INTERNATIONAL MONETARY FUND

DOMINICA

STAFF REPORT FOR THE 2011 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

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The rapid decline in Dominica's public debt during 2001–08 has halted during the recent global crisis, as fiscal policies turned expansionary in support of economic activity. In the event, the underlying fiscal position has weakened and, in the absence of a stronger adjustment effort, debt would decline only slowly over the medium term, from 67.3 percent of GDP in FY 2010 to below 60 percent in FY 2020. Given the country's vulnerability to external and natural disaster risks, this profile does not provide sufficient assurances that debt would remain on a downward path under a series of plausible shocks.

The debt outlook has deteriorated relative to previous assessments. For public debt, this is due to a weaker fiscal position, and for external debt, due to a revision in the stock of external debt and to weaker prospects for non-debt inflows to finance the large current account deficit. The risk of public external debt distress, however, remains moderate as most debt and debt service thresholds are respected in the baseline and stress scenarios.[1]

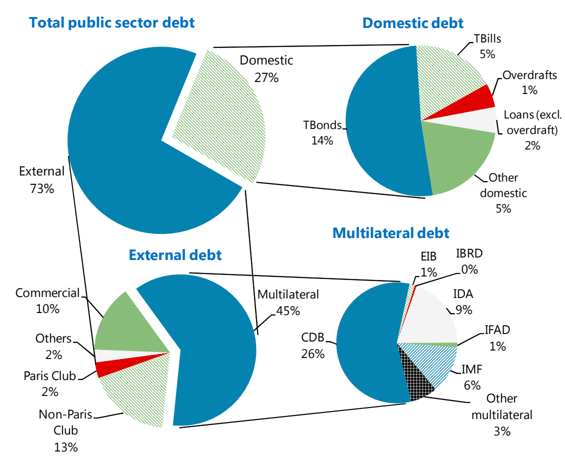
[1] For a description of the DSA exercise see Staff Guidance Note on the Application of the Joint Fund-Bank Debt Sustainability Framework for Low-Income countries (IMF Policy Paper, January 22, 2010; available at http://www.imf.org/external/np/pp/eng/2010/012210.pdf).

BACKGROUND

1. Past fiscal adjustment. Following a crisis in 2001–02 brought about by profligate fiscal policies and external shocks, Dominica undertook an impressive effort to restore fiscal sustainability through a large fiscal adjustment, debt restructuring (2004),[2] and concerted efforts to shift public financing towards grant and concessional borrowing—supported by two IMF programs during 2002–06. As a result, debt declined from 100 percent of GDP in mid-2002 to 67.3 percent in mid-2011, helped by primary surpluses that averaged 3 percent of GDP over the past eight years.[3]

2. Recent developments. Prudent fiscal management prior to the crisis allowed the authorities to inject a significant fiscal stimulus during FY 2007–10. The fiscal position weakened significantly as a result, with the headline primary balance deteriorating by over six percentage points during this period, to an estimated deficit of 1.2 percent of GDP in FY 2010,[4] the first primary deficit in the decade. Consequently, the declining trend in public debt halted in FY 2009 and reversed in FY 2010, with public debt increasing to an estimated 67.3 percent by end-June 2011.

3. Debt composition. Dominica has never accessed bond markets to date. About ⅔ of its debt is held externally by multilateral and bilateral lenders, with the remainder held largely by Dominica Social Security, domestic banks, and private individuals (Table 1). The composition of debt has increasingly shifted towards bilateral donors due to the growing role of China and Venezuela, who hold slightly over 5 percent of GDP in Dominica's debt.



4. Currency composition. The bulk of the external debt, and hence of total debt, is in foreign currencies, mainly the U.S. dollar. Exchange rate risk, however, is moderate as the

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[2] Of the three remaining holdout creditors that chose not to participate in the 2005 debt restructuring until end-2010, a telecommunications company has recently accepted the terms of the renegotiation, with two more holdouts (foreign banks) remaining. The government continues its good-faith efforts to reach agreement with these creditors and continues its practice of depositing interest payments on the restructured terms into an escrow account at the ECCB, to be paid out once these creditors agree to the new terms.

[3] All ratios to GDP differ from previous reports due to the early-2011 rebasing of the national accounts, which resulted in an increase in Dominica's nominal GDP by about 25 percent on average for 2000–09.

[4] The fiscal year runs from July 1 to June 30. FY 2010 ends in June 2011.

local currency has been pegged to the U.S. dollar since 1976. Some risks stem from the recent increase in exposure to the Chinese renminbi (about 6 percent of total debt). All domestic debt is in local currency.

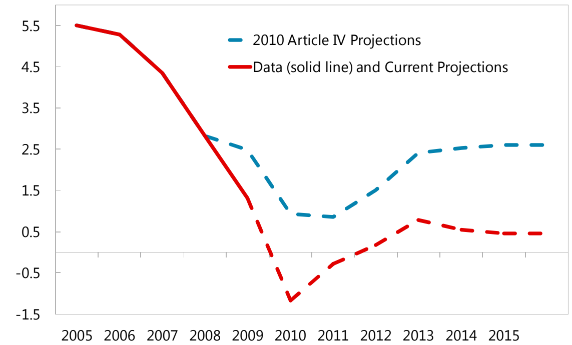
UNDERLYING DSA ASSUMPTIONS

5. Macroeconomic and fiscal assumptions. Dominica's DSA is built on a baseline scenario that assumes:

- *Real GDP growth* rising to about 2 percent over the medium-term, compared to 3 percent under the previous Article IV DSA, constrained by lack of strong growth drivers to replace a declining agricultural sector and weak competitiveness.

- A gradual improvement in the *primary balance*, to about ½ percent of GDP over the medium term, due to the compression in infrastructure spending as the use of the US$40 million loan from China winds down. This marks the biggest difference from the DSA in the previous Article IV report, where the authorities were assumed to be able to return to their long-standing primary surplus target of 2.4 percent of GDP by FY 2013. The main reason for the difference is that fiscal space was eroded in the meantime by increasing current spending and weakening revenues, which—in the absence of clear adjustment plans—will make the achievement of the 2.4 percent of GDP target difficult.

Dominica: Primary Balance
(In percent of GDP)



- *Concessional lending* is expected to continue playing a major role in financing the overall fiscal balance, in line with Dominica's long-standing policy of pursuing grant and concessional financing to the extent possible. The grant element of new external financing is expected at about 30 percent in the coming years. The authorities are planning to tap the regional bond markets later in 2011 if the yields are attractive enough to allow a replacement of existing higher-yield bonds.

- *The external current account deficit* is expected to narrow over the medium term—from about 21½ percent in 2010 to 17 percent of GDP—with the falling cost of commodity imports and a recovery in tourist source countries. This is broadly in line with the projected current account balance during the 2010 Article IV consultation (once adjusted for a rebased GDP).

- *BOP financing*. While FDI and capital grants to the public sector financed the bulk of the current account deficit in the past, over the medium term they are expected to cover only about half of it as grant flows from non-traditional donors are not expected to be sustained at recent levels. This is different from the previous Article IV report, where FDI and grants were assumed to fully cover the medium-term current account deficit. Staff projections assume that private borrowing finances the remainder of the deficit, increasing external debt over the medium term.

Dominica: Key assumptions and Indicators in the DSA, 2010-2031
(In percent of GDP, unless otherwise indicated)

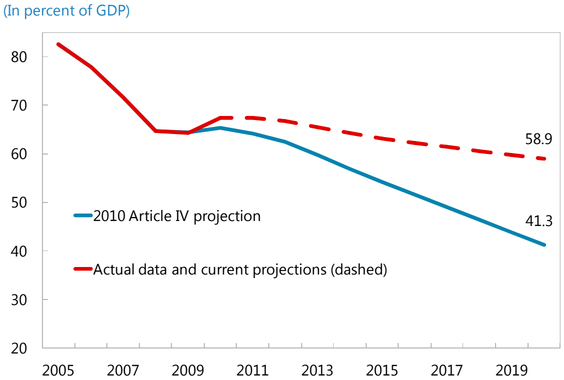
	Prelim.		Projections		
	2010	2011	2021	2027	2031
Total revenue and grants *	31.7	31.4	30.0	30.0	30.5
Primary expenditure *	32.9	31.7	29.6	29.6	30.1
Primary balance (inlcuding grants) *	-1.2	-0.3	0.4	0.4	0.4
External current account balance	-21.6	-22.4	-16.4	-15.5	-15.2
Exports of goods and services	31.9	32.4	33.2	33.7	33.9
Real GDP growth	0.3	0.9	2.0	2.0	2.0
Inflation rate (average, in percent)	3.3	4.2	1.5	1.6	1.7

Sources: Ministry of Finance; and Fund staff estimates and projections.
* Refer to the fiscal year (July-June) that begins in the year shown.

PUBLIC DSA

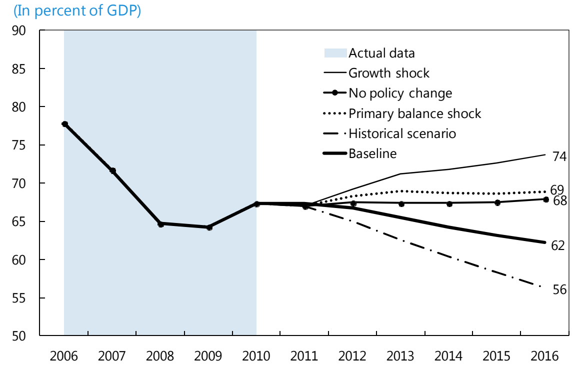
6. Public debt outlook. The debt outlook has deteriorated since the previous year's DSA analysis, reflecting both the weakened fiscal position and the downward revision of the medium-term growth. Public debt is projected to fall from 67.3 percent of GDP in FY 2010 to slightly below 60 percent of GDP by FY 2020, thereby meeting the associated ECCU-wide target (Table 2 and Figure 1).

Projection of public debt
(In percent of GDP)



7. Risks. Risks to the debt outlook are broadly balanced. *On the upside*, identifying and implementing adjustment measures to reach the primary surplus target of 2.4 percent of GDP by FY 2013—an objective to which the authorities remain committed—would set debt on a firmly downward path, bringing it under 60 percent of GDP by FY 2014, significantly ahead of the 2020 under the ECCU target. In addition, the likelihood of additional large borrowing has decreased relative to the previous Article IV (when the contracting of a second, 12 percent of GDP, loan from China was under active consideration). At the same time, *downside risks* are significant: (i) a slower recovery of the global economy, and in particular of those economies that are the main sources of tourism (US and UK), poses the risk of even slower growth for Dominica ; (ii) contingent liabilities in the financial sector or public sector institutions still remain large; and (iii) the country is heavily exposed to external or natural disaster shocks and has limited fiscal space to deal with them without incurring further debt.

Public Debt Sustainability Scenarios [1/]
(In percent of GDP)



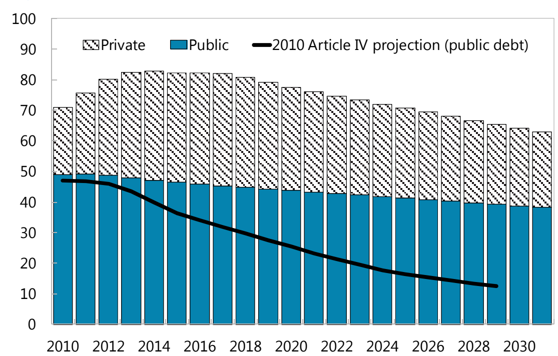
1/ Individual shocks are permanent one-half standard deviation shocks.

8. Sensitivity analysis confirms the risks outlined above (Table 3). A return to historical primary surpluses (2.1 percent of GDP over the past ten years) would significantly improve the debt outlook, setting it on a rapidly declining path. However, failure to reduce the primary fiscal deficits from current levels or lower growth as a result of external and natural disaster shocks could easily set the debt on an upward path and derail debt reduction efforts.

EXTERNAL DSA

9. External debt outlook. External debt is projected to increase from an estimated 71 percent of GDP at the end of FY 2010 to a peak of 82 percent in FY 2014, before declining gradually over the medium term in line with the current account deficit (Table 4). Driving this dynamics is private debt, which is assumed to finance the share of the current account deficit not already covered by FDI, grants or the pubic sector. Debt levels and dynamics differ significantly from the past Article IV in that: (i) the stock of external debt has been revised to include—in addition to public debt— foreign liabilities of commercial banks and other private debt that is assumed to cover the residual external financing needs over the projection period; (ii) FDI and grants are no longer assumed to finance the entire current account over the medium-term, and gradually return to their historical levels (or somewhat lower in the case of grants, as discussed above); and (iii) public external debt dynamics is less benign in light of the worsening overall public debt outlook.

External debt
(In percent of GDP)



10. Risks. The risks to the external debt outlook are broadly balanced. On the upside, a stronger fiscal adjustment over the medium-term or stronger FDI and grant inflows would improve the external debt profile. On the downside, higher-than-assumed current account deficits or lower non-debt creating inflows would push external debt higher than in staff's projections. It should also be noted that data for private exernal debt other than commercial banks are not available, although it is not expected to be large.

11. Public external debt. For the purposes of assessing public external debt vulnerabilities, Dominica is rated as a strong performer according to the World Bank's Country Policy and Institutional Assessment rating (CPIA), reflecting strong economic policies followed over the years.[5] The applicable prudential thresholds on various public external debt indicators for strong performers are reported in the table below.

- In the baseline scenario, none of the five debt burden thresholds applicable to the ratios of public external debt are breached, and debt service ratios in particular are well below the thresholds for the entire horizon of the projection (Figure 2, Table 5).

- Projections under alternative scenarios and stress tests keep debt indicators below the thresholds under most scenarios, but indicate vulnerability to a deterioration in the terms of new borrowing (which leads to a breach of two thresholds, relating to the debt ratio to GDP and to exports) and higher current account deficits than assumed in the baseline (as public debt is assumed to finance the residual gap).

Debt Burden Thresholds under the Debt Sustainability Framework
(Applying to external public debt)

	PV of debt in percent of			Debt Service in percent of GDP	
	Exports	GDP	Revenue	Exports	Revenue
Strong policy	200	50	300	25	35

Source: SM/10/16. Staff Guidance on the Application of the Joint Fund- Bank Debt Sustainability Framework for Low Income Countries.

CONCLUSION AND DEBT DISTRESS CLASSIFICATION

12. The public debt outlook has deteriorated relative to previous assessments due to a weaker underlying fiscal position. In the absence of a stronger adjustment effort than embedded in staff's baseline scenario, debt would decline only slowly over the medium term, from 67.3 percent of GDP in FY 2010 to somewhat below 60 percent in 2020. Given the country's vulnerability to external and natural disaster risks, this profile does not provide sufficient assurances that debt would remain on a downward path under a series of plausible shocks. A return to the authorities' long-standing primary surplus target of 2.4 percent of GDP over the next few years

[5] The CPIA offers ratings for countries based on criteria describing the strength of economic management, structural policies, policies for social inclusion and equity, and the quality of public sector management and institutions. The 2009 CPIA rating for Dominica is 3.81, putting it in a "strong performer" category.

would rebuild the necessary cushions and set the debt on a firmly downward path.

13. The external debt outlook has also deteriorated, reflecting the revision of the total debt stock to include commercial bank debt and weaker prospects for non-debt-creating inflows to finance the large current account deficit.

14. Dominica's risk of public external debt distress remains moderate. This reflects the expectation that most thresholds for debt stocks and debt service would be respected under the baseline and stress scenarios, as well as the broadly balanced risks to the debt outlook.

Table 1. Dominica: Public Sector Debt, 2010–11
(In millions of EC dollars)

		Percent of	
	Stock	Total Debt	GDP
Nonfinancial public sector	878.7	100.0	67.3
Central government	733.6	83.5	56.2
Public enterprises	145.1	16.5	11.1
External	639.7	72.8	49.0
Multilateral	394.1	44.8	30.2
CDB	225.7	25.7	17.3
EIB	5.8	0.7	0.4
IBRD	1.8	0.2	0.1
IDA	77.3	8.8	5.9
IFAD	5.0	0.6	0.4
IMF	50.3	5.7	3.9
Other multilateral	28.2	3.2	2.2
Bilateral	136.3	15.5	10.4
Paris Club	21.6	2.5	1.7
France	21.6	2.5	1.7
Non-Paris Club	114.7	13.1	8.8
China	51.5	5.9	3.9
Bahamas	0.0	0.0	0.0
Barbados	13.5	1.5	1.0
Belize	2.7	0.3	0.2
Grenada	2.7	0.3	0.2
Trinidad and Tobago	10.7	1.2	0.8
Kuwait	17.4	2.0	1.3
Venezuela	16.2	1.8	1.2
Commercial banks	91.9	10.5	7.0
Other 1/	17.4	2.0	1.3
Domestic	239.0	27.2	18.3
Bank loans	13.2	1.5	1.0
Overdraft	12.4	1.4	0.9
Treasury Bills	42.7	4.9	3.3
Medium-long term securities	123.0	14.0	9.4
Other 2/	47.6	5.4	3.6

Sources: Dominica authorities and Fund staff estimates
1/ Includes private and monetary authorities
2/ Includes debt with Dominica Social Security

Table 2. Dominica: Public Sector Debt Sustainability Framework, Baseline Scenario, 2008–2031 1/
(In percent of GDP; unless otherwise indicated)

	Actual					Estimate	Projections								
	2008	2009	2010	Average 2/	Standard Deviation 2/	2011	2012	2013	2014	2015	2016	2011-16 Average	2021	2031	2017-31 Average
Public sector debt 3/	64.7	64.2	67.3			67.3	66.7	65.4	64.2	63.1	62.2		58.2	50.6	
o/w foreign-currency denominated	45.4	45.0	49.0			49.2	48.9	48.0	47.2	46.4	45.9		43.3	38.2	
Change in public sector debt	-9.3	-0.4	3.1			0.0	-0.6	-1.3	-1.2	-1.1	-0.9		-0.7	-0.7	
Identified debt-creating flows	-5.6	0.1	2.1			0.0	-0.6	-1.3	-1.2	-1.1	-0.9		-0.7	-0.7	
Primary deficit	-2.5	-1.2	1.2	-2.1	2.6	0.3	-0.2	-0.7	-0.5	-0.4	-0.4	-0.3	-0.3	-0.1	-0.2
Revenue and grants	44.6	45.8	40.7			40.3	39.5	39.2	39.0	38.9	38.9		38.9	38.9	
of which: grants	8.9	8.8	4.7			5.0	4.5	4.5	4.5	4.5	4.5		4.5	4.5	
Primary (noninterest) expenditure	42.1	44.6	41.9			40.6	39.3	38.4	38.5	38.5	38.6		38.6	38.8	
Automatic debt dynamics	-3.1	1.2	0.9			-0.3	-0.4	-0.6	-0.7	-0.7	-0.5		-0.5	-0.7	
Contribution from interest rate/growth differential	-4.5	1.8	1.1			0.6	-0.1	-0.5	-0.8	-0.9	-0.6		-0.7	-0.5	
of which: contribution from average real interest rate	0.8	1.4	1.3			1.2	0.9	0.6	0.6	0.6	0.5		0.5	0.1	
of which: contribution from real GDP growth	-5.3	0.5	-0.2			-0.6	-1.0	-1.1	-1.4	-1.4	-1.2		-1.1	-0.6	
Contribution from real exchange rate depreciation	1.4	-0.6	-0.2			-0.8	-0.2	0.0	0.1	0.2	0.1		...	...	
Residual, including asset changes	-3.7	-0.5	1.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other Sustainability Indicators															
PV of public sector debt	...	...	58.7			57.6	55.9	53.8	51.6	49.9	48.6		46.2	39.6	
o/w foreign-currency denominated	...	...	40.4			39.5	38.0	36.3	34.5	33.3	32.3		31.2	27.2	
o/w external	...	...	40.4			39.5	38.0	36.3	34.5	33.3	32.3		31.2	27.2	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 4/	1.8	3.9	5.1			8.5	6.9	6.9	7.7	7.1	7.3		8.8	7.5	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	144.4			142.8	141.6	137.4	132.2	128.3	125.0		118.6	101.7	
PV of public sector debt-to-revenue ratio (in percent)	...	...	163.2			163.2	159.8	155.1	149.6	145.1	141.4		134.2	115.1	
o/w external 5/	...	...	112.3			111.8	108.7	104.7	100.1	96.7	93.9		90.8	79.0	
Debt service-to-revenue and grants ratio (in percent) 4/	9.7	11.1	9.6			20.5	17.9	19.5	21.0	19.2	19.7		23.3	19.5	
Debt service-to-revenue ratio (in percent) 6/	12.1	13.8	10.8			23.4	20.2	22.0	23.8	21.7	22.3		26.4	22.0	
Primary deficit that stabilizes the debt-to-GDP ratio	6.8	-0.7	-1.9			0.3	0.4	0.6	0.7	0.7	0.5		0.5	0.7	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	7.8	-0.7	0.3	1.8	3.4	0.9	1.5	1.7	2.2	2.3	1.9	1.8	2.0	1.2	1.9
Average nominal interest rate on forex debt (in percent)	2.1	3.1	2.3	2.5	0.3	2.2	2.3	2.2	2.1	2.0	1.9	2.1	1.3	0.8	1.2
Average real interest rate on domestic debt (in percent)	4.1	2.0	2.2	1.7	2.0	2.3	2.6	2.7	3.3	3.6	3.5	3.0	5.0	4.5	4.7
Real exchange rate depreciation (in percent, + indicates depreciation)	2.9	-1.3	-0.3	0.1	1.9	-1.7	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	-0.7	2.2	0.7	2.2	2.2	2.4	2.0	2.0	1.8	1.7	1.8	1.9	1.5	2.4	1.6
Growth of real primary spending (deflated by GDP deflator, in percent)	0.1	0.1	-0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	30.9	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	...

Sources: Country authorities; and staff estimates and projections.
1/ Figures shown for a given calendar year relate to the fiscal year beginning on July 1 of that year.
2/ Historical averages an standard deviations are generally derived over the past 10 years, subjecto to data availability.
3/ Nonfinancial public sector.
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.
5/ Revenues excluding grants.
6/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

Table 3. Dominica: Sensitivity Analysis for Key Indicators of Public Debt 2011–2031
(In percent)

	Projections							
	2011	2012	2013	2014	2015	2016	2021	2031
PV of Debt-to-GDP Ratio								
Baseline	58	56	54	52	50	49	46	40
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	58	54	50	47	44	41	30	4
A2. Primary balance is unchanged from 2011	58	56	55	54	53	52	52	49
A3. Permanently lower GDP growth 1/	58	57	55	54	54	54	63	101
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	58	59	61	60	61	62	70	84
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	58	56	55	54	53	52	53	47
B3. Combination of B1-B2 using one half standard deviation shocks	58	56	55	53	53	52	55	58
B4. One-time 30 percent real depreciation in 2012	58	72	70	66	64	63	61	57
B5. 15 percent of GDP increase in other debt-creating flows in 2012	58	70	68	66	64	63	60	54
PV of Debt-to-Revenue Ratio 2/								
Baseline	143	142	137	132	128	125	119	102
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	143	137	129	120	112	105	77	11
A2. Primary balance is unchanged from 2011	143	143	141	138	136	134	134	127
A3. Permanently lower GDP growth 1/	143	143	141	139	138	139	162	255
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	143	148	154	154	155	157	178	214
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	143	143	141	137	135	134	136	120
B3. Combination of B1-B2 using one half standard deviation shocks	143	142	139	137	135	134	140	148
B4. One-time 30 percent real depreciation in 2012	143	183	178	170	165	161	156	147
B5. 15 percent of GDP increase in other debt-creating flows in 2012	143	178	174	169	165	162	155	138
Debt Service-to-Revenue Ratio 2/								
Baseline	20	18	19	21	19	20	23	19
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	20	18	19	18	17	16	15	0
A2. Primary balance is unchanged from 2011	20	18	20	22	21	21	26	25
A3. Permanently lower GDP growth 1/	20	18	20	22	21	22	31	50
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2012-2013	20	18	21	24	24	25	34	43
B2. Primary balance is at historical average minus one standard deviations in 2012-2013	20	18	20	22	21	21	27	24
B3. Combination of B1-B2 using one half standard deviation shocks	20	18	20	21	20	21	27	29
B4. One-time 30 percent real depreciation in 2012	20	20	25	29	27	29	37	42
B5. 15 percent of GDP increase in other debt-creating flows in 2012	20	18	21	41	21	30	32	28

Sources: Country authorities; and staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.

2/ Revenues are defined inclusive of grants.

Table 4. Dominica: External Debt Sustainability Framework, Baseline Scenario, 2008–2031[1/]

(In percent of GDP; unless otherwise indicated)

	Actual			Historical Average 2/	Standard Deviation 2/	Projections									
	2008	2009	2010			2011	2012	2013	2014	2015	2016	2011-2016 Average	2021	2031	2017-2031 Average
External debt 3/	**65.9**	**65.6**	**70.7**			**75.0**	**79.5**	**81.9**	**82.4**	**81.8**	**81.7**		**75.6**	**62.3**	
o/w public and publicly guaranteed (PPG)	45.4	45.0	49.0			49.2	48.9	48.0	47.2	46.4	45.9		43.3	38.2	
Change in external debt	-6.8	-0.3	5.0			4.4	4.5	2.4	0.5	-0.6	-0.1		-1.5	-1.2	
Identified net debt-creating flows	8.4	11.8	14.3			15.0	13.6	11.8	9.7	8.8	8.3		7.8	7.0	
Non-interest current account deficit	**23.4**	**19.3**	**19.7**	**15.5**	**4.5**	**20.4**	**19.5**	**18.1**	**16.5**	**15.9**	**15.3**		**15.1**	**14.1**	14.8
Deficit in balance of goods and services	25.3	22.5	22.5			23.0	22.1	20.7	19.1	18.4	17.7		17.4	16.3	
Exports	35.7	32.3	31.4			31.8	31.9	31.9	31.9	32.0	32.1		32.6	33.7	
Imports	61.0	54.8	53.9			54.9	54.0	52.5	51.0	50.4	49.9		50.0	50.0	
Net current transfers (negative = inflow)	-4.0	-4.0	-4.1	-4.5	0.6	-4.1	-4.1	-4.1	-4.1	-4.1	-4.1		-4.2	-4.4	-4.3
o/w official	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Other current account flows (negative = net inflow)	2.2	0.9	1.3			1.5	1.5	1.5	1.6	1.6	1.7		1.9	2.2	
Net FDI (negative = inflow)	**-12.0**	**-8.6**	**-6.3**	**-7.5**	**2.2**	**-6.4**	**-6.5**	**-6.6**	**-6.7**	**-6.8**	**-6.9**		**-6.9**	**-7.1**	-6.9
Endogenous debt dynamics 4/	**-3.0**	**1.1**	**0.9**			**1.0**	**0.7**	**0.3**	**-0.1**	**-0.3**	**-0.1**		**-0.4**	**0.0**	
Contribution from nominal interest rate	1.7	2.0	1.6			1.7	1.7	1.7	1.6	1.5	1.4		1.1	0.7	
Contribution from real GDP growth	-5.3	0.5	-0.2			-0.6	-1.1	-1.3	-1.7	-1.8	-1.5		-1.5	-0.8	
Contribution from price and exchange rate changes	0.5	-1.4	-0.5			...	...	...	...	...	...		...	...	
Residual (3-4) 5/	**-15.1**	**-12.0**	**-9.3**			**-10.7**	**-9.1**	**-9.4**	**-9.2**	**-9.4**	**-8.4**		**-9.3**	**-8.2**	
o/w capital grants	-12.2	-9.2	-9.1			-6.0	-5.1	-5.0	-5.0	-5.0	-5.0		-5.2	-5.2	
PV of external debt 6/	...	...	62.0			65.3	68.7	70.3	69.7	68.6	68.1		63.6	51.3	
In percent of exports	...	...	197.4			205.1	215.3	220.4	218.4	214.2	211.9		195.2	152.3	
PV of PPG external debt	**...**	**...**	**40.4**			**39.5**	**38.0**	**36.3**	**34.5**	**33.3**	**32.3**		**31.2**	**27.2**	
In percent of exports	**...**	**...**	**128.6**			**123.9**	**119.2**	**114.0**	**108.1**	**103.9**	**100.5**		**95.9**	**80.7**	
In percent of government revenues	**...**	**...**	**112.3**			**111.8**	**108.7**	**104.7**	**100.1**	**96.7**	**93.9**		**90.8**	**79.0**	
Debt service-to-exports ratio (in percent)	**10.7**	**14.1**	**11.5**			**18.8**	**15.3**	**16.4**	**19.2**	**16.4**	**16.5**		**15.5**	**10.5**	
PPG debt service-to-exports ratio (in percent)	**8.8**	**12.1**	**9.7**			**16.8**	**13.2**	**14.4**	**17.3**	**14.6**	**14.7**		**14.0**	**9.4**	
PPG debt service-to-revenue ratio (in percent)	**8.8**	**10.5**	**8.5**			**15.2**	**12.0**	**13.2**	**16.0**	**13.6**	**13.8**		**13.3**	**9.2**	
Total gross financing need (Millions of U.S. dollars)	71.8	73.0	82.3			99.7	92.2	89.4	89.3	83.5	82.3		95.0	107.9	
Non-interest current account deficit that stabilizes debt ratio	30.2	19.6	14.7			16.0	15.0	15.7	16.1	16.5	15.4		16.6	15.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	7.8	-0.7	0.3	1.8	3.4	0.9	1.5	1.7	2.2	2.3	1.9	1.8	2.0	1.2	1.9
GDP deflator in US dollar terms (change in percent)	-0.7	2.2	0.7	2.2	2.2	2.4	2.0	2.0	1.8	1.7	1.8	1.9	1.5	2.4	1.6
Effective interest rate (percent) 7/	2.5	3.1	2.5	3.1	0.5	2.4	2.4	2.2	2.0	1.9	1.8	2.1	1.4	1.1	1.3
Growth of exports of G&S (US dollar terms, in percent)	13.8	-8.2	-1.8	0.9	9.3	4.7	3.7	3.7	4.2	4.3	4.1	4.1	3.8	5.4	3.9
Growth of imports of G&S (US dollar terms, in percent)	21.6	-8.8	-0.6	4.1	11.2	5.2	2.0	0.9	1.0	2.8	2.6	2.4	3.5	3.8	3.6
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	30.9	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3	31.3
Government revenues (excluding grants, in percent of GDP)	35.6	37.0	36.0			35.3	35.0	34.7	34.5	34.4	34.4		34.4	34.4	34.4
Aid flows (in Millions of US dollars) 8/	42.2	42.3	22.6			49.6	41.3	41.9	50.9	48.3	50.9		65.0	80.6	
o/w Grants	42.2	42.3	22.6			25.2	23.2	23.9	25.2	26.2	27.2		32.4	46.1	
o/w Concessional loans	0.0	0.0	0.0			24.4	18.0	18.0	25.7	22.1	23.7		32.7	34.4	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			6.7	5.6	5.5	6.0	5.7	5.8		5.9	5.6	5.8
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			64.5	70.0	70.5	65.3	68.6	68.0		65.5	70.6	67.6
Memorandum items:															
Nominal GDP (Millions of US dollars)	471.2	478.2	483.3		-1.1	499.1	516.7	536.0	557.6	579.9	601.3		716.2	1020.9	
Nominal dollar GDP growth	7.0	1.5	1.1		-0.3	3.3	3.5	3.7	4.0	4.0	3.7	3.7	3.5	3.7	3.6
PV of PPG external debt (in Millions of US dollars)			195.3			196.9	196.6	194.8	192.4	192.9	194.3		223.8	277.3	
(PVt-PVt-1)/GDPt-1 (in percent)						0.3	-0.1	-0.3	-0.4	0.1	0.2	0.0	1.2	0.2	0.7

Sources: Country authorities; and staff estimates and projections.

1/ Figures shown for a given calendar year relate to the fiscal year beginning on July of that year.
2/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
3/ Includes both public and private sector external debt.
4/ Derived as [r - g - ρ(1+g)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP
5/ Includes excepcional 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.
6/ Assumes that PV of private sector debt is equivalent to its face value.
7/ Current year interest payments divided by previous period debt stock.
8/ Defined as grants, concessional loans, and debt relief.

Table 5a. Dominica: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011–2031
(In percent)

		Projections						
	2011	2012	2013	2014	2015	2016	**2021**	2031
PV of debt-to GDP ratio								
Baseline	39	38	36	35	33	32	**31**	27
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	39	33	28	25	22	21	**18**	19
A2. New public sector loans on less favorable terms in 2011-2031 2	39	40	40	40	41	42	**52**	68
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	39	39	39	37	35	34	**33**	29
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	39	42	46	45	43	42	**41**	34
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	39	39	38	36	35	34	**32**	28
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	39	39	39	37	36	35	**34**	29
B5. Combination of B1-B4 using one-half standard deviation shocks	39	41	45	44	42	41	**40**	33
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	39	54	51	49	47	46	**44**	38
PV of debt-to-exports ratio								
Baseline	124	119	114	108	104	101	**96**	81
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	124	104	88	77	70	65	**54**	56
A2. New public sector loans on less favorable terms in 2011-2031 2	124	124	124	125	127	129	**159**	202
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	124	119	114	108	104	101	**96**	81
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	124	147	186	179	173	169	**163**	129
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	124	119	114	108	104	101	**96**	81
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	124	123	122	116	112	109	**104**	86
B5. Combination of B1-B4 using one-half standard deviation shocks	124	137	158	151	146	142	**137**	110
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	124	119	114	108	104	101	**96**	81
PV of debt-to-revenue ratio								
Baseline	112	109	105	100	97	94	**91**	79
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	112	95	81	71	65	61	**51**	55
A2. New public sector loans on less favorable terms in 2011-2031 2	112	113	114	116	118	121	**150**	198
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	112	112	112	107	103	100	**97**	84
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	112	119	134	129	126	123	**120**	99
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	112	111	109	104	101	98	**94**	82
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	112	112	112	108	104	102	**99**	84
B5. Combination of B1-B4 using one-half standard deviation shocks	112	118	131	126	123	120	**117**	97
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	112	154	148	142	137	133	**129**	112

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same.
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

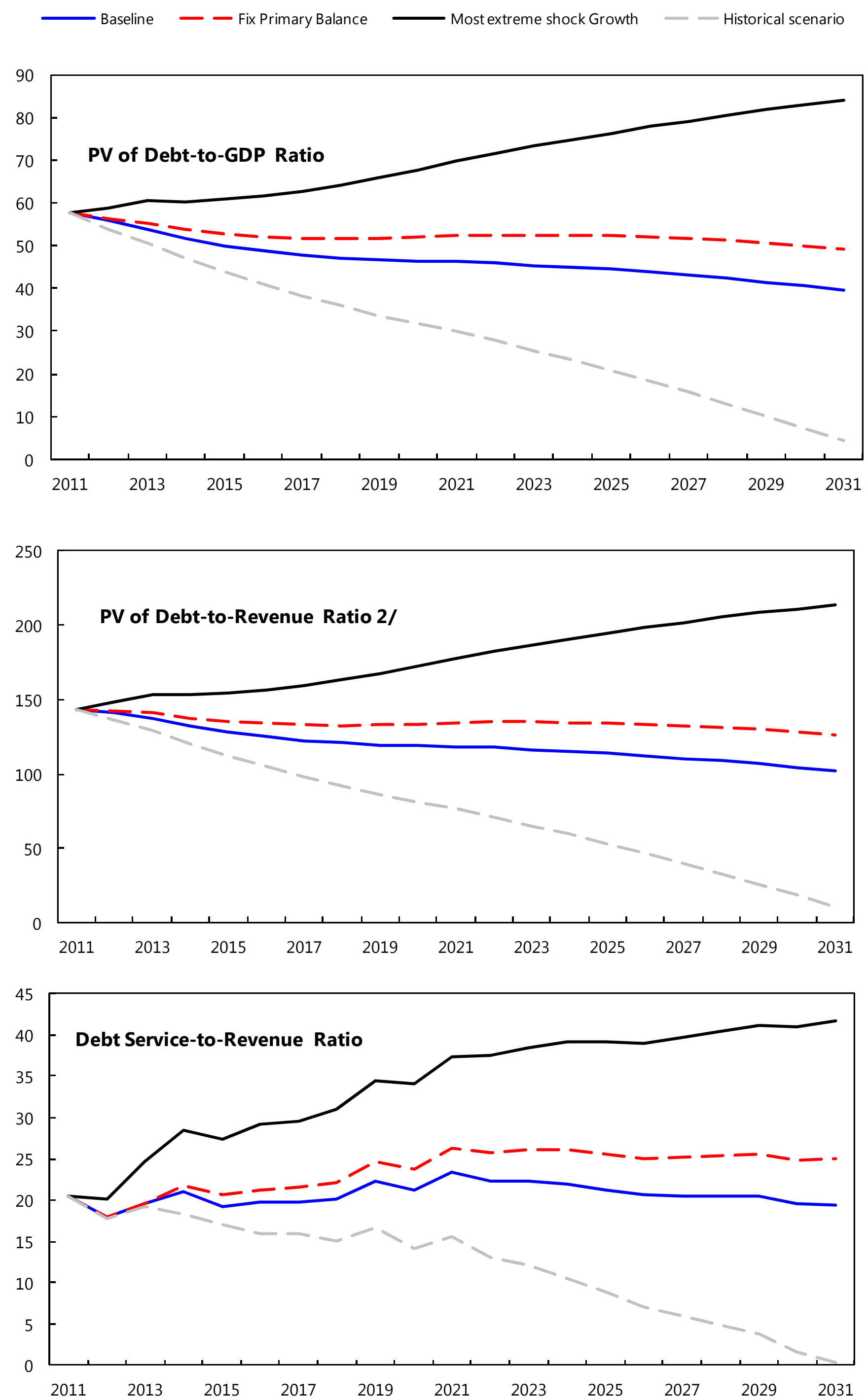
Table 5b. Dominica: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2011–2031
(In percent)

	Projections							
	2011	2012	2013	2014	2015	2016	**2021**	2031
Debt service-to-exports ratio								
Baseline	17	13	14	17	15	15	**14**	9
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	17	11	11	13	10	9	**7**	6
A2. New public sector loans on less favorable terms in 2011-2031 /2	17	11	11	14	11	11	**10**	13
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	17	11	12	14	11	10	**8**	8
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	17	13	16	20	15	15	**12**	13
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	17	11	12	14	11	10	**8**	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	17	11	12	14	11	11	**8**	9
B5. Combination of B1-B4 using one-half standard deviation shocks	17	12	14	17	14	13	**10**	11
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	17	11	12	14	11	10	**8**	8
Debt service-to-revenue ratio								
Baseline	15	12	13	16	14	14	**13**	9
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2011-2031 1/	15	10	10	12	9	9	**6**	6
A2. New public sector loans on less favorable terms in 2011-2031 /2	15	10	11	13	10	10	**10**	13
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2012-2013	15	11	12	14	11	10	**8**	9
B2. Export value growth at historical average minus one standard deviation in 2012-2013 3/	15	10	11	14	11	11	**9**	10
B3. US dollar GDP deflator at historical average minus one standard deviation in 2012-2013	15	11	11	14	11	10	**8**	9
B4. Net non-debt creating flows at historical average minus one standard deviation in 2012-2013 4/	15	10	11	13	10	10	**8**	9
B5. Combination of B1-B4 using one-half standard deviation shocks	15	11	12	14	11	11	**9**	10
B6. One-time 30 percent nominal depreciation relative to the baseline in 2012 5/	15	15	15	19	14	14	**11**	12
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	7	7	7	7	7	7	**7**	7

Sources: Country authorities; and staff estimates and projections.

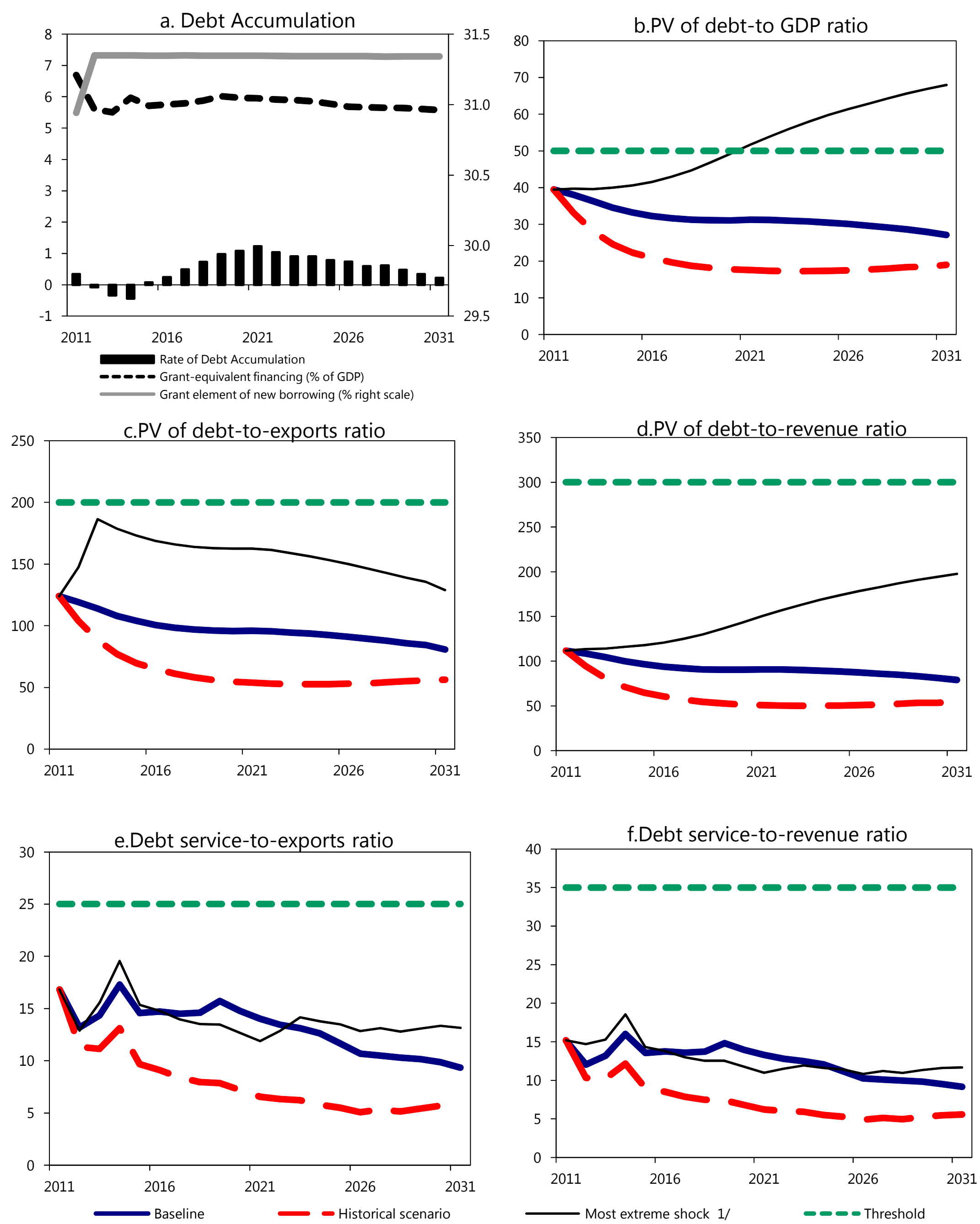
1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.
2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline, while grace and maturity periods are the same.
3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).
4/ Includes official and private transfers and FDI.
5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.
6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Figure 1. Dominica: Indicators of Public Debt Under Alternative Scenarios, 2011–2031[1/]



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2021.
2/ Revenues are defined inclusive of grants.

Figure 2. Dominica: Indicators of Public External Debt Under Alternative Scenarios, 2011–2031[1/]



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2021. In figure b. it corresponds to a Terms shock; in c. to a Exports shock; in d. to a Terms shock; in e. to a Exports shock and in figure f. to a One-time depreciation shock