INTERNATIONAL DEVELOPMENT ASSOCIATION

INTERNATIONAL MONETARY FUND

GRENADA

Joint World Bank-IMF Debt Sustainability Analysis

July 2019

Prepared jointly by the staffs of the International Development Association (IDA)

and the International Monetary Fund (IMF)

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Grenada: Joint Bank-Fund Debt Sustainability Analysis

Risk of external debt distress:	In debt distress
Overall risk of debt distress	In debt distress
Granularity in the risk rating	Sustainable
Application of judgment	No

With some US$19 million (1.6 percent of GDP) in unresolved arrears to official bilateral creditors, Grenada remains in external public debt distress. However, debt appears sustainable reflecting favorable projected debt dynamics from substantial fiscal surpluses that are supported by the Fiscal Responsibility Law (FRL). Total public debt has declined from 108 percent of GDP in 2013 to 63½ percent of GDP in 2018, with external public debt amounting to 44.5 percent of GDP. This reduction was made possible through fiscal consolidation that has been anchored by the FRL, robust economic growth, and a restructuring of Grenada's public debt. Going forward, continued adherence to the FRL and regularization of arrears will be needed to upgrade the risk rating. Debt should be further reduced and kept at levels needed to withstand the existing vulnerabilities to external shocks and natural disasters.

DEBT COVERAGE

1. Public debt in this DSA is defined as the sum of central government debt (including arrears on principal and interest), overdue membership fees to international organizations, and government-guaranteed debt. It does not include non-guaranteed debt of public enterprises and limited liability companies, notably PDV Grenada's debt on account the Petrocaribe arrangement. [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 the non-guaranteed debt data has been made more recently, which could enable to expand the coverage. Non-guaranteed debt is estimated at around 15 percent of GDP, including 11½ percent of GDP for the Petrocaribe arrangement. Grenada does not have subnational government debt.

2. The contingent liability stress test accounts for the risks from the estimated stock of SOE debt as well as ongoing PPPs and financial markets. The stock of enterprise-related debt is substantial and is reflected in the contingent liability stress test.[3] The weight of the PPP shock is based on default settings, with information taken from the World Bank's database. (Grenada's fiscal responsibility law 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.

	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	

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%.

[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. Based on 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.

[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.

RECENT DEVELOPMENTS

3. Debt reduction and regularization has progressed, but arrears remain with a few bilateral creditors. Debt restructuring in the context of the 2014-17 ECF-supported program contributed around 12 percentage points to the reduction of public debt, which fell from 108 percent of GDP in 2013 to 63½ percent of GDP in 2018, largely reflecting high economic growth and fiscal adjustment. However, arrears of some US$19 million owed to non-Paris Club official bilateral creditors including Trinidad and Tobago, Algeria, and Libya remain to be regularized. [4] The authorities report progress in advancing negotiations as of early 2019, particularly with Algeria (9.2 percent of the total bilateral arrears). The authorities have continued to make payments on overdue membership fees in line with the revised schedule published in mid-2017, settling the overdue fees of US$ 2½ million for the Caribbean Community Secretariat, Eastern Caribbean Supreme Court, University of West Indies, and others in 2018. Recent U.S. sanctions on Venezuela blocked payments on Grenada's Petrocaribe debt at the turn of 2018-19. And most of government-guaranteed debt of some 2½ percent of GDP at end-2017 was converted into non-guaranteed debt through a refinancing operation.

4. Most portfolio characteristics of Grenada's debt have continued to improve in 2018. Consistent with their debt strategy, the authorities sought to extend maturities of domestic short-term debt and refrained from borrowing in the regional securities market (RGSM) in 2018. The authorities received substantial external concessional financing, notably from the World Bank but also from other multilaterals. The combination of extension of domestic maturities and long-term concessional financing resulted in an increase in the average time to maturity from 8.2 to 9.0 years in 2018. Average time to re-fixing of the debt portfolio similarly increased from 7.8 to 8.6 years, and the average effective interest rate on public debt declined from 3.5 to 3.0 percent last year. As expected from the financing structure and because of the successful restructuring, the share of multilateral debt increased further by 4.6 percentage points during 2018 (Figure 3). The composition of domestic debt showed a further shift towards longer maturity bonds and treasury notes, and away from short-term T-bills. The shares of bonds and treasury notes climbed by 4.0 and 4.1 percentage points respectively, but that of T-bills declined by 3.7 percentage points in 2018 (Figure 2).

5. Debt management and debt data coverage need to be further enhanced. The Fiscal Responsibility Law's (FRL) medium-term public debt target of 55 percent of GDP is a key fiscal anchor that is supported by the FRL's operational targets on the primary balance and spending growth, as well as institutional reforms. 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,

[4] The amount of the arrears has increased since the end of 2017 (US$ 15.7 million), due to accrual of interest arrears and the portion of debt to Trinidad and Tobago that was not yet technically in arrears previously becoming overdue.

especially for the debt of SOEs converted from the guaranteed debt, needs to be further enhanced, formalized, and reported publicly, particularly as debt approaches the 55 percent of GDP 'fiscal' threshold. In this regard, it is recommended that a broader coverage of the debt that includes non-guaranteed debt of public enterprises be used. At the same time, the exact definition of PPPs is being discussed between government and the fiscal responsibility oversight committee created in the context of the FRL.

6. 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. Given recent developments regarding Venezuela (including sanctions), the deteriorating financial situation and changes in management of PDV Grenada, and the fact that most other ECCU countries are including such arrangements in the stock of government debt, a careful assessment of Grenada's Petrocaribe liabilities is needed. This would further help to inform the government's medium-term debt management strategy (revised in late 2018) incorporating increased availability of highly concessional external financing, including from the World Bank. Such financing and substantial receipts under the Citizenship-by-Investment (CBI) program have put into sharper relief the need to enhance efficiency of asset management, comprehensive reporting, and the capacity for asset/liability operations. Recent steps toward operationalizing a contingency fund to address the consequences of shocks including natural disasters are welcome and should be followed up with the fund's full operationalization and adequate financing. Implementation of an integrated disaster resilience (or risk management) strategy would further support debt sustainability and resistance to shocks.

MACROECONOMIC ASSUMPTIONS

7. The macroeconomic assumptions are based on a slightly improved outlook relative to the last Article IV Consultation in 2018. Real GDP growth for 2018-23 is higher that under the 2018 Article IV consultation by 0.2 percentage points reflecting construction in tourism-related projects and the expansionary effects of an eventual weakening of strong primary surpluses toward the end of the forecast horizon. Long-term potential growth is projected to remain around 2¾ percent as previously assessed. Continued compliance with the FRL is assumed. Primary fiscal surpluses are expected to continue to significantly overperform the FRL's 3.5 percent of GDP floor through 2020 but then decline to become small primary deficits as permitted by the fiscal rule. Revisions to the services trade and primary income accounts due to improved quality of the source data have resulted in an increase in the external current account deficit by about 3-6 percent of GDP each year relative to that estimated during the 2018 Article IV consultation. The current account deficit would average around 10 percent of GDP in the medium term. Given that the estimated and projected current account deficit is higher than previously projected due to statistical revisions, it is important that Grenada continues to attract sufficient FDI, which was also adjusted upward by the statistical revisions, to ensure external debt sustainability. The baseline includes estimated average costs of natural disasters.[5]

8. 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, it is assumed that the pending disbursement from the China loan[6] will be committed from 2019 onwards. As a result, external financing is projected to increase in the short term. In the long run, the government is assumed to mainly rely on concessional loans from the World Bank[7] and CDB for external financing. As for domestic financing projections, the extension of the maturity of the domestic portfolio by gradually introducing longer-dated securities, highlighted in the government's Medium-Term Debt Management Strategy, is assumed to be implemented.

9. Newly-added realism tools indicates that short-term growth is conservatively forecasted, given the projected fiscal adjustment (Figure 7). The potential natural disaster shock and a weak financial system could form the background for this outturn. It should be noted that Grenada does not envision policy-based fiscal adjustment during the projection period. Also, the projected fiscal adjustment lies in the lower quartile of the distribution of past adjustments of the primary fiscal deficit, indicating that the projection is modest. The improved outlook on the macroeconomic indicators, such as stronger primary surpluses lowering public gross financing needs, enhanced the projected external debt to GDP and public debt to GDP ratios relative to the previous DSA as shown in Figure 6.

DSA Update: Macroeconomic Assumptions

(In percent of GDP, unless otherwise specified)

	Historical Average	Projections 2018-23		Projections 2024-38	
		2018 DSA	2019 DSA	2018 DSA	2019 DSA
Non-interest external current account balance 1/	-18.7	-5.2	-8.8	-9.2	-11.8
Real GDP growth (in percent)	2.7	3.0	3.2	2.7	2.8
Growth of exports of G & S (USD terms, in percent)	6.3	5.2	5.8	4.5	4.6
Current official transfer	-3.1	1.2	0.9	1.5	1.2
Net FDI	-8.3	-9.0	-10.2	-9.0	-9.0
Primary balance	-0.9	3.9	5.5	-0.9	-0.6
Revenue and grants	23.6	25.1	25.5	23.9	24.5
of which: grants	3.0	2.7	2.4	1.7	1.5
Primary (non-interest) expenditure	24.9	21.1	20.0	24.8	25.1
Inflation rate (GDP deflator, in percent)	1.6	2.3	1.7	2.2	2.2
Memorandum item		2018 DSA	2019 DSA		
2018 Nominal GDP (in million USD)		1113.3	1185.9		

Source: Grenadian authorities and IMF staff projections

1/ 2018 Article IV current account figures include revisions from BPM5 to BPM6.

[5] The future annual fiscal cost of natural disasters is assumed at ½ percent of GDP, which is 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).

[6] The loan, which is for financing infrastructure projects, such as airport and road network constructions, amounts to US$ 69 million.

[7] The loan is assumed to be less concessional than the IDA loan, given that Grenada is classified as an upper middle-income country in per capita terms.

10. Grenada continues to be assessed at medium debt-carrying capacity. The rating is based on the CI score, which captures the impact of the different factors through a weighted sum of the 2017 World Bank's Country Policy and Institutional Assessment (CPIA) score, the country's real GDP growth, remittances, international reserves, and world growth.[8] Under the CPIA, Grenada continues to be rated as a medium performer, with the average rating of 3.48 for 2015-17.

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	3.517	1.35	45%
Real growth rate (in percent)	2.719	4.214	0.11	4%
Import coverage of reserves (in percent)	4.052	45.841	1.86	61%
Import coverage of reserves^2 (in percent)	-3.990	21.014	-0.84	-28%
Remittances (in percent)	2.022	3.242	0.07	2%
World economic growth (in percent)	13.520	3.559	0.48	16%
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 3.04
Revenue	14	18	23

PUBLIC AND EXTERNAL DSA

11. The total (external plus domestic) PPG-to-GDP ratio is projected to gradually decline up to 2024 and broadly stabilize thereafter. 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 remains well below benchmark in the baseline scenario, reflecting continued access to concessional financing, including a large disbursement from the World Bank on IDA terms in mid-2018 (Figure 5).

[8] Based on the *IMF World Economic Outlook, April 2019*.

12. External PPG debt-to-GDP ratio is also projected to trace a downward path. The thresholds under the baseline scenario are not breached, in line with the DSA published under the 2018 Article IV Consultation. Nevertheless, due to the remaining unresolved arrears to official bilateral creditors, Grenada's DSA rating stands unchanged at "in debt distress" from the last assessment of July 2018.

13. 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 except shocks to real GDP growth, primary balance, and other flows[9] (Table 3). It reaches its highest value under the exports shock in 2021 (i.e., 73.5 percent or 33.5 percentage points above its threshold), due to the tourism (exports) driven economy. The natural disaster shock, assuming a 10 percent of GDP impact and follow-on interactions in real GDP growth and exports growth shocks[10], raises the ratio to 53.7 percent in 2029. 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.

14. Though risks to debt sustainability have eased, they remain substantial. Grenada's debt sustainability is subject to downside risks. Mainly a tourism-based economy, Grenada is susceptible to external macroeconomic shocks. Potential declines in major tourist source markets in the United States, Canada or the United Kingdom due to weaker than expected global growth, rising protectionism and retreat from multilateralism will significantly impact Grenada's growth prospects. 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 spill-overs on the tourism sector. Potential spillovers from the Venezuelan crisis could put a burden on the economy and the fiscal balance. Continued strong commitment to the FRL is needed to manage those risks.

15. The results of the shock scenarios indicate Grenada's vulnerability to natural disasters, exports (tourism sector), and contingent liabilities. All external DSA shock scenarios indicate a higher vulnerability to export/tourism industry shocks. Similar to the previous DSA, there are large breaches under stress tests for the present value of debt-to-GDP and debt service-to-revenue ratio thresholds. 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). The debt dynamics are also highly susceptible to growth underperformance, which could intensify with climate change (Figure 5).

16. Grenada has also negotiated a reduction in its debt service in the event of natural disasters, which will help mitigate some of these risks. As part of its 2015 debt restructuring,

[9] Includes official and private transfers and FDI.

[10] Applies a shock to output and export of magnitude similar to Hurricane Ivan in 2004. The susceptibility of tourism assests in Grenada is also considered.

Grenada agreed upon hurricane clauses with its creditors, 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. The agreed period of a pause in debt service is up to one year, depending on the severity of the event. The key trigger was established as parametric and tied to a verification by an independent insurance body (CCRIF), whose payout for modelled losses had to exceed US$15 million.[11] 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).

17. 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 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 a moderate foreign exchange risk as most of foreign currency debt is denominated in U.S. dollars to which the EC dollar is pegged

CONCLUSION

18. Grenada remains in external debt distress, but its debt appears sustainable. The debt to GDP ratio has decreased through fiscal consolidation that has been anchored by the Fiscal Responsibility Law (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 and pursuing structural fiscal reforms, including further improving debt management capacity.

Authorities' Views

19. The authorities agreed with staff's debt sustainability assessment. As for unresloved arrears, they informed that an effort to regularize the arrears is continuing, highlighting progress in the negotiation with Algeria and the determination to regularize arrears with other two creditors with which negotiations are ongoing. They indicated that the staff's financing assumptions are broadly in line with government's Medium-Term Debt Strategy, which aims to use of longer-term domestic instruments to fill funding gap while extending maturities of existing treasury bills. They reiterated that a steadfast commitment to the Fiscal Responsibility Law would further strengthen the debt sustainability outlook.

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[11] Grenada's CCRIF coverage envisions a payout of up to US$29 million, or almost 3 percent of GDP, in the event of a major hurricane."

Figure 1. Grenada: Composition of Central Government Debt

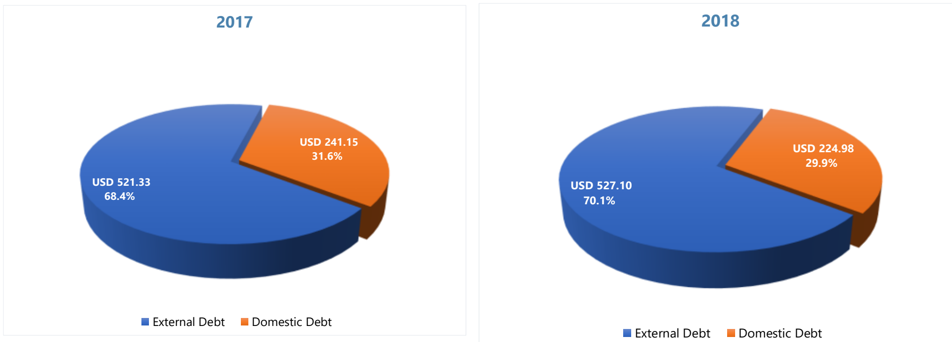


Figure 2. Grenada: Domestic Debt by Instrument Type

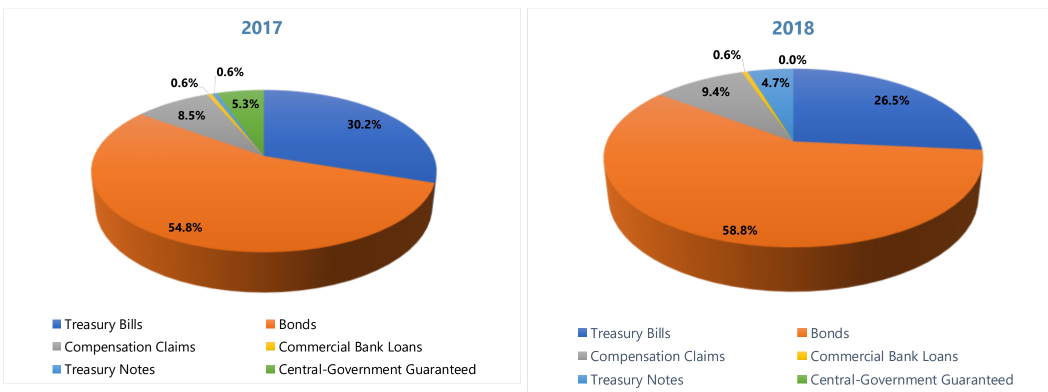


Figure 3. Grenada: Foreign Debt by Creditor Category

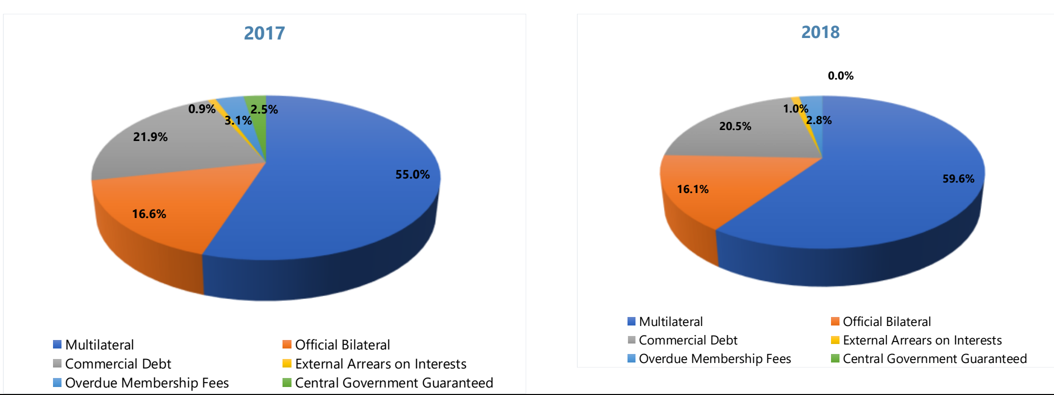
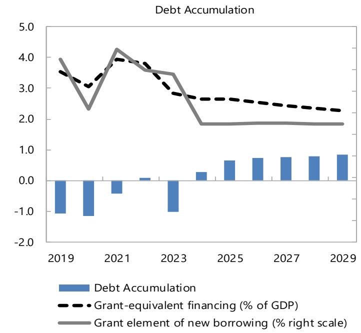
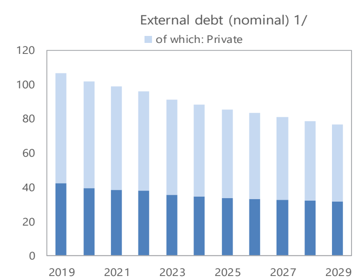


Table 1. Grenada: External Debt Sustainability Framework Baseline Scenario 2016–2039
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections
External debt (nominal) 1/	125.7	117.4	108.0	106.6	101.8	98.8	96.0	91.3	88.2	76.5	58.8	128.6	89.7
of which: public and publicly guaranteed (PPG)	56.6	47.4	44.5	42.1	39.4	38.5	37.9	35.4	34.3	31.7	27.9	61.8	35.6
Change in external debt	-7.5	-8.2	-9.4	-1.4	-4.8	-2.9	-2.8	-4.7	-3.1	-2.1	-1.9		
Identified net debt-creating flows	-6.3	-7.7	-7.4	-3.0	-2.7	-3.5	-3.0	-2.0	-1.8	0.8	4.6	2.2	-1.5
Non-interest current account deficit	8.8	9.9	9.7	9.9	8.9	7.4	8.0	9.0	9.0	11.2	13.7	15.6	9.5
Deficit in balance of goods and services	0.5	1.8	1.0	0.9	-0.1	-1.6	-1.1	-0.3	-0.4	1.3	3.9	11.3	0.1
Exports	49.3	51.3	54.2	54.0	54.1	54.1	53.9	53.6	53.4	51.9	50.1		
Imports	49.8	53.1	55.2	54.9	54.1	52.5	52.8	53.3	52.9	53.3	54.0		
Net current transfers (negative = inflow)	1.3	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.9	1.2	0.9	-1.3	1.0
of which: official	0.7	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2		
Other current account flows (negative = net inflow)	7.0	7.2	7.9	8.1	8.1	8.2	8.3	8.4	8.5	8.7	8.8	5.6	8.4
Net FDI (negative = inflow)	-9.1	-12.4	-12.8	-10.6	-10.1	-9.6	-9.1	-9.1	-9.1	-9.1	-8.1	-10.2	-9.4
Endogenous debt dynamics 2/	-6.0	-5.3	-4.3	-2.3	-1.5	-1.4	-1.9	-1.9	-1.7	-1.4	-0.9		
Contribution from nominal interest rate	2.1	2.0	1.5	1.3	1.3	1.2	1.1	1.0	0.9	0.7	0.6		
Contribution from real GDP growth	-4.7	-6.0	-4.7	-3.6	-2.8	-2.6	-3.0	-2.9	-2.6	-2.0	-1.6		
Contribution from price and exchange rate changes	-3.4	-1.3	-1.1	...	...	...	...	...	...	...	...		
Residual 3/	-1.3	-0.6	-2.0	1.6	-2.1	0.6	0.2	-2.7	-1.4	-2.9	-6.5	-1.8	-1.4
of which: exceptional financing	-2.2	-5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	38.1	35.4	32.7	30.8	29.4	26.9	25.9	23.5	21.8		
PV of PPG external debt-to-exports ratio	...	...	70.3	65.6	60.5	57.0	54.4	50.2	48.5	45.3	43.4		
PPG debt service-to-exports ratio	10.6	11.1	10.6	6.8	7.1	6.7	6.5	6.1	5.6	4.3	3.6		
PPG debt service-to-revenue ratio	23.0	24.8	24.5	15.8	16.6	15.7	15.1	14.2	13.0	9.6	7.8		
Gross external financing need (Million of U.S. dollars)	247.0	316.5	335.9	300.8	297.5	281.8	295.3	323.7	335.5	458.2	778.8		
Key macroeconomic assumptions													
Real GDP growth (in percent)	3.7	5.1	4.2	3.5	2.7	2.7	3.2	3.2	3.0	2.7	2.7	2.2	2.9
GDP deflator in US dollar terms (change in percent)	2.6	1.0	1.0	1.2	1.9	2.1	2.1	2.1	2.1	2.2	2.2	1.6	2.0
Effective interest rate (percent) 4/	1.7	1.7	1.3	1.2	1.3	1.3	1.2	1.1	1.0	0.9	1.1	1.4	1.1
Growth of exports of G&S (US dollar terms, in percent)	2.5	10.4	11.2	4.3	4.9	4.8	4.9	4.7	4.7	4.5	4.7	14.0	4.6
Growth of imports of G&S (US dollar terms, in percent)	4.3	13.2	9.3	4.1	3.1	1.9	5.8	6.5	4.3	5.1	5.1	4.2	4.7
Grant element of new public sector borrowing (in percent)	...	...	...	42.3	30.9	44.7	40.0	39.1	27.5	27.5	27.7	...	32.9
Government revenues (excluding grants, in percent of GDP)	22.7	23.0	23.6	23.1	23.1	23.1	23.1	23.0	23.0	23.0	23.1	21.0	23.0
Aid flows (in Million of US dollars) 5/	122.2	116.4	131.6	50.2	34.0	67.5	61.7	45.3	29.4	31.4	36.0		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	3.5	3.1	3.9	3.8	2.8	2.7	2.3	1.7	...	2.9
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	70.1	66.2	65.8	61.2	71.3	55.4	54.2	51.8	...	60.1
Nominal GDP (Million of US dollars)	1,062	1,127	1,186	1,241	1,299	1,362	1,434	1,511	1,588	2,029	3,304		
Nominal dollar GDP growth	6.5	6.1	5.2	4.7	4.6	4.8	5.3	5.3	5.1	5.0	5.0	3.8	5.0
Memorandum items:													
PV of external debt 7/	...	...	101.7	99.9	95.1	91.1	87.4	82.8	79.7	68.3	52.7		
In percent of exports	...	...	187.5	185.0	175.7	168.4	162.2	154.6	149.3	131.5	105.0		
Total external debt service-to-exports ratio	10.8	11.3	10.8	6.9	7.2	6.8	6.6	6.2	5.7	4.3	3.6		
PV of PPG external debt (in Million of US dollars)			452.1	439.5	425.2	419.7	421.0	406.6	410.8	477.8	719.4		
(PVt-PVt-1)/GDPt-1 (in percent)				-1.1	-1.2	-0.4	0.1	-1.0	0.3	0.9	0.9		
Non-interest current account deficit that stabilizes debt ratio	16.4	18.2	19.1	11.3	13.7	10.4	10.8	13.7	12.1	13.4	15.5		

Definition of external/domestic debt	Residency-based
Is there a material difference between the two criteria?	No





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as $[r - g - \rho(1+g) + \varepsilon\alpha(1+r)]/(1+g+\rho+g\rho)$ 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.

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

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

6/ 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).

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

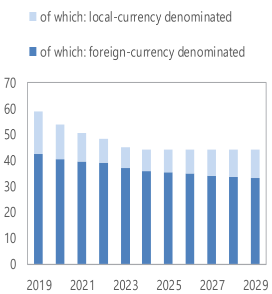
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

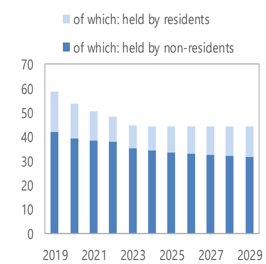
Table 2. Grenada: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016–2039
(In percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections
Public sector debt 1/	**81.6**	**70.0**	**63.4**	**58.8**	**53.8**	**50.5**	**48.3**	**44.9**	**44.1**	**44.2**	**44.2**	**90.7**	**47.4**
of which: external debt	**56.6**	**47.4**	**44.5**	**42.1**	**39.4**	**38.5**	**37.9**	**35.4**	**34.3**	**31.7**	**27.9**	**61.8**	**35.6**
Change in public sector debt	-8.5	-11.5	-6.6	-4.7	-5.0	-3.2	-2.2	-3.4	-0.8	0.0	0.1		
Identified debt-creating flows	**-7.8**	**-7.7**	**-8.3**	**-7.8**	**-7.3**	**-7.3**	**-5.5**	**-3.5**	**-1.0**	**-0.2**	**0.1**	**-1.3**	**-3.0**
Primary deficit	**-5.2**	**-5.7**	**-6.8**	**-6.2**	**-6.5**	**-6.6**	**-4.5**	**-2.5**	**0.0**	**0.6**	**0.6**	**-0.5**	**-2.1**
Revenue and grants	26.2	25.6	26.5	25.6	25.5	25.3	25.3	25.1	24.8	24.6	24.2	**24.0**	**25.0**
of which: grants	3.5	2.6	2.9	2.4	2.4	2.3	2.2	2.1	1.8	1.5	1.1		
Primary (noninterest) expenditure	21.0	19.9	19.7	19.4	19.0	18.8	20.8	22.6	24.8	25.2	24.8	**23.5**	**22.9**
Automatic debt dynamics	**-2.6**	**-2.1**	**-1.5**	**-1.6**	**-0.9**	**-0.7**	**-1.0**	**-1.0**	**-0.9**	**-0.9**	**-0.5**		
Contribution from interest rate/growth differential	-1.7	-2.5	-2.1	-1.8	-0.9	-0.7	-1.0	-1.0	-0.9	-0.8	-0.5		
of which: contribution from average real interest rate	1.5	1.4	0.8	0.3	0.6	0.7	0.6	0.5	0.4	0.4	0.7		
of which: contribution from real GDP growth	-3.2	-3.9	-2.8	-2.1	-1.6	-1.4	-1.6	-1.5	-1.3	-1.2	-1.2		
Contribution from real exchange rate depreciation	-0.9	0.5	0.6	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.3**	**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 (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	**-0.7**	**-3.8**	**1.7**	**3.4**	**2.4**	**4.0**	**3.3**	**0.2**	**0.2**	**0.2**	**0.0**	**-0.7**	**1.3**
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	**...**	**...**	**57.1**	**52.1**	**47.1**	**42.8**	**39.7**	**36.5**	**35.7**	**36.0**	**38.1**		
PV of public debt-to-revenue and grants ratio	**...**	**...**	**215.3**	**203.7**	**184.5**	**168.9**	**157.4**	**145.3**	**143.6**	**146.6**	**157.7**		
Debt service-to-revenue and grants ratio 3/	**51.2**	**59.3**	**56.4**	**31.6**	**39.9**	**30.4**	**24.5**	**20.8**	**19.9**	**24.5**	**33.4**		
Gross financing need 4/	8.3	9.5	8.2	1.9	3.7	1.1	1.7	2.7	4.9	6.7	8.7		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	3.7	5.1	4.2	3.5	2.7	2.7	3.2	3.2	3.0	2.7	2.7	**2.2**	**2.9**
Average nominal interest rate on external debt (in percent)	3.6	3.7	3.2	2.8	3.1	3.1	2.9	2.7	2.5	2.1	2.3	**2.8**	**2.6**
Average real interest rate on domestic debt (in percent)	0.3	2.0	1.7	-0.8	1.5	2.4	2.6	2.7	2.8	3.5	4.4	**2.3**	**2.4**
Real exchange rate depreciation (in percent, + indicates depreciation)	-1.5	0.9	1.3	...	...	...	...	...	...	...	...	**0.0**	**...**
Inflation rate (GDP deflator, in percent)	2.6	1.0	1.0	1.2	1.9	2.1	2.1	2.1	2.1	2.2	2.2	**1.6**	**2.0**
Growth of real primary spending (deflated by GDP deflator, in percent)	-2.2	-0.7	3.4	1.5	0.8	1.3	14.1	12.3	13.0	2.5	2.6	**-0.7**	**5.3**
Primary deficit that stabilizes the debt-to-GDP ratio 5/	3.4	5.9	-0.2	-1.5	-1.5	-3.3	-2.3	0.9	0.8	0.7	0.5	**3.0**	**-0.3**
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?	**No**

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/ 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.

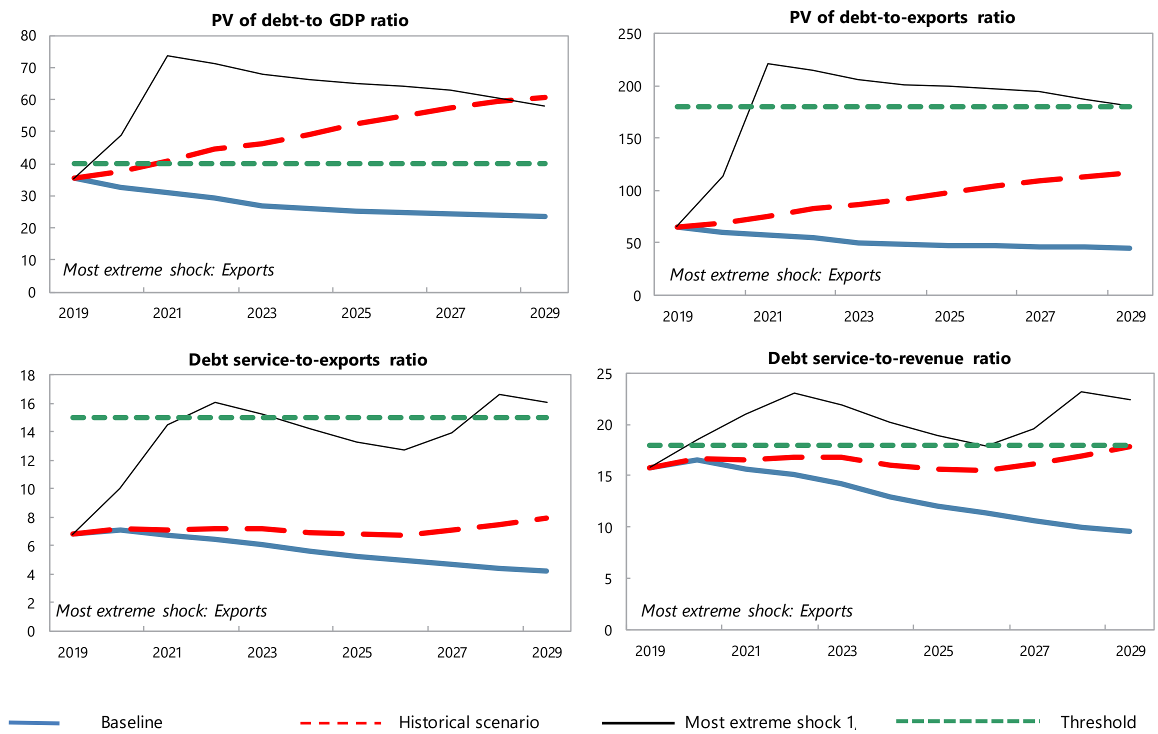
3/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.

4/ 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.

5/ 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.

6/ 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 4. Grenada: Indicators of Public and Publicly Guaranteed External Debt under Alternative Scenarios, 2019–2029 1/



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

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	2.1%	2.1%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	28	28
Avg. grace period	6	6

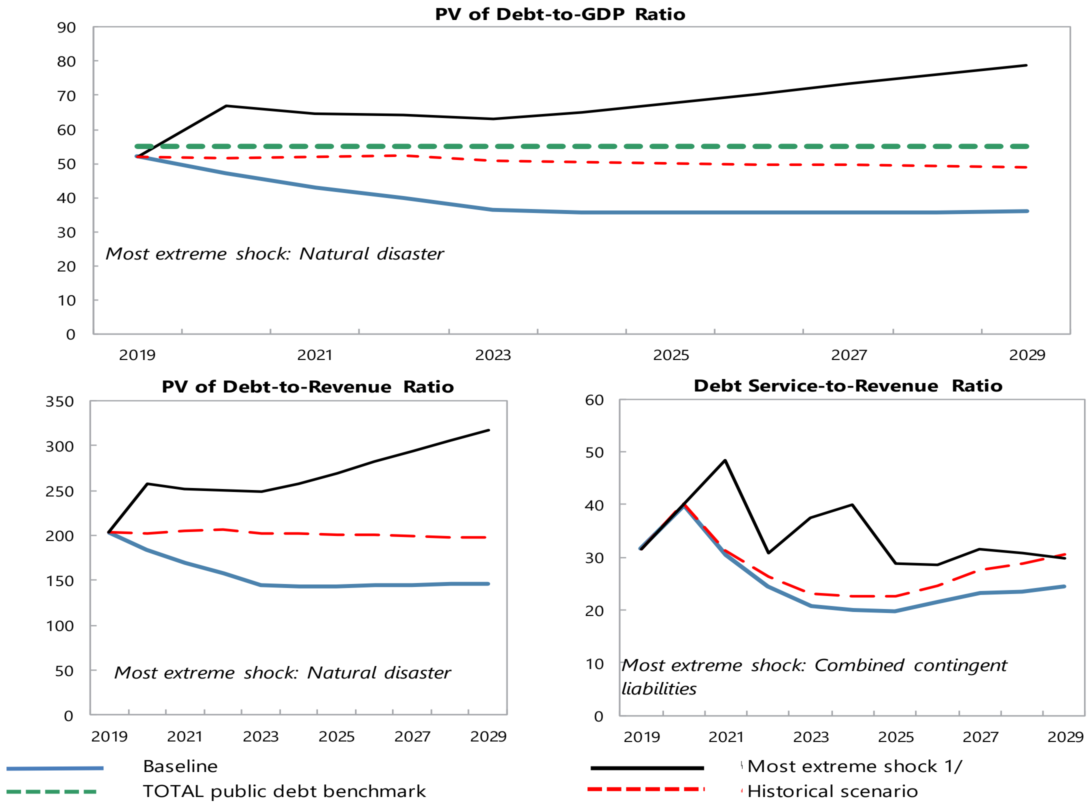
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2029. 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.

2/ The magnitude of shocks used for the commodity price shock stress test are based on the commodity prices outlook prepared by the IMF research department.

Figure 5. Grenada: Indicators of Public Sector Debt Under Alternative Scenarios 2019–2029



Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	52%	52%
Domestic medium and long-term	31%	31%
Domestic short-term	17%	17%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	2.1%	2.1%
Avg. maturity (incl. grace period)	28	28
Avg. grace period	6	6
Domestic MLT debt		
Avg. real interest rate on new borrowing	4.5%	4.5%
Avg. maturity (incl. grace period)	4	4
Avg. grace period	2	2
Domestic short-term debt		
Avg. real interest rate	3.0%	3.0%

* 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 2029. 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, 2019–2029 (In Percent)

	Projections 1/										
	2019	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**
PV of debt-to GDP ratio											
Baseline	35	33	31	29	27	26	25	25	24	24	24
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	35	37	**41**	**44**	**46**	**49**	**52**	**55**	**57**	**59**	**61**
B. Bound Tests											
B1. Real GDP growth	35	35	36	34	31	30	29	29	28	28	27
B2. Primary balance	35	36	39	38	36	36	37	36	36	36	35
B3. Exports	35	**49**	**73.5**	**71**	**68**	**66**	**65**	**64**	**63**	**60**	**58**
B4. Other flows 3/	35	37	39	38	35	34	33	33	32	31	30
B5. Depreciation	35	**41**	37	35	32	31	30	29	29	29	28
B6. Combination of B1-B5	35	**44**	**45**	**44**	**41**	39	39	38	37	36	35
C. Tailored Tests											
C1. Combined contingent liabilities	35	**41**	**40**	39	38	38	38	38	38	38	37
C2. Natural disaster	35	**43**	**43**	**43**	**43**	**44**	**46**	**48**	**50**	**52**	**53.7**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	66	60	57	54	50	48	48	47	46	46	45
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	66	69	76	82	86	92	98	104	109	114	117
B. Bound Tests											
B1. Real GDP growth	66	60	57	54	50	48	48	47	46	46	45
B2. Primary balance	66	67	71	70	67	68	69	69	69	69	68
B3. Exports	66	114	**221**	**215**	**206**	**202**	**199**	**198**	**194**	**188**	**181**
B4. Other flows 3/	66	68	72	70	65	63	62	62	61	59	58
B5. Depreciation	66	60	54	52	48	46	45	44	44	43	43
B6. Combination of B1-B5	66	88	74	98	92	90	88	87	85	83	82
C. Tailored Tests											
C1. Combined contingent liabilities	66	75	75	73	71	72	72	72	72	72	72
C2. Natural disaster	66	90	90	90	90	93	97	101	106	111	116
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	7	7	7	6	6	6	5	5	5	4	4
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	7	7	7	7	7	7	7	7	7	7	8
B. Bound Tests											
B1. Real GDP growth	7	7	7	6	6	6	5	5	5	4	4
B2. Primary balance	7	7	7	7	7	6	6	6	6	6	6
B3. Exports	7	10	15	**16**	**15**	14	13	13	14	**17**	**16**
B4. Other flows 3/	7	7	7	7	7	6	6	5	5	6	5
B5. Depreciation	7	7	7	6	6	6	5	5	5	4	4
B6. Combination of B1-B5	7	8	10	10	9	8	8	7	8	8	7
C. Tailored Tests											
C1. Combined contingent liabilities	7	7	7	7	7	6	6	6	5	5	5
C2. Natural disaster	7	9	9	9	9	8	8	7	7	7	7
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	16	17	16	15	14	13	12	11	11	10	10
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	16	17	17	17	17	16	16	15	16	17	18
B. Bound Tests											
B1. Real GDP growth	16	18	**18**	18	17	15	14	13	12	12	11
B2. Primary balance	16	17	16	16	15	14	13	13	13	13	13
B3. Exports	16	**19**	**21**	**23**	**22**	**20**	**19**	18	**20**	**23**	**22**
B4. Other flows 3/	16	17	16	16	15	14	13	12	12	12	12
B5. Depreciation	16	**21**	**20**	**19**	18	16	15	14	13	12	12
B6. Combination of B1-B5	16	**18**	**19**	**18**	17	16	15	14	15	14	14
C. Tailored Tests											
C1. Combined contingent liabilities	16	17	17	16	15	14	14	13	12	12	11
C2. Natural disaster	16	17	16	16	15	14	13	13	13	12	12
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	18	18	18	18	18	18	18	18	18	18	18

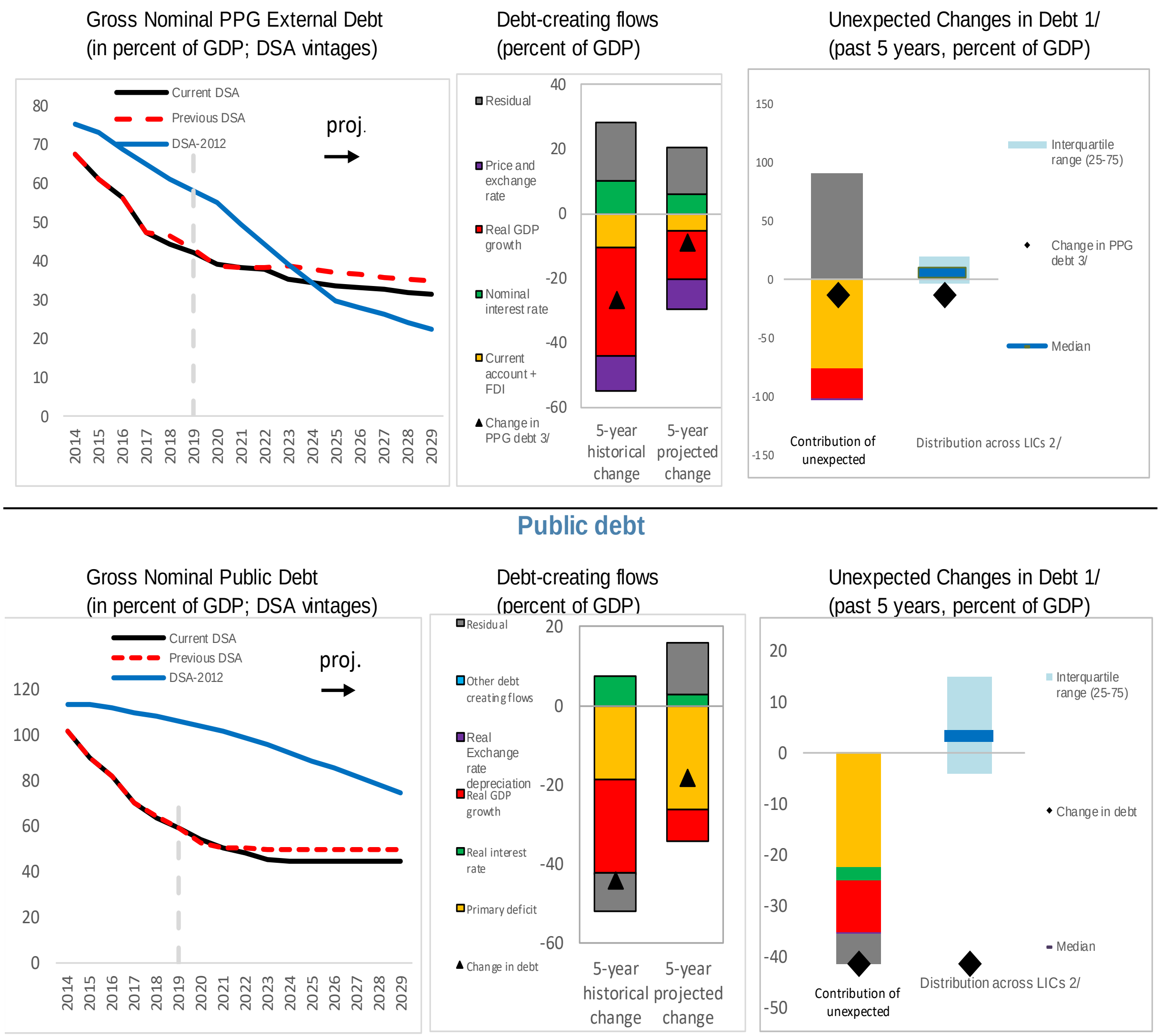
Sources: Country authorities; and staff estimates and projections.
1/ A bold value indicates a breach of the threshold.
2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
3/ Includes official and private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

Table 4. Grenada: Sensitivity Analysis for Key Indicators of Public Debt 2019–2029 (In Percent)

	Projections 1/										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
	PV of Debt-to-GDP Ratio										
Baseline	52	47	43	40	36	36	36	36	36	36	36
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	52	52	52	52	51	50	50	50	50	49	49
B. Bound Tests											
B1. Real GDP growth	52	52	54	54	53	55	**58**	**61**	**63**	**66**	**69**
B2. Primary balance	52	**55**	**60**	**56**	53	52	51	51	51	51	51
B3. Exports	52	**58**	**72**	**68**	**65**	**64**	**63**	**63**	**63**	**61**	**60**
B4. Other flows 3/	52	51	51	48	45	44	44	44	43	43	43
B5. Depreciation	52	**56**	50	44	40	37	36	34	33	31	30
B6. Combination of B1-B5	52	54	51	44	40	40	39	38	38	38	38
C. Tailored Tests											
C1. Combined contingent liabilities	52	**66**	**61**	**58**	54	53	52	52	52	52	52
C2. Natural disaster	52	**67**	**65**	**64**	**63**	**65**	**68**	**70**	**73**	**76**	**79**
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
TOTAL public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
	PV of Debt-to-Revenue Ratio										
Baseline	204	185	169	157	145	144	144	144	145	146	147
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	204	202	205	207	202	202	201	200	199	199	198
B. Bound Tests											
B1. Real GDP growth	204	204	212	211	209	219	230	242	254	266	278
B2. Primary balance	204	217	235	223	210	207	206	206	206	206	206
B3. Exports	204	227	284	271	258	257	256	256	254	248	243
B4. Other flows 3/	204	201	202	190	177	176	176	176	176	175	174
B5. Depreciation	204	221	197	177	159	151	144	138	133	128	123
B6. Combination of B1-B5	204	213	202	176	161	159	157	155	154	155	155
C. Tailored Tests											
C1. Combined contingent liabilities	204	260	242	230	216	213	212	212	212	212	212
C2. Natural disaster	204	258	252	251	248	258	270	282	294	306	318
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Debt Service-to-Revenue Ratio										
Baseline	32	40	30	25	21	20	20	22	23	24	24
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	32	40	31	26	23	23	23	25	28	29	31
B. Bound Tests											
B1. Real GDP growth	32	43	36	32	29	31	34	37	40	42	45
B2. Primary balance	32	40	39	36	32	37	33	29	31	32	32
B3. Exports	32	40	32	28	24	23	23	25	28	32	33
B4. Other flows 3/	32	40	31	25	22	21	21	22	25	26	27
B5. Depreciation	32	40	34	28	24	23	22	24	25	25	25
B6. Combination of B1-B5	32	39	31	31	23	26	27	25	26	27	27
C. Tailored Tests											
C1. Combined contingent liabilities	32	40	48	31	37	40	29	29	32	31	30
C2. Natural disaster	32	46	46	35	38	42	39	41	45	46	48
C3. Commodity price	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

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 6. Grenada: Drivers of Debt Dynamics—Baseline Scenario External Debt



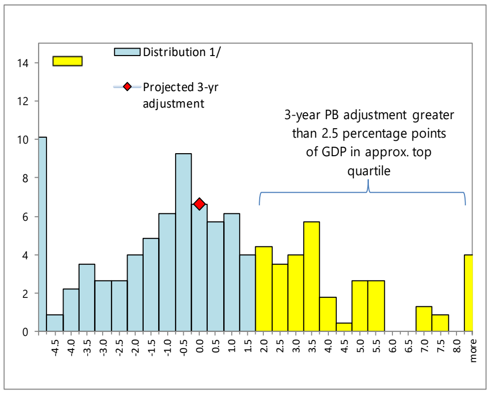
1/ Difference between anticipated and actual contributions on debt ratios.

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.

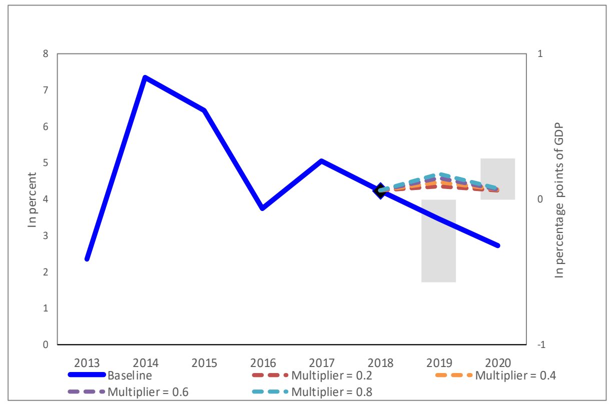
Figure 7. Grenada: Realism Tools

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.

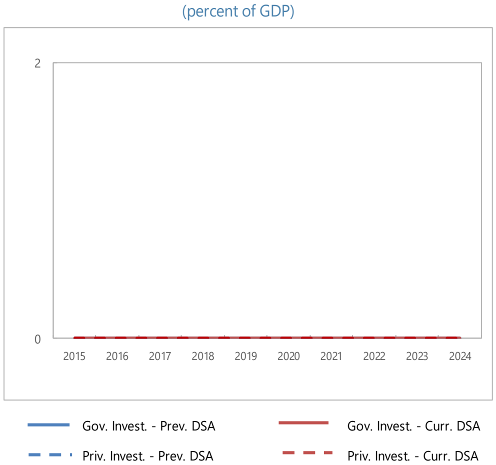
Fiscal Adjustment and Possible Growth Paths 1/



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 1/

(percent of GDP)



1/ Not applicable to Grenada because of absence of relevant data.

Contribution to Real GDP growth

(percent, 5-year average)