MINISTRY OF FINANCE AND THE PUBLIC SERVICE

Government of Jamaica (GOJ) Guaranteed Loans

Report

March 28, 2018

Debt Management Branch
Economic Management Division

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Section 1: Introduction

The Public Debt Management (Amendment) Act 2017, defines a contingent liability 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. Examples of explicit contingent liabilities include credit guarantees, commitments made under public private partnership agreements (PPPs) and obligations under government insurance schemes. Examples of implicit contingent liabilities include banking sector bailouts and government support in the event of natural and environmental disasters.

Implicit contingent liabilities are often more costly than explicit ones. The severity of a financial fallout from the realization of implicit contingent liabilities stems from the fact that these eventualities are potentially catastrophic events, such as the collapse of institutions considered "too big to fail". For example, the financial sector crisis in Jamaica during the mid-1990s is estimated to have cost the country approximately 40.0 percent of GDP, consequent to the Government's decision to bail out the sector. The impact on the debt stock was immediate, as debt-to-GDP increased, by 53.0 percent points – from approximately 71.0 percent prior to the crisis to 124.0 percent after the intervention of the Government.

The frequency and severity of weather related phenomena within the Caribbean region also raises concerns with regards to the financial risks to governments arising from a catastrophic event. The exact fiscal costs of these contingent liabilities and the timing of their effects are difficult to estimate and predict. On the other hand, explicit contingent liabilities are more easily quantified since they often reflect legally or contractually established liabilities in the case of an event. Paramount to sound fiscal policy and prudent debt management is the need to effectively quantify and manage the fiscal risks associated with these contingent liabilities.

This report focuses on explicit contingent liabilities associated with Government of Jamaica (GOJ) guaranteed loans (GGLs). GGLs are liabilities derived from contracts where the government agrees to assume the whole or part of the credit risk of a loan or bond issued by a public entity. In particular, it relates to guarantees on the debt service obligations of beneficiary entities. GGLs are generally used to support activities and projects that advance public interest. For example, large scale projects related to public infrastructure development, for which market assessment is more difficult, may attract more costly private financing terms, and GGLs can be an important medium through which lower cost financing can be garnered. However, if left unmanaged, GGLs may be used to support projects where the cost-benefits may not be in the public's interest and where the amounts guaranteed pose significant risks to the Government's fiscal operations.

To address these concerns, the GOJ took decisive action and entrenched into law, the requirement to gradually reduce the stock of GGL, in line with international benchmarks. Section 18 of the PDMA limits the GGL-to-GDP ratio to 8.0 percent, 5.0 percent and 3.0 percent at end- FY2016/17, FY2021/22 and FY2026/27, respectively. Though the legislation calls for the conduct of a detailed risk assessment of any new GGL requests, the GOJ has taken a prudent decision not to grant any new GGLs in the near to medium term. This is in keeping with the imperatives of mitigating the fiscal risks posed by these contingencies. These actions are already showing positive effects, with GGL-to-GDP of 7.4 percent at end-March 2017, just below the legislative target of 8.0 percent.

GGL-to-GDP stood at 7.4 percent at end-March 2017, below the FY2016/17 legislative target of 8.0 percent

The remainder of the report details the characteristics of existing GGLs, highlights the various risks factors for the GGL portfolio, their effects on stock valuation, and outlines possible strategies to strengthen the approach in dealing with GGLs and contingent liabilities more broadly.

Section 2: GOJ Guaranteed Loans (GGL)

GGLs are categorized as either external or domestic. External GGLs are commitments made by GOJ with respect to loans owed by a guaranteed entity to non-national creditors, whereas domestic GGLs are commitments made with respect to loans owed to domestic creditors. The financial costs associated with GGLs if called can have potentially significant fiscal implications. An important policy objective of the GOJ is therefore to mitigate the fiscal risks associated with GGLs.

The share of GGLs in GDP is an indicator of the fiscal risks loan guarantees pose to the economy. **Table 1** highlights the stock of GGLs and its external and domestic components for the period end-January 2017 through end-September 2017. Total GGLs at end-September 2017 amounted to approximately $128.6 billion, of which $91.8 billion or 71.4 percent were external guarantees and $36.8 billion or 28.6 percent were domestic guarantees. Compared to end-January 2017, GGLs at end-September 2017 was $42.4 billion or 24.8 percent lower. This sharp reduction was mainly due to a reduction in the external GGL portfolio by about $43.5 billion or 31.0 percent over the period. A significant contributor to the lower external GGLs was the assumption of US$289.0 million of $38.0 billion guarantee for the Road Maintenance Fund (RMF) in March 2017.

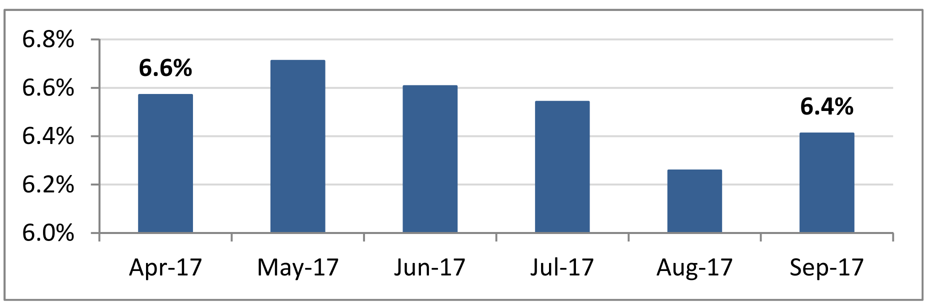
Table 1: External and Domestic GGLs, January 2017 to September 2017

	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17
in million of JMD									
External GGL	133,017.7	132,763.4	94,858.0	95,971.9	96,554.2	92,498.2	91,225.7	92,231.6	91,838.7
Domestic GGL	38,058.0	37,825.3	37,645.2	37,821.1	37,713.0	37,231.8	37,259.2	37,313.4	36,839.4
	171,075.7	170,588.7	132,503.2	133,793.0	134,267.2	129,730.0	128,484.9	129,545.0	128,678.1

Source: Ministry of Finance and the Public Service

Fiscal transparency requires that governments' report on the value of their GGLs and other contingent liabilities. Guarantees held off balance sheet, or which are not entirely reported, can understate the fiscal risks or potential fiscal costs to a government. The share of GGLs in total debt can therefore serve as a measure of fiscal transparency with respect to loan guarantees in particular. **Figure 1** highlights the share of GGLs in total debt over the period end-April 2017 to end-September 2017. In general, the share of GGL in total debt is relatively low and gradually decreasing, moving from 6.6 percent at end-April 2017 to 6.4 percent at end-September 2017. The variation in the share of GGLs in total debt for August and September is the result of a liability management (LMO) operation executed by the Government during those months.[1]

Figure 1: GOJ Loan Guarantees as a Share of Total Debt



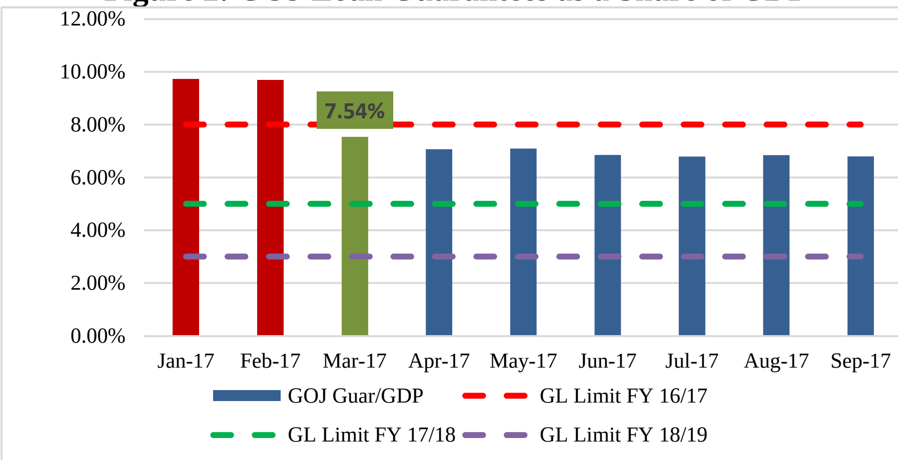
Note: Figure shows the share of GGL in total public debt as per the new definition. The new definition, defines public debt as the consolidated debt of the Specified Public Sector, except that of the Bank of Jamaica (BOJ), net of any crossholdings. The Specified Public Sector includes central government and all public bodies certified by the Auditor General as primarily carrying out functions that are of a non-commercial nature
Source: Ministry of Finance and the Public Service

The reduction in GGLs is in keeping with the obligation under Section 18 of the PDMA. **Figure 2** highlights the performance of GGL-to-GDP from end-January 2017 through end-September 2017, relative to the legislated ceilings. GGL-to-GDP at end-March 2017 was 7.5 percent, 0.5 percentage point below the legislated target. During the first quarter of

[1] Two main elements of the LMO were the financing of US$869 million form the international capital market (ICM) which resulted in an increase in the stock of central government debt in August and subsequent buyback of US$526.4 million of US denominated domestic bonds in September 2017. This variation in the debt stock explains the variation in the share of GGL in total debt between August 2017 and September 2017.

FY2017/18, GGL-to-GDP continued along a slight downward trajectory and is estimated at approximately 6.8 percent at end-September 2017. To meet the legislative target for FY2021/22, GGL-to-GDP will have to fall by 2.5 percentage points over the next five years. To achieve this, the GOJ will continue to exercise restraint in the granting of new GGLs.[2]

Figure 2: GOJ Loan Guarantees as a Share of GDP



Source: Ministry of Finance and the Public Service

Section 3: Risk Analysis

Notwithstanding the non-issuance of new guarantees, there remain significant risks to the valuation of the GGL stock, from variations in the foreign exchange and inflation rates. In particular, the value of foreign currency denominated, and CPI linked GGLs in the portfolio are subject to significant increases due to devaluation of the Jamaica dollar relative to the US dollar and adverse movements in CPI or inflation rates.

3.1 Currency Composition and Foreign Exchange Risks

The stock of outstanding GGL denominated in currencies other than the local currency exposes the portfolio to foreign currency risk associated with changes in exchange rates. **Figure 3** shows the currency composition of the GOJ's guaranteed loans portfolio at end-September 2017. US dollar (USD) denominated guarantees accounted for 86.7 percent of the portfolio, 12.7 percent denominated in Jamaica dollars (J$) and 0.6 percent in Euros. External GGLs are denominated in two currencies, with USD denominated loans accounting for 99.0 percent and the Euro accounting for 1.0 percent of the portfolio. Domestic GGLs are denominated in two currencies with USD denominated loans accounting for 55.6 percent, compared to 44.4 percent in Jamaica

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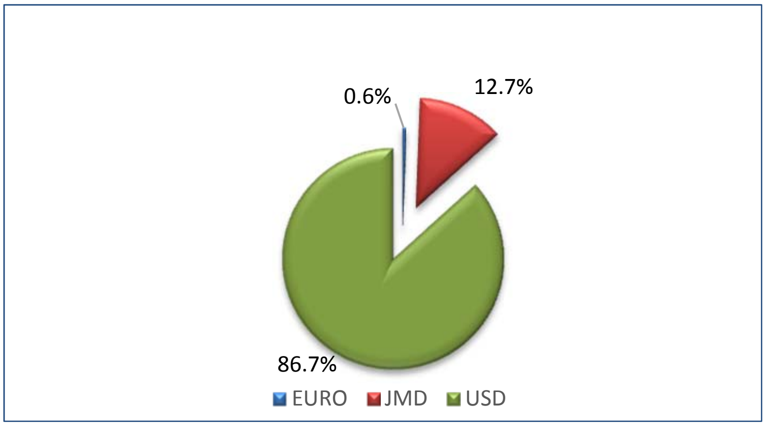
[2] As a deliberate policy, the GOJ has not issued any new GGLs since February 2013.

dollars. The currency distribution of the portfolio highlight significant upside risk associated with devaluation of the Jamaican dollar relative to the USD.

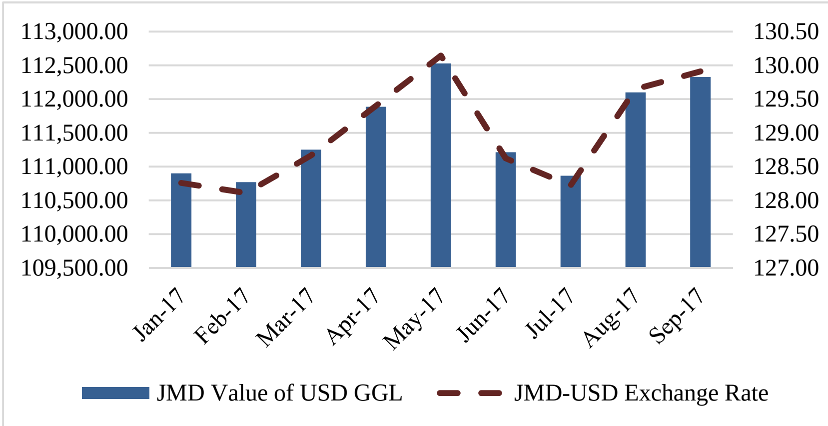
Figure 3: Currency Composition of GGL Portfolio at end-September 2017



Source: Ministry of Finance and the Public Service

Changes in the exchange rate can result in increases in the nominal value (JMD) of the stock of GGLs. **Figure 4** highlights the trajectory of the JMD-USD exchange rate for the period January 2017 to September 2017, and estimates the concomitant valuation effects, in JMD terms, on the existing stock of USD-denominated GGLs at end-September 2017. The stock of USD-denominated GGLs at end-September 2017 was US$864.6 million or $112.3 billion. This was $1.4 billion above the $110.9 billion estimated using the exchange rate at end-January 2017. This is an average monthly increase of $178.4 million. Exchange rate movements between April 2017 and September 2017 resulted in an increase in the nominal value foreign currency-denominated GGLs by $440.0 million, an average monthly increase of roughly $88.0 million.

Figure 4: FX Rate Fluctuations on the Value of Stock of GGL at end-September 2017

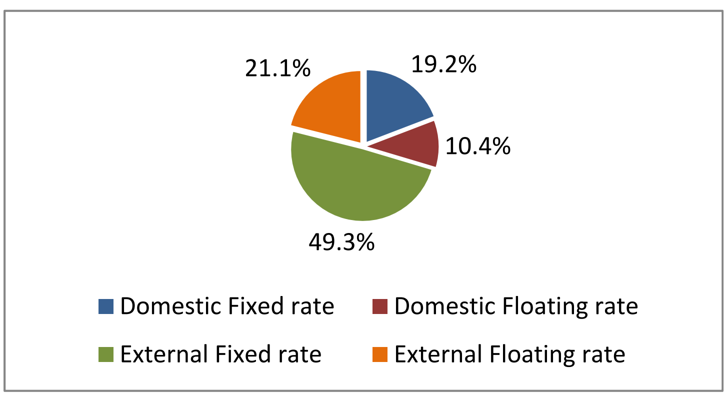


Notes: Figure shows the effect of changes in the JMD-USD exchange rate on the stock of USD denominated GGL at end-September 2017 on the left axis. The end - of period selling rate of the US dollar is presented on the right axis.
Source: Ministry of Finance and the Public Service and the Bank of Jamaica (BOJ).

3.2 Interest Rate Composition and Interest Rate Risk

Figure 5 highlights the distribution of fixed- and variable-rate GGLs for the domestic and external portfolios. At end-September 2017, 68.5 percent of total GGLs were contracted at fixed-rates and the other 31.5 percent were variable-rate. This is further broken down into 70.1 percent of the external portfolio and 64.8 percent of the domestic portfolio having fixed interest rates. With majority of the portfolio on a fixed interest rate basis, there is a greater degree of predictability which allows the borrowing entity to make costing projections beyond the short term and thus reduces exposure to interest rate risk.

Figure 5: Interest Rate Structure of the GGL Portfolio



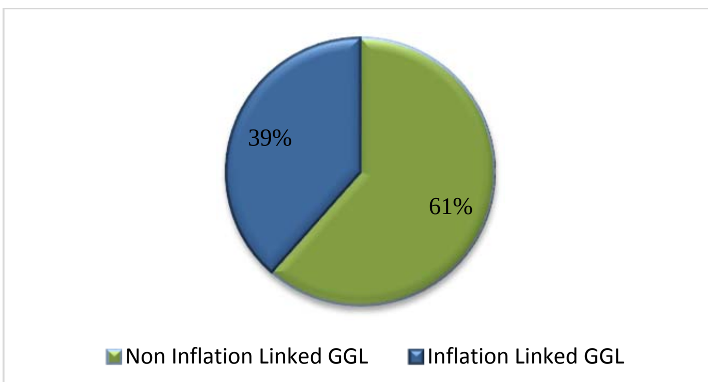
Notes: Figure constructed using data from CS-DRMS as at end -September 2017. More recent data were not available at the time of this report.
Source: Ministry of Finance and the Public Service

The variable-rate GGLs are referenced to LIBOR or the 6-month Weighted Average Treasury Bill Rate. The downside to holding variable-rate debt is that any upward movements in these base rates would result in increased debt service costs. Benchmark rates in the external (3-month LIBOR) and domestic (3-month T-bill) markets have been relatively stable over the review period but are trending in opposite directions. 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. 3-month LIBOR however is trending upward, as the US Federal Reserve (FED) continued to tighten liquidity in the US economy. Expectations are for benchmark rates in the domestic and external markets to remain low over the near term – assuaging worries about adverse movements in interest rates.

3.3 Inflation Linked GGL and Inflation Risk

As at end-September 2017, inflation linked debt accounted for approximately 11.0 percent of the GGL portfolio. However, inflation risks were entirely concentrated in the domestic portfolio where $14 billion or 39.0 percent of the stock of domestic GGL, at end-September 2017 was inflation linked.

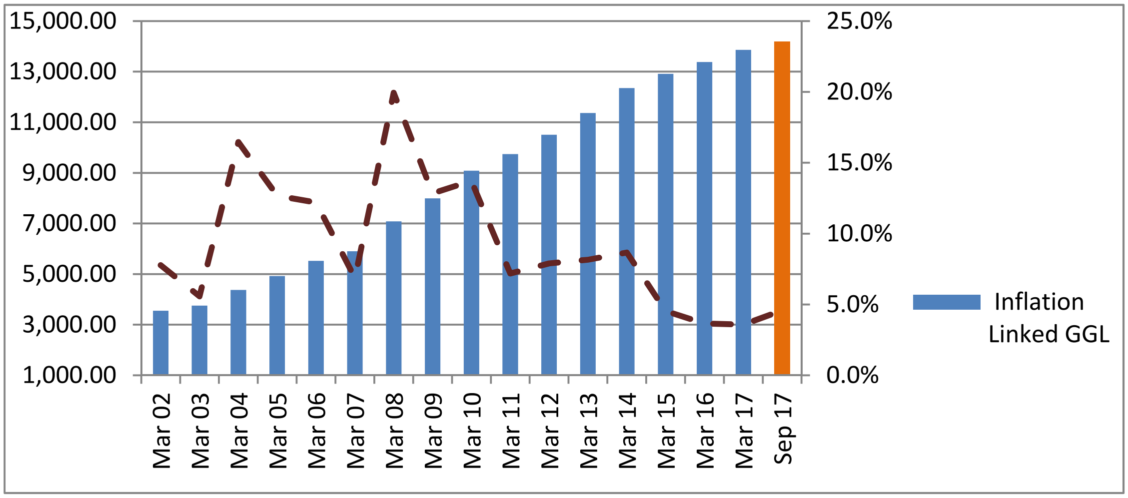
Figure 6: Share of CPI Linked Domestic GGL at end-September 2017



Source: Ministry of Finance and the Public Service

The relatively large share of inflation linked guarantees in the domestic GGL portfolio exposed the GOJ to risk from increases in the Consumer Price Index (CPI). The impact of changes in the CPI on the value of inflation-linked GGLs has been significant. **Figure 7** shows an initial issuance of inflation linked GGL of $3.6 billion in March 2002, now valued at $14.2 billion at end-September 2017. This is an increase of over $10.0 billion, or an average annual increase of roughly 20.0 percent. The large revaluation of the principal balance outstanding was due mainly to the relatively high inflation rates that prevailed throughout most of the last 15 years. More recently however, lower inflation and lower inflationary expectations have mitigated some of the risks associated with CPI linked GGLs. Over the nine-month period, January to September 2017, the value of outstanding CPI-linked GGLs increased by 3.0 percent, from $13.8 billion to $14.2 billion.

Figure 7: Point to Point Inflation Rate and the Value of CPI-Linked GGLs



Notes: The value of CPI linked GGLs on the left axis and the CPI on the right axis.
Source: Ministry of Finance and the Public Service, Debt Management Branch (DMB) and the Statistical Institute of Jamaica (STATIN).

Section 4: Relative Sensitivity of GGL Portfolio to Changes in the USD Exchange Rate and CPI

Managing risks associated with GGLs requires an assessment of the relative sensitivity of the portfolio to key risk factors. **Figure 8** compares the month-on-month valuation effects from changes in the exchange and inflation rates, on the stock of GGLs on record at end-September 2017.[3] Relative to the inflation, the valuation effects from changes in the exchange rate are more volatile and range from a decrease of $1,328.8 million in June 2017 to an increase of $1,248.9 million in August 2017. Overall, changes in the J$-US$ exchange rate resulted in an estimated J$1,283.8 million or 1.1 percent increase in the value of the USD denominated GGL portfolio between January and September 2017. Effects of changes in the CPI on the GGL portfolio are less volatile, but relatively more costly. Compared to

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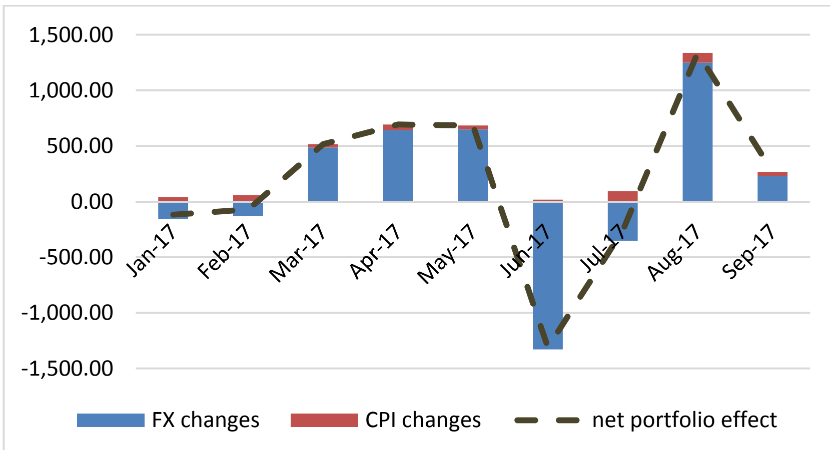
[3] Month-on-month changes are reflected **ONLY** for GGLs on record at end-June 2017 and **DO NOT** included GGLs that were previously called or absorbed. Changes in the FX portfolio reflect the pure valuation effects of changes in the US$-J$ exchange rate on the stock of FX denominated GGL at end-June 2017. Changes in CPI linked GGLs reflect changes in the nominal value of the outstanding balance and therefore does not distinguish between changes related to amortization or movements in the CPI.

end-December 2016, the value of CPI-indexed GGLs at end-September 2017 increased by an estimated $454.6 million or 3.3 percent. The total increase in the GGL portfolio resulting from changes in the J$-USD exchange and inflation rates is estimated at $1,738.5 million over the nine months, roughly 1.4 percent of the total outstanding balance at end-September 2017. For the first half of FY2017/18, total revaluation effects from changes in the exchange rate and CPI-linked GGLs was estimated at approximately $1,411.8 million or 1.1 percent of the total outstanding balance at end-September 2017. Changes in the exchange rate and CPI contributed $1085.4 million and $326.4 million to this increase, respectively.

Figure8: Changer in the USD Denominated and CPI Linked GGLs



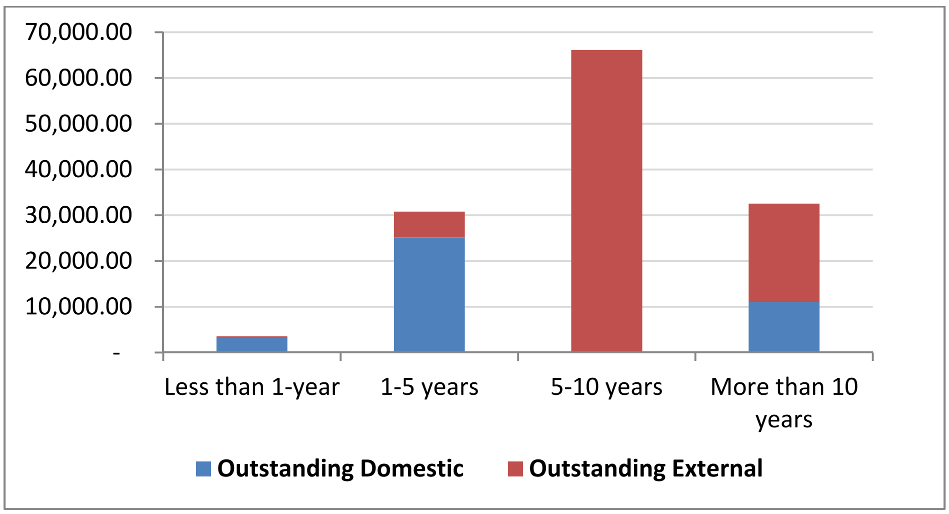
Source: Ministry of Finance and the Public Service, Debt Management Branch (DMB).

Section 5: Maturity Profile of the GGL Portfolio

The maturity profile of the GOJ loan guarantees highlights dynamic risks associated with the GGL portfolio. These risks are linked to the amortization obligations of beneficiary entities. GGLs with longer maturities carry extended risks for the GOJ, relative to those with shorter maturities. On the other hand, near-term maturity GGLs could impose significant refinancing risks where guaranteed entities face solvency and liquidity challenges, which increase their probability of default. Further, large amortization obligations (bunching) in a single period can imply significant risk to the GOJ, to the extent that the guaranteed entities are unable to make these payments. This risk is even more acute when the payments are due by a single entity as it represents an increased exposure to concentration risk.

The maturity profile of the stock of GGLs at end-September 2017 is presented in **Figure 9**.[4] The maturity profile extends 22 years, with less than 10.0 percent of existing guarantees becoming due in one year or less. Approximately 74.0 percent of current outstanding GGLs will mature within the next 10 years, with the bulk of these maturities occurring between 5 to 10 years. The repayment of a single instrument accounts for 85.0 percent of total maturities in the 5-10 years segment. The average-time-to-maturity (ATM) for the overall portfolio is estimated at 6.0 years, where for the domestic and external guarantees it is 5.1 years and 6.4 years, respectively. The longer maturities on the external side imply prolonged exposure to the attendant risks for the GOJ, relative to domestic GGLs.

Figure 9: Maturity Profile of GGLs at end-September 2017



Note: Figure constructed using data from CS-DRMS as at end -September 2017. More recent data were not available at the time of this report.

Section 6: GGL by Areas of Economic Activity

As at end-September 2017, thirteen (13) public bodies were on record as benefitting from government guarantees. The main areas of activities for beneficiary entities include infrastructure development, transport, education, financial and social development.[5] As highlighted in **Figure 10**, infrastructure development type activities account for the predominant share of the

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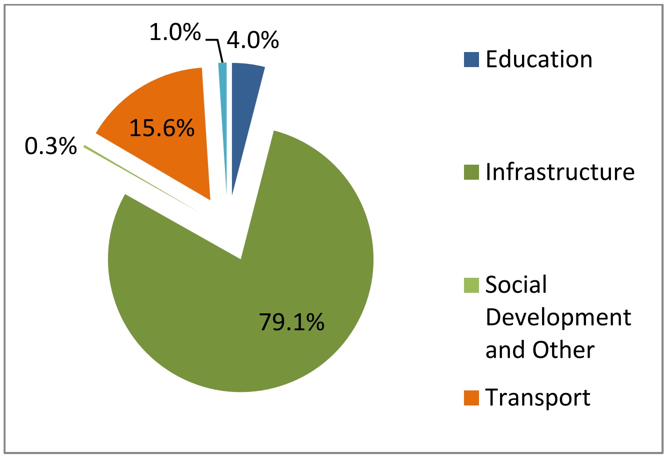
[4] Data for the amortization schedule are from CS-DRMS as at end-September 2017.

[5]Categorizations are crude and are based on authors' assessment of the primary areas of activity in which the beneficiary entity either directly engages or which it supports. For example, entities engaged in port and road development projects were categorized as being engaged in infrastructure development, but those engaged in education financing were categorized as education. Entities that provide financing for a range of activities are categorized as operating in the financial sector.

GGL portfolio (79.1 percent). Other areas of activity supported by GGLs include education (4.0 percent), transportation (15.6 percent) finance (1.0 percent) and social development (0.3 percent).

Figure 10: Value of GGLs by Sector of Economic Activity at end-September, 2017



Source: the Ministry of Finance and the Public Service, Debt Management Branch (DMB).

Section 7: Estimated Cash Flow Effects from Default on GGLs

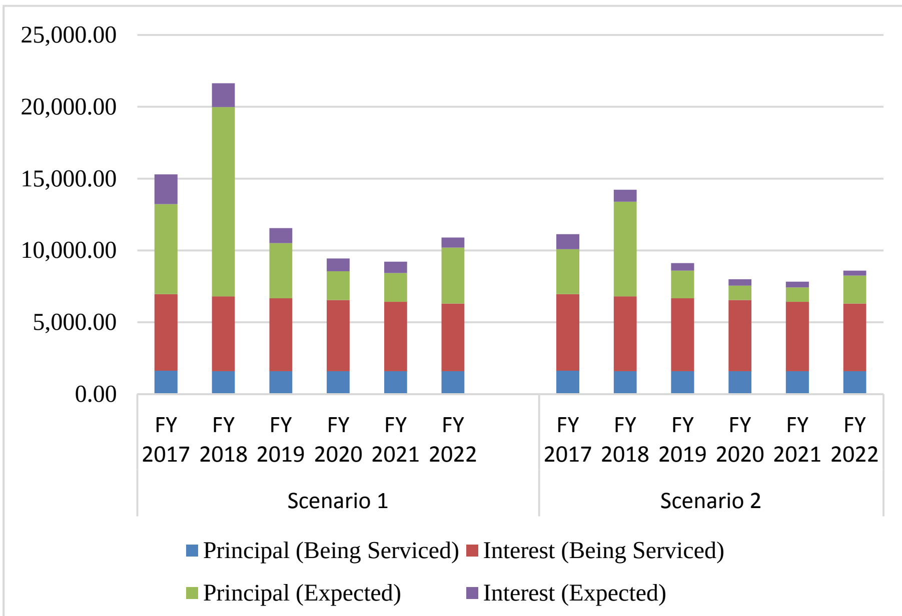
Default on a GGL may not necessarily have a direct effect on the debt stock – as guarantees are already included in the current debt definition. However, it could have potentially large implications for GOJ cash flows, which could indirectly impact the government's borrowing requirements and lead to an increase in the debt stock. It is important therefore that the GOJ continue its close monitoring of GGLs, particularly those of the largest beneficiary entities as well as those considered as high risk for default.

Figure 11 highlights the estimated cash flow effects for the Government from a potential default on GGLs, for FY2017/18 through FY2021/22. The Government currently services a few of the GGLs on record and provides for the associated annual debt servicing costs through budgetary allocations. The remaining GGLs are classified as either low risk or risky, based *inter-alia* on the financial position of the beneficiary entity. Low risk GGLs are excluded on the basis that these are not likely to be called. Risky GGLs are those for which there is a reasonable probability of default and consequent absorption of the debt by GOJ.

Both scenarios assume that the total outstanding balance for all GGLs will be absorbed in the event of default. The full debt service costs for those GGLs currently serviced by the Government are constant across scenarios. However, for risky GGLs, estimates of debt service costs to be absorbed by GOJ are conditional on the probability of default. **Scenario 1** assumes a

100.0 percent call probability while **Scenario 2** assumes a 50.0 percent call probability for risky GGLs. Current debt service costs (principal and interest) for GGLs currently serviced were estimated at $39.7 billion over the five years from FY2017/18 to FY2021/22 – an average of approximately $8.0 billion each year. Debt service costs for risky GGLs over the same period were estimated at $38.4 billion and $19.2 billion under Scenarios 1 and 2, respectively. Total estimated potential debt service cost over the period FY2017/18 to FY2021/22 is $78.0 billion under Scenario 1 and $68.9 billion under Scenario 2.[6]

Figure 11: Estimated Cash Flow Effects from Defaults on GGLs



Notes: High risk (HR) GGLs are those that are currently being serviced by the GOJ. Thus these costs are already being absorbed. Medium risks (MR) GGLs are those that are thought to have a reasonable probability of call – based on the assessment of the company's financials. In the event these GGLs are called, the attend -ant costs will serve as an additional cost to what is already being serviced. Low risk GGLs are those where the call probability is particularly low and the entities financials are assessed to be strong.

Source: Ministry of Finance and the Public Service, Debt Management Branch (DMB).

Section 8: Conclusion

The Government has demonstrated its commitment to reducing the stock of GGLs. This is evidenced by the achievement of a GGL-to-GDP ratio of 7.4 percent at end-March 2017, well within the legislated target of 8.0 percent for FY2016/17. Further, the performance of the GGL-to-GDP during the first quarter of FY2017/18 has continued along a downward trajectory, ending the quarter at an estimated GGL-to-GDP of 6.9 percent. These

[6] Estimates assume that foreign exchange and interest rates remain constant at the prevailing rates as at end-September 2017.

achievements were due in part to restraint on the part of GOJ, with respect to the approval or granting of new guarantees.

Despite the successes in reducing GGLs, both in nominal terms and as a share of GDP, the fiscal risks associated with GGLs remain eminent. These risks are exacerbated by revaluations of the GGL portfolio due to adverse movements in the CPI and foreign exchange rates. During the first half of FY2017/18, increases in the valuation of the existing GGL portfolio has been due largely to currency devaluations. Though more tempered in recent months, increases in the CPI has also added to the value of GGLs and remain a significant risk factor. The GOJ must be prepared for the eventuality of default by beneficiaries. Potential fiscal costs associated with high and medium risk GGLS are estimated at between $60.0 billion and $78.0 billion over the medium term – FY 2017/18 to FY2021/22.

Consequently, continued monitoring of GGLs is important for managing the risks and attendant fiscal costs associated with GGLs. Additionally, the Government should encourage beneficiaries to engage in more active management of specific risks associated with GGLs. For example, beneficiaries may be encouraged to swap foreign currency-denominated GGLs to Jamaica dollar where possible. The GOJ has already begun to actively manage the risks from GGLs, for example; by conducting credit risk analysis of GGL applications and the establishment of legislated limits on the GGL-to-GDP ratio. However, other risk mitigating strategies will need to be implemented, such as the establishment of a contingency or reserve fund financed by charging a guarantee fee, requiring collateral for granting of guarantees. Lastly, the GOJ will need to broaden its scope of coverage and fast track the development of a contingent liability framework that goes beyond loan guarantees, to include other explicit and implicit contingent liabilities. This will significantly improve the management of risks and mitigate potentially significant fiscal consequences from the realizations of these contingencies.