

**The Government of  
St. Vincent and the Grenadines**



**Medium Term Debt Strategy 2018-2020**

**Ministry of Finance and Economic Planning  
Cash Debt Investment Management Unit (CDIMU)**

**May 2018**

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## 1.0 ACRONYMS

<b>ALBA</b>	Bolivarian Alliance of the Americas	<b>IDA</b>	International Development Association
<b>AT</b>	Analytical Tool	<b>IMF</b>	International Monetary Fund
<b>ATM</b>	Average Time to Maturity	<b>LIBOR</b>	London Inter -Bank Offer Rate
<b>ATR</b>	Average Time to Re-fixing	<b>MTDS</b>	Medium Term Debt Strategy
<b>BH</b>	Bondholders	<b>NIS</b>	National Insurance Services
<b>BoSVG</b>	Bank of St. Vincent and the Grenadines	<b>OPEC</b>	Organization of Petroleum Exporting Countries
<b>CARICOM</b>	Caribbean Community	<b>PV</b>	Present Value
<b>CDB</b>	Caribbean Development Bank	<b>RGSM</b>	Regional Government Securities Market
<b>CDF</b>	CARICOM Development Fund	<b>ROC</b>	Republic of China
<b>CS-DRMS</b>	Commonwealth Secretariat Debt Resource Management System	<b>S1</b>	Strategy one
<b>CDIMU</b>	Cash Debt Investment Management Unit	<b>S2</b>	Strategy two
<b>ECCB</b>	Eastern Caribbean Central Bank	<b>S3</b>	Strategy three
<b>ECCU</b>	Eastern Caribbean Currency Union	<b>S4</b>	Strategy four
<b>EIB</b>	European Investment Bank	<b>SDR</b>	Special Drawing Rights
<b>EUR</b>	Euro	<b>ST FX</b>	Short-term Foreign Exchange
<b>FAA</b>	Financial Administration Act	<b>SVG</b>	ST. Vincent and the Grenadines
<b>FCIB</b>	First Caribbean Investment Bank	<b>T-Bills</b>	Treasury Bills
<b>FDI</b>	Foreign Direct Investment	<b>TTD</b>	Trinidad and Tobago Dollars
<b>FX</b>	Foreign Exchange	<b>US</b>	United States
<b>GBP</b>	Great Britain Pounds	<b>USD</b>	United States Dollars
<b>GDP</b>	Gross Domestic Product	<b>WB</b>	World Bank
<b>GoSVG</b>	Government of St. Vincent and the Grenadines	<b>XCD</b>	Eastern Caribbean Dollars
<b>IBRD</b>	International Bank for Reconstruction and Development		

## 2.0 ACKNOWLEDGEMENT

The Cash Debt and Investment Management Unit (CDIMU) of the Ministry of Finance continues to express sincere gratitude to the Eastern Caribbean Central Bank (ECCB) and its Debt Management Advisory Services (DMAS) team for providing feedback, oversight and technical advice during the preparation of this 2018-2020 MTDS. Special thanks to the Saint Lucia Debt and Investment Unit who joined the mission team in the person of Mrs. Adela Frederick, Debt and Investment Officer III. We are indeed grateful to the mission team for the sharing of your knowledge and expertise which has further enhanced our understanding of the MTDS Analytical Toolkit.

We thank too, the staff in the CDIMU and the Economic Research and Policy Unit (ERPU) of the Ministry of Finance; the Audit Department; Treasury Department and Central Planning for their commitment and dedication to this process in developing and formulating the production of this MTDS 2018 to 2020; as well as the Director General and the Budget Director for their guidance, support and feedback.

### 3. EXECUTIVE SUMMARY

The Cash Debt and Investment Management Unit within the Ministry of Finance and Economic Planning prepared the 2018 to 2020 Medium Term Debt Strategy (MTDS) which articulates the objectives and strategies for achieving a desired composition of government's debt portfolio over the period 2018 to 2020 at the lowest cost with a prudent degree of risk. This strategy will be monitored and updated annually. The proposed strategy was selected following an in-depth review of central government's debt management activities in 2017 and the outlook for the treasury performance and economic growth prospects in the medium term. The base period of the analysis is 31<sup>st</sup> December 2017 and strategies were crafted within the context of the Medium Term Macroeconomic and Fiscal Framework; using the IMF/World Bank MTDS Analytical Toolkit (AT) which provided the framework for the quantitative analysis required to evaluate the costs and risks of the four (4) alternative strategies developed.

As at 31<sup>st</sup> December 2017, the total central government debt represented 79.1 percent of the total debt portfolio. This reflected a decrease of 3.2 percent from EC\$1,365.8 million recorded at the end of December 2016 to EC\$1,322.5 million. Of the total central government debt, external debt accounted for EC\$874.3 million or 66.1 percent and domestic debt accounted for EC\$448.2 million or 33.9 percent. Total central government debt represented 62.7 percent of GDP. The main risks facing the current debt portfolio continue to be interest rate and refinancing risks, while exposure to exchange rate risk remains low.

Macroeconomic data for 2016 indicated that a marginal growth in real output of 0.8 percent was realized. The improvement in economic activity was influenced mainly by developments in the agriculture and manufacturing sectors. A slowdown in growth to 0.2 percent was forecasted to occur in 2017, as the main sectors in the economy remained relatively flat. Over the medium term, 2018-2020, real economic activity is projected to improve, to an average of 2.2 percent per annum. The country is expected to benefit from the opening of the international airport at Argyle; continued initiatives in the agricultural sector; the construction of a state-of-the-art marina on the Grenadine Island of Canouan; and other large capital projects, including the construction of a new port facility in Kingstown and the commencement of works on a new hotel development project at Peters' Hope. On the fiscal front, sustained primary surpluses are also projected over the medium-term due to enhanced revenue measures; expenditure controls; and improvements in tax administration efficiencies and reforms. The rebound in growth and fiscal surpluses are expected to bring about a gradual decline in public debt over the medium term.

In evaluating the cost/risks trade-offs using the debt-to-GDP ratio and the interest payment-to-GDP ratio, together with achieving the longest average time to maturity (ATM) and average time to re-fixing (ATR), strategy 2 (S<sub>2</sub>) featured as the preferred alternative of the four strategies assessed. This strategy envisages an increased reliance on external concessional debt and stemming the rise of high cost domestic debt. The analysis of the output indicates that all of the strategies showed improvements in most of the risk indicators by the end of the medium-term in 2020 relative to the base year, 2017. In terms of the refinancing risk, it was found that (S<sub>2</sub>) best satisfied the objective of extending the maturity profile of total central government debt with the highest ATM of 10.8 years and thus mitigate refinancing

risk. This strategy was further bolstered by the fact that it achieved a share of debt maturing in one year of 12.7 percent and was also in keeping with achieving the indicative ATM target of greater than 7 years for the entire portfolio.

In terms of interest rate risk as measured by the ATR, where the central government debt stock is susceptible and exposed to some variable interest rate re-fixing, S<sub>2</sub> showed the most favourable result of achieving the desired objective of lengthening the re-fixing period in years, from the current low average of 4.0 years to 9.9 years at the end of the medium-term period in 2020.

In evaluating the cost/risk trade-offs using the debt to GDP ratio and the interest payment to GDP ratio, S<sub>2</sub> and S<sub>3</sub> were the same in terms of cost and risk. Notwithstanding this, for the overall debt management objective, S<sub>2</sub> revealed the most consistent favourable outcomes in all of the assessed areas as shown in table 5 in the report. *As a result, S<sub>2</sub> has been chosen as the preferred strategy for our debt management operations over the medium-term ending 31<sup>st</sup> December, 2020.*

## 4. INTRODUCTION

The main objective of the MTDS is to satisfy the government's financing needs at minimum cost with a prudent degree of risk over the medium-term. The strategy selected also seeks to promote the development of an efficient, functioning money and capital market within the Eastern Caribbean Currency Union (ECCU) as well as to demonstrate accountability and transparency in the government's debt management operations.

The scope of the analysis in this MTDS (2018-2020) is limited to central government's debt at this time. Accordingly, the debt of public enterprises with government guarantees is excluded and therefore, do not form part of the analysis. Notwithstanding this, the monitoring of these explicit contingent liabilities continues to be a major focus of the government's overarching debt management objectives.

As part of the CDIMU monitoring mechanism, it was revealed that as at the end of 31<sup>st</sup> December 2017, public enterprises debt amounted to EC\$349.8 million representing 21.0 percent of the total public debt portfolio, an increase of 5.5 percent when compared with the EC\$225.1 million at the end of 2016. The domestic component amounted to EC\$76.2 million and the external component EC\$273.6 million. It is noteworthy to mention that, the level of public corporations' debt remains within the limit specified in the Government Guarantee of Loans Act Cap 255<sup>1</sup>.

This MTDS (2018- 2020) was prepared by the CDIMU in the Ministry of Finance. The CDIMU is responsible for debt strategy formulation and analysis; assisting with debt raising activities; supporting the policy-making framework on debt management issues; debt recording and monitoring as well as directing debt service payments. In developing this MTDS, the macroeconomic and fiscal data used in the analysis were gleaned from the Estimates of Revenue and Expenditure

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<sup>1</sup>The current limit specified for all guarantees issued by Government is EC\$300.0 million. Approximately 67.6 percent of the total external public corporation's debt is contracted with PDVSA/ Petro Caribe that is not guaranteed under the Government Guarantee of Loans Act Cap 255. It is envisaged that the debt held by public enterprises are unlikely to be called during the period of the assessment hence its omission from the analysis. Furthermore, at the time of preparing this report, the GOSVG was in advance negotiations to receive an additional, USD\$31.6 million debt relief from the Petro Caribe/ALBA arrangement, thus making the total debt relief estimated at USD\$63.6 by end of 2017.



passed in the House of Assembly on the 31<sup>st</sup> January 2018 whereas all debt data were extracted from the Commonwealth Secretariat Debt Recording Management System (CS-DRMS). Section 4 of the report provides a review of the debt portfolio as at the end of the base year, ended 31<sup>st</sup> December 2017.

In preparing this MTDS, four (4) strategies were developed based on various characteristics and assumptions. With the aid of the World Bank/ IMF Analytical Toolkit (MTDS Toolkit-AT) these scenarios were assessed. The choice of the final strategy was guided by analysing the results of the output with regard to cost-risk trade-offs between the alternative financing paths in tandem with the overarching debt management objectives. Section 9 presents the MTDS as well as the four (4) alternative strategies proposed and an analysis of the output for each strategy.

The MTDS demonstrates the government's commitment in carrying out the debt management objectives through responsible financing and management of central government's debt portfolio in such a way that limits the cost and risk to the overall portfolio. This augurs well in helping to augment and guide the attainment of the debt sustainability target set by the Monetary Council of the ECCB of a debt-to-GDP ratio of not more than 60 percent by the year 2030. Furthermore, this MTDS report is premised on the fact that its publication and dissemination will promote transparency and democratic accountability of matters relating to the central government's debt.

## **5. PROFILE OF CENTRAL GOVERNMENT DEBT PORTFOLIO 2017**

Total central government debt outstanding as at 31<sup>st</sup> December 2017 stood at EC\$1,322.5 million or 62.7 per cent of GDP. The amount decreased by 3.2 percent when compared with EC\$1,365.8 million in 2016. The external component of the

central government debt amounted to EC\$744.4 million representing 56.3 percent of the total debt outstanding or 35.3 percent of GDP. The decrease in external debt was due mainly to EC\$81.0 million in debt forgiveness (effective June 2017) from the ALBA Bank on a loan contracted for the construction of the international airport at Argyle. The remaining EC\$577.8 million or 27.4 percent was held domestically<sup>2</sup> and stood at 27.4 percent of GDP.

Table 1: Total Debt by Creditor Category and Currency Composition

	2017 Stock	% of Total	2016 Stock	% of Total	Change
<b>Total Central Government Debt</b>	<b>1,322.5</b>	<b>100.00%</b>	<b>1,365.8</b>	<b>100%</b>	<b>-3.3%</b>
<b>External</b>	<b>744.4</b>	<b>56.3%</b>	<b>898.4</b>	<b>65.8%</b>	<b>-20.7%</b>
<b>Multilateral</b>	<b>407.9</b>	<b>54.8%</b>	<b>422.0</b>	<b>47.0%</b>	<b>-3.5%</b>
<b>Bilateral</b>	<b>310.5</b>	<b>41.7%</b>	<b>335.4</b>	<b>37.3%</b>	<b>-8.0%</b>
<b>Securities</b>	<b>17.6</b>	<b>2.4%</b>	<b>23.1</b>	<b>2.6%</b>	<b>-31.3%</b>
<b>Commercial</b>	<b>8.4</b>	<b>1.1%</b>	<b>13.3</b>	<b>1.5%</b>	<b>-58.3%</b>
<b>Domestic</b>	<b>577.8</b>	<b>43.7%</b>	<b>467.3</b>	<b>34.2%</b>	<b>23.7%</b>
<b>Loans</b>	<b>113.0</b>	<b>19.6%</b>	<b>80.6</b>	<b>17.2%</b>	<b>40.2%</b>
<b>Securities</b>	<b>383.9</b>	<b>66.4%</b>	<b>271.5</b>	<b>58.1%</b>	<b>41.4%</b>
<b>Bonds &amp; Notes</b>	<b>299.9</b>	<b>51.9%</b>	<b>250.2</b>	<b>53.5%</b>	<b>19.9%</b>
<b>Treasury Bills</b>	<b>84.0</b>	<b>14.5%</b>	<b>21.3</b>	<b>4.5%</b>	<b>295.3%</b>
<b>Overdraft</b>	<b>27.7</b>	<b>4.79%</b>	<b>55.8</b>	<b>11.9%</b>	<b>-50.4%</b>
<b>Other</b>	<b>53.2</b>	<b>9.21%</b>	<b>59.4</b>	<b>12.7%</b>	<b>-10.4%</b>
<b>Accounts Payable</b>	<b>30.7</b>	<b>5.31%</b>	<b>36.7</b>	<b>7.9%</b>	<b>-16.3%</b>
<b>Insurance Deposits</b>	<b>22.5</b>	<b>3.89%</b>	<b>22.7</b>	<b>4.9%</b>	<b>-0.9%</b>
<b>Currency Composition</b>	<b>1322.5</b>	<b>100.0%</b>	<b>1,365.8</b>	<b>99.8%</b>	<b>-3.2%</b>
<b>USD</b>	<b>703.3</b>	<b>53.2%</b>	<b>710.7</b>	<b>52.0%</b>	<b>-1.0%</b>
<b>EC</b>	<b>540.5</b>	<b>40.9%</b>	<b>536.3</b>	<b>39.3%</b>	<b>0.8%</b>
<b>SDR</b>	<b>78.5</b>	<b>5.9%</b>	<b>116.7</b>	<b>8.5%</b>	<b>-32.7%</b>
<b>Other</b>	<b>0.2</b>	<b>0.0%</b>	<b>2.1</b>	<b>0.2%</b>	<b>-90.5%</b>

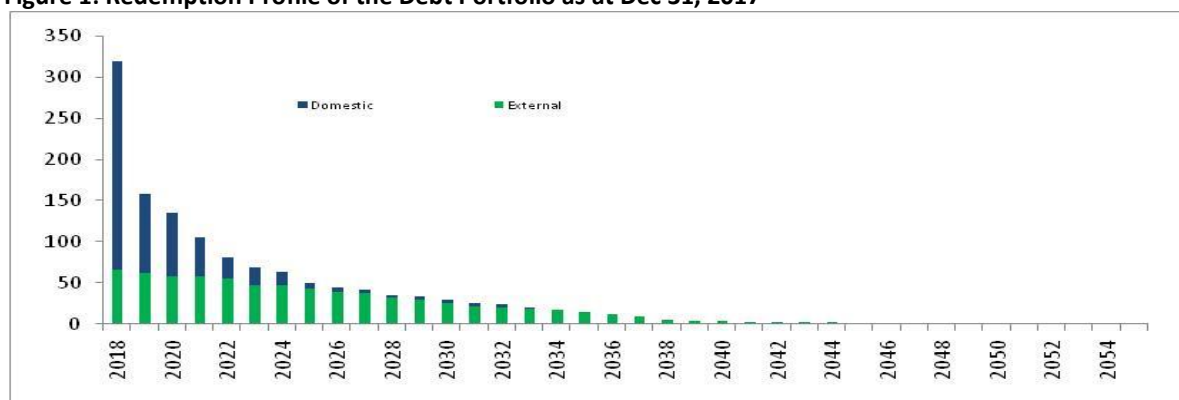
Source: CDIMU, Ministry of Finance

<sup>2</sup> All Treasury Bills were treated as domestic debt in this MTDS based on the currency in which these securities are held.

## 5.1 REDEMPTION PROFILE

The redemption profile shows the projected debt servicing of the total debt portfolio by remaining maturity. Figure 1 depicts the composition of the redemption profile by external and domestic debt. In contrast to a relatively smooth external redemption profile, the domestic profile is significantly higher in 2018 on account of the maturing of short term instruments<sup>3</sup> contracted in addition to the maturing of bullet bonds within the year. The profile also shows that by the year 2033, the existing domestic debt would have matured as these instruments have a shorter tenor compared to external instruments with grace periods and longer maturities resulting in the external debt maturing in the year 2043.

**Figure 1: Redemption Profile of the Debt Portfolio as at Dec 31, 2017**



Source: CDIMU, Ministry of Finance

## 6. COST AND RISK ANALYSIS OF 2017 DEBT PORTFOLIO

The analysis of the existing central government debt portfolio reveals a large exposure to interest rate risk and refinancing risks as measured by the ATR and ATM risk indicators, respectively. Whilst its level of exposure to foreign exchange

<sup>3</sup> Short term instruments are those with maturities of less than one year. For GOSVG they consist of Accounts Payables, Treasury Bills, the Overdraft, Insurance deposits and an ECCB Advance.

risk remained relatively low. The risks indicators for the portfolio are shown in Figure 2 below:

Figure 2: A Comparison of 2017 versus 2016 Debt Portfolio Cost and Risk Indicators

2017				2016					
Central Government Existing Debt Portfolio and Risk Indicators		External debt	Domestic debt	Total debt	Central Govt existing debt portfolio and Risk Indicators		External debt	Domestic debt	Total debt
Amount (in millions of XCD)		744.4	577.8	1,322.5	Amount (in millions of XCD)		898.4	467.3	1,365.7
Amount (in millions of USD)		275.7	214.0	489.7	Amount (in millions of USD)		332.6	173.1	505.6
Nominal debt as % GDP		35.3	27.4	62.7	Nominal debt as % GDP		44.1	22.9	67.0
PV as % of GDP		29.1	27.4	56.5	PV as % of GDP		37.3	22.9	60.3
Cost of debt	Interest payment as % GDP	0.8	1.6	2.4	Cost of debt	Interest payment as % GDP	1.2	1.3	2.5
	Weighted Av. IR (%)	2.3	5.7	3.8		Cost of debt	Weighted Av. IR (%)	2.8	5.5
Refinancing risk	ATM (years)	7.8	2.6	5.5	Refinancing risk		ATM (years)	7.6	1.9
	Debt maturing in 1yr (% of total)	8.7	38.9	21.9		Debt maturing in 1yr (% of total)	11.8	46.3	23.6
	Debt maturing in 1yr (% of GDP)	3.1	10.7	13.7			Debt maturing in 1yr (% of GDP)	5.2	10.6
Interest rate risk	ATR (years)	5.1	2.6	4.0	Interest rate risk	ATR (years)	5.2	1.9	4.1
	Debt refixing in 1yr (% of total)	49.2	38.9	44.7		Debt refixing in 1yr (% of total)	46.5	46.3	46.4
	Fixed rate debt (% of total)	55.5	100.0	75.0			Fixed rate debt (% of total)	63.6	100.0
FX risk	FX debt (% of total debt)			56.3	FX risk	FX debt (% of total debt)			65.8
	ST FX debt (% of reserves)			4.9		ST FX debt (% of reserves)			9.3

Source: CDIMU, Ministry of Finance

The portfolio's exposure to changes in the interest rate as measured by the ATR is 4.0 years, representing a slight deterioration from the 4.1 years recorded at the end of 2016 from the last MTDS output. The relatively short ATR implies that the debt portfolio is susceptible to increases in interest rates (specifically, variable interest rates re-setting) if short-term domestic debt<sup>4</sup> and floating rate external debt are to be re-fixed. When compared with the MTDS output for 2016, the ATRs on the external portfolio marginally decreased from 5.2 years to 5.1 years while the ATR on the domestic portfolio showed improvement, moving from 1.9 years to 2.6 years.

Moreover, with an ATM for the total portfolio in 2017 being 5.5 years, it can be suggested that the portfolio is exposed to some degree of rollover/refinancing risk for maturing obligations. The shorter ATM on domestic debt of 2.6 years is reflective of the high volume of short to medium term debt instruments as opposed

<sup>4</sup>The majority of this short-term domestic debt consists of T-Bills, the accounts payable and the overdraft which become due in less than 1 year

to longer term debt instruments in the portfolio. The ATM on the external side is 7.8 years. When compared with 2016 output, the ATMs on both the external and domestic portfolios showed marginal improvement at the end of 2017. On the domestic side, the ATM moved from 1.9 years to 2.6 years whilst on the external portfolio, it moved from 7.6 years to 7.8 years. Both ATM's are a reflection of the thrust to achieve longer maturities of debt contracted during 2017.

In contrast, the level of exposure of the debt portfolio to foreign exchange rate risk is relatively low at this time due to the high concentration of the central government's foreign currency debt in US dollars. This is premised on the fact that the XCD has been pegged to the USD at an exchange rate of 1USD = 2.70XCD, since 1976 under a fixed exchange rate regime. Accordingly, there is limited reason to believe that in the medium-term there will be vulnerability to the debt portfolio due to changes in exchange rate. In the meantime, the ratio of the stock of short term external debt as a percentage of foreign exchange reserves decreased from 9.3 percent to 4.9 percent.

In respect to debt servicing as reflected by the cost of debt, as measured by interest payment as a percentage of GDP, the portfolio total cost decreased marginally from 2.5 percent to 2.4 percent in 2017. The external component saw a reduction in cost of debt from 1.2 percent to 0.8 percent in 2017, whereas the domestic debt's cost increased from 1.3 percent to 1.6 percent.

## **7. MACROECONOMIC OVERVIEW**

The MTDS was developed within the context of the Medium-Term Fiscal projections; the level of development of the domestic debt market and the

macroeconomic developments. Following the global financial crisis of 2008, St. Vincent and the Grenadines experienced negative to zero growth, which was compounded by the impact of several natural disasters, resulted in increased use of counter-cyclical policies. Macroeconomic data for 2016 indicated that economic activity increased slightly with growth recorded at 0.8 percent. The improvement in agriculture resulted from increased production of root crops which benefitted from increased support from the Ministry of Agriculture. There was greater demand, in regional markets, for brewery products which contributed to growth in the manufacturing sector. A slowdown in overall economic growth to 0.2 percent was projected for 2017, as growth remained flat in the main sectors of the economy.

Over the medium term, 2018-2020, real economic activity is expected to pick up, to an average of 2.2 percent per annum. The main impetus for this upward trend will emanate from the anticipated increase in tourism and associated spill off activities as a result of the opening of the newly constructed international airport at Argyle; sustained initiatives and developments in the agriculture sector; the construction of a state-of-the-art marina in Canouan and other large capital projects, including hotel construction as well as port developments on mainland.

On the fiscal front, sustained primary surpluses are also projected over the period due to enhanced revenue measures from tax administration reforms and expenditure control measures. The rebound in growth and fiscal surpluses are expected to bring about a gradual declines and improvements in the public debt indicators over the medium-term. In this regard, the CDIMU has established some indicative debt management targets to be met by 2020. These include: an interest

payment to GDP of 2.1 percent, together with an ATM greater than 7 years and an ATR greater than 5.5 years.

## 8. MEDIUM TERM DEBT STRATEGY 2018-2020

The objective of this MTDS is to determine the most appropriate borrowing strategy for the government of SVG with respect to the cost and risk trade-offs. The strategy aims to address the main risks facing the government which were identified in Section 6. Four strategies with varying financing scenarios were modelled on the assumptions below and analysed using the MTDS Analytical Toolkit.

Table 2 below shows the various macro-economic indicators that were used in the AT analysis as well as those that formed the basis for assessing the economic performance of St. Vincent and the Grenadines as at the end of 2020.

### 9.1 Macro-Economic Assumptions

Table 2: Macro Economic Assumptions 2016-2020

<b>Macro and Fiscal Indicators</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
<b>(In EC\$ millions)</b>					
<b>Revenues (inc. grants)</b>	619.77	618.17	641.71	665.05	687.83
<i>in percent of GDP</i>	29.8	29.3	29.3	29.3	29.1
<b>Primary expenditures</b>	553.52	577.54	637.69	656.51	676.15
<i>in percent of GDP</i>	26.6	27.4	29.1	28.9	28.6
<b>Expenditure</b>	596.25	626.09	692.88	712.77	732.31
<i>in percent of GDP</i>	28.7	29.7	31.7	31.3	31.0
<b>Interest expenditure</b>	42.73	48.55	55.19	56.26	56.16

Macro and Fiscal Indicators	2016	2017	2018	2019	2020
<b>(In EC\$ millions)</b>					
<i>in percent of GDP</i>					
	2.1	2.3	2.5	2.5	2.4
<b>Primary fiscal balance</b>	66.25	40.63	4.02	8.54	11.68
<i>in percent of GDP</i>					
	3.2	1.9	0.2	0.4	0.5
<b>Overall fiscal balance</b>	23.52	(7.92)	(51.17)	(47.72)	(44.48)
<i>in percent of GDP</i>					
	1.1	(0.4)	(2.3)	(2.1)	(1.9)
<b>Real GDP growth rate (%)</b>	0.8	0.2	2.1	2.2	2.3

Source: ERPU, Ministry of Finance

Tables 3 and 4 below show the baseline pricing and shock assumptions that were used in the AT to analyse and assess the four (4) strategies of the MTDS 2018-2020.

## 9.2 Baseline Pricing Assumptions

Table 3: Baseline Pricing Assumptions

Source of Financing	Interest Rates	Interest Rate Type
Commercial	7.5-8.5	Fixed
CDB/IDA	2.25 – 2.5	Fixed
CDB/IBRD	3.0 – 3.8	Floating
Bilateral	2.0- 6.0	Fixed
T-Bills	2.0 - 3.0	Fixed
Bonds(3y/5y/7y)	5.25/6.5/7.5	Fixed
ECCB	6.5	Fixed
Overdraft	8.5	Fixed

## 9.3 Shock Assumptions

Table 4: Shock Assumptions

Type	Moderate	Extreme
Interest rate shock	2% ↑	4% ↑
Exchange rate	15% ↓ (XCD v XDR)	30% ↓(XCD v XDR)



## 9.4 Strategies

The common features included in the four (4) strategies proposed are:

- The treasury bills principal repayments made in the amount of EC\$83.51<sup>5</sup> million in the base year are re-issued at maturity throughout the period.
- Contracted obligations are disbursed as expected over the period.

Using the AT the four strategies were assessed based on the various characteristics and assumptions to determine the cost/risk trade-offs at the end of the targeted year.

- **Strategy 1 (S<sub>1</sub>): Current Strategy (Status Quo)** - The objective of this strategy is to extend and thereby continue 2017's borrowing pattern. On the domestic side, short-term instruments are to be maintained but not to exceed their limits. The average financing mix reflected external funding being 56 percent versus domestic 44 percent respectively.
- **Strategy 2 (S<sub>2</sub>): Replace high cost domestic debt with multilateral financing**- This strategy proposes to obtain fixed rate financing from existing multilateral sources to sufficiently reduce high cost of domestic debt. The aim is to reduce cost while lengthening the average time to maturity on the domestic portfolio.
- **Strategy 3 (S<sub>3</sub>): Lengthen the maturity of Domestic Debt and increase fixed rate external debt financing** - The objective of this strategy is to extend the maturity structure of the debt by reducing reliance on short term instruments including the Overdraft and Accounts Payables and replacing these with longer term domestic instruments including bonds and loans. Additionally, any new

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<sup>5</sup> This figure represents the actual principal repayments made on T. Bills from Oct – Dec 2017

borrowing contracted on the external side should have fixed interest rate instead variable rates.

- **Strategy 4 (S<sub>4</sub>) Reduce bilateral debt with long-term domestic debt** - This strategy reflects reduced reliance on bilateral debt. This would result in increased domestic financing and a reduction in funding from bilateral sources by utilizing external funding from regional and international financial institutions.

## 10. ANALYSIS OF OUTPUT FROM TOOLKIT

The table below shows the output from the AT with respect to the risk indicators at the end of 2020 for the four strategies analysed.

Table 5: Risk Indicators

		2017	As at end 2020			
		Current	S1	S2	S3	S4
Nominal debt as % of GDP		62.7	73.0	73.1	73.1	73.1
Present value debt as % of GDP		56.5	56.4	51.6	51.6	53.4
Interest payment as % of GDP		2.4	1.6	1.6	1.6	1.6
Implied interest rate (%)		3.8	2.3	2.3	2.3	2.3
Refinancing risk	Debt maturing in 1yr (% of total)	21.9	22.4	12.7	11.4	11.5
	Debt maturing in 1yr (% of GDP)	13.7	16.3	9.3	8.3	8.4
	ATM External Portfolio (years)	7.8	12.0	13.2	13.2	13.4
	ATM Domestic Portfolio (years)	2.6	2.9	4.0	3.8	4.3
	ATM Total Portfolio (years)	5.5	8.6	10.8	10.7	10.4
Interest rate risk	ATR (years)	4.0	7.6	9.9	9.8	9.5
	Debt refixing in 1yr (% of total)	44.7	38.4	27.4	26.1	26.3
	Fixed rate debt (% of total)	75.0	82.3	83.6	83.6	83.6
FX risk	Non USD debt as % of total	19.8	32.5	43.7	43.7	39.0
	ST FX debt as % of reserves	4.9	3.2	3.4	3.4	3.4

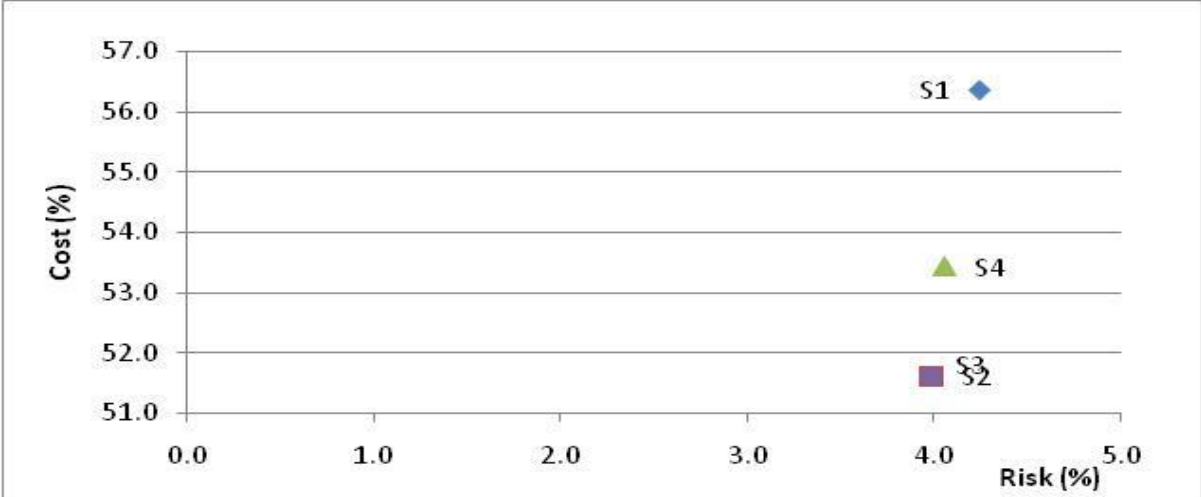
Source: CDIMU, Ministry of Finance

Based on the output of the AT all of the strategies showed improvements in most of the risk indicators when compared to the base year 2017. With respect to refinancing risk, the objective of extending the maturity profile by reducing the level of debt maturing within one (1) year was best satisfied by S<sub>3</sub> with 11.4 years. However, when the total portfolio is considered, S<sub>2</sub> is the superior and preferred

recommended strategy to achieve the debt management objectives in the medium-term ending 2020. In considering the interest rate risk as measured by the ATR, S<sub>2</sub> also showed the greatest improvement, lengthening the average time for re-fixing, from 4.0 years in 2017 to 9.9 years by the end of 2020. In terms of the average time to maturity (ATM), S<sub>2</sub> also showed the greatest improvement, lengthening the average time to maturity from 5.5 years in 2017 to 10.8 years by the end of 2020

In terms of the cost/risk trade-offs, the indicators assessed were the Debt-to-GDP ratio and the interest payment Cost-to-GDP ratio. Additionally, in terms of the present value of Debt-to-GDP ratio, the results revealed that S<sub>2</sub> and S<sub>3</sub> were similar to each other, but had the lowest cost and the least risk, when compared with S<sub>4</sub> and S<sub>1</sub> as shown in figure 3 below

Figure 3: Debt to GDP as at end 2020

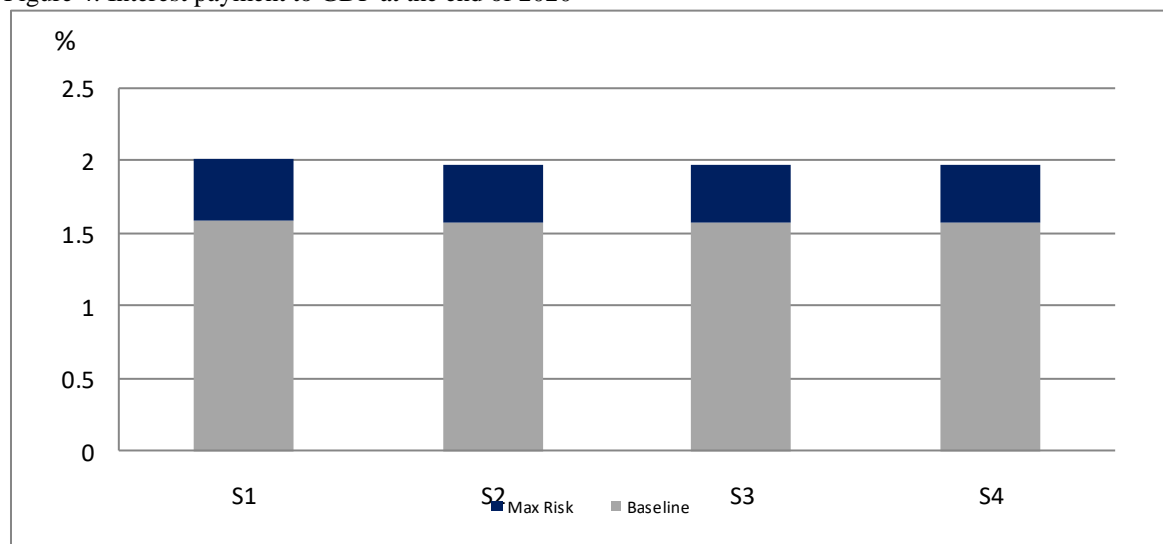


Source: CDIMU, Ministry of Finance

In terms of the measurement of interest payment to GDP ratio, the results of the assessment revealed that S<sub>2</sub>, S<sub>3</sub> and S<sub>4</sub> all had relatively similar cost, with S<sub>1</sub> being marginally the costliest of the strategies, as shown in figure 4 below. However, it must be noted that the Non-USD debt as a percent of total as at the end of 2020

increased quite significantly under all strategies, posing an increased concern of possible risk to the portfolio if the non-USD currencies were to strengthen vis-à-vis the XCD.

Figure 4: Interest payment to GDP at the end of 2020



Source: CDIMU, Ministry of Finance

Therefore, based on the AT assessment of all four strategies, S<sub>2</sub> had the most favourable and consistent results for the entire portfolio in terms of ATM and ATR, whilst being indifferent from a cost perspective with the other strategies, especially S<sub>3</sub> as highlighted in the analysis.

## 11. BORROWING PLAN

The government's borrowing plan for 2018 would require financing from both external and domestic sources with an ideal financing mix of external versus domestic funding being in the ratio of 54:46 respectively. Identified sources of funding are already air marked in the 2018 Estimates of Revenue and Expenditure<sup>6</sup>, this would reduce the level of new sources of financing required. Externally,

<sup>6</sup> Passed in the House of Assembly on the 31<sup>st</sup> January 2018. It contains projections for 2019 and 2020

financing would first be sort from traditional multilateral sources until it is deemed to be exhaustive then followed bilateral sources. Multilateral financing would also be sort to replace domestic high cost debt; some of which are short term in nature. When domestic financing is sort, all domestic bonds that will be issued would require medium to long term tenors. This would result in helping to mitigate refinancing risk thus lengthening of the portfolio's average time to maturity for the government.

## **12. CONCLUSION**

The MTDS AT generated the outputs from the strategies proposed based on alternative assumptions on interest rates and exchange rates. The data for the assessment of the costs and risks associated with each scenario are based on the cash flows of the debt existing as at 31<sup>st</sup> December 2017; macroeconomic and market projections; as well as simulated alternative borrowing strategies to meet the financing need. The output revealed that the nominal debt as a percent to GDP would decrease under each of the scenarios with S<sub>2</sub> and S<sub>3</sub> resulting in the lowest ratio as at the end of 2020. When the cost/risk trade-offs are taken into account for the overall portfolio, the ATM and ATR indicators revealed that S<sub>2</sub> with an ATM of 10.8 years and an ATR of 9.9 years was slightly better than S<sub>3</sub> and thus best fit the debt target of increasing the maturity profile of the debt portfolio. With regard to the costs/risk trade-offs using the debt to GDP ratio, S<sub>2</sub> and S<sub>3</sub> marginally had the lowest cost. The output of the interest payment to GDP showed small variations in costs among all four strategies. The risk factor however showed slightly more variation, with S<sub>1</sub> having the greatest risks of all the strategies.

The strategy for the period 2018-2020 would be guided by the benefits of lowering the cost of the debt while lengthening the maturity profile. In this regard the variation in the cost/risk factor between S<sub>2</sub> and S<sub>3</sub> is negligible while S<sub>2</sub> showed the most consistent favourable results with respect to the maturity profile. ***Accordingly, S<sub>2</sub> is selected as the strategy for the 2018-2020 medium-term borrowing/financing period.*** The strategy would be monitored continuously and reviewed annually for adjustments in line with changes in the dynamics of the global and domestic economic environment.

## APPENDIX I: SELECTED CENTRAL GOVERNMENT DEBT INDICATORS

	2010	2011	2012	2013	2014	2015	2016	2017
<b>Central Government External Debt by Creditor Category</b>	<b>571.5</b>	<b>667.9</b>	<b>652.7</b>	<b>721.3</b>	<b>814.9</b>	<b>844.3</b>	<b>935.5</b>	<b>874.3</b>
<b>Multilateral</b>	<b>431.9</b>	<b>443.5</b>	<b>438.1</b>	<b>448.8</b>	<b>421.6</b>	<b>439.2</b>	<b>422.0</b>	<b>407.9</b>
<b>Bilateral</b>	<b>88.8</b>	<b>141.2</b>	<b>139.8</b>	<b>212.7</b>	<b>294.0</b>	<b>369.2</b>	<b>294.0</b>	<b>278.7</b>
<b>Commercial</b>	<b>50.8</b>	<b>83.2</b>	<b>64.0</b>	<b>47.4</b>	<b>48.4</b>	<b>33.3</b>	<b>168.6</b>	<b>155.9</b>
<b>Export Credit</b>	<b>0.0</b>	<b>0.0</b>	<b>10.8</b>	<b>12.4</b>	<b>50.9</b>	<b>2.5</b>	<b>50.9</b>	<b>31.8</b>
<b>Central Government Domestic Debt by Creditor Category</b>	<b>363.5</b>	<b>372.7</b>	<b>487.3</b>	<b>502.0</b>	<b>537.6</b>	<b>524.0</b>	<b>430.4</b>	<b>448.3</b>
<b>Eastern Caribbean Central Bank</b>	<b>0.0</b>	<b>2.0</b>	<b>16.3</b>	<b>19.7</b>	<b>15.0</b>	<b>24.1</b>	<b>25.8</b>	<b>26.8</b>
<b>Bank of SVG</b>	<b>143.7</b>	<b>159.8</b>	<b>173.0</b>	<b>116.1</b>	<b>126.8</b>	<b>118.9</b>	<b>146.0</b>	<b>164.1</b>
<b>Other Banks</b>	<b>63.3</b>	<b>60.5</b>	<b>88.9</b>	<b>115.4</b>	<b>81.2</b>	<b>89.2</b>	<b>28.1</b>	<b>18.6</b>
<b>Other Financial Institutions</b>	<b>77.7</b>	<b>43.4</b>	<b>61.6</b>	<b>57.7</b>	<b>90.7</b>	<b>46.4</b>	<b>74.5</b>	<b>91.8</b>
<b>Insurance Companies</b>	<b>39.1</b>	<b>46.0</b>	<b>40.5</b>	<b>49.9</b>	<b>59.1</b>	<b>51.2</b>	<b>41.5</b>	<b>39.1</b>
<b>National Insurance Scheme</b>	<b>12.9</b>	<b>16.8</b>	<b>21.1</b>	<b>41.3</b>	<b>48.6</b>	<b>49.9</b>	<b>73.1</b>	<b>66.3</b>
<b>Other</b>	<b>26.7</b>	<b>44.2</b>	<b>85.8</b>	<b>101.8</b>	<b>116.2</b>	<b>144.3</b>	<b>41.4</b>	<b>41.6</b>
<b>Debt Servicing</b>	<b>124.5</b>	<b>115.6</b>	<b>117.4</b>	<b>136.3</b>	<b>132.8</b>	<b>135.7</b>	<b>143.0</b>	<b>161.2</b>
<b>External Central Government</b>	<b>71.7</b>	<b>74.6</b>	<b>72.7</b>	<b>72.7</b>	<b>60.8</b>	<b>62.9</b>	<b>65.1</b>	<b>80.6</b>
<b>Domestic</b>	<b>52.8</b>	<b>41.0</b>	<b>44.7</b>	<b>63.6</b>	<b>72.0</b>	<b>72.8</b>	<b>77.9</b>	<b>80.6</b>
<b>(of which sinking fund)</b>	<b>12.0</b>	<b>6.0</b>	<b>4.0</b>	<b>5.5</b>	<b>7.6</b>	<b>7.6</b>	<b>12.1</b>	<b>14.0</b>
<b>GDP (at market price)</b>	<b>1839.7</b>	<b>1825.5</b>	<b>1871.8</b>	<b>1947.0</b>	<b>1965.0</b>	<b>2039.0</b>	<b>2078.6</b>	<b>2107.6</b>
<b>Current Revenue</b>	<b>490.0</b>	<b>462.5</b>	<b>472.6</b>	<b>491.3</b>	<b>535.2</b>	<b>519.1</b>	<b>592.6</b>	<b>583.7</b>
<b>C. G External Debt/GDP (%)</b>	<b>31.1</b>	<b>36.6</b>	<b>34.9</b>	<b>37.0</b>	<b>41.5</b>	<b>41.4</b>	<b>45.0</b>	<b>41.5</b>
<b>C.G Domestic Debt/GDP (%)</b>	<b>19.8</b>	<b>20.4</b>	<b>26.0</b>	<b>25.8</b>	<b>27.4</b>	<b>25.7</b>	<b>20.7</b>	<b>21.3</b>
<b>Debt Service/Current Revenue (%)</b>	<b>25.4</b>	<b>25.0</b>	<b>24.8</b>	<b>27.7</b>	<b>24.8</b>	<b>26.1</b>	<b>24.1</b>	<b>27.6</b>
<b>External Debt Service/Current Revenue (%)</b>	<b>14.6</b>	<b>16.1</b>	<b>15.4</b>	<b>14.8</b>	<b>11.4</b>	<b>12.1</b>	<b>11.0</b>	<b>13.8</b>

## APPENDIX 2: SELECTED PUBLIC DEBT INDICATORS 2007-2017

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
	(\$m)										
Total Public Debt	933.0	993.6	1,104.1	1,188.5	1,233.2	1,336.6	1,445.8	1,562.5	1,593.4	1,697.7	1,672.3
Total Central Gov't	722.5	731.3	836.7	986.6	1,040.7	1,140.0	1,229.7	1,348.8	1,368.3	1,365.8	1,322.5
External Debt*	464.9	518.3	559.0	734.8	764.9	738.1	809.5	887.7	921.6	1,189.9	1,147.9
Central Government	381.6	423.6	457.1	623.1	668.0	652.7	728.7	811.2	844.3	935.4	874.3
Public Corporations	83.3	94.7	101.9	111.6	96.9	85.4	80.8	76.5	77.3	254.5	273.6
Domestic Debt*	468.1	475.3	545.1	453.7	468.3	598.5	636.3	674.8	671.8	507.8	524.4
Central Government	340.9	307.7	379.6	363.5	372.7	487.3	501.0	537.6	524.0	430.4	448.2
Public Corporations	127.2	167.6	165.5	90.2	95.6	111.2	135.3	137.2	147.8	77.4	76.2
Debt Servicing											
External	65.7	72.6	79.8	84.4	87.2	87.7	88.3	77.5	83.6	81.7	101.6
Central Government	61.2	66.2	70.7	71.7	74.6	72.7	72.7	60.8	62.9	65.1	83.3
Public Corporations	4.5	6.4	9.1	12.7	12.6	15.0	15.6	16.7	20.8	16.6	18.3
Domestic											
Central Government**	40.9	36.5	46.9	52.8	41.0	44.7	63.6	72.0	72.8	77.9	82.7
(of which sinking fund)	9.0	5.2	6.0	12.0	6.0	4.0	5.5	7.6	7.6	12.1	14.0
GDP (at market price)***	1,846.9	1,877.6	1,822.1	1,839.3	1,825.5	1,871.0	1,947.0	1,965.0	2,039.0	2,081.1	2,120.1
Current Revenue	430.4	489.5	544.8	490.0	462.5	472.6	491.3	535.2	519.1	592.6	592.2
Central Gov't Debt/GDP	39.1	38.9	45.9	53.6	57.0	60.9	63.2	68.6	67.1	65.6	62.4
Total Debt/GDP (%)	50.5	52.9	60.6	64.6	67.6	71.4	74.3	79.5	78.1	81.6	78.9
External Debt/GDP (%)	25.2	27.6	30.7	39.9	41.9	39.4	41.6	45.2	45.2	57.2	54.1
Domestic Debt/GDP (%)	25.3	25.3	29.9	24.7	25.7	32.0	32.7	34.3	32.9	24.4	24.7
Central Govt Debt Service/Current Revenue (%)	23.7	21.0	21.6	25.4	25.0	24.8	27.7	24.8	26.1	24.1	28.0
External Debt Service/ Current Revenue (%)	15.3	14.8	14.6	17.2	18.9	18.6	18.0	14.5	16.1	13.8	17.2
Domestic Debt Service/ Current Revenue (%)	9.5	7.4	8.6	10.8	8.9	9.5	13.0	13.5	14.0	13.1	14.0

\* Domestic and External debt classification based on residency of the creditor

\*\* In keeping with international best practices, in 2017, sinking fund provisions were subtracted from total domestic debt servicing for the entire time series

\*\*\*Projected GDP sourced from ERPU'S in house Medium Term Economic and Fiscal Outlook

Source: CDIMU, Ministry of Finance