

**EXECUTIVE  
BOARD  
MEETING**

EBS/20/106  
Supplement 1

May 27, 2020

To: Members of the Executive Board

From: The Secretary

Subject: **Sierra Leone—Request for Disbursement Under the Request Credit Facility—  
Debt Sustainability Analysis**

Board Action:	Executive Directors' <b>consideration</b> (Formal)
Prepared By:	The staffs of the Fund and the International Development Association
Tentative Board Date:	<b>Wednesday, June 3, 2020</b>
Publication:	Yes*
Questions:	Ms. Ongley, AFR (ext. 38414) Ms. Aivazova, AFR (ext. 38936) Ms. Mowatt, AFR (ext. 35985) Ms. Newiak, AFR (ext. 36110)
Document Transmittal in the Absence of an Objection and in accordance with Board policy:	After Board Consideration—African Development Bank, Islamic Development Bank, World Trade Organization

\*The authorities have indicated that they consent to the Fund's publication of this paper.





# SIERRA LEONE

## REQUEST FOR DISBURSEMENT UNDER THE RAPID CREDIT FACILITY—DEBT SUSTAINABILITY ANALYSIS<sup>1</sup>

May 27, 2020

Approved By  
**Dominique Desruelle and  
 Kevin Fletcher (IMF) and  
 Marcello Estevão (IDA)**

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

<b>Risk of external debt distress</b>	High
<b>Overall risk of debt distress</b>	High
<b>Granularity in the risk rating</b>	Sustainable
<b>Application of judgment</b>	No
<b>Macroeconomic projections</b>	This DSA incorporates the expected economic impact of the COVID-19 pandemic and policy response, with a sharp decline in growth (down more than 7 percentage points relative to pre-crisis projections) and exports (down one-third), and the fiscal deficit widens (by 3½ percentage points of GDP, including expected additional budget support grants and debt relief) in 2020. Growth is assumed to gradually rebound in 2021. The outlook is clouded with uncertainty and risks.
<b>Financing strategy</b>	With little fiscal space and a shallow domestic banking system, highly concessional financing and grants from development partners will be essential to meet the urgent and large financing gaps arising from the pandemic. This DSA incorporates a proposed RCF disbursement equivalent to 50 percent of quota.
<b>Realism tools flagged</b>	No
<b>Mechanical risk rating under the external DSA</b>	High
<b>Mechanical risk rating under the public DSA</b>	High

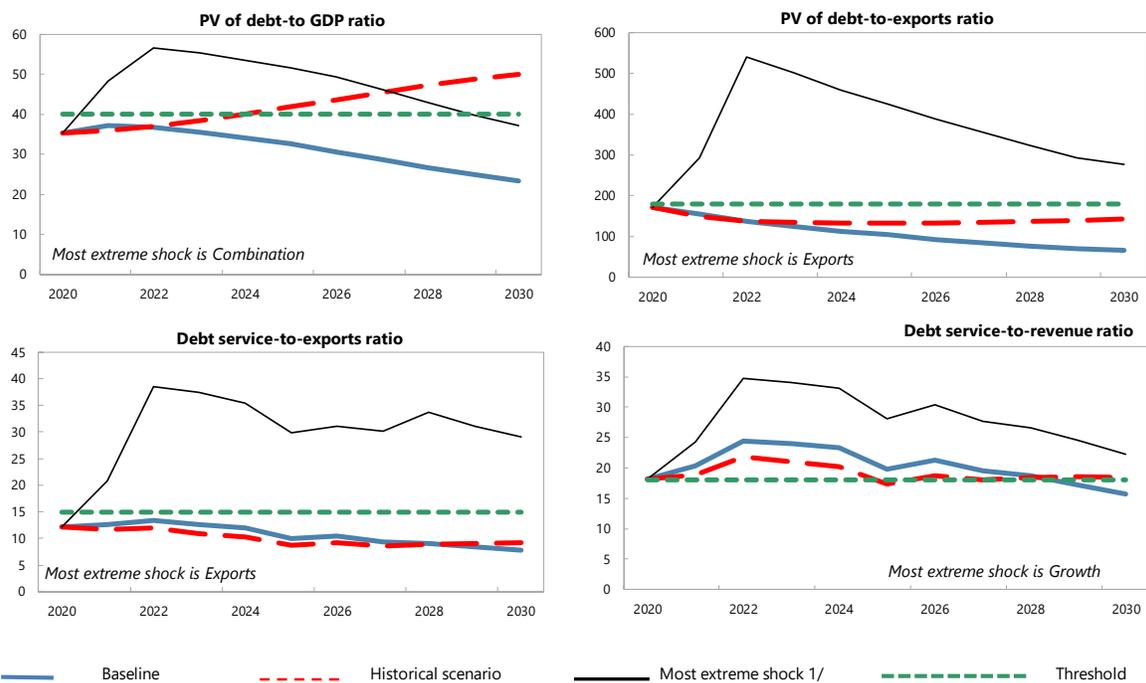
<sup>1</sup> The DSA follows the IMF and World Bank Staff Guidance Note on the Bank-Fund Debt Sustainability Framework for Low-Income Countries (February 2018). The Composite Indicator (CI) score of 2.693 based on the October 2019 WEO and the World Bank's 2018 CPIA (released in July 2019) indicates a medium debt-carrying capacity. The corresponding external debt indicative thresholds are: 40 percent for the present value (PV) of debt-to-GDP ratio; 180 percent for the PV of debt-to-exports ratio; 15 percent for the debt service-to-exports ratio; and 18 percent for the debt service-to-revenue ratio. Debt coverage remains unchanged from the previous DSA.

*While Sierra Leone's debt remains sustainable, the risk of external and overall debt distress remains high—and the COVID-19 shock has elevated risks. The baseline macroeconomic scenario reflects both the deleterious effects of the COVID-19 shock on growth, exports, and revenues, and measures to combat the health and socio-economic effects of the pandemic. External and domestic financing needs have widened sharply in 2020, worsening all external and public finance indicators relative to the last DSA in March 2020, despite additional grant assistance from development partners. This DSA also assumes that the external financing gap created by the shock will be almost entirely filled by disbursement of the Rapid Credit Facility (RCF) (which would be on-lent to support the budget) and additional budget and project support grants from the World Bank after the COVID-19 shock. It also assumes debt service relief under the IMF's Catastrophe Containment and Relief Trust (CCRT), and that the authorities are seeking temporary relief under the Debt Service Suspension Initiative supported by the G20 and Paris Club. The authorities are continuing discussions with development partners to finalize support to address the relatively small remaining gap.*

*The setback to revenue mobilization under the baseline is long-lasting, and results in a larger and more prolonged breach of the external-debt-service-to-revenue ratio relative to the previous DSA. The PV of public-debt-to-GDP tracks downward from 2021, but remains above the threshold until 2024. While other indicators also deteriorate with the COVID-19 shock, they remain below the thresholds. The public-debt-service-to-revenue ratio and gross financing need increase over the medium term, indicating vulnerabilities in liquidity. The stress scenarios highlight the sensitivities to shocks to exports and growth (and their combination), resulting in significant and persistent breaches in many indicators.*

*Reducing debt requires sustained adjustment underpinned by strengthened public financial management, effective expenditure prioritization, and redoubling structural reform efforts. The authorities remain committed to continuing revenue mobilization reforms in the wake of near-term COVID-19 setbacks, which is key for reducing risks to sustainability. Still, the required fiscal adjustment will be challenging and steadily reducing recourse to domestic debt limits the scope for public investment relative to the pre-crisis outlook. Thus, while external borrowing should continue to rely on concessional financing, substantial additional grant support will be essential to boosting post-COVID recovery efforts, maintaining sustainability, and continuing to meet Sierra Leone's large development needs.*

**Figure 1. Sierra Leone: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2020–30**



Customization of Default Settings		
	Size	Interactions
<b>Tailored Tests</b>		
Combined CLs	Yes	
Natural Disasters	n.a.	n.a.
Commodity Prices <sup>2/</sup>	No	No
Market Financing	n.a.	n.a.

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

Borrowing Assumptions for Stress Tests*		
	Default	User defined
<b>Shares of marginal debt</b>		
External PPG MLT debt	100%	
<b>Terms of marginal debt</b>		
Avg. nominal interest rate on new borrowing in USD	0.8%	0.8%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	29	29
Avg. grace period	5	5

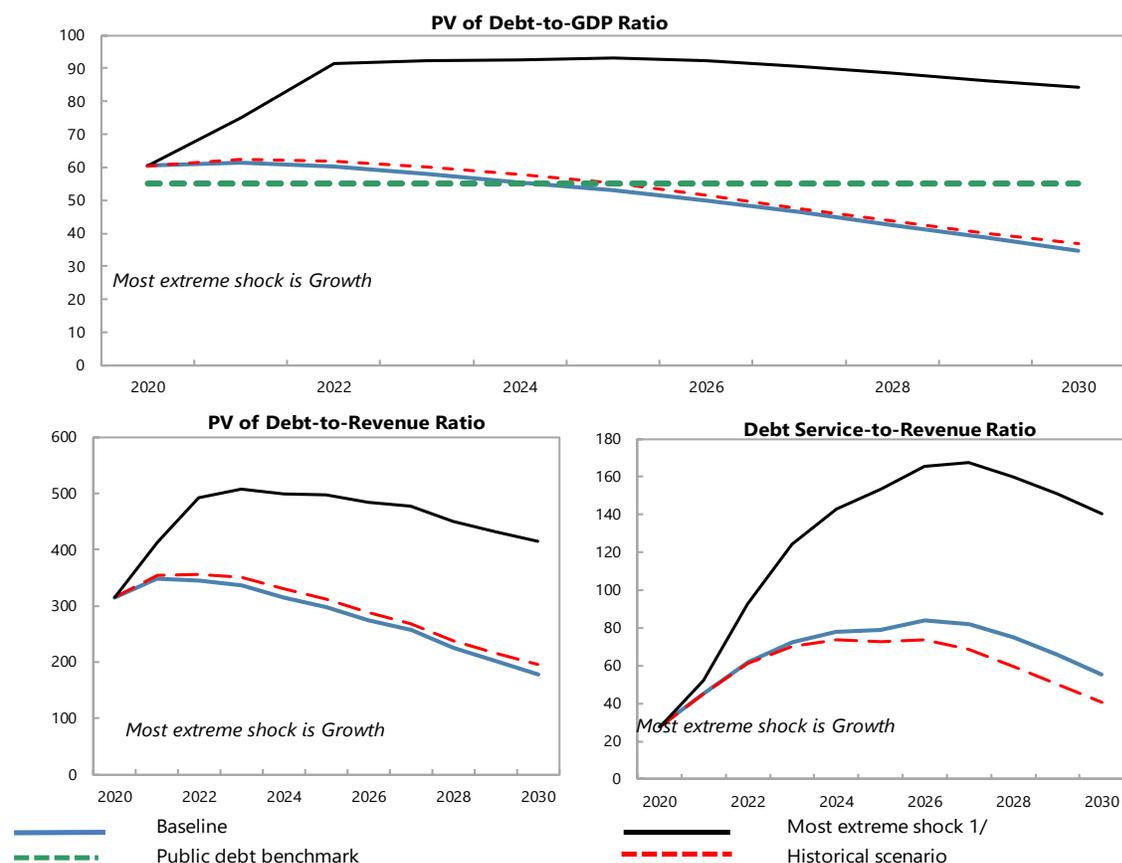
\* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Sierra Leonean authorities; and IMF staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. Stress tests with one-off breaches are also presented (in any), while these are one-breaches are deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

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

**Figure 2. Sierra Leone: Indicators of Public Debt Under Alternative Scenarios, 2020–30**



Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	32%	32%
Domestic medium and long-term	0%	0%
Domestic short-term	68%	68%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	0.8%	0.8%
Avg. maturity (incl. grace period)	29	29
Avg. grace period	5	5
Domestic MLT debt		
Avg. real interest rate on new borrowing	0.0%	0.0%
Avg. maturity (incl. grace period)	1	1
Avg. grace period	0	0
Domestic short-term debt		
Avg. real interest rate	2%	2%

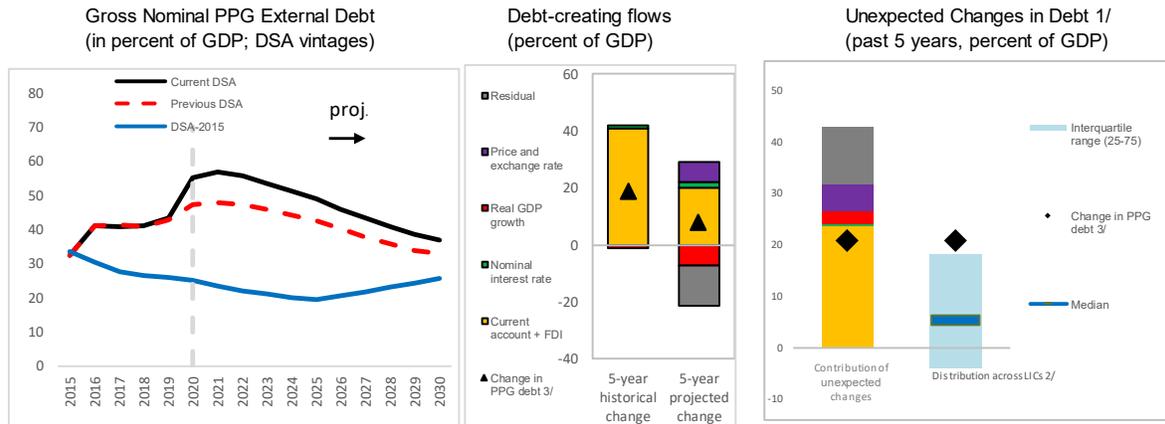
\* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

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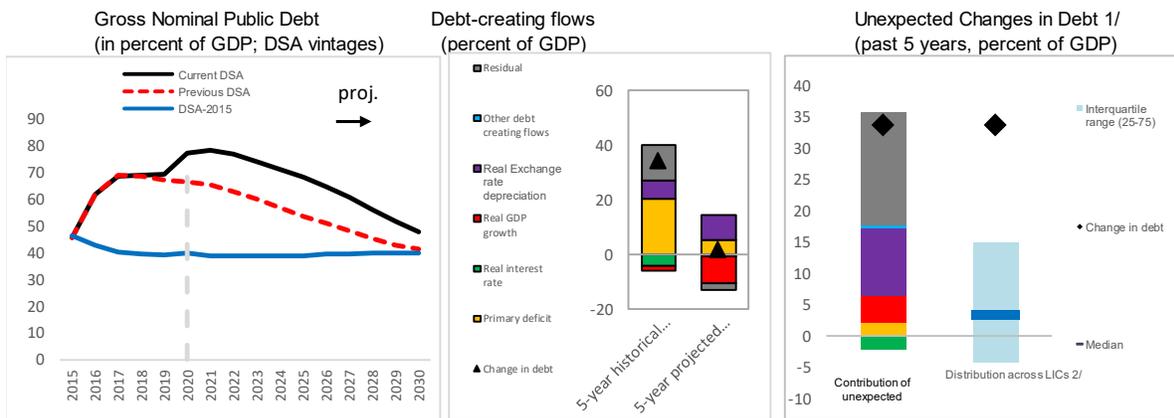
Sources: Sierra Leonean authorities; and IMF staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2030. The stress test with a one-off breach is also presented (in any), while the one-breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

**Figure 3. Sierra Leone: Drivers of Debt Dynamics, Baseline Scenario, 2015–30**



**Public debt**



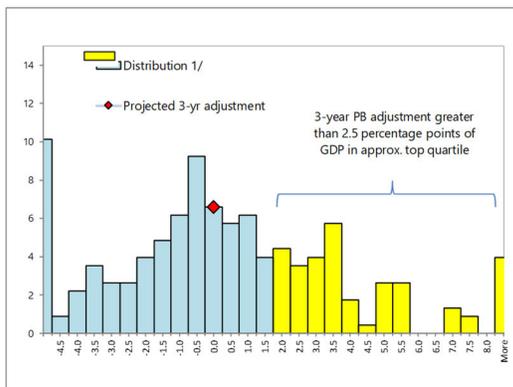
1/ Difference between anticipated and actual contributions on debt ratios.

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

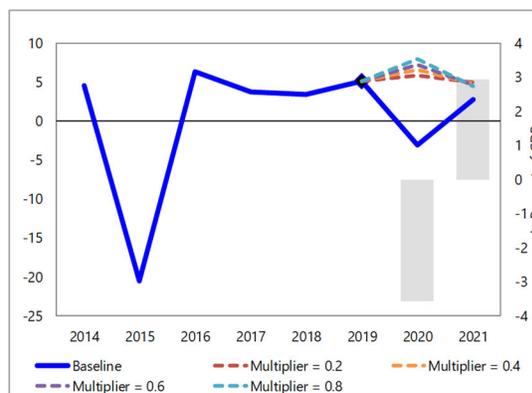
3/ Given the relatively low private external debt for average low-income countries, a ppt change in PPG external debt should be largely explained by the drivers of the external debt dynamics equation.

**Figure 4. Sierra Leone: Realism Tools**

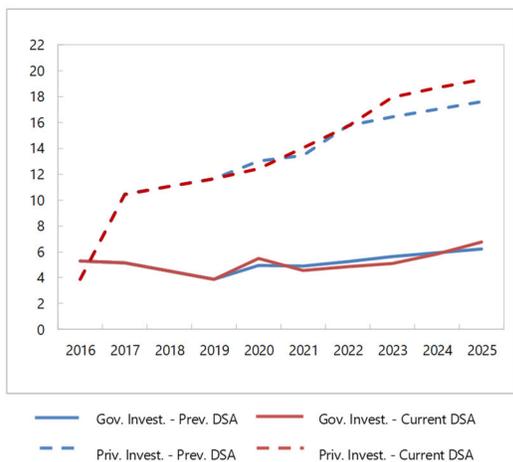
**3-Year Adjustment in Primary Balance**  
(In Percent of GDP)



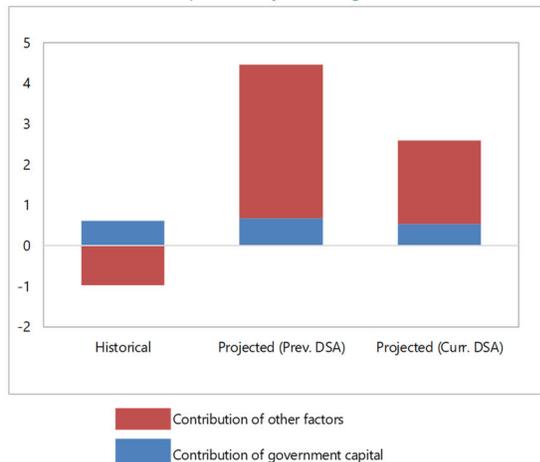
**Fiscal Adjustment and Possible Growth Paths 1/**  
(In Percent)



**Public and Private Investment Rates**  
(% of GDP)



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



**Table 1. Sierra Leone: External Debt Sustainability Framework, Baseline Scenario, 2017–40**  
(Percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections
<b>External debt (nominal) 1/</b>	40.8	41.2	43.2	55.0	56.7	55.6	53.5	51.1	48.8	36.7	30.4	33.6	47.8
<i>of which: public and publicly guaranteed (PPG)</i>	40.8	41.2	43.2	55.0	56.7	55.6	53.5	51.1	48.8	36.7	30.4	33.6	47.8
<b>Change in external debt</b>	-0.3	0.4	2.0	11.8	1.7	-1.1	-2.1	-2.4	-2.3	-1.7	-1.1	...	1.1
<b>Identified net debt-creating flows</b>	...	...	...	11.6	4.0	1.0	-1.0	-0.8	-0.7	0.4	1.0	...	1.1
<b>Non-interest current account deficit</b>	20.7	18.4	13.4	14.4	14.3	12.8	11.3	10.9	10.1	6.0	3.8	19.9	10.0
Deficit in balance of goods and services	22.5	21.0	19.1	21.0	19.9	18.5	16.4	15.9	14.9	10.4	7.6	25.5	15.1
Exports	20.3	18.1	22.1	20.4	24.0	26.7	28.2	29.9	31.3	35.0	31.4		
Imports	42.8	39.0	41.2	41.4	43.9	45.2	44.6	45.9	46.2	45.3	39.0		
Net current transfers (negative = inflow)	-4.2	-4.0	-7.3	-8.0	-6.9	-6.9	-6.6	-6.6	-6.3	-5.6	-4.5	-9.2	-6.5
<i>of which: official</i>	-1.4	-1.1	-3.6	-5.3	-3.4	-3.4	-3.1	-3.1	-2.9	-2.4	-1.7		
Other current account flows (negative = net inflow)	2.4	1.5	1.6	1.4	1.2	1.2	1.6	1.5	1.5	1.3	0.7	3.6	1.4
<b>Net FDI (negative = inflow)</b>	-11.1	-6.1	-8.9	-4.5	-9.1	-9.8	-10.2	-9.8	-8.9	-4.3	-1.7	-11.8	-7.6
<b>Endogenous debt dynamics 2/</b>	...	...	...	1.8	-1.2	-2.0	-2.1	-1.9	-1.9	-1.3	-1.1	...	...
Contribution from nominal interest rate	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3		
Contribution from real GDP growth	-1.6	-1.3	-2.1	1.4	-1.5	-2.4	-2.5	-2.3	-2.2	-1.6	-1.3		
Contribution from price and exchange rate changes	...	...	...	...	...	...	...	...	...	...	...		
<b>Residual 3/</b>	...	...	...	0.2	-2.3	-2.1	-1.1	-1.5	-1.6	-2.1	-2.1	...	-1.6
<i>of which: exceptional financing</i>	...	...	...	-0.8	-1.1	-0.3	0.1	0.1	0.0	0.0	0.0		
<b>Sustainability indicators</b>													
<b>PV of PPG external debt-to-GDP ratio</b>	...	...	28.0	35.2	37.0	36.7	35.5	33.9	32.5	23.4	19.9	...	...
<b>PV of PPG external debt-to-exports ratio</b>	...	...	126.7	172.4	154.3	137.3	125.7	113.4	103.9	66.9	63.4	...	...
<b>PPG debt service-to-exports ratio</b>	7.7	9.9	7.5	12.1	12.5	13.4	12.6	11.9	10.0	7.8	4.4	...	...
<b>PPG debt service-to-revenue ratio</b>	12.8	13.1	11.6	18.1	20.4	24.4	24.0	23.3	19.8	15.7	7.2	...	...
Gross external financing need (Million of U.S. dollars)	416.2	574.5	256.8	478.6	314.1	255.6	184.5	192.7	184.3	259.1	406.8		
<b>Key macroeconomic assumptions</b>													
Real GDP growth (in percent)	3.8	3.5	5.1	-3.1	2.7	4.2	4.5	4.5	4.6	4.5	4.6	5.0	3.8
GDP deflator in US dollar terms (change in percent)	-5.1	5.8	-2.5	-4.4	-3.9	-2.6	-1.6	-0.7	0.2	1.9	3.9	1.3	-0.5
Effective interest rate (percent) 4/	0.6	0.7	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.6	0.8
Growth of exports of G&S (US dollar terms, in percent)	1.7	-2.6	25.3	-14.5	16.1	13.1	8.7	9.9	9.6	5.8	6.5	18.7	7.9
Growth of imports of G&S (US dollar terms, in percent)	12.0	0.0	8.2	-6.9	4.7	4.5	1.5	6.7	5.5	5.3	5.9	18.0	4.2
Grant element of new public sector borrowing (in percent)	...	...	...	35.6	40.1	44.4	48.5	50.0	49.0	45.6	40.9	...	45.7
Government revenues (excluding grants, in percent of GDP)	12.2	13.7	14.2	13.6	14.8	14.7	14.8	15.3	15.7	17.5	19.3	11.6	15.7
Aid flows (in Million of US dollars) 5/	92.7	84.7	142.3	272.3	172.4	185.5	190.0	205.4	201.3	226.4	317.6		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	8.8	4.6	4.3	3.9	3.9	3.7	3.4	2.8	...	4.2
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	59.9	63.8	68.5	71.1	71.3	69.5	67.2	62.9	...	67.7
Nominal GDP (Million of US dollars)	3,729	4,082	4,186	3,877	3,826	3,883	3,996	4,145	4,346	5,919	11,803		
Nominal dollar GDP growth	-1.5	9.5	2.5	-7.4	-1.3	1.5	2.9	3.7	4.9	6.5	8.7	6.4	3.3
<b>Memorandum items:</b>													
PV of external debt 7/	...	...	28.0	35.2	37.0	36.7	35.5	33.9	32.5	23.4	19.9		
In percent of exports	...	...	126.7	172.4	154.3	137.3	125.7	113.4	103.9	66.9	63.4		
Total external debt service-to-exports ratio	7.7	9.9	7.5	12.1	12.5	13.4	12.6	11.9	10.0	7.8	4.4		
PV of PPG external debt (in Million of US dollars)	...	...	1171.9	1363.7	1416.6	1426.0	1418.8	1406.6	1411.7	1385.1	2349.9		
(PVT-PVT-1)/GDPt-1 (in percent)	...	...	...	4.6	1.4	0.2	-0.2	-0.3	0.1	0.1	1.3		
Non-interest current account deficit that stabilizes debt ratio	21.0	18.0	11.4	2.6	12.6	13.9	13.4	13.3	12.4	7.7	4.8		

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

3/ Includes exceptional financing (i.e., changes in arrears and debt relief); changes in gross foreign assets; and valuation adjustments. For projections also includes contribution from price and exchange rate changes.

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

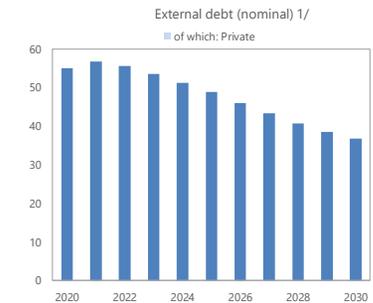
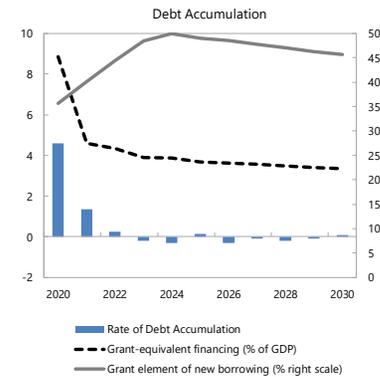
5/ Defined as grants, concessional loans, and debt relief.

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

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

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

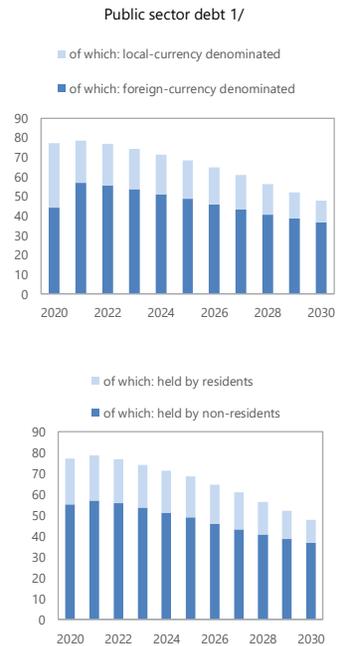
Definition of external/domestic debt	Residency-based
Is there a material difference between the two criteria?	No



**Table 2. Sierra Leone: Public Sector Debt Sustainability Framework, Baseline Scenario, 2019–40**  
(Percent of GDP, unless otherwise indicated)

	Actual		Projections								Average 8/ Historical Projections	
	2019	2020	2021	2022	2023	2024	2025	2030	2040	Historical	Projections	
<b>Public sector debt 1/</b>	<b>69.4</b>	<b>77.2</b>	<b>78.5</b>	<b>76.8</b>	<b>74.1</b>	<b>71.1</b>	<b>68.4</b>	<b>47.8</b>	<b>32.4</b>	<b>50.9</b>	<b>66.1</b>	
of which: external debt	43.2	55.0	56.7	55.6	53.5	51.1	48.8	36.7	30.4	33.6	47.8	
Change in public sector debt	0.3	7.8	1.3	-1.6	-2.7	-3.0	-2.8	-4.1	-1.3			
<b>Identified debt-creating flows</b>	<b>-1.7</b>	<b>9.0</b>	<b>0.7</b>	<b>-1.2</b>	<b>-1.9</b>	<b>-2.3</b>	<b>-2.3</b>	<b>-3.4</b>	<b>-4.5</b>	<b>0.9</b>	<b>-1.5</b>	
Primary deficit /2	0.2	3.8	0.9	0.4	0.2	0.1	0.5	-1.0	-1.9	3.3	0.2	
Revenue and grants /3	17.6	19.2	17.6	17.4	17.2	17.6	17.9	19.5	21.0	15.4	18.3	
of which: grants	3.4	5.6	2.8	2.8	2.4	2.3	2.1	2.0	1.7			
Primary (noninterest) expenditure	17.8	23.0	18.5	17.8	17.4	17.7	18.3	18.4	19.1	18.6	18.4	
<b>Automatic debt dynamics</b>	<b>-1.9</b>	<b>5.2</b>	<b>-0.2</b>	<b>-1.6</b>	<b>-2.1</b>	<b>-2.4</b>	<b>-2.8</b>	<b>-2.3</b>	<b>-2.6</b>			
Contribution from interest rate/growth differential	-4.1	2.0	-2.0	-3.5	-3.5	-3.3	-3.2	-2.4	-1.8			
of which: contribution from average real interest rate	-0.8	-0.2	0.0	-0.3	-0.2	-0.1	-0.1	-0.1	-0.3			
of which: contribution from real GDP growth	-3.4	2.2	-2.1	-3.2	-3.3	-3.2	-3.1	-2.2	-1.5			
Contribution from real exchange rate depreciation	2.2	...	...	...	...	...	...	...	...			
<b>Other identified debt-creating flows</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>									
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
<b>Residual</b>	<b>2.0</b>	<b>2.0</b>	<b>2.5</b>	<b>1.5</b>	<b>0.6</b>	<b>0.3</b>	<b>0.0</b>	<b>-0.7</b>	<b>2.4</b>	<b>1.3</b>	<b>0.4</b>	
<b>Sustainability indicators</b>												
<b>PV of public debt-to-GDP ratio 4/</b>	<b>56.3</b>	<b>60.5</b>	<b>61.5</b>	<b>60.1</b>	<b>57.9</b>	<b>55.4</b>	<b>53.1</b>	<b>34.8</b>	<b>22.1</b>			
<b>PV of public debt-to-revenue and grants ratio</b>	<b>319.9</b>	<b>315.1</b>	<b>348.6</b>	<b>345.0</b>	<b>336.5</b>	<b>314.3</b>	<b>297.4</b>	<b>178.6</b>	<b>105.1</b>			
<b>Debt service-to-revenue and grants ratio 5/</b>	<b>22.6</b>	<b>27.7</b>	<b>45.4</b>	<b>61.9</b>	<b>72.4</b>	<b>77.7</b>	<b>79.2</b>	<b>55.6</b>	<b>7.3</b>			
Gross financing need 6/	4.2	9.1	8.9	11.2	12.6	13.8	14.6	9.8	-0.4			
<b>Key macroeconomic and fiscal assumptions</b>												
Real GDP growth (in percent)	5.1	-3.1	2.7	4.2	4.5	4.5	4.6	4.5	4.6	5.0	3.8	
Average nominal interest rate on external debt (in percent)	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.6	0.8	
Average real interest rate on domestic debt (in percent)	-1.4	-0.8	1.5	2.2	2.1	2.2	2.3	1.9	2.0	-0.4	2.0	
Real exchange rate depreciation (in percent, + indicates depreciation)	5.8	...	...	...	...	...	...	...	...	0.1	...	
Inflation rate (GDP deflator, in percent)	11.3	12.7	13.0	11.1	9.8	8.8	8.1	5.0	4.9	11.5	8.2	
Growth of real primary spending (deflated by GDP deflator, in percent)	0.9	25.2	-17.4	0.4	2.0	6.5	8.2	6.5	4.6	6.3	4.5	
Primary deficit that stabilizes the debt-to-GDP ratio 7/	-0.1	-4.0	-0.4	2.0	2.9	3.1	3.2	3.0	-0.6	0.7	2.1	
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			

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



Sources: Country authorities; and staff estimates and projections.

- 1/ Coverage of debt: The central government plus social security, central bank, government-guaranteed debt. Definition of external debt is Residency-based.
- 2/ Distinct from the *domestic* primary balance as shown in Staff Report tables 2a and 2b, which for program purposes exclude grants and foreign financed capital spending.
- 3/ Projections assume debt relief under the IMF's Catastrophe Containment and Relief Trust (CCRT) through April 2022, subject to the availability of resources.
- 4/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.
- 5/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.
- 6/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.
- 7/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio (-): a primary surplus, which would stabilize the debt ratio only in the year in question.
- 8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 3. Sierra Leone: Sensitivity Analysis, External Debt, 2020-2030

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>PV of debt-to GDP ratio</b>											
<b>Baseline</b>	35.2	37.0	36.7	35.5	33.9	32.5	30.6	28.7	26.7	24.8	23.4
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	35.2	36.0	36.8	38.4	39.9	<b>41.8</b>	<b>43.5</b>	<b>45.4</b>	<b>47.1</b>	<b>48.7</b>	<b>50.0</b>
<b>B. Bound Tests</b>											
B1. Real GDP growth	35.2	<b>44.2</b>	<b>52.2</b>	<b>50.5</b>	<b>48.2</b>	<b>46.2</b>	<b>43.5</b>	<b>40.8</b>	37.9	35.3	33.3
B2. Primary balance	35.2	37.8	39.0	38.7	37.8	36.8	35.1	33.3	31.1	29.1	27.5
B3. Exports	35.2	<b>44.3</b>	<b>56.1</b>	<b>55.0</b>	<b>53.4</b>	<b>51.7</b>	<b>49.5</b>	<b>46.9</b>	<b>43.4</b>	<b>40.2</b>	37.5
B4. Other flows 3/	35.2	<b>45.7</b>	<b>54.3</b>	<b>53.3</b>	<b>51.9</b>	<b>50.3</b>	<b>48.3</b>	<b>45.6</b>	<b>42.1</b>	39.0	36.4
B5. One-time 30 percent nominal depreciation	35.2	<b>47.4</b>	<b>43.5</b>	<b>41.9</b>	39.9	38.0	35.6	33.3	30.9	28.9	27.3
B6. Combination of B1-B5	35.2	<b>48.3</b>	<b>56.5</b>	<b>55.2</b>	<b>53.4</b>	<b>51.6</b>	<b>49.2</b>	<b>46.3</b>	<b>42.8</b>	39.7	37.2
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	35.2	39.1	<b>40.3</b>	40.0	39.0	37.9	36.2	34.4	32.4	30.5	29.0
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	35.2	37.8	38.3	37.2	35.5	33.9	31.8	29.6	27.2	25.1	23.4
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Threshold</b>	40	40	40	40	40	40	40	40	40	40	40
<b>PV of debt-to-exports ratio</b>											
<b>Baseline</b>	172.4	154.3	137.3	125.7	113.4	103.9	93.4	84.9	77.2	70.6	66.9
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	172.4	149.8	137.7	135.9	133.3	133.8	133.0	134.4	136.5	138.4	142.9
<b>B. Bound Tests</b>											
B1. Real GDP growth	172.4	154.3	137.3	125.7	113.4	103.9	93.4	84.9	77.2	70.6	66.9
B2. Primary balance	172.4	157.7	145.8	137.2	126.4	117.5	107.2	98.4	90.1	82.9	78.8
B3. Exports	172.4	<b>292.1</b>	<b>539.7</b>	<b>500.9</b>	<b>458.8</b>	<b>425.4</b>	<b>388.9</b>	<b>356.5</b>	<b>322.5</b>	<b>293.6</b>	<b>276.0</b>
B4. Other flows 3/	172.4	<b>190.4</b>	<b>203.1</b>	<b>188.8</b>	173.3	161.0	147.5	134.9	122.0	110.9	104.2
B5. One-time 30 percent nominal depreciation	172.4	154.3	127.1	115.9	104.1	95.0	85.0	76.9	70.0	64.2	61.0
B6. Combination of B1-B5	172.4	<b>230.5</b>	177.8	<b>258.2</b>	<b>235.8</b>	<b>218.1</b>	<b>198.8</b>	<b>180.9</b>	163.8	149.2	140.5
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	172.4	163.0	150.5	141.6	130.4	121.4	110.7	101.9	93.7	86.7	82.9
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	172.4	162.9	147.0	134.2	120.4	109.5	97.5	87.9	79.1	71.7	67.3
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Threshold</b>	180	180	180	180	180	180	180	180	180	180	180
<b>Debt service-to-exports ratio</b>											
<b>Baseline</b>	12.1	12.5	13.4	12.6	11.9	10.0	10.5	9.3	9.1	8.4	7.8
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	12.1	11.6	12.0	11.0	10.3	8.7	9.2	8.6	8.9	9.0	9.2
<b>B. Bound Tests</b>											
B1. Real GDP growth	12.1	12.5	13.4	12.6	11.9	10.0	10.5	9.3	9.1	8.4	7.8
B2. Primary balance	12.1	12.5	13.4	12.7	12.1	10.1	10.7	9.6	9.6	9.1	8.5
B3. Exports	12.1	<b>20.8</b>	<b>38.5</b>	<b>37.4</b>	<b>35.5</b>	<b>29.8</b>	<b>31.1</b>	<b>30.2</b>	<b>33.6</b>	<b>31.1</b>	<b>29.1</b>
B4. Other flows 3/	12.1	12.5	13.9	13.5	12.8	10.7	11.2	11.5	12.5	11.6	10.8
B5. One-time 30 percent nominal depreciation	12.1	12.5	13.4	12.4	11.8	9.8	10.4	9.2	8.5	7.9	7.4
B6. Combination of B1-B5	12.1	<b>15.7</b>	<b>21.7</b>	<b>20.6</b>	<b>19.5</b>	<b>16.4</b>	<b>17.1</b>	<b>17.2</b>	<b>17.6</b>	<b>16.2</b>	<b>15.2</b>
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	12.1	12.5	13.5	12.7	12.1	10.2	10.7	9.5	9.3	8.6	8.0
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	12.1	13.1	14.0	13.1	12.4	10.4	10.9	9.7	9.6	8.8	8.2
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Threshold</b>	15	15	15	15	15	15	15	15	15	15	15
<b>Debt service-to-revenue ratio</b>											
<b>Baseline</b>	18.1	20.4	24.4	24.0	23.3	19.8	21.3	19.5	18.7	17.3	15.7
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	18.1	18.9	21.8	20.9	20.2	17.3	18.7	18.0	18.4	18.6	18.4
<b>B. Bound Tests</b>											
B1. Real GDP growth	18.1	24.3	34.7	34.1	33.1	28.1	30.3	27.7	26.5	24.5	22.2
B2. Primary balance	18.1	20.4	24.5	24.2	23.6	20.1	21.7	20.2	19.8	18.6	17.1
B3. Exports	18.1	21.4	27.3	27.8	27.0	23.0	24.6	24.7	26.9	24.8	22.6
B4. Other flows 3/	18.1	20.4	25.3	25.7	25.0	21.3	22.8	24.1	25.8	23.8	21.7
B5. One-time 30 percent nominal depreciation	18.1	26.1	31.2	30.3	29.5	25.0	27.0	24.7	22.4	20.7	18.8
B6. Combination of B1-B5	18.1	22.2	29.9	29.7	28.9	24.6	26.4	27.4	27.3	25.2	23.0
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	18.1	20.4	24.6	24.3	23.7	20.2	21.8	20.0	19.1	17.7	16.0
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	18.1	22.2	26.9	26.7	25.5	21.2	22.4	20.3	19.6	18.1	16.3
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Threshold</b>	18	18	18	18	18	18	18	18	18	18	18

Sources: Country authorities; and staff estimates and projections.

1/ A bold value indicates a breach of the threshold.

2/ Variables include real GDP growth, GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

3/ Includes official and private transfers and FDI.

Table 4. Sierra Leone: Sensitivity Analysis, Public Debt, 2020-2030

	Projections 1/										
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>PV of Debt-to-GDP Ratio</b>											
<b>Baseline</b>	<b>60.5</b>	<b>61.5</b>	<b>60.1</b>	<b>57.9</b>	<b>55.4</b>	53.1	50.0	46.6	42.6	38.6	34.8
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	61	62	62	60	58	55	52	48	44	40	37
<b>B. Bound Tests</b>											
B1. Real GDP growth	61	75	91	92	92	93	92	91	88	86	84
B2. Primary balance	61	66	68	65	62	59	56	52	48	43	39
B3. Exports	61	67	76	74	71	69	65	61	56	51	46
B4. Other flows 3/	61	71	79	77	74	72	68	64	58	53	48
B5. One-time 30 percent nominal depreciation	61	65	62	59	56	53	49	45	40	35	31
B6. Combination of B1-B5	61	66	68	63	61	59	56	52	48	44	40
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	61	72	69	66	63	60	57	53	49	45	41
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	61	66	71	74	76	78	79	78	78	77	76
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Public debt benchmark</b>	55	55	55	55	55	55	55	55	55	55	55
<b>PV of Debt-to-Revenue Ratio</b>											
<b>Baseline</b>	<b>315.1</b>	<b>348.6</b>	<b>345.0</b>	<b>336.5</b>	<b>314.3</b>	297.4	274.5	256.6	225.9	201.6	178.6
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	315	354	356	351	330	312	288	268	238	216	195
<b>B. Bound Tests</b>											
B1. Real GDP growth	315	414	493	508	499	497	484	478	450	432	415
B2. Primary balance	315	372	390	377	350	330	305	286	253	227	202
B3. Exports	315	380	434	427	403	384	357	336	296	265	236
B4. Other flows 3/	315	401	452	445	420	401	374	351	309	277	246
B5. One-time 30 percent nominal depreciation	315	372	362	349	321	298	270	248	213	185	159
B6. Combination of B1-B5	315	374	387	360	341	326	303	286	254	229	205
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	315	407	396	383	356	337	311	292	259	233	208
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	315	400	434	459	453	451	439	432	412	402	393
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Debt Service-to-Revenue Ratio</b>											
<b>Baseline</b>	<b>27.7</b>	<b>45.4</b>	<b>61.9</b>	<b>72.4</b>	<b>77.7</b>	79.2	84.2	81.9	74.9	65.7	55.6
<b>A. Alternative Scenarios</b>											
A1. Key variables at their historical averages in 2020-2030 2/	28	45	61	70	73	73	74	68	60	50	40
<b>B. Bound Tests</b>											
B1. Real GDP growth	28	52	93	125	143	153	165	167	160	151	141
B2. Primary balance	28	45	80	105	99	93	94	89	80	70	60
B3. Exports	28	45	62	74	79	80	85	85	80	71	60
B4. Other flows 3/	28	45	63	74	79	81	86	86	81	72	61
B5. One-time 30 percent nominal depreciation	28	45	62	71	77	78	83	80	73	64	54
B6. Combination of B1-B5	28	46	65	77	86	90	97	96	89	80	70
<b>C. Tailored Tests</b>											
C1. Combined contingent liabilities	28	45	108	103	98	93	93	88	79	69	58
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	28	49	85	124	143	151	159	158	149	141	133
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sources: Country authorities; and staff estimates and projections.

1/ A bold value indicates a breach of the threshold.

2/ Variables include real GDP growth, GDP deflator and primary deficit in percent of GDP.

3/ Includes official and private transfers and FDI.