INTERNATIONAL MONTETARY FUND

ST. VINCENT AND THE GRENADINES

External and Public Debt Sustainability Analysis

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St. Vincent and the Grenadines' debt outlook is being adversely affected by the current economic downturn, and there are significant downside risks to growth in the near term. The debt sustainability analysis (DSA) suggests that public debt will trend upward in the medium term if sizable commercial borrowing is used to finance the airport construction. A key challenge is to continue progress toward achieving sound public finances over the medium term. St. Vincent and the Grenadines' external debt distress rating is moderate.

I. BACKGROUND

1. Following a period of robust growth, macroeconomic outcomes were mixed in 2008. Amid a global slowdown, real GDP growth decelerated from an annual average of almost 6 percent during 2004–07 to 0.9 percent in 2008, owing to sharply weakened activities in the tourism, construction and agriculture sectors. Reflecting solid VAT performance, more grants, and lower capital expenditures, the central government fiscal balance strengthened by about 2 percent of GDP, achieving a primary surplus of 1.2 percent of GDP, the first since 2002. Due to strong growth and an agreement with Italy to write-off the Ottley Hall debt obligation, the public sector debt in nominal terms declined to about 67½ percent of GDP at end-2008 from 77½ percent in 2006.

II. UNDERLYING DSA ASSUMPTIONS

2. The **baseline scenario** assumes continued declines in real growth for 2009–10, reflecting the global economic slowdown and financial crisis. In the medium term, growth is expected to return to its potential of around 4 percent, driven mostly by large-scale public sector construction and a recovery in tourism. Notwithstanding the recent progress in fiscal consolidation, sizeable overall fiscal deficits are expected to continue, financed commercially and with some grants from the European Union and nontraditional donors, such as Venezuela, Cuba, and Taiwan Province of China. Under this scenario, the central government primary deficit is projected to stay close to around 0.9 percent of GDP during 2009–14. Compared to the projections in the DSA accompanying the 2007 Article IV consultation, the current growth projections for 2009–10 have been marked down, given the global slowdown and financial strains while projections for medium- to long-term are similar. Overall public sector fiscal projections for 2009–14 are also more conservative,

reflecting the uncertainties surrounding the financing of the international airport as well as the length and depth of the current economic downturn.[1]

Box 1. Baseline Macroeconomic Assumptions (2009–29)

a. Real GDP growth is projected to average about 1.7 percent during 2009–11, well below the historical average (around 4.2 percent during 1999–2008), and to return to its potential over the medium term. Inflation, after sharply accelerating in 2007–08 with high world food and fuel prices, is projected to return to low levels, consistent with historical averages and the currency board arrangement.

b. The primary balance of the central government is projected to deteriorate sizably in 2009 and then remain broadly stable. On the revenue side, the maximum corporate income tax rate is reduced to 30 percent by 2010, reducing corporate tax revenues as a share of GDP by ½ percentage points, while the property tax reform is expected to bring a revenue gain of about ⅓ percent of GDP. On the expenditure side, after 2008 the wage bill as a share of GDP remains constant, while capital expenditure remains at around 7½ percent of GDP. Under this scenario, the public sector primary deficit would remain sizable (peaking at about 4.8 percent of GDP by 2010).

c. Annual disbursements of external capital grants are expected to be around 1½ percent of GDP, consistent with the historical average.

d. Given the ongoing repricing of risk and tight global liquidity conditions, it is assumed that average nominal interest rates on foreign debt increase to around 6 percent in the medium term.

e. Amid the economic slowdown, the current account deficit is projected to decline moderately from the elevated level during 2007–08, although it will remain high during the period when the airport is constructed. It is expected to return to a more sustainable level, due to a pickup in tourism receipts over the medium term. The expansion of tourist arrivals is underpinned by an expansion of the hotel capacity over the medium term and the construction of the new international airport.

f. FDI, following a sharp decline in 2008–09, is assumed to return to its historical average of around 15¾ percent of GDP over the medium term.

[1] The authorities plan to complete the construction of a new international airport by 2011 with an estimated cost of EC$608 million.

III. Evaluation of Public Sector Debt Sustainability

3. At end-2008 the NPV of public debt was high at 66.8 percent of GDP (67½ percent in nominal terms), albeit still among the lowest in the ECCU. Expansionary budgets in 2002–05 sharply raised the fiscal deficit and debt-to-GDP ratio. Fiscal imbalances remained high in 2006–07, owing to increased CWC-related capital expenditures. A large degree of fiscal adjustment was achieved in 2008, thanks to higher tax revenue collection and lower capital expenditure.

4. The external debt stood at 35 percent of GDP, and domestic debt at 32½ percent of GDP at end-2008. The largest share of the external debt stock is owed to multilateral creditors (around 55½ percent), followed by commercial creditors (around 25½ percent). In the future, most new external requirements are expected to be financed through the ECCU Regional Government Securities Market (RGSM), although some financing from IFIs such as the Caribbean Development Bank (CDB) is expected. On the domestic front, commercial banks are the most important lenders to the public sector.

Baseline Scenario

5. Under the baseline scenario St. Vincent and the Grenadines' NPV of public debt-to-GDP ratio would rise to about 83 percent by 2014 (86¾ percent in nominal terms), and increase further in the long term to around 102 percent of GDP by 2029 (106½ percent in nominal terms). Similarly, the NPV of debt-to-revenue ratio increases from 183½ percent in 2009 to around 255 percent by 2014.

Alternative Scenarios

Active scenario

6. Under this scenario, a fiscal adjustment would raise the primary surplus of the central government to 2⅔ percent of GDP over the medium term. The adjustment would be supported by revenue measures, including: (i) substituting tax holidays and exemptions with investment credits, accelerated depreciation, and improving loss carry-forward provisions (conservatively expected to yield 1.9 percent of GDP); (ii) efficiency gains in customs collections, estimated to yield 0.5 percent of GDP; and (iii) the gradual reduction by 2012 of the corporate income tax from 37.5 to 30 percent along with the gradual reduction of tax concessions (revenue neutral). It is assumed that donors would support the reform strategy, and additional grants would be provided by the European Union and Taiwan Province of China. On the expenditure side, to create room for planned additional social spending, a civil service reform yields cost savings of 0.4 percent of GDP. Reforms to the public service pension system are adopted gradually. Capital expenditure is reduced by the elimination or postponement of low-priority projects (yielding ⅓ percent of GDP), although it would remain above its long-run average of 6.6 percent of GDP. With the impetus from public sector capital projects and greater activity in the private sector, the underlying growth rate is expected to accelerate to about 4⅔ percent over the medium term.

7. Under this active scenario, St. Vincent and the Grenadines' NPV of public debt-to-GDP would decline to about 65 percent by 2014, and down further to 17 percent by 2029 (Table 2, Active Scenario).[2] All other indicators of debt sustainability would register continual improvements; particularly debt service as a share of current revenue, which would fall to around 11 percent by 2029.

Lower growth and natural disasters

8. The sensitivity analysis (which is applied to the baseline scenario) shows that lower economic growth and a lower primary balance are the two key vulnerabilities for St. Vincent and the Grenadines' debt dynamics. Assuming that growth remains at one standard deviation below the level in the baseline scenario, the NPV of debt-to-GDP ratio reaches 154 percent of GDP by 2029 (Table 2, Scenario A3). If the primary deficit is unchanged from the high level projected in 2009, the NPV of debt-to-GDP ratio reaches 157 percent of GDP by 2029 (Table 2, Scenario A2). The impact of a natural disaster on St. Vincent and the Grenadines' debt dynamics is also very significant (Table 2, Scenario A4). Under this scenario, the government incurs a fiscal cost of 9 percent of GDP and real GDP growth is zero during 2010–12, reverting to the baseline levels thereafter.[3] This shock accelerates the deterioration of the NPV of debt-to-GDP ratio which reaches 99 percent of GDP by 2014.

Borrowing for the Airport

9. Sensitivity analysis (which is applied to the baseline scenario) shows the importance of containing borrowing for the construction of the new international airport. In a worst-case scenario, if the in-kind grants do not materialize, land sales are lower than expected, and the government needs to borrow around 50 percent of the airport cost, then by 2014 the NPV of debt-to-GDP ratio rises to 95 percent (Table 2, Scenario A5).

IV. Evaluation of External Debt Sustainability

10. St. Vincent and the Grenadines' external debt sustainability analysis covers only public sector debt, since data on private sector external borrowing is not available. As a result, debt dynamics in the external DSA follow a similar pattern to those of the public sector DSA.

11. Under the baseline scenario the NPV of external debt gradually increases up to nearly 42½ percent of GDP by 2017 (47 percent in nominal terms), before declining to 38½ percent

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[2] The nominal public debt-to-GDP ratio would fall below the 60 percent benchmark of the ECCB by 2017.

[3] The actual impact of this shock could be lower given the participation of St. Vincent and the Grenadines in the Caribbean Catastrophe Risk Insurance Facility—a regional insurance pool organized by the World Bank.

by 2029 (43 percent in nominal terms), but remains within the prudential threshold of 50 percent.[4] The NPV of debt-to-exports ratio remains below 125 percent throughout the period, comfortably below the indicative threshold of 200 percent.

12. Sensitivity analysis (which is applied to the baseline scenario) shows that the level of external debt is very sensitive to a combination of negative shocks to output growth, export growth, and FDI flows. In light of the current global environment, which is sharply lowering tourism receipts, FDI and economic growth, this is a relevant shock scenario. Under this scenario, the NPV of external debt-to-GDP ratio would increase to 59 percent by 2011, breaching the debt-to-GDP threshold of 50 percent (Table 4, Scenario B5). If FDI were to fall to one standard deviation below its historical average, the NPV of external debt-to-GDP ratio would increase to 51 percent by 2011 (Table 4, Scenario B4). Similarly, with export value growth at one standard deviation below its historical average, the NPV of external debt-to-GDP ratio increases to 54 percent by 2011 (Table 4, Scenario B2). As the majority of external debt is denominated in U.S. dollars, a one-time 30 percent nominal depreciation in 2010 will raise the NPV of external debt-to-GDP ratio to 55 percent in 2010, breaching the debt-to-GDP threshold (Table 4, Scenario B6).

V. Conclusion

13. Sound public finances are key to achieving debt sustainability, particularly given the uncertainties associated with the current economic slowdown and financing for the airport project. Public sector imbalances would remain relatively high without continued fiscal adjustment, leaving the ECCB's public debt benchmark of 60 percent of GDP by 2020 out of reach for St. Vincent and the Grenadines. Staff analysis shows that with a fiscal adjustment that achieves a central government primary surplus (including grants) of around 2⅔ percent of GDP by 2014, St. Vincent and the Grenadines would reach a nominal public debt-to-GDP ratio below 60 percent—the ECCB benchmark—by 2017.

14. St. Vincent and the Grenadines faces a moderate risk of external debt distress. The debt trajectory under the baseline scenario does not breach the NPV of debt-to-GDP indicative threshold; however, various stress tests underline the country's vulnerabilities to natural disasters, lower FDI, and lower output growth and suggest several breaches of the NPV of debt-to-GDP threshold. As private external debt data are unavailable, some caution should be used when interpreting these results, which cover public external debt only.

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

Table 1. St. Vincent and the Grenadines: Public Sector Debt Sustainability Framework, Baseline Scenario, 2006–2029
(In percent of GDP, unless otherwise indicated)

	Actual			Average	Standard Deviation	Projections									
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009–14 Average	2019	2029	2015–29 Average
Public sector debt 1/	77.5	69.5	67.5			73.2	80.0	83.6	84.3	85.6	86.8		92.8	106.4	
Of which : Foreign-currency denominated	46.4	37.0	35.0			37.2	41.3	41.9	43.1	44.0	44.5		46.9	43.0	
Change in public sector debt	-2.7	-8.0	-2.0			5.7	6.7	3.6	0.7	1.3	1.2		1.4	1.4	
Identified debt-creating flows	-6.6	0.0	-8.4			5.2	6.2	3.2	0.6	1.2	1.1		1.3	1.3	
Primary deficit	0.4	3.7	-3.1	1.4	3.0	4.2	4.8	4.2	1.0	1.0	1.0	2.7	1.1	1.1	1.2
Revenue and grants	35.0	35.6	40.1			39.1	38.4	35.5	32.5	32.5	32.5		32.6	32.6	
Of which: Grants	1.6	3.7	4.8			8.1	7.2	4.2	1.5	1.5	1.5		1.5	1.5	
Primary (noninterest) expenditure	35.4	39.3	37.0			43.4	43.1	39.6	33.5	33.5	33.6		33.8	33.8	
Automatic debt dynamics	-5.1	-3.2	-2.7			1.5	2.0	-0.5	-0.3	0.3	0.2		0.2	0.2	
Contribution from interest rate/growth differential	-4.7	-3.2	-0.4			2.2	2.1	-0.1	-0.2	0.3	0.2		0.5	0.5	
O fwhich:: Contribution from average real interest rate	1.0	1.8	0.2			2.3	3.0	2.8	3.3	3.5	3.6		4.1	4.7	
Of which: Contribution from real GDP growth	-5.6	-5.0	-0.6			-0.1	-0.9	-2.9	-3.5	-3.2	-3.4		-3.6	-4.1	
Contribution from real exchange rate depreciation	-0.4	0.0	-2.3			-0.7	-0.1	-0.4	-0.2	-0.1	-0.1		...	...	
Other identified debt-creating flows	-2.0	-0.5	-2.6			-0.6	-0.6	-0.4	-0.1	-0.1	-0.1		-0.1	-0.1	
Privatization receipts (negative)	-2.0	-0.5	-2.6			-0.6	-0.6	-0.4	-0.1	-0.1	-0.1		-0.1	-0.1	
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	3.9	-8.1	6.5			0.6	0.6	0.4	0.1	0.1	0.1		0.1	0.1	
Other Sustainability Indicators															
PV of public sector debt	...	...	66.8			71.8	77.7	80.9	81.0	81.9	82.9		87.9	102.0	
Of which : Foreign-currency denominated	...	...	34.3			35.8	39.1	39.2	39.8	40.3	40.6		42.0	38.5	
Of which : External	...	...	34.3			35.8	39.1	39.2	39.8	40.3	40.6		42.0	38.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	7.5	10.6	3.5			11.8	13.0	12.5	9.4	9.2	8.7		10.0	10.7	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	166.7			183.5	202.7	228.0	249.3	251.9	254.8		269.5	312.6	
PV of public sector debt-to-revenue ratio (in percent)	...	...	189.5			231.1	249.2	259.0	261.3	264.1	267.2		282.5	327.7	
Of which : External 3/	...	...	97.2			115.2	125.4	125.5	128.4	130.0	130.8		135.0	123.8	
Debt service-to-revenue and grants ratio (in percent) 4/	20.4	19.4	16.4			19.4	21.5	23.6	25.7	25.1	23.6		27.0	29.4	
Debt service-to-revenue ratio (in percent) 4/	21.4	21.6	18.6			24.4	26.5	26.8	26.9	26.3	24.8		28.3	30.8	
Primary deficit that stabilizes the debt-to-GDP ratio	3.1	11.7	-1.1			-1.5	-2.0	0.5	0.3	-0.3	-0.2		-0.2	-0.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	7.6	7.0	0.9	3.6	2.6	0.1	1.2	3.8	4.3	3.9	4.1	2.9	4.1	4.1	4.1
Average nominal interest rate on forex debt (in percent)	4.4	4.3	4.6	3.8	0.9	4.8	5.3	5.5	5.7	5.9	6.1	5.5	7.1	7.1	6.9
Average real interest rate on domestic debt (in percent)	1.6	4.0	-1.9	4.2	3.0	3.4	4.8	3.9	4.6	4.8	4.8	4.4	4.3	4.3	4.3
Real exchange rate depreciation (in percent, + indicates depreciation)	-0.7	0.1	-6.2	-1.0	2.3	-1.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	4.0	2.6	9.0	2.9	2.6	3.3	2.1	3.0	2.3	2.1	2.1	2.5	2.6	2.6	2.6
Growth of real primary spending (deflated by GDP deflator, in percent)	0.0	0.2	-0.1	0.1	0.1	0.2	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	15.6	12.4	12.6	12.5	12.8	12.8	13.1	12.0	12.4	...

Sources: St. Vincent and the Grenadines authorities; and Fund staff estimates and projections.
1/ Gross debt of the public sector.
2/ 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.
3/ Revenues excluding grants.
4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.

Table 2.St. Vincent and the Grenadines: Sensitivity Analysis for Key Indicators of Public Debt 2009–2029

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
PV of Debt-to-GDP Ratio								
Baseline	72	78	81	81	82	83	88	102
Active Scenario	71	76	76	72	69	65	48	17
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	72	72	73	74	76	77	86	107
A2. Primary balance is unchanged from 2009	72	77	80	84	88	93	113	157
A3. Permanently lower GDP growth 1/	72	78	82	84	86	88	103	154
A4. Natural Disaster 2/	72	82	91	97	98	99	107	137
A5. Airport Financing 3/	72	83	90	93	94	95	101	128
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	72	78	84	86	88	89	99	123
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	72	77	81	81	82	83	88	102
B3. Combination of B1-B2 using one half standard deviation shocks	72	75	78	78	79	80	86	102
B4. One-time 30 percent real depreciation in 2010	72	94	97	97	98	100	109	138
B5. 10 percent of GDP increase in other debt-creating flows in 2010	72	89	91	92	92	93	98	111
PV of Debt-to-Revenue Ratio 4/								
Baseline	184	203	228	249	252	255	270	313
Active Scenario	182	193	204	206	195	185	135	49
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	184	190	206	228	232	238	263	328
A3. Permanently lower GDP growth 1/	184	204	232	257	263	270	316	469
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	184	203	237	263	269	275	305	377
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	184	202	228	249	251	254	269	312
B3. Combination of B1-B2 using one half standard deviation shocks	184	196	219	240	244	247	264	312
B4. One-time 30 percent real depreciation in 2010	184	244	273	298	302	307	335	422
B5. 10 percent of GDP increase in other debt-creating flows in 2008	184	231	258	282	284	287	300	341
Debt Service-to-Revenue Ratio 4/								
Baseline	19	22	24	26	25	24	27	29
Active Scenario	19	21	22	23	21	19	18	11
A. Alternative scenarios								
A2. Primary balance is unchanged from 2009	19	22	24	25	25	25	33	46
A3. Permanently lower GDP growth 1/	19	22	24	26	26	25	31	44
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2010-2011	19	22	24	27	26	25	30	36
B2. Primary balance is at historical average minus one standard deviations in 2010-2011	19	22	24	26	25	24	27	29
B3. Combination of B1-B2 using one half standard deviation shocks	19	21	23	25	24	23	26	29
B4. One-time 30 percent real depreciation in 2010	19	25	31	34	34	33	41	51
B5. 10 percent of GDP increase in other debt-creating flows in 2010	19	22	25	29	28	27	30	33

Sources: St. Vincent and the Grenadines authorities; and Fund staff estimates and projections.

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

2/ Assumes zero growth and a fiscal cost for the government of 9 percent of GDP between 2010 and 2012.

3/ Assumes in-kind grants do not materialize and the government needs to borrow 50 percent of the airport cost.

4/ Revenues are defined inclusive of grants.

Table 3. External Debt Sustainability Framework, Baseline Scenario, 2006–2029 1/
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average	Standard Deviation	Projections									
	2006	2007	2008			2009	2010	2011	2012	2013	2014	2009–2014 Average	2019	2029	2015–202 Average
External debt (nominal) 1/	46.4	37.0	35.0			37.2	41.3	41.9	43.1	44.0	44.5		46.9	43.0	
Of which: Public and publicly guaranteed (PPG)	46.4	37.0	35.0			37.2	41.3	41.9	43.1	44.0	44.5		46.9	43.0	
Change in external debt	-5.6	-9.5	-2.0			2.3	4.1	0.6	1.2	0.9	0.5		-0.1	-0.3	
Identified net debt-creating flows	-0.3	9.5	10.3			15.3	14.0	10.4	7.4	5.2	3.3		3.1	3.3	
Non-interest current account deficit	22.1	33.3	32.2	19.5	9.8	27.3	27.8	25.2	22.6	20.4	18.2		17.6	17.9	17.8
Deficit in balance of goods and services	23.3	34.7	33.7			27.4	28.2	26.2	23.9	22.0	20.2		20.2	20.2	
Exports	42.6	38.9	33.3			29.3	32.0	35.0	37.8	39.9	42.4		42.4	42.4	
Imports	65.9	73.6	67.0			56.7	60.2	61.2	61.6	61.9	62.6		62.6	62.6	
Net current transfers (negative = inflow)	-4.0	-3.7	-3.4	-3.8	0.5	-2.5	-2.9	-3.3	-3.3	-3.5	-3.8		-3.8	-3.8	-3.8
Of which: Official	-1.2	-1.5	-1.4			-0.9	-1.2	-1.3	-1.2	-1.2	-1.2		-1.2	-1.2	
Other current account flows (negative = net inflow)	2.8	2.3	1.9			2.4	2.4	2.2	2.0	1.9	1.8		1.2	1.4	
Net FDI (negative = inflow)	-18.9	-21.5	-20.1	-14.3	5.2	-13.6	-15.2	-15.4	-15.8	-15.9	-15.8		-15.8	-15.8	-15.8
Endogenous debt dynamics 2/	-3.5	-2.3	-1.8			1.6	1.5	0.6	0.5	0.8	0.8		1.3	1.2	
Contribution from nominal interest rate	2.0	1.8	1.5			1.6	1.9	2.1	2.2	2.4	2.5		3.1	2.9	
Contribution from real GDP growth	-3.5	-2.9	-0.3			0.0	-0.4	-1.5	-1.7	-1.6	-1.7		-1.8	-1.7	
Contribution from price and exchange rate changes	-2.0	-1.2	-3.1			…	…	…	…	…	…		…	…	
Residual (3-4) 3/	-5.2	-19.0	-12.3			-13.0	-9.9	-9.8	-6.2	-4.3	-2.7		-3.2	-3.6	
Of which: Exceptional financing	-1.6	-3.7	-7.4			-8.5	-7.7	-4.8	-2.0	-2.0	-2.0		-2.0	-2.0	
PV of external debt 4/	...	...	34.3			35.8	39.1	39.2	39.8	40.3	40.6		42.0	38.5	
In percent of exports	...	...	103.0			122.2	122.3	111.9	105.5	101.1	95.8		99.2	91.0	
PV of PPG external debt	...	...	34.3			35.8	39.1	39.2	39.8	40.3	40.6		42.0	38.5	
In percent of exports	...	...	103.0			122.2	122.3	111.9	105.5	101.1	95.8		99.2	91.0	
In percent of government revenues	...	...	97.2			115.2	125.4	125.5	128.4	130.0	130.8		135.0	123.8	
Debt service-to-exports ratio (in percent)	13.4	12.8	13.6			18.5	18.2	16.7	14.9	13.6	11.7		13.9	13.1	
PPG debt service-to-exports ratio (in percent)	13.4	12.8	13.6			18.5	18.2	16.7	14.9	13.6	11.7		13.9	13.1	
PPG debt service-to-revenue ratio (in percent)	17.1	15.7	12.8			17.5	18.6	18.8	18.1	17.5	15.9		19.0	17.8	
Total gross financing need (Millions of U.S. dollars)	44.2	92.0	99.6			118.9	118.0	107.4	91.2	76.7	61.0		89.0	169.2	
Non-interest current account deficit that stabilizes debt ratio	27.7	42.8	34.2			25.0	23.7	24.6	21.4	19.5	17.7		17.7	18.2	
Key macroeconomic assumptions															
Real GDP growth (in percent)	7.6	7.0	0.9	3.6	2.6	0.1	1.2	3.8	4.3	3.9	4.1	2.9	4.1	4.1	4.1
GDP deflator in US dollar terms (change in percent)	4.0	2.6	9.0	2.9	2.6	3.3	2.1	3.0	2.3	2.1	2.1	2.5	2.6	2.6	2.6
Effective interest rate (percent) 5/	4.4	4.3	4.6	3.8	0.9	4.8	5.3	5.5	5.7	5.9	6.1	5.5	7.1	7.1	6.9
Growth of exports of G&S (US dollar terms, in percent)	5.7	0.3	-6.1	2.6	5.8	-8.8	12.8	17.0	15.2	12.0	12.9	10.2	6.8	6.8	6.8
Growth of imports of G&S (US dollar terms, in percent)	12.7	22.6	0.0	5.4	10.8	-12.4	9.7	8.7	7.4	6.5	7.6	4.6	6.8	6.8	6.8
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	15.6	12.4	12.6	12.5	12.8	12.8	13.1	12.0	12.4	12.3
Government revenues (excluding grants, in percent of GDP)	33.4	31.9	35.3			31.1	31.2	31.2	31.0	31.0	31.0		31.1	31.1	31.1
Aid flows (in Millions of US dollars) 7/	8.1	20.1	39.4			65.0	58.4	42.7	24.0	23.7	26.4		32.2	33.3	
Of which: Grants	8.1	20.1	29.0			50.0	46.0	29.2	11.0	11.7	12.4		17.2	33.3	
Of which: Concessional loans	0.0	0.0	10.5			15.0	12.3	13.5	13.0	12.0	14.0		15.0	0.0	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			9.2	8.3	5.1	2.4	2.3	2.2		2.2	2.1	2.2
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			60.0	50.6	45.6	27.6	29.3	31.3		30.3	32.2	31.6
Memorandum items:															
Nominal GDP (Millions of US dollars)	497.9	546.4	600.8			621.6	642.5	686.8	733.2	777.9	827.1		1149.2	2218.8	
Nominal dollar GDP growth	11.9	9.7	10.0			3.5	3.4	6.9	6.8	6.1	6.3	**5.5**	6.8	6.8	6.8
PV of PPG external debt (in Millions of US dollars)			205.8			222.5	251.2	269.0	292.0	313.7	335.6		482.9	854.7	
(PVt-PVt-1)/GDPt-1 (in percent)						2.8	4.6	2.8	3.3	2.9	2.8	3.2	2.7	2.4	2.6

Source: Staff simulations.

1/ Includes only public sector external debt.
2/ 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.
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 change
4/ Assumes that PV of private sector debt is equivalent to its face value.
5/ Current-year interest payments divided by previous period debt stock.
6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.
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 PV of new debt).

Table 4. St. Vincent and the Grenadines: 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								
Baseline	36	39	39	40	40	41	42	39
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	36	27	19	15	13	13	17	28
A2. New public sector loans on less favorable terms in 2009-2029 2/	36	41	44	47	50	52	60	59
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	36	39	40	41	42	42	43	40
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	36	44	54	54	55	55	54	42
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	36	40	41	42	42	42	44	40
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	36	45	51	52	52	52	52	42
B5. Combination of B1-B4 using one-half standard deviation shocks	36	45	59	60	60	61	59	44
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	36	55	55	56	57	57	59	55
PV of debt-to-exports ratio								
Baseline	122	122	112	105	101	96	99	91
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	122	85	56	40	32	30	40	66
A2. New public sector loans on less favorable terms in 2009-2029 2/	122	130	126	125	125	123	141	139
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	122	122	112	105	101	96	99	91
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	122	159	216	203	194	183	180	141
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	122	122	112	105	101	96	99	91
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	122	140	146	137	131	124	122	98
B5. Combination of B1-B4 using one-half standard deviation shocks	122	161	220	206	196	186	180	136
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	122	122	112	105	101	96	99	91
PV of debt-to-revenue ratio								
Baseline	115	125	125	128	130	131	135	124
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	115	87	62	49	42	40	54	90
A2. New public sector loans on less favorable terms in 2009-2029 2/	115	133	141	153	161	168	192	189
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	115	126	129	132	134	135	139	128
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	115	140	172	175	177	178	174	136
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	115	128	131	134	136	137	141	129
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	115	144	164	167	168	169	166	133
B5. Combination of B1-B4 using one-half standard deviation shocks	115	145	190	193	194	195	188	142
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	115	177	178	182	184	185	191	175

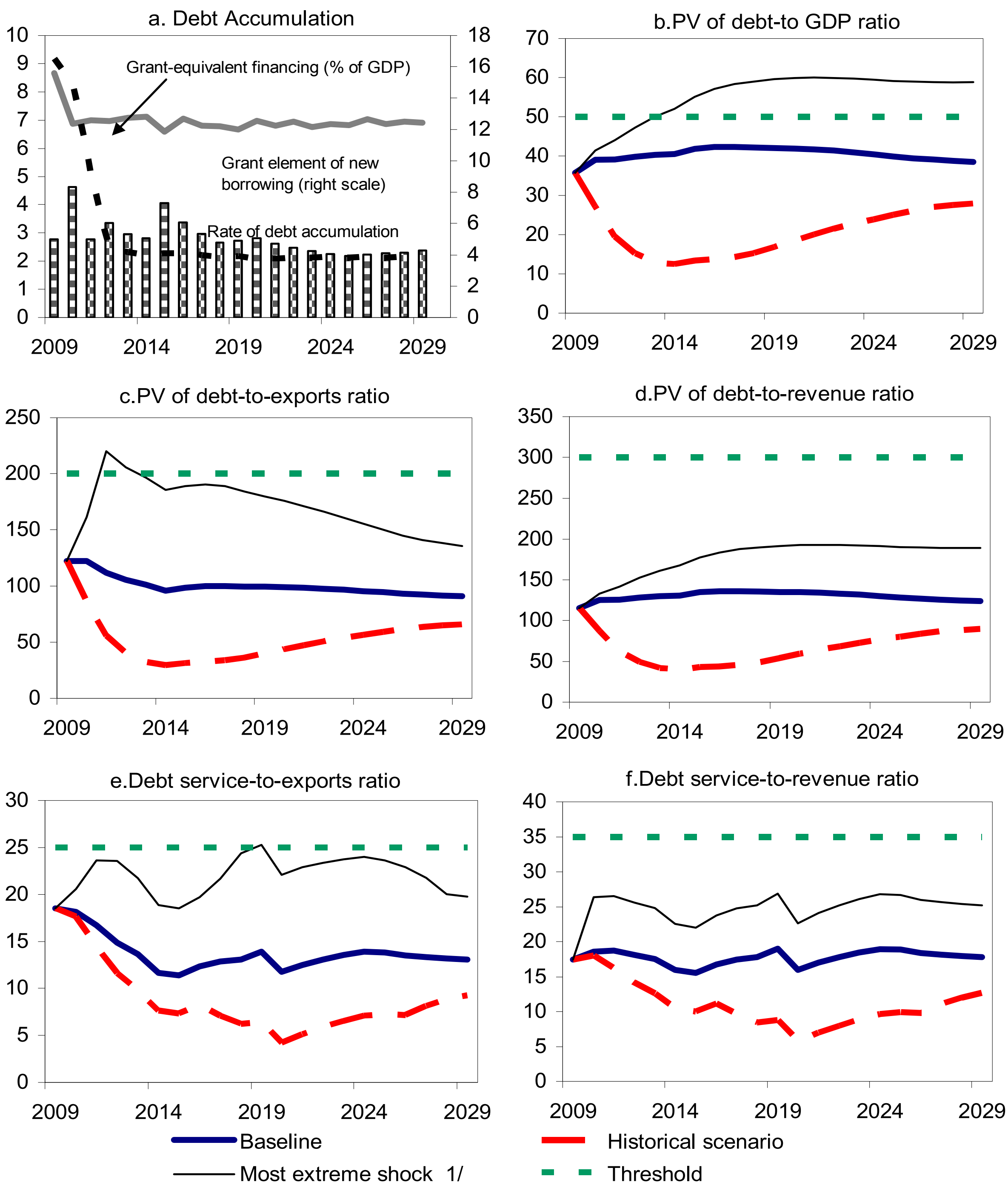
Table 4. St. Vincent and the Grenadines: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2009-2029 (continued)
(In percent)

	Projections							
	2009	2010	2011	2012	2013	2014	2019	2029
Debt service-to-exports ratio								
Baseline	19	18	17	15	14	12	14	13
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	19	18	14	12	10	8	6	9
A2. New public sector loans on less favorable terms in 2009-2029 2/	19	18	16	15	14	12	10	8
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	19	18	17	15	14	12	14	13
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	19	21	25	24	22	19	25	20
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	19	18	17	15	14	12	14	13
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	19	18	18	17	15	13	17	14
B5. Combination of B1-B4 using one-half standard deviation shocks	19	21	24	24	22	19	25	20
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	19	18	17	15	14	12	14	13
Debt service-to-revenue ratio								
Baseline	17	19	19	18	18	16	19	18
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2009-2029 1/	17	18	16	14	13	10	9	13
A2. New public sector loans on less favorable terms in 2009-2029 2/	17	19	18	18	18	16	14	11
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2010-2011	17	19	19	19	18	16	20	18
B2. Export value growth at historical average minus one standard deviation in 2010-2011 3/	17	19	20	21	20	19	24	20
B3. US dollar GDP deflator at historical average minus one standard deviation in 2010-2011	17	19	20	19	18	17	20	19
B4. Net non-debt creating flows at historical average minus one standard deviation in 2010-2011 4/	17	19	20	20	20	18	23	19
B5. Combination of B1-B4 using one-half standard deviation shocks	17	19	20	22	22	20	26	21
B6. One-time 30 percent nominal depreciation relative to the baseline in 2010 5/	17	26	27	26	25	23	27	25
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	0	0	0	0	0	0	0	0

Sources: 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 assumingan 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.

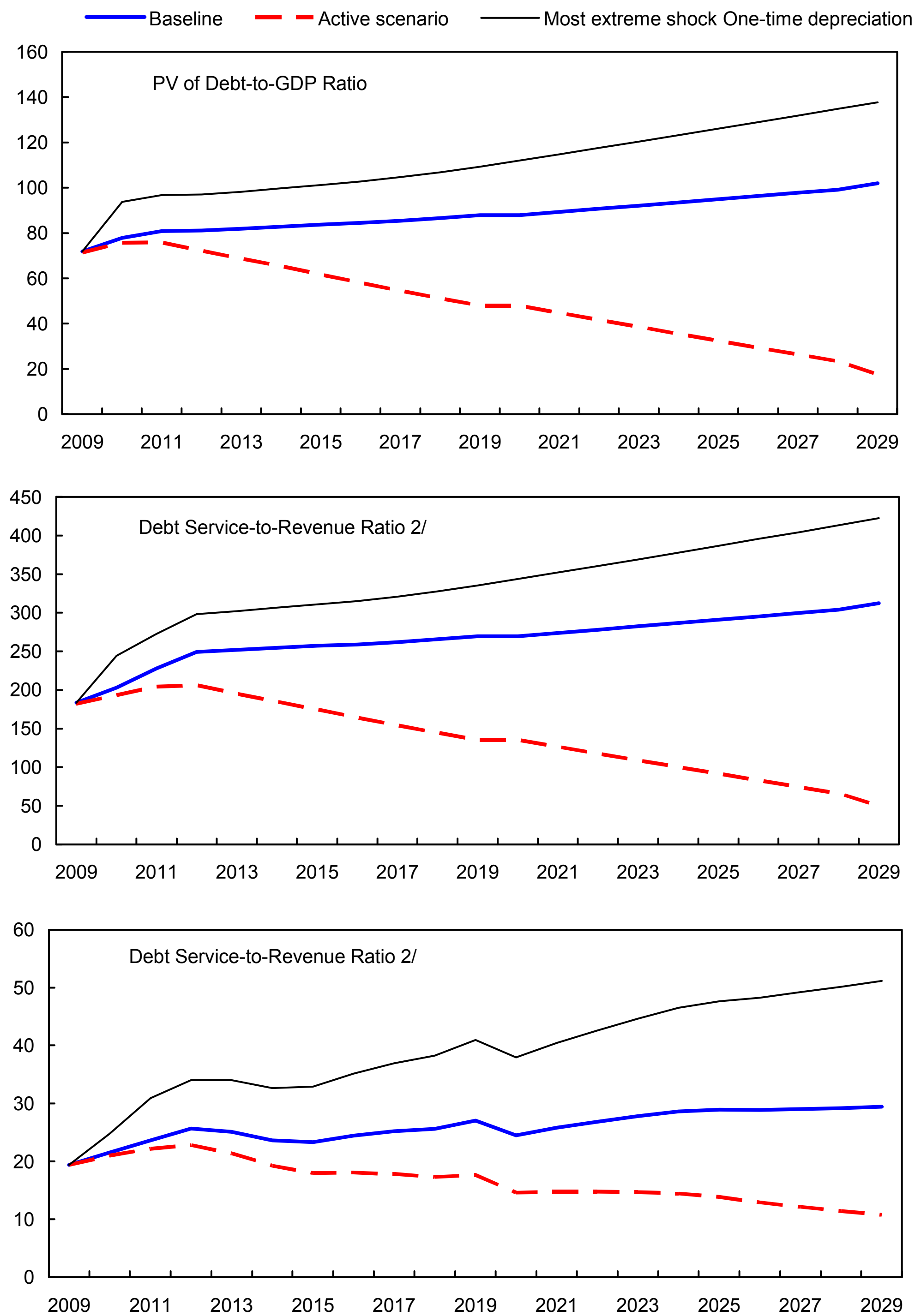
Figure 1. St. Vincent and the Grenadines: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2009-2029 1/



Sources: 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 Terms shock; in c. to a Combination shock; in d. to a Terms shock; in e. to a Combination shock and in picture f. to a One-time depreciation shock

Figure 2. St. Vincent and the Grenadines: Indicators of Public Debt Under Alternative Scenarios, 2009–29 1/



Sources: St. Vincent and the Grenadines authorities; and Fund staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio in 2019.
2/ Revenues are defined inclusive of grants