DEBT SUSTAINABILITY ANALYSIS REPORT FY2021/22

MINISTRY OF FINANCE, PLANNING AND ECONOMIC DEVELOPMENT

DECEMBER 2022

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Preface

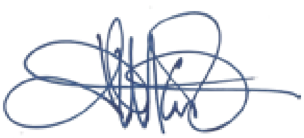
Careful management of public debt is important in ensuring economic stability and future growth. The Government of Uganda is mindful of the risks associated with unsustainable debt levels and makes deliberate effort to prudently manage the size and cost of public debt. Conducting a regular Debt Sustainability Analysis (DSA) is a best practice for countries to identify risks and vulnerabilities associated with the debt profile and is a key tool for debt management in Uganda.

This DSA Report provides an overview of the current state of public debt in Uganda, including its historical trends, major drivers and potential risks and challenges. The report also provides projections for the evolution of key public debt metrics in the medium term, based on the country's long-term fiscal framework.

The DSA finds that Uganda's public debt remains sustainable in the medium to long term, at a moderate risk of debt distress. This outlook is supported by prudent fiscal policy and strong economic performance following continued recovery from the COVID – induced economic downturn of the last few years. As a share of GDP, public debt is projected to decline in the medium term, largely supported by improving tax revenues on the back of successful implementation of the Domestic Revenue Mobilization Strategy.

Challenges to debt management stem primarily from the rising cost of debt service, which has been driven by increases in costly domestic debt as well as external commercial loans. Going forward, Government will contract less domestic debt in an effort to reduce the debt service burden on the budget and minimize crowding out of the private sector from the domestic debt market. On the external front, priority will continue to be given to concessional loans, which carry low interest rates and have long maturity periods, easing the debt service burden.

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
CFR	Charter for Fiscal Responsibility
COVID-19	Corona Virus Disease-2019
CPIA	Country Policy and Institutional Assessment
CI	Composite Indicator
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
LICs	Low Income Countries
LIBOR	London Interbank Offered Rate
MEPD	Macroeconomic Policy Department.
NDP	National Development Plan
PDMF	Public Debt Management Framework
PPG	Public and Publicly Guaranteed
PV	Present Value
UGX	Uganda Shillings
USD	United States Dollar
WAIR	Weighted Average Interest Rate
WEO	World Economic Outlook

Executive Summary

Uganda's public debt stock increased from USD 19.54 billion (UGX 69,512.5 billion) in FY2020/21 to USD 20.99 billion (UGX 78,833.4 billion) in FY2021/22. This represents a much smaller increase in public debt compared to the previous two financial years. External public debt increased from USD 12.39 billion (UGX 44,061.4 billion) to USD 12.82 billion (UGX 48,171.8 billion) between June2021 and June 2022, while domestic public debt increased from USD 7.16 billion (UGX 25,451.1 billion) to USD 8.16 billion (UGX 30,661.6 billion) over the same period. As a share of GDP, public debt increased to 48.4 percent in June 2022 from 47.0 in June 2021. Measured in **present value terms,** the stock of public debt amounted to 39.5 percent of GDP up from 37.5 percent the previous financial year.

The slowdown in the rate of debt accumulation is on account of a number of factors, including: recovery in GDP growth and Government's deliberate efforts towards fiscal consolidation as the effects of the Covid Pandemic continue to subside, as well as a pickup in revenue growth partly supported by the implementation of the Domestic Revenue Mobilization Strategy (DRMS).

Government will continue its efforts towards fiscal consolidation over the medium term appropriately based on both revenue and expenditure measures, as such nominal public debt to GDP is projected to decrease to 47.6 percent by end June 2023 and continue on a downward trend over the medium term. Debt in present value terms is projected to follow a similar trend, decreasing to 38.4 percent of GDP 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 returns to its pre-covid potential; a reduction in borrowing as some major infrastructure projects come to a completion in the medium term, alongside strong revenue growth following the implementation of the Domestic Revenue Mobilisation Strategy; and realisation of oil revenues in the medium to long term.

The debt outlook is faced with **moderate risk of debt distress**, with the major vulnerabilities relating to the slow growth of exports and the increasing debt service burden. Debt service as a percentage of revenue increased to over 30 percent in FY2021/22 and is projected to rise further in FY 2022/23, especially due to heightened domestic interest rates following the recent high level of domestic inflation, as well as the increasing cost of external debt as global financing conditions tighten.

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 maintain debt at sustainable levels over the medium term will include: increasing domestic revenue collections through the full operationalization of the Domestic Revenue Mobilization Strategy; increasing the efficiency and effectiveness of Government expenditure, particularly by allocating more resources to sectors that generate a higher multiplier effect on growth.

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).

The DSA exercise is done with a view to ascertaining the sustainability of public debt over the medium to long term. Emphasis is placed 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 exercise also identifies risks and vulnerabilities associated with the debt portfolio and proposes remedial policy interventions to mitigate such risks and vulnerabilities.

The conduct of the DSA involves a number of steps including: the preparation of baseline assumptions for macroeconomic and debt variables; Subjecting these assumptions to realism checks; projecting the evolution of key debt burden ratios over the medium to long term; and comparing the projections to country-specific thresholds/benchmarks to assess the risk of debt distress.

Across the world, a number of shocks, including the Russia-Ukraine conflict, led to an increase in inflation. In response, many central banks, including the Bank of Uganda, raised their policy rates This has had a deleterious effect on economic output, with some of the world's major economies projected to go into recession in 2023. However, the Ugandan economy has proven to be resilient, with real GDP expanding by 4.7 percent in FY2021/22. Economic growth is expected to be even stronger in FY2022/23 at 5.3 percent. This favourable economic performance, combined with improved tax revenues, will see a reduction in public debt as a share of GDP over the medium term.

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 considers domestic and Public and Publicly 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. 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, Section 4 provides an overview of the methodology used while Section 5 discusses the results of the analysis. Section 6 concludes.

2.0 DEBT PORTFOLIO REVIEW

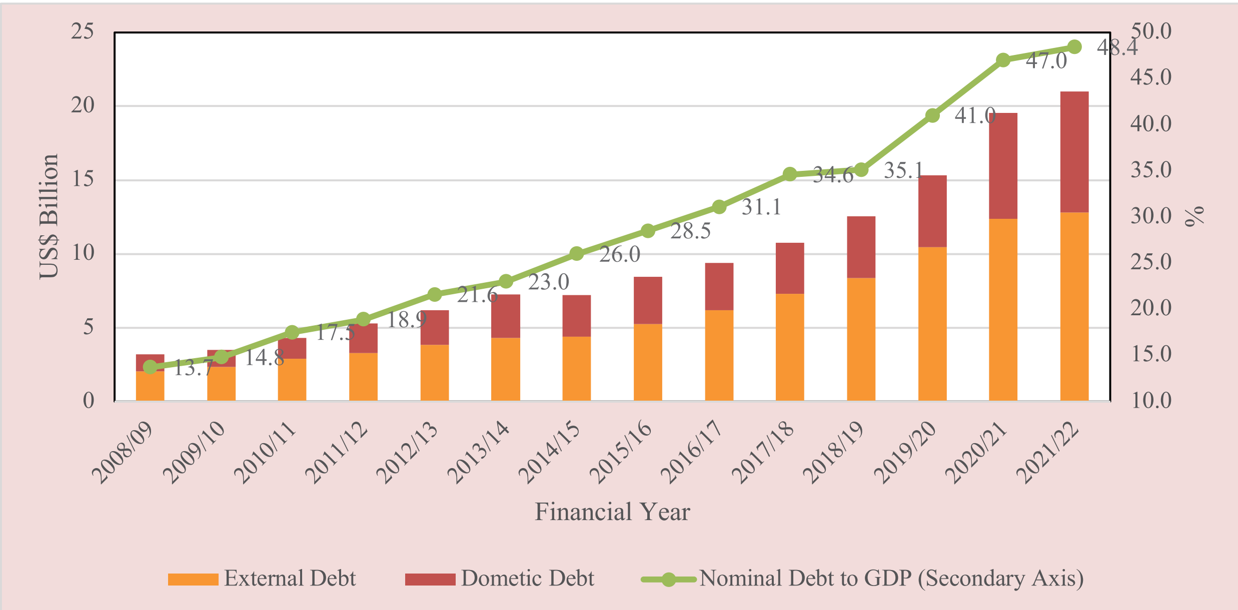
2.1 Overview of Uganda's Debt Profile

The stock of public sector debt increased from USD 19.54 billion in FY 2020/21 to USD 20.99 billion in FY 2021/22. External debt increased from USD 12.39 billion in FY 2020/21 to USD 12.82 billion in FY 2021/22, while domestic debt measured in US Dollars increased from USD 7.16 billion to USD 8.16 billion over the same period.

As a percentage of GDP, public sector debt rose from 47.0 percent in FY 2020/21 to 48.4 percent in FY 2021/22. External accounted for 29.6 percent of GDP, while domestic debt contributed 18.8 percent of GDP. In Present Value (PV) terms[1], public sector debt amounted to 39.5 percent of GDP at end June 2022 up from 37.5 percent the year before.

While debt continued on an upward trend in FY2021/22, the rate of debt accumulation slowed compared to the previous two financial years that were characterised by the Covid-19 pandemic and its adverse effects on the economy. The slowdown in the rate of debt accumulation follows a combination of factors including recovery in GDP growth and Government's deliberate efforts towards fiscal consolidation as the effects of the COVID Pandemic continue to subside, as well as a pick-up in revenue growth partly supported by the implementation of the Domestic Revenue Mobilization Strategy (DRMS).

Figure 1: Evolution of Public Debt



Source: Ministry of Finance, Planning and Economic Development

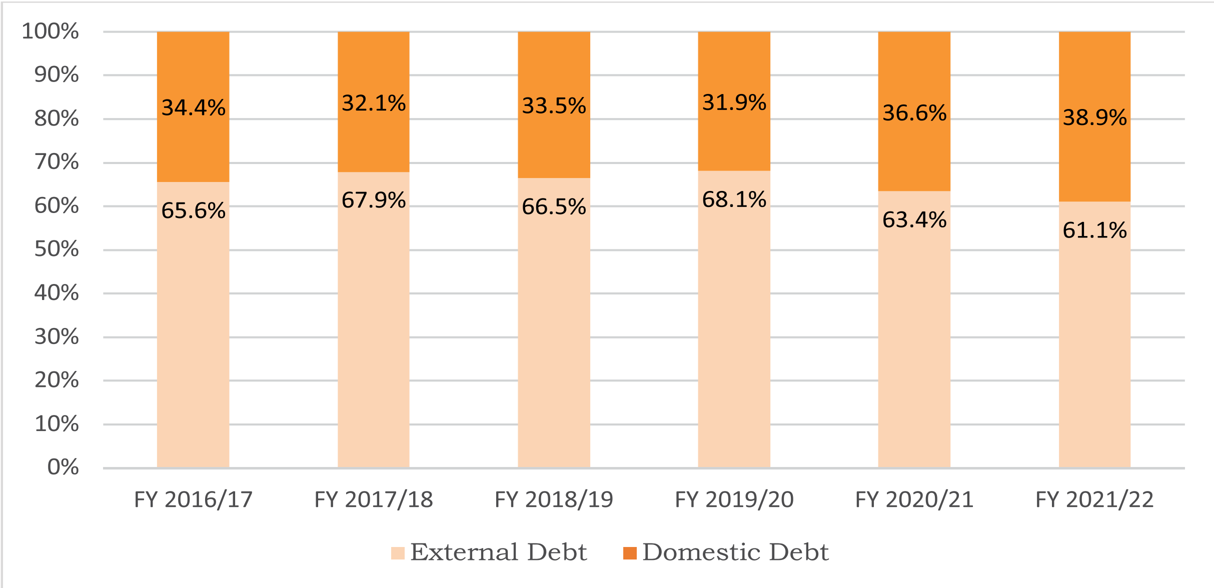
Figure 1 shows the evolution of the public debt to GDP ratio as well as the stock of debt (in billions of US Dollars) from FY 2008/9 to FY 2021/22.

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. A number of benchmarks by which Uganda is assessed, such as those in the LIC-DSF and the EAMU convergence criteria, are specified in PV terms.

2.2 Composition of Public Debt[2]

The share of external debt in the total public debt stock continued to decrease, reducing to 61.1 percent in June2022 from 63.4 percent the previous financial year. Consequently, the share of domestic debt in total public debt increased from 36.6 percent to 38.9 percent over the same period.

Figure 2: Public Debt Composition (%)



Source: Ministry of Finance, Planning and Economic Development

2.2.1 Composition of External Public Debt

The share of external debt owed to commercial creditors increased further from 8.9 percent in FY2020/21 to 10.4 percent in FY2021/22. The increase was largely on account of commercial loans acquired by Government to finance part of the budget deficit.

The share of debt owed to multilateral lenders which had increased slightly to 62.5 percent in FY2020/21 on account of strong support for Government's COVID response from the IMF and the World Bank, reduced to 61.7% in FY2021/22. Particularly, the share of public debt owed to IDA, the concessional lending arm of the World Bank, reduced to 34.5 percent in FY 2021/22 from 35.3 percent the previous year. Bilateral creditors accounted for 27.9 percent of the total external disbursed and outstanding debt stock in FY2021/22, of which 20.7 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.

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

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

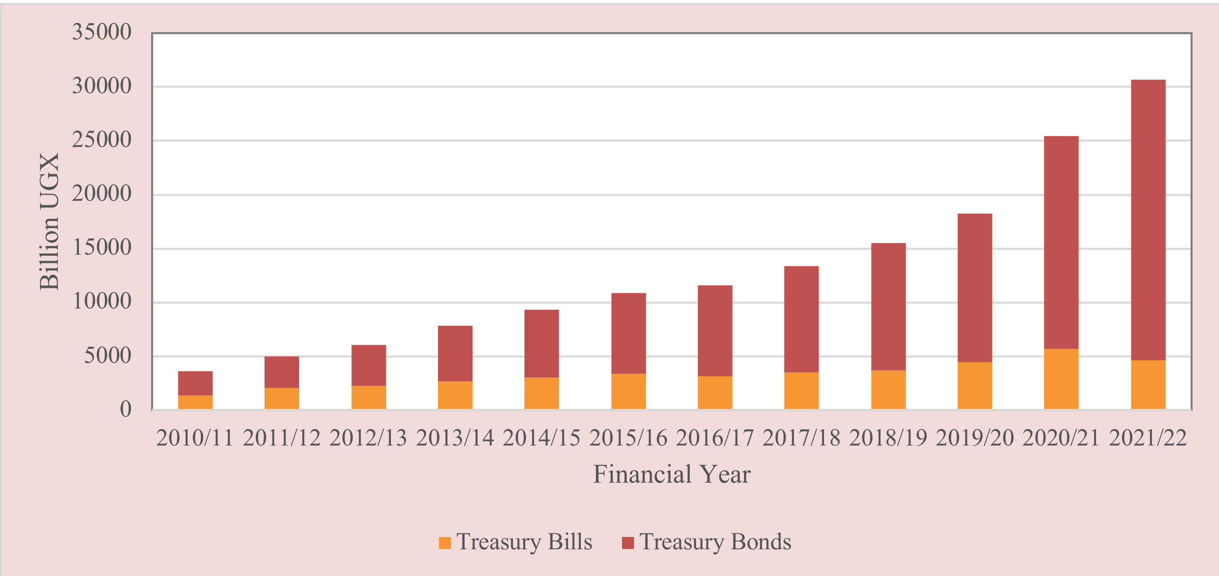
Creditor Category	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Multilateral Creditors	86.9	87.4	85.5	76.6	70.8	67.8	64.5	61.9	62.5	61.7
o/w IDA	58.6	58.3	55.8	48.9	45.2	42.2	40.1	34.6	35.3	34.5
Bilateral Creditors	13.1	12.6	14.5	23.4	26.6	31.5	33.7	30.9	28.6	27.9
Non Paris Club	11.3	10.4	12.3	20.4	22.8	25.1	27.5	23.6	21.6	21.4
o/w China	8.0	7.7	9.6	17.8	20.3	24.2	26.5	22.6	20.9	20.7
Paris Club	1.8	2.2	2.2	3	3.8	6.5	6.2	7.3	7	6.5
o/w Japan	0.9	1.3	1.7	2.4	3	4	2.5	3	2.3	1.9
Commercial Banks	-				2.6	0.7	1.8	7.2	8.9	10.4

Source: Ministry of Finance, Planning and Economic Development

2.2.2 Composition of Domestic Debt

As at end June 2022, short-term debt (treasury bills) constituted only 15.0 percent of total domestic debt down from 22.5 percent a year before, while the share of long-term debt (treasury bonds) increased to 85.0 percent from 77.5 percent over the same period. Figure 3 plots the trend in domestic debt stock, broken down into treasury bills and treasury bonds. The increase in the share of longer dated instruments (treasury bonds) in public domestic debt over the years is consistent with Government's decision to issue more long-term debt. Increasing the maturity of domestic debt reduces the refinancing risk associated with the portfolio and smoothens the redemption / repayment profile.

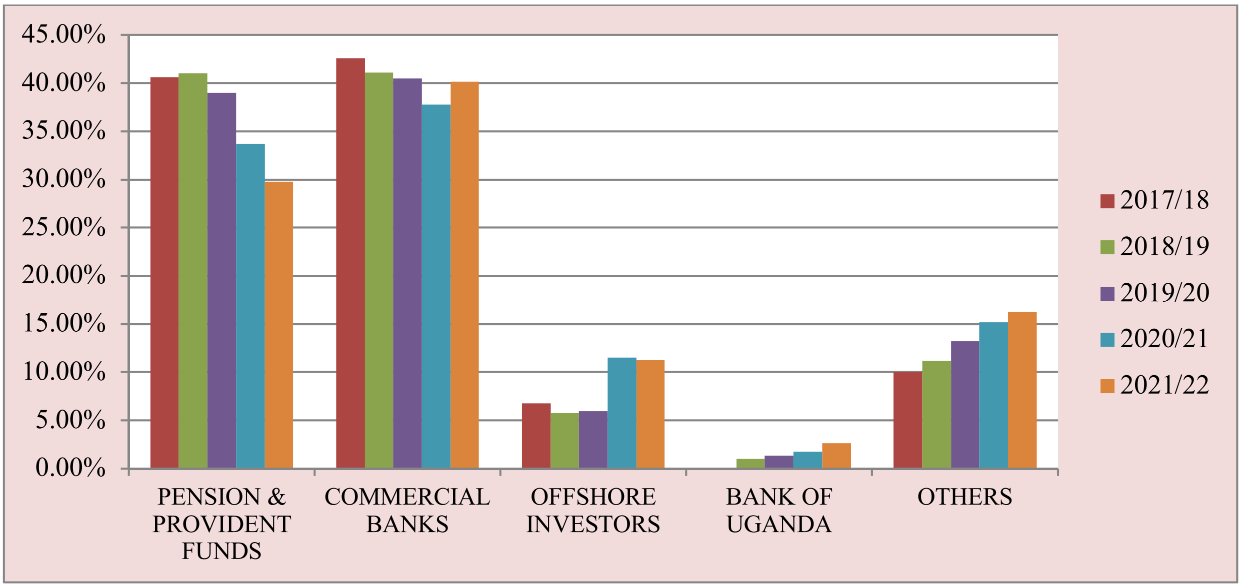
Figure 3: Composition of Domestic Debt Stock by Treasury Instrument Type



Source: Bank of Uganda

Composition of Domestic Debt by Holder

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



Source: Bank of Uganda

Commercial banks continued to hold the largest share of domestic public debt by end June 2022 at 40.1 percent. These were followed by pension and provident funds at 29.8 percent, down from 33.7 percent the year before. Offshore investors flocked the Ugandan market in FY2020/21, nearly doubling their share of domestic debt to 11.6 percent. These players continued to be active on the market in FY 2021/22, maintaining their share of domestic debt at 11.2 percent, despite rising interest rates in most advanced countries. The active participation of offshore players in the Ugandan market is a vote of confidence in the country's economic management.

2.3 Drivers of Debt Accumulation

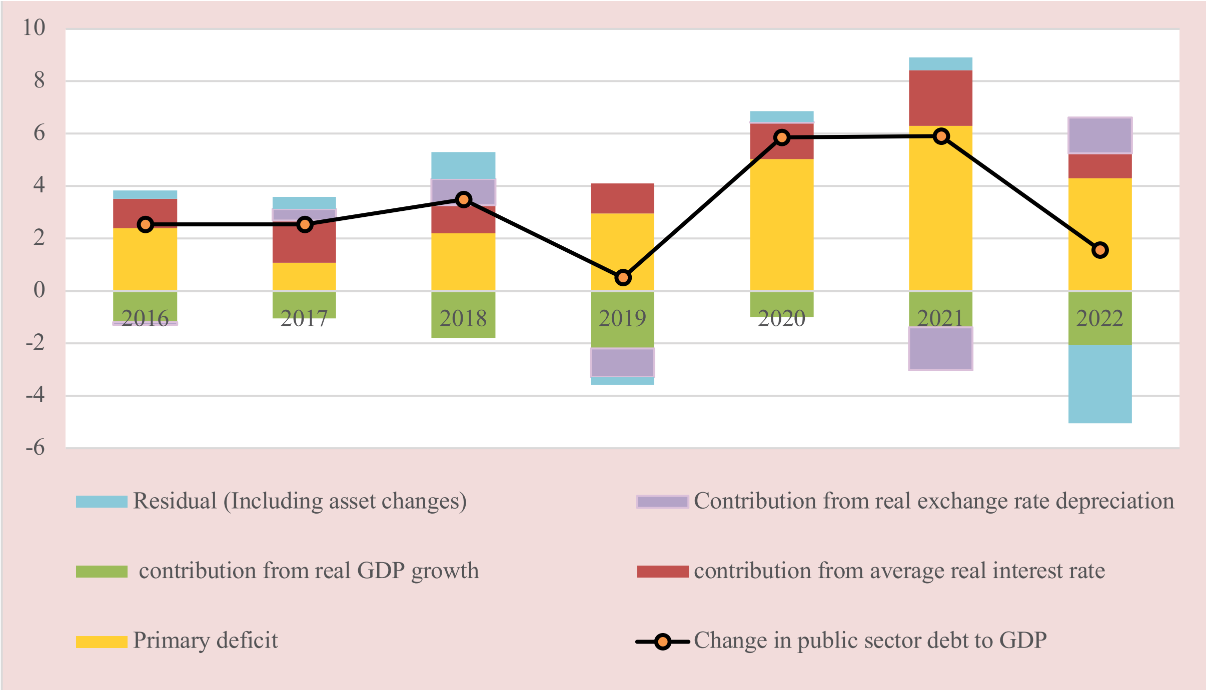
Although there was a significant reduction in the fiscal deficit from 9.0 percent of GDP in FY 2020/21 to 7.4 percent of GDP in FY2021/22, Government still needs to finance some of its activities through borrowing. As such, the primary deficit has continued to be the major driver of Uganda's debt. Nonetheless, there was a significant reduction in the rate of increase of public debt as a share of GDP in FY2021/22 compared to previous two years (see Figure 5).

Owing to the increased stock of external commercial debt and domestic debt which typically come at a higher cost than concessional multilateral / bilateral debt, the average real interest rate on public debt has also continued to significantly contribute to the rise in the debt level.

The contribution from real GDP growth in mitigating the increase in the debt to GDP ratio continued to pick up compared to the previous two years that were heavily impacted by the COVID pandemic. This follows further improvement in real GDP growth from 3.5 percent in FY2020/21 to 4.7 percent in FY2021/22.

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

Figure 5: Contributions to Changes in Public Debt



Source: 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 to GDP

Total interest payments increased from 2.8 percent in FY2020/21 to 3.0 percent in FY2021/22 as a percentage of GDP largely due to the 18.2 percent increase in stock of domestic debt between June 2021 and June 2022. In addition, the increased issuance of longer dated instruments has also led to higher cost of debt service due to the higher costs associated with such instruments. Domestic interest payments continue to form the bulk of interest payments given the high cost of domestic debt compared to external debt, which is predominantly contracted on concessional terms.

Weighted average interest rate (WAIR)

The WAIR rose by 0.3 percentage points, from 6.0 percent in June 2021 to 6.3 percent in June 2022 largely driven by the increase in the external debt WAIR. This was explained by the increased contraction of non-concessional loans, mainly commercial loans from private banks, whose rates were higher given the unfavorable global financial conditions. Global financing conditions tightened during the second half of the financial year as major central banks across the world increased policy rates to combat high inflation. The domestic debt WAIR remained stable at 14.1 percent.

Table 2: Cost and Risk Profile of Public Debt

		June-21			June-22		
		External	Domestic	Total	External	Domestic	Total
cost of debt	Interest payment as percent of GDP	0.4	2.4	2.8	0.5	2.6	3.0
	Weighted Av. Interest Rate (percent)	1.5	14.1	6.0	1.6	14.1	6.3
Refinancing risk	Av Time to Maturity (years)	11.8	5.5	9.6	11.2	6.7	9.5
	Debt maturing in 1 yr (percent of total)	2.9	30.6	12.5	4.1	23.2	11.0
	Debt maturing in 1 yr (percent of GDP)	0.9	5.2	6.1	1.3	4.2	5.5
Interest rate risk	Av Time to Re-fixing (years)	11.2	5.5	9.2	10.4	6.7	9.0
	Debt re-fixing in 1 yr (percent of total)	13.6	30.6	19.5	18.7	23.2	20.3
	T-bills (percent of total)	88.7	100.0	92.6	84.5	100.0	90.1
	Fixed rate debt (Percent of total)		23.0	7.9		15.7	5.7
Forex risk	Forex debt (Percent of total debt)			63.4			61.1
	Short Term forex debt (Percent of reserves)			9.6			14.2

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 total public debt portfolio declined slightly from 9.6 years at end June 2021 to 9.5 years at end June 2022. This was largely driven by the decline in external debt ATM, from 11.8 years at end June 2021 to 11.2 years in June 2022 as Government contracted more commercial external debt, which has shorter maturities compared to the concessional loans. The increase in the domestic debt ATM, from 5.5 years at end June 2021 to 6.7 years at end June 2022, was insufficient to cause an improvement in the portfolio ATM given that external debt still forms the bulk of the portfolio (61.1 percent). The improvement in the domestic debt ATM was primarily because of deliberate Government action to issue longer dated instruments and thereby reduce the refinancing risk associated with the domestic debt portfolio.

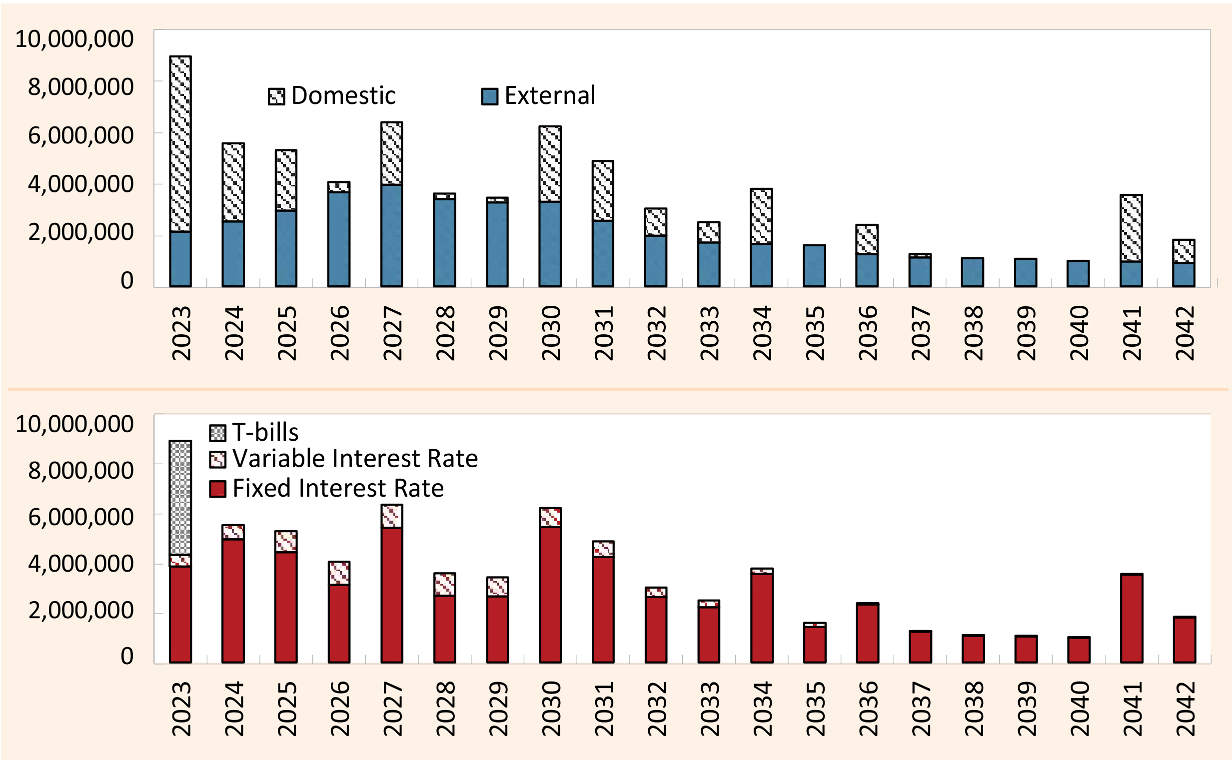
Debt maturing in one year (as percent of total debt and GDP)

Debt maturing in one year as a percentage of total debt improved from 12.5 percent in June 2021 to 11.0 percent in June 2022. This was largely due to the reduction in the volume of domestic debt maturing in one year as a percentage of total debt, from 30.6 percent in June 2021 to 23.2 percent in June 2022 following increased issuance of longer-dated domestic debt instruments.

Similarly, there was an improvement as a percentage of GDP, from 6.1 percent in June 2021 to 5.5 percent in June 2022, explained by the lower domestic debt maturities which reduced by 10.6 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 2022 (Shs Millions)



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

2.4.3 Interest Rate Risk

Average time to re-fixing (ATR)

ATR which is the average time it takes the portfolio to be subjected to changes in interest rates deteriorated from 9.2 years in June 2021 to 9.0 years in June 2022. This was largely on account of the deterioration in the external debt ATR which declined from 11.2 years in June 2021 to10.4 years in June 2022, explained by increased contraction of commercial external debt on variable terms. This can also be seen in the ratio of fixed rate debt (including Treasury bills) to total debt which declined from 92.6 percent in June 2021 to 90.1 percent in June 2022. This trend raises Government's exposure to risks associated with changes in interest rate.

2.4.4 Exchange Rate Risk

External debt as a percentage of total debt

The share of external debt to total debt declined from 63.4 percent in June 2021 to 61.1 percent in June 2022, reducing Uganda's exposure to exchange rate risks.

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 9.6 percent in June 2021 to 14.2 percent in June 2022 partly due to the increased stock of commercial loans with short grace periods in recent years.

3.0 BASELINE ASSUMPTIONS[4]

3.1 Macroeconomic Assumptions

Economic growth continued on an upward trend and increased to 4.7 percent in FY 2021/22 from 3.5 percent in FY 2020/21. The improvement in economic activity was on account of the sustained recovery in aggregate demand when the economy was fully re-opened in January 2022, as well as government policy interventions to support private sector activity.

This trend is expected to continue in FY 2022/23 with economic growth projected at 5.3 percent mainly driven by the implementation of the parish development model, oil and gas investments, growth in services and industry, and increased regional trade. Thereafter, growth is projected to average 6.7% over the medium term mainly due to increased activity in the oil and gas sector, higher productivity in agriculture, industry and services sectors and improved efficiency in public investments.

However the growth forecasts are faced with a number of risks which include; adverse weather conditions which could affect agriculture production and agro-processing, continued geo-political tensions which could adversely affect global trade and growth, slow implementation of Government projects leading to delays in oil and gas production, emergence of new domestic or global health shocks which require lockdowns to contain and increased political instability across the region (including the Eastern DRC) which could hamper regional trade.

Headline inflation is projected to increase significantly from an average of 3.4 percent in FY 2021/22 to 8.3 percent in FY2022/23. Inflation was on the rise for most of calendar year 2022 due to both external and domestic factors. On the external front, the Russia - Ukraine conflict affected supply of oil and food, leading to a sharp increase in prices. Prior to the start of the conflict, the global economy was faced with inflationary pressures as most countries saw a recovery in demand following the lifting of COVID-related restrictions. Domestically, prolonged dry spells in some parts of the country resulted in poor crop harvests, pushing prices for food and related items upwards.

A combination of the monetary policy tightening stance by the Central Bank and declining international oil prices is expected to moderate the inflationary pressures and drive back the inflation level to below the 8 percent stipulated in the EAMU convergence criteria in the medium term.

3.1.1 Fiscal Assumptions

In line with the objective of the Domestic Revenue Mobilisation Strategy, domestic revenue as a percentage of GDP is projected to increase by 0.5 percentage points from 13.4 percent in FY2021/22 to 13.9 percent in FY2022/23. This will also be enabled by the continued pickup in economic activity as the country overcomes the effects of the COVID pandemic. In the medium term, the revenue to GDP ratio is projected to increase by an average of 0.5 percentage points per annum until the onset of oil revenues in FY 2025/26 when the ratio will increase by over 1 percentage point per annum. In the near 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 decline from 21.5 percent in FY2021/22 to 20.8 percent in FY2022/23 as Government continues to pursue fiscal consolidation. This ratio is projected to reduce to an average of 20.0% over the medium term as several major infrastructure projects are completed.

4 Please note, these assumptions are as at December 2022.

The fiscal deficit including grants is projected to decline from 7.4 percent of GDP in FY2021/22 to 5.8 percent in FY2022/23, before reducing to an average of 3.2 percent per annum over the rest of the medium term. The overall budget deficit is also projected to be below 3 percent of GDP by FY 2025/26 as stipulated in the Charter for Fiscal Responsibility. Table 3 summarizes the medium-term fiscal assumptions used for this DSA.

3.1.2 Financing Assumptions

Deficit financing will continue to mostly 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 non-concessional options. However, Government is cognizant of the fact that concessional resources alone are insufficient to fully meet Uganda's development financing needs as the country aims to achieve the transformation envisaged in the Vision 2040. Therefore, Uganda will continue to utilize some non-concessional financing, although this will be pursued with caution so as to safeguard debt sustainability.

Table 3: Summary of Fiscal Assumptions.

FY	2021/22 Outturns	2022/23	2023/24	2024/25	2025/26	2026/27
Fiscal projections (Shs Bn)						
Revenue and Grants	22,992	27,765	32,126	36,859	45,707	53,840
o/w Revenue	21,830	25,551	29,934	34,742	43,872	52,283
o/w Grants	1,162	2,214	2,191	2,117	1,835	1,558
Primary Expenditure	30,000	32,116	33,752	38,832	46,891	55,455
Total Interest Expenditure	4,966	6,298	5,743	6,260	6,438	6,681
Total Expenditure	34,967	38,413	39,495	45,092	53,329	62,136
Primary Deficit	7,008	4,351	1,627	1,973	1,183	1,615
Overall Budget Deficit	11,974	10,648	7,370	8,233	7,621	8,296
As a percentage of GDP						
Revenue and Grants	14.1	15.1	15.4	15.8	17.5	18.4
o/w Revenue	13.4	13.9	14.4	14.9	16.8	17.9
o/w Grants	0.7	1.2	1.1	0.9	0.7	0.5
Total Expenditure	21.5	20.8	19.0	19.3	20.4	21.2
Primary Deficit	4.3	2.4	0.8	0.8	0.5	0.6
Overall Budget Deficit	7.4	5.8	3.5	3.5	2.9	2.8
Memorandum Items						
Real GDP Growth (percent)	4.7	5.3	6.0	6.5	7.0	7.2
Nominal GDP (Shs Bn)	162,721	184,254	208,356	233,286.5	261,231.6	292,541.9

Source: Ministry of Finance, Planning and Economic Development, December 2022

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. Both imports and exports were adjusted to account for activities in the oil and gas sector.

Interest income inflows/outflows throughout the projection period were derived as the stock of financial assets/liabilities in the previous period, multiplied by the London Interbank Offered Rate (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) inflows are projected to steadily grow by an average of 32 percent in the medium term, before peaking at US$3 billion by FY2024/25, as investment in the oil sector increases in preparation for the year of oil production. In the outer years FDI is forecast as a constant share of Uganda's nominal GDP growth in dollar terms.

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 LIC-DSF is the main tool relied upon by multilateral institutions and other creditors to assess risks to debt sustainability in low-income countries. It 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 strength; 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. Using the CI, countries are clustered into one of three categories, namely: strong performer, medium and weak performer. Each category has different thresholds for the DSF's debt burden indicators, with the weak performers having the most stringent thresholds.

Table 4 shows that Uganda's CI is 2.929, placing the country within the medium performer category. Table 5 provides the thresholds / benchmarks applicable to each category.

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	3.587	1.38	47%
Real growth rate (in percent)	2.719	5.605	0.15	5%
Import coverage of reserves (in percent)	4.052	35.660	1.44	49%
Import coverage of reserves^2 (in percent)	-3.990	12.716	-0.51	-17%
Remittances (in percent)	2.022	3.297	0.07	2%
World economic growth (in percent)	13.520	2.898	0.39	13%
CI Score			2.929	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.

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.

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

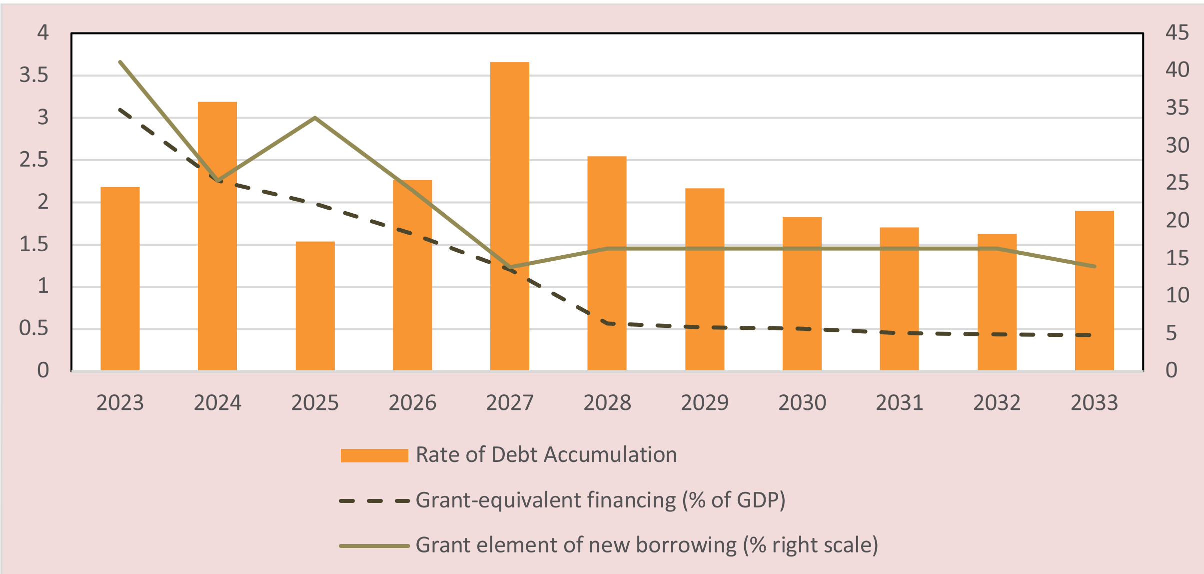
This chapter presents the results of the DSA, broken down into external debt, total public debt and some additional analysis done outside of the LIC-DSF, which mostly relates to domestic debt. The main finding is that Uganda's overall risk of debt distress remains **moderate**, with limited fiscal space for absorption of extreme shock occurrences. **Public debt was found to be sustainable in the medium to long term**, although a number of vulnerabilities were identified, particularly relating to the increasing debt service burden. As such, Government will be more cautious in contracting new debt in the future in order to maintain debt at sustainable levels.

5.1 Sustainability of Public and Publicly Guaranteed External Debt

Government will continue to rely on external borrowing over the medium term as the main avenue to finance the deficit. This is consistent with the policy of reducing domestic debt to no more than 1 percent of GDP, in a bid to avoid crowding out of the private sector, which is the engine of growth. As the deficit declines due to higher revenues (including from oil), there will be a reduction in external (and domestic) borrowing starting around 2028.

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 from the World Bank and IMF under the on-going Extended Credit Facility. 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: Ministry of Finance Planning and Economic Development

5.1.1 External Debt Burden Indicators

The debt service (liquidity) indicators are projected to remain below their respective indicative thresholds in the baseline scenario (see Table 6), showing that Uganda is unlikely to face liquidity challenges in servicing her external debt. This is largely explained by the fact that the bulk of Uganda's external debt is held by concessional lenders, with multilateral lenders holding over 60%

of the external debt stock. While the ratio of external debt service to exports will remain below its indicative threshold, it is projected to increase over the medium term. This underscores the importance of current Government efforts to boost exports. Both solvency ratios are also projected to 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-DSF Thresholds	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28
Solvency indicators									
PV of External Debt to GDP	40	20.9	19.6	20.7	21.4	20.9	21.1	22.4	22.0
PV of External Debt to Exports	180	124.9	160.2	139.8	147.1	148.7	139.2	142.7	135.4
Liquidity indicators									
External Debt Service to Exports	15	10.1	10.5	10.6	11.0	12.2	12.3	11.9	10.6
External Debt Service to Revenue	18	12.5	9.6	11.3	11.1	11.5	11.1	10.5	9.5

Source: Ministry of Finance Planning and Economic Development

Scenario Description

In the charts that follow (Figure 8 to Figure 12), the baseline scenario captures the most likely outcome based on current projections; the most extreme shock scenario captures the worst performing shock from several 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.

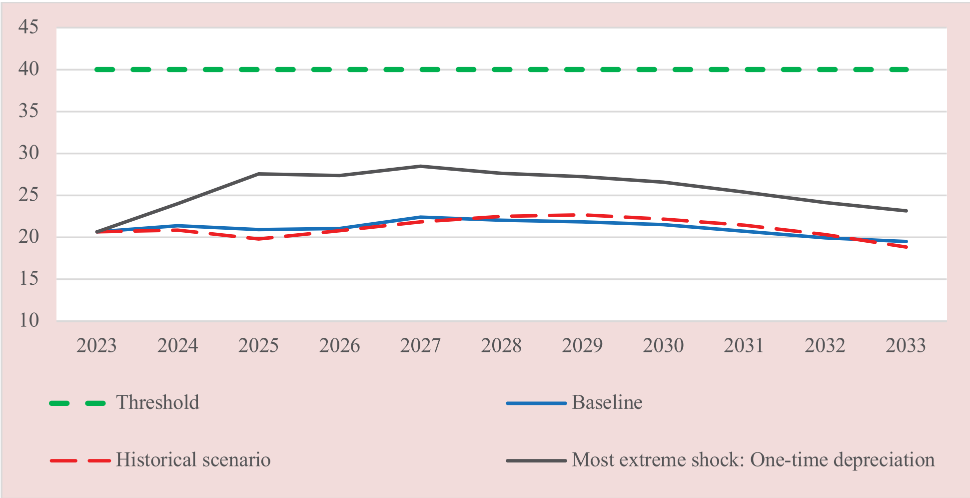
Solvency Indicators

PV of External Debt to GDP Ratio.

The PV of external debt to GDP is projected to increase from 19.6 percent in FY2021/22 to 20.7 percent in FY2022/23. This ratio is forecast to remain well below its indicative threshold of 40 percent throughout the projection period (See Figure 8), largely supported by the robust GDP growth and a reduction in borrowing.

In nominal terms, external debt to GDP ratio is projected to reduce slightly from 29.6 percent in FY2021/22 to 29.4 percent in FY2022/23. This ratio is forecast to remain below 30% of GDP over the projection horizon, in line with the overarching goal of minimising debt accumulation.

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



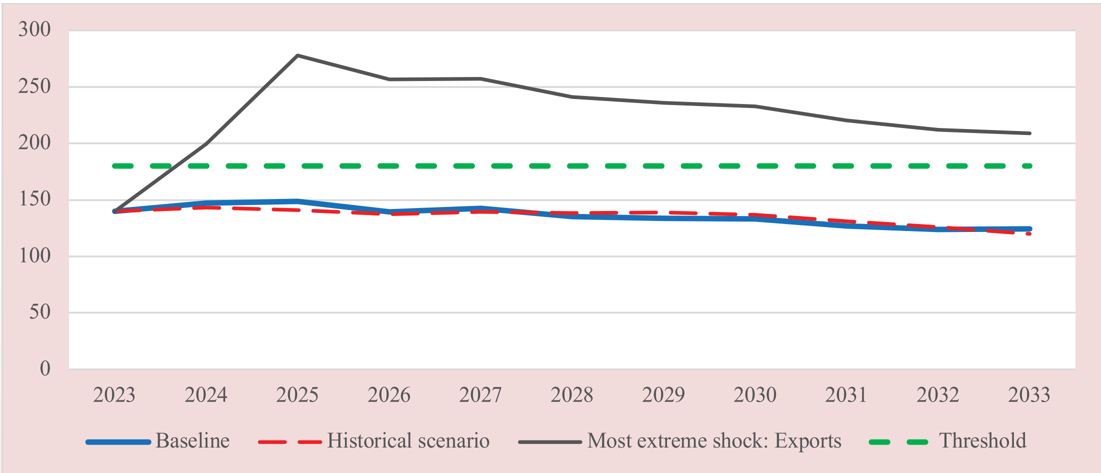
Source: Ministry of Finance Planning & Economic Development

PV of External Debt to Exports

As in recent DSA reports, 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 scenarios[6]. This points to heightened risk of external debt distress in the event of an economic shock that significantly dampens 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 to enhance debt sustainability. Figure 9 shows the evolution of the PV of external debt to exports through the projection period.

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



Source: Ministry of Finance Planning and Economic Development

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

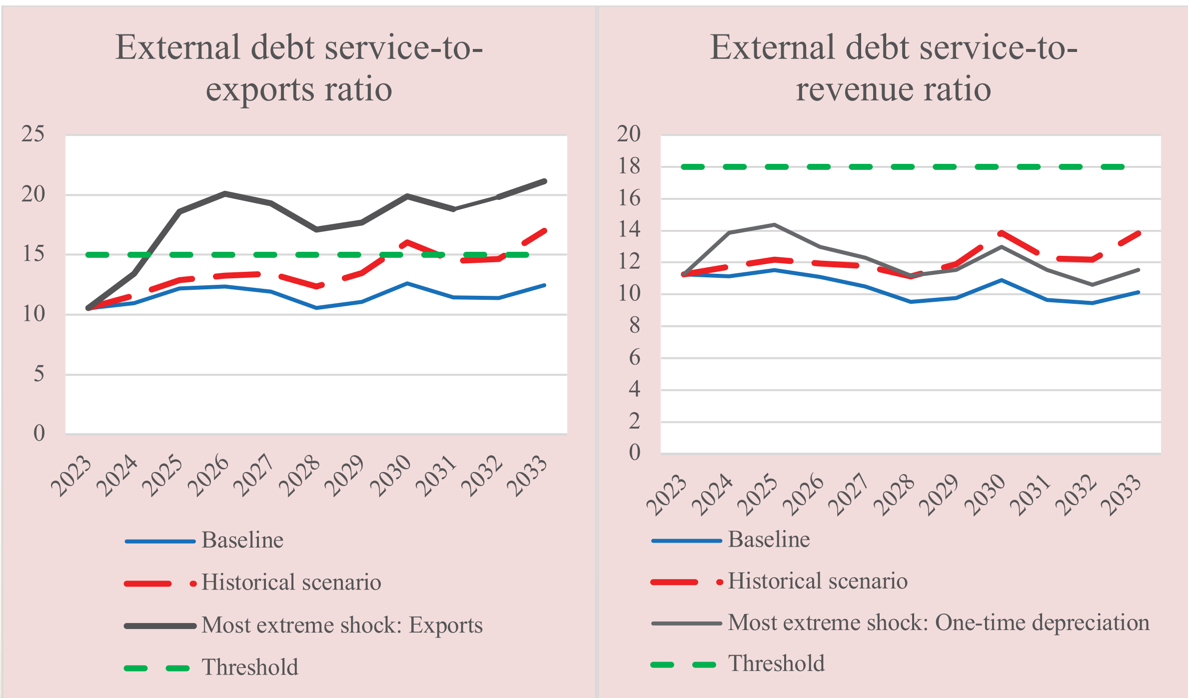
The LIC-DSF uses two liquidity indicators for external debt service i.e. external debt service to exports of goods and services; and external debt service to domestic revenue. The latter highlights the availability of liquid resources (cash or near cash) to meet the debt service obligations when they fall due.

Similar to the solvency indicator of PV of external debt to exports, the ratio of external debt service to exports remains below its indicative threshold under the baseline scenario but breaches it under the most extreme shock[7] scenario. This breach further emphasizes that the external debt portfolio is vulnerable to a shock to exports and again underscores the need to reinforce effort towards export growth. The threshold is also breached under the Historical scenario, which suggests that if projected improvements in the economy as well as fiscal consolidation do not occur, the risk of debt distress in the medium term could worsen from moderate to high.

External debt service to domestic revenue remains below its threshold throughout the projection period in both the baseline and most extreme shock scenarios largely benefiting from the expected increase in revenue growth over the projection period. However, this ratio still averages at over 10 percent in the medium term, indicating that over a tenth of all revenues received each fiscal year will be locked up for external debt service alone since debt service takes the first call on resources.

This highlights the importance of current Government efforts towards fiscal consolidation through rationalisation of expenditure 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: Ministry of Finance, Planning and Economic Development

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

5.2 Sustainability of Total Public Debt

Total Public debt is a more comprehensive measure of the country's indebtedness, as it comprises 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 debt carrying capacity, helps to highlight the risks stemming from a combination of domestic and external debt.

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

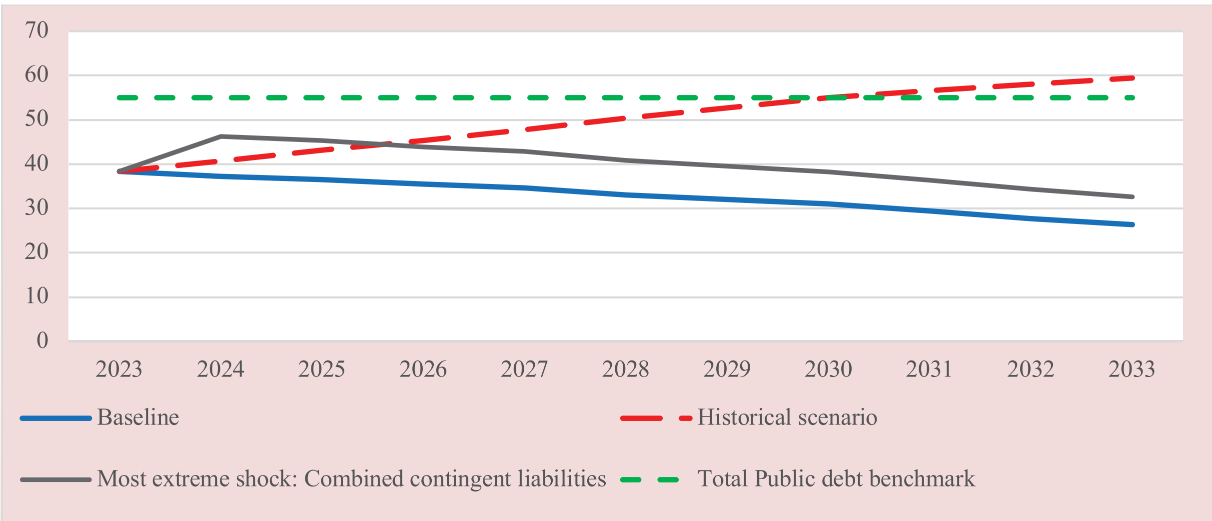
Financial Year	LIC DSF Benchmark	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27
Nominal debt to GDP		41.0	47.0	48.4	47.6	46.1	45.2	43.7	42.3
Charter for Fiscal Responsibility				52.7	53.1	52.4	51.2	49.3	
PV of Debt to GDP	55	31.8	37.5	39.5	38.4	37.2	36.6	35.5	34.7

Source: Ministry of Finance Planning and Economic Development

Note: The targets in the Charter for Fiscal Responsibility are only available for years 2021/22 to 2025/26.

This DSA finds that the PV of debt to GDP is projected to remain below its associated benchmark of 55 percent throughout the forecast period (see Table 7 and Figure 11). This ratio will also remain below the more stringent threshold of 50 percent stipulated in both the Public Debt Management Framework and the convergence criteria of the EAMU Protocol. In nominal terms, debt to GDP is forecast to decline from 48.4 percent in FY2021/22 to 42.3 percent in FY2026/27. This public debt path is well within the requirements of the Charter for Fiscal Responsibility. 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.

Figure 11: PV of Public Debt to GDP

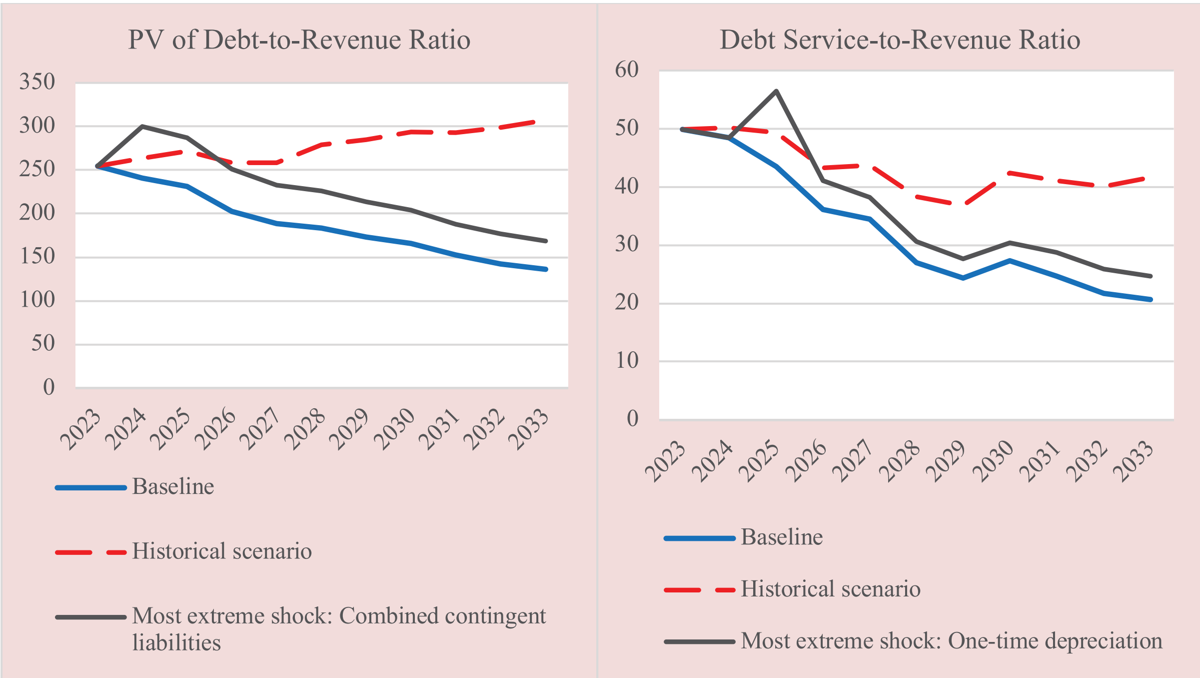


Source: MEPD, Ministry of Finance, Planning and Economic Development

The projected decrease in the public debt to GDP ratio over the medium term will be largely driven by improved revenue performance following continued recovery in economic growth as the country overcomes the earlier effects to the Covid-19 pandemic, as well as improved tax administration through implementation of the Domestic Revenue Mobilization Strategy; and fiscal consolidation through rationalization of expenditure to prioritize the most productive areas. Over the long-term, this ratio will majorly be driven down by an increase in revenues resulting from oil production as well as completion of several major infrastructure projects especially in the energy and transport sector which will reduce the fiscal deficit. The Historical scenario breaches the benchmark in 2031. This means that if Government failed on its commitments to accelerate economic growth and reduce the fiscal deficit, the overall risk of debt distress would deteriorate from moderate to high.

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.

Figure 12: Other Total Public DSA Ratios



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

5.3 Uganda's 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 most extreme shock scenario and this is determined as in Table 8.

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 these 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.

Figure 13 shows 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" category in FY 2023/24 and FY 2024/25. This means that a shock to the country's debt or to exports could lead to a deterioration of the risk rating from moderate to high.

Figure 13: Moderate Risk Assessment

Source: IMF/WB LIC-DSF Tool

5.4 Further Analysis of Public Debt

In Uganda, public debt management is guided by, among other considerations, the provisions of the Public Debt Management Framework PDMF (2018), which provides a number of benchmarks associated with public debt. Government's fiscal objectives are implemented through the Charter for Fiscal Responsibility which sets out an acceptable path for a number of fiscal variables to ensure compliance to the provisions of the PDMF among other requirements. One such objective of the current Charter for fiscal responsibility is to reduce the ratio of domestic interest payments to total revenue (excluding grants) to the PDMF benchmark of 12.5 percent by FY2025/26.

Table 9 below provides the performance of public debt service against both domestic revenues and total public expenditure in comparison to the PDMF benchmarks and the committed path under the current Charter for Fiscal Responsibility.

Table 9: Domestic Debt Sustainability Benchmarks (percent)

	PDMF Benchmark	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Total Debt Service[8]/ Domestic Revenue (Excluding grants)		21.7	27.4	30.6	34.1	27.4	27.1	23.7
Domestic interest / Domestic revenue (excluding grants)	<12.5	13.7	15.5	19.1	19.1	16.6	15.8	12.8
Charter Target (domestic interest to total revenue)				15.2	14.6	14.1	13.6	12.5
Total Debt Service / Total Government Expenditure		13.2	15.4	19.1	22.7	20.8	20.9	19.5
Domestic interest / Total Government Expenditure	<10	8.3	8.8	11.9	12.7	12.6	12.1	10.6

Source: MEPD, Charter for Fiscal Responsibility FY2021/22 – FY2025/26, Public Debt Management Framework (2018)

Total debt service continued on an upward trend, increasing to 30.6 percent of the country's domestic revenue in FY2021/22 and is projected to increase further in FY2022/23 and remain over the benchmark value of 20 percent all through the medium term. Moreover, 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 resulting into a viscous cycle of debt.

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 have been taking up an increasing share of domestic revenue over the past few years and thereby limiting the amount of resources left for allocation to welfare-enhancing areas of the budget, which hampers service delivery. While this trend is projected to reverse after FY2022/23, we still fail to meet the Charter target of 12.5 percent by FY2025/26. This highlights the need to reduce domestic borrowing especially at the prevailing high interest rates.

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 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 the cost of external debt service at a minimum.

8 This does not include domestic debt amortization.

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. This breach means that in the event of a major shock, Uganda's risk rating could deteriorate from moderate to high risk of debt distress.

Whereas there was an increase in the debt to GDP ratio from 47 percent in June 2021 to 48.4 percent in June 2022, this increase was much smaller than what has been experienced in previous years. The much slower rate of debt accumulation was on account of fiscal consolidation as well as improvement in GDP performance.

Public debt as share of GDP is projected to decrease in FY2022/23 and over the rest of the medium term majorly on account of increased revenues following a return to pre-COVID economic growth levels, and an improvement in tax administration through the implementation of the Domestic Revenue Mobilisation Strategy. The reduction in the debt to GDP ratio will also be supported by Government's deliberate efforts towards fiscal consolidation through reduction of public expenditures as well as the onset of oil production towards the end of the medium term, which will altogether reduce the reliance on debt for budget financing.

However, debt service still remains a key area of concern for debt sustainability. The ratio of total debt service to domestic revenue continued on an upward trend increasing to 30.6 percent in FY2021/22 and is projected to increase further in FY2022/23. This implies that debt service is increasingly taking up bigger share of resources, hence constraining the allocations to other areas of the budget.

Other major risks to debt sustainability relate to: the slow growth of exports; the increased recourse to commercial external and domestic debt for budget support; lower than anticipated GDP growth; lower than projected tax revenues; delays in oil production; 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 as outlined in the NDP III.

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 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 is currently implementing the Public Investment Management Strategy (PIMS) framework that requires projects to go through the four stage gates of: concept, profile, re-feasibility and feasibility study. This is aimed at ensuring that only ready projects that are technically and economically viable are included in the Public Investment Plan (PIP), thereby maximizing returns on investment. This will help ensure maximum benefits from Government projects, which will boost 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 soon, implying 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 can 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.

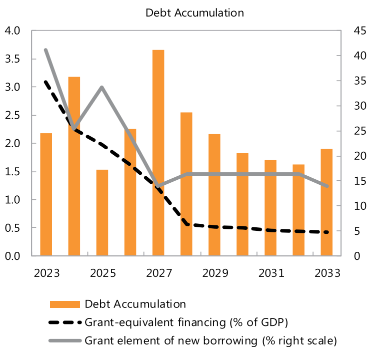
APPENDICES

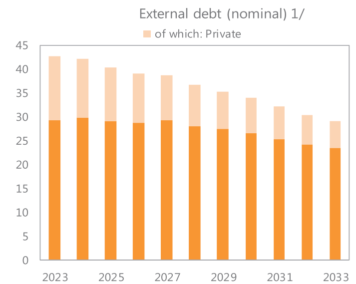
Table 1. Uganda: External Debt Sustainability Framework, Baseline Scenario, 2020-2043

(In percent of GDP, unless otherwise indicated)

	Actual			Projections												Average 8/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2043	Historical	Projections
External debt (nominal) 1/	43.4	45.2	43.6	42.7	42.1	40.3	39.0	38.7	36.7	35.3	34.0	32.1	30.4	29.1	25.9	36.1	36.4
of which: public and publicly guaranteed (PPG)	27.9	29.7	29.6	29.4	29.9	29.1	28.7	29.2	28.1	27.4	26.6	25.4	24.2	23.4	23.2	21.5	27.4
Change in external debt	4.5	1.8	-1.7	-0.8	-0.7	-1.7	-1.4	-0.2	-2.1	-1.3	-1.3	-1.9	-1.7	-1.3	-0.1		
Identified net debt-creating flows	-0.2	2.5	-0.6	2.9	2.6	1.7	0.0	1.4	0.8	1.3	2.0	2.2	2.9	3.6	6.6	**0.4**	**1.9**
Non-interest current account deficit	6.2	8.8	7.2	7.3	6.6	6.0	4.4	5.6	4.5	4.5	4.8	4.9	5.3	5.8	7.7	**5.7**	**5.4**
Deficit in balance of goods and services	10.0	12.3	10.1	10.1	8.9	7.8	5.5	8.8	7.6	7.5	7.6	7.5	7.7	8.1	9.1	**8.8**	**7.9**
Exports	14.2	16.5	12.2	14.8	14.5	14.1	15.1	15.7	16.3	16.4	16.2	16.3	16.1	15.7	14.7		
Imports	24.2	28.8	22.3	24.9	23.4	21.9	20.6	24.5	23.8	23.8	23.8	23.8	23.8	23.8	23.8		
Net current transfers (negative = inflow)	-5.0	-4.4	-4.0	-3.8	-3.5	-3.2	-2.9	-2.7	-2.4	-2.2	-2.0	-1.9	-1.7	-1.5	-0.6	**-4.6**	**-2.5**
of which: official	-0.4	-0.5	-0.5	-0.7	-0.5	-0.4	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	-0.1	-0.1	0.0		
Other current account flows (negative = net inflow)	1.2	0.9	1.1	1.0	1.1	1.4	1.8	-0.5	-0.7	-0.7	-0.8	-0.8	-0.8	-0.7	-0.8	**1.5**	**0.0**
Net FDI (negative = inflow)	-4.6	-3.9	-3.4	-3.1	-3.0	-2.8	-2.6	-2.4	-2.2	-2.0	-1.9	-1.7	-1.6	-1.5	-0.6	**-3.9**	**-2.3**
Endogenous debt dynamics 2/	-1.8	-2.4	-4.4	-1.3	-1.0	-1.6	-1.8	-1.7	-1.5	-1.2	-1.0	-0.9	-0.8	-0.7	-0.5		
Contribution from nominal interest rate	0.5	0.8	0.6	0.9	0.9	0.9	0.8	0.9	1.0	1.0	1.0	1.0	1.0	1.0	0.9		
Contribution from real GDP growth	-1.1	-1.4	-1.9	-2.2	-1.9	-2.5	-2.6	-2.6	-2.5	-2.2	-2.0	-1.9	-1.8	-1.7	-1.4		
Contribution from price and exchange rate changes	-1.3	-1.7	-3.1	...	...	...	...	...	...	...	...	...	...	...	...		
Residual 3/	4.7	-0.7	-1.0	-3.7	-3.3	-3.4	-1.3	-1.7	-2.9	-2.6	-3.3	-4.1	-4.6	-5.0	-6.7	**1.6**	**-3.3**
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators																	
PV of PPG external debt-to-GDP ratio	...	...	19.6	20.7	21.4	20.9	21.1	22.4	22.0	21.9	21.5	20.7	20.0	19.5	20.7		
PV of PPG external debt-to-exports ratio	...	...	160.2	139.8	147.1	148.7	139.2	142.7	135.4	133.7	132.9	126.9	123.8	124.1	141.0		
PPG debt service-to-exports ratio	6.9	10.1	10.5	10.6	11.0	12.2	12.3	11.9	10.6	11.1	12.6	11.4	11.4	12.5	12.0		
PPG debt service-to-revenue ratio	8.0	12.5	9.6	11.3	11.1	11.5	11.1	10.5	9.5	9.8	10.9	9.7	9.5	10.1	8.2		
Gross external financing need (Billion of U.S. dollars)	2.0	3.5	2.5	3.1	3.2	3.3	2.7	3.9	3.6	4.3	5.3	5.9	7.2	9.2	40.3		
Key macroeconomic assumptions																	
Real GDP growth (in percent)	3.0	3.5	4.7	5.3	5.0	6.5	7.0	7.2	7.2	6.6	6.3	6.3	6.2	6.2	6.2	**4.6**	**6.3**
GDP deflator in US dollar terms (change in percent)	3.3	4.0	7.5	0.2	6.1	3.0	2.9	2.8	5.7	3.7	3.6	5.4	5.4	5.6	5.7	**0.9**	**4.0**
Effective interest rate (percent) 4/	1.4	1.9	1.5	2.1	2.4	2.4	2.2	2.4	2.9	3.0	3.2	3.3	3.4	3.5	3.9	**1.5**	**2.8**
Growth of exports of G&S (US dollar terms, in percent)	-14.6	25.1	-16.9	27.4	9.7	6.1	18.4	14.5	17.4	11.2	9.0	13.0	10.5	9.3	12.3	**2.4**	**13.3**
Growth of imports of G&S (US dollar terms, in percent)	-6.5	28.2	-12.9	17.5	5.0	2.4	3.5	31.1	10.3	10.6	10.1	12.0	12.0	12.1	12.3	**3.7**	**11.5**
Grant element of new public sector borrowing (in percent)	...	...	...	41.2	25.4	33.8	24.1	13.9	16.4	16.4	16.4	16.4	16.4	13.9	13.9	**...**	**21.3**
Government revenues (excluding grants, in percent of GDP)	12.4	13.4	13.4	13.9	14.4	14.9	16.8	17.9	18.0	18.5	18.7	19.3	19.4	19.3	21.5	**11.8**	**17.4**
Aid flows (in Billion of US dollars) 5/	0.3	0.5	0.3	1.4	1.2	1.2	1.1	0.8	0.3	0.3	0.3	0.3	0.4	0.3	1.0		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	3.1	2.3	2.0	1.6	1.2	0.6	0.5	0.5	0.5	0.4	0.4	0.5	**...**	**1.2**
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	53.4	39.0	48.4	35.8	22.4	16.4	16.4	16.4	16.4	16.4	13.9	13.9	**...**	**26.8**
Nominal GDP (Billion of US dollars)	38	41	46	48	54	59	65	71	81	89	98	110	123	138	443		
Nominal dollar GDP growth	6.4	7.7	12.5	5.4	11.4	9.7	10.1	10.2	13.4	10.6	10.1	12.0	12.0	12.1	12.3	**5.5**	**10.6**
Memorandum items:																	
PV of external debt 7/	...	...	33.6	34.0	33.6	32.1	31.4	31.9	30.6	29.8	28.9	27.5	26.2	25.2	23.4		
In percent of exports	...	...	274.4	230.4	230.6	228.5	207.5	203.3	188.1	182.2	178.5	168.3	162.3	160.4	159.5		
Total external debt service-to-exports ratio	25.2	23.2	14.0	15.4	16.4	16.9	15.7	15.1	13.6	13.9	15.2	13.8	13.7	14.7	13.4		
PV of PPG external debt (in Billion of US dollars)			8.9	9.9	11.5	12.3	13.6	16.0	17.8	19.5	21.2	22.8	24.6	27.0	91.6		
(PVt-PVt-1)/GDPt-1 (in percent)				2.2	3.2	1.5	2.3	3.7	2.5	2.2	1.8	1.7	1.6	1.9	2.6		
Non-interest current account deficit that stabilizes debt ratio	1.7	7.0	8.9	8.1	7.3	7.7	5.7	5.8	6.6	5.9	6.2	6.7	7.0	7.2	7.9		

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.

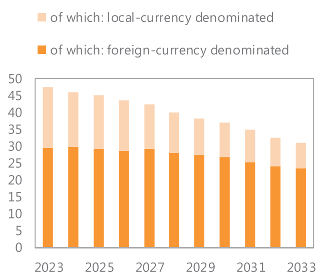
Table 2. Uganda: Public Sector Debt Sustainability Framework, Baseline Scenario, 2020-2043

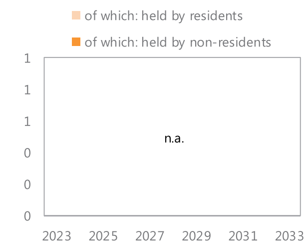
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
Public sector debt 1/	41.0	46.9	48.4	47.6	46.1	45.2	43.7	42.3	39.9	30.9	13.4	33.6	39.8
of which: external debt	27.9	29.7	29.6	29.4	29.9	29.1	28.7	29.2	28.1	23.4	23.2	21.5	27.4
of which: local-currency denominated													
Change in public sector debt	5.9	5.9	1.6	-0.9	-1.5	-0.9	-1.5	-1.4	-2.4	-1.7	-2.2		
Identified debt-creating flows	5.4	5.4	4.5	-0.6	-0.9	-0.6	-1.0	-0.9	-1.3	-1.2	-1.6	3.3	-1.1
Primary deficit	5.0	6.3	4.3	2.4	0.8	0.8	0.5	0.6	0.3	-0.2	-0.1	3.1	0.4
Revenue and grants	13.2	14.7	14.1	15.1	15.4	15.8	17.5	18.4	18.0	19.3	21.5	12.7	17.8
of which: grants	0.8	1.3	0.7	1.2	1.1	0.9	0.7	0.5	0.0	0.0	0.0		
Primary (noninterest) expenditure	18.2	21.0	18.4	17.4	16.2	16.6	17.9	19.0	18.4	19.2	21.4	15.8	18.2
Automatic debt dynamics	0.4	-0.9	0.2	-2.9	-1.7	-1.4	-1.5	-1.5	-1.7	-1.0	-1.5		
Contribution from interest rate/growth differential	0.4	0.7	-1.1	-2.9	-1.7	-1.4	-1.5	-1.5	-1.7	-1.0	-1.5		
of which: contribution from average real interest rate	1.4	2.1	1.0	-0.5	0.6	1.4	1.5	1.5	1.2	0.9	-0.6		
of which: contribution from real GDP growth	-1.0	-1.4	-2.1	-2.4	-2.3	-2.8	-3.0	-2.9	-2.9	-1.9	-0.9		
Contribution from real exchange rate depreciation	0.0	-1.6	1.4	...	...	...	...	...	...	...	...		
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
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of 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		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other 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		
Residual	0.4	0.5	-3.0	-0.3	-0.6	-0.3	-0.5	-0.5	-1.0	-0.6	-0.6	-0.3	-0.5
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	39.5	38.4	37.2	36.6	35.5	34.7	33.1	26.3	10.2		
PV of public debt-to-revenue and grants ratio	...	...	279.2	254.6	241.0	231.4	202.8	188.5	183.5	136.2	47.4		
Debt service-to-revenue and grants ratio 3/	52.4	59.3	62.5	49.9	48.4	43.5	36.1	34.5	27.0	20.7	-2.6		
Gross financing need 4/	11.9	15.0	13.1	9.9	8.3	7.7	6.8	6.9	5.2	3.8	-0.7		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	3.0	3.5	4.7	5.3	5.0	6.5	7.0	7.2	7.2	6.2	6.2	4.6	6.3
Average nominal interest rate on external debt (in percent)	1.8	2.7	1.6	1.4	1.3	1.6	1.7	2.0	2.5	3.3	3.8	1.6	2.3
Average real interest rate on domestic debt (in percent)	12.2	13.7	10.1	5.6	6.9	9.8	10.1	10.2	8.6	10.9	9.8	11.3	9.5
Real exchange rate depreciation (in percent, + indicates depreciation)	0.0	-5.9	4.9	...	...	...	...	...	...	...	...	2.3	...
Inflation rate (GDP deflator, in percent)	2.7	2.5	4.8	7.6	7.7	5.2	4.7	4.4	6.8	4.5	4.7	4.1	5.4
Growth of real primary spending (deflated by GDP deflator, in percent)	14.0	19.3	-8.1	-0.5	-2.4	9.4	15.4	13.2	3.9	7.6	7.5	9.0	6.8
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-0.8	0.4	2.7	3.2	2.3	1.7	2.0	2.0	2.7	1.6	2.1	0.8	2.0
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		

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

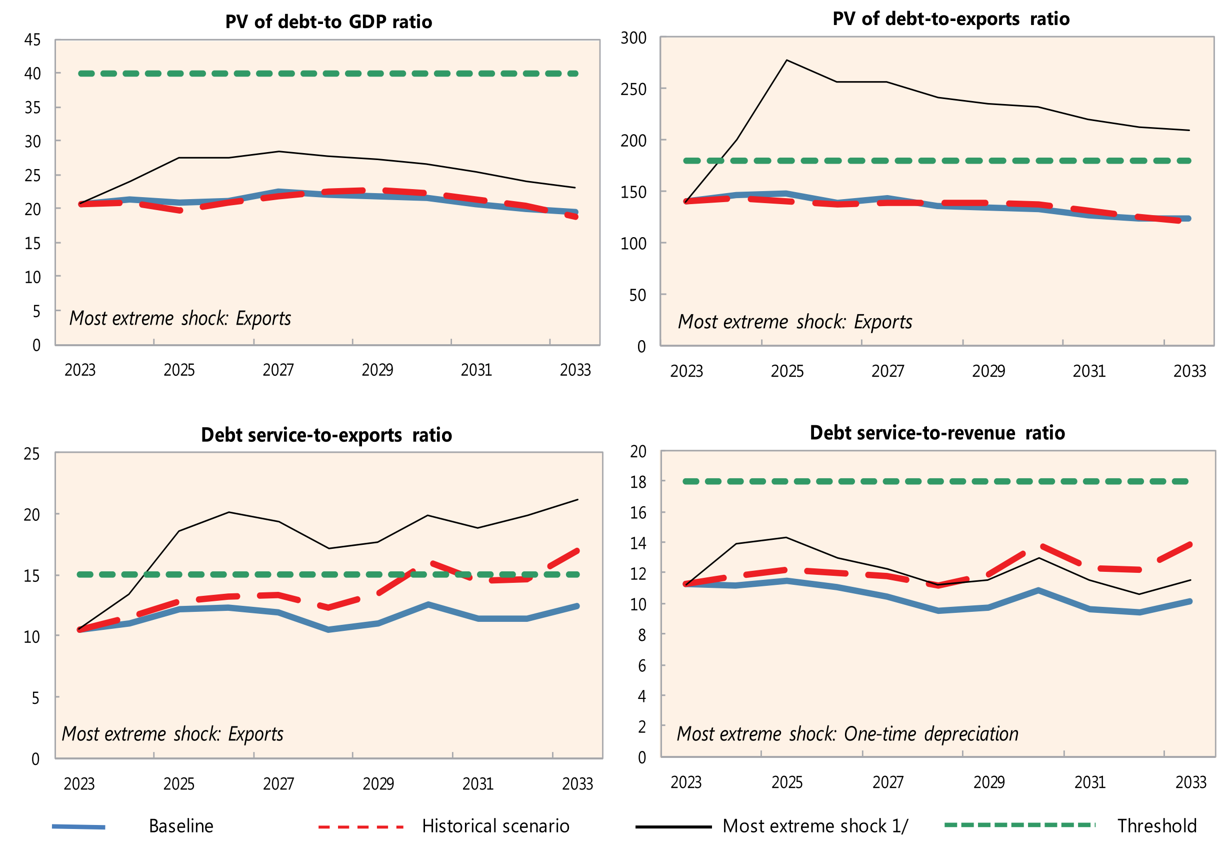
Public sector debt 1/





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, 2023-2033



Customization of Default Settings		
	Size	Interactions
	No	
Tailored Stress		
Combined CL	No	
Natural disaster	n.a.	n.a.
Commodity price	n.a.	n.a.
Market financing	n.a.	n.a.

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

Borrowing assumptions 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	3.8%	3.8%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	21	21
Avg. grace period	6	6

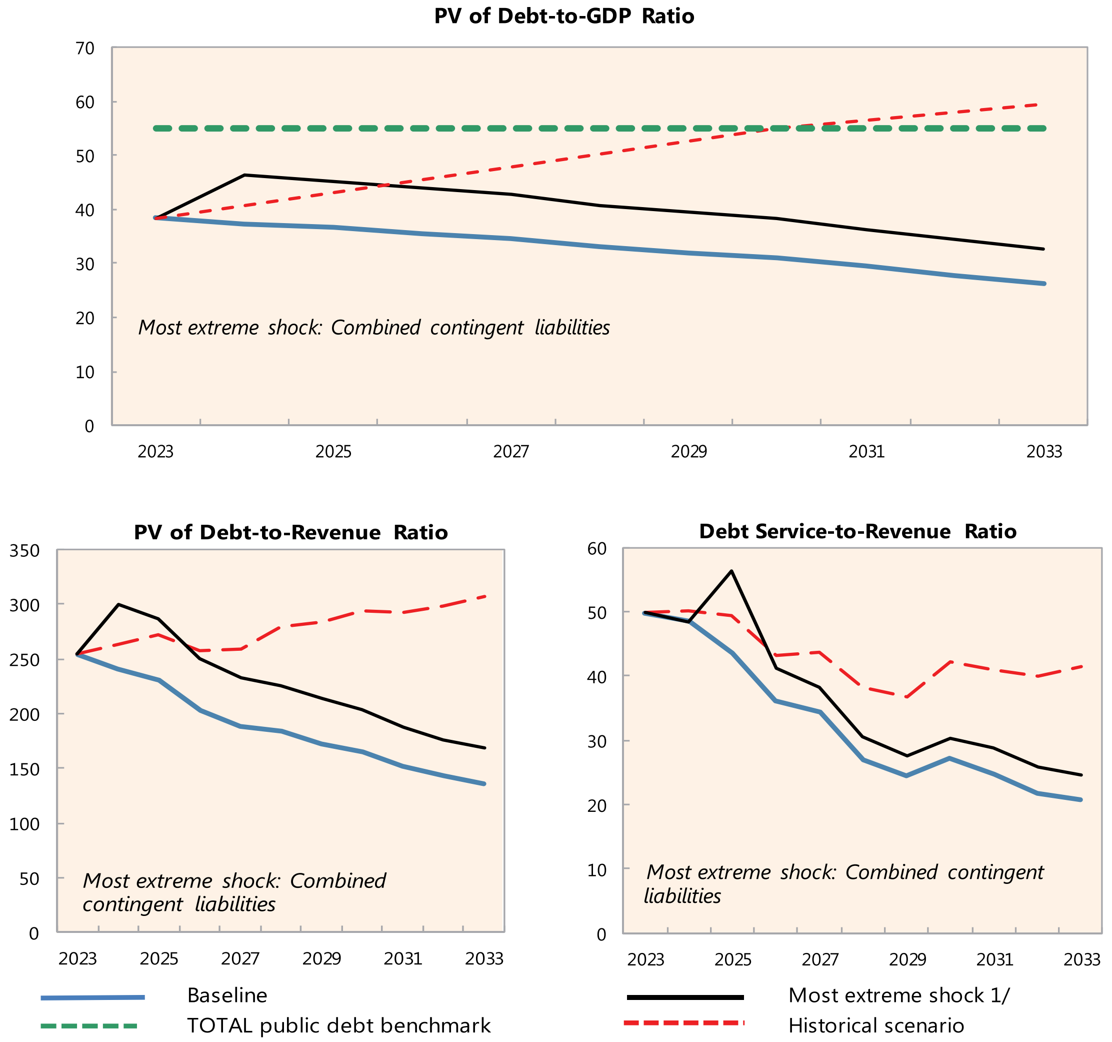
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. 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, 2023-2033



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	62%	62%
Domestic medium and long-term	22%	22%
Domestic short-term	16%	16%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	3.8%	3.8%
Avg. maturity (incl. grace period)	21	21
Avg. grace period	6	6
Domestic MLT debt		
Avg. real interest rate on new borrowing	10.7%	10.7%
Avg. maturity (incl. grace period)	10	10
Avg. grace period	6	6
Domestic short-term debt		
Avg. real interest rate	6.3%	6.3%

* 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.

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 2033. 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.

Table 3. Uganda: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2023-2033
(In percent)

	Projections 1/										
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
PV of debt-to GDP ratio											
Baseline	21	21	21	21	22	22	22	22	21	20	20
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	21	21	20	21	22	23	23	22	21	20	19
B. Bound Tests											
B1. Real GDP growth	21	22	22	23	24	24	23	23	22	21	21
B2. Primary balance	21	24	25	26	27	27	26	26	25	24	23
B3. Exports	21	24	28	27	28	28	27	27	25	24	23
B4. Other flows 3/	21	22	23	23	24	23	23	23	22	21	20
B5. Depreciation	21	27	22	23	25	24	24	24	23	23	22
B6. Combination of B1-B5	21	25	25	25	26	26	25	25	24	23	22
C. Tailored Tests											
C1. Combined contingent liabilities	21	27	27	27	28	28	27	27	26	25	25
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	140	147	149	139	143	135	134	133	127	124	124
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	140	143	141	137	139	138	139	137	131	126	120
B. Bound Tests											
B1. Real GDP growth	140	147	149	139	143	135	134	133	127	124	124
B2. Primary balance	140	162	**181**	171	173	163	161	159	152	149	149
B3. Exports	140	**200**	**278**	**257**	**257**	**241**	**236**	**233**	**220**	**212**	**209**
B4. Other flows 3/	140	153	161	150	152	144	142	141	134	130	130
B5. Depreciation	140	147	127	120	126	120	119	119	114	112	114
B6. Combination of B1-B5	140	**186**	160	**189**	**192**	**181**	179	177	168	163	163
C. Tailored Tests											
C1. Combined contingent liabilities	140	**184**	**192**	179	**180**	170	167	166	159	156	156
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	11	11	12	12	12	11	11	13	11	11	12
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	11	12	13	13	13	12	13	**16**	15	15	**17**
B. Bound Tests											
B1. Real GDP growth	11	11	12	12	12	11	11	13	11	11	12
B2. Primary balance	11	11	13	14	13	12	12	14	13	13	14
B3. Exports	11	13	**19**	**20**	**19**	**17**	**18**	**20**	**19**	**20**	**21**
B4. Other flows 3/	11	11	12	13	12	11	11	13	12	12	13
B5. Depreciation	11	11	12	12	11	10	10	12	11	10	11
B6. Combination of B1-B5	11	13	**16**	**16**	**16**	14	14	**16**	**15**	**15**	**16**
C. Tailored Tests											
C1. Combined contingent liabilities	11	11	14	14	13	12	12	14	13	13	14
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	11	11	12	11	10	10	10	11	10	9	10
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	11	12	12	12	12	11	12	14	12	12	14
B. Bound Tests											
B1. Real GDP growth	11	11	12	12	11	10	10	12	10	10	11
B2. Primary balance	11	11	12	12	12	11	11	12	11	11	12
B3. Exports	11	11	12	13	12	11	11	12	11	12	12
B4. Other flows 3/	11	11	12	11	11	10	10	11	10	10	11
B5. Depreciation	11	14	14	13	12	11	12	13	12	11	12
B6. Combination of B1-B5	11	12	13	13	12	11	11	12	11	11	12
C. Tailored Tests											
C1. Combined contingent liabilities	11	11	13	13	12	11	11	12	11	10	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	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	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 , 2023-2033

	Projections 1/										
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	PV of Debt-to-GDP Ratio										
Baseline	38	37	37	35	35	33	32	31	29	28	26
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	38	41	43	45	48	50	53	**55**	**57**	**58**	**59**
B. Bound Tests											
B1. Real GDP growth	38	38	40	40	41	40	40	40	39	38	38
B2. Primary balance	38	41	44	42	41	39	38	37	35	33	31
B3. Exports	38	39	43	41	40	38	37	35	33	31	29
B4. Other flows 3/	38	38	38	37	36	34	33	32	31	29	27
B5. Depreciation	38	40	38	35	33	30	28	26	23	21	18
B6. Combination of B1-B5	38	39	40	37	35	34	33	31	30	28	27
C. Tailored Tests											
C1. Combined contingent liabilities	38	46	45	44	43	41	39	38	36	34	33
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
	PV of Debt-to-Revenue Ratio										
Baseline	255	241	231	203	189	184	173	166	152	143	136
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	255	263	272	258	259	279	285	294	293	299	307
B. Bound Tests											
B1. Real GDP growth	255	248	255	230	221	222	215	213	203	197	195
B2. Primary balance	255	265	276	242	224	218	206	197	182	170	163
B3. Exports	255	256	269	235	217	211	198	189	173	161	152
B4. Other flows 3/	255	247	242	212	197	191	180	172	158	148	141
B5. Depreciation	255	261	240	202	180	167	151	138	121	107	96
B6. Combination of B1-B5	255	254	253	210	193	187	176	168	154	144	137
C. Tailored Tests											
C1. Combined contingent liabilities	255	300	287	251	233	226	213	204	188	177	169
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Debt Service-to-Revenue Ratio										
Baseline	50	48	44	36	35	27	24	27	25	22	21
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	50	50	49	43	44	38	37	42	41	40	42
B. Bound Tests											
B1. Real GDP growth	50	50	47	40	39	32	29	33	30	28	27
B2. Primary balance	50	48	49	43	38	30	27	30	28	26	25
B3. Exports	50	48	44	37	36	28	25	28	26	24	22
B4. Other flows 3/	50	48	44	36	35	27	25	28	25	22	21
B5. Depreciation	50	47	44	36	35	27	25	28	25	22	21
B6. Combination of B1-B5	50	47	45	40	35	28	25	28	25	23	22
C. Tailored Tests											
C1. Combined contingent liabilities	50	48	56	41	38	31	28	30	29	26	25
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.
1/ 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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