



GOVERNMENT OF JAMAICA

Financing
Strategy

Mitigation

Risk

Annual
Borrowing
Plan



Development of
the Domestic Debt
Market

Medium-Term
Debt Strategy

MEDIUM-TERM DEBT MANAGEMENT STRATEGY FY2018/19 - FY2020/21

Ministry Paper No:
February 15, 2018

Table of Contents

List of Abbreviations	iv
Foreword	vi
Acknowledgements	vii
Executive Summary	1
Section I: Introduction	3
Section II: Adoption of the New Definition for Public Debt	5
Section III: Profile of Jamaica’s Debt Stock	7
3.1 Central Government Debt	8
3.2 Non-Central Government Debt	8
3.3 Public Debt Trajectory	8
Section IV: Cost and Risk Analysis	11
4.1 Market Risks	12
4.1.1 Foreign Currency Risk.....	12
4.1.2 Interest Rate Risk.....	16
4.1.3 Inflation Risk	17
4.2 Refinancing Risk	19
4.3 Interest Cost	20
4.4 Contingent Liabilities – Government Guaranteed Loans (GGLs)	21
Section V: Macroeconomic Overview	23
Section VI: Risks Factors Affecting the Debt Portfolio	25
Section VII: Modelling of the Medium-term Debt Strategy	28
7.1 Baseline Assumptions and Exogenous Shock Scenarios	28
7.2 Medium-Term Targets	28
7.3 Financing Strategy	30
7.4 Toolkit Output - Results for Alternative Financing Strategies	32
Section VIII: Annual Borrowing Plan (ABP)	36
8.1 Issuance Strategy	37
8.2 Active Liability Management Operations	38

Section IX: Domestic Market Development and Investor Relations Update.....	41
9.1 Domestic Government Debt Market	41
9.2 Financial Market Developments	42
9.3 Investor Relations	46
Section X: Conclusion	47
Glossary	48

List of Figures

Figure 1: Total Public Debt at end-March 2017 under the Old and New Definitions	6
Figure 2: Public Debt Stock April 2017 to December 2017	9
Figure 3: Debt-to-GDP Trajectory and Medium-Term Projections.....	9
Figure 4: Share of Foreign Currency Debt, April 2017 to December 2017.....	13
Figure 5: Currency Distribution of the Debt Portfolio Projected to end-March 2018	14
Figure 6: Monthly JMD/USD Exchange Rate, January 2015 to December 2017	14
Figure 7: Effect of Depreciation on the Stock and Adjusted Cost for Foreign Currency-Denominated Debt at end-December 2017	15
Figure 8: 90-Day T-bill and LIBOR Rates	16
Figure 9: Share of CPI-Linked Debt in Public Debt.....	18
Figure 10: Nominal Value of CPI Linked Debt, end-March 2017 to end December 2017	18
Figure 11: Redemption Profile of Total Public Debt Projected at end-March 2018.....	20
Figure 12: Government Guaranteed Loans, January 2017 to December 2017	21
Figure 13: GOJ Loan Guarantees as a Share of GDP	22
Figure 14: Summary of Medium-Term Financing Strategies	30
Figure 15: Risk Comparison for Debt-to-GDP	34
Figure 16: Risk to External Debt-to-GDP.....	34
Figure 17: Risk Comparison for Debt Service-to-GDP	35
Figure 18: Risk Comparison for External Debt Service-to-GDP.....	35
Figure 19: Annual Borrowing Plan FY2018/19.....	37

List of Tables

Table 1: Composition of the Public Debt Stock	7
Table 2: Cost and Risk Outcomes at end-March 2017 and end-December 2017 and Targets for end-March 2020	12
Table 3: Implied Interest Cost of Debt by Instrument Type	20
Table 4: Medium-Term Macroeconomic Profile	24
Table 5: Macro Risks and Implications for the Debt Portfolio.....	25
Table 6: Effect of Changes in Select Market Variables on Adjusted Debt Service Cost.....	26
Table 7: Dynamic Effect of Changes in Key Market Variables on Debt.....	27
Table 8: Medium-Term risk Targets for Central Government.....	29
Table 9: Alternate Financing Strategies Over the Medium-Term	31
Table 10: Cost and Risk Indicators for Selected Strategies	32
Table 11: Annual Borrowing Plan FY2018/19	36
Table 12: Proposed Issuance of Government of Jamaica Securities for FY208/19.....	39
Table 13: Proposed Schedule for T-bill Tenders	40

Box

Box 1: Liability Management Operation	10
---------------------------------------------	----

List of Abbreviations

ABP	Annual Borrowing Plan
ATM	Average-Time-to-Maturity
ATR	Average Time to Refixing
BOJ	Bank of Jamaica
B-FXITT	Bank of Jamaica Foreign Exchange Intervention and Trading Tool
BPS	Basis Points
BIN	Benchmark Investment Note
CD	Certificate of Deposit
CPI	Consumer Price Index
DMB	Debt Management Branch
EFF	Extended Fund Facility
EM	Emerging Markets
FAA Act	Financial Administration and Audit Act
The Fed	Federal Reserves
FRF	Fiscal Responsibility Framework
FSC	Financial Services Commission
FY	Fiscal Year
GDP	Gross Domestic Product
GGL	Government Guaranteed Loans
GOJ	Government of Jamaica
ICM	International Capital Market
IDB	Inter-American Development Bank

IMF	International Monetary Fund
IMF/PBSA	International Monetary Fund Precautionary Standby Arrangement
IR	Investor Relations
IRP	Investor Relations Plan
JMD	Jamaica Dollar
JSE	Jamaica Stock Exchange
JamClear CSD	JamClear Central Securities Depository
LIBOR	London Inter-Bank Offered Rate
LMO	Liability Management Operation
MTDS	Medium-Term Debt Management Strategy
NDX	National Debt Exchange
NIR	Net International Reserves
PD	Primary Dealers
PBMA Act	Public Bodies Management and Accountability Act
PED	Public Enterprises Division
PDMA	Public Debt Management Act
REPO	Repurchase Agreement
SPS	Specified Public Sector
T-bills	Treasury Bills
USD	United States Dollar
WATBY	Weighted Average Treasury Bill Yield

Foreword

During FY2017/18, the Government of Jamaica (GOJ) continued to proactively execute the debt management strategy as well as implement prudent fiscal and monetary reforms to support macro-economic stability. This was evidenced by the positive out-turns for key macroeconomic indicators and the continued downward trajectory of the debt-to-GDP. A key debt reporting development for the period was the adoption of a new definition of public debt, in April 2017, which broadens the coverage of debt reporting to include all debt held by the specified public sector.

The preparation of the Medium Term Debt Management Strategy (MTDS) is governed by the Public Debt Management Act, 2012 (PDMA), and is aligned to the GOJ's strategic priorities and policy objectives. The MTDS represents the GOJ's commitment to developing and executing feasible strategies designed for the management of the public debt over the medium-term to return the public debt to sustainable levels.

The Medium-Term Debt Management Strategy (MTDS) FY2018/19-FY2020/21 contains the GOJ's Annual Borrowing Plan detailing the financing plans for the fiscal year, sources of funding and the instruments that the Government plans to issue to achieve the desired composition of the debt portfolio. The document also outlines the attendant risks or shocks that may impact the Government's ability to meet its debt obligations.

The document will be tabled alongside the other budget documents in February 2018 as required under the Financial Administration and Audit (FAA) Act. Adherence to the fiscal responsibility framework has strengthened the GOJ's financial discipline and its ability to achieve the strategic and operational objectives geared toward facilitating achievement of the debt reduction target.

In keeping with the objective of inclusiveness and open dialogue with stakeholders, the GOJ welcomes comments on the document at: invreinfo@mof.gov.jm



Hon. Audley Shaw, CD, MP
Minister of Finance and the Public Service
February 15, 2018



Darlene Morrison
Financial Secretary (Act'g)
February 15, 2018

Acknowledgements

The Medium-Term Debt Management Strategy (MTDS) continues to play a significant role in the achievement of the GOJ's public debt management operational goals and objectives.

The MTDS FY2018/19-FY2020/21 will guide debt management operations over the medium-term to ensure that the GOJ's financing needs are satisfied at prudent levels of risk. It also reaffirms the Government's commitment to continued stakeholder engagement in the effort to engender sustained support for GOJ's issuances.

Accordingly, the preparation of the document involves the technical process of utilizing an analytical toolkit to model and evaluate alternate financing scenarios, from which an optimal borrowing strategy is selected for execution over the stated period.

Sincere appreciation to the DMB team for their valuable contribution and continued commitment to the production of this document. Special thanks to Miss Darlene Morrison, Financial Secretary (Act'g); Mrs. Michele Robinson, Debt Management Consultant; World Bank and IMF consultants as well as the Public Debt Management Committee for their support, guidance and input.

In keeping with the objective of inclusiveness and open dialogue with stakeholders, the GOJ welcomes your comments at: invreinfo@mof.gov.jm



Dian Black
Deputy Financial Secretary (Act'g)
Economic Management Division
Ministry of Finance and the Public Service



Janet Wallace
Principal Director (Act'g)
Debt Management Branch
Economic Management Division

Executive Summary

Public debt management entails the process of developing and executing strategies for managing the debt. This includes: raising adequate funds to satisfy the financing needs of the Government; risk mitigation; cost minimization; and the development of an efficient domestic debt market. Accordingly, the strategy and objectives frame the Medium-Term Debt Management Strategy (MTDS) FY2018/19-FY2020/21. The publication outlines the key activities to be implemented over the medium-term to achieve the targets, and the desired composition of the GOJ's debt portfolio.

During FY2017/18, debt management operations were conducted against the background of an economy underpinned by continued macroeconomic stability, and anchored by sound fiscal and monetary policy initiatives. Continued improvements in the fiscal out-turn have cemented expectations for a fiscal surplus of 0.1 percent for FY2017/18 and continued surpluses for FY2018/19 and over the medium-term. Successive primary surpluses of approximately 7.0 percent of GDP are expected to continue through the medium-term, sustaining the downward trajectory of the debt.

Monetary policy reforms, including the ongoing modernization of the Bank of Jamaica (BOJ), have contributed to the improvement of key market variables – interest rates, inflation, and exchange rate, which augurs well for the economy. Strong business and consumer confidence occasioned positive labour market outcomes, reflected in an unemployment rate of 10.4 percent at end-October 2017, the lowest rate recorded since October 2008. Notwithstanding the positive performance of key macroeconomic variables, economic growth remained tempered over the review period, due in part to contractions in the mining and agricultural sectors as a result of weather-related shocks. Real Gross Domestic Product (GDP) growth for FY2017/18 is projected at 0.9 percent.

On April 1, 2017, the Government implemented a new definition of public debt based on the consolidated reporting of debt statistics. Under the new GOJ definition, public debt is defined as the consolidated debt of the Specified Public Sector except that of the Bank of Jamaica, net of any cross holdings. At end-December 2017, the stock of public debt was \$1, 953.0 billion with domestic debt accounting for 39.3 percent and external debt for 60.7 percent. Jamaica's indebtedness is projected to be 102.1 percent of GDP at end-March 2018.

The level of exposure to foreign currency, interest rate and refinancing risks are pre-eminent concerns of the Government. The advantage of mitigating these risks offers a

favourable trade-off relative to the costs. As such, mitigating these risks were a part of the GOJ's debt management operations during FY2017/18, which successfully reduced the Government's exposure to these critical risks, whilst having only marginal effects on annualized interest cost. The GOJ continued to monitor guaranteed loans (GGLs) which remained on a downward trajectory, below the legislated ceiling. The GOJ maintained the policy position of not issuing any new guarantees.

The GOJ remains focused on the on-going development of the domestic debt market as funding activities in the market are expected to increase. The noticeably high demand for GOJ securities will support the efforts to increase local currency issuances. This will enhance efforts to reduce dollarization of the debt portfolio and improve the ratio of local currency-denominated debt to foreign currency-denominated debt.

The MTDS for FY2018/19-FY2020/21 provides an assessment of the cost and risks for the existing portfolio as well as the portfolio's sensitivities to changes in key market variables. An analytic assessment of alternative financing strategies with respect to the cost/risk trade-offs was conducted using the International Monetary Fund (IMF)/World Bank Medium-Term Debt Strategy (MTDS) toolkit resulting in the selection of an optimal strategy. The selected strategy seeks to rebalance the debt portfolio towards greater reliance on domestic debt vis-à-vis external debt and reduce the portfolio's exposure to interest rate and refinancing risks by borrowing mainly at fixed interest rates across all tenors in the domestic debt market. This strategy will be reflected in the issuance strategy.

Section I: Introduction

Prudent public debt management plays an integral role in a country's macroeconomic and financial stability and should be aligned with fiscal and monetary policies. The Government of Jamaica's (GOJ) Medium-Term Debt Management Strategy (MTDS), underpinned by the Fiscal Responsibility Framework (FRF) and regulated by the Public Debt Management Act, 2012 (PDMA), summarizes the GOJ's objectives, strategies and quantitative targets over the next three (3) years.

The primary objectives of the MTDS are as follows:

- To raise adequate funding to satisfy the financing needs of the GOJ, at the lowest possible costs and at prudent levels of risk;
- To minimize the exposure to and manage the main risks inherent in the GOJ public debt portfolio;
- To maintain and encourage further development of an efficient domestic debt market for GOJ securities; and
- To broaden the Government's investor base and diversify funding sources.

The MTDS FY2018/19-FY2020/21 embodies the Government's key strategic debt management objectives, which are congruent with its cost/risk preferences. The level of exposure to foreign currency, interest rate and refinancing risks are pre-eminent concerns of the Government and the MTDS offer a favourable trade-off relative to the costs of mitigating same. These priorities were reflected in the GOJ's debt management operations during FY2017/18, which successfully reduced the Government's exposure to important risk factors, whilst having only marginal effects on annualized interest cost.

During FY2017/18, the GOJ achieved the targets programmed in the FY2017/18-FY2019/20 Medium-Term Debt Strategy, and as such the MTDS FY2018/19-FY2020/21, which includes the Annual Borrowing Plan (ABP) and Issuance Calendar, will continue to operationalize the designed strategy to achieve the FY2018/19 targets.

The scope of the analysis covers the public debt—domestic and external—referencing the new definition for public debt (**See Section II**). Public debt in this context includes Central Government and specified public bodies except the Bank of Jamaica, net of any cross

holdings. The stock of debt used in the analytical toolkit includes Central Government debt and guarantees currently serviced by the Central Government.

This document is organized as follows: **Section I** covers the Introduction. **Section II** describes the new GOJ definition for public debt, while **Section III** summarizes the profile and structure of the stock of debt as recorded under the new definition. The cost and risk analysis of the portfolio is highlighted in **Section IV** and **Section V** provides a macro-economic overview. Details of the risk factors affecting the debt portfolio are outlined in **Section VI**. **Section VII** discusses the modelling of the MTDS and the selection of the optimal financing strategy. And **Section VIII** outlines the Annual Borrowing Plan (ABP). **Section IX** provides an update on the development of the domestic debt market and the investor relations programme and **Section X** concludes.

The MTDS FY2018/19-FY2020/21 was prepared by the Debt Management Branch (DMB) of the Economic Management Division of the Ministry of Finance and the Public Service. The DMB is responsible for the GOJ's debt management operations, including loan raising, recording and reporting, debt servicing, as well as formulating and implementing the MTDS.

Section II: Adoption of the New Definition for Public Debt

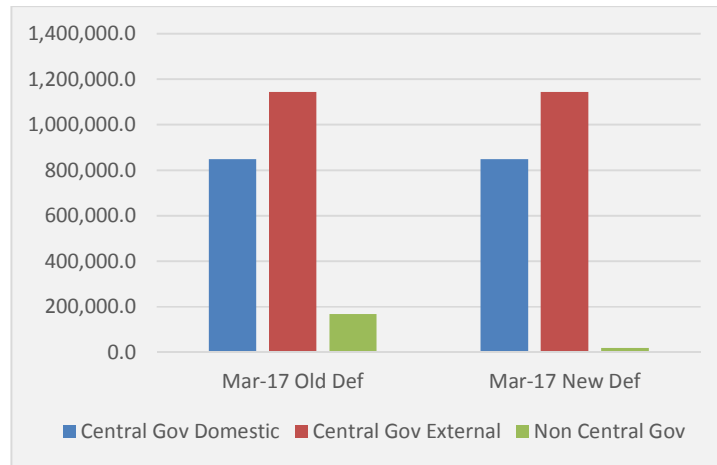
In line with international best practices, the Government of Jamaica (GOJ) adopted a revised definition of public debt on April 1, 2017, based on the consolidated reporting of government debt statistics. Under the old GOJ definition, public debt was defined as the sum of Central Government debt plus that of the Bank of Jamaica (BOJ) and external guarantees. The new definition defines public debt as the consolidated debt of the Specified Public Sector (SPS), except that of the BOJ, net of any cross holdings. The Specified Public Sector includes Central Government and all public bodies certified by the Auditor General as primarily carrying out functions that are of a non-commercial nature.

The new definition has the benefit of broadening the coverage of debt reporting to include all debt held by the specified public sector (including guarantees). Additionally, consolidated reporting of public debt statistics is supported by its enhanced analytical usefulness relative to the reporting of aggregates that can be particularly distorting depending on a government's administrative arrangements.

Notably, the change did not affect reporting of the nominal debt stock for Central Government, as the adjustments are concentrated on the reporting of 'Non-Central Government' debt. Under the old GOJ debt definition, Non-Central Government debt included external guarantees and Bank of Jamaica (BOJ) debt. However, under the new definition, Non-Central Government debt constitutes the net consolidated debt of public bodies. **Figure 1** contrasts the nominal value of total public debt, under the old and new definitions, at end-March 2017¹. Under the new definition, Non-Central Government debt at end-March 2017 was estimated at \$25.5 billion. This is \$141.9 billion less than the \$167.4 billion recorded under the old definition. The difference is due to the non-inclusion of \$71.5 billion of BOJ debt in the external debt portfolio and the netting of cross holdings, which contributed to a further reduction of \$70.4 billion.

¹ Amounts reflected under the 'new definition' are estimates, as the new definition did not take effect until April 1, 2017.

Figure 1: Total Public Debt at end-March 2017 under the Old and New Definitions



Note: Under the new definition, non-Central Government debt at end-March 2017 is based on staff estimates and does not constitute an official release from the Ministry of Finance and the Public Service.

Source: Ministry of Finance and the Public Service.

Section III: Profile of Jamaica's Debt Stock

Table 1 highlights the stock of total public debt outstanding at end-March 2017 and end-December 2017. Based on the new GOJ debt definition, the stock of public debt outstanding at end-March 2017 was \$2,018.0 billion². This compares to \$1,953.0 billion at end-December 2017, under the new GOJ definition, a reduction of \$65.0 billion or 3.2 percent. This is mainly due to the early redemption of two (2) US dollar-denominated Benchmark Investment Notes (BIN) and the revaluation of the Jamaica dollar vis-à-vis the US dollar. The stock of public debt at end-March 2018 is projected at approximately \$1,928.3 billion.

Table 1: Composition of the Public Debt Stock

	Mar-2017		Dec-17		Change	
	(% Total)		(% Total)		J\$ millions	%
	J\$ millions	Cen Gov	J\$ millions	Cen Gov		
Total Public Debt	2,017,998.8	-	1,952,965.6	-	(65,033.2)	(3.2)
Total Central Government Debt	1,992,535.8	100.0	1,936,923.5	100.0	(55,612.3)	(2.8)
Central Government Domestic Debt	848,505.9	42.6	760,275.8	39.3	(88,230.1)	(10.4)
Marketable Securities	846,065.0	42.5	757,981.2	39.1	(88,083.8)	(10.4)
Bonds	840,945.0	42.2	750,181.2	38.7	(90,763.8)	(10.8)
Treasury Bills	5,120.0	0.3	7,800.0	0.4	2,680.0	52.3
Loans (Commercial Bank, Public Sector)	2,440.9	0.1	2,294.6	0.1	(146.3)	(6.0)
Central Government External Debt	1,144,029.9	57.4	1,176,647.7	60.7	32,617.8	2.9
Marketable Securities	670,640.9	33.7	719,467.4	37.1	48,826.5	7.3
Bonds	670,640.9	33.7	719,467.4	37.1	48,826.5	7.3
Loans	473,389.0	23.8	457,180.3	23.6	(16,208.7)	(3.4)
Bilateral	86,885.6	4.4	85,259.3	4.4	(1,626.3)	(1.9)
OECD	11,803.3	0.6	9,132.4	0.5	(2,670.8)	(22.6)
Non-OECD	75,082.4	3.8	76,126.9	3.9	1,044.5	1.4
Multilateral	371,982.6	18.7	362,766.6	18.7	(9,216.0)	(2.5)
IDB	200,047.8	10.0	189,263.7	9.8	(10,784.1)	(5.4)
IBRD	102,831.7	5.2	107,794.3	5.6	4,962.6	4.8
Other	69,103.1	3.5	65,708.6	3.4	(3,394.6)	(4.9)
Commercial Banks	14,520.8	0.7	9,154.4	0.5	(5,366.3)	(37.0)
Non Central Government Debt	25,463.0	-	16,042.1	-	(9,420.9)	(37.0)
Net Public Bodies	25,463.0	-	16,042.1	-	(9,420.9)	(37.0)

Notes: Total public debt reflects the new GOJ definition.

Source: Ministry of Finance and the Public Service.

² Under the old GOJ definition, total public debt at end-March 2017 was \$2,160.0 billion. This is \$141.9 billion or 7.0 percent more than the amount recorded under the new GOJ definition.

3.1 Central Government Debt

Total Central Government debt outstanding at end-December 2017 was \$1,936.9 billion. This is \$55.6 billion or 2.8 percent less than the \$1,992.5 billion recorded at end-March 2017. Central Government domestic debt at end-December 2017 was \$760.3 billion or 39.3 percent of total Central Government debt. This compares to \$848.5 billion or 42.6 percent of total Central Government debt at end-March 2017. This is a reduction of \$88.2 billion or 10.4 percent and was mainly due to the appreciation of the Jamaica dollar and net outflows from larger amortization or principal repayments relative to inflows over the review period. Domestic Central Government debt at end-March 2018 is projected at \$746.9 billion.

Central Government external debt at end-December 2017 was \$1,176.6 billion or 60.7 percent of total Central Government debt. This compares to \$1,144.0 billion or 57.4 percent of total Central Government debt at end-March 2017. Overall, the stock of Central Government external debt increased by \$32,617.8 million or 2.9 percent between end-March 2017 and end-December 2017. This increase was due to net new financing in the international capital markets (ICM), but was tempered by the appreciation of the Jamaica dollar in December 2017 relative to March 2017³. External Central Government debt at end-March 2018 is projected at \$1,161.4 billion.

3.2 Non-Central Government Debt

At end-March 2017, under the new GOJ definition, Non-Central Government debt was \$25.5 billion. Under the new definition, at end-December 2017, Non-Central Government debt was approximately \$16.0 billion and comprised the net debt of public bodies. This is a reduction of \$9.4 billion or 37.0 percent relative to end-March 2017. Non-central Government debt is projected to increase to approximately \$20.0 billion by end-March 2018.

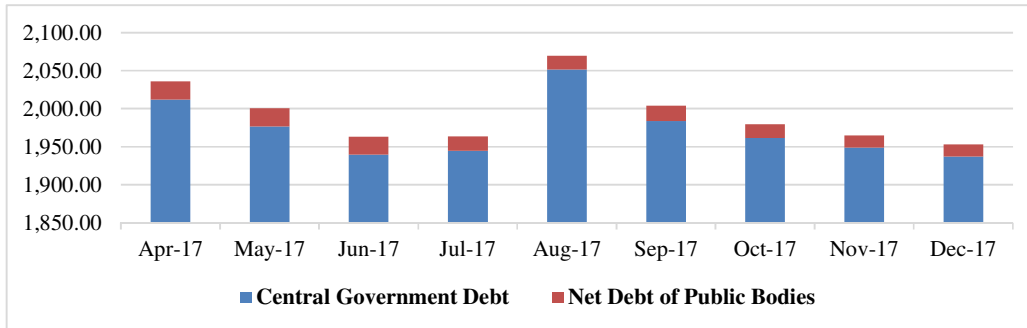
3.3 Public Debt Trajectory

Figure 2 highlights the trajectory of the stock of public debt over the period April 2017 to December 2017. The stock of outstanding public debt decreased by \$79.3 billion or 3.9 percent, from \$2,036.2 billion at end-April 2017 to \$1,953.0 billion at end-December 2017. This was driven by a reduction of \$75.0 billion and \$8.2 billion in Central Government and net public bodies debt, respectively. The large variation in the debt

³ The net increase in external financing of approximately US\$197.7 million compares favourably with the projected fund raising activity originally targeted at US\$300.0 million.

stock between August 2017 and September 2017 reflects the effects of a liability management operation (LMO) that was conducted during these months. In August 2017, GOJ raised financing through the reopening of longer-tenor global bonds (JAMAN 2028 and JAMAN 2045) in the ICM, part proceeds of which were used to buy back targeted near-to-maturity external bonds. Additionally, proceeds from the ICM issuances were used to redeem US dollar denominated domestic bonds in September 2017.

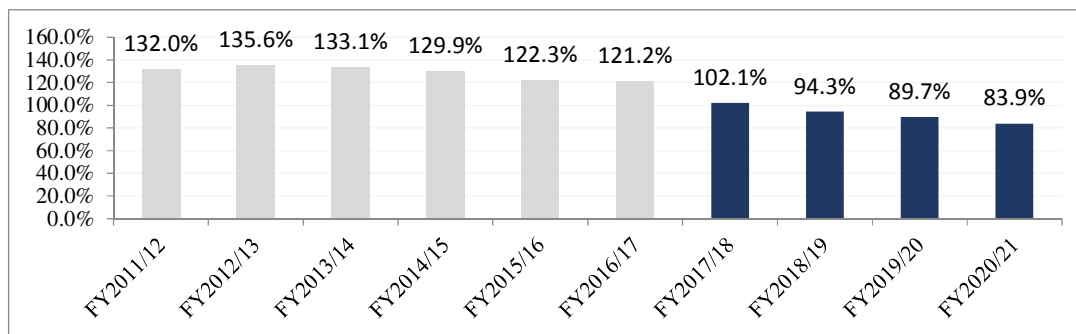
Figure 2: Public Debt Stock April 2017 to December 2017



Note: Figure reports public debt stock as per the 'New Definition' by institutional sector.
Source: Ministry of Finance and the Public Service.

Pursuant to Section 48 (c) of the Financial Administration and Audit (FAA) Act, the Government is required to reduce the debt-to-GDP ratio to 60.0 percent or less by end-March 2026. **Figure 3** highlights the trajectory of debt-to-GDP over the previous six years and projections over the medium-term. Debt-to-GDP for FY2017/18 is projected at 102.1 percent, a reduction of 19.1 percentage points compared to the 121.2 percent recorded for FY2016/17. The debt-to-GDP ratio is expected to continue along a downward trajectory, and is projected below the 96.0 percent target for FY2019/20, and 60.0 percent or less by FY2025/26, in line with the limits established in the Fiscal Responsibility Framework (FRF) and associated legislation.

Figure 3: Debt-to-GDP Trajectory and Medium-Term Projections



Note: Debt-to-GDP from FY2017/18 through FY2020/21 are projections and are based on the new GOJ definition (highlighted in blue). Debt-to-GDP prior to FY2017/18 are actuals and are based on the old GOJ definition (highlighted in grey). Debt-to-GDP under the new definition was 113.2 percent at end-FY2016/17

Source: Ministry of Finance and the Public Service.

Box 1: Liability Management Operation

In keeping with Section 7.3 of the MTDS FY2017/18-FY2019/20, the Government outlined the intention to continue pursuing “opportunistic” liability management operations (LMO) during FY2017/18. To this end, a LMO was successfully executed during the period August 2017 to September 2017, involving operations in both the external and domestic debt portfolios.

The transaction was structured to include the repurchase of near-to-maturity high coupon external bonds and the early redemption of 2020A and 2020B US dollar-denominated Benchmark Investment Notes (BIN) issued in the domestic market. The objectives of the transaction were to: reduce the cost of funds, realign the interest rate structure in line with the current US dollar yield curve, mitigate refinancing risk through the extension of maturities in the external debt portfolio and eliminate foreign currency risk on the remaining US dollar-denominated debt in the domestic portfolio.

The process involved the issuance of an “Invitation for Offers to Tender for Cash...” for the repurchase of the outstanding Global Bonds due 2019, 2021, 2022 and 2025. The result was the nominal value of US\$144.9 million tendered in exchange for payments in cash totalling US\$179.0 million.

The second component of the transaction involved the issuance of new bonds on August 14, 2017, through the re-opening of the 6.75% Notes due 2028 and the 7.875% Notes due 2045. A total of US\$869.0 million was raised, apportioned to US\$505.0 million and US\$364.0 million to the Notes due 2028 and Notes due 2045, respectively.

The final component of the transaction entailed the redemption of two tranches of US dollar-denominated bonds, namely 5.25% Benchmark Investment Notes series 2020A and 2020B, issued in the domestic market under the National Debt Exchange (NDX). The bonds were redeemed on September 18, 2017, through the utilization of funds raised from the re-opened bonds in the international capital markets. An amount of US\$531.7 million was paid for the domestic bonds. The transaction was successful, as the Government achieved the core objectives of the MTDS.

Section IV: Cost and Risk Analysis

The MTDS details a financing plan for the GOJ, geared towards achieving the desired composition of the debt portfolio, in alignment with the Government's preference regarding the cost/risk trade-off. Though the country's debt portfolio is susceptible to a variety of risks, the MTDS focuses on managing exposure to market and refinancing risks.

A distinctive feature of Jamaica's debt portfolio is its high exposure to foreign currency and interest rate risks, whereas exposure to inflation risk is marginal. Notwithstanding an extended average-time-to-maturity (ATM) for the portfolio, some amount of bunching in the redemption profile implies exposure to refinancing risk. Consequent to the relative risks embedded in the portfolio, the MTDS will aim to increase the share of domestic and fixed-rate debt, whilst simultaneously smoothing the maturity profile and minimizing costs.

As highlighted in **Table 2**, the Government's debt operations in FY2017/18 were generally in line with the key cost and risk targets established in the MTDS for FY2017/18-FY2019/20. Despite relatively large inflows of foreign currency-denominated debt during the second quarter of FY2017/18, the share of foreign currency-denominated debt in total Central Government debt at end-December 2017 was 60.7 percent, well within the upper limit of 65.0 percent. However, the share of variable-rate debt in total Central Government debt was 35.6 percent, 5.6 percentage points outside the target. The management of refinancing risk was also successful, with the share of debt maturing within one year and the ATM outperforming the respective targets.

Table 2: Cost and Risk Outcomes at end-March 2017 and end-December 2017 and Targets for end-March 2020

	Outcomes		Change	Targets end-Mar 2020	
	End-Mar 2017	End-Dec 2017		Min	Max
Implied Interest Rate (%)					
Domestic	7.5	7.4	(0.1)	-	-
External	5.5	5.6	0.1	-	-
Total	6.3	6.3	(0.0)	-	-
Refinancing risk					
Domestic					
Debt maturing in 1yr (% of total)	9.6	10.5	0.9	-	-
ATM (Years)	9.6	10.1	0.5	-	-
External					
Debt maturing in 1yr (% of total)	1.3	0.5	(0.8)	-	-
ATM (Years)	10.7	12.4	1.7	-	-
Total					
Debt maturing in 1yr (% of total)	4.7	4.3	(0.4)	-	<= 10
ATM (Years)	10.3	11.5	1.2	>=9.0	-
Interest Rate Risk					
Domestic					
Variable Rate Debt (%)	39.7	44.3	4.6	28.0	30.0
Debt Refixing in 1 year (%)	41.8	45.9	4.1	-	-
Average Time to Refixing ATR (Years)	5.6	6.2	0.6	-	-
External					
Variable Rate Debt (%)	30.7	30.6	(0.1)	35.0	40.0
Debt Refixing in 1 year (%)	33.7	31.6	(2.1)	-	-
Average Time to Refixing ATR (Years)	8.3	10.0	1.7	-	-
Total					
Variable Rate Debt (%)	34.3	35.6	1.3	30.0	33.0
Debt Refixing in 1 year (%)	37.0	36.8	-	-	-
Average Time to Refixing ATR (Years)	7.3	8.5	1.2	-	-
Foreign Currency Risk					
FX debt as (% of total debt)	60.8	60.7	(0.1)	61.0	65.0
Contingent Liabilities					
Guaranteed Loans (% of GDP)	7.4	6.4	(1.0)	-	8.0

Source: Ministry of Finance and the Public Service

4.1 Market Risks

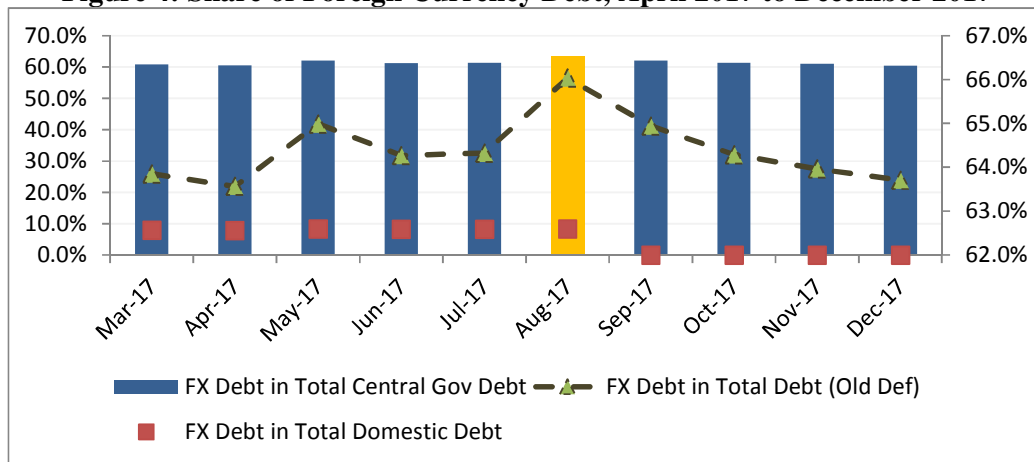
4.1.1 Foreign Currency Risk

Foreign currency risk relates to an unexpected shift in the exchange rate of the Jamaica dollar against foreign currencies, whereby its impact is determined by the level of exposure to and change in such prices. Depreciation of the domestic currency relative to foreign currencies will increase the stock valuation as well as debt service costs in Jamaica dollar terms, in respect of foreign currency-denominated debt. As highlighted in **Figure 4**, at end-December 2017, the share of foreign currency debt in total Central Government debt was 60.7 percent⁴. This is 0.1 percentage point lower than the 60.8 percent recorded at

⁴ The share of foreign currency-denominated debt in total public debt at end-March 2017 (under the old GOJ definition) was 63.9 percent. This higher foreign currency component is due to the inclusion of external guarantees and BOJ debt under the old definition.

end-March 2017 and within the upper limit of 65.0 percent. The share of foreign currency domestic debt in total Central Government domestic debt averaged approximately 8.2 percent from end-March 2017 through end-August 2017, but decreased to zero through end-December 2017, due to the buyback of US\$526.4 million in the domestic market in September 2017.

Figure 4: Share of Foreign Currency Debt, April 2017 to December 2017



Notes: Figure highlights the share of foreign currency debt in total debt and total domestic debt for the Central Government (on the left-hand axis). For comparison purposes, the share of foreign currency debt in total debt under the 'old GOJ definition' can be read from the right-hand axis.

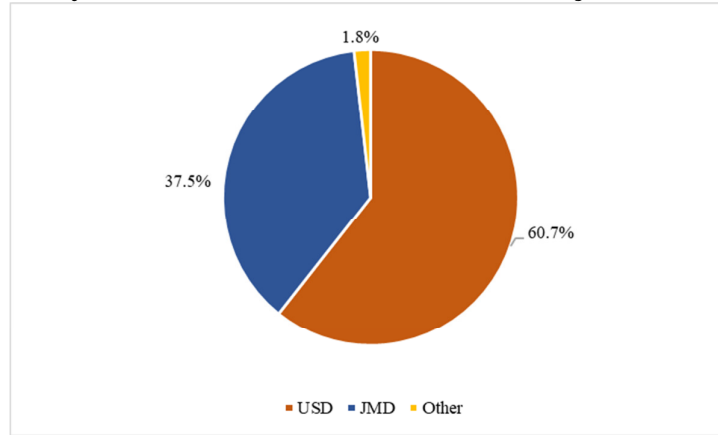
Source: Ministry of Finance and the Public Service

Despite the relatively high proportion of foreign currency debt in the portfolio, Net International Reserves (NIR), which provides a natural hedge against foreign currency risk, experienced robust growth over the review period. At end-December 2017, the NIR was US\$3,208.3 million, an increase of 15.9 percent relative to US\$2,769.2 million at end-March 2017. The ratio of external debt service to exports of goods and services and current transfers, a measure of external debt service capacity, is projected at 15.0 percent at end-FY2017/18. This is in line with the benchmark threshold of 15.0 to 20.0 percent for external debt sustainability.

Whether foreign currency risk is concentrated in one currency, or is diversified across several currencies can have implications for the management of these risks. As highlighted in **Figure 5**, the US dollar and Jamaica dollar are the main currencies in the portfolio and account for 60.7 percent and 37.5 percent of Central Government debt, respectively⁵.

⁵ Other major currencies in the portfolio include the Special Drawing Rights (SDR), the Chinese Yuan Renminbi (CNY), the Japanese Yen and the Euro.

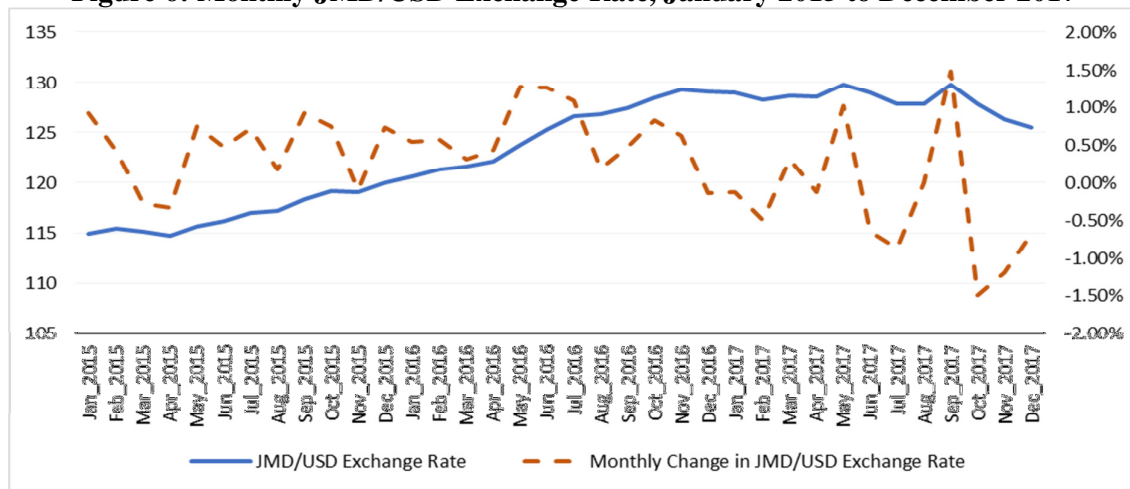
Figure 5: Currency Distribution of the Debt Portfolio Projected to end-March 2018



Source: Ministry of Finance and the Public Service

The currency composition of the portfolio suggests that foreign currency risk is concentrated in the US dollar-denominated debt. **Figure 6** highlights the trajectory of the Jamaica dollar/US dollar exchange rate and the month-on-month change from January 1, 2015 to end-December 2017. Over the 3-year period, the Jamaica dollar depreciated by approximately 9.0 percent relative to the US dollar, an average of 3.0 percent each year. However, over the twelve-month period January 2017 to December 2017, the Jamaica dollar appreciated by 2.7 percent relative to the US dollar. The strengthening of the Jamaica dollar in recent months has mitigated some of the negative effects on the debt stock from the depreciation experienced during the earlier months.

Figure 6: Monthly JMD/USD Exchange Rate, January 2015 to December 2017



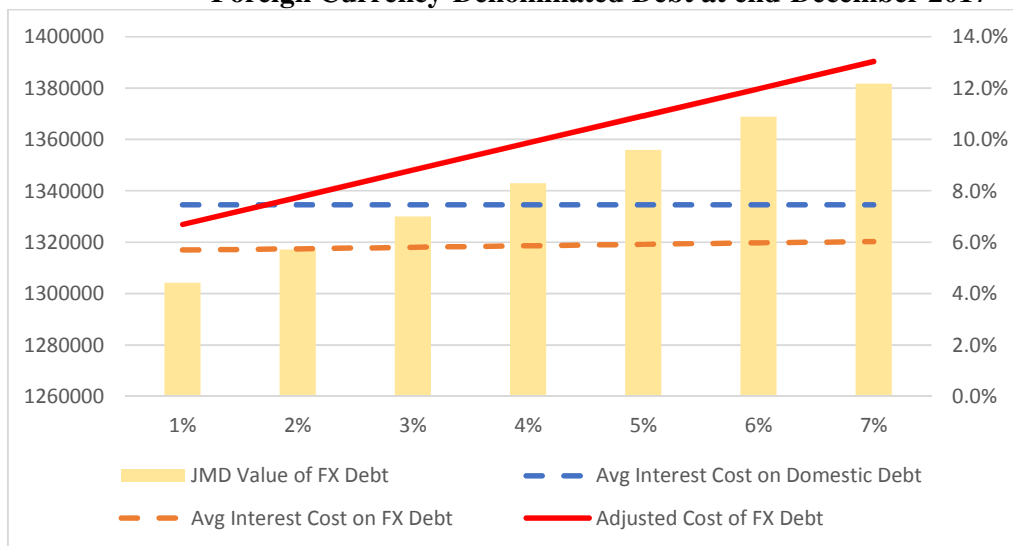
Notes: The figure shows the average monthly JMD/USD exchange rate (left axis) and the month-to-month percentage change (right axis) from January 2015 to December 2017.

Source: Bank of Jamaica (BOJ).

Notwithstanding the appreciation of the Jamaica dollar in recent months, significant downside risks to debt service costs remain, given the portfolio’s exposure to foreign currency risk. Though the Government might be able to access foreign currency-denominated loans at concessionary rates, the cost/risk benefits of this financing strategy can quickly be eroded by moderate depreciation in the Jamaica dollar.

Figure 7 highlights the potential effects on adjusted debt service costs associated with depreciation in the Jamaica dollar relative to the US dollar, based on the foreign currency debt stock at end-December 2017. A 2.0 percent depreciation in the Jamaica dollar/US dollar exchange rate will result in an adjusted cost on external debt of approximately 7.7 percent. This is 0.2 percentage point higher than the implied interest cost on domestic debt. However, notwithstanding potentially higher adjusted borrowing costs in the external market, the domestic market is not sufficiently deep to satisfy the GOJ’s borrowing requirements. Increased issuances of GOJ securities could place upward pressure on interest rates and crowd out private investment. Overall, given the portfolio’s exposure to foreign currency risk and the continued development of the domestic market, a key element of the MTDS is to accelerate the rebalancing of the portfolio toward domestic debt.

Figure 7: Effect of Depreciation on the Stock and Adjusted Cost for Foreign Currency-Denominated Debt at end-December 2017



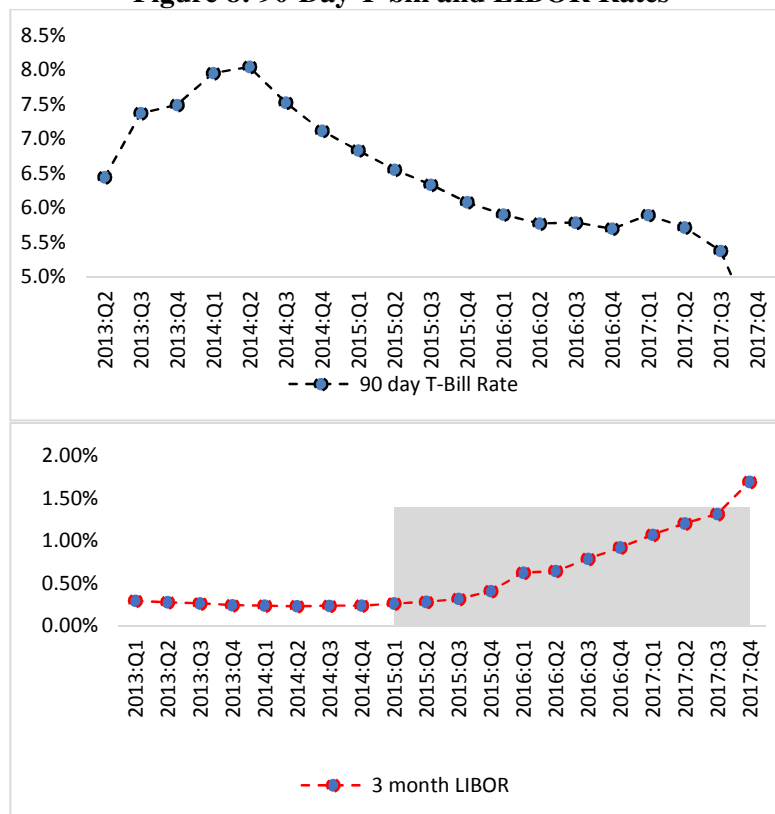
Notes: Interest cost on domestic and external debt is calculated as the projected interest payments divided by the stock of debt at end-December 2017. Adjusted cost on foreign currency debt is calculated as the sum of the increase in the nominal value of foreign currency-denominated debt and associated increase in interest cost in Jamaica dollar terms, due to depreciation in the Jamaica dollar. All can be read from the right-hand axis. The nominal value of foreign currency debt can be read from the left-hand axis. The x-axis gives different assumed rates of depreciation of the Jamaica dollar relative to the US dollar.

Source: Ministry of Finance and the Public Services

4.1.2 Interest Rate Risk

Interest rate risk measures the exposure of the debt portfolio to changes in interest rates. Adverse movements in interest rates can increase debt service costs for variable-rate debt and may have implications for the cost of rolling over near-to-maturity fixed-rate debt. Benchmark interest rates in the external (3-month US LIBOR) and domestic (3-month T-bill) markets are trending in opposite directions (see **Figure 8**). The 3-month T-bill has been on a firm downward trajectory over the last 6 quarters, in part due to increased domestic currency liquidity. The 3-month US LIBOR, however, is steadily trending upwards due in part to lower investment in US LIBOR-based assets as investors' preference shifts in favour of government securities. In general, expectations are for benchmark rates in the domestic and external markets to remain relatively low over the near-term – assuaging concerns about adverse movements in interest rates.

Figure 8: 90-Day T-bill and LIBOR Rates



Sources: Bank of Jamaica (BOJ) and the Federal Reserve Bank of St Louis.

The portfolio is exposed to moderate interest rate risk (see **Table 2**). At end-December 2017, the share of variable-rate debt in total public debt was estimated at 35.6 percent. This is 1.3 percentage points above the outturn at end-March 2017, and 5.6 percentage points higher than the 30.0 percent targeted for FY2017/18. This increase was driven mainly by the

domestic portfolio where the share of variable-rate debt increased by 4.6 percentage points, from 39.7 percent at end-March 2017 to 44.3 percent at end-December 2017, as the Government repaid fixed-rate benchmark notes. The interest rate composition (fixed versus variable) in the external portfolio decreased marginally, from 30.7 percent at end-March 2017 to 30.6 percent at end-December 2017.

Average-time-to-re-fixing (ATR) measures the weighted average time until all the principal payments in the debt portfolio become subject to a new interest rate. The share of debt re-fixing in one year measures the proportion of the portfolio that will be subjected to a new interest rate within a year and complements the ATR. The ATR for Central Government debt increased by 1.2 years, from 7.3 years at end-March 2017 to 8.5 years at end-December 2017 (see **Table 2**). This was mainly driven by the external portfolio, where the ATR moved from 8.3 years to 10.0 years, an increase of 1.7 years. The ATR for the domestic portfolio increased from 5.6 years to 6.2 years over the review period. The share of debt re-fixing in one year for the domestic portfolio increased by 4.1 percentage points to 45.9 percent at end-December 2017 from 41.8 percent at end-March 2017. This compares to the external portfolio, where the share of debt re-fixing in one year decreased by 2.1 percentage points, from 33.7 percent at end-March 2017 to 31.6 percent at end-December 2017. Overall, the lower interest rate risk exposure – implied by the improvements in the ATR and the share of the debt re-fixing in one year, is largely due to the issuance of longer-tenor fixed-rate debt, relative to variable-rate debt, in both the external and domestic markets.

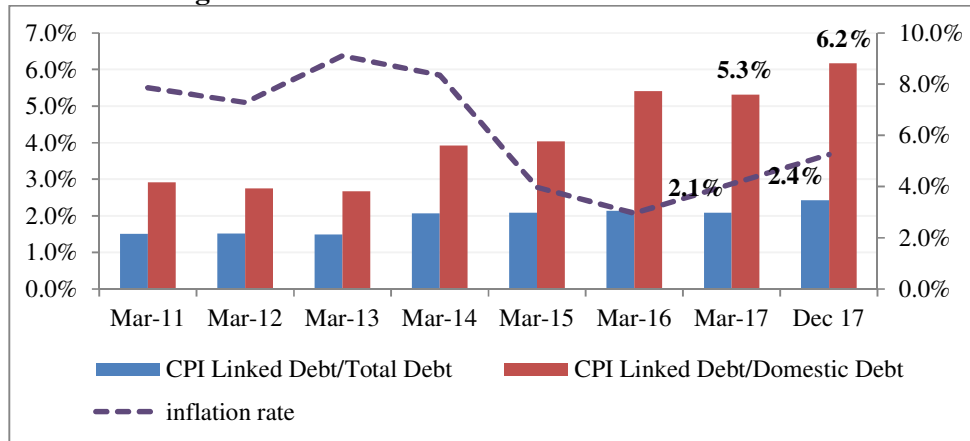
4.1.3 Inflation Risk

Inflation-linked bonds are susceptible to changes in the Consumer Price Index (CPI) and pose an additional risk to the public debt portfolio. An upward movement in the CPI will increase the nominal value of CPI-linked debt, and lead to an associated increase in nominal interest costs. **Figure 9** highlights changes in the inflation rate and share of CPI-linked debt in domestic and total Central Government debt. The twelve-month point-to-point inflation rate at end-December 2017 was 5.2 percent, 3.5 percentage points higher than the 1.7 percent recorded for the corresponding period in the previous year.

Inflation risks are concentrated entirely in the domestic portfolio. At end-December 2017, the share of CPI-linked debt in the domestic portfolio and total Central Government debt was 6.2 percent and 2.4 percent, respectively. This compares to 5.3 percent and 2.1 percent at end-March 2017, a marginal increase in exposure over the review period. This increase is

proportionate to principal repayments of non-CPI domestic debt as well as increases in the nominal value of CPI-linked instruments.

Figure 9: Share of CPI-Linked Debt in Public Debt

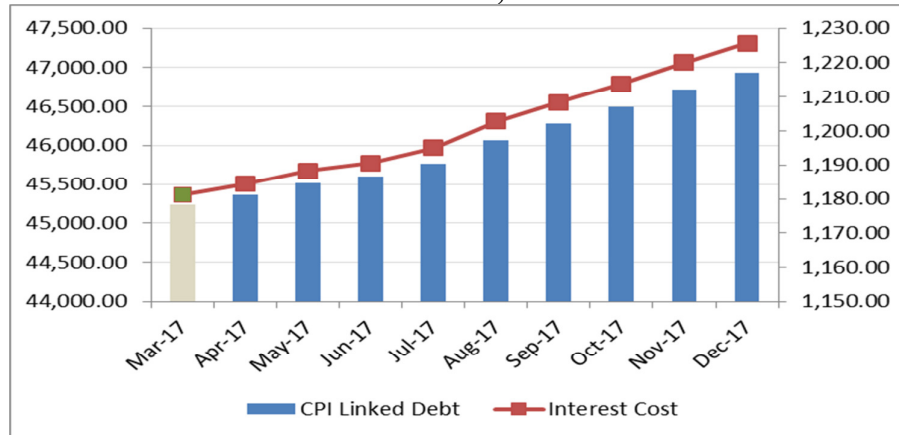


Notes: Data used are for central government only. Figure shows the share of CPI-linked debt in the total and domestic portfolio (left axis) and the annualized (point-to-point) inflation rates (right axis) as at the respective dates.

Source: Ministry of Finance and the Public Service.

Figure 10 highlights the effect of changes in the CPI on the nominal value of inflation-linked debt and associated interest costs over the period end-March 2017 to end-December 2017. The nominal value of CPI-linked debt increased by \$1,704.6 million or 3.8 percent, from \$45,234.1 million at end-March 2017 to \$46,938.7 million at end-December 2017. This is associated with an estimated increase in annualized interest cost of \$44.5 million over the same period.

Figure 10: Nominal Value of CPI Linked Debt, end-March 2017 to end December 2017



Notes: The nominal value of CPI-linked debt in millions of Jamaica dollars on the left axis and the increase in adjusted debt service costs from changes in the CPI over the period on the right axis.

Source: Ministry of Finance and the Public Service.

4.2 Refinancing Risk

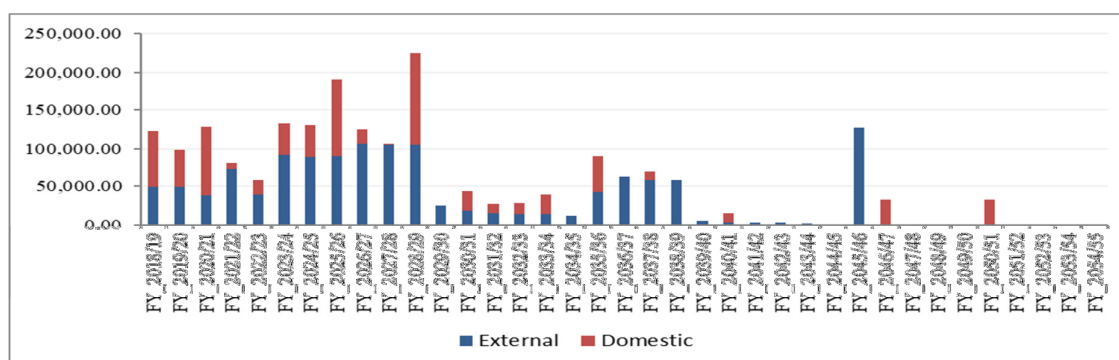
Refinancing risk refers to the probability that debt will have to be refinanced at much higher cost or, in extreme circumstances, cannot be refinanced at all. It is closely linked to the maturity or redemption profile of the debt portfolio which provides measures of immediate, average and term-specific refinancing risks. Immediate refinancing risk is measured as the share of debt maturing in one year or less. Average risk measures are captured by the average-time-to-maturity (ATM) or duration of the portfolio and term-specific risks relate to the concentration of maturities in any given year or period.

The share of total public debt maturing within 12 months decreased by 0.4 percentage point to 4.3 percent at end-December 2017 from 4.7 percent at end-March 2017. This is below the outer limit of 10.0 percent. The reduction is attributable to the external portfolio, down 0.8 percentage point, from 1.3 percent at end-March 2017 to 0.5 percent at end-December 2017. The share of debt maturing within 12 months for the domestic portfolio increased by 0.9 percentage point, from 9.6 percent at end-March 2017 to 10.5 percent at end-December 2017 (see **Table 2**).

The portfolio's ATM improved over the review period, from an estimated 10.3 years at end-March 2017 to 11.5 years at end-December 2017, an increase of 1.2 years. This was driven by increases in the ATM of 0.5 years and 1.7 years in the domestic and external portfolios, respectively. The relatively higher ATM at end-December 2017 is due to the timing of the maturities and the extension of the maturity profile, which was supported by the LMO (see **Box 1**). Large original maturities in May and June for the domestic and external portfolios contributed to a lower ATM at end-March 2017 relative to end-December 2017. Further, the buyback of near-to-maturity external and domestic debt, financed through the issuance of longer-tenor debt increased the ATM.

Figure 11 projects the redemption profile for the debt portfolio at end-March 2018. Large amortizations over the medium-term suggest high term-specific refinancing risks or bunching over the next 10 years. Term-specific refinancing risks in the first three (3) years are larger in the domestic market. However, for years 4 through 10, there is significant bunching in the external portfolio. Large amortizations in both the domestic and external portfolios in FY2025/26 and FY2028/29 suggest high refinancing risks in these years. Given the redemption profile of the existing portfolio, a key element of the MTDS will be to smooth and extend the maturity profile.

Figure 11: Redemption Profile of Total Public Debt Projected at end-March 2018



Source: Ministry of Finance and the Public Service

4.3 Interest Cost

As shown in **Table 2**, an increase in the weighted average implied interest rate on external debt by 0.1 percentage point was offset by an equal decrease in cost for the domestic portfolio. Consequently, the implied interest for Central Government debt of 6.3 percent at end-December 2017 was unchanged relative to end-March 2017.

The interest cost of domestic debt is higher than externally sourced financing. The estimated annual average interest cost of domestic debt of 7.5 percent is 2.0 percentage points higher than the 5.5 percent estimated for the external portfolio. **Table 3** highlights the implied interest cost for select instruments in the domestic and external portfolios. Overall, multilateral/bilateral financing have the lowest interest rates. The implied interest cost on external commercial bank loans is higher than multilateral/bilateral loans, but lower than the average cost of global bonds. On average, domestic bonds are more expensive than global bonds - highlighting the cost/risk trade-off when considering external versus domestic bond financing.

Table 3: Implied Interest Cost of Debt by Instrument Type

Instrument	Implied Interest
<i>Domestic</i>	7.5%
Bonds_Fixed Rates	9.1%
Bonds_Variable Rates	5.6%
<i>External</i>	5.5%
Multilateral/Bilateral_Fixed Rates	2.4%
Multilateral/Bilateral_Variable Rat	2.3%
Global Bonds_Fixed Rates	7.7%
Commercial/Other_7 Years_Fix	5.7%

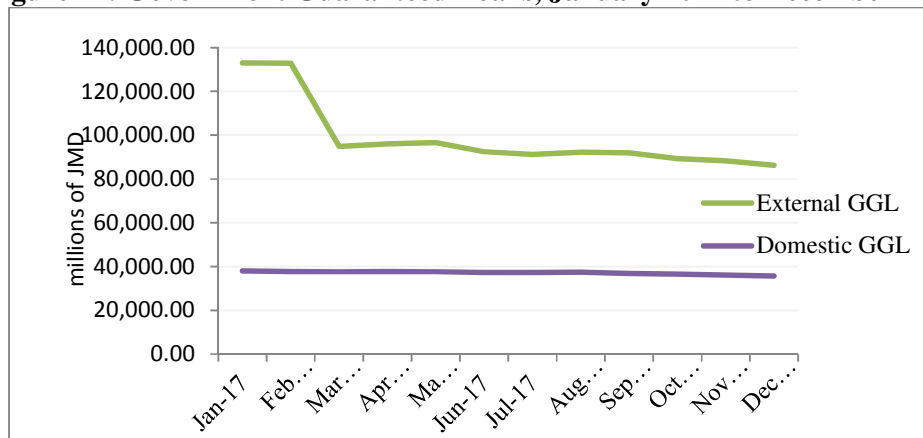
Notes: The implied interest costs are the weighted average costs for the domestic and external portfolio and for the select instrument categories. The domestic portfolio comprises mainly Bonds (with a smaller amount of loans and T-bills) and the external portfolio comprises mainly global bonds, multilateral and bilateral loans.

Source: Ministry of Finance and the Public Service.

4.4 Contingent Liabilities – Government Guaranteed Loans (GGLs)

The Public Debt Management Act (PDMA) (Amendment), 2017, defines contingent liabilities as “an obligation (whether explicit or implicit) that materializes if a particular event occurs; or a potential liability that may occur depending on the outcome of an uncertain future event.” **Figure 12** highlights the stock of GGLs and its external and domestic components from end-January 2017 through end-December 2017. Total GGL at end-December 2017 amounted to approximately \$122.0 billion, of which \$86.2 billion or 4.6 percent of GDP were external guarantees and \$35.8 billion or 1.9 percent of GDP were domestic guarantees. Compared to end-January 2017, GGLs at end-December 2017 were \$49.0 billion or 27.3 percent lower. This sharp decrease is due mainly to a reduction in the external GGL portfolio by approximately \$46.8 billion or 35.2 percent. Over the period April 2017 to December 2017, the decline in GGLs has been more measured, reducing by approximately 8.8 percent.

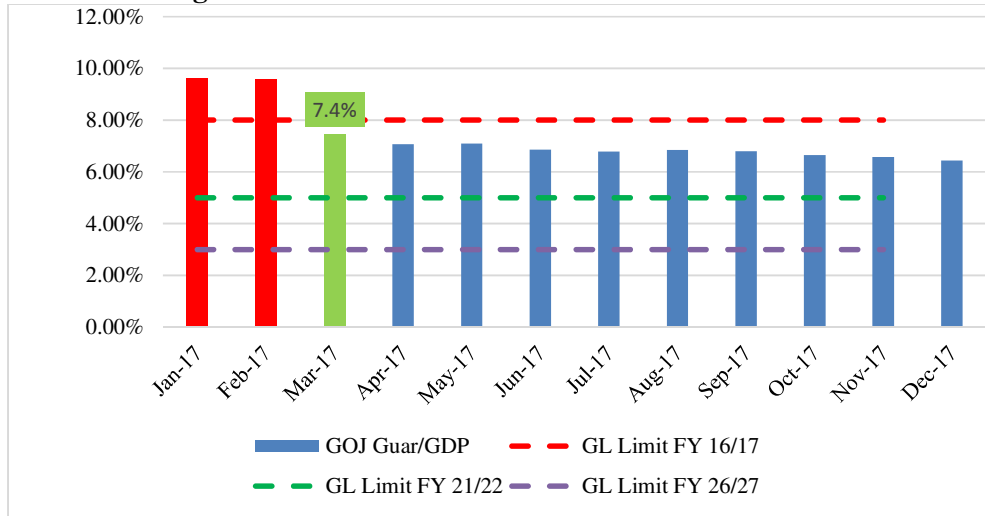
Figure 12: Government Guaranteed Loans, January 2017 to December 2017



Source: Ministry of Finance and the Public Service

Figure 13 highlights the performance of GGL-to-GDP from end-January 2017 through end-December 2017, relative to the legislated ceilings established in the Public Debt Management Act. The PDMA limits the GGL-to-GDP to 8.0 percent, 5.0 percent and 3.0 percent for end-FY2016/17, end-FY2021/22 and end-FY2026/27, respectively. At end-March 2017, the GGL-to-GDP was approximately 7.4 percent, 0.6 percentage points below the legislated ceiling. During FY2017/18, GGL-to-GDP continued along a slight downward trajectory, and is estimated at 6.4 percent at end-December 2017.

Figure 13: GOJ Loan Guarantees as a Share of GDP



.Source: Ministry of Finance and the Public Service.

In order to meet the legislated targets, the Government will maintain the policy position to not issue any new guarantees. Additionally, a framework has been developed for the monitoring of existing guarantees.

Section V: Macroeconomic Overview

Jamaica's economic performance over the first nine months of FY2017/18 was buoyed by continued macroeconomic stability, anchored by sound fiscal and monetary policy reforms under the economic reform programme. All quantitative fiscal and monetary performance targets under the International Monetary Fund Precautionary Standby Arrangement (IMF-PSBA) have been met through to December 2017 and progress on structural benchmarks remain on track.

A fiscal surplus of 0.1 percent of GDP is projected for FY2017/18 (See Table 4). Due to higher revenues and lower expenditures than projected, the fiscal balance at end-December 2017 outperformed the Budget. Fiscal surpluses are expected over the medium-term and are projected to increase from 0.2 percent in FY2018/19 to 1.6 percent in FY2020/21. Strict adherence to a primary balance target of 7.0 percent over the medium-term will ensure continuance of the downward trajectory in the debt-to-GDP ratio to meet the legislated target of 60.0 percent by end-March 2026.

Inflation for FY2017/18 to end-December 2017 was recorded at 4.2 percent and was 1.1 percentage points higher than the 3.1 percent recorded for the corresponding period of 2016. The acceleration in headline inflation largely reflected the shock to agricultural crop production caused by excessive rainfall that impacted the island and resulted in an increase in domestic agricultural prices. In addition, stronger domestic demand conditions and an uptick in international commodity prices contributed to the stronger inflation outturn. Despite the upward pressure on inflation, the outturn for FY2017/18 is projected to remain within the BOJ's target range of 4.0 percent to 6.0 percent.

Sustained improvement in the current account of the Balance of Payments (BOP) over the review period was reflected in a low current account deficit of between 2.0 percent and 3.0 percent at end-December 2017 compared to 2.8 percent at end-March 2017. Continued improvements in the BOP are anticipated over the medium-term, predicated on strong export growth and buoyant foreign currency inflows from tourism and remittances. At end-December 2017, Net International Reserves (NIR) was estimated at US\$3,208.3 million, an increase relative to US\$2,769.2 million at end-March 2017. This continued improvement indicates the strengthened resilience of the Jamaican economy to external shocks.

High business and consumer confidence occasioned strong labour market performance reflected in an unemployment rate of 10.4 percent at end-October 2017, the lowest rate

recorded since October 2008. Notwithstanding the positive performance of key macroeconomic variables, economic growth remained subdued over the review period, due in part to contractions in the mining and agricultural sectors. Real GDP growth for FY2017/18 is projected at 0.9 percent⁶. Over the medium-term, the continued expansion in the global economy, progression in reform of the energy sector as well as improved competitiveness in agriculture and tourism are expected to support growth in the range of 1.5 percent to 2.5 percent.

Table 4: Medium-Term Macroeconomic Profile

Macroeconomic Variables	FY2016/17	FY2017/18	FY2018/19	FY2019/20	FY2020/21	FY2021/22
	Actual	Projected	Projected	Projected	Projected	Projected
Nominal GDP (\$ Billions)	1,782.7	1,887.8	2,017.9	2,160.2	2,315.1	2,483.1
Nominal GDP growth rate (%)	5.6	5.9	6.9	7.1	7.2	7.3
Real GDP growth rate (%)	1.3	1.1	2.4	2.1	2.0	2.0
Inflation (%)	4.1	5.0	4.3	5.0	5.0	5.0
<i>Interest Rate (%)</i>						
180-day T/Bill (average)	6.1	6.2				
30-day Repo Rate (average)	5.0	4.8				
Average selling Exchange Rate	127.1					
Net International Reserves (NIR) (US\$)	2,769.2	2,885.8	3,293.4	3,664.7	4,126.7	4,362.3
Fiscal Balance (% GDP)	-0.2	0.1	0.2	1.1	1.6	2.0
Primary Balance (% GDP)	7.6	7.2	7.0	7.0	7.0	7.0
(J\$=US\$1) Oil Prices (WTI) (avg.) US\$/Barrel	47.9	53.4	56.2	57.0	58.6	60.1

Source: Bank of Jamaica (BOJ) and the Ministry of Finance and the Public Service.

⁶ Projected growth rate for real GDP of 0.9 percent for FY2017/18 is from the Planning Institute of Jamaica (PIOJ).

Section VI: Risks Factors Affecting the Debt Portfolio

The country's debt trajectory is susceptible to several macroeconomic and/or market risks. These range from real sector risks to economic growth, to fiscal and monetary policy risks to exogenous shocks in external variables. Adverse changes in the underlying macroeconomic and market variables can impact negatively on the fiscal and debt trajectories, which could threaten macroeconomic stability and compromise the country's growth prospects. **Table 5** highlights select macroeconomic and market risks and their potential impact on the debt portfolio. The Government will endeavour to implement appropriate strategies to mitigate the negative effects of adverse movements in the underlying risk factors.

Table 5: Macro Risks and Implications for the Debt Portfolio

Risk Factors	Relative Likelihood	Implications for Debt Portfolio
Real Sector Factors		
Business Climate	Medium	A weak business climate, low levels of productivity, high crime rate and an inefficient energy sector are all factors that compromise economic growth.
Energy Efficiency		Lower rates of economic growth will reduce the tax revenue base and can increase demands for spending on social expenditures – leading to increased borrowing needs. These and other structural impediments to growth can increase sovereign risks – leading to increased borrowing costs.
Exogenous Shocks (e.g. weather related shocks)		
Productivity		Jamaica's economic performance is buoyed by improved macroeconomic stability. However crime, low productivity and susceptibility to exogenous shocks are significant risks to growth.
Crime Rate		
Balance of Payments Factors		
Commodity Prices	Medium	A deterioration in the BOP or any of its components will increase the government's susceptibility to foreign currency risk. Adverse movements in commodity prices that result in a depreciation will increase the nominal debt stock and debt service cost for foreign currency debt. Low foreign exchange earnings due to uncompetitive exports and low remittances will compromise a country's ability to service its external debt.
Export Competitiveness		
Remittances		Notwithstanding the upward trend in oil prices and the relative un-competitiveness of Jamaica's exports, remittances have been robust and the NIR hit record highs, thereby mitigating the risk to the portfolio from BOP factors.
Net International Reserves		
Fiscal Policy Factors		
Fiscal Management	Low - Medium	Poor fiscal policy management and the realization of contingent liabilities can result in large and sustained fiscal deficits, leading to an increase in debt as well as debt service costs.
Impending Wage Settlement		Jamaica's strong fiscal performance over recent years and even stronger projections over the medium term have placed the debt on a firm downward trajectory. However the ongoing public sector wage negotiation and the country's susceptibility to weather shocks are significant risks to the fiscal.
Contingent Liabilities		
Market and Financial Factors		
Volatility in Market Rates	Low - Medium	Volatility in market rates increases risk within the economy and can result in higher debt service costs. A shallow domestic financial market increases the risk of crowding out of private investments. Lack of competition in the financial market can stifle market development and increase financing costs. Additionally, lack of policy coordination between the fiscal and monetary policy authorities can compromise debt operations.
Financial Sector Depth and Stability		
Financial Sector Development		Ongoing reforms to improve financial sector resilience; promote financial inclusion and to modernize the BOJ; along with continued policy coordination with the BOJ and MOFPS are expected to reduce market and financial risks.
Fiscal and Monetary Policy Coordination		

The sensitivity of the debt portfolio to changes in key macroeconomic variables will inform the development of an appropriate risk management strategy. The risks are higher, the larger the portfolio's exposure and the more volatile the underlying variable. The portfolio is most exposed to foreign currency risk, as 60.7 percent of total Central Government debt is denominated in foreign currency. This compares to 35.6 percent for variable-rate debt and 2.4 percent for CPI-indexed debt, suggesting moderate and marginal exposure to interest rate and inflation risk, respectively.

Table 6 highlights the impact of changes in select market risk factors - exchange rates, interest rate and inflation on the debt portfolio. A 1.0 percent depreciation of the Jamaica dollar/US dollar exchange rate will increase the debt stock in Jamaica dollar terms by an estimated \$12.9 billion and interest payments by \$728.0 million, an overall increase in adjusted debt service costs of approximately \$13.6 billion. A similar increase in interest rates (domestic and external) and CPI will increase debt service costs by an estimated \$7.1 billion and \$378.0 million, respectively. Total adjusted cost from a 1.0 percent increase in the exchange rate, interest rate and CPI is estimated at \$21.1 billion or approximately 1.1 percent of GDP.

Table 6: Effect of Changes in Select Market Variables on Adjusted Debt Service Cost

Description of Shock	Shock Scenarios		
	1.0%	3.0%	5.0%
J\$ Millions			
Adjusted Costs from Foreign Currency			
Effect on Debt Stock	12,913.8	38,741.3	64,568.9
Effect on Interest Cost	728.0	2,183.8	3,639.7
Total	13,641.7	40,925.2	68,208.6
Total (% of GDP)	0.7%	2.2%	3.6%
Interest Shock			
Domestic	3,242.4	10,027.2	16,712.0
External	3,773.4	11,320.3	18,867.1
Total	7,015.8	21,347.5	35,579.1
Total Interest (% of GDP)	0.4%	1.1%	1.9%
CPI Shock			
Effect on Debt Stock	367.0	1,101.1	1,835.1
Effect on Interest Cost	11.5	34.6	57.7
Total	378.6	1,135.7	1,892.8
Total CPI (% of GDP)	0.0%	0.1%	0.1%
Aggregate Shock			
Total	21,036.1	63,408.3	105,680.6
Total (% GDP)	1.1%	3.4%	5.6%

Source: Ministry of Finance and the Public Service

Table 7 highlights results from dynamic simulations of the effect on debt service costs from changes in select macroeconomic variables, under assumptions for GOJ’s financing programme over the medium-term. The simulation assumes a strategy of increased borrowing from the domestic market vis-a-vis the external market⁷. Consistent with such a strategy, nominal interest cost as a share of GDP is increasing for the domestic portfolio, but decreasing for the external portfolio. Overall, total interest cost for the portfolio is increasing. Additionally, as highlighted in **Panel B** the sensitivity of the portfolio to foreign currency shocks is decreasing over the medium-term. These results are due to the incurrence of more costly domestic debt relative to less costly external debt, as the portfolio is rebalanced towards the former.

The comparative static simulations suggest that adverse movements in the foreign exchange rates pose the greatest risk to the debt portfolio. Consequently, strategies that best mitigate exposure to foreign currency risks are ranked higher than strategies that mitigate interest rate and inflation risks.

Table 7: Dynamic Effect of Changes in Key Market Variables on Debt

Fiscal Year	Shocks	Proj. 2018/19	Proj. 2019/20	Proj. 2020/21
Panel A: Simulated Effects on Interest to GDP				
Domestic Interest (% of GDP)				
Baseline		2.3%	2.8%	2.7%
Interest rate increase:	1.0%	2.4%	3.0%	2.9%
	3.0%	2.8%	3.4%	3.4%
	5.0%	3.1%	3.8%	3.9%
External Interest (% of GDP)				
Baseline		3.5%	3.4%	3.3%
Interest rate increase:	1.00%	3.7%	3.6%	3.4%
	3.00%	4.0%	3.9%	3.8%
	5.00%	4.4%	4.3%	4.1%
Total Interest (% of GDP)				
Baseline		5.8%	6.3%	6.0%
	1.0%	6.2%	6.6%	6.4%
	3.0%	6.8%	7.3%	7.2%
	5.0%	7.5%	8.1%	8.0%
Panel B: Adjusted Cost (% of GDP)				
FX Shock				
	1.0%	0.7%	0.6%	0.6%
	3.0%	2.0%	1.8%	1.7%
	5.0%	3.4%	3.1%	2.8%

Source: Ministry of Finance and the Public Service

⁷ The simulations are based on Strategy 1 (see Section 8.3).

Section VII: Modelling of the Medium-term Debt Strategy

Quantitative modelling of the cost and risks for alternative financing strategies is conducted using the IMF/World Bank Medium-Term Debt Strategy (MTDS) Toolkit. The stock of debt used in this analysis includes Central Government debt and guarantees currently being serviced by the Government.

7.1 Baseline Assumptions and Exogenous Shock Scenarios

The MTDS model is based on a set of baseline assumptions regarding the trajectory of key macroeconomic and market variables over the medium-term. The model considers four alternative medium-term financing strategies. Cost and risk indicators, consistent with the baseline assumptions, are calculated for each financing strategy. Strategies are evaluated based on their performance with respect to the key cost and risk indicators and an optimal strategy identified based on the strategic objectives of the Government.

Additionally, stress tests are conducted whereby exogenous shocks are applied to the baseline exchange rate and interest rate assumptions in order to gauge the sensitivity of the portfolio to these shocks for the respective strategies. Four scenarios were examined as follows:

- **Scenario 1** represents an extreme shock to the exchange rate and assumes 30.0 percent depreciation in the Jamaica dollar/US dollar exchange rate in year two;
- **Scenario 2** is an extreme shock to interest rates and assumes 2.0, 4.0 and 2.5 percentage points increase in interest rates (across the entire yield curve) for multilateral/bilateral loans, global bonds and domestic issuances, respectively;
- **Scenario 3** is a moderate interest rate shock and applies similarly to **Scenario 2**, but is half the size; and
- **Scenario 4** combines a moderate exchange rate shock of 15.0 percent in year two with the moderate interest rate shock described under **Scenario 3**⁸.

7.2 Medium-Term Targets

Conditional on the gross financing requirement of the Government and having regard for the baseline assumptions and possible shock scenarios, specific quantitative targets for key risk indicators have been established in **Table 8**. Ultimately, the financing strategy adopted is designed to meet these targets over the short- and medium-term.

⁸ All shocks are applied as additive adjustments to baseline assumptions for interest and exchange rates.

Table 8: Medium-Term risk Targets for Central Government

Risk Indicators	Targets	
	End-Mar 2019	End-Mar 2020
Nominal Debt as % of GDP	<=99	<=96
Refinancing Risk		
Average Time to Maturity (ATM - years)	>=9	>=9
Share Maturing within one year (%)	<=10	<=10
Interest rate risk		
Domestic		
Share Variable Rate (%)	35.0	30.0
Debt Refixing in 1 year (%)	40.0	35.0
Average Time to Refixing (ATR - year)	8.0	10.0
External		
Share Variable Rate (%)	30.0	30.0
Debt Refixing in 1 year (%)	30.0	25.0
Average Time to Refixing (ATR - year)	10.0	10.0
Total		
Share Variable Rate (%)	33.0	30.0
Debt Refixing in 1 year (%)	35.0	30.0
Average Time to Refixing (ATR - year)	10.0	10.0
Foreign Currency Risk		
Share of Foreign Currency Debt (%)	<=65	<=65

Source: Ministry of Finance and the Public Service

Foreign currency risk: It is expected that debt denominated in foreign currencies will be 65.0 percent or less of Central Government debt by end-March 2020. Increased Government activities in the domestic market will reduce the dependence on foreign currency debt to finance pending obligations. The Government is not expected to raise any foreign currency-denominated debt in the domestic market over the medium-term. However, the Government will continue to roll over external maturities in foreign currencies as the domestic market is not sufficiently deep to refinance the large maturities in the external portfolio. Therefore, maturing external debt may be refinanced with foreign debt, or alternatively, the Government will seek to reduce the outstanding external debt using funds from Central Government revenue.

Interest rate risk: Variable-rate debt is expected to be no more than 30.0 percent of domestic, external and total debt by end-March 2020. Consistent with the strategy to roll over fixed-rate instruments and replace maturing variable-rate debt, the proportion of fixed-rate domestic debt is expected to increase. This is based on the Government's plan to issue mainly fixed-rate instruments in the domestic bond market over the medium-term. In addition, external capital market issuances are usually on a fixed-rate basis, while loans from multilateral sources, of either fixed- or variable-rates, have conversion options.

Refinancing risk: Debt maturing in one year or less is expected to be no more than 10.0 percent at any time during the medium-term. The Government will focus on issuing longer-tenor instruments to avoid further bunching in the short- to medium-term. Additionally, the Government will continue its strategy of executing opportunistic liability management operations in an effort to smooth and extend the existing maturity profile. As a result, the ATM of over nine (9) years is expected to be maintained.

7.3 Financing Strategy

The Medium-Term Debt Management Strategy Analytical Toolkit aids in the evaluation of alternative financing strategies through quantitative assessment of the relative costs and risks. In determining the optimal financing strategy, four alternative strategies were considered. The strategies were selected based on discussions with the authorities and market participants, guided by the debt management objectives of the Government over the short- to medium-term. **Figure 14** highlights the key features of the alternative strategies considered.

Figure 14: Summary of Medium-Term Financing Strategies

Strategy 1	Strategy 2	Strategy 3	Strategy 4
<ul style="list-style-type: none"> •Majority Domestic Financing •Majority Fixed-Rate •Mainly Longer Tenors 	<ul style="list-style-type: none"> •Majority Domestic Financing •Majority Variable-Rate •Mainly Shorter Tenors 	<ul style="list-style-type: none"> •Majority External Financing •Majority Fixed-Rate •Mainly Longer Tenors 	<ul style="list-style-type: none"> •Majority External Financing •Majority Variable-Rate •Mainly Shorter Tenors

Notes: Table highlights the main elements of the alternate strategies examined in the MTDS.

Common to each strategy are assumptions regarding the gross financing requirement, programmed disbursements from multilateral/bilateral loans, rollover financing requirements for T-bills and a set of baseline macroeconomic and market assumptions. The MTDS utilizes fifteen (15) stylized instruments that are assumed to capture the most likely types of issuances to be undertaken over the medium-term. Consistent with the strategies summarized above, **Table 9** highlights issuance plans for each strategy based on an assessment of potential financing sources.

Table 9: Alternate Financing Strategies Over the Medium-Term

Financing Sources	Strategy 1	Strategy 2	Strategy 3	Strategy 4
Share External Financing	20.0 %	20.0 %	70.0 %	70.0 %
Multi/Bilateral_Fixed	20.0%	20.0%	21.0%	21.0%
Multi/Bilateral_Floating	0.0%	0.0%	0.0%	49.0%
Global Bonds	0.0%	0.0%	49.0%	0.0%
Share Domestic Financing	80.0 %	80.0 %	30.0 %	30.0 %
T-Bills_Fixed	13.6%	13.6%	12.9%	12.9%
BIN_5YR_Fixed	4.0%	24.0%	0.0%	0.0%
BIN_5YR_Floating	0.0%	24.0%	0.0%	7.5%
BIN_10YR_Fixed	8.0%	0.0%	7.5%	0.0%
BIN_10YR_Floating	0.0%	18.4%	0.0%	9.6%
BIN_20YR_Fixed	26.4%	0.0%	9.6%	0.0%
BIN_30YR_Fixed	28.0%	0.0%	0.0%	0.0%

Notes: Table shows the share for each financing source as a percentage of the total gross financing needs over the medium-term.

Under **Strategy 1 (S1)**, 80.0 percent of total financing over the medium-term will be sourced from the domestic market, all at fixed-rates. This strategy aligns most closely with the existing MTDS as it seeks to rebalance the debt portfolio towards greater reliance on domestic debt vis-à-vis external debt and reduce the portfolios' exposure to interest rate and refinancing risks by borrowing mainly at fixed-rates across longer tenors in the domestic market. To meet demand by commercial banks and other financial institutions, shorter-tenor issuances make up a small proportion of total financing. Additionally, the issuance strategy spreads across the yield curve and is an important element in the effort to develop the domestic debt market. External financing is programmed through multilateral/bilateral loans at fixed- and variable-rates. The relatively high levels of domestic market liquidity and demonstrably strong demand for GOJ securities in the domestic market indicate that this is a feasible strategy.

Strategy 2 (S2) also assumes an operating target for domestic financing of 80.0 percent. However, it assumes financing mainly through variable-rate and short-term instruments in the domestic market. This strategy assumes that domestic investor demand for GOJ securities is concentrated in the short-end of the yield curve (variable- or fixed-rates). Whilst mitigating exposure to foreign currency risk, this strategy increases the portfolio's vulnerability to interest rate and refinancing risks. Notably, reductions in the Weighted Average Treasury Bill Yields (WATBY) and the focus on shorter tenors might imply lower financing costs relative to **S1**. The assumptions regarding external financing are the same as under **S1**.

Strategies 3 (S3) and 4 (S4) exacerbate the imbalance in the debt portfolio by increasing its reliance on external financing vis-à-vis domestic financing. Both strategies assume that the domestic market is not sufficiently deep to absorb the total financing requirements and as such, 70.0 percent of the total financing needs will be sourced from the external market.

S3 assumes the majority of external financing will be sourced from private creditors through issuances in the ICM and a smaller amount from official multilateral/bilateral partners. Given the upward trend in the US LIBOR and the continued monetary policy tightening by the Federal Reserve (the Fed), this strategy further assumes that all external financing will be at fixed-rates. The focus on ICM financing may be supported based on the stellar performance of emerging market (EM) bonds in 2017, which, if continued through 2018 suggests that GOJ global bonds may be attractive investments.

S4 assumes less favourable conditions in the ICM as investors become cautious about investing in EM bonds. This strategy therefore assumes that external financing will be programmed through official multilateral/bilateral sources, at fixed- and variable-rates.

7.4 Toolkit Output - Results for Alternative Financing Strategies

Table 10 highlights key cost and risk indicators of the debt portfolio for alternative financing strategies under the baseline assumptions.

Table 10: Cost and Risk Indicators for Selected Strategies

Risk Indicators		As at end-March 2021				
		Current	S1	S2	S3	S4
Nominal debt as % of GDP		107.5	89.9	89.8	89.9	89.7
Interest payment as % of GDP		6.4	6.0	5.9	5.9	5.7
Implied interest rate (%)		6.3	6.7	6.6	6.6	6.4
Refinancing risk	Debt maturing in 1yr (% of total)	5.9	4.8	4.8	4.7	4.7
	Debt maturing in 1yr (% of GDP)	6.4	4.4	4.3	4.3	4.2
	ATM External Portfolio (years)	11.4	9.5	9.5	10.4	9.6
	ATM Domestic Portfolio (years)	9.7	12.5	8.3	9.9	9.2
	ATM Total Portfolio (years)	10.8	10.6	9.1	10.2	9.5
Interest rate risk	ATR (years)	8.5	9.2	7.3	8.8	7.3
	Debt refixing in 1yr (% of total)	34.7	26.5	32.9	26.4	36.4
	Fixed rate debt (% of total)	67.5	77.2	70.8	77.2	67.2
FX risk	FX debt as % of total	62.6	62.7	62.8	70.4	70.4

Notes: Boxes shaded in yellow highlights the most favoured outcome(s); blue highlights the second-best outcome; grey highlights the third best outcome and red highlights the least favoured outcome(s).

Source: Ministry of Finance and the Public Service

Projected improvements in the fiscal balance imply lower borrowing requirements over the medium-term and are reflected in a marked reduction in the projected debt-to-GDP by FY2020/21 for all strategies.

Overall, S1 outperformed the alternatives with respect to key risk indicators, and is the preferred strategy. All strategies resulted in a decline in the ATM relative to the current 10.8 years. However, S1 recorded the most marginal decline and is projected at 10.6 years by FY2020/21. Compared to the current portfolio, lower ATM for the external portfolio and higher ATM for the domestic portfolio reflect the strategy of borrowing mostly longer-tenor instruments in the domestic market.

With respect to interest rate risk, an ATR of 9.2 years and share of fixed-rate in total debt of 77.2 percent, gave pre-eminence to S1 and is closely followed by S3. The results are congruent with the plan to borrow mainly at fixed-rates in the domestic and external markets under Strategies 1 and 3.

S1 and S2 report the lowest exposure to foreign currency risk. This is due to the greater focus on domestic market issuances relative to S3 and S4. Over the medium-term, the share of foreign currency debt in total debt under S1 is projected at 62.7 percent, 7.6 percentage points less than S3 and S4; and roughly in line with the current portfolio.

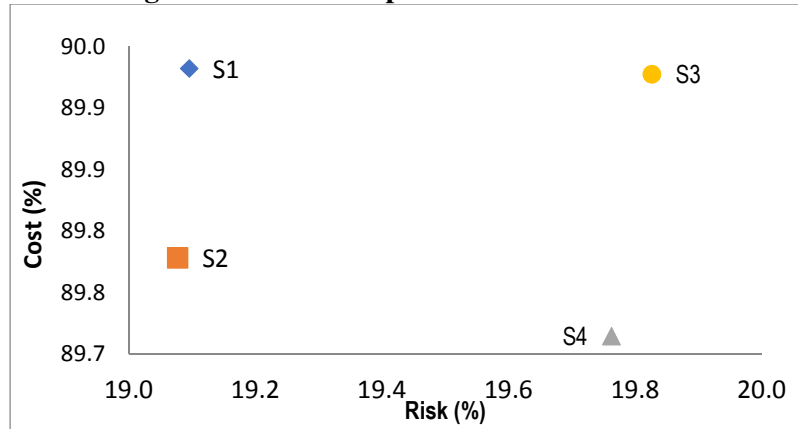
The cost/risk trade-off is important when comparing across strategies. Though generally outperforming the alternatives with respect to key risk indicators, S1 is the most expensive. The implied interest rate for S1 is estimated at 6.7 percent or equivalent to 6.0 percent of GDP, compared to 6.4 percent or 5.9 percent of GDP under S4. However, lower refinancing, interest rate and foreign currency risks under S1 highlights the cost/risk trade-off.

The baseline estimates are subject to shocks in key market variables. **Figure 15** highlights baseline estimates and the maximum risk for the debt-to-GDP under the respective scenarios. Though S4 projects the lowest debt-to-GDP, it is the second most risky, compared to S1 which has the highest debt-to-GDP but the second lowest risk. Realization of the maximum risk will increase the estimated debt-to-GDP under S3 and S4 above S1 and S2.

Further, realization of the target of 65.0 percent for the share of external debt in total debt is riskier under S3 and S4 relative to S1 and S2. The share of external debt-to-GDP under the baseline is estimated at 56.4 percent for S1 and S2, compared to 63.3 percent and 63.1 percent under S3 and S4, respectively. Under the maximum risk scenario (extreme exchange

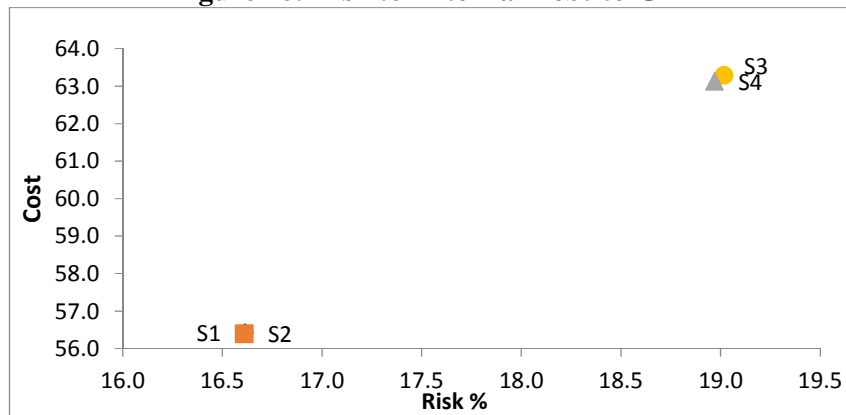
rate shock), the share of external debt-to-GDP is estimated at 73.0 percent under S1 and S2 compared to 82.3 percent and 82.1 percent under S3 and S4, respectively (see **Figure 16**).

Figure 15: Risk Comparison for Debt-to-GDP



Source: Ministry of Finance and the Public Service

Figure 16: Risk to External Debt-to-GDP

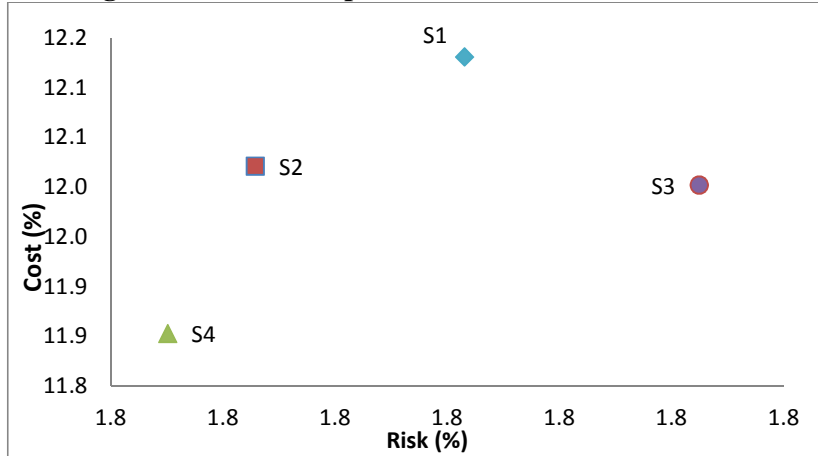


Source: Ministry of Finance and the Public Service

Figure 17 confirms the low debt service-to-GDP for S4 relative to the alternatives as implied by the baseline results for interest cost⁹. However **Figure 18** suggests greater costs and risks for external debt servicing under S3 and S4 compared to S1 and S2.

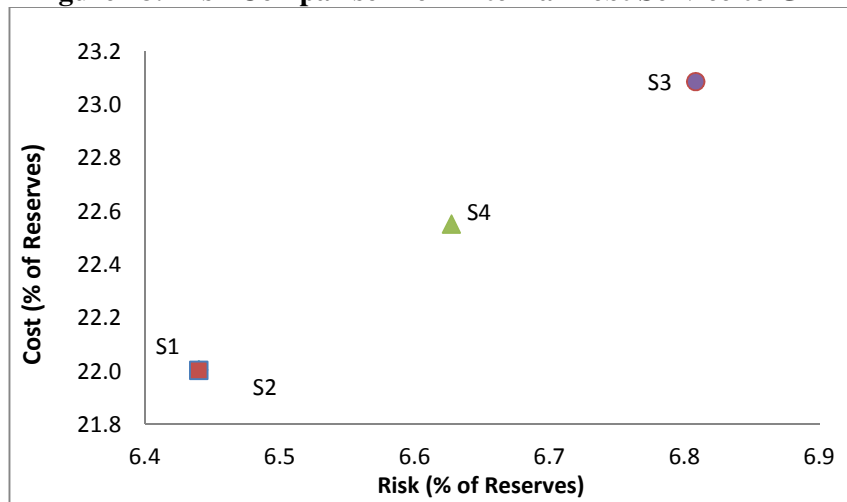
⁹ Associated risks from shocks to underlying macroeconomic variables do not vary significantly across strategies.

Figure 17: Risk Comparison for Debt Service-to-GDP



Source: Ministry of Finance and the Public Service,

Figure 18: Risk Comparison for External Debt Service-to-GDP



Source: Ministry of Finance and the Public Service,

Section VIII: Annual Borrowing Plan (ABP)

The Annual Borrowing Plan (ABP) for FY2018/19 is developed based on the Government of Jamaica's (GOJ) financing requirement for the year. The ABP details the projected funding sources that will cover the financial gap in the overall fiscal position after expected revenues and expenditures are programmed.

The Government's financing requirement is projected at \$103,198.3 million or 5.1 percent of GDP for FY2018/19. This represents a decrease of \$56,413.7 million (3.0 percent of GDP) below the financing requirement of \$159,612.0 million (8.5 percent of GDP) programmed for FY2017/18.

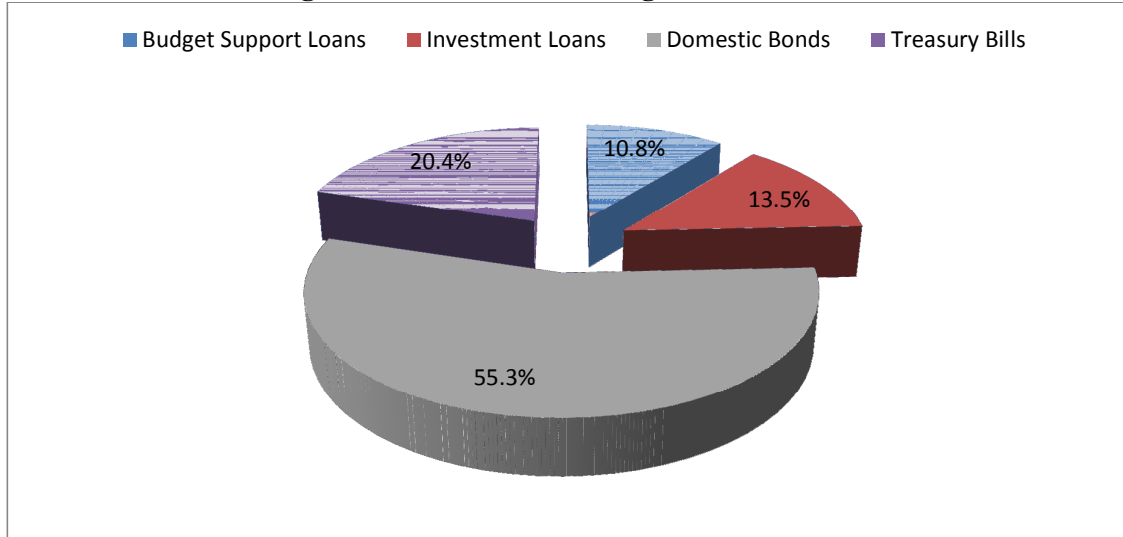
During FY2018/19, the Government will continue efforts to mitigate dollarization in the debt portfolio, as funding activities in the domestic capital market are expected to increase. The expected sources of funding include local currency issuances, projected at \$78,071.6 million or 75.7 percent of the total financing requirement. This is consistent with the implementation of the Government's on-going strategy objective to further develop the domestic bond market, which is a core objective of prudent debt management and the strategy to increase domestic issuances. The funding from external sources is projected to be \$25,126.7 million and will include multilateral and bilateral loans in the form of budget support and investment loans. (See Table 11 and Figure 19)

Table 11: Annual Borrowing Plan FY2018/19

	Budgeted (\$mn)
Domestic Financing	78,071.6
Market Issues	57,071.6
Treasury - Bills	21,000.0
External Financing	25,126.7
Investment Loans	13,968.2
Policy-Based loans	11,158.5
Total	103,198.3

Source: Ministry of Finance and the Public Service

Figure 19: Annual Borrowing Plan FY2018/19



Source: Ministry of Finance and the Public Service

8.1 Issuance Strategy

For FY2018/19, the Government intends to focus mainly on issuances in the domestic bond market in keeping with the selected strategy, S1. Guided by S1, the Government will issue only fixed-rate securities (See Table 12), subject to favourable market conditions. This issuance strategy represents a continuation of the issuance strategies over the past two years, aimed at achieving set debt targets, the MTDS objectives and planned programmes as follows:

- The domestic market will be further developed through GOJ's constant presence in the market in line with the issuance calendar. The scheduled issuances are aimed at satisfying investors' demand at all segments of the yield curve;
- The auction mechanism will be the methodology used to tap the market to further enhance competitive and efficient pricing and the realignment of the yield curve;
- The issuance calendar is designed to avoid further bunching of maturities;
- Upcoming maturities will be replaced with mainly long-term instruments in the interest of not exacerbating the significant bunching between FY2025/26 to FY2028/29. The proceeds from the issuances will be used to continue building liquidity buffers;

- Reduce dollarization in the total debt portfolio by improving the ratio of local currency-denominated debt to foreign currency-denominated debt through increased domestic debt market issuances;
- Improve the proportion of fixed-rate to variable-rate debt to achieve the targeted 70:30 proportion over the medium-term; and
- The Government will continue to issue three- and six-month T-bills on a monthly basis, while the nine-month T-bill will be issued six times during the fiscal year (**See Table 13**). The subscription amount will be increased by \$100.0 million, or 16.7 percent from \$600.0 million to \$700.0 million per tranche. This will increase the total offer amount for FY2018/19 by \$3.0 billion above the \$18.0 billion rolled in the preceding fiscal year.

The issuances are expected to be supported by continued large liquidity levels in the market that will be further enhanced by an inflow of Jamaica dollar funding from proceeds of two maturing BINs, including a large maturity during the second quarter of the fiscal year.

8.2 Active Liability Management Operations

The Government will continue to pursue the programme of executing opportunistic liability management operations (LMO) during FY2018/19. The programme began in FY2015/16 as a mechanism to rebalance the debt portfolio. In accordance with Sections 6 and 10 of the PDMA, the Minister with responsibility for Finance is vested with the power to undertake operations that are geared towards achieving the objectives of the MTDS. The structure of the LMO may include any or a combination of the following: buybacks, switches, roll-overs and early redemption of debt instruments.

Table 12: Proposed Issuance of Government of Jamaica Securities for FY208/19

SUBSCRIPTION DATE	INSTRUMENT TYPE	METHOD OF ISSUE
Q1		
April 18, 2018	3-month and 6-month T/Bills	Auction
April 26, 2018	Reopen FR 7.75% BIN 2022 - 4-year	Auction
May 16, 2018	3-month, 6-month and 9-month T/Bills	Auction
May 25, 2018	New Issue FR BIN Due 2029- 11-year	Auction
June 13, 2018	3-month and 6-month T/Bills	Auction
Q2		
INSTRUMENT TYPE		
July 11, 2018	New Issue FR BIN Due 2048- 30-year Reopen FR 7.25% BIN Due 2021 – 3-year	Auction Auction
July 18, 2018	3-month and 6-month T/Bills	Auction
August 15, 2018	3-month, 6-month and 9-month T/Bills	Auction
August 24, 2018	Reopen FR 10.00% BIN Due 2037 – 19-year New Issue FR BIN Due 2023 – 5-year	Auction Auction
September 12, 2018	3-month and 6-month T/Bills	Auction
Q3		
INSTRUMENT TYPE		
October 17, 2018	3-month, 6-month and 9-month T/Bills	Auction
October 26, 2018	Reopen FR BIN Due 2023 – 5-year	Auction
November 14, 2018	3-month, 6-month and 9-month T/Bills	Auction
November 23, 2018	New Issue FR BIN Due 2033 – 15-year Reopen FR BIN Due 2048- 30-year	Auction Auction
December 12, 2018	3-month and 6-month T/Bills	Auction
Q4		
INSTRUMENT TYPE		
January 17, 2019	3-month, 6-month and 9-month T/Bills	Auction
January 25, 2019	Reopen FR 10.00% BIN Due 2037 – 18-year Reopen FR BIN Due 2023 – 5-year	Auction Auction
February 13, 2019	3-month, 6-month and 9-month T/Bills	Auction
March 13, 2019	3-month and 6-month T/Bills	Auction
March 26, 2019	Reopen FR 7.25% BIN Due 2021 – 2-year Reopen FR BIN Due 2033- 14-year	Auction Auction

Note: Table is subject to change. Benchmark Investment Note (BIN)

Source: Ministry of Finance and the Public Service

Table 13: Proposed Schedule for T-bill Tenders

For Fiscal Year 2018/19		
Proposed T-bill Tranche	Proposed Tender Date	Proposed Issue Date
Quarter 1		
3 & 6-month T/Bills	April 18, 2018	April 20, 2018
3, 6 & 9-month T/Bills	May 16, 2018	May 18, 2018
3 & 6 month T/Bills	June 13, 2018	June 15, 2018
Quarter 2		
3 & 6 month T/Bills	July 18, 2018	July 20, 2018
3, 6 & 9-month T/Bills	August 15, 2018	August 17, 2018
3 & 6 month T/Bills	September 12, 2018	September 14, 2018
Quarter 3		
3, 6 & 9-month T/Bills	October 17, 2018	October 19, 2018
3, 6 & 9-month T/Bills	November 14, 2018	November 16, 2018
3 & 6 month T/Bills	December 12, 2018	December 14, 2018
Quarter 4		
3, 6 & 9 month T/Bills	January 16, 2019	January 18, 2019
3, 6 & 9-month T/Bills	February 13, 2019	February 15, 2019
3 & 6 month T/Bills	March 13, 2019	March 15, 2019

Notes: Please note that the Schedule is subject to change. The actual amounts in each tender will be determined at the time of invitation to tender. The dates and amounts are subject to change without notice.

Source: Ministry of Finance and the Public Service

Section IX: Domestic Market Development and Investor Relations Update

9.1 Domestic Government Debt Market

The importance of having a well-developed domestic debt market was highlighted by the events of the global financial crisis in 2008. As a result, the development of the domestic debt market has become a focal point for prudent debt management as governments become increasingly risk averse.

A developed domestic debt market provides an avenue for funding of budget deficits, reducing the dependence on foreign currency-denominated debt and supports the transmission and execution of monetary policy. The domestic debt market facilitates the:

- Reduction in the cost of intermediation;
- Support of the development of financial derivatives;
- Promotion of financial inclusion; and
- The anchoring of the development of legal and institutional infrastructure which work to the benefit of the entire financial system.

Further, the features of such a market include: adequate liquidity, predictability, a diversified investor base, sound securities custody and settlement arrangements, and a strong legislative and regulatory framework. These features characterize Jamaica's domestic debt market. A primary objective of the Government's debt strategy is the further development of the domestic debt market.

Over the last four (4) years, sound fiscal and economic reforms, and prudent debt management operations have helped to stabilize the economy and bolster investor confidence. The improvements in key economic fundamentals, including significant reductions in the debt overhang and the associated debt indicators, have resonated with investors, whose appetite for GOJ securities have rebounded to pre-National Debt Exchange (NDX)¹⁰ levels.

¹⁰ The National Debt Exchange was a liability management operation executed in FY 2013/14, aimed at addressing refinancing risk in the domestic debt portfolio. It was a prior action to securing the Extended Fund Facility with the IMF in 2013. The main characteristics of the NDX were: a voluntary par-for-par exchange for all bonds except the Fixed Rate Accreting Note (FRAN); an exchange of market issued Jamaica and United States Dollar benchmark notes into new longer-dated securities; and the replacement of 25 eligible Benchmark Bonds with a nominal value of \$852.5 billion, with 22 new Benchmark Bonds.

During the first three quarters of FY2017/18, the GOJ continued to successfully raise funds in the domestic debt market across the short-, medium- and long-end of the yield curve for GOJ's funding.

As part of the Liability Management Operations executed in the external market in August 2017, the Government redeemed two tranches of US dollar-denominated Bonds (5.25% BIN 2020A and 2020B), issued in the domestic market under the NDX. The proceeds of the redemption contributed to increased liquidity in the market and the revaluation of the Jamaica dollar vis-à-vis the US dollar.

In the third quarter, the re-opening of two (2) Benchmark Investment Notes (BIN)— 7.25% BIN Due 2021 and 10.00% BIN Due 2037—benefitted from the high liquidity levels, which resulted in the GOJ achieving price discovery and improvement in the times coverage of subscriptions by 4.58 times and 3.68 times with lower yields of 6.29 percent and 8.22 percent, respectively, relative to the coupons. The results of the re-opening of the two BINs signaled the high levels of liquidity in the domestic debt market, improved confidence of investors in the economy and a renewed appetite for GOJ instruments. The reduction in the yields of the BINs has contributed to the relatively low domestic interest rate environment. The expectation is that interest rates will continue to decline over the medium-term which will result in lower debt service charges to the GOJ.

The FY2017/18-FY2019/20 MTDS outlined a number of initiatives geared towards the further development of the domestic debt market. These included the regular issuances of marketable securities (T-bills and bonds), regular consultations with investors and other stakeholders, greater co-ordination with the Bank of Jamaica and increased utilization of auctions in the issue of domestic securities. For FY2018/19, the Government plans to continue these market development programmes.

9.2 Financial Market Developments

The transition of the retail repo portfolio to a trust-based framework was completed in May 2017. The legal and regulatory frameworks were finalized and all securities dealers (SDs) were compliant with the requirement of having in place Master Retail Repo Agreements with clients. The retail repo reforms arose from a need to protect the interest of investors in the event of the insolvency of a securities dealer.

Effective July 2017, the BOJ announced the change in the policy rate to the overnight deposit rate replacing the rate on the 30-day Certificate of Deposit (CD). Additionally, the 30-day CD

to primary dealers and Deposit Taking Institutions (DTIs) are now issued in fixed volumes by competitive multiple-price auctions. This change was aimed at strengthening the relationship between the policy rate and market interest rate. On January 18, 2018, the deposit rate was reduced to an all-time low of 3.0 percent.

In July 2017, the BOJ launched its upgraded and modernized foreign currency trading framework. The new system, the Bank of Jamaica Foreign Exchange Intervention and Trading Tool (B-FXITT) is designed to foster improved transparency and efficiency in the foreign exchange market. To date, only the sell auction module of the B-FXITT has been operationalized. Already, there is evidence that the sell auction has contributed to market corrections that have resulted in revaluation of the Jamaica dollar relative to the US dollar. The BOJ has indicated that the buy auction component of B-FXITT is set to be launched in the near future. The foreign exchange corrections realized to date have had positive effects on the stock of public debt, in Jamaica dollar terms.

The BOJ in coordination with the Ministry of Finance and the Public Service (MOFPS) and the Financial Services Commission (FSC) has embarked on an upgrade to the JamClear Central Securities Depository (JamClear CSD). The objective of the upgrade is to modernize the current registry system for government fixed-income securities with a view to improving efficiency in issuances, secondary market trading and custody and settlement arrangements. Simultaneously, the dematerialization of Treasury bills in the securities depository will be effected to ensure a more efficient issuance and custody of T-bills. A live roll out of the upgraded JamClear CSD is expected in June 2018.

During FY2018/19, the Government will continue to collaborate with the BOJ and the Jamaica Stock Exchange (JSE) regarding the implementation of the Fixed Income Trading Platform, consistent with international standards and best practices. The Fixed Income Trading Platform will integrate the JSE's platform with the JamClear CSD infrastructure, and facilitate the listing of GOJ bonds on the Exchange. The implementation of the trading system will create a platform for electronic secondary market trading of debt securities while increasing transparency, trade efficiency, the level of security, improving liquidity and real-time price discovery.

In an effort to further develop the domestic bond market, the DMB in collaboration with the BOJ will continue to reform the Primary Dealers (PD) system. The rationale for the reform is to enhance secondary market trading, improve price discovery, and broaden the investor base, thereby reducing market risk. The reformed PD system is expected to align with sound debt

management practices and represents an efficient way to further develop, maintain and execute a coordinated approach to advance market development and a sustainable MTDS. The commitment and support of the PD system by the dealers is expected to engender and foster greater investors' confidence in GOJ securities.

Under the reform, emphasis will be placed on widening the GOJ's role and the dealers' obligations to the GOJ. In return, the GOJ will create a reward system to motivate and give recognition to high performing dealers.

A principal source of debt financing for the GOJ has been US dollar-denominated funding in the ICM, which has increased exposure to foreign currency risk. Mitigating the foreign currency risk is one of the core objectives of the MTDS. In keeping with the strategy to issue a greater proportion of Jamaica dollar debt in the medium-term and to reduce the foreign currency component of the debt, the GOJ will continue to pursue the policy of foreign investor participation in local currency issuances in the domestic market in the upcoming fiscal year. This will broaden and diversify the investor base, both geographically and institutionally. It is therefore important that the market functions optimally to facilitate this initiative. The reform of the PD system will be a critical component in this process.

As a part of the coordination between the MOFPS and the BOJ, the MOFPS in April 2017 discontinued the issuance of the 28-day tranche of the T-bill given the BOJ's weekly issuance of the 30-day CD. The MOFPS also introduced an additional tranche, the 273-day tranche of the T-bill as well as increased the nominal amount offered on each tranche from \$400.0 million to \$600.0 million. The decision has resulted in harmonization of short-term domestic issuances from both institutions as well as facilitating greater efficiency in the management of liquidity in the domestic debt market.

The current low interest rates in the market will result in lower interest cost to the GOJ as the WATBY for the 91-day T-bill is used to reprice the domestic variable-rate debt. The WATBY yield for the 91-day tranche decreased from 5.72 percent in April 2017 to 3.99 percent in January 2018, a reduction of 173 basis points, while the 182-day recorded a lower rate of 4.16 percent from 6.40 percent over the same period. The average yield on the 273-day tranche decreased from 6.67 percent in April 2017 to 4.79 percent in January 2018, a reduction of 188 basis points. There continues to be a robust appetite for the GOJ T-bills as seen in the oversubscription of all three tranches throughout the review period. This has also contributed to price discovery in the market. In an effort to satisfy increased investor demand for shorter-term instruments to assist with satisfying liquid assets requirement, the GOJ,

during FY2018/19, will increase each tranche of the T-bills subscriptions by \$100.0 million or 16.7 percent.

The Public Debt Management Act, 2012 (PDMA), which governs and guides the operations of debt management, was amended in October 2017. The objectives of the amendments were to make the principal Act more detailed, specific, and more flexible while still remaining consistent with both international and local standards and conforming to other related legislation. The amendments also provide guidelines regarding:

- The main roles and functions of the debt committees as created in the Act;
- The overall functions of the Debt Management Branch (DMB); and
- Detailed functions of the four operational units in the DMB.

With the focus on the further development of the market, during FY2018/19, the Government will:

1. Proactively take advantage of increased demand for investments along all segments of the curve;
2. Continue discussions with the BOJ in respect of the necessary regulatory and operational adjustments with respect to widening the GOJ's role and the dealers' obligations to participate in GOJ issuances within the current primary dealer framework;
3. Increase the GOJ's presence in the domestic market, in keeping with the MTDS objectives for minimum costs and risks;
4. Lay the necessary legislative and operational framework for foreign participation in local currency issuances in the Domestic Market;
5. Continue its policy of conducting debt operations openly, equitably and transparently through the provision of timely reports and statistics on the debt and on the DMB's operations via a range of communication channels;
6. Continue to publish a Schedule of Domestic Debt Securities and GOJ T-bill Tenders for FY2018/19;
7. Further improve the domestic yield curve and achieve price discovery through the execution of opportunistic Liability Management Operations including switches and buyback of high illiquid off-the-run securities;
8. Gradually increase the supply of T-bills to create a more liquid T-bill market, anchor the yield curve and provide an accurate benchmark; and
9. Pursue the dematerialization of T-bills.

9.3 Investor Relations

With investors being a major shareholder and significant source of funding for governments, the GOJ remains committed to improving investor confidence and appetite for domestic securities by providing full, comprehensive and timely disclosure of debt management operations. Accordingly, managing the flow of information between the GOJ and investors is the primary responsibility of Investor Relations.

The Investor Relations (IR) programme, executed through a comprehensive Investor Relations Plan (IRP), continues to serve as a conduit for greater dialogue between the DMB and market stakeholders. In FY2017/18, consultations were conducted through one-on-one meetings with key domestic market players in the first quarter. It is expected that one-on-one meetings will be organized for the last quarter.

The DMB commenced a project to modernize its webpage. However, the launch of the new webpage has been further delayed and it is anticipated that the process will be completed by first quarter FY2018/19.

During FY2018/19, the DMB will continue to communicate with its stakeholders mainly through the Ministry's website, publications, press releases and meetings.

Section X: Conclusion

The Medium-Term Debt Management Strategy (MTDS) for FY2018/19-FY2020/21 outlines the Government's objectives and strategies for management of the public debt over the medium-term. It provides a review of key cost and risk indicators relative to established targets. Additionally, the MTDS details a financing plan for the GOJ, geared towards achieving the desired composition of the debt portfolio, in alignment with the Government's preference regarding the cost/risk trade-off.

A significant development in FY2017/18 was the adoption of a new debt definition on April 1, 2017, which resulted in a reduction of the debt stock by approximately 6.6 percent. Consistent primary surpluses (approximately 7.0 percent of GDP) have helped to reduce the gross financing needs of the Government and contributed to the reduction in the debt stock. The debt-to-GDP is expected to continue its downward trajectory, and is projected below the established limits of 96.0 percent by FY2019/20 and 60.0 percent by FY2025/26.

Significant improvements in the cost and risk characteristics of the debt portfolio were reflected in an extended maturity profile and slight reduction in the exposure to foreign currency risk over the review period. Increased exposure to interest rate risk in the domestic portfolio coincided with reductions in the benchmark interest rate (3-month T-bill), resulting in lower domestic debt service costs on variable-rate debt. Notwithstanding the gains realized in FY2017/18, the level of exposure to foreign currency, interest rate and refinancing risks remain significant concerns for the Government.

The financing strategy for FY2018/19 aligns closely with the existing MTDS, as it seeks to rebalance the debt portfolio towards greater reliance on domestic debt vis-à-vis external debt and reduce the portfolio's exposure to interest rate and refinancing risks by borrowing mainly at fixed-rates across longer tenors in the domestic debt market. An important element of debt management operations for FY2018/19 will be geared towards further development of the domestic debt market. In this regard, the Government will continue initiatives aimed at reforming the primary dealer system, dematerialization of T-bills, increased co-ordination with the BOJ, and implementing the necessary legislative and operational framework for foreign investor participation in local currency issuances in the domestic debt market. Further, the Government will continue to review and develop the Investor Relations' Programme to build and maintain strong relationships with investors and other key stakeholders to ensure continued access to and buy-in from financial markets for GOJ securities.

Glossary

Amortization

Amortization refers to principal repayments on loans. These repayments reduce the borrowed money by portions, which are usually fixed amounts or expressed as a percentage of the whole.

Auction

An auction is a system by which securities are bought and sold on a competitive bidding process. The auctions are conducted on a multiple-price-bidding basis, which means that the successful investor will receive stocks at the price he bids.

Average Time to Maturity (ATM)

Average-Time-to-Maturity is defined as the weighted average time to maturity of all principal repayments in the portfolio. This indicator shows how long it takes on average to rollover the debt portfolio. A shortening suggests that the portfolio is being rolled over more frequently and therefore is more exposed to refinancing risks

Average Time to Refixing

The Average-Time-to-Refixing is a measure of weighted average time for the variable interest rate loans in the total debt portfolio to be refixed. The larger the percentage of variable debt within the portfolio, the shorter the average time to refixing.

Benchmark Bonds

These are bonds that are sufficiently large and actively traded, such that their prices serve as reference for other bonds of similar maturities. More specifically, the benchmark is the latest issue within a given maturity. For a comparison to be appropriate and useful, the benchmark and the bond being measured against it should have a comparable liquidity, issue size and coupon. Government bonds are almost always used as benchmark.

Consumer Price Index (CPI)

CPI is a statistical measure using the weighted average prices of a sample (basket) of consumer goods and services purchased by households. It is calculated by taking price changes for each item in the predetermined basket and averaging them. Changes in the CPI are used to assess price changes associated with the cost of living; the CPI is used for identifying periods of inflation or deflation.

Contingent Liabilities

Contingent liabilities are obligations that materialise if a particular event occurs. They can be explicit, if the sovereign contractually acknowledges its responsibility to cover the beneficiary under specific circumstances, or implicit, when the government is expected to do so because it has a “moral” obligation to act, in most cases related to a high opportunity cost of not intervening.

Debt Service Payments

Debt service payments cover interest charges on a loan. Some sources also include amortisation under debt service payments. These payments liquidate the accrued interest (and loan obligations if amortisation is included).

Fiscal Responsibility Framework

The Fiscal Responsibility Framework, which came into effect October 1, 2010, is an encompassing framework which has, at its centre, fiscal rules that are designed to achieve desired fiscal outcomes, most notably, a reduction in, and maintenance of, a sustainable level of debt.

Fiscal Deficit /Surplus

The amount(s) by which government expenses (excluding amortization) exceed income is the fiscal deficit. If income exceeds spending, the government has a budget or fiscal surplus. A balanced budget is one in which spending equals revenue.

Inflation-Indexed Bonds

Inflation-Indexed bonds are securities with the principal linked to the Consumer Price Index. The principal changes with inflation, guaranteeing the investor that the real purchasing power of the investment will keep pace with the rate of inflation. Although deflation can cause the principal to decline, at maturity the investor will receive the higher of the inflation-adjusted principal or the principal amount of the bonds on the date of the original issue.

Investment Loan

The terms refer to loans, which fund capital development activities. The term capital refers to lasting systems, institutions and physical structures. Investment loans are typically funded from foreign sources by bilateral arrangements and multilateral institution.

Liability Management Operation

Liability Management (LM) is the process of rebalancing outstanding borrowing(s) in order to improve the composition of the public debt portfolio. LM operations have five main functions: (1) to increase liquidity in government securities markets, (2) to manage risks in the debt portfolio, (3) to decrease the cost of new funding, (4) to correct and/ or take advantage of market distortions, and (5) to stabilize the market during periods of stress.

Public Debt

Public debt refers to the consolidated debt of the Specified Public Sector (SPS), except that of the BOJ, net of any cross holdings.

Public Debt Charges

Public debt charges are interest payments on the loan obligations and include related incidental expenses such as service fees, late payment penalties and commitment fees.

Refinancing

The term refers to the replacement of an existing debt obligation with another debt obligation under different terms.

Sovereign Rating

A sovereign rating is an assessment of the default risk for medium and/or long-term debt obligations issued by a national Government (denominated in foreign currency), either in its own name or with its guarantee. Ratings are produced by independent agencies (Moody's Investors Service, Standard & Poor's and others). The ratings provide a guide for investment risk to capital market investors.

Treasury Bills

Treasury Bills are short-term debt obligations backed by the government with maturities less than one year. The Government of Jamaica issues Treasury Bills with 30-, 60- and 180-day tenors. Treasury Bills are issued through a competitive bidding process at a discount from par, which means that rather than paying fixed interest payments like conventional bonds, the appreciation of the instrument provides the return to the holder.

Yield Curve

A line graph showing the interest rates at specific points in time by plotting the yields of all securities with the same risk but with maturities ranging from the shortest to the longest available. The yield curve for Government securities is often used as a benchmark for pricing other debt in the market. The curve is also used as an indicator of macroeconomic conditions.