

## MINISTRY OF FINANCE AND ECONOMIC AFFAIRS

# MEDIUM TERM DEBT MANAGEMENT STRATEGY

2022-2026

Prepared by the Debt and Aid Management Division

In fulfilment of the Requirements of Section 71 of the Public Finance Management Act, 2022

**DECEMBER 2022** 

#### **FOREWORD**

Recent worsening global economic and financial conditions coupled with increase in frequency and depth of exogeneous shocks, such as weather-related events and health pandemics have brought economic and social vulnerabilities to the fore. From an economic perspective, prudent fiscal management, in particular, public debt management has taken centre stage—as it is essential to Governments' ability to achieve fiscal sustainability and build resilience to withstand external shocks and contribute to macroeconomic stability necessary for long-term economic growth.

As part of the reporting requirements under the Public Finance Management Act, 2022, the Ministry of Finance and Economic Affairs is mandated to develop a Medium-Term Debt Management Strategy. The Strategy outlines the Government's plans to achieve the optimal debt portfolio, grounded in a ranking of the cost and risk tradeoffs of alternative debt management strategies. It operationalizes the Government primary debt management objective of meeting financing needs at the lowest possible cost, consistent with a prudent degree of risk and the secondary objective of developing the domestic debt market.

In line with the second enabler for Malawi 2063's first 10-year Implementation Plan: Effective Governance Systems and Institutions, Government has placed emphasis on sound financial and economic management to strengthen sustainable public debt management. The MTDS is also anchored on the 2022 Economic and Financial Policy Statement which frames the Government's economic policy reforms over the medium term. The Government is committed to reducing funding requirements and the level of debt accumulation which will consequently bring debt back to a moderate risk of debt distress.

Through this Strategy, Government is committed to improving debt management and Malawi's creditworthiness. This publication which has been approved by Cabinet and made public, reinforces the Government's unwavering commitment to promoting clarity, transparency and accountability in debt management operations.

I extend my sincere appreciation to the officials from the Ministry of Finance and Economic Affairs and Reserve Bank of Malawi for their efforts in the preparation of this Strategy and for their commitment to the implementation and oversight of the selected debt management strategy. Special thanks should go to the Macroeconomic and Financial Management Institute of Eastern and Southern Africa for their technical support

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MINISTER OF FINANCE AND ECONOMIC AFFAIRS

#### EXECUTIVE SUMMARY

The Public Finance Management Act (PFMA), 2022 requires the Minister of Finance to submit to Cabinet, no later than 31<sup>st</sup> December, a Medium-Term Debt Management Strategy (MTDS) or updates for approval. The main objectives of the Strategy are: (a) meeting the financing needs and the repayment obligations of the Government on a timely basis, at the lowest possible cost, consistent with a prudent degree of risk; and (b) supporting the development of the domestic debt market.

The PFMA requires the formulation and execution of the MTDS, having due consideration to the principles of economic, fiscal and financial policy that take into account the macroeconomic and financial market conditions of Malawi, costs and risks associated with Malawi's debt and future financing requirements.

The MTDS therefore aims at achieving the optimal debt portfolio consistent with the debt management objectives provided in the Act. It guides the Government's borrowing decisions to fund its overall financing needs, within the context of its cost and risk objectives.

The 2022-2026 MTDS, a successor to a similar Strategy covering 2018-2022, has been prepared at a time when Malawi's economy is recovering from the adverse effects of COVID-19 pandemic and the Tropical Storm Ana and Gombe. The economic outlook remains uncertain.

The Strategy has been formulated by evaluating four alternative debt management strategies based on their cost and risk implications on the total debt profile in the future. The strategies are as follows:

 Strategy 1 assumes status quo. This is the preferred strategy under the previous MTDS. It maintains existing instrument mix and aims at lengthening of the domestic debt maturities by issuing 2- and 3year Treasury Notes (T-Notes) while increasing the proportion of 5and 7-Year T-Notes;

- Strategy 2 assumes a moderate increase in external financing whilst domestic financing is similar to Strategy 1;
- Strategy 3 assumes more external financing from issuance of a USD 100 million Diaspora Bond (commercial borrowing) in 2023;
   and
- Strategy 4 aligns to the programing of the International Monetary
  Fund under the proposed four-year Extended Credit Facility which
  focuses on maximizing concessional financing.

An analysis of the alternative strategies shows that strategy 4 is the preferred strategy under the baseline and shock scenarios. The strategy presents lower re-financing and re-fixing risks compared to the other strategies albeit with a higher foreign exchange risk.

The success of implementing Strategy 4 depends on fiscal discipline as well as a stable macro-economic environment in the medium term. Therefore, implementation of the strategy will be monitored closely and reviewed on an annual basis in line with the PFMA.

#### ACRONYMS AND ABBREVIATIONS

ADF African Development Fund

AfDB African Development Bank

AFREXIM Africa Export Import Bank

ATM Average time to Maturity

ATR Average time to Re-fixing

CNY Renminbi, official currency of the People's Republic of China

COVID-19 An infectious disease caused by the SARS-CoV-2 virus

DAD Debt and Aid Management Division

EIB European Investment Bank

EUR Euro, official currency of European Union member states

FDI Foreign Direct Investment

FX Foreign Exchange, currencies other than the Malawi Kwacha

FY Financial Year of Malawi

GBP Pound sterling, official currency of the United Kingdom

GDP Gross Domestic Product

IDA International Development Association

IFAD International Fund for Agricultural Development

IMF International Monetary Fund

OPEC Fund Opec Fund for International Development

IR Interest Rate

JPY Japanese Yen, official currency of Japan

MWK Malawi Kwacha, official currency of Malawi

MoFEA Ministry of Finance and Economic Affairs

MTDS Medium-Term Debt Management Strategy

PV Present Value

PFMA Public Finance Management Act

RBM Reserve Bank of Malawi

SDR Special Drawing Rights, unit of account based on five

currencies- United States Dollar, EURO, CNY, JPY and GBP

SMP IMF's Staff Monitored Program

SOE State Owned Enterprise

TPD Total Public Debt

USD United States Dollar, official currency of the United States of America

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#### I.INTRODUCTION

The Public Finance Management Act (PFMA) of 2022 requires the Minister of Finance to submit a Medium-Term Debt Management Strategy (MTDS) to Cabinet for approval. The aim of the Strategy is to guide the Government's debt management operations towards the achievement of debt management objectives.

An MTDS is a document outlining how Government will achieve its financing goals, while achieving an appropriate balance between costs and risks, and supporting secondary objectives such as development of the domestic debt market. Reducing the costs and risks associated with Government debt operations is key to achieving debt sustainability and containing fiscal risks, and developing an efficient local currency bond market is key to diversifying the source of domestic budgetary financing over the medium term.

The Strategy is designed to support and complement Government's medium-term macroeconomic framework taking into account existing financing sources. The MTDS allows countries to consider not only the relative costs and risks of alternative financing strategies but the impact of key macroeconomic policies and indicators on the development and cost of debt. The Strategy considers the debt composition, costs and risks of Malawi's current debt stock and assesses the outcome of four potential borrowing strategies under baseline and shock scenarios.

This Strategy begins by reviewing Malawi's debt management objectives and principles; before reviewing the composition and cost/risk indicators of Malawi's existing debt stock to identify its main vulnerabilities, it looks at potential sources of financing and likely macroeconomic developments, which are used to determine the most desirable borrowing strategy for the country.

### II. OBJECTIVES OF MALAWI DEBT MANAGEMENT STRATEGY

The objectives of public debt management are provided for under section 71 of the PFMA, 2022. The primary objective is to ensure that the Government's financing needs and debt service obligations are met at the lowest possible cost, while adhering to an acceptable level of risk. The secondary objective is to contribute to the development of the domestic debt market.

Government pursues the above objectives in accordance with the principles of responsible fiscal management enshrined under section 25 of the PFMA. The Act details the following main principles that shall apply to fiscal management in Government:

- total public debt shall be managed at prudent levels so as to provide a buffer against factors that may impact adversely on the level of total public debt;
- the total overall expenditures of the Government in each financial year shall be in the public interest and designed to achieve long term fiscal stability within any borrowing program;
- the net worth of the Government shall be maintained at levels that provides a buffer against factors that may impact adversely on the Government net worth;
- the fiscal risks of the Government shall be managed with a view to maintaining fiscal stability; and
- the economic and fiscal policies to be pursued shall be consistent with a reasonable degree of predictability about the level and stability of tax rates in the medium term.

#### III.SCOPE OF DEBT MANAGEMENT STRATEGY

The scope of this Strategy covers external and domestic central Government debt. External debt for the MTDS includes debt owed to multilateral, bilateral and commercial creditors. The International Monetary Fund (IMF) obligations rest on the balance sheet of the Reserve Bank of Malawi and represents external borrowing for balance of payments support and are therefore excluded from the analysis, except when on exceptional circumstances, on lent to the Government for budget support purposes.

To widen the coverage, a separate annex has been added at the end of this document to review and analyze the impact of implementing this strategy with guarantees issued to Stated Owned Enterprises (SOEs).

The Strategy is based on the outstanding debt portfolio of the Government as at end September 2022. The Strategy succeeds the previous MTDS of 2018 and will run for four years from December 2022 to Financial Year 2025/2026. It will be updated annually in keeping with statutory requirements.

#### IV.CHARACTERISTICS OF EXISTING DEBT PORTIFOLIO

As at end-September 2022, Malawi's Total Public Debt (TPD) stock stood at USD6.03 billion (MWK6.18 trillion¹) or 54.2 percent of GDP, with USD2.61 billion (MWK2.68 trillion) sourced from external sources and approximately USD3.41 billion (MWK3.50 trillion) issued in the domestic debt market. The composition of Malawi's current public debt stock is shown in Table 1.

Table 1: Composition of public debt portfolio

Residence	MWK	USD	(% of) TPD	(% of) GDP
	Billion	Million		
Total External Debt	2,680.10	2,612.18	43.35	23.50
Highly Concessional	1,805.55	1,759.80	29.21	15.83
Concessional	371.83	362.41	6.01	3.26
Semi-concessional	127.16	123.93	2.06	1.11
Semi-concessional CNY	223.54	217.88	3.62	1.96
Commercial	152.02	148.17	2.46	1.33
<b>Total Domestic Debt</b>	3,502.02	3,413.27	56.65	30.70
Treasury Bills	469.53	457.63	7.59	4.12
2 Year T-Note	525.71	512.39	8.50	4.61
3 Year T-Note	757.68	738.48	12.26	6.64
5 Year T-Note	890.57	868.00	14.41	7.81
7 Year T-Note	479.36	467.21	7.75	4.20
10 Year T-Note	321.14	313.00	5.19	2.82
Promissory Notes	58.02	56.55	0.94	0.51
Total Debt	6,182.11	6,025.45	100.00	54.20

Source: Debt and Aid Management Division, MoFEA

#### 4.1 Malawi's External Public Debt

The World Bank, through the International Development Association (IDA), remains the largest creditor to the Government of Malawi, constituting 47.61 percent of Malawi's external debt stock as at end September 2022. The African Development Bank (AfDB), through the African Development Fund (ADF), follows with a proportion of 16.10 percent and Export-Import Bank of China (EXIM China) is the third largest external with a share of 8.34 percent. Over 80 percent of Malawi's

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<sup>&</sup>lt;sup>1</sup> MWK-USD exchange rate used throughout this report was 1026 MK to 1 USD

external debt is contracted on concessional terms with multilateral creditors. The semi concessional loans account for 13 percent of total external debt, whereas the commercial loans represent 5.67 percent of external debt stock. Table 2 shows the composition of Malawi's external debt portfolio.

Table 2 Composition of Malawi's external debt portfolio, by creditor.

Creditor	Outstanding	Ranking	(% of)
	Debt (USD		External
	Million)		Debt
International Development Association	1,243.57	1	47.61
African Development Fund	420.67	2	16.10
Export-Import Bank of China (Main-			
Land)	217.88	3	8.34
Afrexim bank	144.06	4	5.51
Export Import Bank of India	119.16	5	4.56
European Investment Bank	97.07	6	3.72
International Fund for Agric.			
Development	95.56	7	3.66
OPEC Fund for International			
Development	77.64	8	2.97
Arab Bank for Economic Dev. in Africa	69.33	9	2.65
Kuwait Fund for Arab Economic			
Develop.	46.29	10	1.77
Saudi Fund for Development	30.30	11	1.16
International Monetary Fund	27.68	12	1.06
Nordic Development Fund	15.36	13	0.59
Compañía Española De Seguros de			
Crédito	4.11	14	0.16
Abu Dhabi Fund for Development	2.47	15	0.09
Government of Belgium	1.04	16	0.04
Total External Debt	2,612.18		100.0

Source: Debt and Aid Management Division, MoFEA

After decomposing the Special Drawing Rights (SDR) basket into its tradable currencies, 81 percent of Malawi's external debt portfolio is denominated in USD. The CNY and EUR followed at 8 percent and 7

<sup>1/</sup>For the MTDS analysis, the stock excludes IMF balance of payments support to the Reserve Bank of Malawi.

percent, respectively. Other currencies accounted for the remaining 4 percent.

Although the external debt currency composition leaves Malawi heavily exposed to exchange rates fluctuations, this risk is mitigated by the relatively balanced share between the external and domestic debt, amortizing structure of the loans and the long maturity profile of the external debt portfolio. Figure 1 shows the major currencies in Malawi's debt portfolio.

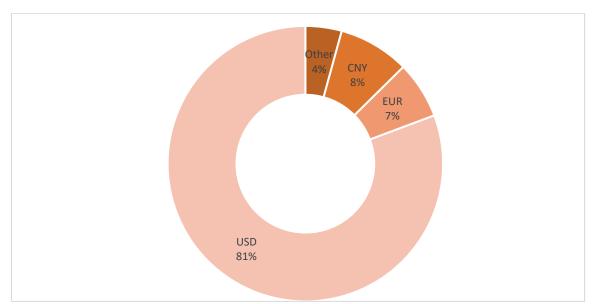


Figure 1. External debt stock, by currency composition

Source: Debt and Aid Management Division, MoFEA

#### 4.2 Malawi's Domestic Public Debt

Domestic debt has increased over the past years, both in nominal terms, as a share of TPD and as a percentage of GDP. Malawi's domestic debt stock has increased from MWK1.5 trillion (42.1 percent of total public debt and 20 percent of GDP) at the end of the 2018/2019 FY to MWK 3.5 trillion (56.6 percent of total public debt and 30.7 percent of GDP) as of end of September 2022. The increase is due to the significantly high deficit financing and debt refinancing requirements during the period.

The composition of total domestic debt has changed over the period with the proportion of longer maturity Treasury Notes increasing as compared to Treasury Bills. As of end-September 2022, Treasury Notes constituted 84.9 percent of total domestic debt (compared to 62.4 percent in 2018) and 48.11 percent of TPD (denominated in 2-, 3-, 5-, 7- and 10- year tenors), while Treasury Bills (91-, 182- and 364-day tenors) accounted for 13.4 percent of the total domestic debt stock (compared to 32.8 percent in 2018) or 7.5 percent of TPD. Promissory Notes, issued to offset a significant build-up of domestic payment arrears, stood at 0.94 percent of TPD. The increase in long term dated papers was part of the selected strategy under the 2018 MTDS.

#### 4.3 Costs and Risks of Existing Debt Portfolio

The current composition of Malawi's public debt leaves it susceptible to a number of risk factors. As illustrated in Figure 2, the redemption profile shows that MWK1.18 trillion of public debt is maturing in one year implying that over 18.3 percent of total public debt is maturing this financial year, equivalent to 10.3 percent of GDP. With such magnitudes of debt maturing this financial year, Malawi's refinancing and interest rate risks are relatively high. Beyond the 2022/23 FY, the redemption profile also indicates maturity spikes on domestic debt, manifesting high debt service payments in the years up to 2027. These amounts will grow with the expected additional issuance of relatively short and medium term securities, namely Treasury bills and 2-year and 3-year Treasury notes.

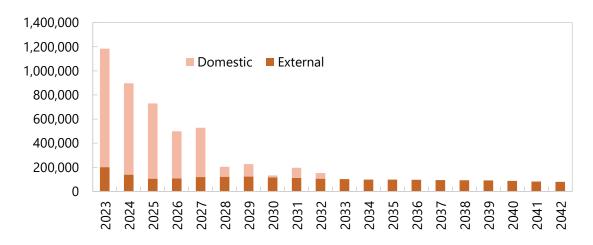


Figure 2. Public debt redemption profile (MWK million)

Source: Debt and Aid Management Division, MoFEA

In terms of the cost and risk indicators of the existing portfolio, the average time to maturity (ATM) and average time to refinancing (ATR) for Malawi's debt stood at 2.5 years for domestic debt and 13.6 years for

external debt (the ATM for the total debt portfolio is 7.6 years). While all Malawi's debt is contracted on fixed interest rates, with the country's domestic debt predominantly short-term, it constantly needs to be rolled-over, meaning that Malawi's domestic debt stock is highly exposed to interest rate risks as the interest rates are likely to change from year to year.

Table 3. Main cost and risk indicators for Malawi's debt portfolio

Risk Indica	ators	External debt	Domestic debt	Total debt
Amount (in	millions of MWK)	2,680,099.19	3,502,015.75	6,182,114.94
Amount (in	millions of USD)	2,612.18	3,413.27	6,025.45
Nominal de	bt (% of GDP)	23.50	30.70	54.20
PV (% of GI	OP)	15.10	30.70	45.80
Cost of	Interest payment (% of			
debt	GDP)	0.39	4.73	5.12
	Weighted Av. IR			
	(percent)	1.66	15.42	9.45
Refinancing	5			
risk	ATM (years)	13.59	2.52	7.57
	Debt maturing in 1yr			
	(% of total)	6.83	28.07	18.39
	Debt maturing in 1yr			
	(% of GDP)	1.76	8.62	10.38
Interest				
rate risk	ATR (years)	13.59	2.52	7.57
	Debt refixing in 1yr (%			
	of total)	6.83	28.07	18.39
	Fixed rate debt incl T-			
	bills (% of total)	100.00	100.00	100.00
	T-bills (% of total)	-	13.41	7.29
	FX debt (% of total			
FX risk	debt)			43.35
	ST FX debt (% of			
	reserves)			86.57

Source: Debt and Aid Management Division, MoFEA

Comparatively, Malawi's external debt stock has a lower interest rate risk, with all external debt contracted at fixed rates with long maturities. As for foreign exchange risk, 43.5 percent of the debt stock was denominated in foreign currency at the end of September 2022. This

proportion implies that a sizeable amount of Malawi's debt is susceptible to exchange rate movements. Exchange rate shocks can substantially contribute to higher debt service payments in local currency terms, thereby leading to higher payments in the budget than projected. Additionally, with short term foreign currency debt as a percentage of foreign reserves at 86.5 percent, there is risk of liquidity challenges when servicing foreign exchange debt. Table 3 summarizes the key risk and cost indicators of Malawi's debt portfolio as at end September 2022.

#### **V.SOURCES OF FINANCING**

#### 5.1 Domestic

The debt securities market in Malawi is still in its developing stage. Currently, there are two broad categories of debt securities issued by the Central Government: Treasury Bills with maturity up to one year and Treasury Notes with maturities ranging from two years to ten years. At the moment, the market preference is for securities on the shorter end of the yield curve, particularly those securities with maturities of up to three years.

As at end September 2022, the majority of Government debt securities, about 33 percent, were being held by commercial banks; while the non-banking sector held 22.4 percent. Over the past few years, there has been a steady increase of foreign participation on the Government debt securities market, with foreign institutions holding about 12.7 percent of government debt securities.

Recently, performance of Government debt securities on the debt securities market has consistently been lower than planned in the Government Domestic Debt Issuance Calendar(s). This has been attributed to tight liquidity conditions on the local inter-bank market. Consequently, there has been persistent upward pressure on the yields which implies an increase in the cost of funding on the part of Government.

The tight liquidity conditions alluded to above have been further exacerbated by the significant increase in inflation into double digit figures. To curb the rise in inflation, the Reserve Bank of Malawi has been tightening monetary policy by hiking the policy rate twice; initially from 12 percent at the onset of 2022, to 14 percent in May 2022; and to a further 18 percent in October 2022.

This notwithstanding, it should be stressed that Government is geared towards containing inflation through employment of both supply-side and demand-side measures. Thus, in the medium term, inflation and consequently yields on Government securities will go down to

manageable levels. In trying to address some of the structural shortcomings of the domestic debt securities market, Government, through RBM, is exploring the introduction of "Market Makers" in the secondary market for Government securities. This is expected to bring liquidity on the primary market through subscription obligations on the primary market as well as increased trades on the secondary market through two-way quoting of prices.

#### 5.2 External

Official creditors are the main source of external financing for the Government. Access to multilateral concessional fixed-rate debt, long-term financing through the World Bank's IDA and AfDB's ADF provide the bulk of external financing. On the bilateral side, Exim Bank of China provides the bulk of the financing, albeit at a higher cost followed by the Arab development funds. Going forward, given that Malawi's debt is assessed unsustainable, Government plans to maintain to contract loans and in particular grants from these sources of financing

#### VI. MACROECONOMIC ASSUMPTIONS AND KEY RISKS

#### **6.1 Macroeconomic Assumptions**

Malawi's economy has been negatively affected by consecutive external and domestic shocks in recent times. The constant cycle of vulnerabilities, including from the lingering effects of COVID-19, the spillovers from the Russia-Ukraine war and multiple and successive tropical storms. In 2020, Malawi's economy decelerated to 0.8 percent from 5.7 percent in 2019. In 2021, economic activity expanded by an estimated 4.6 percent and is estimated to decelerate to an estimated 1.2 percent in 2022 while the outlook remains subject to considerable downside risks. Year-on-year inflation accelerated from 7.6 percent at end 2020 to 25.9 percent in September 2022. The country also faces persistent foreign exchange shortages. Overall, the country faces serious Balance of Payments problems with international reserves critically low.

On the back of these challenges, in recent times, budget deficits have remained elevated, reflecting limited room for adjustment in spending and low domestic revenue mobilization. The deficit has been mainly financed by high-cost domestic borrowing since external budget support and grants have reduced since the 2013 Cashgate scandal. Rising domestic financing and commercial external borrowing (since 2018) have substantially increased Malawi's public debt, which stood at 64 percent at end September 2022. To address the vulnerabilities, Government requested for support from the International Monetary Fund (IMF) and is currently under a Staff Monitored Program (SMP) with Board involvement. Government is working on a four-year IMF Program and under the Program, Government will deepen its efforts to consolidate the fiscus to tackle fiscal imbalances. The primary balance is expected to improve during the period to achieve a surplus by 2025. Table 4 shows the main fiscal assumption for the period using Government's projections.

Table 4. Main Macroeconomic assumptions 2022-2026

MWK millions	2022	2023	2024	2025	2026
Revenue and Grants	2,039,000	2,437,600	2,993,200	3,445,700	3,892,600
Primary Expenditure	2,232,100	2,766,400	3,079,800	3,314,500	3,587,700
Primary Balance	(193,100)	(328,800)	(86,600)	131,200	304,900
Interest payments	645,100	1,059,900	1,298,100	1,457,600	1,527,200
Reserves (USD					
million)	212	457	664	800	946
GDP	11,407,000	14,684,500	17,332,500	19,868,750	21,641,000

Source: Debt and Aid Management Division, MoFEA

#### 6.2 Risks to the Assumptions and Forecasts

These baseline macroeconomic assumptions face limitations, including:

- a) The prospects of both the global and domestic economy remain uncertain and can potentially affect the realism of the macroeconomic framework. This limitation can be resolved by regular update of the MTDS; and
- b) Exceptional fiscal pressures may lead to higher deficits which could in turn affect borrowing targets under the MTDS.

#### VII. COST-RISK ANALYSIS OF ALTERNATIVE DEBT MANAGEMENT STRATEGIES

#### 7.1 Description of the Stylized Debt Instruments

A total of eleven stylized debt instruments were created for the analysis. The stylized debt instruments included five MWK and six USD-denominated instruments. Only one of the instruments, Diaspora Bond, has been introduced to implement one alternative strategy. The rest of the instruments are already present in the existing debt portfolio. All domestic debt instruments are market-based instruments, whereas all external debt instruments are on concessional or semi-concessional terms. Financial terms for the Diaspora Bond are still being decided, but for the purpose of this exercise a commercial fixed interest rate of 10.5 percent, to take account of country risk premia, has been used. Table 5 presents a summary of the debt instruments and underlying terms.

Table 5: Description of stylized debt instruments

		Fix / Var/	Maturity	Grace
	Instrument Type / Name	T-bills	(Years)	(years)
	Highly Concessional	Fix	38	6
	Concessional	Fix	25	5
د	Semi-concessional	Fix	20	5
[NA]	Semi-concessional CNY	Fix	20	5
EXTERNAL	Commercial	Fix	5	1
EX	Diaspora Bond	Fix	15	14
	T-bills	T-bills	1	0
IIC	TN02&3	Fix	2	1
ES	TN05&7	Fix	6	5
DOMESTIC	TN10	Fix	9	1
Ц	Promissory Notes	Fix	1	0

Source: Debt and Aid Management Division, MoFEA

#### 7.2 Baseline Interest and Exchange Rate Assumptions

The analysis that follows is based on Government's projections and the assumptions of the expected market interest and exchange rates during the strategy period. The assumption for the path of the nominal exchange rate is based on the rate used for the Government macroeconomic framework. This is done in order to keep consistency among the variables used in the different macroeconomic programs.

For concessional and semi-concessional fixed-rate loans, a constant interest rate assumption was made for the strategy period. These instruments are non-market debt instruments and the conditions granted by these creditors to Malawi are not expected to change during the strategy period.

For domestic debt, pricing is based on the actual coupons issued during 2022. For forward pricing, rates are used in line with the Debt Sustainability Analysis (DSA) in order to keep consistency among the various ongoing analyses.

#### 7.3 Description of Shock Scenarios

The analysis compared alternative borrowing strategies under different shocks to interest and exchange rates. The MTDS tool allows the definition of four risk scenarios: two shocks to interest rates, an exchange rate shock, and a combined interest rate and exchange rate shock.

For exchange rates, standard shocks of 15 and 30 percent were applied. These shocks were consistent with the standard DSA for low-income countries. Exchange rate shocks were applied in the second projected year of the analysis (2023).

For interest rates, a moderate and an extreme shock were defined. The extreme shock doubled the standard shock. The shocks applied for the 2023-25 period are as follows:

- Moderate (combined with the exchange rate shock): 200 bps or 2.0 percent; and
- Extreme: 500 bps or 5 percent.

#### 7.4 Borrowing Strategies

Four alternative debt management strategies are considered and their cost and risk implications on the debt profile in the future are analyzed to determine the most suitable debt strategy for Malawi. The alternative strategies considered are summarized in Table 6

Table 6. Alternative debt strategies and descriptions

	mative debt st	rategies and descriptions				
STRATEGY		DESCRIPTION				
1	Status quo	Preferred strategy in the previous MTDS				
		Maintaining existing instrument mix				
		• Lengthening of the domestic debt maturities by				
		issuing 2- and 3-year Treasury Notes while				
		increasing the proportion of 5- and 7-Year				
		Treasury Notes (T-Notes)				
2	More	<ul> <li>External financing to moderately increase</li> </ul>				
	External	• Domestic financing as in S1, current stock will				
	Financing	be rolled over as they mature.				
3	Diaspora	• Same as S2 but more external financing				
	bond	expected from the issuance of a diaspora bond				
		(USD 100 million) in 2023.				
4	Diversifying	• Financing in line with proposed IMF program				
	external	• New external financing will maximize				
	sources	concessional funding.				

Source: Debt and Aid Management Division, MoFEA

Table 7 presents the borrowing mix associated with each of the strategies.

Table 7. Borrowing mix for alternative strategies

Average percentage of gross borrowing over simulation period						
New debt	S1	<b>S2</b>	<b>S</b> 3	<b>S4</b>		
AfDB/IDA/IFAD	19.4	27.6	26.9	23.1		
Concessional	3.0	4.3	4.1	0.0		
Semi-concessional	2.6	3.7	3.3	7.5		
Semi-concessional CNY	0.0	0.0	0.0	9.5		
Diaspora Bond	0.0	0.0	1.2	0.0		
T-bills	10.2	8.8	8.7	8.2		
TN02&3	27.9	24.0	24.0	22.4		
TN05&7	29.8	25.6	25.6	23.9		
TN10	7.0	6.0	6.0	5.6		
External	25.1	35.7	35.7	40.0		
Domestic	74.9	64.3	64.3	60.0		
Total	100	100	100	100		

Source: Debt and Aid Management Division, MoFEA

#### 7.5 Result Analysis: Costs and Risks of Alternative Strategies

To determine which strategy the Government should pursue, the costs and risks associated with each of the debt management strategies outlined above are compared in this section.

#### 7.5.1 Growth of Public Debt

#### a) Nominal Debt to GDP

In terms of nominal Debt to GDP ratio, all the four alternative strategies show a lower ratio compared to the baseline. S4 and S2 (49.9 percent) give a lower ratio of all the strategies.

#### 7.5.2 Cost of Debt

#### a) Implied Interest Rate

This is a measure of the portfolio's cost of borrowing and is determined by the weighted average interest rates of the difference debt instruments in the portfolio. At 9.1 percent, the baseline reflects a lower cost of borrowing compared to alternative strategies. This is because the alternative strategies have higher proportions of longer tenors of domestic instruments. Nevertheless, S4 (10.4 percent) has the lowest implied interest of all the alternative strategies because it has a high proportion of lower cost concessional multilateral and bilateral debt than S1 through S2. This translates into a lower interest payment as percent of GDP of 5.2 percent compared to 5.7, 5.3, and 5.3 percent recorded under strategies S1, S2 and S3, respectively

#### 7.5.3 Evaluation of Risks Profile

#### a. Refinancing Risk

S4 has the lowest proportion of debt maturing in one year as a percentage of total debt (11.0 percent) than the baseline (18.4 percent), S1 (13.8 percent) and S2 and S3 at 11.8 percent. Thus, based on this criterion, S4 is the preferred strategy. Based on the Average Time to Maturity (ATM) criterion for total debt, all the alternative strategies perform better relative to the baseline (7.6 years). S2 (10.4 years) and S3 (10.3 years) reflect the use of longer-term domestic debt instruments. Also, S3 has a long-term diaspora bond. S4 (10.2 years) reflects the use of concessional long-term debt. Based on this criterion, S4 is also the preferred strategy.

#### b. Interest Rate Risk

Given that Malawi's debt portfolio is on a fixed rate basis, the Average Time to Refixing (ATR) is the same as the ATM. Looking at the percentage of debt refixing in one year, all the alternative strategies show better results relative to the baseline (18.4 percent). Nevertheless, S4 (11.0 percent) shows the lowest risk.

#### c. Foreign Exchange Risk

All the three alternative strategies have varying exposure to foreign exchange risk. Exposure to the risk is highest in S4 (59 percent) as it has enhanced external borrowing than all the strategies, S1(46.3 percent), S2 (55.3 percent) and S3 (55.3 percent). In the case of Malawi, this risk is mitigated by the long maturity profile associated with concessional external borrowing.

Table 8. Risk and Cost indicators under alternative strategies end 2026

Risk	_	_				
Indicators		2022	As at er	nd 2026		
		Current	S1	<b>S2</b>	<b>S</b> 3	<b>S4</b>
Nominal debt (%	of GDP)	56.26	50.48	49.90	50.07	49.89
PV (% of GDP)		47.50	40.90	38.27	38.62	38.11
Interest paymen	it (% of GDP)	5.12	5.73	5.28	5.34	5.17
Implied interest	rate (percent)	9.11	12.57	10.97	11.06	10.36
Refinancing	Debt maturing in					
risk	1yr (% of total)	18.39	13.77	11.79	11.79	10.95
	Debt maturing in					
	1yr (% of GDP)	10.38	6.95	5.89	5.90	5.46
	ATM External					
	Portfolio (years)	13.59	15.44	16.06	15.98	15.03
	ATM Domestic					
	Portfolio (years)	2.52	3.32	3.27	3.27	3.24
	ATM Total					
	Portfolio (years)	7.57	8.99	10.40	10.35	10.25
Interest rate						
risk	ATR (years)	7.57	8.99	10.40	10.35	10.25
	Debt refixing in					
	1yr (% of total)	18.39	13.77	11.79	11.79	10.95
	Fixed rate debt					
	incl T-bills (% of		100.0	100.0	100.0	100.0
	total)	100.00	0	0	0	0
	T-bills (% of total)	7.29	2.28	1.52	1.52	1.15
	FX debt (% of					
FX risk	total	43.35	46.31	55.29	55.26	58.99
	ST FX debt (% of					
	reserves)	86.57	11.29	11.29	11.29	11.29

Source: Debt and Aid Management Division, MoFEA

Table 8 summarizes key cost and risk indicators under the baseline scenario.

Considering the foregoing, S4 is deemed to be the most preferred strategy for Government of Malawi to pursue over the medium term compared to the baseline. However, this conclusion does not take into account the implications of different shocks which may affect the desirability of each strategy. The effect of shocks is analyzed below.

#### 7.6 Shock Analysis. Cost-Risk Trade-Off of the Strategies

To ensure the Government of Malawi pursues the best debt management strategy among its various financing options, varying risk and cost characteristics need to be assessed to ensure debt sustainability in the long-run. As such, several shocks that relate to Malawi's current economic vulnerabilities are considered hereafter.

These shocks are particularly important to consider given Malawi's history of economic volatility and the sharp changes in inflation, exchange and interest rates that have been witnessed in recent years.

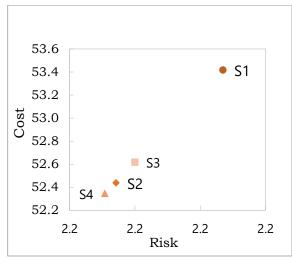
These shock scenarios allow for an evaluation of the impact of a sudden depreciation in the Malawi Kwacha to USD exchange rate (similar to that experienced in March 2022), an increase in domestic interest rates, such as from potential fiscal slippages or rising inflation and a combination of both. The capacity of the strategies considered in this document to withstand economic shocks are evaluated in Figure 3 (effect on debt to GDP) Figure 4, (effect on interest to GDP) and Figure 5 (effect on interest to revenue), along with the costs associated with these strategies under the baseline economic conditions outlined above.

Consistently, S4 performs better against alternative strategies under various shock scenarios.

#### 7.7 Preferred Strategy and Its Implications

In view of the sensitivity analysis of the alternative strategies to various shocks, S4 remains the most preferred. The strategy is preferred as it meets the primary debt management objective of meeting the Government's financing needs at a minimal cost and subject to prudent degree of risk. Further, it is the cheapest of the strategies and improves existing vulnerabilities of the debt portfolio.

Figure 3. Debt to GDP (percent), 2026



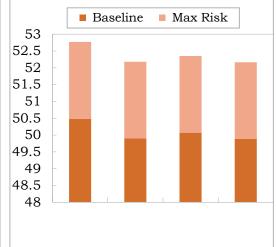
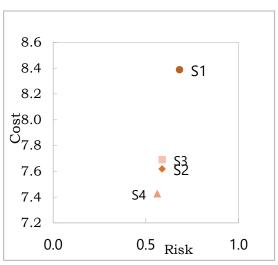


Figure 4. Interest to GDP (percent), 2026



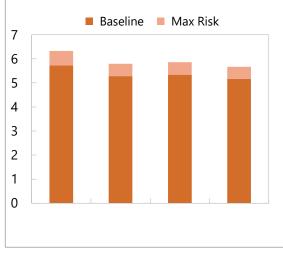
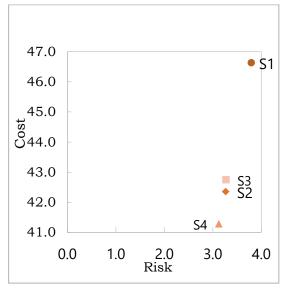
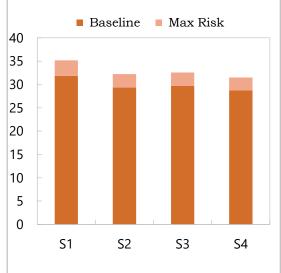


Figure 5. Interest to Revenue (percent), 2026





Source: Debt and Aid Management Division, MoFEA

The benefits and risks associated with the recommended strategy include:

- a. Maximizing borrowing from concessional external sources would facilitate financing of Government projects and programs at a relatively lower cost. It will play a catalytic role to stimulate economic activity, which would enhance Government's revenue and help moderate the cost of borrowing as well as the ratio of debt service to revenue;
- b. Although the strategy has a relatively higher foreign exchange risk, compared to the region, the ratio is relatively lower; and
- c. Continued issuances of longer-dated domestic debt instruments and contraction of concessional foreign financing will help to moderate refinancing risk.

#### VIII. STRATEGIC TARGETS

The Government intends to use strategic targets in its MTDS for the first time. This first set of targets is based on the current portfolio's characteristics and on the debt management objectives of Malawi. In preparing the new MTDS 2022-26, the Government intends to use the following key targets:

- The Government will only borrow from concessional external sources in order to secure the necessary financing for its development objectives;
- Government will continue to develop the domestic debt market to improve its depth, liquidity and efficiency; and
- To minimize the impact of costs and risks to Government, these indicators shall be used as a guideline to provide measurable and quantifiable targets for monitoring purposes:

Table 9: Key targets 2022-2026

	Current	Target
Domestic debt ATM (years)	2.5	Above 3 years
Implied interest rates (%)	9.1	Below 11 percent
FX debt (% of total debt)	43.4	below 60 percent

Source: Debt and Aid Management Division, MoFEA

#### IX. MONITORING AND EVALUATION

This debt management strategy has a time horizon of four years, and the Debt and Aid Management Division will undertake a review of progress annually. The Strategy will be reviewed annually to check if the key debt and macroeconomic assumptions continue to hold and that the MTDS remains appropriate. The Strategy will be compared with the outcomes of the macroeconomic and external market environment, including the fiscal deficits and exchange, inflation and interest rates as well as new financing. The assumptions may be adjusted, depending on the outcome. Thus, the Strategy will be updated accordingly. Remedial actions against bottlenecks and risks that may disrupt the implementation of the Strategy will be undertaken to ensure implementation of the Strategy.

The targeted costs and risks indicators in the MTDS will be evaluated annually against actual outcomes to determine deviations and measure the progress towards the outlined long-term targets. The observed deviations will be used to develop and publish an Annual Borrowing Plan, which will be used to identify bottlenecks, interest cost exposure and exchange rate risks.

The borrowing plan will reflect maturities and issuance projections on Treasury bills and notes and expected disbursements per creditor, the period and currency of disbursement within the financial year and will be aligned to the Strategy's guidelines.

In line with the MTDS objective of meeting Government financing needs and debt servicing payments at low possible cost and low risk, the Government in collaboration with RBM, will closely monitor measures in support of the domestic debt market development and will undertake recommended measures from DSA reports.

#### ANNEX. INCORPORATING GUARANTEED DEBT.

#### **Existing stock**

The total stock of guaranteed domestic debt that is included in this exercise totals USD252 million. This amount accounts for an additional 3.8 percent of debt and therefore its impact on the existing cost and risk indicators is not significant. Annex 1 shows the cost and risk indicators of the current debt portfolio when the guaranteed debt is included in the stock.

Annex 1: Cost and risk indicators including guaranteed debt. 2022

Risk Indicators		External debt	Domestic debt 7	otal debt
Amount (in n	nillions of MWK)	2,680,099.19	3,760,574.67	6,440,673.86
	nillions of USD)	2,612.18	3,665.28	6,277.46
Nominal deb		23.50	32.97	56.46
PV (% of GDI	P)	15.10	32.97	48.06
Cost of debt	Interest payment (% of GDP)	0.39	4.73	5.12
	Weighted Av. IR (percent)	1.66	14.36	9.07
Refinancing risk	ATM (years) Debt maturing	13.59	2.45	7.34
	in 1yr (% of total) Debt maturing	6.83	29.76	19.71
	in 1yr (% of GDP)	1.76	9.81	11.57
Interest rate risk	ATR (years) Debt refixing in	13.59	2.45	7.34
	1yr (% of total) Fixed rate debt	6.83	29.76	19.71
	incl T-bills (% of total) T-bills (% of	100.00	100.00	100.00
	total)	_	12.49	7.01
FX risk	FX debt (% of total debt) ST FX debt (%			41.61
	of reserves)			86.57

Source: Debt and Aid Management Division, MoFEA

#### Strategy design

For the purpose of this simulation, strategy four was used. This strategy was selected as the preferred way forward in view of the favorable results it achieves in terms of balancing the costs and risks. The financing is in line with the proposed IMF program and it is intended that the new external financing maximizes concessional funding. In this simulation, the strategy adds a new treatment for the guarantees that will be due during the period. The falling amortizations are financed by issuing Promissory Notes. The rest of the assumptions remain the same as with the original strategy.

#### Results

After simulating the adjusted S4, the results show little impact on the overall risk indicators. The stock of debt increases slightly, as more borrowing is needed to finance the debt service resulting from the calling in of the guarantees. The implied interest rate stays relatively the same as the amounts involved do not affect the overall cost of financing. Refinancing risk and refixing risk also remain the same at the end of the period. Annex 2 shows the resulting indicators after incorporating SOE guaranteed debt.

Annex 2:Comparing risk indicators including guaranteed debt

		2022	As at end 2026	
		Current	<b>S4</b>	S4 w/ Guarantees
Nominal debt as percent of GDP		56.26	49.89	51.25
Present value debt as percent of GDP		47.50	38.11	39.37
Interest payment as percent of GDP		5.12	5.17	5.27
Implied interest rate (percent)		9.11	10.36	10.28
Refinancing				
risk	Debt maturing in 1yr (percent of total)	18.39	10.95	10.94
	Debt maturing in 1yr (% of GDP)	10.38	5.46	5.61
	ATM External Portfolio (years)	13.59	15.03	15.08
	ATM Domestic Portfolio (years)	2.52	3.24	3.26
	ATM Total Portfolio (years)	7.57	10.25	10.31
Interest rate				
risk	ATR (years)	7.57	10.25	10.31
	Debt refixing in 1yr (% of total)	18.39	10.95	10.94
	Fixed rate debt incl T-bills (% of total)	100.00	100.00	100.00
	T-bills (% of total)	7.29	1.15	1.16
FX risk	FX debt (% of total)	43.35	58.99	59.22
	ST FX debt (% of reserves)	86.57	11.29	11.29

Source: Debt and Aid Management Division, MoFEA