GRENADA

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STAFF REPORT FOR THE 2022 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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Prepared by the staffs of the International Monetary Fund and the International Development Association.

Grenada: Joint Bank-Fund Debt Sustainability Analysis[1]	
Risk of external debt distress	*In debt distress*
Overall risk of debt distress	*In debt distress*
Granularity in the risk rating	*Sustainable*
Application of judgement	*No*

Grenada remains in external public debt distress solely due to longstanding unresolved arrears to official bilateral creditors of about US$24.5 million (2.2 percent of GDP) as of end-2021. However, debt is assessed as sustainable reflecting favorable projected debt dynamics from substantial fiscal surpluses that are supported by the return to the Fiscal Responsibility Law (FRL) in 2023. Public debt rose to 71.4 percent of GDP in 2020 from 58.5 percent in 2019, due chiefly to the pandemic-induced collapse in GDP. Supported by the economic recovery driven by a normalization of the tourism and offshore education sectors, it resumed its pre-pandemic downward trend in 2021 to reach an estimated 70.3 percent of GDP, with a further marginal decline expected in 2022. Going forward, continued adherence to the FRL and regularization of arrears will be needed to maintain a sustainable debt trajectory and upgrade the risk rating. Debt-to-GDP should be further reduced and kept at levels needed to withstand the existing vulnerabilities to external shocks and natural disasters.

[1] The last published DSA for Grenada can be accessed here.

PUBLIC DEBT COVERAGE

1. **Public debt in this DSA is defined as the sum of central government debt (including arrears on principal and interest and overdue membership fees to international organizations) and government-guaranteed debt.** It does not include non-guaranteed debt of state-owned enterprises (SOEs) and limited liability companies, notably PDV Grenada's debt on account of the Petrocaribe arrangement. Based on the determination that the Government of Grenada is not responsible for the debt but only for its shares in the company, the Petrocaribe debt has not been included in the stock of central government debt.[2] Until recently, gaps and time lags in the public enterprises' reporting hampered complete coverage of public sector debt. Substantial improvement in the comprehensiveness and timeliness of SOE debt data has been made more recently, but an expansion of the perimeter to the public sector is still unfeasible because of less clarity on SOE above-the-line operations. Non-guaranteed debt is estimated at around 16 percent of GDP in end-2021, including 12.4 percent of GDP for the Petrocaribe arrangement. Grenada does not have subnational government debt.

Text Table 1. Coverage of Public Sector Debt

	Subsectors of the public sector	Sub-sectors covered
1	Central government	X
2	State and local government	
3	Other elements in the general government	
4	o/w: Social security fund	
5	o/w: Extra budgetary funds (EBFs)	
6	Guarantees (to other entities in the public and private sector, including to SOEs)	X
7	Central bank (borrowed on behalf of the government)	
8	Non-guaranteed SOE debt	

2. **The contingent liability stress test accounts for the risks from the estimated stock of non-guaranteed SOE debt as well as ongoing PPPs and financial markets.** The stock of non-guaranteed SOE debt is substantial, estimated at around 16 percent of GDP at end-2021, and is reflected in the contingent liability stress test. The bulk of this shock (12.4 out of 16 percent of GDP) is accounted for by PDV Grenada's total debt.[3] The current stock of PPP capital remains at zero, and thus the related contingent liability shock is also set to zero. Grenada's FRL puts a cap on PPP-related government liabilities at 5 percent of GDP. Contingent liabilities from financial markets are set at the minimum value of 5 percent of GDP, which represents the average cost to the government of a financial crisis in LICs since 1980. Estimates for other elements not covered are either zero (there is no central bank debt borrowed on behalf of the government) or need to be firmed up in the context of developing a comprehensive presentation of consolidated non-financial public sector debt, which is planned to be developed by the authorities.

[2] As reported in the 2014 staff report for the approval of the ECF arrangement, PDV Grenada is a limited liability company with the government's share of 45 percent and Venezuela's PDVSA's share of 55 percent.

[3] If anything, the approach taken toward public enterprise debt is conservative. For example, a substantial "haircut" on Petrocaribe debt was granted to St. Vincent and the Grenadines in 2018. Moreover, an existing debt of the central government to PDV Grenada of 3.5 percent of GDP is not subtracted from the possible contingent liability (see text table 3).

Text Table 2. Contingency Liability Calibration Table

1	**The country's coverage of public debt**	The central government, government-guaranteed debt			
		Default		**Used for the analysis**	**Reasons for deviations from the default settings**
2	Other elements of the general government not captured in 1.	0	percent of GDP	0.0	
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2	percent of GDP	16.0	SOE non-guaranteed debt stock at end-2021.
4	PPP	35	percent of PPP stock	0.0	PPP capital stock is zero
5	Financial market (the default value of 5 percent of GDP is the minimum value)	5	percent of GDP	5.0	
	Total (2+3+4+5) (in percent of GDP)			21.0	

1/ The default shock of 2% of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1.). If it is already included in the government debt (1.) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

BACKGROUND ON DEBT

3. **External and total public debt rose sharply in 2020 and remained elevated in 2021.** Prior to the pandemic, Grenada's public debt as defined in this DSA declined significantly from 94.3 percent of GDP in 2014 to 58.5 percent of GDP in 2019, on the back of solid growth averaging 4.5 percent and robust primary surpluses averaging 4.7 percent of GDP in the same period. Total external debt rose in 2020-21 driven by external public debt dynamics. Public debt rose in 2020 to 71.4 percent of GDP from 58.5 percent in 2019, due chiefly to the collapse in GDP but also to a smaller primary balance surplus. In 2021, public debt resumed its earlier downward trend to reach an estimated 70.3 percent of GDP. At the same time, the composition of debt shifted towards longer maturities and external sources due mainly to strong support during the pandemic from multilateral organizations. In 2020, Grenada benefited from a deferral of debt service of US$1.4 million or 0.1 percent of GDP under the G20 Debt Service Suspension Initiative.

Text Table 3. Public sector Debt 2018-21

(Year end, in millions of EC dollars)

	2018			2019			2020			2021 (prel.)		
		Percent of			Percent of			Percent of			Percent of	
	Stock	Total Debt	GDP	Stock	Total Debt	GDP	Stock	Total Debt	GDP	Stock	Total Debt	GDP
Public Sector debt	2158.6	100.0	68.5	2054.3	100.0	62.7	2149.1	100.0	76.3	2249.9	100.0	74.7
Central government debt	2016.0	93.4	64.0	1918.3	93.4	58.5	2011.8	93.6	71.4	2117.8	94.1	70.3
Central-government guaranteed debt	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
Other public sector debt	142.4	6.6	4.5	136.0	6.6	4.3	137.3	6.4	4.9	131.1	5.8	4.4
External debt (A+B+C)	1557.7	72.2	49.5	1476.8	71.9	45.1	1591.8	74.1	56.5	1672.2	74.3	55.5
A. Central Government	1520.2	70.4	48.3	1440.4	70.1	44.0	1554.7	72.3	55.2	1654.1	73.5	54.9
1. Multilateral	848.8	39.3	26.9	832.8	40.5	25.4	987.8	46.0	35.1	1060.8	47.1	35.2
2. Official bilateral	227.2	10.5	7.2	209.0	10.2	6.4	195.7	9.1	6.9	244.0	10.8	8.1
of which Paris Club	19.4	0.9	0.6	16.0	0.8	0.5	16.3	0.8	0.6	16.4	0.7	0.5
3. Commercial debt	405.9	18.8	12.9	369.1	18.0	11.3	347.8	16.2	12.3	332.1	14.8	11.0
4. Overdue membership fees	38.3	1.8	1.2	29.5	1.4	0.9	23.4	1.1	0.8	17.2	0.8	0.6
B. Central-government guaranteed	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
C. SOE non-guaranteed debt	37.3	1.7	1.2	36.4	1.8	1.1	37.1	1.7	1.3	18.1	0.8	0.6
Domestic debt (A+B+C)	600.9	27.8	19.1	577.5	28.1	17.6	557.3	25.9	19.8	577.7	25.7	19.2
A. Central Government	495.8	23.0	15.7	477.9	23.3	14.6	457.1	21.3	16.2	463.7	20.6	15.4
B. Central-Government Guaranteed	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0
C. SOE non-guaranteed debt	105.1	4.9	3.3	99.6	4.8	3.0	100.2	4.7	3.6	113.0	5.0	3.8
Memorandum items:												
On-Lent Loans to Public Bodies 1/												
External	30.1		1.0	29.4		0.9	34.2		1.2	102.7		3.4
Domestic	3.9		0.1	3.6		0.1	3.3		0.1	3.0		0.1
PetroCaribe Grenada												
Debt to Venezuela	372.1		11.8	372.1		11.4	372.1		13.2	372.1		12.4
Loan to Grenada's Central Government	125.1		4.0	117.5		3.6	111.9		4.0	106.4		3.5
Loan to Public Bodies	27.0		0.9	67.5		2.1	67.5		2.4	93.3		3.1
Nominal GDP	3149.6			3276.4			2817.2			3011.3		

Sources: Grenadian authorities and Fund staff estimates.

1/ On-lent loans to public bodies are not counted as SOE debt since they are part of central government debt.

4. **External arrears are broadly unchanged, despite the authorities' good faith efforts to resolve the remaining non-Paris Club arrears.** These arrears are a legacy from the 2014 debt restructuring and reflect both private sector and non-Paris Club holdouts. The authorities have continued to make payments on overdue membership fees in line with the revised schedule published in mid-2017. Arrears of about US$25 million owed to non-Paris Club official bilateral creditors including Trinidad and Tobago, Algeria, and Libya remain to be regularized.[4] The authorities report progress in advancing negotiations as of early 2022, particularly with Trinidad and Tobago, for which high-level discussions have taken place and an escrow account was recently opened to deposit debt payments, and Algeria, for which informal discussions took place in late 2021. Commercial arrears purport overwhelmingly to holdouts of the 2012 USD restructured bonds. The authorities continue to engage commercial creditors to reach a resolution.

Text Table 4. External and Domestic Arrears 2019-21

(Year end, in millions of U.S. dollars, unless otherwise indicated)

	2019		2020		2021 (est)	
	US$mln	% of GDP	US$mln	% of GDP	US$mln	% of GDP
Total arrears	**43.9**	**3.6**	**41.6**	**4.0**	**41.2**	**3.7**
External arrears	**43.9**	**3.6**	**41.6**	**4.0**	**41.2**	**3.7**
Multilateral	0.0	0.0	0.0	0.0	0.0	0.0
Bilateral	22.9	1.9	22.8	2.2	24.5	2.2
Paris Club	0.0	0.0	0.0	0.0	0.0	0.0
Non-Paris Club	22.9	1.9	22.8	2.2	24.5	2.2
Algeria	1.8	0.1	1.8	0.2	1.9	0.2
Libya	5.0	0.4	5.0	0.5	5.0	0.4
Trinidad and Tobago	16.1	1.3	16.0	1.5	17.6	1.6
Commercial	10.1	0.8	10.1	1.0	10.3	0.9
Unpaid contribution to organizations	10.9	0.9	8.7	0.8	6.4	0.6
Budget expenditure arrears	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Domestic debt	0.0	0.0	0.0	0.0	0.0	0.0

Sources: Grenadian authorities and staff estimates.

5. **Most portfolio characteristics of Grenada's debt continued to improve.[5]** Consistent with their debt strategy, the authorities sought to shift towards (largely) concessional external debt. The new long-term concessional financing helped keep the average time to maturity around 9 years in 2020. Average time to re-fixing of the debt portfolio similarly remained roughly unchanged at 8.9 years, and the average effective interest rate on central government debt declined from 3.2 to 3.0 percent in 2020. As expected from the financing structure, the share of multilateral debt increased to around 45 percent and that of foreign exchange debt to 71.5 percent in 2020 from 69.1 percent in 2019.

6. **Portfolio risks, while declining, continue to be present.** The interest rate is subject to a moderate risk with an average time to re-fixing of 8.6 years in which 21 percent of the portfolio is subject to a change in interest rates in one year. This risk resides predominantly in the domestic portfolio in which

[4] Arrears have increased due to the accrual of interest.

[5] The metrics provided in this paragraph purport exclusively to central government debt.

31 percent of this debt is subject to re-fixing in one year. The refinancing risk profile of the portfolio has an average time to maturity of 9 years which exceeds the set target of greater than 8 years. The current portfolio is subject to only moderate foreign exchange risk as most of foreign currency debt is denominated in U.S. dollars to which the EC dollar is pegged.

BACKGROUND ON MACRO FORECASTS

7. **Data for 2019-21 came out weaker than anticipated in the 2020 RCF.**[6] The pandemic ended up resulting in a sharper contraction of real GDP in 2020 and a slower recovery in 2021 than anticipated in the 2020 RCF. Weaker-than expected tourism receipts led to a higher current account deficit than expected in 2019-21. Fiscal outturns were favorable, with stronger-than-expected revenues including grants more than compensating the larger spending.

Text Table 5. Macroeconomic Assumptions
(In percent of GDP, unless otherwise indicated)

	Historical	Projections					
	2012-2018	2019-21		2022-27		2028-38	
		2020 RCF	2022 AIV	2020 RCF	2022 AIV	2020 RCF	2022 AIV
Real GDP growth (in percent)	3.9	0.0	-2.5	3.4	3.4	2.7	2.8
Inflation rate (GDP deflator, in percent)	2.0	1.0	1.4	2.0	2.4	2.1	2.2
Non-interest current account deficit	13.9	18.8	23.0	10.8	15.5	10.0	11.1
Growth of exports of G & S (USD terms, in percent)	19.4	4.4	-1.2	8.5	14.0	5.0	4.7
Net current official transfers (negative=inflow)	0.1	0.3	0.2	0.3	1.0	0.4	0.9
Net FDI	-11.2	-9.4	-12.4	-13.1	-11.9	-12.9	-13.8
Primary deficit	2.0	-3.6	-4.0	-3.6	-3.1	0.6	0.0
Revenue and grants	24.2	26.0	28.8	26.2	28.6	25.7	28.3
of which: grants	2.7	3.3	4.7	2.6	4.2	2.1	3.5
Primary (non-interest) expenditure	22.2	22.5	24.8	22.5	25.5	26.3	28.3

Source: Grenadian authorities and IMF staff projections

8. **Medium-term projections are predicated on a slow recovery, as the rebound in tourism is partly offset by tighter fiscal policy, particularly in 2023 (Box 1)**

Box 1. Grenada: Macroeconomic Assumptions for 2022–42

Real GDP growth reached 4.5 percent between 2014-19, well above the regional average, supported by structural reforms and strong tourism demand. Real GDP growth is projected to expand by 3.6 percent in 2022, underpinned by public construction activity, the gradual pickup in tourism arrivals, the continued return of SGU students, and private investment in the hospitality sector. Public investment is expected to boost longer-term potential GDP and mitigate risks from natural disasters and climate change. For example, the WB regional tourism competitiveness project and the international airport expansion will increase flights capacity and contribute to the recovery of tourism. Projects like the climate resilience water sector; smart agriculture; climate resilient cities; and those supporting an expansion of solar power generation and battery storage are critical components of climate adaptation and mitigation. The war on Ukraine and resulting increases in global commodity prices are already posing headwinds to growth but could still create further strains, crucially depending on its length. The primary surplus is expected to rise significantly in 2023 with the return to the FRL, as public investment is paired back and the recovery takes hold driving up revenues. Still, the economy is only expected to reach the pre-pandemic output level by 2024, supported by post-pandemic pent-up demand, a recovery of tourism related activities, and robust private investment that takes the mantle from public investment. Output is expected to gradually converge to

[6] Grenada: Request for Disbursement Under the Rapid Credit Facility.

Box 1. Grenada: Macroeconomic Assumptions for 2022–42 (Concluded)

potential by 2026 and remain around that level thereafter. The baseline includes estimated average costs of natural disasters.[1] Over the long term, potential growth is assumed at 2.8 percent. This incorporates the potential negative impacts of natural disasters and climate change, as well as the positive impact of implementing the Disaster Resilience Strategy (DRS).[2] The DRS provides a platform for robustly identifying financing and capacity building needs and a framework for coordinated support from development partners. Increased access to donor financing is crucial for its implementation.

Inflation is expected to further increase to 5.4 percent in 2022, in line with higher U.S. inflation and import prices, particularly commodities on the back of the war in Ukraine, and continued recovery in domestic demand and to slowly converge back to 2 percent over the long-term, anchored by the currency board arrangement under the Eastern Caribbean Central Bank (ECCB). The GDP deflator is expected to rise by 3.1 percent in 2022. In 2021, the Government implemented temporary relief of VAT and environmental levy charges on electricity for small consumers, a reduction of 25 percent on the electrical non-fuel charge, a cap of EC$15 per gallon on gasoline and diesel, and an exemption of VAT on five food items to curb rising living costs of the most vulnerable groups. The measures are assumed to be temporary as announced.

Fiscal policy. Anchored by the FRL, Grenada's primary surplus averaged 4.7 percent of GDP between 2014-19. In the same period, solid growth and cumulated primary surpluses drove down public debt as defined in this DSA from 94.3 percent to 58.5 percent of GDP. In 2020-21, the sharp GDP contraction and additional spending needs reversed this trend, and public debt stood at 70.3 percent of GDP at end-2021. Projections for 2022 follow roughly the Budget and thus assume a triggering of the escape clause under the FRL for the third year. Continued compliance with the FRL starting in 2023 is assumed until debt is sustainably below 55 percent of GDP, which is the case in 2027. The return to the FRL is supported by the strong recovery of the tourism sector, the slowdown of major public construction projects, as well as tax administration and spending containment measures indicated in the medium-term recovery plan. These tax administration and spending containment measures are expected to have insignificant contractionary impacts on growth, while bringing long-term revenue gains. Primary fiscal surpluses are expected to continue to overperform the FRL's 3.5 percent of GDP floor on average through 2027 but then turn into small primary deficits as permitted by the fiscal rule and needed to fill the investment gap estimated by the government's DRS at around 4 percent of GDP annually. The looser fiscal policy assumed after 2027 is in line with keeping a roughly stable debt-to-GDP ratio at 45 percent (well below the target).

The non-interest current account deficit is currently projected at 15.5 percent in the medium term, much higher than previously projected driven by the slow recovery in tourism receipts after the collapse in 2020. FDI was also adjusted upward reflecting large ongoing projects and the lower GDP base. Over the long-term, the current account deficit is likely to return to closer to its long-term historical average.

Gross reserves are expected to hover around 5 months of imports after jumping in 2021 due to the SDR allocation.

Risks are tilted to the downside and uncertainty is especially high. Key risks arise from the evolution of the pandemic and how it may affect tourism, and natural disasters. Inflationary pressures, if persistent, could drive up borrowing costs, through their impact on advanced economies' monetary policy and consequent tightening of global financial conditions, and lead to an erosion of real growth. The high inflation could feed into higher goods and services spending and public wage bill, higher-than-expected VAT exemption costs, both of which may weaken fiscal performance. At the same time, tax collection on pricier imports could overperform. Ongoing reforms to promote renewable energy and energy efficiency can reduce Grenada's exposure to future energy price swings, while also strengthening economic competitiveness, improving the long-term balance of payments position, and reducing emissions. The prospective monetary tightening in major economies could revert the recovering trend of FDI and threaten the sustainable financing of development projects, including the DRS.

[1] The future annual fiscal cost of natural disasters is assumed at ½ percent of GDP, broadly consistent with the World Bank-modeled losses that have an estimate of 0.3 percent of GDP (The latter covers most but not all types of historical natural disasters and does not model additional potential fiscal effects from the revenue losses and intensifying climate change).

[2] The government's published document is available here.

9. **Financing assumptions have been updated based on most recent data.** The latest financing projections from the World Bank's International Development Association (IDA) program and existing Caribbean Development Bank (CDB) projects have been incorporated. Also, remaining disbursements from the loan extended by the Export-Import Bank of China will take place in 2022-23.[7] As a result, external financing is projected to increase in the short term and be sufficient to cover the high level of debt service in 2022. In the long run, the government is assumed to mainly rely on concessional loans from the World Bank and CDB for external financing, with commercial external debt rising in importance after 2035. Domestic financing sources are assumed to also play a larger role as the market matures.[8]

10. **Realism tools indicate that short-term growth is conservatively forecasted, given the projected fiscal adjustment and in the context of the recovery from the pandemic** (Figure 4). It should be noted that policy-based fiscal adjustment is not envisioned in the projection period. However, the projected fiscal path incorporates the potential enhancement of tax administration, wage bill containment and public purchases streamlining. As such, the fiscal projection lies just shy of the top quartile of the distribution of past adjustments of the primary fiscal deficit, which is also consistent with the authorities' determination to return to the FRL. The expected return of tourism and the other efficiency measures will support the adjustment, while remaining relatively growth friendly. The improved long-term outlook, results in lower projected external debt and public debt to GDP ratios relative to the previous DSA after 2030 (Figure 3).

[7] The loan, which is for financing infrastructure projects (such as airport and road network constructions), amounts to US$69 million, with US$24 million already disbursed in 2021.

[8] See the 2021 Article IV consultation with the ECCU here.

COUNTRY CLASSIFICATION AND DETERMINANTS OF SCENARIO STRESS TESTS

11. Grenada continues to be assessed at medium debt-carrying capacity.[9] The rating is based on the CI score, which captures the impact of the different factors through a weighted sum of the 2020 World Bank's Country Policy and Institutional Assessment (CPIA) score, the country's real GDP growth, remittances, international reserves, and world growth.[10] Under the CI, Grenada continues to be rated as a medium performer.

Calculation of the CI Index

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.604	1.39	46%
Real growth rate (in percent)	2.719	2.921	0.08	3%
Import coverage of reserves (in percent)	4.052	46.703	1.89	62%
Import coverage of reserves^2 (in percent)	-3.990	21.812	-0.87	-29%
Remittances (in percent)	2.022	5.868	0.12	4%
World economic growth (in percent)	13.520	3.137	0.42	14%
CI Score			3.03	100%
CI rating			Medium	

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Medium	Medium 3.03	Medium 2.99	Medium 2.94

EXTERNAL debt burden thresholds	Weak	Medium	Strong
PV of debt in % of			
Exports	140	180	240
GDP	30	40	55
Debt service in % of			
Exports	10	15	21
Revenue	14	18	23

12. Both external and public debt analyses consider standard-DSA alternative scenarios to this baseline as well as three tailored scenarios. A "contingency liability" shock captures risks from SOE and PDV debt. An extreme "natural disaster" scenario is calibrated based on the estimated growth effects that the 2017 hurricane Maria had on Dominica (the total damage from Maria for Dominica is similar to that of

[9] The composite index (CI), estimated at 3.03 and based on the October 2021 World Economic Outlook (WEO) and 2020 World Bank CPIA data, indicate a medium debt carrying capacity for Grenada.

[10] Based on the *IMF World Economic Outlook, October 2021*.

hurricane Ivan for Grenada in 2004). The fiscal response assumes an increase of expenditures by a total of 5 percent in the two years following a hurricane or 2.5 percentage points in the first two years to cover reconstruction costs. Finally, a "commodity" shock captures a possible price shock to exports of goods and services, with the resulting price gap reverting only gradually to baseline.

EXTERNAL DSA

13. External PPG debt-to-GDP ratio is projected to trace a downward path in the baseline scenario. The thresholds under the baseline scenario are breached for the present value of debt to GDP ratio and debt service-to-revenue ratio (Figure 1). These underscore the current high level of debt and the need to mobilize domestic resources by enhancing tax compliance, reducing tax arrears, boosting digitalization, and increasing the equity of the tax system.

14. Under stress tests thresholds are breached for all key indicators of PPG external debt under an export shock. The present value of debt-to-GDP remains above its threshold under all stress tests (Table 3). The most severe shock is the "exports" shock, due to high exposure to tourism (exports). For the present value of debt-to-exports, debt service-to-exports ratio, and debt service-to-revenue ratio, the exports shock is the most extreme shock as well. A large natural disaster and a contingent liabilities shock have significant effects on the debt path. The effect of a natural disaster has a protracted effect on the debt path in part due to its interaction with the export shock (e.g., due to the likelihood of the tourism infrastructure being damaged by a natural disaster).

15. Risks to external debt sustainability are high. Under the exports shock, all benchmarks are breached. The shock is applied on top of the already sharp contraction in exports due to COVID-19 and thus it should be interpreted with caution. The same applies to the historical scenario. Still, staff agrees with the mechanical assessment that risks are high.

OVERALL RISK OF PUBLIC DEBT DISTRESS

16. The total PPG Debt-to-GDP ratio is projected to gradually decline up to 2027 and broadly stabilize thereafter. Nevertheless, due to the remaining unresolved arrears to official bilateral creditors, Grenada's DSA rating stands unchanged at "in debt distress". The key drivers of the projected decline in PPG debt-to-GDP in the next few years are sizable primary surpluses and GDP growth as reflected in the updated macroeconomic assumptions. The PV of debt-to-GDP ratio would return to below benchmark in the baseline scenario after 2026, reflecting continued access to concessional financing (Figure 2). Debt is projected to stabilize below the FRL target of 55 percent of GDP after 2027 as a cushion against large shocks, including natural disasters. Under the most severe scenario as implied by the growth shock, all benchmarks are breached. Staff notes that the design of this shock in the template is overly onerous and conservative since the collapse in tourism during 2020 had an exceptional and sizable temporary element which is not appropriately taken into account by the default template.

RISK RATING, VULNERABILITY AND RECOMMENDATIONS

17. Grenada remains in external debt distress, but its debt is assessed as sustainable. The assessment that debt is sustainable is predicated on the authorities' strong commitment to the FRF, fiscal structural reforms, and further improvement in debt management. This is also supported by the authorities' strong past record of debt reduction and the availability of liquid financial assets (e.g., SDR allocation and government deposits). The debt to GDP ratio rose in 2020 after a significant decline through several consecutive years of fiscal consolidation anchored by the FRL, robust economic growth, and a restructuring of Grenada's public debt. Fully regularizing external arrears would help tangibly improve the country's DSA rating. Further progress in public debt reduction would also be essential, including through maintaining the FRL's rules-based framework, pursuing fiscal structural reforms, and further improving debt management capacity.

18. Risks to debt sustainability remain substantial. Grenada's debt sustainability is subject to two-sided risks. The recovery of the tourism sector is highly uncertain and could either over- or under-perform expectations. Shocks to oil prices are an added risk to the medium-term outlook. Domestically, higher-than-expected pension and health care-related liabilities can put additional stress on public finances and a possibility of particularly large natural disasters are an ever-present risk, which can also have adverse spillovers on the tourism sector. Continued strong commitment to the FRL is needed to manage those risks. The debt dynamics are highly susceptible to growth underperformance, which could intensify with climate change (Table 3). The risks, including those associated with the Petrocaribe contingent debt, are mitigated by continued improvement of debt reporting and monitoring. The climate related risks are mitigated by the implementation of the DRS, as supported by the IMF, WB and other development partners.

19. To cushion the fiscal risks from natural disasters, Grenada has significantly advanced climate resilience building and responses to other emergencies. The Government has a long history developing the legal and institutional framework for disaster risk management (DRM). Disaster risk reduction has been included in the national development planning process (e.g., National Hazard Mitigation Policy 2003 and Plan 2006), and expanded across various line ministries and sectors under a multifaceted approach (e.g., Grenada Blue Growth Coastal Master Plan, and National Adaptation Plan 2017-2021). Resilience building was built into all infrastructure sectors, land, agroforestry, agriculture, fishing, food security, water, mangrove, marine, coral, health, and zone management, to mitigate the potential damages. Surveillance and evaluation procedures have also been established to detect and manage outbreaks and response mechanisms for public emergency events, including health-related shocks. However, implementation capacity remains a significant impediment. Development partners have been providing technical and capacity assistance to Grenada to further advance this area.

20. The government is also shifting to a more proactive and layered financial response planning to disaster risk. A variety of instruments are in place to meet different liquidity and funding needs for disasters of different severity and frequency. As part of its 2015 debt restructuring, some Grenada bonds included hurricane clauses, whereby debt service on the restructured debt (mainly to 2025 private bondholders, but also to Taiwan, Province of China and the Paris Club) would be automatically re-profiled

following a hurricane and in some cases other types of natural disaster. This clause could release up to EC$45 million in funds in the event of a major natural disaster (the amounts would be smaller for smaller events, depending on the triggers). Insurance from CCRIF, the contingency fund under the National Transformation Fund, and other savings would provide additional layers of protection. Although various instruments are in place, they are not used efficiently and need to be optimized to ensure the complementarity between the various risk retention and risk transfer instruments. The newly adopted Disaster Resilience Strategy and the DRM Bill under preparation will help consolidate the different resources and provide the most efficient cushions against natural disasters.

21. Debt management and debt data coverage need to be further enhanced. The authorities' debt management capacity would benefit from further reform efforts, including in data management and IT system enhancements, building on the Debt Management Performance Assessment (DeMPA) undertaken with the World Bank in 2018. The Ministry of Finance (MoF) is monitoring non-guaranteed debt of SOEs, which is important in the context of FRL's debt targets. Such monitoring and the quality of information has improved considerably in recent years but can further improve, particularly in the timeliness of coverage of SOE debt and in including information on their above-the-line operations.

22. The situation and status of Petrocaribe debt should be reviewed to improve analysis of risks to Grenada's debt profile in the context of the country's medium-term debt strategy. U.S. sanctions on Venezuela blocked payments on Grenada's Petrocaribe debt in 2018-19. A careful assessment of Grenada's Petrocaribe liabilities is needed. Recent ample concessional external financing from multilateral organizations and substantial receipts under the Citizenship-by-Investment (CBI) program have strengthened the need to enhance the reporting and efficiency of asset management, and the capacity for asset/liability operations. Continuing to operationalize the National Transformation Fund's link to natural disasters should be followed up with adequate financing. Implementation of the Disaster Resilience Strategy would further support debt sustainability and resistance to shocks.

Authorities' Views

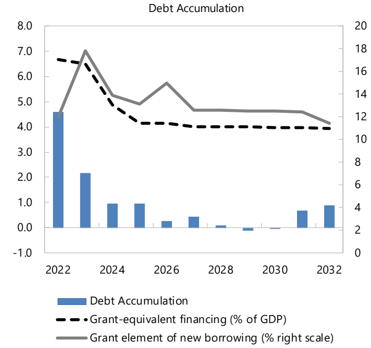
23. The authorities agreed with staff's debt sustainability assessment. The effort to regularize bilateral official arrears is ongoing, and the authorities are making payments consistent with 2015 Paris Club agreement into an escrow account concerning the largest of such debts (to Trinidad and Tobago). They indicated that the staff's financing assumptions are broadly in line with the government's Medium-Term Debt Strategy. The authorities stressed that their commitment to the FRL underpins and strengthens the assessment that debt is sustainable.

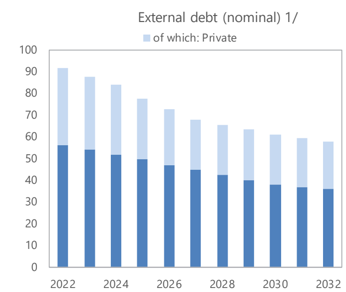
Table 1. Grenada: External Debt Sustainability Framework Baseline Scenario 2019–2042

(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 9/	
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
External debt (nominal) 1/	81.8	92.9	94.8	91.7	87.5	83.9	77.5	72.5	68.0	57.8	45.6	105.2	71.7
of which: public and publicly guaranteed (PPG)	44.0	55.2	54.9	56.0	54.1	51.7	49.6	47.0	44.9	35.9	26.5	55.7	45.2
Change in external debt	-4.2	11.1	1.8	-3.1	-4.2	-3.6	-6.4	-5.0	-4.5	-1.6	-1.0		
Identified net debt-creating flows	-3.4	20.1	6.3	13.9	6.4	0.6	-1.2	-2.0	-2.7	-2.7	-3.3	0.7	0.1
Non-interest current account deficit	13.1	19.4	23.0	26.5	18.9	13.7	11.9	11.3	10.8	11.0	11.6	15.3	13.4
Deficit in balance of goods and services	5.4	15.9	20.3	20.0	11.3	6.1	4.2	3.4	2.8	3.8	3.7	9.4	6.1
Exports	54.5	40.4	40.1	47.5	54.4	59.9	61.7	61.3	61.2	60.2	58.8		
Imports	59.9	56.3	60.4	67.5	65.6	66.0	65.9	64.7	64.0	64.1	62.4		
Net current transfers (negative = inflow)	-0.4	-1.8	-2.7	1.0	1.0	1.1	1.2	1.3	1.4	1.6	2.2	-0.6	1.3
of which: official	0.4	0.2	-0.5	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9		
Other current account flows (negative = net inflow)	8.1	5.3	5.4	5.5	6.6	6.5	6.5	6.6	6.6	5.5	5.8	6.4	6.0
Net FDI (negative = inflow)	-14.7	-14.3	-12.2	-10.8	-11.1	-11.6	-12.1	-12.6	-13.1	-13.6	-14.8	-12.0	-12.6
Endogenous debt dynamics 2/	-1.9	15.0	-4.5	-1.8	-1.4	-1.6	-1.1	-0.7	-0.4	-0.2	-0.1		
Contribution from nominal interest rate	1.5	1.7	1.5	1.4	1.7	1.7	1.7	1.7	1.6	1.4	1.2		
Contribution from real GDP growth	-0.6	13.1	-4.9	-3.2	-3.1	-3.3	-2.8	-2.3	-2.0	-1.6	-1.2		
Contribution from price and exchange rate changes	-2.8	0.2	-1.1	...	...	...	...	...	...	...	...		
Residual 3/	-0.8	-9.0	-4.5	-17.0	-10.6	-4.2	-5.2	-3.0	-1.8	1.1	2.3	-4.9	-3.4
of which: exceptional financing 4/	0.0	0.0	0.0	-0.9	-0.3	0.2	0.2	0.1	0.1	0.1	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	49.5	50.7	49.4	47.6	46.0	43.8	42.1	34.3	25.6		
PV of PPG external debt-to-exports ratio	...	...	123.6	106.6	90.8	79.4	74.5	71.5	68.8	57.0	43.5		
PPG debt service-to-exports ratio	7.8	16.7	15.6	13.6	9.8	8.6	8.7	8.5	8.3	6.8	6.1		
PPG debt service-to-revenue ratio	17.9	27.6	25.9	27.5	21.9	21.0	21.8	21.3	20.7	16.6	14.5		
Gross external financing need (Million of U.S. dollars)	33.5	124.1	191.1	265.4	168.9	99.9	75.8	59.5	44.5	32.2	12.1		
Key macroeconomic assumptions													
Real GDP growth (in percent)	0.7	-13.8	5.6	3.6	3.6	3.9	3.5	3.2	2.8	2.8	2.8	2.0	3.2
GDP deflator in US dollar terms (change in percent)	3.3	-0.3	1.2	3.1	3.3	1.8	2.0	2.2	2.2	2.2	2.2	1.8	2.3
Effective interest rate (percent) 5/	1.8	1.8	1.8	1.6	1.9	2.1	2.1	2.3	2.3	2.5	2.7	1.7	2.2
Growth of exports of G&S (US dollar terms, in percent)	6.5	-36.3	6.0	26.6	22.4	16.7	8.7	4.7	5.0	4.9	5.0	11.2	9.8
Growth of imports of G&S (US dollar terms, in percent)	6.2	-19.2	14.6	19.5	4.1	6.4	5.4	3.5	4.1	5.1	5.1	6.0	6.2
Grant element of new public sector borrowing (in percent)	...	...	...	12.0	17.8	13.9	13.1	15.0	12.6	11.4	9.2	...	13.3
Government revenues (excluding grants, in percent of GDP)	23.8	24.5	24.1	23.5	24.4	24.6	24.7	24.5	24.5	24.8	24.6	22.3	24.6
Aid flows (in Million of US dollars) 6/	34.6	38.2	85.2	65.0	90.1	66.7	56.9	59.7	62.6	78.8	125.8		
Grant-equivalent financing (in percent of GDP) 7/	...	...	...	6.7	6.5	4.9	4.1	4.2	4.0	3.9	3.8	...	4.6
Grant-equivalent financing (in percent of external financing) 7/	...	...	...	42.6	51.6	53.8	49.2	52.8	52.5	53.3	56.6	...	52.0
Nominal GDP (Million of US dollars)	1,213	1,043	1,115	1,192	1,275	1,350	1,425	1,502	1,579	2,023	3,318		
Nominal dollar GDP growth	4.0	-14.0	6.9	6.8	7.0	5.8	5.6	5.4	5.1	5.1	5.1	3.9	5.6
Memorandum items:													
PV of external debt 8/	...	...	89.4	86.4	82.8	79.8	73.8	69.3	65.2	56.3	44.7		
In percent of exports	...	...	222.9	181.8	152.2	133.1	119.6	113.1	106.5	93.4	76.1		
Total external debt service-to-exports ratio	7.9	16.9	15.8	13.8	10.0	8.8	8.8	8.6	8.4	6.9	6.1		
PV of PPG external debt (in Million of US dollars)			552.6	604.0	629.9	642.3	655.1	658.6	665.4	694.1	848.8		
(PVt-PVt-1)/GDPt-1 (in percent)				4.6	2.2	1.0	1.0	0.2	0.5	0.9	0.5		
Non-interest current account deficit that stabilizes debt ratio	17.3	8.2	21.2	29.6	23.1	17.3	18.4	16.2	15.3	12.7	12.6		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as [r - g - ρ(1+g) + Ɛα (1+r)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency, and α= share of local currency-denominated external debt in total external debt.

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes, the former being unusually negative in 2022-23 and thus contributing to the negative residuals.

4/ For 2020 it includes all sources of exceptional financing under the RCF. For 2021 and beyond it includes Eximbank China lending to an SOE.

5/ Current-year interest payments divided by previous period debt stock.

6/ Defined as grants, concessional loans, and debt relief.

7/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the PV of new debt).

8/ Assumes that PV of private sector debt is equivalent to its face value.

9/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

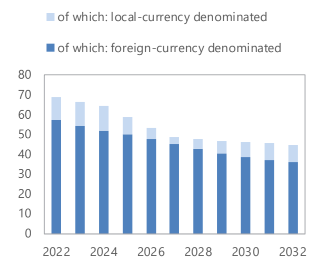
Table 2. Grenada: Public Sector Debt Sustainability Framework, Baseline Scenario, 2019–2042

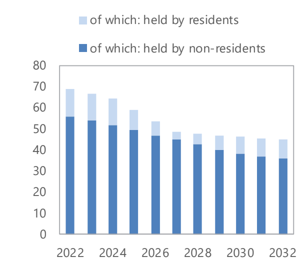
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
Public sector debt 1/	58.5	71.4	70.3	69.0	66.6	64.3	58.9	53.5	48.5	44.9	41.6	78.2	53.8
of which: external debt	44.0	55.2	54.9	56.0	54.1	51.7	49.6	47.0	44.9	35.9	26.5	55.7	45.2
Change in public sector debt	-2.2	12.9	-1.1	-1.3	-2.4	-2.3	-5.4	-5.4	-5.0	-0.7	-0.1		
Identified debt-creating flows	-7.8	8.4	-4.9	0.3	-5.3	-5.9	-5.9	-5.7	-5.3	-0.7	-0.1	-4.4	-2.9
Primary deficit	-6.8	-3.2	-2.1	1.5	-3.5	-3.8	-4.2	-4.3	-4.2	0.0	0.1	-2.6	-1.7
Revenue and grants	26.6	28.1	31.8	29.0	29.6	28.8	28.2	28.0	28.0	28.3	28.1	25.6	28.5
of which: grants	2.9	3.7	7.6	5.5	5.2	4.2	3.5	3.5	3.5	3.5	3.5		
Primary (noninterest) expenditure	19.8	24.9	29.7	30.4	26.1	25.0	24.0	23.7	23.8	28.3	28.2	23.0	26.8
Automatic debt dynamics	-1.0	11.6	-2.7	-2.1	-2.0	-1.9	-1.6	-1.2	-0.9	-0.6	-0.2		
Contribution from interest rate/growth differential	-0.5	10.2	-3.1	-2.1	-2.0	-1.9	-1.6	-1.2	-0.9	-0.6	-0.2		
of which: contribution from average real interest rate	0.0	0.9	0.7	0.4	0.4	0.6	0.6	0.6	0.5	0.7	0.9		
of which: contribution from real GDP growth	-0.4	9.3	-3.8	-2.5	-2.4	-2.5	-2.2	-1.8	-1.5	-1.2	-1.1		
Contribution from real exchange rate depreciation	-0.5	1.4	0.3	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	0.9	0.3	-0.2	-0.2	-0.1	-0.1	-0.1	0.0	-0.2	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow 2/	0.0	0.0	0.0	0.9	0.3	-0.2	-0.2	-0.1	-0.1	-0.1	0.0		
Residual 3/	5.6	4.4	3.8	-1.6	2.8	3.6	0.5	0.3	0.3	-0.1	-0.1	1.8	0.6
Sustainability indicators													
PV of public debt-to-GDP ratio 4/	...	...	64.9	63.7	61.9	60.2	55.2	50.3	45.7	43.3	40.6		
PV of public debt-to-revenue and grants ratio	...	...	204.3	219.8	209.1	208.9	195.8	179.4	163.5	153.2	144.7		
Debt service-to-revenue and grants ratio 5/	32.7	45.4	37.9	36.7	23.1	23.4	25.3	23.8	19.1	21.7	31.8		
Gross financing need 6/	1.9	9.6	9.9	13.0	3.6	2.8	2.8	2.2	1.0	6.0	9.1		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	0.7	-13.8	5.6	3.6	3.6	3.9	3.5	3.2	2.8	2.8	2.8	2.0	3.2
Average nominal interest rate on external debt (in percent)	3.2	3.1	2.8	2.6	3.0	3.2	3.3	3.4	3.5	3.9	4.6	3.1	3.4
Average real interest rate on domestic debt (in percent)	-3.2	3.1	1.5	-0.5	-0.5	1.0	0.9	0.4	-0.2	1.0	2.3	-1.2	0.1
Real exchange rate depreciation (in percent, + indicates depreciation)	-1.2	2.7	0.6	...	...	...	...	...	...	...	...	0.0	...
Inflation rate (GDP deflator, in percent)	3.3	-0.3	1.2	3.1	3.3	1.8	2.0	2.2	2.2	2.2	2.2	1.8	2.3
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.1	8.7	25.5	6.3	-11.2	-0.2	-0.8	2.0	3.1	2.8	2.7	3.7	3.0
Primary deficit that stabilizes the debt-to-GDP ratio 7/	-4.6	-16.0	-1.0	2.8	-1.1	-1.5	1.2	1.1	0.8	0.7	0.3	-7.2	0.6
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**

Public sector debt 1/





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government, government-guaranteed debt . Definition of external debt is Residency-based.

2/ Reflects financing to SOEs from Exim Bank China and World Bank.

3/ Includes fluctuations of government bank deposits.

4/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

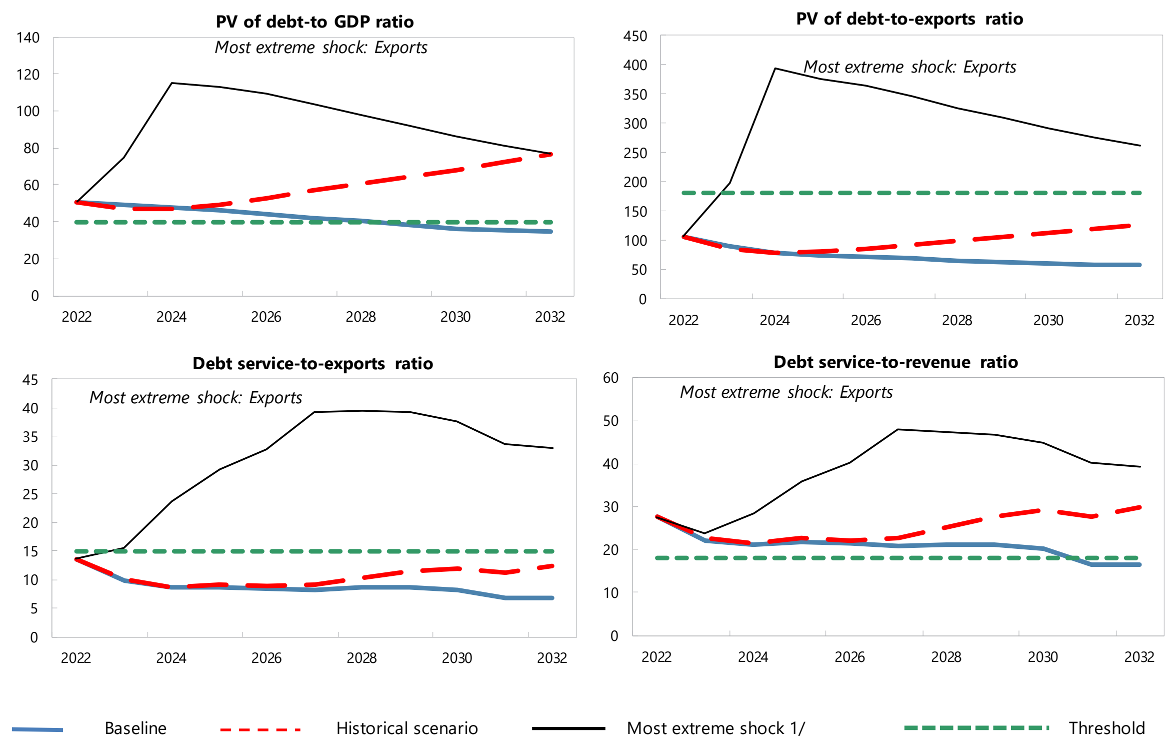
5/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

6/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

7/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Figure 1. Grenada: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2022–2032



Customization of Default Settings	Size	Interactions
Tailored Stress		
Combined CL	Yes	
Natural disaster	No	Yes
Commodity price	No	No
Market financing	No	No

Note: "Yes" indicates any change to the size or interactions of the default settings for the stress tests. "n.a." indicates that the stress test does not apply.

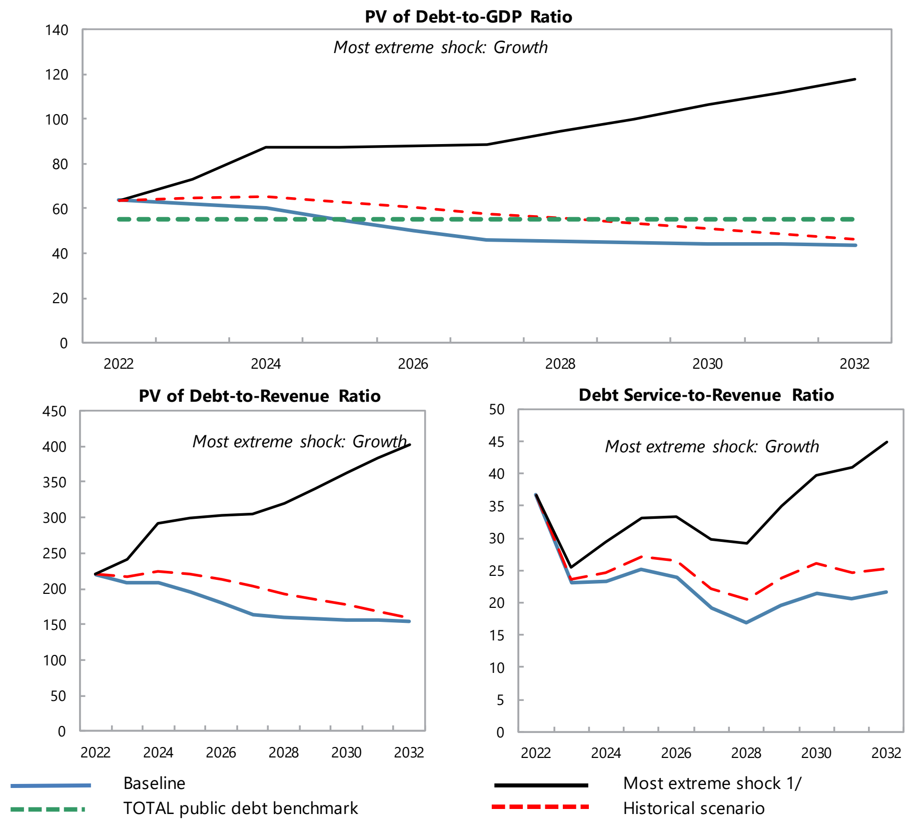
Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	4.2%	4.2%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	18	18
Avg. grace period	2	2

* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2032. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 2. Grenada: Indicators of Public Sector Debt Under Alternative Scenarios 2022–2032



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	96%	96%
Domestic medium and long-term	3%	3%
Domestic short-term	0%	0%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	4.2%	4.2%
Avg. maturity (incl. grace period)	18	18
Avg. grace period	2	2
Domestic MLT debt		
Avg. real interest rate on new borrowing	1.9%	1.9%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	0	0
Domestic short-term debt		
Avg. real interest rate	1.9%	1.9%

* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2032. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Table 3. Grenada: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2022–2032

(In Percent)

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
PV of debt-to GDP ratio											
Baseline	**51**	**49**	**48**	**46**	**44**	**42**	**40**	38	36	35	34
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	**51**	**47**	**47**	**49**	**52**	**57**	**61**	**64**	**68**	**72**	**76**
B. Bound Tests											
B1. Real GDP growth	**51**	**56**	**61**	**59**	**56**	**54**	**52**	**49**	**47**	**45**	**44**
B2. Primary balance	**51**	**54**	**59**	**57**	**55**	**53**	**51**	**49**	**47**	**46**	**45**
B3. Exports	**51**	**74**	**115**	**113**	**109**	**103**	**98**	**92**	**86**	**81**	**77**
B4. Other flows 3/	**51**	**54**	**57**	**56**	**53**	**51**	**48**	**46**	**43**	**42**	**40**
B5. Depreciation	**51**	**62**	**56**	**54**	**51**	**49**	**47**	**45**	**42**	**41**	**41**
B6. Combination of B1-B5	**51**	**73**	**78**	**76**	**72**	**69**	**66**	**62**	**59**	**56**	**54**
C. Tailored Tests											
C1. Combined contingent liabilities	**51**	**68**	**67**	**65**	**63**	**61**	**59**	**57**	**55**	**54**	**53**
C2. Natural disaster	**51**	**71**	**72**	**74**	**75**	**77**	**79**	**80**	**82**	**84**	**87**
C3. Commodity price	**51**	**49**	**48**	**46**	**44**	**42**	**40**	38	36	35	34
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	107	91	79	74	72	69	66	63	60	58	57
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	107	86	78	80	86	93	99	106	113	120	127
B. Bound Tests											
B1. Real GDP growth	107	91	79	74	72	69	66	63	60	58	57
B2. Primary balance	107	98	98	93	90	87	84	81	78	76	75
B3. Exports	107	**198**	**394**	**375**	**363**	**345**	**326**	**309**	**291**	**275**	**261**
B4. Other flows 3/	107	100	96	90	87	83	79	75	72	69	67
B5. Depreciation	107	91	74	69	66	64	61	59	56	55	54
B6. Combination of B1-B5	107	154	107	162	155	148	141	134	128	122	118
C. Tailored Tests											
C1. Combined contingent liabilities	107	126	111	105	103	100	97	94	91	90	88
C2. Natural disaster	107	139	130	129	132	136	139	142	146	150	156
C3. Commodity price	107	91	79	74	72	69	66	63	60	58	57
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	14	10	9	9	9	8	9	9	8	7	7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	14	10	9	9	9	9	10	11	12	11	12
B. Bound Tests											
B1. Real GDP growth	14	10	9	9	9	8	9	9	8	7	7
B2. Primary balance	14	10	9	10	10	10	10	10	10	9	9
B3. Exports	14	**16**	**24**	**29**	**33**	**39**	**39**	**39**	**38**	**34**	**33**
B4. Other flows 3/	14	10	9	9	10	10	10	10	10	8	8
B5. Depreciation	14	10	9	8	8	8	8	8	8	6	6
B6. Combination of B1-B5	14	13	**16**	**16**	**18**	**18**	**18**	**18**	**17**	15	15
C. Tailored Tests											
C1. Combined contingent liabilities	14	10	10	10	10	10	10	10	10	8	8
C2. Natural disaster	14	12	12	12	12	12	13	13	13	12	12
C3. Commodity price	14	10	9	9	9	8	9	9	8	7	7
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	**27**	**22**	**21**	**22**	**21**	**21**	**21**	**21**	**20**	17	17
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	**27**	**23**	**21**	**23**	**22**	**23**	**25**	**28**	**29**	**28**	**30**
B. Bound Tests											
B1. Real GDP growth	**27**	**25**	**27**	**28**	**27**	**27**	**27**	**27**	**26**	**21**	**21**
B2. Primary balance	**27**	**22**	**22**	**25**	**25**	**25**	**25**	**26**	**24**	**21**	**21**
B3. Exports	**27**	**24**	**28**	**36**	**40**	**48**	**47**	**47**	**45**	**40**	**39**
B4. Other flows 3/	**27**	**22**	**22**	**23**	**24**	**25**	**25**	**25**	**24**	**20**	**20**
B5. Depreciation	**27**	**28**	**26**	**27**	**26**	**24**	**25**	**25**	**24**	**19**	**19**
B6. Combination of B1-B5	**27**	**25**	**29**	**30**	**34**	**33**	**33**	**33**	**32**	**27**	**27**
C. Tailored Tests											
C1. Combined contingent liabilities	**27**	**22**	**24**	**25**	**25**	**24**	**24**	**24**	**23**	**20**	**20**
C2. Natural disaster	**27**	**22**	**23**	**24**	**24**	**24**	**25**	**26**	**25**	**22**	**23**
C3. Commodity price	**27**	**22**	**21**	**22**	**21**	**21**	**21**	**21**	**20**	17	17
Threshold	18	18	18	18	18	18	18	18	18	18	18

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private transfers and FDI.

Table 4. Grenada: Sensitivity Analysis for Key Indicators of Public Debt 2022–2032
(In Percent)

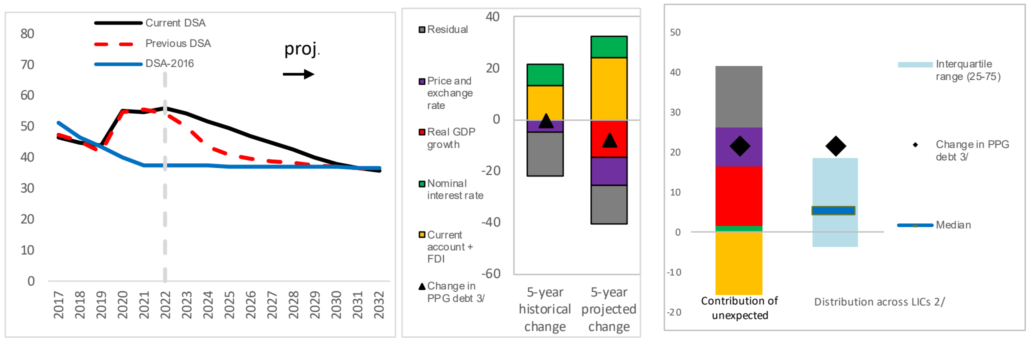
	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	PV of Debt-to-GDP Ratio										
Baseline	**64**	**62**	**60**	**55**	50	46	45	45	44	44	43
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	**64**	**65**	**65**	**63**	**60**	**58**	**56**	53	51	49	46
B. Bound Tests											
B1. Real GDP growth	**64**	**73**	**87**	**88**	**88**	**88**	**94**	**100**	**106**	**112**	**118**
B2. Primary balance	**64**	**66**	**72**	**67**	**62**	**57**	**56**	**56**	**55**	55	54
B3. Exports	**64**	**81**	**112**	**106**	**100**	**92**	**89**	**85**	**82**	**78**	**75**
B4. Other flows 3/	**64**	**67**	**70**	**65**	**60**	54	53	52	51	50	49
B5. Depreciation	**64**	**75**	**71**	**64**	**58**	52	50	47	45	43	41
B6. Combination of B1-B5	**64**	**65**	**70**	**66**	**63**	**60**	**61**	**62**	**63**	**64**	**65**
C. Tailored Tests											
C1. Combined contingent liabilities	**64**	**82**	**80**	**75**	**70**	**65**	**64**	**64**	**63**	**63**	**62**
C2. Natural disaster	**64**	**86**	**87**	**85**	**83**	**82**	**85**	**88**	**92**	**95**	**98**
C3. Commodity price	**64**	**65**	**69**	**70**	**71**	**73**	**80**	**87**	**94**	**101**	**108**
TOTAL public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
	PV of Debt-to-Revenue Ratio										
Baseline	220	209	209	196	179	163	159	157	157	155	153
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	220	217	225	221	213	204	193	185	177	169	160
B. Bound Tests											
B1. Real GDP growth	220	241	292	300	303	305	320	341	363	383	402
B2. Primary balance	220	224	249	237	220	204	198	197	196	194	192
B3. Exports	220	273	387	377	356	330	312	300	289	277	265
B4. Other flows 3/	220	226	243	230	213	195	188	184	182	178	174
B5. Depreciation	220	257	250	231	209	187	176	168	161	154	147
B6. Combination of B1-B5	220	218	240	233	223	212	213	217	222	226	229
C. Tailored Tests											
C1. Combined contingent liabilities	220	276	277	265	248	232	226	225	224	222	220
C2. Natural disaster	220	281	296	297	292	287	293	305	318	330	340
C3. Commodity price	220	220	241	250	255	261	281	307	333	359	383
	Debt Service-to-Revenue Ratio										
Baseline	37	23	23	25	24	19	17	20	21	21	22
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	37	24	25	27	26	22	20	24	26	25	25
B. Bound Tests											
B1. Real GDP growth	37	25	30	33	33	30	29	35	40	41	45
B2. Primary balance	37	23	25	28	28	24	21	24	26	25	26
B3. Exports	37	23	26	33	35	37	34	36	38	36	37
B4. Other flows 3/	37	23	24	27	26	23	20	23	25	24	25
B5. Depreciation	37	25	29	31	29	25	23	25	27	25	26
B6. Combination of B1-B5	37	23	27	30	29	24	21	24	26	26	27
C. Tailored Tests											
C1. Combined contingent liabilities	37	23	27	29	27	23	20	23	24	24	25
C2. Natural disaster	37	26	29	32	31	26	24	28	31	30	32
C3. Commodity price	37	23	24	27	27	25	25	30	34	36	40
	Debt Service-to-GDP Ratio										
Baseline	10.6	6.8	6.7	7.1	6.7	5.4	4.8	5.6	6.1	5.8	6.1
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	11	7	7	8	7	6	6	7	8	7	7
B. Bound Tests											
B1. Real GDP growth	11	8	9	10	10	9	9	10	12	12	13
B2. Primary balance	11	7	7	8	8	7	6	7	7	7	7
B3. Exports	11	7	8	9	10	10	10	10	11	10	10
B4. Other flows 3/	11	7	7	8	7	6	6	6	7	7	7
B5. Depreciation	11	7	8	9	8	7	6	7	7	7	7
B6. Combination of B1-B5	11	7	8	8	8	7	6	7	8	7	8
C. Tailored Tests											
C1. Combined contingent liabilities	11	7	8	8	8	6	6	6	7	7	7
C2. Natural disaster	11	8	9	9	9	8	7	8	9	9	9
C3. Commodity price	11	7	7	7	8	7	7	8	10	10	11

Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the benchmark.
2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.
3/ Includes official and private transfers and FDI.

Figure 3. Grenada: Drivers of Debt Dynamics—Baseline Scenario

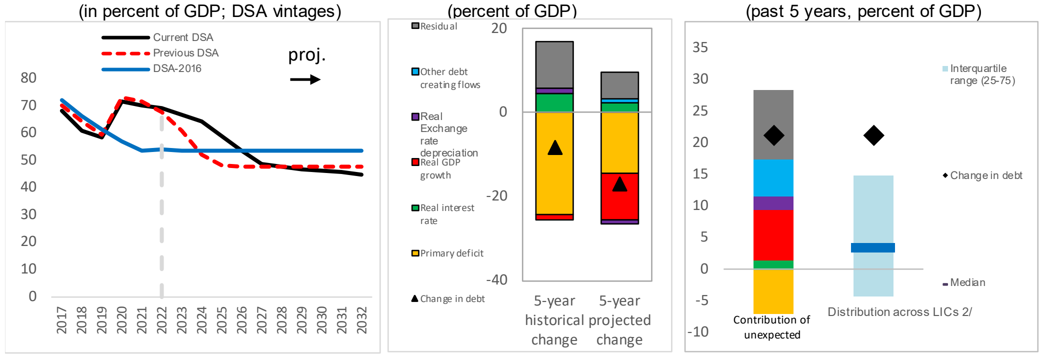
External debt

Gross Nominal PPG External Debt (in percent of GDP; DSA vintages) | Debt-creating flows (percent of GDP) | Unexpected Changes in Debt 1/ (past 5 years, percent of GDP)



Public debt

Gross Nominal Public Debt (in percent of GDP; DSA vintages) | Debt-creating flows (percent of GDP) | Unexpected Changes in Debt 1/ (past 5 years, percent of GDP)



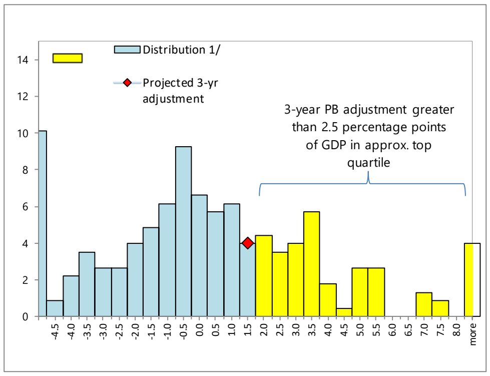
1/ Difference between anticipated and actual contributions on debt ratios.

2/ Distribution across LICs for which LIC DSAs were produced.

3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

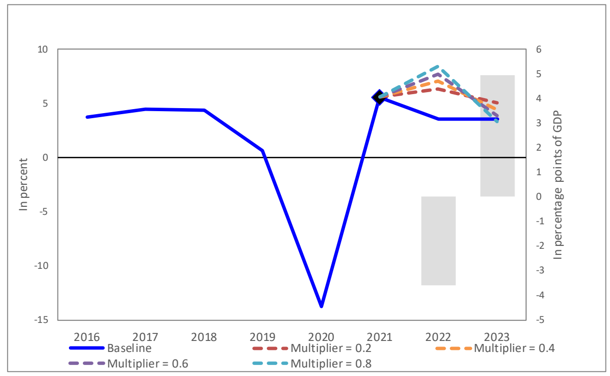
Figure 4. Grenada: Realism Tools

3-Year Adjustment in Primary Balance
(Percentage points of GDP)



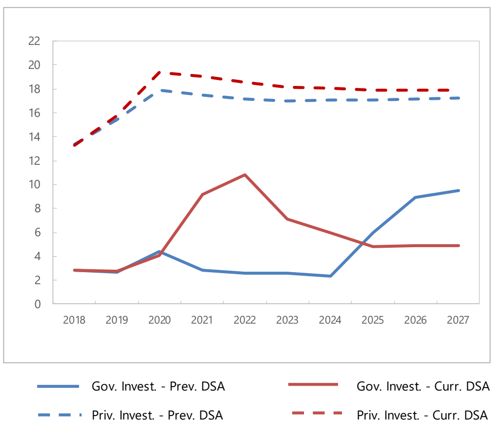
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

Fiscal Adjustment and Possible Growth Paths 1/



1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates
(percent of GDP)



Contribution to Real GDP growth
(percent, 5-year average)