MINISTRY OF FINANCE, ECONOMIC PLANNING AND DEVELOPMENT

MEDIUM TERM DEBT MANAGEMENT STRATEGY

2018-2022

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FOREWORD

The 2018 Medium Term Debt Management Strategy (MTDS), that has been developed using the World Bank's MTDS Analytical tool, evaluates the costs and risks associated with Malawi's public debt portfolio. It covers the next four years and presents potential financing options. It will, therefore, serve as a tool for decision making with regards to prudent debt management.

Since the last MTDS in 2010, Malawi's public debt structure has not changed significantly. The portfolio remains exposed to high refinancing risk emanating from short-term debt. In this regard, this MTDS seeks to achieve the appropriate mix between domestic and external debt consistent with government's fiscal policy and debt management objectives. Through this strategy, Government also desires to develop Malawi's domestic financial market.

As a country that has benefited from debt relief under the Heavily Indebted Poor Countries (HIPC) Initiative, Malawi will strive to ensure that future domestic and external financing remains prudent to ensure debt sustainability for current and future generations. Fiscal policy in the medium term, therefore, will aim at reducing domestic debt to 20 percent of Gross Domestic Product. This calls for an increase in revenue and reduction in expenditure to create fiscal space for retiring debt.

I would like to express my appreciation to officials from the Ministry of Finance, Economic Planning and Development and the Reserve Bank of Malawi for developing this Strategy. I wish to recognise the World Bank, the International Monetary Fund and the Macro-economic and Financial Management Institute of Eastern and Southern Africa for the technical support as well as the United Nations Development Program and the European Union for the financial support.

Goodall E. Gondwe.

MINISTER OF FINANCE, ECONOMIC PLANNING AND DEVELOPMENT

EXECUTIVE SUMMARY

In 2010, Malawi developed and published its last MTDS. The Strategy proposed that domestic debt financing be reduced in favour of concessional external financing. However, domestic debt financing has increased significantly since the publication of the last MTDS, considering withdrawal of bilateral budget support and accumulation of suppliers' arrears, among other factors. This reflects the extremely weak macroeconomic position from 2013 because of a sharp decline in external support to the budget in favour of off-budget support. This led to a mismatch between expenditure and revenue. In order to maintain the same level of goods and services, the Government resorted to domestic debt financing.

While Malawi's external debt profile consists largely of concessional financing, semi-concessional loans have increased in recent years, increasing the debt servicing costs associated with Malawi's external debt. The necessity to build resilience against climate change shocks coupled with the need to maintain the same level of goods and services increased Malawi's demand for more external resources. However, this increased demand could not be satisfied within the resources available to Malawi on concessional terms. Consequently, the Government has had recourse to semi-concessional loans.

The 2018 MTDS compares the costs and risks of the current borrowing strategy with alternative scenarios to determine the best debt management policy for the next four years. Currently, Malawi has been contracting external debt from the concessional and semi concessional sources and domestic debt has ballooned considering the sharp curtailment of external grants. As of end-June 2018, Malawi's debt portfolio was characterised by short-term debt with 24 percent of the total public debt maturing within one year. This debt structure is largely attributed to short term domestic debt instruments.

To reduce the re-financing and re-fixing risks of the public domestic debt stock, alternative debt management strategies that aim to lengthen the maturity of the Government's domestic debt profile and maintain domestic debt at manageable levels were considered. The four Strategies that were considered include:

- Strategy 1 assumes status quo whereby Government will continue borrowing from concessional and semi-concessional external sources and maintain the current composition of domestic debt;
- Strategy 2 assumes lengthening of the domestic debt maturities through issuance of 2- and 3-Year Treasury Notes(T-Notes);
- Strategy 3 assumes 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; and
- Strategy 4 assumes increased net domestic borrowing to substitute slow or non-disbursing amounts of concessional and non-concessional loans.

The analysis of the alternative strategies shows that Strategy 3 is more preferred to the other Strategies. It is evident that Strategy 1 has higher debt maturing in one year. Likewise, Strategy 2 has higher proportion of debt that requires re-fixing within a year thus exposing the debt portfolio to risks emanating from fluctuations of interest rates. Strategy 4 yields the highest interest payments as a percentage of GDP.

Principally, Strategy 3 is more operative as it performs better than the other alternative strategies. The choice of Strategy 3 is based on its relative costs and risks. As of end-June 2022, Strategy 3 had the lowest present value of debt to GDP and the lower interest payments to GDP. Through restructuring the public domestic debt profile, Strategy 3 aims to lengthen the maturity of the public domestic debt. In the analysis, Strategy 3 provides the lowest debt maturing in one year, thus demonstrating lower re-financing and re-fixing risks relative to the other strategies under consideration.

The success of such a strategy is naturally dependent on sound macroeconomic indicators and prudent fiscal policy. To ensure that future issuances of long-term instruments are successful, a stable macroeconomic environment is essential to encourage market participation in longer-term securities. Efforts to reach out and consult with the market on longer-term borrowing plans, combined with prudent fiscal and debt management practices are crucial to ensuring debt sustainability and macroeconomic stability. As such, the implementation of this MTDS will be conducted cautiously to ensure that any risks to the economy are identified, and efforts will be made to engage market participants on planned borrowing and policy on a more systemic basis.

As a way of assessing the performance of the strategy, Government will be reviewing the MTDS annually to check whether the key assumptions continue to hold. In collaboration with the Reserve Bank of Malawi, Government will closely monitor measures in support of the domestic debt market development. On technical capacity, Government will continue to build capacity of the Ministry of Finance in the formulation of MTDS through external and in-house trainings.

Acronyms and Abbreviations

ADB – African Development Bank

ATM – Average Time to Maturity

ATR – Average Time to Re-fixing

CPI – Consumer Price Index

FX – Foreign Exchange

FY – Financial Year

GDP – Gross Domestic Product

HIPC- Heavily Indebted Poor Countries

IDA – International Development Association

IMF – International Monetary Fund

MGDS- Malawi Growth and Development Strategy

MTDS – Medium-Term Debt Management Strategy

MK – Malawi Kwacha

PFM – Public Financial Management

RBM – Reserve Bank of Malawi

TPD – Total Public Debt

USD – US Dollar

1. INTRODUCTION

A Medium-Term Debt Management Strategy is a framework through which Governments can develop debt management plans that are consistent with its medium-term macroeconomic framework and available sources of financing. 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. By considering the debt composition, costs and risks of Malawi's current debt stock are reviewed in light of macroeconomic projections, and four potential borrowing strategies are assessed.

This Strategy begins by reviewing Malawi's debt management objectives and principles; before reviewing the composition and costs of Malawi's existing debt stock, potential sources of budget financing and likely macroeconomic developments, which are all used to determine the most desirable borrowing strategies for the country.

2. REVIEW OF MALAWI'S DEBT MANAGEMENT OBJECTIVES AND PRINCIPLES

The primary objective of the Government of Malawi's debt management policy is to ensure that the financing and debt service obligations of the Government are met at the lowest possible cost adhering to an acceptable level of risk. The secondary objective is to develop the domestic debt market.

Government pursues the above objective in accordance with the principles of responsible fiscal management enshrined in Section 12 of the Public Financial Management Act of 2003. The principles of responsible fiscal management are:

a) Managing total public debt at prudent levels so as to provide a buffer against factors that may impact adversely on the level of total public debt in the future;

b) Ensuring that within any borrowing programme, the total expenditures of the State in each financial year is in the public interest and designed to achieve long term fiscal stability;
c) Achieving and maintaining levels of the State's net worth that provides a buffer against factors that may adversely impact on its worth in the future; and
d) Managing prudently the fiscal and other risks facing the State.

3. SCOPE OF DEBT MANAGEMENT STRATEGY

The scope of Malawi's current debt strategy is limited to domestic and external central government debt. The 2018 MTDS has been formulated to guide Government borrowing over four years from 2018/19 Financial Year (FY) to 2021/22 FY.

4. REVIEW OF THE COMPOSITION, COST AND RISKS OF THE EXISTING DEBT

As of end-June 2018, Malawi's total public debt equated to MK2.8 trillion (approximately USD 3.8 billion)[1] or 56.7percent of GDP, with USD1.78 billion (approximately MK1.3 trillion) coming from external sources and approximately MK1.5 trillion (or approximately USD2.04 billion) contracted as domestic debt. The composition of Malawi's current composition of public debt stock can be seen in Table 1 below.

Table 1: Composition of Public Debt Portfolio, end-June 2018[2]

External	MK Billion	USD Million	As percent Total Public Debt	As percent of GDP
Concessional	1065.09	1,448.59	37.9	21.5

[1]MK-USD exchange rate used throughout this report was 735.2603 MK to 1 USD
[2]In calculating Malawi's debt payments, cost values are used for T-bill principal calculations with their implied interest (face value – cost value) used for T-bill interest payments. However, the face value of T-notes is used for principal repayments with the coupon payments used for interest calculations. Furthermore, debt is classified domestic or foreign on currency basis and not residence in this report. For instance, PTA debt is classified as domestic debt under the MTDS as the debt is repayable in Malawi Kwacha. However, as the debt holder is a foreign entity, this debt may be reported as external in other Government publications.

			percent	percent
Semi-concessional	239.15	325.25	8.5 percent	4.8 percent
Zero coupon issued in USD	6.45	8.78	0.2 percent	0.1 percent
Total External	**1,310.69**	**1,783.62**	**46.7 percent**	**26.5 percent**
Domestic				
T-bills	491.31	668.22	17.5 percent	9.9 percent
T-notes	934.71	1,271.27	33.3 percent	18.9 percent
Zero coupon issued in MK	71.15	96.77	2.5 percent	1.4 percent
Total Domestic	**1,497.18**	**2,036.26**	**53.3 percent**	**30.2 percent**

Source: Debt and Aid Management Division, Ministry of Finance Economic Planning and Development, Malawi

4.1 Malawi's External Public Debt

Historically, the World Bank, through the International Development Association (IDA), has been the largest creditor to the Government of Malawi, constituting 43 percent of Malawi's external debt stock as of end-June 2018. The African Development Fund (ADF) and Export-Import Bank of China (EXIM China) are the second and third largest external creditors to Malawi, respectively. Over 75 percent of Malawi's external debt is contracted on concessional terms with multilateral creditors. As such, Malawi's external debt portfolio is largely denominated in Special Drawing Rights (SDR) and USD denominated loans. In fact, when SDR is broken down by currency; United States Dollar accounts for 46 percent of Malawi's total external debt portfolio, followed by the Euro, which comprises 20.6percentof Malawi's external debt, and the Chinese Yuan, which constitutes approximately 15.0 percent of the currency composition of Malawi's external debt. This leaves Malawi heavily exposed to exchange rates fluctuations.

4.2 Malawi's Domestic Public Debt

In recent years, Malawi's domestic debt stock has increased from MK30 billion in 2002 to almost MK1,497 billion as of end-June 2018. This was in part due to lower than expected revenues because of shortfalls in external financing while maintaining the same level of goods and services. Grants to support the budget from Development Partners fell sharply in favour of off budget support. As such, domestic debt has largely been a residual to close the financing gap.

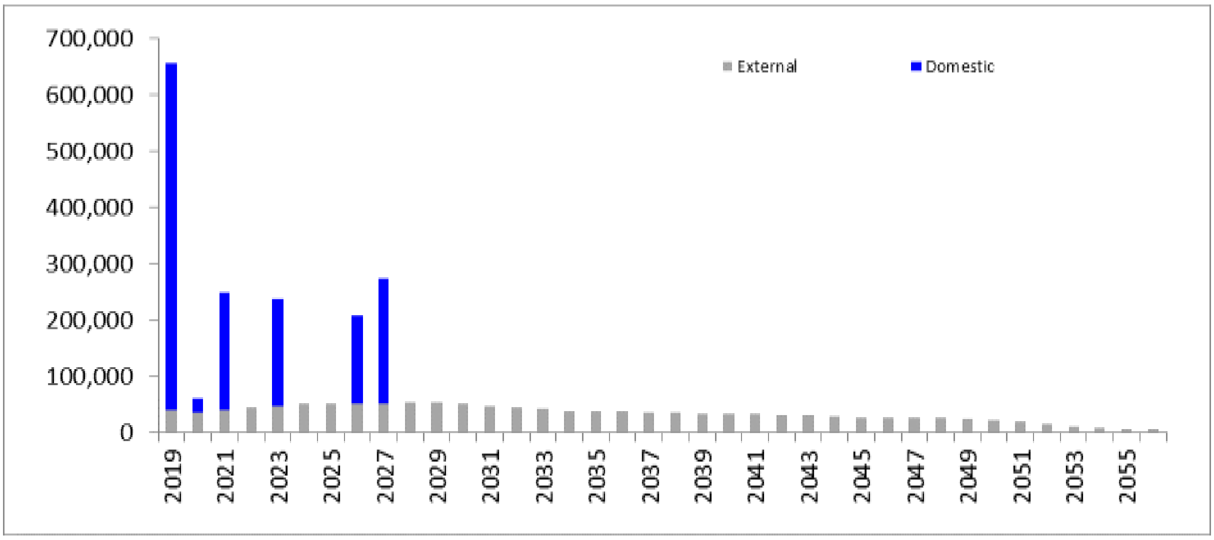
As of end-June 2018, Treasury Notes constituted 62.4 percent of total domestic debt and 33.3 percent of total public debt (denominated in 2-, 3-, 5- and 7- year tenors), while Treasury bills (91-, 182- and 364-day tenors) accounted for 32.8 percent of the total domestic debt stock or 17.5 percent of total public debt. The Zero-Coupon Promissory Notes, issued to off-set a huge build-up of domestic payment arrears, was at 1.4 percent of total public debt. A large proportion of the Treasury Note issuances in the 2017/18 financial year were on account of conversions from Ways and Means advances. As such, the domestic debt in 2017/18 is not totally a representation of primary auction results offered to the market.

Malawi's domestic debt has increased but it is Government's policy to target domestic debt from 28.3 percent to 20 percent of GDP which is within recommended threshold. Thus, Government focus, in the medium term, will be to create fiscal surplus in order to retire domestic debt.

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 MK603.2 billion of public debt is maturing in 2018/19FY implying that over 24 percent of total public debt is maturing this financial year, equivalent to approximately 13 percent of GDP. With such vast quantities of debt maturing this financial year, Malawi's refinancing and interest rate risks are substantial.

Figure 1: Public debt redemption profile as of end June 2018 (in millions of MK)



Source: Debt and Aid Management Division, Ministry of Finance, Economic Planning and Development, Malawi

In terms of Average Time to Maturity (ATM) and Average Time to Refinancing (ATR), Malawi's debt stood at 3.3 years for domestic debt and 15.3 years for external debt as of end-June 2018[3]. While all Malawi's debt is contracted on fixed rates, with the country's domestic debt predominantly short-term, it constantly needs to be rolled-over, meaning Malawi's domestic debt stock is highly exposed to interest rate risks.

Comparatively, Malawi's external debt stock has a lower interest rate risk, with all external debt contracted at fixed rates with long maturities. However, with 46.7 percent of Malawi's total debt stock denominated in foreign currency, almost half of Malawi's current debt profile is exposed to an

[3]The ATM and ATR are the same for Malawi's debt instruments, as all the country's debt is contracted using fixed interest rates

exchange rate risk, which if it were to materialise would lead to higher debt repayments and a potentially significant reduction in the country's discretionary budget.

5. BASELINE MACROECONOMICASSUMPTIONS AND THE KEY RISK FACTORS

5.1 Macroeconomic Assumptions

The outputs used to evaluate debt strategies in this report are based on macroeconomic assumptions taken from Government's macroeconomic framework and agreed with the IMF.

The fiscal assumptions used come from Malawi's Macroeconomic Framework. For 2018/19 and 2019/20, real GDP growth is estimated at 4.1 percent and 5.2 percent respectively, increasing to 6.1 percent and is projected to remain on an upward trajectory for the remaining years. Revenues as a percentage of GDP are estimated to be in the range of 21.6 percent to 25.2 percent between 2017/18 and 2021/22, with total primary expenditure as a proportion of GDP broadly mirroring these figures and estimated to be in the range of 19.8 percent to 26.3 percent over this period.

5.2 Key Risk Factors

The Malawian economy is highly dependent on agriculture, with around 30 percent of the country's GDP coming directly from farming, with much of Malawi's manufacturing and services sectors also being agro-based. Severe flooding and droughts in 2015 and 2016 saw the country's agricultural output and power supply fall dramatically, significantly constraining the economy. With Malawi's economy dependent on rain fed-agriculture and hydro-power generation, the potential for adverse weather conditions to negatively impact the economy and dramatically reduce the projected growth, revenue and budget estimates used for this report are significant. In addition, the country's capacity to respond to extreme shocks poses as a major risk. As such, economic developments will need to be monitored closely and assumptions and baselines updated frequently to ensure debt remains sustainable.

Malawi's inflation rate exceeded 10 percent in the five years prior to the commencement of the 2017/18 financial year, however, following a sustained fall in maize prices and the continuation of the country's tight monetary policy and prudent fiscal management, both food and non-food inflation have fallen recently, with the country's inflation rate dropping from an average of 21.7 percent in 2016 to 8.6 percent in June 2018. With Malawi's Consumer Price Index (CPI) heavily weighted by food inflation, particularly the price of maize, the country's inflation rate is liable to sharp rises due to the susceptibility of the agricultural sector to climatic events. With the RBM utilising its monetary policy to target inflation, climatic events that impact agricultural productivity and pricing could lead to changes in interest rates and the costs of domestic debt servicing. Such uncertainty can thus impact debt servicing costs with some risk scenarios used to consider these effects.

Furthermore, with Malawi's dependency on tobacco exports, and agricultural commodities more broadly, the economy is susceptible to external demand and price shocks which can impact foreign exchange earnings and have a significant impact on economic growth and tariff revenue. Further, with 46.7 percent of Malawi's total debt stock denominated in foreign currency, any fluctuations in the exchange rate or exchange rate earnings can have huge consequences for external debt servicing.

6. POTENTIAL SOURCES OF BUDGET FINANCING AND BORROWING

6.1 External Financing

Historically, Malawi has been heavily dependent on concessional external financing, but this dependence has reduced in recent years as semi-concessional loans and domestic debt issuances have increased. Typically, external financing has come from multilateral creditors on highly concessional terms[4], with the IDA of the World Bank and the African Development Fund of the African Development Bank by far the largest creditors to Malawi, making up approximately 43percent and 15percent of Malawi's external debt stock as of 30 June 2018, respectively.

While Malawi will continue to prioritise concessional external loans, the Government is conscious that concessional resources are not sufficient to meet the country's development needs and that there is an urgent requirement to improve the country's infrastructure, particularly in the transport and energy sectors as prioritised in MGDS 3. As such, funds have increasingly been sought on semi-concessional terms, such as the Export-Import Bank of China, which is now the third largest external creditor to the Government of Malawi.

Concessional financing from multilateral financial institutions is expected to continue to dominate newly contracted external debt for the medium- to long- term, yet semi-concessional loans from bilateral creditors, such as the People's Republic of China, are envisaged to continue.

6.2 Domestic Financing

Domestic debt issuances have increased dramatically in recent years to compensate for the shortfall in financing following withdrawal of budget support. In fact, Malawi's domestic debt stock more than tripled between June 2015 and June 2018 from MK453.4 billion to MK1, 497.2 billion largely due to vast Treasury Notes issuances and the securitization of Government payment arrears. While Malawi's domestic debt stock has increased, the diversity of treasury instruments in the Government's portfolio has remained broadly the same. As a result, Government's need to borrow domestically has been concentrated in short-term domestic debt instruments. Longer term Treasury Notes have been issued as the Government seeks to lengthen the

[4]Typically, these terms include interest rates of around 0.75 percent and grace and maturity periods of 6 and 38 years, respectively.

maturity of its domestic debt, but their absorbance by the market has been limited, with the RBM acting as buyer of last resort on several occasions.

As the Government intends to reduce domestic debt and lengthen its maturity profile, it is likely that Treasury Bills issuances will decrease in exchange for longer term securities, with the extent of this shift dependent on the market's appetite for longer-term Government instruments, which will be determined by macroeconomic fundamentals and Government policy.

7 DEBT MARKET ASSUMPTIONS, BORROWING STRATEGIES AND RISK SCENARIOS

A key component to developing a credible MTDS is the values ascribed to future market variables. This section outlines the assumptions surrounding GDP growth rates and projected inflation, interest and exchange rates as well as the different borrowing strategies and risk scenarios that were used in the MTDS model.

7.1 Baseline Assumptions

Interest and exchange rates are key drivers of the cost of debt. As such, assumptions about the two are crucial for evaluating different debt strategies. Under our baseline scenario, three instruments are considered for external debt, namely concessional, semi-concessional and non-concessional loans, although the latter is deemed highly unfavourable. The US Dollar (USD), Chinese Renminbi (RMB), Euro, Yen and British Pound Sterling are considered as relevant potential currencies for future loan disbursements. For concessional loans, an interest rate of 0.75 percent and grace period of 6 years is assumed for our analysis, while semi-concessional loans are attributed an interest rate of 2 percent and grace period of 5 years. Non-concessional loans are attributed an interest rate of 8.84 percent in 2017, rising to 9.65 percent by 2021.

Due to the short-term nature of Malawi's domestic debt, a meaningful yield curve describing the relationship between short-, medium- and long- term interest rates is not feasible.

7.2 Borrowing Strategies

Four borrowing strategies were considered in this MTDS and are summarised in Table 4 below. They were analysed using the macroeconomic and market assumptions outlined above, with a number of shocks applied under each strategy to determine their resilience to unexpected events.

To come up with strategy 1 (status quo) upon which all other strategies are based (as adjustments to the other strategies are made relative to the baseline) we must calculate what the status quo is. Essentially, strategy 1 maintains the status quo by contracting the same proportions of domestic and external debt as in 2017/18, with the same proportions for each instrument. This strategy takes the proportion of debt issued in the previous financial year and assumes a continuation of these allocations for the next financial year. This strategy is used to represent the current borrowing strategy and provide a baseline for all other alternative strategies.

In FY 2017/18 the following proportions of issuances were made.

Table 2: Proportion of instruments issues in FY2017/18

Instruments	FY17/18
T-bills	58.7 percent
2-yr T-note	3.6 percent
3-yr T-note	0.5 percent
5-yr T-note	26.3 percent
7-yr T-note	11.0 percent

Source: Debt and Aid Management Division, Ministry of Finance, Economic Planning and Development, Malawi

Table 3: Description of the Debt Management Strategies[5]

	Strategy characteristics
Strategy I (current strategy)	*Maintains status quo:* • Proportion of debt issuances in FY 2017/18

[5]Table 3 discusses four strategies and leaves out strategy on increased non-concessional financing for the reason that at the time of developing this Strategy, Malawi Government was on the program with the IMF and had restrictions on non- concessional borrowing. Nevertheless, analysis showed that increased non-concessional borrowing resulted in high FX risk. Likewise, refinancing risks remained higher as compared to the preferred strategy 3.

	continued for next four years. • Domestic debt rolled over using securities of same tenor. • External debt 100 percent concessional and semi-concessional. • The proportion of external debt to domestic debt is the same as in FY2017/18 for all remaining years of the model.
Strategy II	• Gradual reduction in T-bills, an increase in 2- and 3-Year T-Note issuances. • External debt 100 percent concessional and semi-concessional. • The proportion of external debt to domestic debt is the same as in FY2017/18 for all remaining years of the model.
Strategy III	• Gradual reduction in T-bills, increase in 5 and Year T-Note issuances. • External debt 100percent concessional and semi-concessional. • The proportion of external debt to domestic debt is the same as in FY2017/18 for all remaining years of the model.
Strategy IV	• Increased net domestic borrowing which is assumed to substitute slow and non-disbursing amounts of concessional and semi-concessional loans. • External debt 100 percent concessional and semi-concessional.

Source: Debt and Aid Management Division, Ministry of Finance, Economic Planning and Development, Malawi

7.3 Risk Scenarios

To ensure that the debt management strategy chosen under the MTDS is robust to potential risks and shocks, several risk scenarios that relate to Malawi's current economic vulnerabilities were tested using the MTDS Analytical Tool. The shocks applied under each scenario were based on current vulnerabilities and the magnitude of recent shocks.

Specifically, risk scenarios were conducted for moderate, extreme and combined shocks to the country's interest rates and exchange rate. The specifics of each shock scenario are outlined below. These scenarios intend to capture the impact of a sudden depreciation in the Malawi Kwacha to US

Dollar exchange rate (similar to that experienced in 2016), a reduction in cheaper external financing sources (for example as a result of a deterioration in global financial markets), and an increase in domestic interest rates.

- **Moderate interest rate shock:** an increase of 2.3 percent on the interest rate of Treasury securities and a 0 percent increase in the interest rate charged on non-concessional financing.
- **Extreme interest rate shock:** an increase of 5.5 percent on the interest rate of Treasury securities and a 1 percent increase in the interest rate applied to non-concessional financing.
- **Extreme FX shock:** 40 percent depreciation in the Malawi Kwacha to US Dollar exchange rate by 2020.
- **Combined shock:** 10 percent depreciation in the Malawi Kwacha to US Dollar exchange by 2019, combined with a 2.3 percent increase in the interest rate of Treasury securities.

7.4 Cost and Risk Analysis of Alternative Borrowing

The costs and risks associated with each of the debt management strategies listed in Table 5[6] are compared in this section to determine which debt management strategy the Government of Malawi should pursue. Various measures are used to assess the costs and risks associated with these borrowing strategies, including debt to GDP, debt to projected revenue, debt maturing in the next 12 months, average time to maturity and nominal and present value of total outstanding debt. The value of debt to GDP provides an assessment of the burden of public debt on the whole economy (e.g. how much of the country's national output is required to repay public debt), while debt service/interest rate costs relative to output or revenue provide an indicator of the impact of public debt on the budget.

[6]Strategy on increased non-concessional financing had FX risk at 66 percent and Average Time to Maturity for the total public debt at 9.4 years. all the other risks and costs indicators performed below the preferred strategy,

Risks indicators assess the potential that the cost of public debt will increase beyond what is projected under the baseline assumptions. The primary risk indicators used to capture these risks are refinancing, exchange rate and interest rate risk. The impact of the previously identified risk scenarios on the four strategies outlined in Table 4 are discussed in the following sections.

Considering the cost indicators (the nominal and present value of debt and interest payments as a proportion of GDP), current financing leads to higher cost of debt as compared to the alternative scenarios. This is largely due to the high proportion of short-term debt in the portfolio. Out of all the alternative strategies under consideration, Strategy 4 has the highest interest payments to GDP. This reflects the assumption of higher domestic financing in the strategy relative to the other strategies. Similarly, implied interest rate is higher under strategy 4 at 6.8 percent as compared to 5.8 percent in strategies 1 and 2.

Table 4: Risk and cost indicators

Risk Indicators		2018	As at end 2022			
		Current	S1	S2	S3	S4
Nominal debt as % of GDP		53.4	44.9	45.0	45.0	45.4
Present value debt as % of GDP		42.2	34.5	34.5	34.5	36.5
Interest payment as % of GDP		3.2	2.4	2.4	2.5	2.8
Implied interest rate (%)		5.9	5.9	5.9	6.0	6.8
Refinancing	Debt maturing in 1yr (% of total)	21.3	12.1	15.7	11.9	13.4
	Debt maturing in 1yr (% of GDP)	11.4	5.4	7.1	5.3	6.1
	ATM External Portfolio (years)	15.5	14.1	14.1	14.1	13.6
	ATM Domestic Portfolio (years)	3.0	1.8	1.7	2.4	1.8
	ATM Total Portfolio (years)	9.5	10.8	10.1	10.0	9.7
Interest rate	ATR (years)	9.5	10.8	10.1	10.0	9.7
	Debt refixing in 1yr (% of total)	21.3	12.1	15.7	11.9	13.4
	Fixed rate debt (% of total)	100.0	100.0	100.0	100.0	100.0
FX risk	FX debt as % of total	52.1	60.8	60.8	60.8	52.6

Source: Debt and Aid Management Division, Ministry of Finance, Economic Planning and Development, Malawi

In terms of risks, as shown in the last line of Table 5, over half of Malawi's current public debt stock is denominated in foreign exchange. Thus, Malawi is still very exposed to foreign exchange fluctuations. Under all evaluated scenarios, by end 2022, Malawi's exposure to foreign exchange risks reduced under Strategy 4 on account of domestic debt contraction.

Refinancing and Interest Rate Risk

As shown in Table 5, all the strategies analyzed in this report show a reduction in refinancing risk as of end-June 2022 compared to the 'current' (i.e. end-June 2018) debt stock. As for debt maturing in one year and debt to be re-fixed in a year, Strategy 3 has the lowest level at 11.9 percent as compared to the current position of 21.3 percent. Subsequently, debt maturing in one year as a percentage to GDP is at lowest level of 5.3 percent.

Under Strategy 3, refinancing and interest rate risks[7] are far lower than the alternative strategies considered as evidence by average time of maturity of external debt and domestic debt at 14.1 percent and 2.4 percent, respectively. Strategy 3 which focuses on expanding the contraction 5- and 7- year T-notes registers the highest ATM for the domestic debt portfolio.

Considering the above, Strategy 3 is deemed to be the most preferable and suitable strategy for the Government of Malawi to pursue over the medium term given the projected debt stock as of end-June 2018 and the estimated macroeconomic and market assumptions outlined above.

This conclusion is drawn on assumption that the model adheres to the baseline assumptions outlined in this report but does not account for the implications of different stress induced conditions, which may alter the desirability of each strategy. This analysis is conducted below.

7.5 Risk Scenario Analysis

Four risk scenarios were used to understand the financial implications for each strategy under different stress induced conditions. The increase in the

[7]As all of Malawi's domestic debt stock is fixed interest rate and not variable, the interest rate risk is the same as the re-financing risk (i.e. the only interest rate risk comes at the maturity and rolling over of the Government's fixed rate instruments).

cost of debt of these risk scenarios compared to their baselines is considered the financial value of the risk of these scenarios.

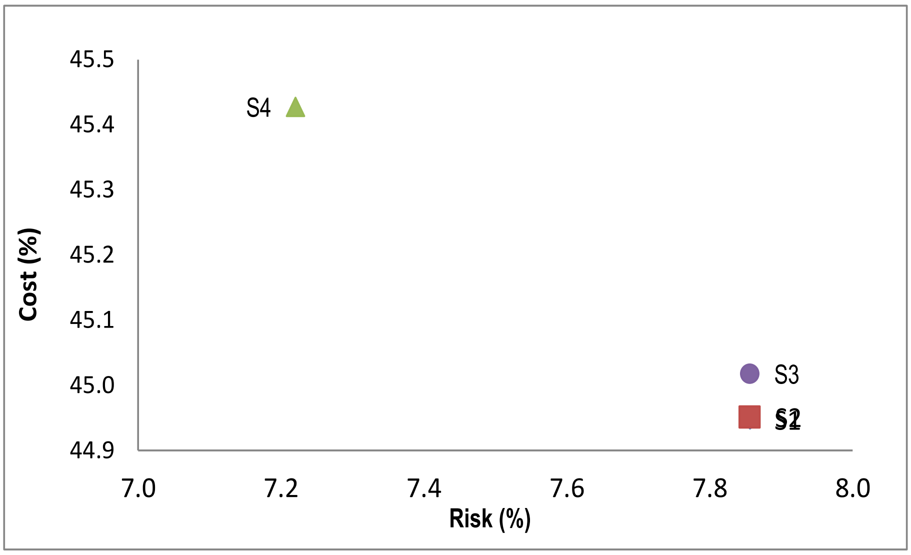
The risk scenarios considered in this report allow for an evaluation of the impact of:

- A sudden depreciation in the Malawi Kwacha to US Dollar exchange rate of 40 percent (like that experienced in 2016);
- A moderate interest rate shock, where the cost of borrowing domestically increases by 2.3 percent across all instruments;
- A severe interest rate shock, where domestic interest rates rise by 5.5 percent across all instruments and external financing increases by 1 percent; and
- A combined shock of an increase in 2.3 percent of all domestic debt interest rates combined with a 10 percent depreciation in the Malawi Kwacha.

Under each scenario, five major risk indicators were considered[8]. For three of these indicators – Debt Stock to GDP, Present Value of Debt to GDP and External Debt to GDP – the greatest impact by far was felt by an exchange rate shock of 40 percent. This level of depreciation increased the debt stock-GDP ratio by 7.9 percentage points in all strategies by 2022 except for Strategy 4, as shown in Figure 2, with the External Debt to GDP ratio increasing by 5.9 percent across all strategies as well.

[8]Change in debt stock to GDP, interest payments to GDP, external debt to GDP, total debt service to GDP and total interest payments as at end-FY2022.

Figure 2: Debt-GDP ratio under exchange rate shock scenario (40 percent depreciation)[9]



Source: Debt and Aid Management Division, Ministry of Finance, Economic Planning and Development, Malawi

Unsurprisingly, a severe interest rate shock has the greatest impact on debt service and interest payments. However, apart from Strategy 4 which registers high interest payments to GDP, the cost and risk implications of this shock are broadly similar across all strategies.

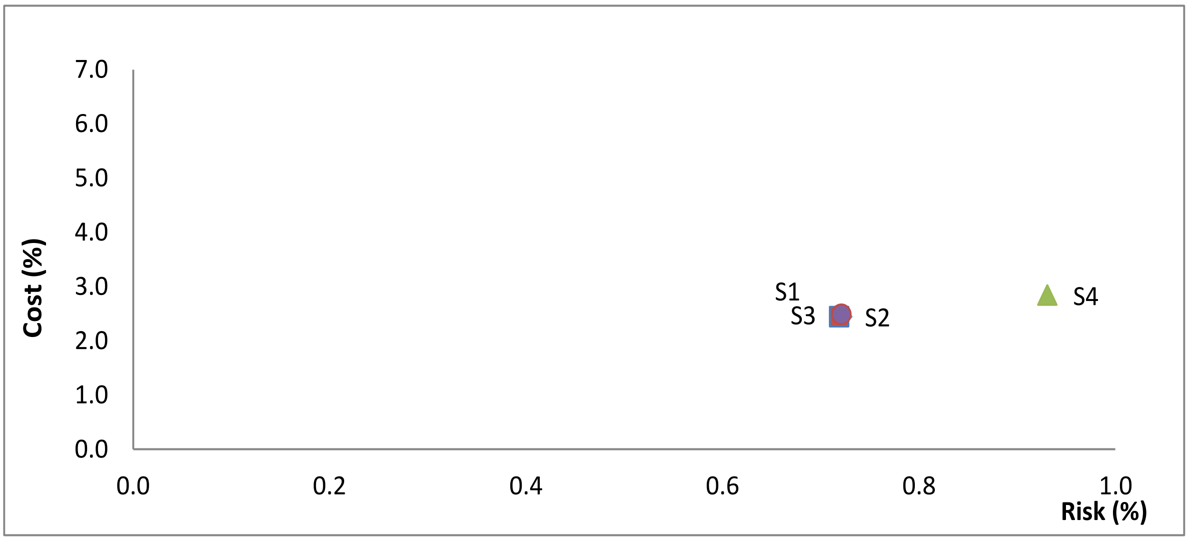
7.6 Strategic Actions - Strategy Rankings

By comparing the cost and risk scenarios above, Strategy 3 is deemed the most favourable debt management strategy for Malawi over the medium-term.

Strategy 3 requires the Government of Malawi to gradually reduce its stock of T-Bills, smooth its issuance of 2- and 3-Year T-Notes and increase its issuance of 5- and 7-Year T-Notes, while maintaining current levels of external borrowing through concessional and semi-concessional sources.

[9]This refers to 40percent depreciation in the Malawi Kwacha to US Dollar exchange rate in 2020. The vertical axis in the graph shows the cost under the baseline scenario; while the horizontal axis shows the increase in cost if the risk scenario is realised.

Figure 3: Interest payment-GDP under extreme interest rate shock scenario



Source: Debt and Aid Management Division, Ministry of Finance, Economic Planning and Development, Malawi

While demand for longer-term domestic debt instruments has been low in the recent past, policymakers have the ability to modify and strengthen the environment in which the market operates and aid market development through prudent fiscal management, monetary policy and debt contraction. A stable macroeconomic environment, combined with credible and sustainable government policies and spending, is essential for anchoring market expectations and creating an environment conducive to debt market development.

8 IMPLEMENTING THE MEDIUM-TERM DEBT MANAGEMENT STRATEGY

In line with recommended debt management practice, the Government of Malawi commits to publishing a MTDS at least once annually. This Strategy will be produced in line with the Government's budgeting and cash flow needs. A government securities issuance calendar will also be published at the beginning of each financial year to inform market participants and stakeholders of planned issuances throughout the year. Auction results will be published after each auction on the Reserve Bank of Malawi's website. While regular meetings of the Cash Management Committee, Debt Management Technical Committee and the Short Term Borrowing Committee will ensure that borrowing requirements will be met and adjusted in accordance with the needs of Government.

The Debt and Aid Management Division of the Ministry of Finance, Economic Planning and Development and the Financial Markets Team of the Reserve Bank of Malawi are the primary institutions charged with implementing the MTDS. The Reserve Bank of Malawi will continue to act on behalf of the Government as the auctioneer of domestic debt, as well as execute redemption procedures and other administrative matters. The Ministry of Finance, Economic Planning and Development will seek to take greater control of domestic debt management by bringing previously devolved functions in-house, including the production of an issuance calendar and the pricing of Treasury instruments. Furthermore, the Ministry of Finance and Reserve Bank of Malawi will undertake measures aimed at developing the domestic debt market through engaging with market participants on planned borrowing and policy on a systemic basis.

As a way of assessing the performance of the strategy, Government will be reviewing the MTDS annually to check whether the key assumptions continue to hold and that the MTDS remains appropriate. This review is intended to be done before budget presentation. In collaboration with the Reserve Bank of Malawi, Government will closely monitor measures in support of the domestic debt market development. On technical capacity, Government will continue to build capacity of the Ministry of Finance in the formulation of MTDS through regional and in-house trainings.