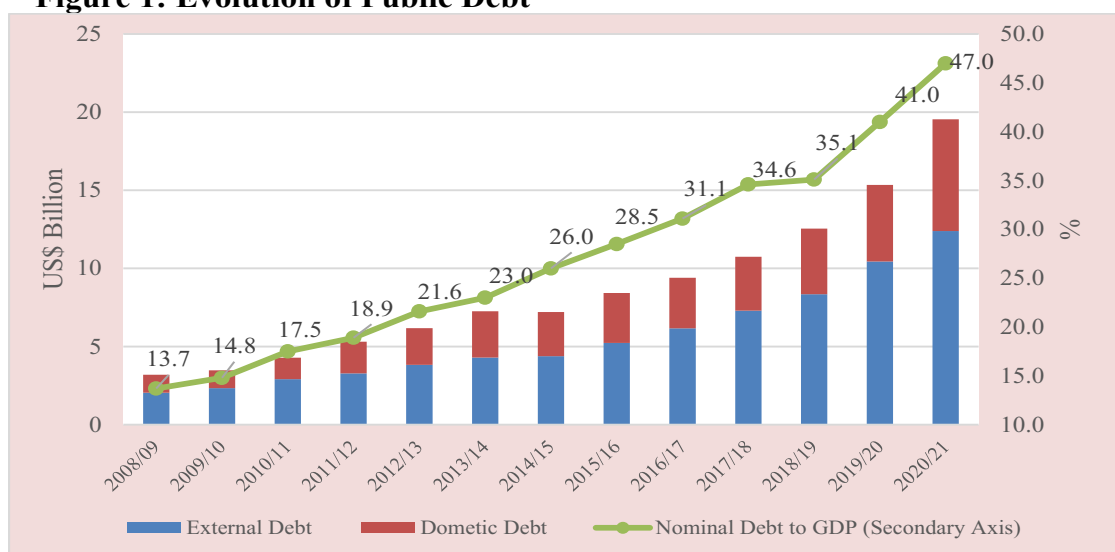
2.1 Overview of Uganda’s Debt Profile

The stock of public sector debt increased from US\$ 15.34 billion in FY 2019/20 to US\$ 19.54 billion in FY 2020/21. External debt increased from US\$ 10.45 billion in FY 2019/20 to US\$ 12.39 billion in FY 2020/21, while domestic debt measured in US Dollars increased from US\$ 4.89 billion to US\$ 7.16 billion over the same period.

As a percentage of GDP, public sector debt rose from 41.0 percent in FY 2019/20 to 47.0 percent in FY 2020/21. Of this, external debt accounted for 29.8 percent of GDP and while domestic debt amounted to 17.2 percent of GDP. In present value (PV) terms¹, public sector debt amounted to 37.5 percent at end June 2021 up from 31.8 percent the year before.

The high rate of debt accumulation during FY 2020/21 was largely due to increased borrowing requirements to finance the pandemic-related revenue shortfalls and the Government’s emergency response. Figure 1 shows the evolution of the public debt to GDP ratio as well as the stock of debt (in billions of US Dollars) from FY 2008/9 to FY 2020/21.

Figure 1: Evolution of Public Debt

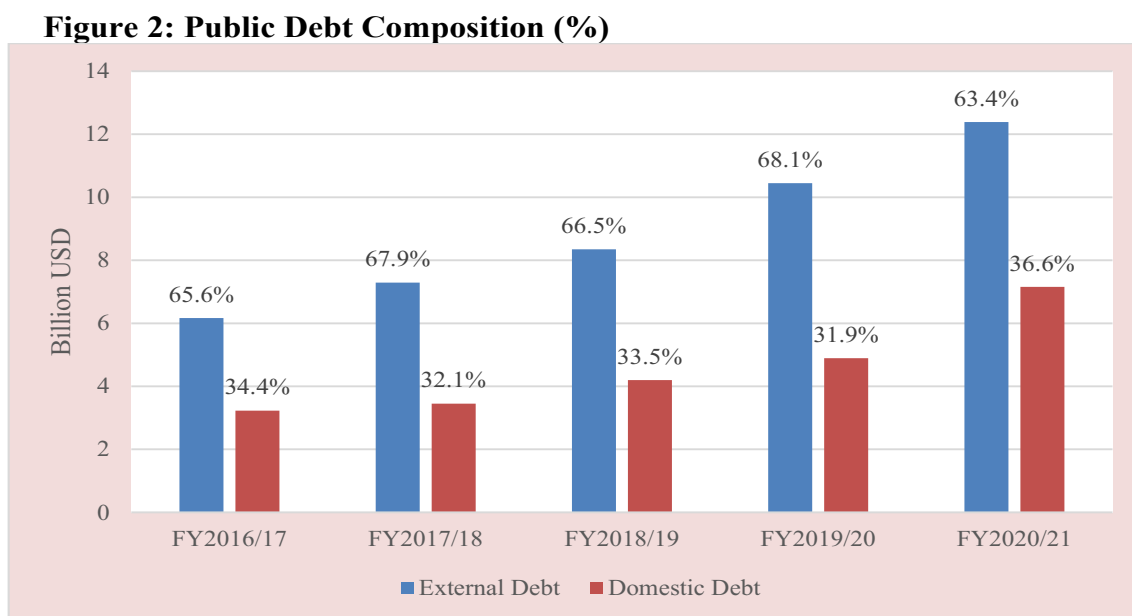


Source: MEPD, Ministry of Finance, Planning and Economic Development

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

2.2 Composition of Public Debt²

As at June 2021, external debt comprised 63.4 percent of total public debt down from 68.1 percent the previous financial year, while the share of domestic debt in total public debt increased from 31.9 percent to 36.6 percent over the same period (see Figure 2).



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 creditors continued on an upward trend, increasing from 7.2 percent in FY2019/20 to 8.9 percent in FY2020/21. This was largely on account of an increase in volume of loans acquired on commercial terms, which typically disburse faster than concessional loans.

The share of debt owed to multilateral lenders increased slightly, from 61.9 percent in FY2019/20 to 62.5 percent in FY2020/21 and reflects the emergency financing received from the IMF and the World Bank in support for Government's COVID response. . The share of public debt owed to IDA, the concessional lending arm of the World Bank, increased to 35.3 percent in FY 2020/21 from 34.6 percent the previous year. Bilateral creditors accounted 28.6 percent of the total external disbursed and outstanding debt stock in FY2020/21, of which 20.9 percent was owed to China.

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.

Despite the slight pickup in the share of concessional financing over FY2020/21, such credit remains insufficient to meet the country’s development needs. Moreover, concessional funding is often earmarked for social sectors of health, education (human capital development), water and sanitation. The financing gap on the infrastructure development requirements is largely covered through non-concessional financing, which explains the increasing trend. Table 1 provides the distribution of external debt by creditor category.

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

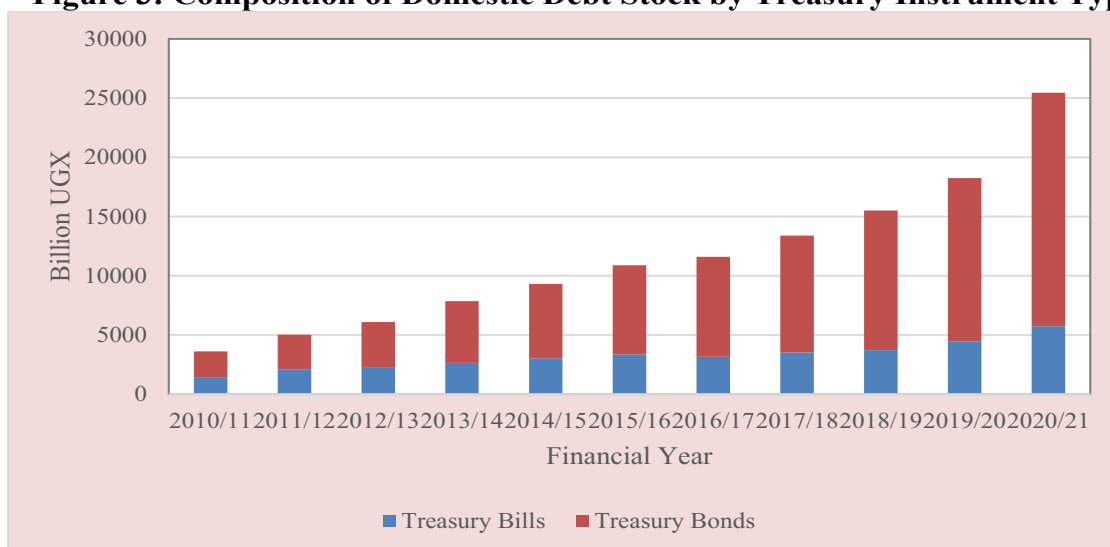
Creditor Category	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Multilateral Creditors	87.9	86.9	87.4	85.5	76.6	70.8	67.8	64.5	61.9	62.5
o/w IDA	59.4	58.6	58.3	55.8	48.9	45.2	42.2	40.1	34.6	35.3
Bilateral Creditors	12.1	13.1	12.6	14.5	23.4	26.6	31.5	33.7	30.9	28.6
Non Paris Club	10.4	11.3	10.4	12.3	20.4	22.8	25.1	27.5	23.6	21.6
o/w China	7.0	8.0	7.7	9.6	17.8	20.3	24.2	26.5	22.6	20.9
Paris Club	1.6	1.8	2.2	2.2	3	3.8	6.5	6.2	7.3	7
o/w Japan	0.7	0.9	1.3	1.7	2.4	3	4	2.5	3	2.3
Commercial Banks	-	-					0.7	1.8	7.2	8.9

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

2.2.2 Composition of Domestic Debt

The share of longer term dated instruments (treasury bonds) in public domestic debt has increased over the years, in line with Government’s strategy to reduce refinancing risks through increased issuances of longer-term debt (see Figure 3). Increasing the maturity of domestic debt reduces the refinancing risk associated with the portfolio and smoothens the redemption/repayment profile. As at end June 2021, short-term debt (treasury bills) constituted 22.5 percent of total domestic debt down from 24.4 percent a year before, while long-term debt (treasury bonds) accounted for 77.5 percent up from 75.6 percent at end June 2020. Figure 3 plots the trend in domestic debt stock, broken down into treasury bills and treasury bonds while Figure 4 shows the composition by holder.

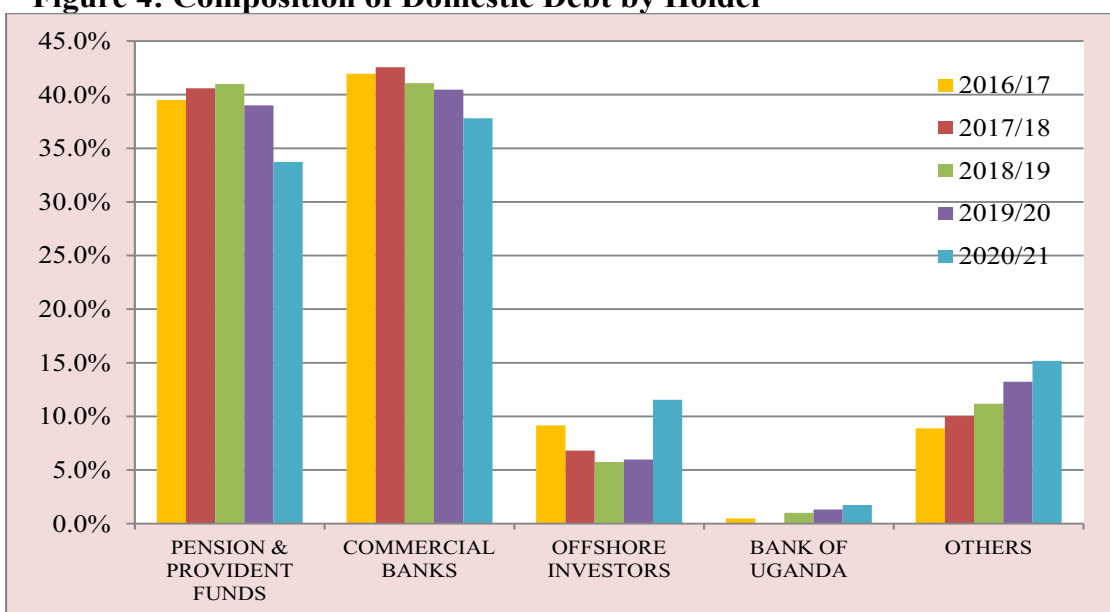
Figure 3: Composition of Domestic Debt Stock by Treasury Instrument Type



Source: Bank of Uganda

Composition of Domestic Debt by Holder

Figure 4: Composition of Domestic Debt by Holder³



Source: Bank of Uganda

As at end June 2021, the largest share of public domestic debt was owed to commercial banks, which held about 37.8 percent of the outstanding stock, a slight reduction from 40.5 percent the previous year. These were followed by pension and provident funds at 33.7 percent, the bulk

³ “Others” includes Retail Investors, Institutional Investors, Insurance Companies, Deposit Protection Funds, and Other Market Intermediaries.

of which was held by the National Social Security Fund. The share of domestic debt held by the “*Others*” category further increased to 15.2 percent at end June 2021 from 13.2 percent a year before. This reflects development/diversification of the domestic financial market, partly resulting from the reforms to the primary dealership system.

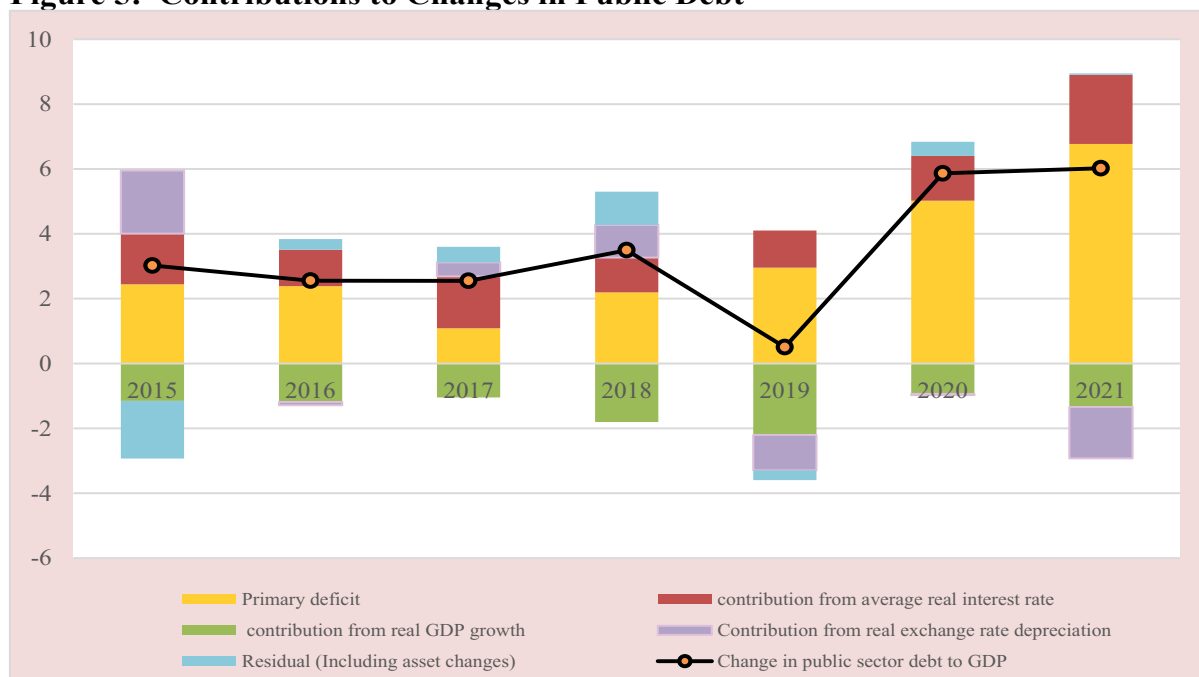
2.3 Drivers of Debt Accumulation

The primary deficit has continued to be the major driver of the increase in Uganda’s debt over the recent years, and largely reflects increased spending on development activities aimed at closing the infrastructure gap to enhance the country’s productive capacities. The deficit has widened further in the last two years on account of the increase in pandemic-related expenditure requirements. Consequently, the debt to GDP ratio increased by 6 percentage points in FY2020/21, which is more than double the average of 2.4 percentage points per annum recorded over the 5 years before the pandemic.

Similarly, the contribution of the average real interest rate on public debt continued to weigh heavily on the debt level. This is consistent with the increasing recourse to domestic and commercial external borrowing, both of which come at a higher cost than concessional financing from multilateral/bilateral lenders.

However, since external debt takes up the largest share of Uganda’s debt stock, the main factor mitigating the increase in the debt to GDP ratio was the real exchange rate appreciation in FY2020/21. As shown in Figure 5, the appreciation of the shilling against the dollar resultantly contributed to a 1.6 percentage point reduction in the debt to GDP ratio. In addition, the contribution from real GDP growth in mitigating the increase in the debt to GDP ratio slightly picked up compared to the previous year. This follows a modest improvement in economic growth from 3 percent in FY2019/20 to 3.4 percent in FY2020/21.

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

Interest payments as a percentage of GDP

Interest payments as a share of GDP rose to 2.8 percent in June 2021 up from 2.2 percent the previous year and largely reflects the higher interest payments on domestic debt following a 38.5 percent increase in stock between June 2020 and June 2021. The higher domestic debt stock also explains the 0.6 percentage point increase in domestic interest payments as a share of GDP from 1.8 percent in June 2020 to 2.4 percent in June 2021. Historically, domestic debt has taken the largest share of the interest budget due to the high cost of issuing this type of debt, compared to external debt which is predominantly concessional in nature.

Weighted average interest rate (WAIR)

The WAIR of the debt portfolio increased to 6.0 percent in June 2021 up from 5.6 percent in June 2020. The domestic WAIR increased from 13.8 percent in June 2020 to 14.1 percent in June 2021 while that of external debt increased from 1.4 percent to 1.5 percent during the same period. The increase in the external WAIR was on account of increased contraction of non-

concessional loans, whose interest rates are typically higher than those offered for concessional financing. The domestic WAIR increase was largely as a result of the general increase in yields on Government securities, following the higher than planned domestic borrowing undertaken during the year.

Table 2: Cost and Risk Profile of Public Debt

		June-20			June-21		
		External	Domestic	Total	External	Domestic	Total
Cost of debt	Interest payment as percent of GDP	0.4	1.8	2.2	0.4	2.4	2.8
	Weighted Av. IR (percent)	1.4	13.8	5.4	1.5	14.1	6
Refinancing risk	ATM (years)	12.9	4.3	10.3	11.8	5.5	9.6
	Debt maturing in 1 yr (percent of total)	2.3	37	13.1	2.9	30.6	12.5
	Debt maturing in 1 yr (percent of GDP)	0.7	4.8	5.5	0.9	5.2	6.1
Interest rate risk	ATR (years)	12.4	4.3	9.9	11.2	5.5	9.2
	Debt refixing in 1 yr (percent of total)	10.1	37	18.4	13.6	30.6	19.5
	T-bills (percent of total)	91.8	100.0	94.4	88.7	100.0	92.6
	Fixed rate debt (percent of total)		24.8	7.7		23	7.9
FX risk	FX debt (percent of total debt)			67.5			63.9
	ST FX debt (percent of reserves)			6.5			9.6

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

2.4.2 Refinancing Risk

Average time to maturity (ATM)

The ATM of the portfolio continued to decline, falling from 10.3 years in June 2020 to 9.6 years in June 2021 depicting increased exposure to refinancing risks. The decline was largely on account of Government's increased take-up of external non-concessional financing with shorter maturities, as reflected by the decrease in the ATM for external debt to 11.8 years in June 2021 down from 12.9 years in June 2020. The decline in external debt ATM more than offset the increase in the domestic debt ATM, which rose from 4.3 years in June 2020 to 5.5 years in June 2021 on account of higher issuance of longer-dated domestic debt.

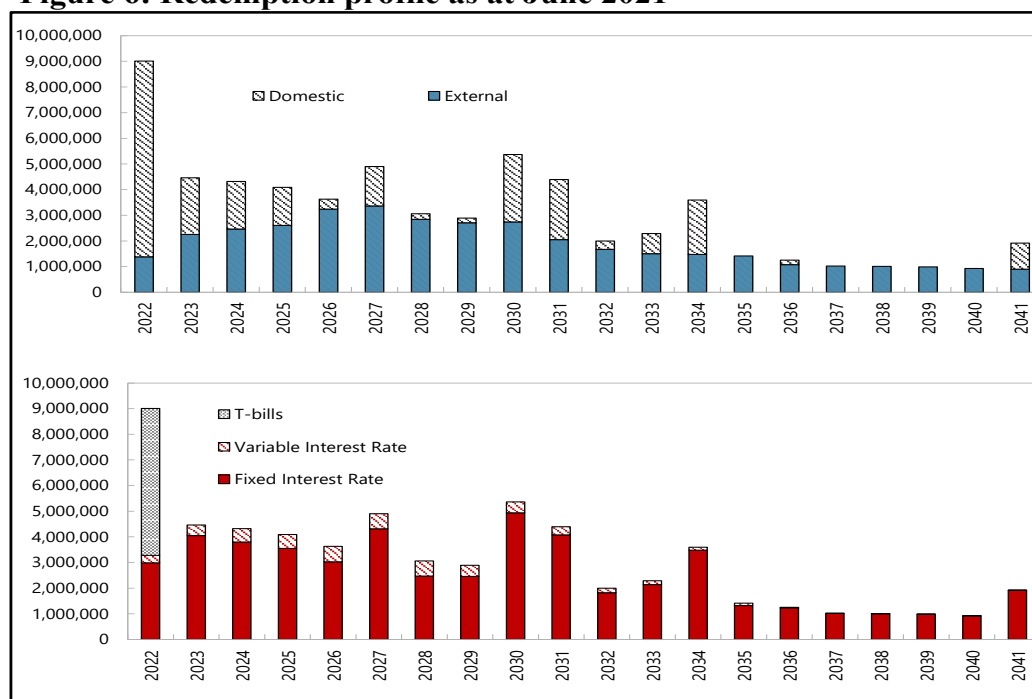
Debt maturing in one year (as percent of total debt and GDP)

The ratio of debt maturing in one year as a share of total debt improved to 12.5 percent in June 2021 from 13.1 percent in June 2020. This was due to the reduction in the volume of domestic

debt maturing in one year as a percentage of total debt, from 37.0 percent in June 2020 to 30.6 percent in June 2021 following increased issuance of longer-dated domestic debt instruments. However, as a percentage of GDP, the debt maturing in one year increased from 5.5 percent in June 2020 to 6.1 percent in June 2021 given the higher domestic debt maturities which increased by 34.8 percent between the two periods.

The redemption profile (see Figure 6) shows the large maturity of domestic debt in the first year, which increases the refinancing risks of Government, but the maturities reduce significantly in the medium term. In contrast, external debt maturities follow a smoother path which peaks in the medium term, driven by principal repayments of commercial debt contracted in the last few years.

Figure 6: Redemption profile as at June 2021



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

2.4.3 Interest Rate Risk

Average time to re-fixing (ATR)

The ATR, which estimates the average period a debt portfolio will be subjected to new interest rates, declined to 9.2 years in June 2021 from 9.9 years the year before. The decline was due to the larger contraction of variable rate loans in the FY2020/21 compared to FY2019/20 which in effect raised the share of external debt being subjected to interest rate risks. This is also

reflected in the ratio of fixed rate debt as a percentage to total debt, which declined from 91.8 percent in June 2020 to 88.7 percent in June 2021. This implies that variable rate debt increased from 8.2 percent in June 2020 to 11.3 percent in June 2021, which raises the interest rate risks. This means that an increase in the variable rates would lead to higher interest payments in the budget.

2.4.4 Exchange Rate Risk

External debt as a percentage of total debt

The debt portfolio was less exposed to exchange rate risks, largely on account of a lower share of external debt, which declined to 63.9 percent of total debt in June 2021 compared to 67.5 percent in June 2020.

External debt maturing in one year, as a percentage of reserves

This measures the liquidity risk international reserves will be subjected to in meeting short-term external debt liabilities. The ratio rose from 6.5 percent in June 2020 to 9.6 percent in June 2021 partly due to the large take up of commercial loans with short grace periods in recent years.

3.0 BASELINE ASSUMPTIONS

3.1 Macroeconomic Assumptions

Economic growth continued to recover and increased to 3.4 percent in FY2020/21 from 3.0 percent in FY2019/20, notwithstanding the lockdown restrictions imposed towards the end of the year in response to a second wave of the COVID-19 pandemic.

The resilience of the economy is expected to continue, with real GDP growth projected to improve to 3.8 percent in FY2021/22 before returning to its pre-pandemic levels. Growth will thereafter significantly pickup to an average at 6.9% per annum in the medium term, driven by an acceleration in pace of economic activities following the full re-opening impact of expected increase activities in the oil and gas sector, as well as increased public investment for infrastructure development. In the outer years, growth is projected to increase to an average of 7% per annum majorly supported by the on-set of oil production.

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 which could affect agriculture; and slower than expected implementation of key Government projects. The global economic outlook is also faced with the risks related to emergence of new variants of the coronavirus, which could trigger re-establishment of containment measures. Geo-political tensions, as well as volatility in global prices of Uganda's primary exports, also pose potential risks for the medium term growth outlook.

Headline inflation is projected to remain subdued, mildly increasing to an average of 3.2 percent in FY2021/22 from 2.5 percent the previous Financial Year. The modest increase in inflation will be in tandem with a gradual reopening of the economy. In FY2022/23, inflation is expected to pick up as the economy fully re-opens from the COVID-19 crisis. Despite this, inflation is projected to remain below the 8 percent stipulated in the EAMU convergence criterion in the medium term.

3.1.1 Fiscal Assumptions

The domestic revenue effort (revenue as a percentage of GDP) is projected to increase by 0.2 percentage points from 13.4 percent in FY2020/21 to 13.6 percent in FY2021/22, based on an expected pick-up in economic activity following the full reopening of the economy. In the medium to long term, revenue to GDP ratio is projected to increase by an average of 0.5 percentage points per annum. In the medium term, the increase in revenue will mainly result

from 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.

As a share of GDP, public expenditure is projected to amount to 22.2 percent in FY2021/22 as Government continues to provide support in response to the economic and social impacts of the COVID-19 outbreak. This ratio is projected to decline thereafter in line with a reduction in COVID-19 – related expenditure. Over the medium term, expenditure will reduce to an average of 19.3 percent of GDP, in line with Government commitments to fiscal consolidation.

The fiscal deficit including grants is projected to decline from 9.1 percent of GDP in FY2020/21 to 7.5 percent in FY2021/22 before a further reduction to an average of 3 percent per annum for the rest of the medium term. In the long run, the deficit is projected to average at 2.7 percent per annum due to an increase in petroleum-related domestic revenue, as well as the completion of several major infrastructure projects. Table 3 summarizes the fiscal assumptions used for this DSA.

Table 3: Summary of Fiscal Assumptions.

FY	2020/21 Outturns	2021/22	2022/23	2023/24	2024/25	2025/26
Fiscal projections (Shs Bn)						
Revenue and Grants	21,792.5	23,274.9	25,429.7	29,566.1	34,355.3	43,480.1
o/w Revenue	19,838.8	21,500.8	24,585.0	28,853.7	33,660.5	42,874.6
Primary Expenditure	31,151.2	30,146.9	28,562.7	29,989.6	34,952.1	42,709.8
Total Interest Expenditure	4,055.6	4,946.5	5,108.6	5,562.6	5,746.1	6,397.5
Total Expenditure	35,206.8	35,093.4	33,671.3	35,552.2	40,698.1	49,107.3
Primary Deficit	9,358.7	6,872.0	3,133.0	423.5	596.8	-770.3
Overall Budget Deficit	13,414.2	11,818.5	8,241.6	5,986.1	6,342.9	5,627.2
As a percentage of GDP						
Revenue and Grants	14.7	14.7	14.6	15.2	15.6	17.5
o/w Revenue	13.4	13.6	14.1	14.8	15.3	17.3
Total Expenditure	23.8	22.2	19.4	18.2	18.5	19.8
Primary Deficit	6.3	4.4	1.8	0.2	0.3	-0.3
Overall Budget Deficit	9.1	7.5	4.7	3.1	2.9	2.3
Memorandum Items:						
Real GDP Growth (percent)	3.4	3.8	6.0	6.5	7.0	7.4
Nominal GDP (Shs Bn)	147,962	157,852	173,963	195,142	219,585.3	247,942.5

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

3.1.2 Financing Assumptions

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

Priority will be given to the use of available concessional credit to the extent possible before considering other non-concessional options. Despite the preference for concessional external resources, Government is cognizant of the fact that such resources are insufficient to fully 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. Oil import volumes are assumed to decline when oil production starts, to the end of the projection period. A constant price of US\$ 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 a function of the stock of financial assets/liabilities and 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 to grow at an average rate of 2.6 percent per year. Foreign Direct Investment (FDI) and capital inflows are projected to progressively increase in the medium term, leading up to the first year of oil production. In the outer years, inflows are projected to grow in line with nominal GDP. 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

This DSA was conducted using the 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 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)⁴ score, the country's real GDP growth, remittances, international reserves, and world growth. Based on this criteria, Uganda's CI score is 2.99 (See Table 4 below for details), which places the country in the medium performer category (see Table 5).

Table 4: Calculation of the CI Index

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.615	1.39	47%
Real growth rate (in percent)	2.719	4.997	0.14	5%
Import coverage of reserves (in percent)	4.052	38.353	1.55	52%
Import coverage of reserves ² (in percent)	-3.990	14.709	-0.59	-20%
Remittances (in percent)	2.022	3.317	0.07	2%
World economic growth (in percent)	13.520	3.137	0.42	14%
CI Score			2.99	100%
CI rating			Medium	

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

The LIC-DSF provides results for the baseline assumptions and stress test scenarios against the applicable thresholds/benchmark. The lower the country's debt carrying capacity, the lower (more stringent) the thresholds for sustainability assessment. The applicable debt burden

⁴ 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 values representing better institutional capacity.

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.

5.0 DSA RESULTS

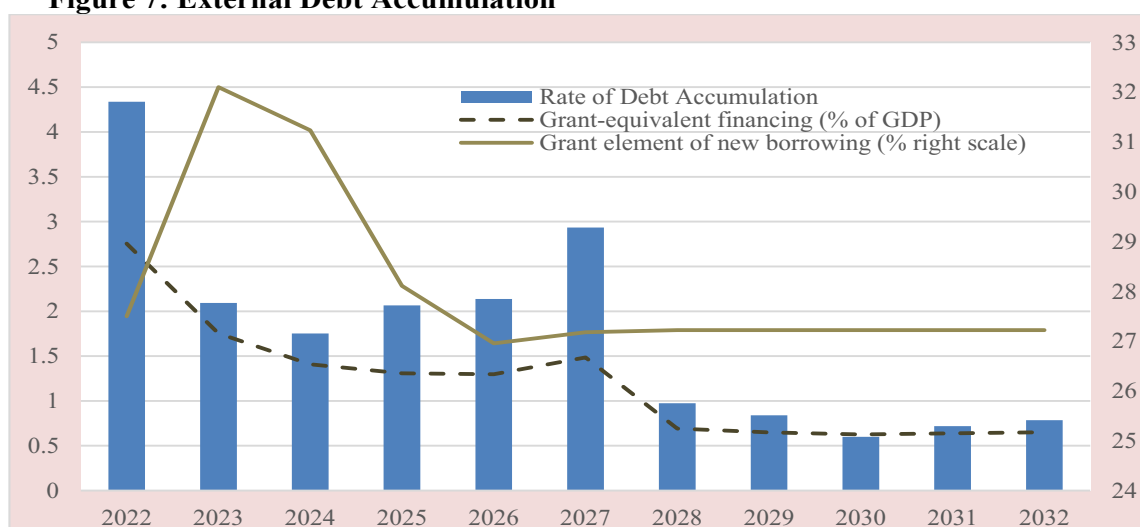
This chapter presents the results of the DSA, broken down into external debt, total public debt and additional analysis, which mostly relates to domestic debt. The main finding is that Uganda’s overall risk of debt distress remains **moderate**, following a breach of the threshold of PV of external debt to exports ratio. Nonetheless, the **analysis finds that Uganda’s debt remains sustainable in the medium to long term.**

5.1 Sustainability of Public and Publicly Guaranteed External Debt

External debt is projected to increase in the medium term, as Government continues to stimulate economic recovery through various interventions aimed at supporting the private sector and individual households, while implementing the key infrastructure projects as per the National Development Plan III 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, which together with the onset of commercial oil production, will lead to more revenues and lower borrowing.

As shown in Figure 7, the grant element of new external borrowing is projected to increase between FY2021/22 and FY2022/23 as the country benefits from increased concessional financing especially in support of the responses to mitigate the impact of the COVID-19 pandemic. 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

5.1.1 External Debt Burden Indicators

The debt service indicators (liquidity indicators) are projected to remain below their respective indicative thresholds in the baseline scenario (see Table 6), implying that Uganda is unlikely to face liquidity challenges in servicing her external debt despite the recent increase in the rate of debt accumulation. This is largely explained by the fact that the largest share of Uganda's external debt is on concessional terms. Similarly, both solvency ratios remain below their respective thresholds under the baseline scenario as shown in Table 6 below.

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

	LIC Thresholds	DSF	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
PV of External Debt to GDP	40		18.8	20.9	23.1	23.6	23.4	23.2	22.9	22.7
PV of External Debt to Exports	180		125.8	124.9	142.0	145.1	145.0	148.9	139.1	131.3
External Debt Service to Exports	15		7.8	10.0	7.9	11.2	11.1	11.0	12.2	11.4
External Debt Service to Revenue	18		9.2	12.5	9.5	12.9	12.1	11.2	11.6	10.7

Source: MEPD, Ministry of Finance Planning and Economic Development

Scenario Description

In the charts that follow (see Figures 8 to 12), the baseline scenario captures the most likely outcome based on current projections; the most extreme shock captures the worst performing shock from a number of shocks computed by the model; and the historical scenario produces the debt path that would result from key macroeconomic variables in the baseline projection being replaced by their 10-year historical averages. These variables are: real GDP growth; primary balance to GDP ratio; GDP deflator; non-interest current account and net FDI flows.

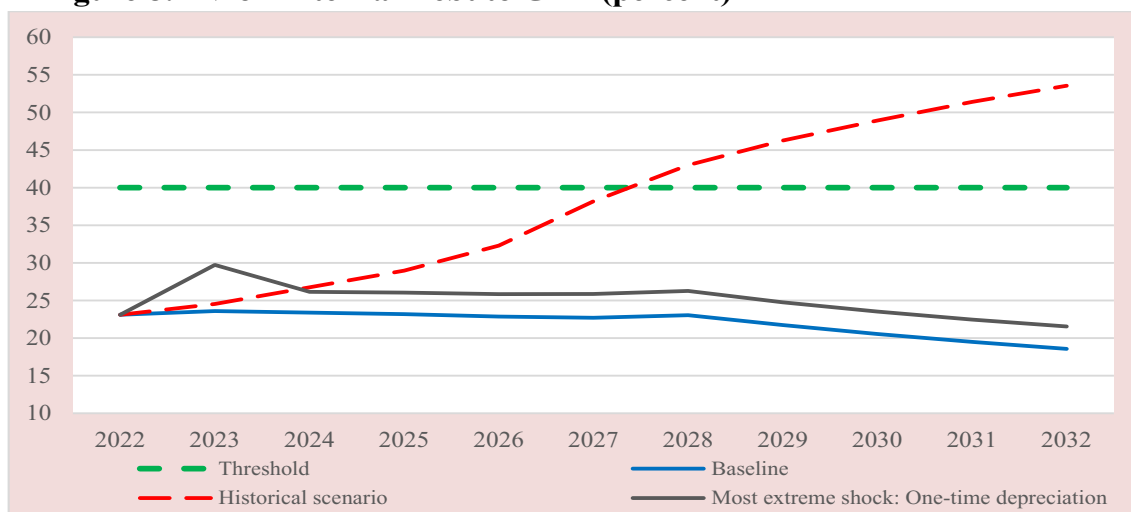
Solvency Indicators

PV of External Debt to GDP Ratio.

The PV of external debt to GDP is projected to increase from 20.9 percent in FY2020/21 to 23.1 percent in FY2021/22 before peaking at 23.6 percent during FY2022/23. Despite the increased rate of external debt accumulation, this ratio is forecast to remain well below its indicative threshold of 40% throughout the projection period (see Figure 8), supported by the robust GDP growth.

In nominal terms, the external debt to GDP ratio is projected to increase from 29.8 percent in FY2020/21 to 33.1 percent in FY2021/22 before peaking at 33.7 percent in FY2022/23. This ratio will gradually decline thereafter.

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



Source: MEPD, Ministry of Finance Planning & Economic Development

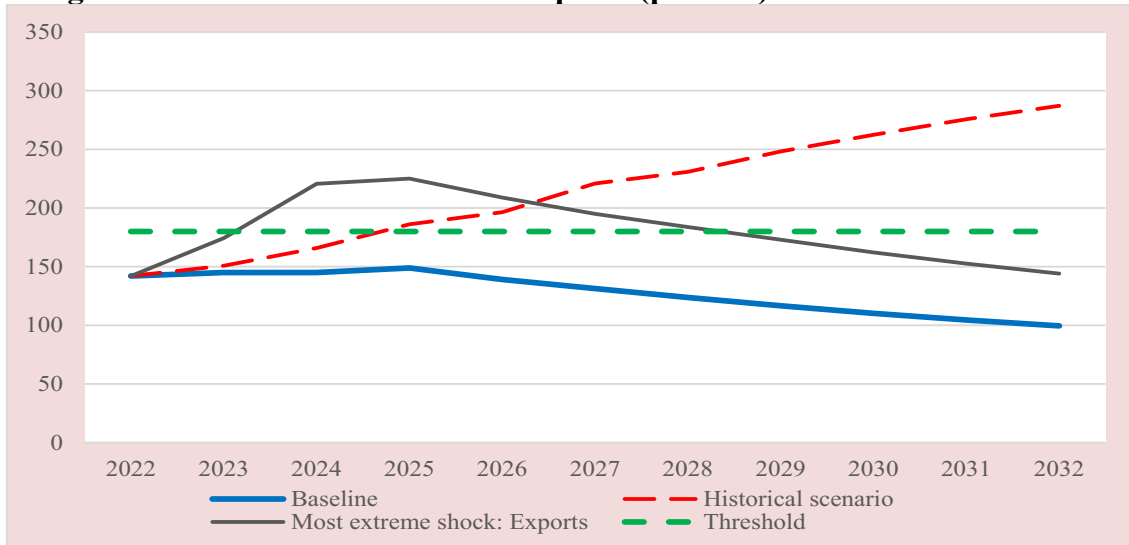
PV of External Debt to Exports

The PV of external debt to exports of goods and services is projected to remain below its indicative threshold under the baseline but breach it under the most extreme shock scenarios⁵. This points to risk of external debt distress in the event of an economic shock that would dampen export growth.

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 in the shock scenario underscores the need to reinforce efforts towards export promotion so as to enhance debt sustainability. Figure 9 shows the evolution of the PV of external debt to exports through the projection period.

⁵ 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. This indicator highlights the availability of liquid resources (cash) to meet the debt service obligations when they fall due.

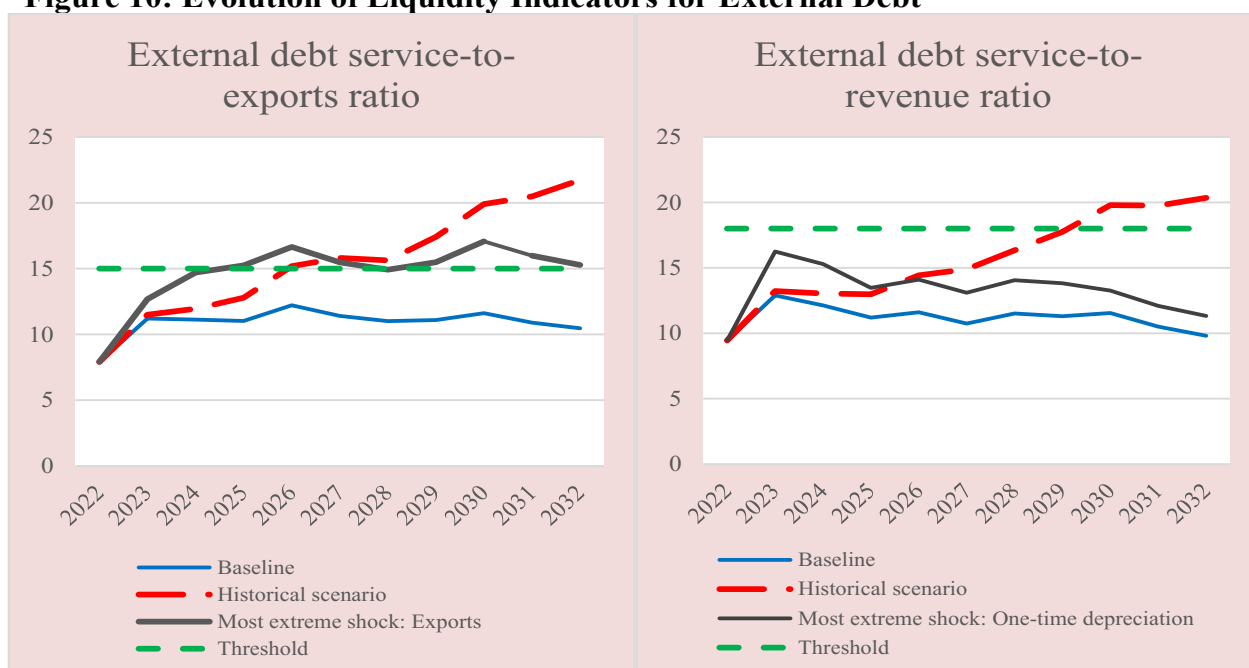
As shown in Figure 10, although the ratio of external debt service to exports remains below the threshold under the baseline scenario. However, there is a breach of the threshold in the most extreme shock⁶ scenario. As with the PV of external debt to exports ratio, this breach illustrates that the external debt portfolio is vulnerable to a shock to exports and again underscores the need to reinforce effort towards export growth.

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 9.5 percent in FY2021/22 to 12.9 percent the following Financial Year depicts an increase in the 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, and consequently debt service which takes the first call on resources, will therefore take up an increasing share of revenue at the expense of growth generating & welfare enhancing sectors of the economy.

⁶ The shock in this case is that exports grow at their historical average minus one standard deviation.

This highlights the importance of current Government efforts towards fiscal consolidation through rationalisation of expenditures while enhancing domestic revenue mobilization. The aim is to reduce the fiscal deficit and consequently the rate of debt accumulation, especially on non-concessional/commercial terms.

Figure 10: Evolution of Liquidity Indicators for External Debt



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

5.2 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.

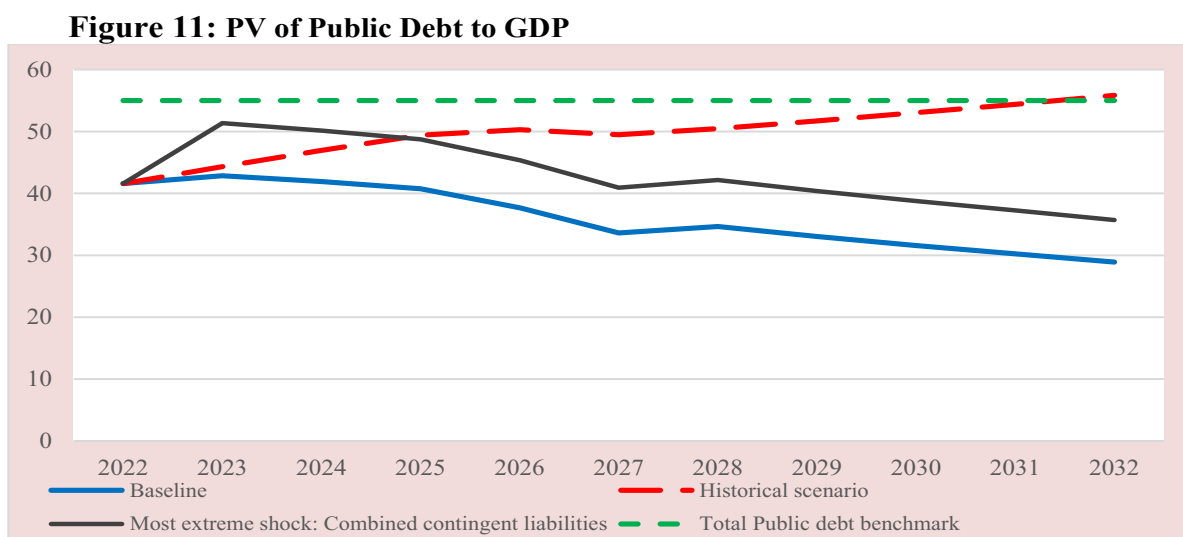
Table 7: Summary of Public Debt Sustainability Indicators (percent)

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		35.1	41.0	47.0	51.6	52.9	51.6	49.9	46.4
PV of Debt to GDP	55	26.7	31.8	37.5	41.6	42.9	41.9	40.7	37.7

Source: MEPD, Ministry of Finance Planning and Economic Development

Nominal public sector debt is projected to increase from 47.0 percent of GDP in FY2020/21 to a peak of 52.9 percent of GDP in FY2022/23. The ratio will then decline to 46.4 percent by the end of the medium term, in line with Government’s commitment to fiscal consolidation. The PV of public sector debt to GDP is projected to increase from 37.5 percent in FY2020/21 to a peak of 42.9 percent in FY2022/23, well below the DSF benchmark of 55 percent. The ratio will also remain below the more stringent threshold of 50 percent stipulated in both the Public Debt Management Framework (PDMF 2018) and the convergence criteria of the EAMU Protocol.

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.

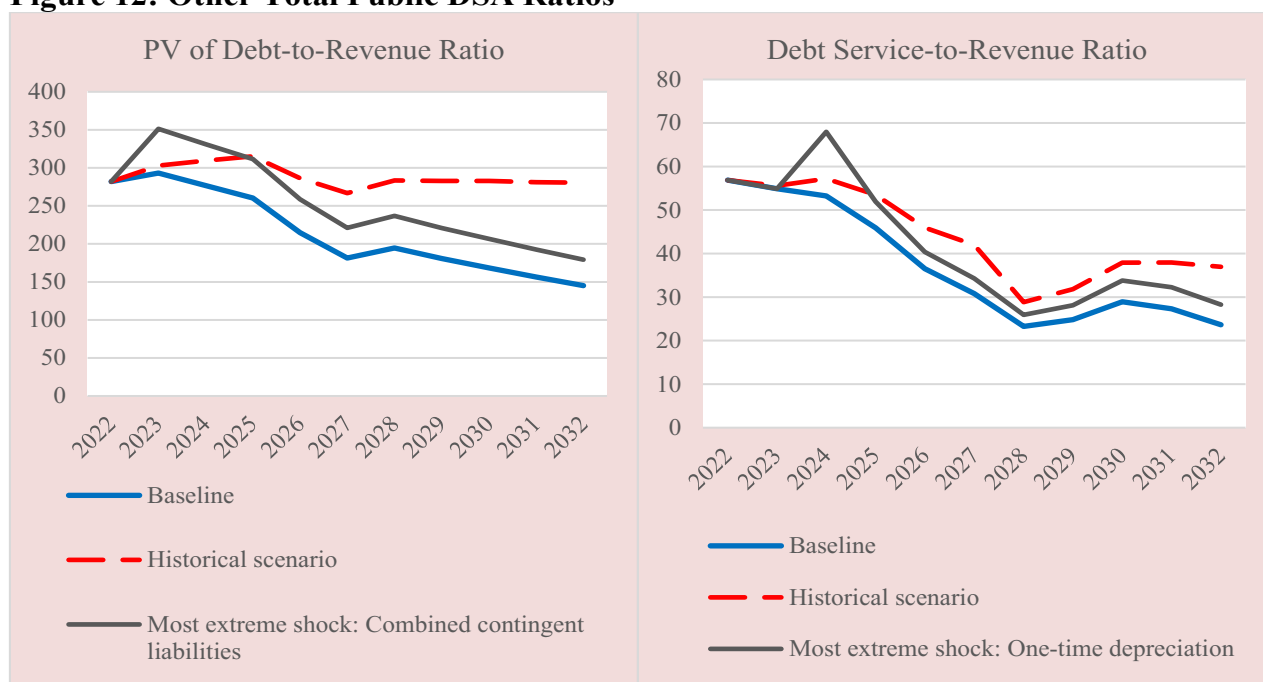


Source: MEPD, Ministry of Finance, Planning and Economic Development

The projected increase in public debt over the next fiscal year will largely be driven by borrowing to support initiatives for accelerating and sustaining inclusive economic recovery. Over the medium term public debt will mainly go towards growth generating & welfare enhancing sectors like infrastructure and human capital development.

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. However, these ratios do not have any associated thresholds/benchmarks. Both ratios are projected to decline over the medium term as domestic revenue increases on the back of full operationalization of the Domestic Revenue Mobilization Strategy (DRMS); a rebound in economic activity as the economy is fully re-opened; and commencement of commercial oil production.

Figure 12: Other Total Public DSA Ratios



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

5.3 Uganda’s Overall Risk Rating

The 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 projection both under the baseline and stress-test scenarios and this is determined as in Table 8 below.

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.

Based on this criteria, Uganda is assessed as being at **Moderate risk of external debt distress**. This is because all external debt burden indicators remain below their respective thresholds in

the baseline, but there are breaches under the most extreme shock scenario for the PV of external debt to exports and the external debt service to exports ratios.

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, and the PV of total public debt-to-GDP, which is compared to 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 results into an **overall rating of Moderate risk of debt distress**.

Evaluation of Available Space to Absorb Shocks

For countries rated as being at moderate risk of debt distress, the LIC DSF provides a tool for assessing how much space is left to reach the high risk of debt distress category. Countries are assessed as having some space, limited space, or substantial space, depending on how far their baseline debt burden ratios are from their respective thresholds.

From Figure 13, it is observed that Uganda is assessed as having limited space to reach the high-risk category. This assessment is driven by the ratio of PV of debt to exports, which is in the “limited space” area between 2022 and 2026.

This underscores the need for increased caution in debt accumulation as it illustrates that a major economic shock could lead to a deterioration of the risk rating from **moderate** to **high**.

Figure 13: Moderate Risk Assessment



5.4 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	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Domestic interest /Domestic revenue (excluding grants)	<12.5	12.8	15.1	13.3	12.1	13.7	15.2
Domestic interest /Total Government Expenditure	<10	8.8	11.2	9.6	8.3	8.3	8.6
Total Debt Service ⁷ /Domestic Revenue (Excluding grants)		17.3	21.1	21.2	22.4	21.7	27.7
Total Debt Service ⁸ / Total Government Expenditure		11.9	15.7	15.2	15.3	13.2	15.6

Source: MEPD, Public Debt Management Framework (2018)

The analysis of domestic debt service over the recent years against some of the benchmarks contained in the PDMF reveals vulnerabilities relating to the high domestic debt interest burden on the budget and domestic revenues.

The indicator of domestic interest cost to domestic revenue measures the extent to which locally collected revenues are allocated to domestic interest payment. The results indicate that interest payments for domestic debt are taking up an increasing share of domestic revenue (15.2 percent of total expenditure in FY 2020/21, 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.

Additionally, total debt service continued on an upward trend, increasing to 27.7 percent of the country's domestic revenue in FY2020/21. 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.

To address these vulnerabilities, Government is committed to reducing domestic borrowing to no more than 1 percent of GDP per annum in the medium to long term. This is because domestic

⁷ This does not include domestic debt amortization.

⁸ This does not include domestic debt amortization.

debt comes at relatively higher interest costs and is associated with higher 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 external debt at a minimum.

6.0 CONCLUSION

This DSA finds that Uganda's debt remains sustainable in the medium to long term. As was the case last year, the risk of debt distress was assessed as **moderate**. This follows a breach of the threshold for the PV of external debt to exports ratio and external debt service to exports ratio under the most extreme shock scenario.

FY2020/21 was the second year under the dark cloud of the COVID-19 pandemic, and a number of lockdown restrictions were in place at different times during the year. These restrictions affected economic activity and led to a shortfall in tax revenues. To insulate the budget from these shortfalls, Government issued additional debt so as not to compromise on service delivery amidst a pandemic. In addition, more borrowing was necessary to finance Government's emergency response to the pandemic which helped to save lives and livelihoods. This additional borrowing led to a higher rate of debt accumulation compared to previous years.

Public debt is projected to increase in FY2021/22 and FY2022/23 before declining in subsequent years. This increase in debt will be driven by investment in growth generating and welfare enhancing sectors such as infrastructure - in the transport and oil & gas sectors as the country prepares for commercial oil production, as well as human capital development. The medium-term outlook shows a reduction in public debt, anchored on: the recovery of the pace of economic growth to pre-COVID potential and more; higher tax revenue collections, including from oil & gas; and efficiency improvements in Government spending.

A key area of concern is the large and increasing burden of debt service on the budget. As at end June 2021, debt service amounted to 27.7 percent of domestic revenue up from 17.3 percent at end June 2016. This implies that debt service is increasingly taking up a bigger share of resources, hence constraining the allocations to other areas of the budget (as debt service takes a first call on resources).

Risks to debt sustainability could stem from: the slow growth of exports; the increased rate of debt accumulation, particularly on non-concessional terms; lower than anticipated GDP growth; low tax revenues; delays in oil production; the increase in domestic borrowing; 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; accelerating value addition efforts and promoting regional integration efforts.

In order to reduce the cost of debt, Government will continue to prioritise concessional financing 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 over the medium term so as to reduce on the high interest payments arising out of domestic debt.

On the revenue front, implementation of the medium -term Domestic Revenue Mobilisation Strategy (DRMS), which targets to increase domestic revenue to GDP by 0.5 percentage points per annum, will be fast-tracked. 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.

An integrated bank of projects has been developed and will help ensure that projects are ready for implementation before loans are acquired from development partners. Priority will be given to projects will a large growth dividend and significant multiplier effects on economic activity. 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.

Table 1. Uganda: External Debt Sustainability Framework, Baseline Scenario, 2019-2042

	Actual										Projections							Average 8/	
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Historical	Projections			
External debt (nominal) 1/ <i>of which: public and publicly guaranteed (PPG)</i>	38.9	43.3	45.2	48.2	48.7	47.6	46.1	44.3	42.5	41.7	40.7	39.7	38.7	37.7	34.1	42.7			
	23.4	27.9	29.8	33.1	33.7	33.1	32.4	31.6	31.2	30.2	29.2	28.2	27.2	26.2	19.7	30.4			
Change in external debt	-0.1	4.4	1.9	3.0	0.5	-1.1	-1.5	-1.8	-1.8	-1.7	-1.7	-1.7	-1.7	-1.7	...	...	
Identified net debt-creating flows	-0.2	-0.4	2.5	0.8	-0.4	-2.5	-2.7	-4.6	-6.0	-3.2	-3.2	-3.2	-3.2	-3.2	0.9	-3.4			
Non-interest current account deficit	6.3	6.0	8.7	5.9	5.2	3.6	3.7	2.1	-0.7	0.6	0.6	0.6	0.6	0.6	5.7	1.8			
Deficit in balance of goods and services	9.4	9.8	12.2	8.7	8.2	6.7	6.8	5.1	2.0	3.4	3.1	3.1	3.1	3.1	8.8	4.9			
Exports	18.1	14.6	16.7	16.3	16.1	15.6	15.6	16.4	17.3	18.7	17.3	16.9	16.9	16.9	...	...	
Imports	27.5	24.3	28.9	25.0	24.4	22.8	22.3	21.6	19.3	22.1	20.1	20.1	20.1	20.1	...	...	
Net current transfers (negative = inflow) <i>of which: official</i>	-4.9	-4.9	-4.4	-4.3	-4.2	-4.0	-3.8	-3.5	-3.2	-2.4	-1.2	-1.2	-1.2	-1.2	-4.7	-3.3			
Other current account flows (negative = net inflow)	1.8	1.2	0.9	1.5	1.3	0.9	0.7	0.5	0.4	0.0	0.0	0.0	0.0	0.0	1.5	0.3			
Net FDI (negative = inflow)	-4.5	-4.6	-3.9	-3.9	-4.0	-3.8	-3.6	-3.4	-3.1	-2.4	-1.2	-1.2	-1.2	-1.2	-3.9	-3.2			
Endogenous debt dynamics 2/	-1.9	-1.8	-2.2	-1.1	-1.7	-2.3	-2.8	-3.4	-2.3	-1.3	-0.9	-0.9	-0.9	-0.9	-3.9	-3.2			
Contribution from nominal interest rate	0.8	0.5	0.8	0.4	0.6	0.7	0.7	0.8	0.8	0.7	0.5	0.5	0.5	0.5	0.9	1.8			
Contribution from real GDP growth	-2.5	-1.0	-1.4	-1.6	-2.3	-2.9	-3.5	-4.2	-3.1	-2.0	-1.4	-1.4	-1.4	-1.4	-3.9	-3.2			
Contribution from price and exchange rate changes	-0.2	-1.3	-1.7	...	...	...	...	...	...	...	...	...	...	...	1.4	2.5
Residual 3/ <i>of which: exceptional financing</i>	0.0	4.8	-0.6	2.2	0.9	1.4	1.2	2.9	4.2	1.5	...	...	...	...	1.4	2.5
	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			
Sustainability indicators																			
PV of PPG external debt-to-GDP ratio	...	...	20.9	23.1	23.6	23.4	23.2	22.9	22.7	22.7	22.7	22.7	22.7	22.7	13.6	13.6	
PV of PPG external debt-to-exports ratio	...	...	124.9	142.0	145.1	145.0	148.9	139.1	131.3	99.5	80.6	80.6	80.6	80.6	80.6	80.6	
PPG debt service-to-exports ratio	8.0	7.8	10.0	7.9	11.2	11.1	11.0	12.2	11.4	10.5	7.7	7.7	7.7	7.7	11.4	11.4			
PPG debt service-to-revenue ratio	11.5	9.2	12.5	9.5	12.9	12.1	11.2	11.6	10.7	9.8	5.1	5.1	5.1	5.1	11.4	11.4			
Gross external financing need (Billion of U.S. dollars)	2.2	1.9	3.5	2.4	2.5	2.1	2.5	2.1	0.6	3.0	11.2	11.2	11.2	11.2	11.2	11.2			
Key macroeconomic assumptions																			
Real GDP growth (in percent)	6.8	2.7	3.4	3.8	5.0	6.5	8.0	10.0	7.9	6.0	6.0	6.0	6.0	6.0	4.5	6.6			
GDP deflator in US dollar terms (change in percent)	0.5	3.6	4.0	5.3	1.7	1.8	1.6	0.6	5.4	3.0	3.9	3.9	3.9	3.9	-0.5	2.2			
Effective interest rate (percent) 4/	2.1	1.4	1.9	1.0	1.3	1.5	1.7	1.9	1.9	2.0	2.1	2.1	2.1	2.1	1.4	1.7			
Growth of exports of G&S (US dollar terms, in percent)	15.5	-14.6	23.5	6.2	6.8	7.5	6.0	16.9	19.5	9.2	0.0	0.0	0.0	0.0	6.5	10.1			
Growth of imports of G&S (US dollar terms, in percent)	22.6	-6.0	27.8	-5.7	4.4	1.1	7.7	6.8	1.9	9.2	0.0	0.0	0.0	0.0	6.2	6.4			
Grant element of new public sector borrowing (in percent)	...	...	...	27.5	32.1	31.2	28.1	27.0	27.2	27.2	27.2	27.2	27.2	27.2	...	28.1
Government revenues (excluding grants, in percent of GDP)	12.6	12.4	13.4	13.6	14.1	14.8	15.3	17.3	18.3	19.9	19.9	19.9	19.9	19.9	11.4	17.1			
Aid flows (in Billion of US dollars) 5/	0.3	0.3	0.5	1.1	0.9	0.7	0.6	0.7	1.0	0.6	1.4	1.4	1.4	1.4	...	...	
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	2.8	1.8	1.4	1.3	1.3	1.5	0.7	0.6	0.6	0.6	0.6	...	...	
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	39.1	39.5	38.0	34.0	31.3	29.7	27.2	27.2	27.2	27.2	27.2	...	...	
Nominal dollar GDP growth	35	38	40	44	47	51	56	62	71	103	271	271	271	271	...	...	
Nominal dollar GDP growth	7.3	6.4	7.5	9.3	6.8	8.4	9.8	10.7	13.7	9.2	10.1	10.1	10.1	10.1	4.1	8.9			
Memorandum items:																			
PV of external debt 7/	...	...	36.3	38.2	38.6	37.9	36.9	35.6	34.1	28.3	20.7	20.7	20.7	20.7	...	...	
In percent of exports	...	...	217.0	235.1	237.6	235.0	236.9	216.4	197.1	151.9	122.0	122.0	122.0	122.0	...	...	
Total external debt service-to-exports ratio	24.0	24.7	23.1	21.1	25.2	26.6	27.6	28.5	26.5	25.1	22.0	22.0	22.0	22.0	...	...	
PV of PPG external debt (in Billion of US dollars)	8.5	8.5	10.2	11.1	12.0	13.0	14.2	16.0	19.2	36.9	36.9	36.9	36.9	36.9	...	...	
(PV+PV(-1)/GDP)-1 (in percent)	...	...	...	4.3	2.1	1.8	2.1	2.1	2.9	0.8	1.1	1.1	1.1	1.1	...	...	
Non-interest current account deficit that stabilizes debt ratio	6.4	1.6	6.8	2.9	4.7	4.7	5.2	3.9	1.2	2.2	2.2	2.2	2.2	2.2	...	...	

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[(r - g - p(1+g))/(1+r+p+g)]$ times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and p = 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.

(In percent of GDP, unless otherwise indicated)

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

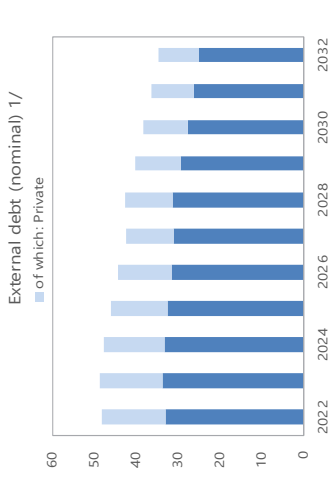
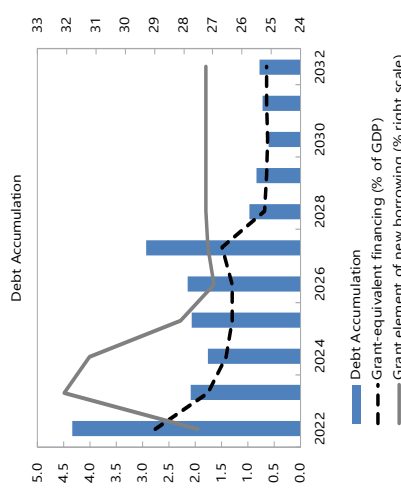


Table 2. Uganda: Public Sector Debt Sustainability Framework, Baseline Scenario, 2019-2042
(In percent of GDP, unless otherwise indicated)

	Actual										Projections										Average 6/					
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038		2039	2040	Historical	Projections	
Public sector debt 1/	35.1	41.0	47.0	51.6	52.9	51.6	49.9	46.4	42.0	35.3	14.7	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	
of which: external debt	23.4	27.9	29.8	33.1	33.7	33.1	32.4	31.6	31.2	24.9	18.0	19.7	30.4	19.7	30.4	19.7	30.4	19.7	30.4	19.7	30.4	19.7	30.4	19.7	30.4	
Change in public sector debt	0.5	5.9	6.0	4.6	1.3	-1.3	-1.7	-3.5	-4.4	-1.7	-2.5	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	
Identified debt-creating flows	0.8	5.4	6.0	3.5	0.9	-1.5	-1.8	-3.3	-4.1	-1.5	-2.5	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	
Primary deficit	3.0	5.0	6.8	4.4	1.8	0.2	0.3	-0.3	-0.5	-0.3	-1.2	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	
Revenue and grants	13.5	13.2	14.7	14.7	14.6	15.2	15.6	17.5	18.5	19.9	25.3	12.5	17.3	12.5	17.3	12.5	17.3	12.5	17.3	12.5	17.3	12.5	17.3	12.5	17.3	
of which: grants	0.9	0.8	1.3	1.1	0.5	0.4	0.3	0.2	0.2	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	
Primary (noninterest) expenditure	16.5	18.2	21.5	19.1	16.4	15.4	15.9	17.2	18.1	19.6	24.1	15.3	17.8	15.3	17.8	15.3	17.8	15.3	17.8	15.3	17.8	15.3	17.8	15.3	17.8	
Automatic debt dynamics	-2.1	0.4	-0.8	-0.1	-0.9	-1.7	-2.1	-2.3	-3.0	-1.3	-1.4	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	
Contribution from interest rate/growth differential	-1.1	0.4	0.8	-0.5	-1.3	-1.9	-2.3	-2.7	-2.1	-1.1	-1.1	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	
of which: contribution from average real interest rate	1.1	1.4	2.1	1.2	1.1	1.3	1.6	1.8	1.3	1.0	-0.1	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	
of which: contribution from real GDP growth	-2.2	-0.9	-1.3	-1.7	-2.4	-3.2	-3.8	-4.5	-3.4	-2.1	-1.0	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	
Contribution from real exchange rate depreciation	-1.1	0.0	-1.6	...	...	...	...	...	...	...	...	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 identified debt-creating flows	0.0	0.0	0.0	-0.7	0.0	0.0	0.0	-0.7	-0.7	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	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	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	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	-0.7	0.0	0.0	0.0	-0.7	-0.7	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	-0.3	0.4	0.0	1.5	0.8	0.4	0.4	0.2	-1.1	-0.3	-0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
Sustainability indicators																										
PV of public debt-to-GDP ratio 2/	...	...	37.5	41.6	42.9	41.9	40.7	37.7	33.6	28.9	10.3	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5	30.7	44.5
PV of public debt-to-revenue and grants ratio 3/	...	...	254.7	282.0	293.1	276.7	260.4	214.8	181.5	145.1	40.9	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
Debt service-to-revenue and grants ratio 3/	51.1	52.4	59.3	56.9	54.9	53.3	45.9	36.5	30.8	23.7	2.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	
Gross financing need 4/	9.9	11.9	15.5	12.0	9.8	8.3	7.4	5.4	4.5	4.4	-0.6	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	
Key macroeconomic and fiscal assumptions																										
Real GDP growth (in percent)	6.8	2.7	3.4	3.8	5.0	6.5	8.0	10.0	7.9	6.0	6.0	4.5	6.6	4.5	6.6	4.5	6.6	4.5	6.6	4.5	6.6	4.5	6.6	4.5	6.6	
Average nominal interest rate on external debt (in percent)	1.9	1.8	2.7	1.4	1.6	1.6	1.6	1.7	1.8	2.0	2.1	1.6	1.7	1.6	1.7	1.6	1.7	1.6	1.7	1.6	1.7	1.6	1.7	1.6	1.7	
Average real interest rate on domestic debt (in percent)	12.1	12.0	13.8	11.0	8.5	8.8	10.4	12.4	10.5	10.8	9.3	11.1	11.3	11.1	11.3	11.1	11.3	11.1	11.3	11.1	11.3	11.1	11.3	11.1	11.3	
Real exchange rate depreciation (in percent, + indicates depreciation)	-5.0	-0.2	-5.8
Inflation rate (GDP deflator, in percent)	2.6	2.9	2.5	2.8	5.0	5.3	4.1	2.6	4.3	4.6	4.8	0.3	3.6	0.3	3.6	0.3	3.6	0.3	3.6	0.3	3.6	0.3	3.6	0.3	3.6	
Growth of real primary spending (deflated by GDP deflator, in percent)	18.2	13.8	22.0	-7.8	-9.7	-0.3	1.9	19.1	13.1	9.0	7.8	9.9	6.1	9.9	6.1	9.9	6.1	9.9	6.1	9.9	6.1	9.9	6.1	9.9	6.1	
Primary deficit that stabilizes the debt-to-GDP ratio 5/	2.4	-0.8	0.8	-0.2	0.5	1.5	1.9	3.2	3.9	1.4	1.4	0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	
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	0.0	0.0	0.0	0.0	0.0	0.0	

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 stabilize 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.

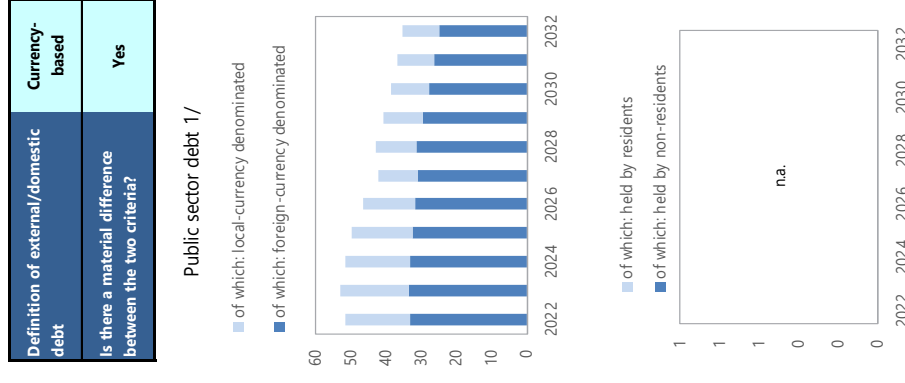
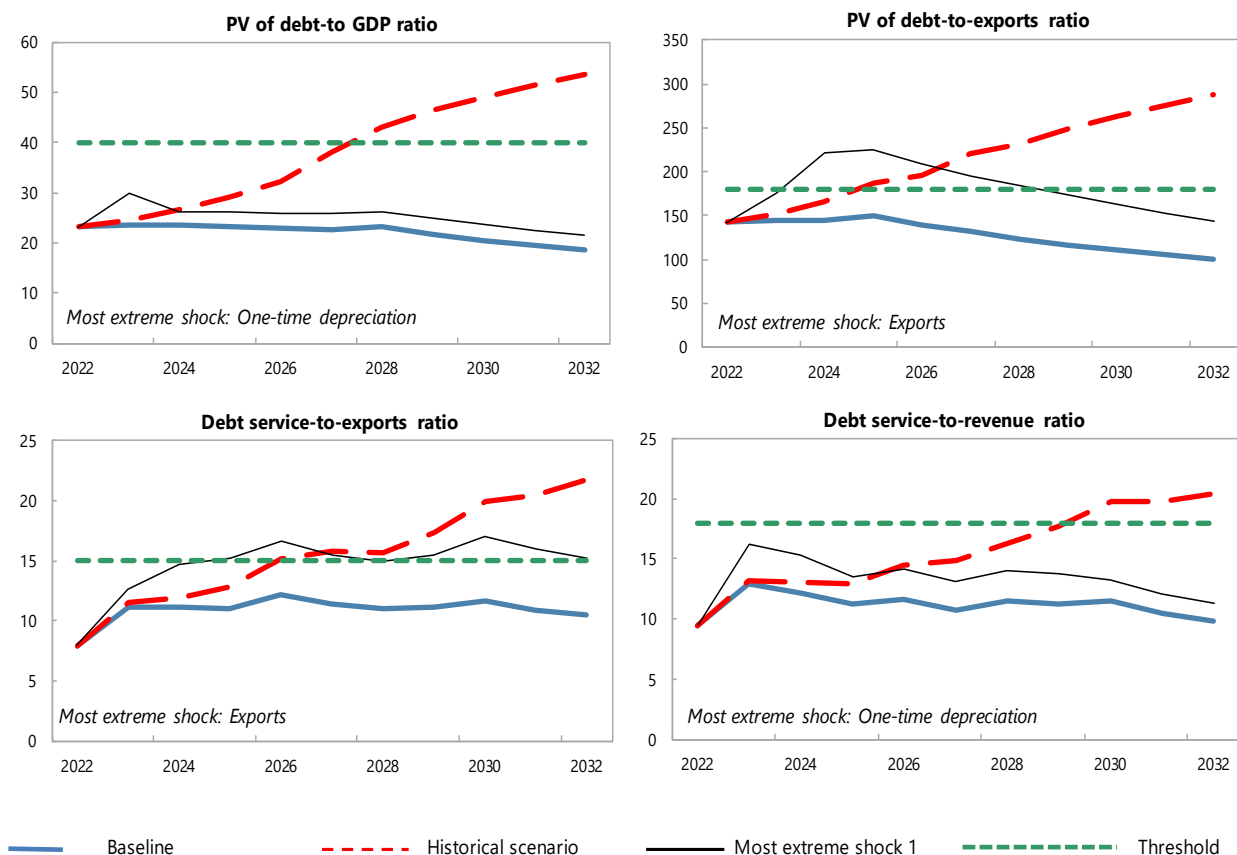


Figure 1. Uganda: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2022-2032



Customization of Default Settings			Borrowing assumptions on additional financing needs resulting from the stress tests*	
	Size	Interactions	Default	User defined
Tailored Stress				
Combined CL	No			
Natural disaster	n.a.	n.a.		
Commodity price	No	No		
Market financing	n.a.	n.a.		
			Shares of marginal debt	
			External PPG MLT debt	
			100%	
			Terms of marginal debt	
			Avg. nominal interest rate on new borrowing in USD	
			2.5%	2.5%
			USD Discount rate	
			5.0%	5.0%
			Avg. maturity (incl. grace period)	
			20	20
			Avg. grace period	
			5	5

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.

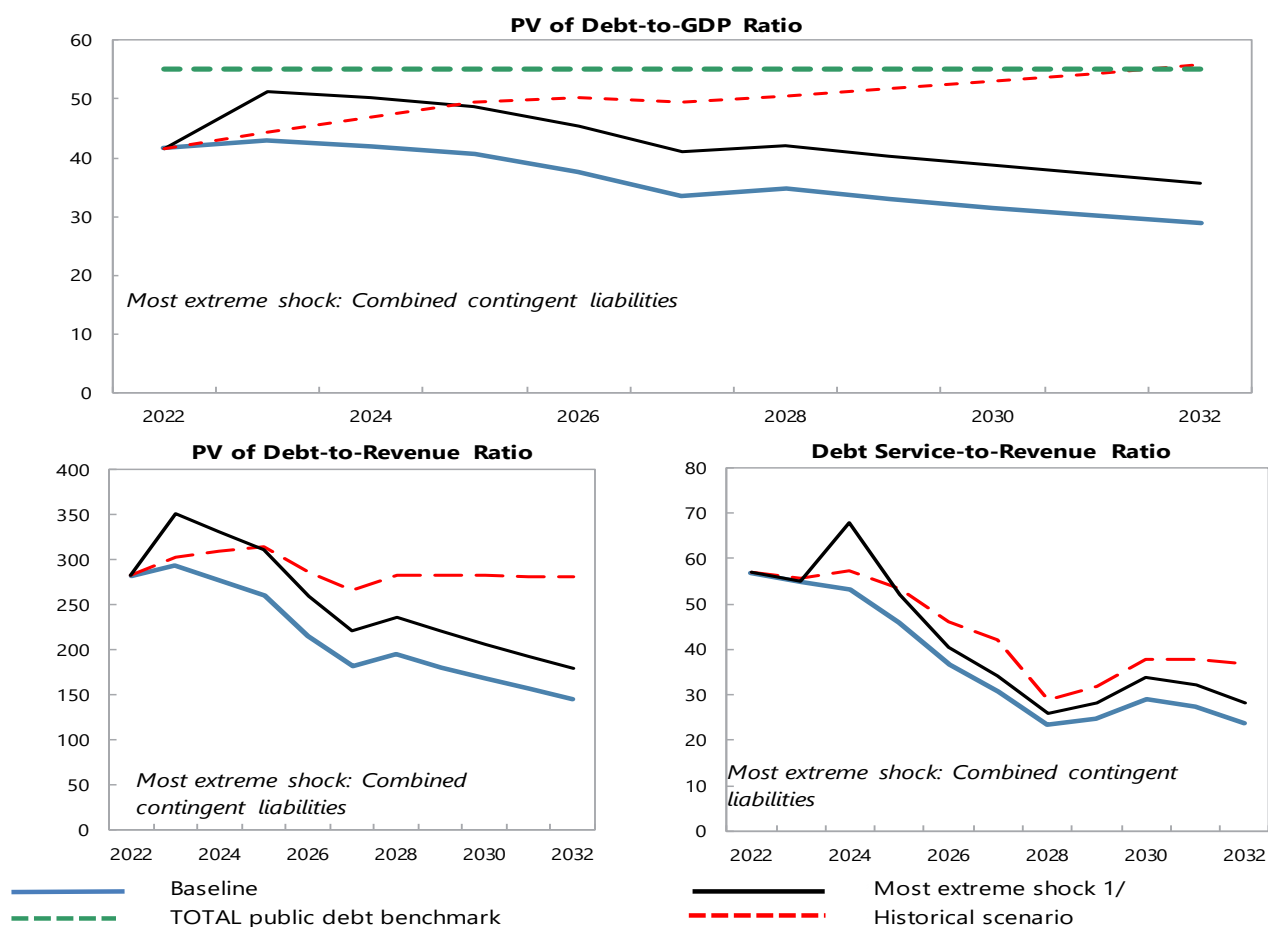
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2032. 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 extreme 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, 2022-2032



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	57%	57%
Domestic medium and long-term	26%	26%
Domestic short-term	17%	17%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	2.5%	2.5%
Avg. maturity (incl. grace period)	20	20
Avg. grace period	5	5
Domestic MLT debt		
Avg. real interest rate on new borrowing	12.5%	12.5%
Avg. maturity (incl. grace period)	10	10
Avg. grace period	6	6
Domestic short-term debt		
Avg. real interest rate	8.8%	8.8%

* 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 2032. 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 extreme 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, 2022-2032
(In percent)

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
PV of debt-to-GDP ratio											
Baseline	23	24	23	23	23	23	23	22	21	19	19
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	23	25	27	29	32	38	43	46	49	51	54
B. Bound Tests											
B1. Real GDP growth	23	24	25	25	25	25	25	23	22	21	20
B2. Primary balance	23	25	27	27	27	26	27	25	24	23	22
B3. Exports	23	25	28	28	27	26	27	25	24	22	21
B4. Other flows 3/	23	24	25	25	24	24	24	23	22	20	19
B5. Depreciation	23	30	26	26	26	26	26	25	24	22	22
B6. Combination of B1-B5	23	26	27	26	26	26	26	25	23	22	21
C. Tailored Tests											
C1. Combined contingent liabilities	23	28	28	28	28	27	28	27	25	25	24
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	23	24	23	23	23	23	23	22	21	19	19
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	142	145	145	149	139	131	124	117	110	105	100
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	142	151	166	186	196	221	231	248	262	276	287
B. Bound Tests											
B1. Real GDP growth	142	145	145	149	139	131	124	117	110	105	100
B2. Primary balance	142	153	166	173	161	152	143	136	129	123	118
B3. Exports	142	174	221	225	209	195	184	173	162	153	144
B4. Other flows 3/	142	150	154	158	147	138	130	123	116	109	104
B5. Depreciation	142	145	129	133	125	119	112	105	100	96	92
B6. Combination of B1-B5	142	164	151	176	164	154	145	137	129	122	116
C. Tailored Tests											
C1. Combined contingent liabilities	142	172	176	182	169	159	150	143	137	132	127
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	142	145	145	149	139	131	124	117	110	105	100
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	11	11	11	12	11	11	11	12	11	10
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	8	11	12	13	15	16	16	17	20	20	22
B. Bound Tests											
B1. Real GDP growth	8	11	11	11	12	11	11	11	12	11	10
B2. Primary balance	8	11	11	12	13	12	12	12	13	12	12
B3. Exports	8	13	15	15	17	15	15	15	17	16	15
B4. Other flows 3/	8	11	11	11	12	12	11	11	12	11	11
B5. Depreciation	8	11	11	11	12	11	11	11	11	10	10
B6. Combination of B1-B5	8	12	13	13	14	13	13	13	14	13	12
C. Tailored Tests											
C1. Combined contingent liabilities	8	11	12	12	13	12	12	12	12	12	11
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	11	11	11	12	11	11	11	12	11	10
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	9	13	12	11	12	11	12	11	12	11	10
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	9	13	13	13	14	15	16	18	20	20	20
B. Bound Tests											
B1. Real GDP growth	9	13	13	12	13	12	12	12	12	11	11
B2. Primary balance	9	13	12	12	12	11	12	12	13	12	11
B3. Exports	9	13	13	12	12	11	12	12	13	12	11
B4. Other flows 3/	9	13	12	11	12	11	12	12	12	11	10
B5. Depreciation	9	16	15	13	14	13	14	14	13	12	11
B6. Combination of B1-B5	9	14	14	12	13	12	13	13	13	12	11
C. Tailored Tests											
C1. Combined contingent liabilities	9	13	13	12	12	11	12	12	12	11	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	9	13	12	11	12	11	12	11	12	11	10
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.

Table 4. Uganda: Sensitivity Analysis for Key Indicators of Public Debt, 2022-2032

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
PV of Debt-to-GDP Ratio											
Baseline	42	43	42	41	38	34	35	33	32	30	29
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	42	44	47	49	50	49	50	52	53	54	56
B. Bound Tests											
B1. Real GDP growth	42	44	47	46	44	41	43	43	42	42	42
B2. Primary balance	42	45	48	47	43	39	40	39	37	35	34
B3. Exports	42	44	46	45	41	37	38	36	34	33	31
B4. Other flows 3/	42	44	43	42	39	35	36	34	33	31	30
B5. Depreciation	42	46	44	41	37	31	31	29	26	24	22
B6. Combination of B1-B5	42	43	45	42	38	34	35	34	32	31	29
C. Tailored Tests											
C1. Combined contingent liabilities	42	51	50	49	45	41	42	40	39	37	36
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	42	43	43	43	41	38	41	40	40	40	40
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	282	293	277	260	215	181	195	181	168	156	145
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	282	303	310	315	286	267	283	283	283	281	280
B. Bound Tests											
B1. Real GDP growth	282	303	307	296	251	220	243	233	225	217	209
B2. Primary balance	282	310	317	298	247	211	226	211	197	183	171
B3. Exports	282	303	305	286	236	200	214	199	184	170	157
B4. Other flows 3/	282	299	287	270	222	188	202	187	174	161	149
B5. Depreciation	282	317	290	264	211	170	176	157	140	124	110
B6. Combination of B1-B5	282	298	299	268	219	185	198	184	172	159	147
C. Tailored Tests											
C1. Combined contingent liabilities	282	351	331	312	259	221	237	221	207	193	179
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	282	296	287	278	236	208	230	221	213	206	199
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	57	55	53	46	37	31	23	25	29	27	24
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	57	56	57	53	46	42	29	32	38	38	37
B. Bound Tests											
B1. Real GDP growth	57	56	58	51	42	36	28	31	36	35	32
B2. Primary balance	57	55	57	54	40	34	25	28	33	32	28
B3. Exports	57	55	54	47	37	31	24	26	31	29	25
B4. Other flows 3/	57	55	53	46	37	31	23	25	29	28	24
B5. Depreciation	57	53	53	45	37	32	25	26	29	27	24
B6. Combination of B1-B5	57	53	53	50	38	32	24	26	30	29	25
C. Tailored Tests											
C1. Combined contingent liabilities	57	55	68	52	40	34	26	28	34	32	28
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	57	55	54	48	39	34	27	29	34	33	30
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.

**MINISTRY OF FINANCE, PLANNING AND
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APOLLO KAGGWA ROAD
P.O. BOX 8147, KAMPALA
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