INTERNATIONAL MONETARY FUND

ST. LUCIA

External and Public Debt Sustainability Analysis

Prepared by the Staff of the International Monetary Fund

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This debt sustainability analysis (DSA) assesses the sustainability of St. Lucia's public and external debt. The analysis suggests that, barring further shocks to the economy (including a prolonged weakness in the global economy and natural disasters), the baseline scenario, as discussed in this staff report, will achieve debt sustainability. St. Lucia's risk of external debt distress is moderate.

VII. Introduction

1. Notwithstanding a significant weakening of economic activity in recent years, the authorities continued to make progress in reducing macroeconomic imbalances. Real GDP growth declined steadily from an average of 3.7 percent during 2004–07 to 0.7 percent in 2008, due largely to slowing construction and tourism activities. However, fiscal imbalances narrowed during the same period, reflecting higher tax collection, and despite the impact of rising food and fuel prices. Primary surpluses of 0.7 and 0.2 percent of GDP were achieved in 2007 and 2008, respectively, the first since 2000. As a result, gross public sector debt declined from 70⅓ percent of GDP in 2007 to 67⅓ percent in 2008.

VIII. Underlying DSA Assumptions

2. The **baseline scenario** assumes the authorities will implement the near-term policies agreed with staff. In the medium term, growth is projected at around 4 percent, driven by a recovery in tourism and construction activities starting in 2011. While these main parameters imply a rate of growth lower than the staff projections and assumptions in the 2008 Article IV consultation DSA, they are consistent with the lower growth observed in recent years and the global economic outlook, according to the latest IMF *World Economic Outlook* (WEO). Inflation is projected to remain low, consistent with historical averages and the currency board arrangement. Interest rates are assumed to be around 5 percent a year—a combination of St. Lucia's current borrowing costs on the Regional Government Securities Market (RGSM) and, to a lesser extent, the rates applicable to concessional financing.

3. On the revenue side, new measures include the introduction of a flexible petroleum pricing mechanism, a market valuation-based property tax, a single-rate VAT (in 2010), and an increase in taxes on alcoholic beverages, cigarettes, and vehicle registration. On the expenditure side, social expenditure would increase in the short term (2009–10), while

capital expenditure falls in 2009 and increases gradually in the medium term. Annual disbursements of external capital grants peak at 4.8 percent of GDP in 2009, mainly due to grants from the European Union. In the medium term, grants are expected to remain stable at about 0.8 percent of GDP, consistent with historical averages. The current account deficit is assumed to widen, following a sharp decline in 2009–10, due to a recovery in construction- and tourism-related imports.

Box 1. Macroeconomic Assumptions (2009–29)

- Following a prolonged slowdown in the aftermath of the global recession, real GDP growth is projected to average about 4 percent over the longer term. Inflation is expected to remain in the low single digits, anchored by the currency board arrangement.

- The primary balance of the central government (including grants) is projected to average about 1.1 percent of GDP, reflecting revenue and expenditure measures committed to by the authorities. On the revenue side, new measures include the introduction of a flexible petroleum pricing mechanism, a market valuation-based property tax, and a single-rate VAT. On the expenditure side, emphasis is on rationalization and cost control of current expenditure, and prioritization of capital expenditure. After 2009 the nominal wage bill remains constant, while capital spending rises slowly to about 10½ percent of GDP.

- Annual grants are conservatively projected at 0.8 percent of GDP, consistent with the historical average.

- The current account deficit is projected to narrow in 2009, due to a decline in economic activity and FDI-related imports. However, as tourism and construction activities pick up over the medium term, the current account deficit is expected to stabilize at about 22 percent of GDP, largely financed by FDI.

- Following a sharp decline in 2008–09, FDI is assumed to rise to around 19 percent of GDP by 2014.

IX. Evaluation of Public Sector Debt Sustainability

4. At end-2008 public debt stood at 67⅓ percent of GDP, the lowest level in the ECCU. The economic downturn would raise the fiscal deficit and the debt-to-GDP ratio in 2009–11. In subsequent years, strengthened revenue administration and tightened expenditure controls would contribute to higher primary surpluses and a gradual decline in St. Lucia's public debt-to-GDP ratio over the medium term, with the public debt-to-GDP ratio falling below

60 percent—the Eastern Caribbean Central Bank's benchmark—by 2017. All other debt indicators (PV of debt-to-revenue ratio, debt service-to-revenue ratio) show similar patterns of steady improvement, particularly with debt service as a share of current revenue falling from 30 percent in 2009 to about 17 percent in 2029.

5. At end-2008 external and domestic debt represent 38 percent and 29 percent of GDP, respectively. Regarding the stock of external debt, the largest creditors are multilaterals (about 21 percent of GDP). The Caribbean Development Bank alone holds 14 percent of GDP, followed by the World Bank Group (7 percent of GDP). In the future, most of new external borrowing requirements are expected to be financed commercially through the ECCU's RGSM. Regarding the stock of domestic debt, the largest share is owed to commercial banks.

6. Sensitivity analysis shows that economic growth is a key driver of St. Lucia's debt dynamics. If growth is assumed to remain at one standard deviation below the baseline, the PV of debt-to-GDP ratio will reach 85 percent by 2029 (Table A2, Scenario A3). If both annual growth and the primary deficit were kept at historical levels, the PV of debt-to-GDP ratio would reach 108 percent by 2029 (Table A2, Scenario A1). The impact of a potential natural disaster on St. Lucia's debt dynamics is also important—if a hurricane was to hit in 2010, increasing the primary deficit by 3 percent of GDP for three years and reducing growth to zero, then the PV of debt-to-GDP ratio would reach 82 percent by 2012, declining to 51 percent by 2029 (Table A2, Scenario A4).[6]

X. Evaluation of External Debt Sustainability

7. St. Lucia's external debt sustainability analysis includes only public sector debt, as data on private sector external borrowing are not available. As a result, the external DSA follows a similar pattern as that of the public sector DSA.

8. Under the baseline scenario, the PV of external debt declines to about 29 percent of GDP by 2029, well below the prudential threshold of 50 percent.[7] [8] All other debt and debt service ratios also remain relatively stable and below relevant indicative thresholds.

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[6] The actual impact of this shock could be lower, given the participation of St. Lucia in the Caribbean Catastrophe Risk Insurance Facility, a regional insurance pool.

[7] The DSA uses policy-dependent external debt-burden indicators. Policy performance is measured by the Country Policy and Institutional Assessment Index (CPIA), compiled annually by the World Bank. The CPIA divides countries into three performance categories (strong, medium and poor) based on the overall quality of its macroeconomic policies, with strong performers having higher prudential thresholds than poor performers. St. Lucia is classified by the CPIA as a strong performer, implying prudential thresholds on PV of debt-to-GDP, debt-to-exports and debt-to-revenue of 50, 200 and 300 percent, respectively.

9. Sensitivity analysis shows that the level of external debt is most responsive to an extreme shock of nominal exchange rate depreciation. Under this scenario—with a one-time 30 percent nominal depreciation relative to the baseline in 2010—the PV of external debt-to-GDP ratio would breach the debt-to-GDP threshold of 50 percent (Table A4, Scenario B6). Similarly, the most extreme export shock scenario—of export growth at one standard deviation below the historical average in 2010–11—would push the debt service-to-exports ratio to slightly above the 25 percent threshold in one year (Table A4, Scenario B2).

XI. Conclusions

10. Staff analysis shows that, under the baseline scenario (with an average primary surplus of around 1 percent of GDP over the medium term), imbalances for the overall public sector would be on a decreasing and sustainable path, achieving a public debt-to-GDP ratio of 60 percent by 2017—three years earlier than the timetable for attaining the debt benchmark of the Eastern Caribbean Central Bank. St. Lucia would then continue to reduce its stock of public debt steadily, reaching 43 percent of GDP by 2029.

11. St. Lucia faces a moderate risk of external debt distress. While the baseline scenario indicates no breach of any threshold over the projection period (2009–29), the most extreme shock scenario suggests breaches of the PV of debt-to-GDP and debt service-to-exports thresholds. As private external debt data are not available, some caution should be used in interpreting these results, which cover public external debt only.

[8] St. Lucia is classified as a strong performer for its present policy and institutional framework, based on an average CPIA score of 3.96 for 2005–07.

Table A1.St. Lucia: Public Sector Debt Sustainability Framework, Baseline Scenario, 2006–29
(In percent of GDP, unless otherwise indicated)

	Actual			Average 1/	Standard Deviation 1/	Estimate	Projections								
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
Public sector debt 2/	65.0	70.3	67.3			69.8	71.6	72.3	70.5	68.3	65.8		54.6	43.2	
Of which: Foreign-currency denominated	43.2	43.9	37.9			40.6	41.3	41.2	40.1	39.5	38.7		33.9	28.6	
Change in public sector debt	-2.0	5.3	-2.9			2.5	1.8	0.8	-1.8	-2.3	-2.5		-2.2	-0.7	
Identified debt-creating flows	2.0	0.7	1.4			2.6	1.9	1.0	-1.7	-2.1	-2.4		-2.2	-0.7	
Primary deficit	2.6	-0.7	-0.2	1.4	1.7	-0.8	-0.3	-0.2	-1.5	-1.8	-2.0	-1.1	-1.8	-0.4	-1.1
Revenue and grants	27.1	28.4	32.7			34.1	33.0	32.6	33.7	33.8	33.8		33.9	33.8	
Of which: Grants	0.3	0.2	2.3			4.9	2.5	0.8	0.8	0.8	0.8		0.8	0.8	
Primary (noninterest) expenditure	29.7	27.7	32.5			33.3	32.7	32.4	32.2	32.1	31.9		32.1	33.4	
Automatic debt dynamics	-0.5	1.4	1.6			3.4	2.2	1.1	-0.2	-0.4	-0.4		-0.4	-0.3	
Contribution from interest rate/growth differential	-1.5	0.7	1.5			4.2	3.2	1.8	0.1	-0.3	-0.3		0.1	0.1	
Of which: Contribution from average real interest rate	1.7	1.8	2.0			2.5	3.0	3.1	2.6	2.4	2.3		2.3	1.8	
Of which: Contribution from real GDP growth	-3.2	-1.1	-0.5			1.7	0.3	-1.3	-2.6	-2.6	-2.6		-2.2	-1.7	
Contribution from real exchange rate depreciation	0.9	0.7	0.0			-0.8	-1.0	-0.6	-0.3	-0.1	-0.1		...	...	
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	
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 implicit or contingent liabilities	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 (specify, 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	
Residual, including asset changes	-4.0	4.5	-4.3			-0.1	-0.1	-0.2	-0.1	-0.1	-0.1		0.0	0.0	
Other Sustainability Indicators															
PV of public sector debt	65.0	70.3	67.3			68.4	70.4	71.3	69.7	67.5	65.1		54.6	43.2	
Of which: Foreign-currency denominated	43.2	43.9	37.9			39.2	40.1	40.1	39.2	38.7	38.1		33.9	28.6	
Of which: External	43.2	43.9	37.9			39.2	40.1	40.1	39.2	38.7	38.1		33.9	28.6	
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	
Gross financing need 3/	10.3	12.2	11.3			9.3	9.2	6.9	6.2	4.3	3.7		4.2	5.5	
PV of public sector debt-to-revenue and grants ratio (in percent)	239.9	247.5	205.9			200.4	213.0	218.9	206.8	199.5	192.5		161.1	127.8	
PV of public sector debt-to-revenue ratio (in percent)	242.3	249.7	221.1			233.8	230.5	224.3	211.8	204.3	197.1		165.0	130.9	
Of which: External 4/	161.0	156.0	124.5			133.9	131.2	126.2	119.2	117.2	115.2		102.4	86.7	
Debt service-to-revenue and grants ratio (in percent) 5/	28.6	45.3	34.9			29.6	28.7	21.8	22.9	18.0	16.7		17.6	17.2	
Debt service-to-revenue ratio (in percent) 5/	28.9	45.7	37.5			34.6	31.1	22.3	23.5	18.4	17.1		18.0	17.6	
Primary deficit that stabilizes the debt-to-GDP ratio	4.6	-5.9	2.8			-3.3	-2.1	-0.9	0.3	0.5	0.5		0.4	0.3	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	4.9	1.7	0.7	1.9	2.7	-2.5	-0.4	1.8	3.7	3.9	3.9	1.7	4.0	4.0	4.0
Average nominal interest rate on forex debt (in percent)	5.0	4.4	4.3	3.9	1.2	5.3	5.4	5.3	5.3	5.4	5.4	5.3	5.3	5.4	5.4
Average real interest rate on domestic debt (in percent)	4.8	5.0	4.2	4.5	1.7	2.6	3.2	3.9	3.8	3.6	3.6	3.5	3.6	3.8	3.7
Real exchange rate depreciation (in percent, + indicates depreciation)	2.1	1.5	0.1	0.2	1.1	-2.0	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	1.1	1.1	2.1	2.2	1.2	3.0	2.8	2.2	2.2	2.2	2.2	2.4	2.2	2.3	2.2
Growth of real primary spending (deflated by GDP deflator, in percent)	7.3	-5.0	18.2	5.6	10.5	-0.1	-2.2	0.9	2.9	3.6	3.2	1.4	4.0	4.0	4.3
Grant element of new external borrowing (in percent)	…	…	…	…	...	39.4	1.3	0.0	0.0	0.8	0.9	7.1	0.0	0.0	0.0

Sources: St. Lucia authorities; and Fund staff estimates and projections.

1/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
2/ Nonfinancial public sector gross debt, government guaranteed debt, and government nonguaranteed debt.
3/ 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.
4/ Revenues excluding grants.
5/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

Table A2.St. Lucia: Sensitivity Analysis for Key Indicators of Public Debt 2009–29

		Projections						
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Adjustment scenario	68	70	71	70	68	65	55	43
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	68	70	72	74	76	78	89	108
A2. Primary balance is unchanged from 2009	68	70	70	69	68	67	61	48
A3. Permanently lower GDP growth 1/	68	71	73	72	71	70	68	85
A4. Natural disaster 2/	68	73	78	82	79	76	64	51
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010–11	68	71	75	74	73	71	65	60
B2. Primary balance is at historical average minus one standard deviations in 2010–11	68	73	77	75	73	71	60	47
B3. Combination of B1–B2 using one half standard deviation shocks	68	72	76	74	72	69	59	46
B4. One-time 30 percent real depreciation in 2010	68	88	89	88	85	83	72	60
B5. 10 percent of GDP increase in other debt-creating flows in 2010	68	80	80	79	76	74	63	50
PV of Debt-to-Revenue Ratio 3/								
Adjustment scenario	200	213	219	207	199	192	161	128
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	200	213	222	221	226	231	261	316
A2. Primary balance is unchanged from 2009	200	212	216	206	201	197	179	142
A3. Permanently lower GDP growth 1/	200	215	223	214	210	206	200	252
A4. Natural disaster 2/	200	222	240	244	234	225	189	152
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010–11	200	214	229	219	214	210	190	178
B2. Primary balance is at historical average minus one standard deviations in 2010–11	200	222	237	224	216	209	176	140
B3. Combination of B1–B2 using one half standard deviation shocks	200	218	233	220	212	205	173	137
B4. One-time 30 percent real depreciation in 2010	200	267	275	261	253	245	213	178
B5. 10 percent of GDP increase in other debt-creating flows in 2010	200	241	247	234	226	218	185	147
Debt Service-to-Revenue Ratio 3/								
Adjustment scenario	30	29	22	23	18	17	18	17
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	30	28	23	25	22	22	28	41
A2. Primary balance is unchanged from 2009	30	29	21	22	18	18	20	19
A3. Permanently lower GDP growth 1/	30	29	22	24	19	18	22	32
A4. Natural disaster 2/	30	29	22	23	19	19	21	20
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010–11	30	29	23	25	20	19	21	23
B2. Primary balance is at historical average minus one standard deviations in 2010–11	30	29	25	27	20	18	18	19
B3. Combination of B1–B2 using one half standard deviation shocks	30	28	24	26	20	18	18	19
B4. One-time 30 percent real depreciation in 2010	30	30	25	27	22	21	22	23
B5. 10 percent of GDP increase in other debt-creating flows in 2010	30	29	32	27	20	18	19	20

Sources: St. Lucia authorities; and Fund staff estimates and projections.

1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of 20 (i.e., the length of the projection period).
2/ Assumes that a hurricane hits St. Lucia, increasing its primary deficit by three percent of GDP for 2010–12, and reducing growth to zero.
3/ Revenues are defined inclusive of grants.

Table A3. St. Lucia: External Debt Sustainability Framework, Baseline Scenario, 2006–29 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average 2/	Standard Deviation 2/	Projections									
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
External debt (nominal) 1/	**43.2**	**43.9**	**37.9**			**40.6**	**41.3**	**41.2**	**40.1**	**39.5**	**38.7**		**33.9**	**28.6**	
Of which: Public and publicly guaranteed (PPG)	43.2	43.9	37.9			40.6	41.3	41.2	40.1	39.5	38.7		33.9	28.6	
Change in external debt	-4.2	0.7	-6.0			2.7	0.7	-0.1	-1.1	-0.6	-0.8		-1.0	-0.4	
Identified net debt-creating flows	2.4	13.0	22.7			10.8	1.9	1.7	2.1	2.6	0.6		0.0	2.0	
Non-interest current account deficit	**28.1**	**38.6**	**32.6**	**19.7**	**10.5**	**15.5**	**14.6**	**20.3**	**20.5**	**20.0**	**19.1**		**21.6**	**23.6**	**22.2**
Deficit in balance of goods and services	25.5	35.0	28.6			11.4	10.5	16.2	16.3	15.9	14.9		17.3	18.9	
Exports	48.4	49.5	57.9			50.3	51.4	57.8	58.3	58.8	63.3		60.3	57.9	
Imports	73.9	84.5	86.5			61.6	61.9	74.0	74.6	74.7	78.2		77.6	76.8	
Net current transfers (negative = inflow)	-1.3	-1.4	-1.4	-1.8	0.5	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3		-1.1	-0.7	-0.9
Of which: Official	0.0	-0.3	-0.3			-0.2	-0.2	-0.2	-0.2	-0.2	-0.2		-0.2	-0.1	
Other current account flows (negative = net inflow)	3.9	5.1	5.4			5.4	5.4	5.4	5.4	5.4	5.4		5.4	5.4	
Net FDI (negative = inflow)	**-25.1**	**-26.4**	**-10.6**	**-13.0**	**7.0**	**-7.6**	**-15.0**	**-20.0**	**-19.0**	**-18.0**	**-19.0**		**-22.0**	**-22.0**	**-22.0**
Endogenous debt dynamics 3/	**-0.6**	**0.8**	**0.8**			**2.9**	**2.3**	**1.4**	**0.6**	**0.6**	**0.5**		**0.4**	**0.4**	
Contribution from nominal interest rate	2.1	2.0	1.9			2.0	2.1	2.1	2.1	2.0	2.0		1.7	1.5	
Contribution from real GDP growth	-2.2	-0.7	-0.3			0.9	0.1	-0.7	-1.4	-1.5	-1.5		-1.3	-1.1	
Contribution from price and exchange rate changes	-0.5	-0.5	-0.9			…	…	…	…	…	…		…	…	
Residual (3-4) 4/	**-6.6**	**-12.3**	**-28.7**			**-8.1**	**-1.2**	**-1.7**	**-3.2**	**-3.1**	**-1.4**		**-1.0**	**-2.4**	
Of which: Exceptional financing	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of external debt 5/	...	...	36.4			39.2	40.1	40.1	39.2	38.7	38.1		33.9	28.6	
In percent of exports	...	...	62.9			77.9	78.0	69.4	67.3	65.9	60.2		56.2	49.4	
PV of PPG external debt	**...**	**...**	**36.4**			**39.2**	**40.1**	**40.1**	**39.2**	**38.7**	**38.1**		**33.9**	**28.6**	
In percent of exports	**...**	**...**	**62.9**			**77.9**	**78.0**	**69.4**	**67.3**	**65.9**	**60.2**		**56.2**	**49.4**	
In percent of government revenues	**...**	**...**	**111.4**			**114.8**	**121.2**	**123.2**	**116.4**	**114.5**	**112.5**		**100.0**	**84.7**	
Debt service-to-exports ratio (in percent)	**7.6**	**12.2**	**11.7**			**11.1**	**11.8**	**8.6**	**9.7**	**7.0**	**6.0**		**7.5**	**8.4**	
PPG debt service-to-exports ratio (in percent)	**7.6**	**12.2**	**11.7**			**11.1**	**11.8**	**8.6**	**9.7**	**7.0**	**6.0**		**7.5**	**8.4**	
PPG debt service-to-revenue ratio (in percent)	**13.6**	**21.3**	**20.7**			**16.3**	**18.4**	**15.3**	**16.8**	**12.2**	**11.2**		**13.4**	**14.4**	
Total gross financing need (in billions of U.S. dollars)	0.1	0.2	0.3			0.1	0.1	0.1	0.1	0.1	0.0		0.1	0.2	
Non-interest current account deficit that stabilizes debt ratio	32.3	37.9	38.5			12.8	13.9	20.4	21.5	20.6	19.8		22.6	24.0	
Key macroeconomic assumptions															
Real GDP growth (in percent)	4.9	1.7	0.7	1.9	2.7	-2.5	-0.4	1.8	3.7	3.9	3.9	1.7	4.0	4.0	4.0
GDP deflator in US dollar terms (change in percent)	1.1	1.1	2.1	2.2	1.2	3.0	2.8	2.2	2.2	2.2	2.2	2.4	2.2	2.3	2.2
Effective interest rate (percent) 6/	4.7	4.8	4.6	3.9	1.2	5.3	5.4	5.3	5.3	5.4	5.4	5.3	5.3	5.4	5.4
Growth of exports of G&S (US dollar terms, in percent)	-9.5	5.2	20.3	4.7	14.1	-12.8	4.6	17.1	6.7	7.1	14.3	6.2	5.4	7.5	5.7
Growth of imports of G&S (US dollar terms, in percent)	17.0	17.5	5.3	7.7	11.3	-28.4	2.8	24.4	6.8	6.3	11.2	3.8	5.9	7.1	6.2
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	39.4	1.3	0.0	0.0	0.8	0.9	7.1	0.0	0.0	0.0
Government revenues (excluding grants, in percent of GDP)	27.1	28.4	32.7	…	…	34.1	33.0	32.6	33.7	33.8	33.8	33.5	33.9	33.8	33.8
Aid flows (in billions of US dollars) 7/	0.00	0.00	0.02			0.05	0.03	0.01	0.01	0.01	0.01		0.01	0.03	
Of which: Grants	0.00	0.00	0.02			0.05	0.03	0.01	0.01	0.01	0.01		0.01	0.03	
Of which: Concessional loans	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
Grant-equivalent financing (in percent of GDP) 8/	…	…	…			7.4	2.6	0.8	0.8	0.8	0.8		0.8	0.8	0.8
Grant-equivalent financing (in percent of external financing) 8/	…	…	…			65.4	31.7	15.3	14.1	17.7	19.9		16.8	14.4	15.6
Memorandum items															
Nominal GDP (in billions of US dollars)	0.9	1.0	1.0			1.0	1.0	1.1	1.1	1.2	1.3		1.7	3.2	
Nominal dollar GDP growth	6.1	2.9	2.8			0.4	2.4	4.0	5.9	6.1	6.2		6.3	6.4	
PV of PPG external debt (in billions of US dollars)	…	…	0.4			0.4	0.4	0.4	0.4	0.5	0.5		0.6	0.9	
(PVt-PVt-1)/GDPt-1 (in percent)	…	…	0.0			2.9	1.8	1.7	1.4	1.9	1.7		1.3	1.4	

Source: Staff simulations.

1/ Includes public sector guaranteed and non-guaranteed external debt.
2/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
3/ Derived as [i - g - r(1+g)]/(1+g+r+gr) times previous period debt ratio, with i = nominal interest rate; g = real GDP growth rate, and r = growth rate of GDP deflator in U.S. dollar terms.
4/ 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.
5/ Assumes that NPV of private sector debt is equivalent to its face value.
6/ Current-year interest payments divided by previous period debt stock.
7/ Defined as grants, concessional loans, and debt relief.
8/ Grant-equivalent financing includes grants provided directly to the government and through new borrowing (difference between the face value and the NPV of new debt).

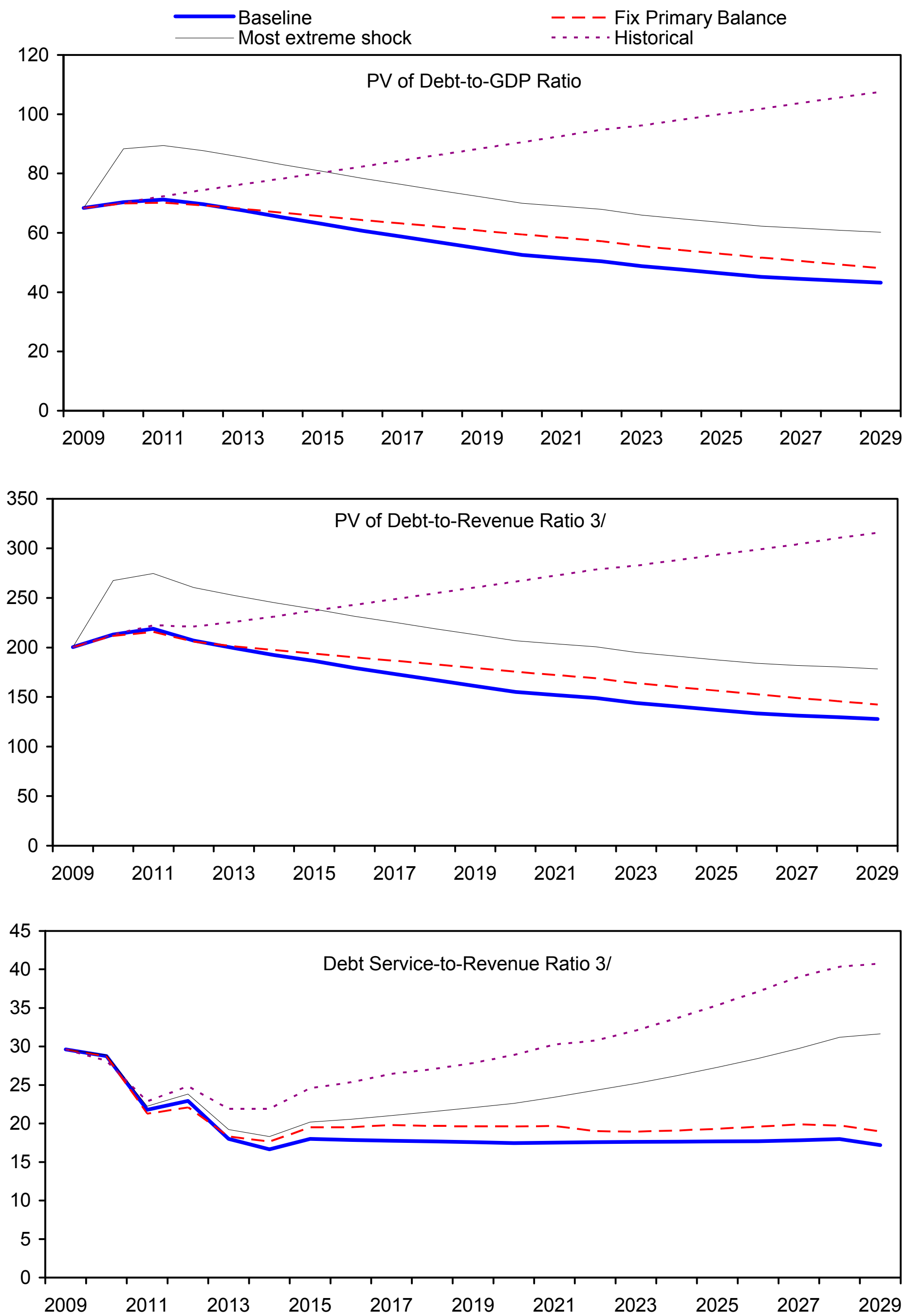
Table A4.St. Lucia: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009–29
(In percent)

		Projections						
	2009	2010	2011	2012	2013	2014	**2019**	2029
PV of debt-to GDP ratio								
Adjustment scenario	39	40	40	39	39	38	**34**	29
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009–29 1/	39	42	44	44	44	46	**52**	43
A2. New public sector loans on less favorable terms in 2009–29 2/	39	41	41	41	41	41	**40**	38
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	39	40	41	40	40	39	**35**	29
B2. Export value growth at historical average minus one standard deviation in 2010–11 3/	39	48	67	62	57	53	**40**	33
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010–11	39	41	41	40	40	39	**35**	29
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010–11 4/	39	49	61	57	53	50	**35**	29
B5. Combination of B1–B4 using one-half standard deviation shocks	39	44	57	54	51	48	**35**	29
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	39	57	57	55	55	54	**48**	40
PV of debt-to-exports ratio								
Adjustment scenario	78	78	69	67	66	60	**56**	49
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009–29 1/	78	82	76	76	75	72	**86**	75
A2. New public sector loans on less favorable terms in 2009–29 2/	78	79	72	70	70	65	**66**	65
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	78	78	69	67	66	60	**56**	49
B2. Export value growth at historical average minus one standard deviation in 2010–11 3/	78	108	177	163	150	128	**101**	88
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010–11	78	78	69	67	66	60	**56**	49
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010–11 4/	78	95	106	98	91	79	**58**	49
B5. Combination of B1–B4 using one-half standard deviation shocks	78	92	129	121	113	99	**76**	65
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	78	78	69	67	66	60	**56**	49
PV of debt-to-revenue ratio								
Adjustment scenario	115	121	123	116	114	112	**100**	85
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009–29 1/	115	128	135	131	130	135	**153**	129
A2. New public sector loans on less favorable terms in 2009–29 2/	115	123	127	122	121	121	**117**	112
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	115	122	127	120	118	116	**103**	87
B2. Export value growth at historical average minus one standard deviation in 2010–11 3/	115	144	205	184	170	156	**118**	99
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010–11	115	123	127	120	118	116	**103**	87
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010–11 4/	115	147	188	170	158	147	**103**	85
B5. Combination of B1–B4 using one-half standard deviation shocks	115	132	177	161	151	142	**104**	86
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	115	171	174	164	162	159	**141**	120
Debt service-to-exports ratio								
Adjustment scenario	11	12	9	10	7	6	**8**	8
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009–29 1/	11	12	9	11	9	8	**14**	15
A2. New public sector loans on less favorable terms in 2009–29 2/	11	12	8	10	7	6	**9**	5
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	11	12	9	10	7	6	**8**	8
B2. Export value growth at historical average minus one standard deviation in 2010–11 3/	11	14	17	28	23	20	**15**	17
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010–11	11	12	9	10	7	6	**8**	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010–11 4/	11	12	11	17	14	12	**8**	8
B5. Combination of B1–B4 using one-half standard deviation shocks	11	13	13	20	16	14	**11**	11
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	11	12	9	10	7	6	**8**	8
Debt service-to-revenue ratio								
Adjustment scenario	16	18	15	17	12	11	**13**	14
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009–29 1/	16	18	17	19	16	15	**25**	25
A2. New public sector loans on less favorable terms in 2009–29 2/	16	18	14	16	13	12	**17**	9
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010–11	16	18	16	17	13	12	**14**	15
B2. Export value growth at historical average minus one standard deviation in 2010–11 3/	16	18	20	32	26	24	**17**	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010–11	16	19	16	17	13	12	**14**	15
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010–11 4/	16	18	20	29	23	22	**15**	14
B5. Combination of B1–B4 using one-half standard deviation shocks	16	18	18	26	21	20	**15**	15
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	16	26	22	24	17	16	**19**	20

Source: Staff projections and simulations.

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 as in the baseline.
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.

Figure A1. St. Lucia: Indicators of Public Debt Under Alternative Scenarios, 2009–29 1/ 2/



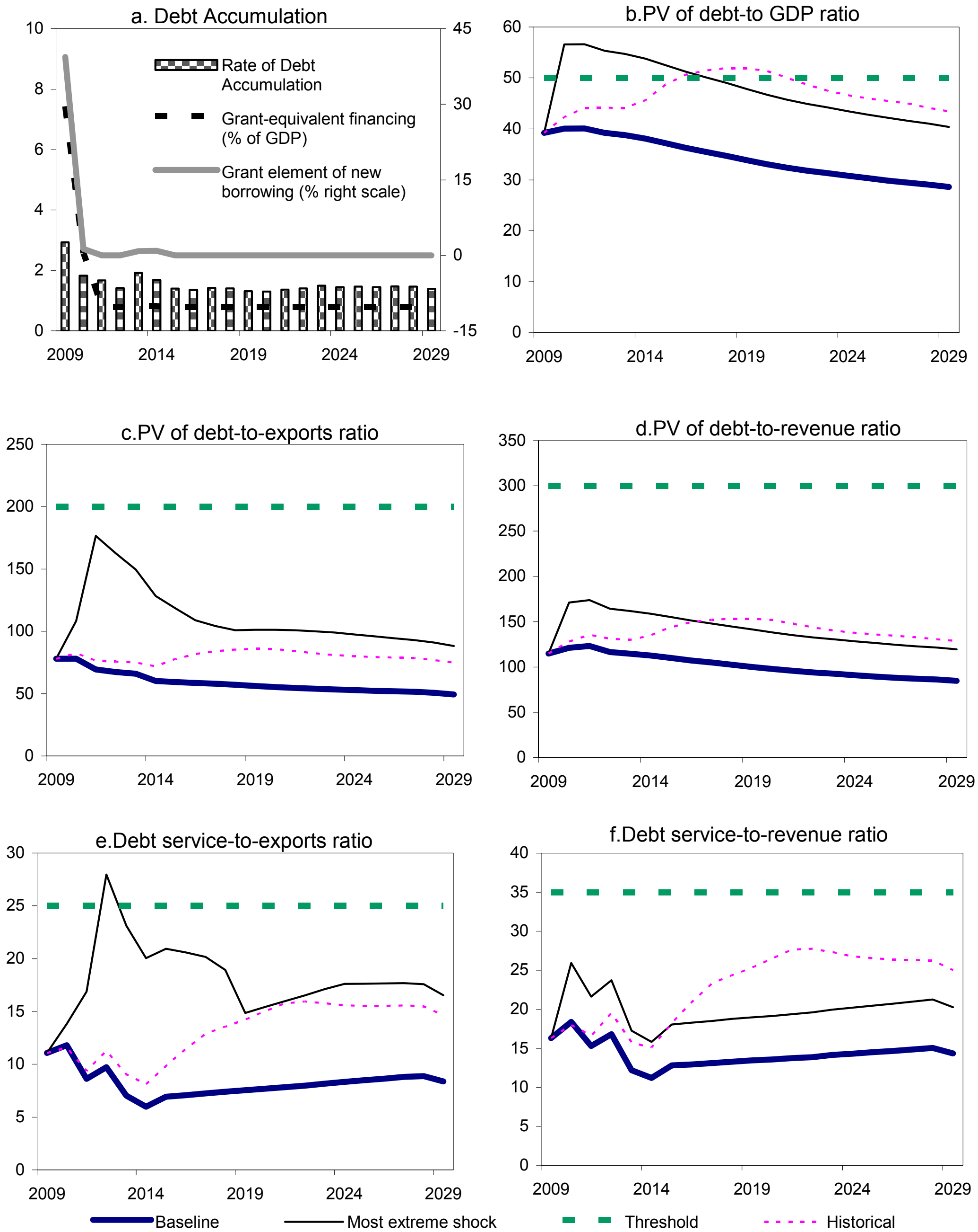
Sources: St. Lucia authorities; and Fund staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in 2019.

2/ The first two figures correspond to a one-time 30 percent real depreciation in 2010, and the third figure corresponds to permanently lower GDP growth.

3/ Revenue including grants.

Figure A2. St. Lucia: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2009–29 1/



Source: Staff projections and simulations.

1/ The most extreme stress test is the test that yields the highest ratio in 2019. In figure b. it corresponds to a One-time depreciation shock; in c. to a Exports shock; in d. to a One-time depreciation shock; in e. to a Exports shock and in picture f. to a One-time depreciation shock.