EXECUTIVE BOARD MEETING

EBS/20/27
Supplement 1

March 25, 2020

To: Members of the Executive Board

From: The Secretary

Subject: **Sierra Leone—Staff Report for the 2019 Article IV Consultation, Second Review Under the Extended Credit Facility Arrangement, Request for a Waiver of Nonobservance of Performance Criterion, and Financing Assurances Review—Debt Sustainability Analysis**

Board Action:	Executive Directors' **consideration** (Formal)
Prepared By:	The staffs of the Fund and the International Development Association
Tentative Board Date:	**Friday, April 3, 2020**
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Questions:	Ms. Ongley, AFR (ext. 38414)
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.**

INTERNATIONAL MONETARY FUND

SIERRA LEONE

March 24, 2020

STAFF REPORT FOR THE 2019 ARTICLE IV CONSULTATION, SECOND REVIEW UNDER THE EXTENDED CREDIT FACILITY ARRANGEMENT, REQUEST FOR A WAIVER OF NONOBSERVANCE OF PERFORMANCE CRITERION, AND FINANCING ASSURANCES REVIEW—DEBT SUSTAINABILITY ANALYSIS[1]

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

Prepared by staff of the International Monetary Fund and International Development Association.

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

Sierra Leone's risk of external debt distress and overall risk of debt distress are both assessed as "high", unchanged from the 2018 DSA. Under the baseline scenario, the external debt service-to-revenue ratio breaches the threshold by a small margin during 2022-23. The probability approach shows that both the PV of the external debt-to-GDP ratio breaches the threshold throughout the period of the IMF-supported program, and the external debt service-to-revenue ratio substantially breaches the threshold through 2029. The public debt service-to-revenue ratio will rise to above 47 percent by 2022, before it starts to gradually fall. The recently verified large stock of domestic expenditure arrears also weighs on public finances in the medium term. The economy remains vulnerable to adverse shocks, while uncertainty in the mining sector clouds export and growth prospects. Nonetheless, Sierra Leone's debt is assessed to be sustainable under the program's policy settings. Reducing Sierra Leone's debt requires a comprehensive arrears clearance strategy, consistent with continued budget deficit reduction, and supported by strengthened public financial management, expenditure prioritization, and continued efforts to mobilize revenue. External borrowing should continue to be anchored by the objective of reducing the risk of debt distress. Staff recommendation is that the government should continue to rely heavily on concessional financing.

[1] The DSA follows the IMF and World Bank Staff Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries (February 2018). Sierra Leone's capacity to monitor debt is adequate. The Composite Indicator (CI) score is 2.69, 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.

RECENT DEBT DEVELOPMENTS

1. Total public and publicly guaranteed (PPG) external debt stood at 40.8 percent of GDP in 2018,[2] and is estimated to have increased slightly to 42.6 percent of GDP in 2019. External debt is predominantly owed to multilateral creditors (about 75 percent), in large part due to debt contracted for post-Ebola recovery and infrastructure construction needs. Sierra Leone has pre-HIPC debt (arrears) to commercial creditors—estimated at US$195 million (12.4 percent of total external debt) in 2018.

2. The updated estimate of domestic payment arrears reflects the findings of the Government's recent stocktaking exercise. The 2018 DSA estimated the stock of arrears at 4.7 percent of GDP, which reflected unpaid checks at the Ministry of Finance. However, in September 2019 the authorities completed an arrears stocktaking exercise that revealed a substantially large stock of arrears. Most of these arrears—Le 3.3 trillion or 8¾ percent of 2019 non-iron ore GDP—accumulated before April 2018, of which 90 percent accrued during 2016–17. These arrears principally reflect unpaid bills (general expenditure arrears) by ministries, departments and agencies in the road, security and energy sectors, and pre-April 2018 unpaid checks at the Ministry of Finance. A further ¾ percent of GDP of unpaid checks is estimated to have accrued since April 2018. As of end-2019, the updated domestic public debt stock is estimated to stand at approximately 25 percent of GDP (lower than the revised stock of 2018), largely reflecting lower fiscal deficit and higher nominal GDP.

3. The Government is finalizing its arrears clearance strategy. As noted in the staff report, and discussed in further detail in the selected issues paper on "Managing and Preventing Expenditure Arrears in Sierra Leone", clearing the arrears will require haircuts, repayment terms and phasing that would substantially reduce the NPV of future payments, while mobilizing additional highly concessional external resources. The baseline scenario assumes that the authorities will seek to resolve these arrears along these lines. Even with this updated arears stock, domestic debt remains smaller than external debt, with the latter driving public debt dynamics.

PUBLIC SECTOR DEBT COVERAGE

4. The DSA covers known sources of public debt (Text Table 1). As in the previous DSA, the debt stock includes central government public and publicly guaranteed debts. Sierra Leone's non-financial state-owned enterprises (SOEs) sector is smaller than regional peers, and key financial ratios of the sector appear to be at comparable levels. The public debt stock includes loans contracted on behalf of SOEs by the government. As reported above, the DSA also includes the updated estimate of the consolidated stock of domestic payment arrears, based on the Government's recent stocktaking exercise. The Government is working on improving its financial

[2] In 2018 and 2019, percentages in terms of GDP and non-iron ore GDP are broadly comparable.

management information systems, as well as enhancing the accounting and timely reporting of public debt, including those occurred by SOEs and self-accounting bodies.

Text Table 1. Sierra Leone: Public Sector Debt Coverage Under the Baseline Scenario

	Subsectors of the public sector	Sub-sectors covered
1	Central government	X
2	State and local government	
3	Other elements in the general government	
4	o/w: Social security fund	X
5	o/w: Extra budgetary funds (EBFs)	
6	Guarantees (to other entities in the public and private sector, including to SOEs)	X
7	Central bank (borrowed on behalf of the government)	X
8	Non-guaranteed SOE debt	

5. The contingent liability stress test accounts for vulnerabilities associated with state-owned enterprises (SOEs) and financial market risks (Text Table 2). The contingent liability for SOE debt is set to 7 percent of GDP, higher than the default 2 percent of GDP, reflecting the authorities' estimate of total external indebtedness of SOEs and self-accounting bodies. Contingent liabilities from financial markets are set at the standard minimum value of 5 percent of GDP, which represents the average cost to the government of a financial crisis in LICs since 1980. The contingent liability of other elements of the general government is set at 0 percent of GDP, since the estimated domestic arrears have been included in the baseline. Overall, Sierra Leone's total contingent liabilities are estimated at 12 percent of GDP.

Text Table 2. Sierra Leone: Coverage of the Contingent Liabilities' Stress Test

1. The country's coverage of public debt	The central government plus social security, central bank, government-guaranteed debt		
	Default	**Used for the Analysis**	**Reasons for deviations from the default setting**
2. Other elements of the general government not captured in 1.	0 percent of GDP	0.0	
3. SoE's debt (guaranteed and not guaranteed by the government) 1/	2 percent of GDP	7.0	Reflect the authorities' estimate of total external indebtedness of SOEs.
4. PPP	35 percent of PPP stock	0.0	
5. Financial market (the default value of 5 percent of GDP is the minimum value)	5 percent of GDP	5.0	
Total (2+3+4+5) (in percent of GDP)		12.0	

1/ The default shock of 2 percent of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1). If it is already included I the government debt (1) and risks associated with SoE's debt not guaranteed by the government is assessed to be negligible, a country team may reduce this to 0%.

KEY ASSUMPTIONS UNDER THE BASELINE SCENARIO

6. The macroeconomic assumptions reflect developments through end-2019 and are consistent with the macroeconomic framework in the staff report (Text Table 3). The key assumptions are:

- Growth is estimated to rebound in 2019 to 5.1 percent, following the resumption of iron ore production and migration to high-grade mines in early 2019. However, the suspension of Sierra Leone's only iron ore producer's export license, and recent care and maintenance status, dent both growth and exports in the near term. The outlook assumes that production will resume by the second half of 2020, effectively a year's lag in growth prospects relative to that assumed in the 2018 DSA. However, the outlook is prone to significant risks (including potential disruptions from a wider global spread of the Coronavirus) but also some upside potential. For example, slower than expected progress on reforms could undermine growth prospects, and less-than-expected donor financing may further constrain fiscal spending, harming efforts to rebuild productive capacity and growth.

- Inflation is projected to average around 10 percent over the medium term, declining somewhat more slowly than in the 2018 DSA as arrears clearance could initially add to inflationary pressure. Over the medium term, inflation is still expected to reach single digits with the improved fiscal situation and a strengthened monetary policy framework.

- The overall fiscal deficit is preliminarily estimated at 2.9 percent of GDP in 2019, compared with a deficit of 5.6 percent in 2018. The medium-term fiscal stance envisages gradual tightening of the structural fiscal deficit (measured by the domestic primary balance), anchored by stabilizing and reducing public debt, and keeping domestic financing at sustainable levels. The current baseline assumes the authorities will achieve domestic primary balance somewhat sooner in 2020.

- The current account deficit is estimated to be around 14 percent of GDP in 2019 and decline over the medium term, averaging over 11 percent of GDP. Although the REER is assessed to be overvalued, medium-term export growth is sustained by mineral exports (including the gradual production resumption of iron ore and the increasing production capacity of the rutile, diamond, and bauxite mines), and agricultural goods. However, the export outlook is subject to uncertainty, as discussed in the staff report. The current account deficit will continue to be largely financed by FDI.

Text Table 3. Sierra Leone: Key Macroeconomic Assumptions Underlying the DSA
(Percent of GDP, unless otherwise specified)

	Baseline		Baseline in 2018 DSA	
	2019-24	2025-39	2018-23	2024-38
Real GDP growth (in percent)	4.6	4.6	5.0	5.0
Inflation (GDP deflator; percent change)	10.0	5.3	10.7	5.3
Overall fiscal balance	-2.8	-2.2	-5.0	-1.2
Current account deficit	-11.4	-5.4	-10.7	-3.3
Net FDI inflow	7.8	3.2	7.4	1.3

Source: IMF staff calculations.

7. Arrears clearance and domestic financing. Arrears clearance will have implications for the budget and budget financing. Given the large stock of arrears and very limited fiscal space, the Government plans to seek large upfront discounts to ensure a sustainable arrears clearance plan. Absent a large discount and larger than typical external budget support expected in 2020, it may have been necessary to clear the arrears in two waves. The baseline assumes that the authorities could use available resources in 2020, including from development partners, to make upfront cash payment that could facilitate agreement on haircuts and repayment terms, with NPV ratios in the order of 40-45 percent (Text Table 4). The fiscal financing need would average around 0.4 percent of non-iron GDP per year over the medium term, and could be met through adjusting spending (mostly domestic capital) and very limited recourse to additional domestic financing (in line with the original program). Overall, the program continues to target gradually reducing domestic bank financing of the budget to around 2 percent of GDP by the end of the program. Domestic debt is projected to decline from about 25 percent of GDP in 2019 to around 10 percent of GDP in the long run, a level consistent with the long-run fiscal deficit target.

Text Table 4. Sierra Leone: Arrears Clearance Scenario Assumptions

Stock of Legacy Arrears	Leone 3,288 billion
Haircuts	30-70 percent
Maturity	5-10 years
Interest Rate on Securitized Arrears	CPI + 2pp
Interest Rate on Payment Term/Cash Payment[1]	0
Average NPV ratio	42 percent

[1] Interest rate applied for selected non-securitized arrears where repayment terms are agreed to suppliers.

8. External Financing. With the emphasis on seeking highly concessional external support, external loan disbursements are expected to be around 3 percent of GDP over the medium term. Whereas official grants are expected to remain high in 2019 and 2020 (3.3 percent of GDP and 3.9 percent of GDP, respectively) before gradually declining to 2½ percent of GDP by 2024. External

debt is projected to slightly increase from 40.8 percent of GDP in 2018 to 42.6 percent in 2019 and stabilize around 30 percent in the long run.

9. The "realism tool" flags potential optimism in the projected fiscal adjustment. While the revenue mobilization path underlying the projected adjustment path is ambitious, it is still more cautious than the authorities' stated 20 percent of GDP goal and more gradual than at the time the program was approved. Moreover, the authorities have adjusted expenditure faster than envisioned in 2018 and 2019H1, demonstrating their commitment to ensuring fiscal adjustment. Preliminary data through 2019 suggest that the overall fiscal deficit (excluding grants) narrowed to 6.3 percent of non-iron ore GDP (annualized) compared to 7.7 percent in 2018. Domestic revenues continued to improve, exceeding the program target. With the additional pressures from arrears clearance, fiscal adjustment will need to be underpinned by efforts to increase efficiency, and rebalance spending to support growth and poverty reduction. The optimism between fiscal adjustment and growth reflects fiscal adjustment that is driven in large part by revenue mobilization efforts with moderate multipliers and progress on resolving domestic payment arrears could help assuage pressures on growth. Differences between past and projected debt creating flows reflect the projected narrowing current account deficit and fiscal deficit. Other drivers of growth in the investment-growth "realism tool" include productivity gains in agricultural sector and pickup in the mining sector.

COUNTRY CLASSIFICATION: DEBT CARRYING CAPACITY

10. Sierra Leone is classified as having a medium debt-carrying capacity. The latest Composite Indicator (CI) score[4] for Sierra Leone is 2.693 in the current Debt Sustainability Framework, based on the IMF's October 2019 World Economic Outlook (WEO) vintage and the World Bank's 2018 CPIA. (Text Table 5). The CI score indicates a medium debt-carrying capacity—the same as the 2018 DSA. However, the current score is close to the threshold (2.69) and falling below this threshold for two consecutive WEO cycles would result in "weak" debt-carrying capacity classification (Text Table 6).

[4] The CI score captures the impact of several factors through a weighted average of the World Bank's Country Policy and Institutional Assessment (CPIA) score, the country's real GDP growth, remittances, international reserves, and world growth.

Text Table 5. Applicable Thresholds

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.197	1.23	46%
Real growth rate (in percent)	2.719	3.559	0.10	4%
Import coverage of reserves (in percent)	4.052	30.687	1.24	46%
Import coverage of reserves^2 (in percent)	-3.990	9.417	-0.38	-14%
Remittances (in percent)	2.022	1.230	0.02	1%
World economic growth (in percent)	13.520	3.499	0.47	18%
CI Score			2.693	100%
CI rating			Medium	

Text Table 6. PPG External Debt Thresholds and Total Public Debt Benchmarks

PV of debt in percent of	
Exports	180
GDP	40
Debt service in percent of	
Exports	15
Revenue	18
PV of total public debt in percent of GDP	55

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

11. External Debt Sustainability Analysis. In the baseline scenario, debt service-to-revenue registers a small breach in the threshold during 2022-23 because of the amortization schedule of currently contracted loans. This includes scheduled repayments to the Fund, rising from 0.3 percent of GDP in 2019 to peak at 1.4 percent of GDP per year during 2023-24. Other external PPG debt indicators remain below the policy relevant thresholds. Sensitivity analyses show that external debt remains sensitive to both export and growth shocks. A large export shock leads to significant increases and breaches in the threshold in the PV of debt-to-GDP, the PV of debt to exports, debt service to exports, and debt services to revenue (Figure 1). Using the probability approach—i.e., focusing on the evolution of the probability of debt distress rather than the evolution of debt burden indicators—the PV of the external debt-to-GDP ratio remains above the benchmark throughout the period of the IMF-supported program, and the external debt service to revenue ratio substantially breaches the threshold in the period through 2029 (Figure 5).

12. Overall risk of public debt distress. The PV of public debt is expected to gradually fall in the medium term. This reflects the incorporation of a higher estimate of the government arrears stock, and the impact of arrears clearance, where most of the arrears stock is expected to be amortized over the next 10 years. The debt service-to-revenue ratio will rise by 24 percentage points to around 47 percent in 2022-23, largely reflecting the peak in repayments of Ebola-related loans, before it starts to gradually fall. Sensitivity analysis reveals that public debt sustainability remains vulnerable to shocks, particularly to growth. In the most extreme shock scenario, the PV of debt to GDP ratio will reach around 80 percent in the medium term, while the PV of the debt to revenue ratio will rise to around 420 percent and the debt-service-to-revenue ratio to close to 100 percent in the medium term (Figure 2).

STAFF ASSESSMENT

13. Sierra Leone continues to face a "high" risk of debt distress. The designated risk of external debt and overall debt distress both remain "high" in the current DSA, as in the 2018 DSA. Under the baseline scenario, all but one indicator for PPG external debt remain below their thresholds. After breaching the threshold in 2018, the PV of total public debt is projected to fall. However, the forecast is subject to substantial risks, particularly given uncertainty about how arrears clearance will proceed. Public debt and external debt have been assessed as sustainable since debt is projected to decline gradually under the program's policy settings. The analysis confirms that public debt sustainability faces important risks and is vulnerable to shocks, particularly growth and exports shocks.

14. The analysis confirms the importance of budget deficit reduction and successful arrears clearance in reducing Sierra Leone's debt.

- Sustained fiscal adjustment will depend on strengthening public financial management, improving expenditure prioritization and efficiency, and continued efforts to mobilize revenue. While faster than anticipated adjustment under the ECF arrangement has so far reflected underspending and steady revenue progress, sustained revenue efforts will be critical to help keep debt service-to-revenue within the threshold and ensuring that adjustment is not unduly detrimental to growth-enhancing spending.

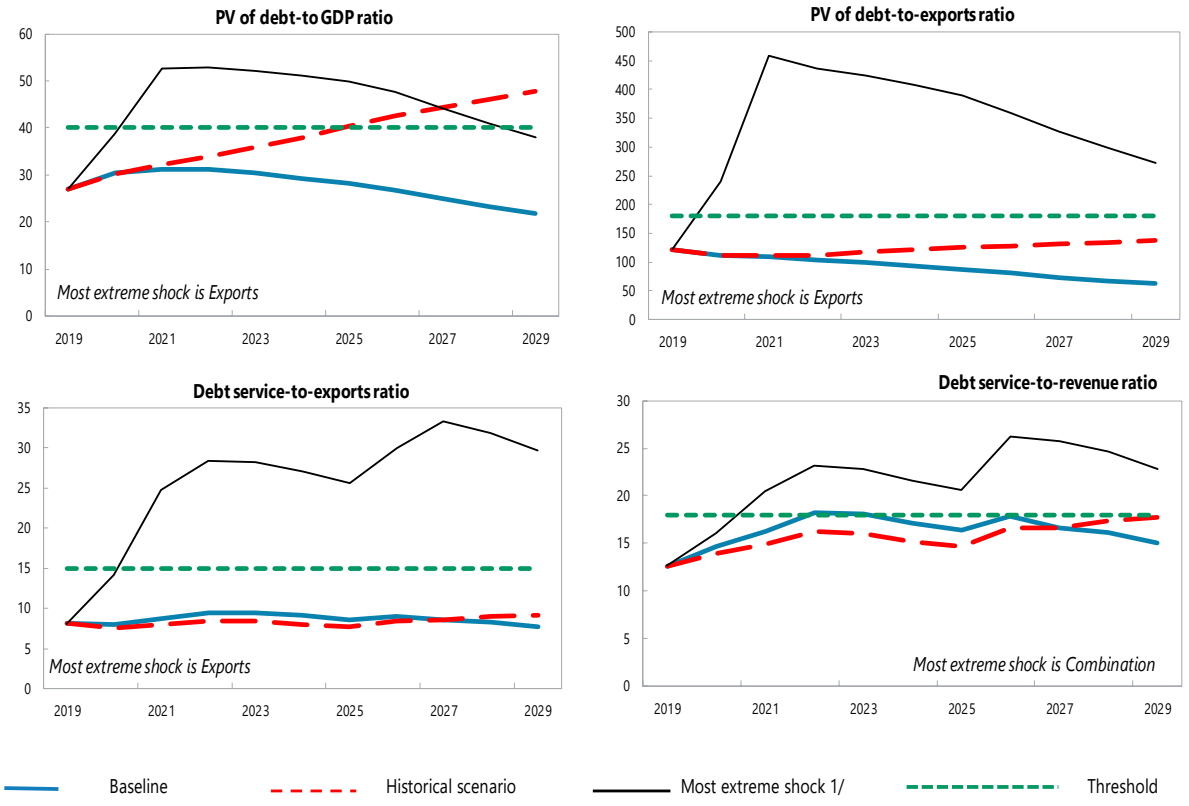
- The results also underscore the need to address the stock of arrears both expeditiously and on favorable terms. The baseline assumes deep discounts—average NPV ratios in the order of 40-45 percent—and the expected larger than usually external (grant) budget support. Thus, difficulties in securing either the terms envisaged in the authorities' forthcoming arrears clearance strategy or risks to concessional support could negatively impact, for instance, debt service ratios. This underscores the need for a systematic and transparent process for negotiating with suppliers, and securing external grant resources.

- Both domestic and external borrowing should continue to be anchored by the objective of reducing the risk of debt distress.

Authorities' Views

15. The authorities broadly agreed with staff's assessment. They are committed to implementing key reforms that aim to put debt on a sustainable path, principally through sustained fiscal adjustment that underpins the ECF-supported program, implementing their forthcoming arrears clearance strategy, and complementary debt management reforms. In that regard, they will continue improve debt management capacity, and prepare a medium-term debt management strategy that address key issues in both domestic, external and implicit debt, as well as the interlinkages with BSL balance sheet vulnerabilities. They also emphasized their recent efforts to prepare an arrears clearance strategy (including actions to prevent the reemergence of new arrears), which they expect to finalize and publish in early 2020. The authorities have also requested technical assistance from the IMF to improve the recording of arrears-related securitization and debt stocks. More broadly, they acknowledge the importance of maintaining prudent borrowing policy and using limited borrowing space cautiously. To this end, they will prioritize grants and highly concessional loans to finance the budget and especially infrastructure projects, particularly given the high cost of domestic debt, and avoid contracting debt that worsens the country's risk of debt distress.

Figure 1. Sierra Leone: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2019–28



Customization of Default Settings	Size	Interactions
Tailored Tests		
Combined CLs	Yes	
Natural Disasters	n.a.	n.a.
Commodity Prices 2/	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
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	0.9%	0.9%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	28	28
Avg. grace period	5	5

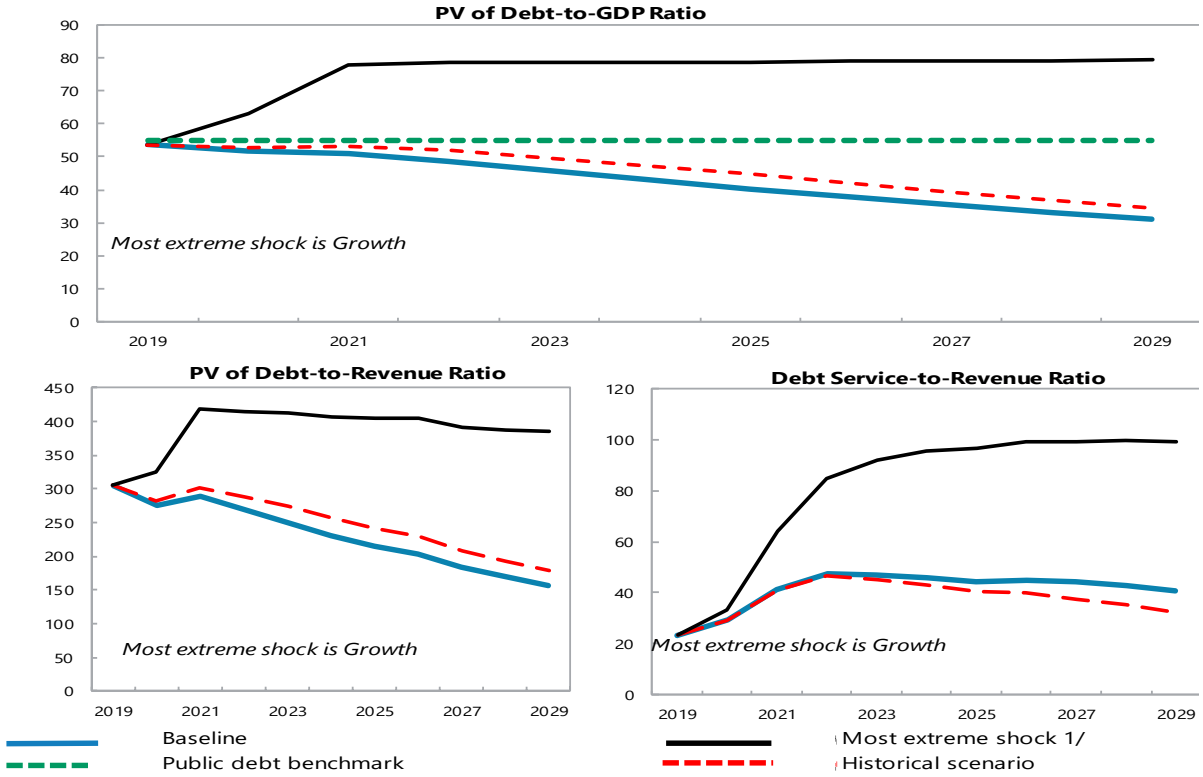
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2029. 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, 2019–28



Borrowing Assumptions for Stress Tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	47%	47%
Domestic medium and long-term	0%	0%
Domestic short-term	53%	53%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	0.9%	0.9%
Avg. maturity (incl. grace period)	28	28
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	6%	6%

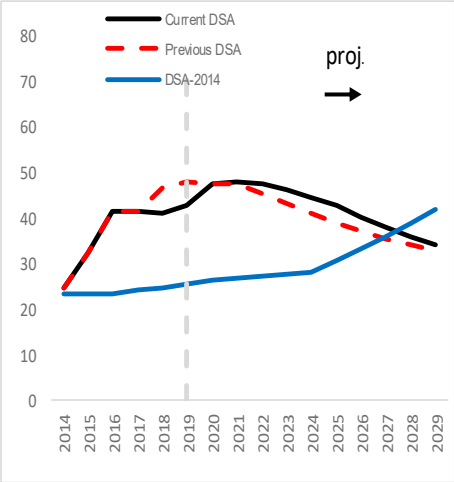
* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

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

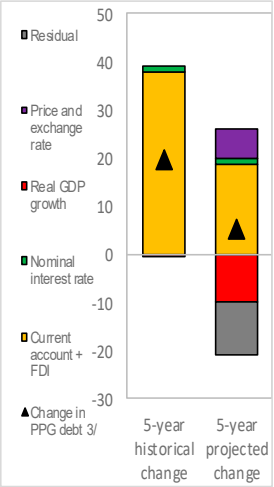
1/ The most extreme stress test is the test that yields the highest ratio in or before 2029. The stress test with a one-off breach is also presented (in any), while the one-breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most extreme shock even 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, 2014–28

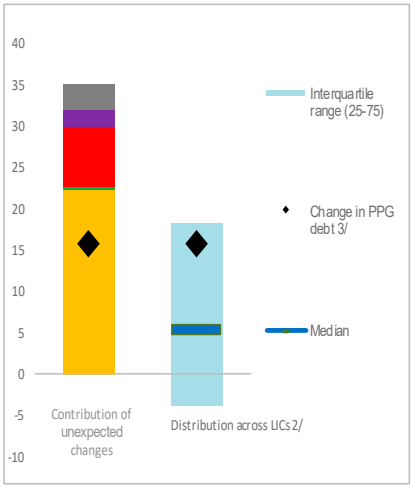
Gross Nominal PPG External Debt (in percent of GDP; DSA vintages)



Debt-creating flows (percent of GDP)

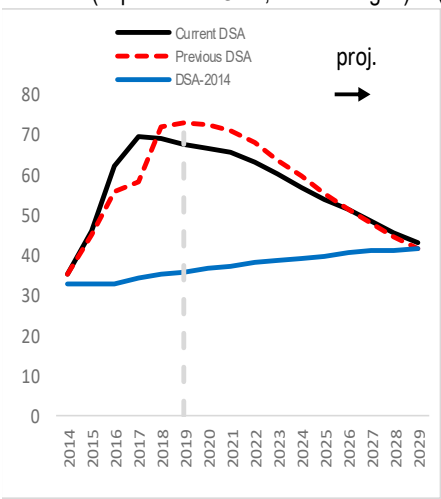


Unexpected Changes in Debt 1/ (past 5 years, percent of GDP)



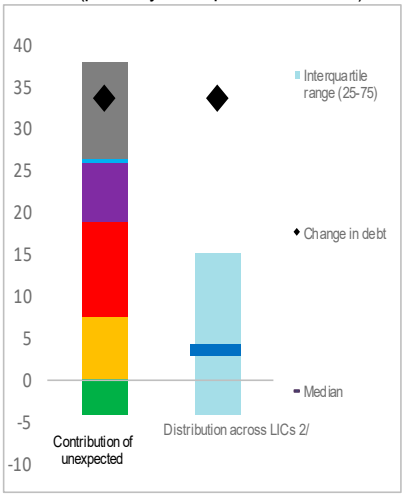
Public debt

Gross Nominal Public Debt (in percent of GDP; DSA vintages)



Debt-creating flows (percent of GDP)

Unexpected Changes in Debt 1/ (past 5 years, percent of GDP)



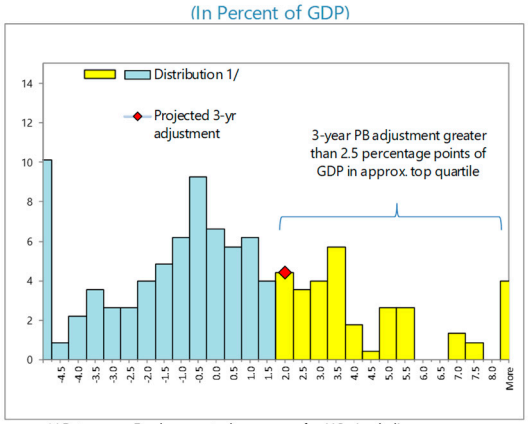
1/ Difference between anticipated and actual contributions on debt ratios.

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.

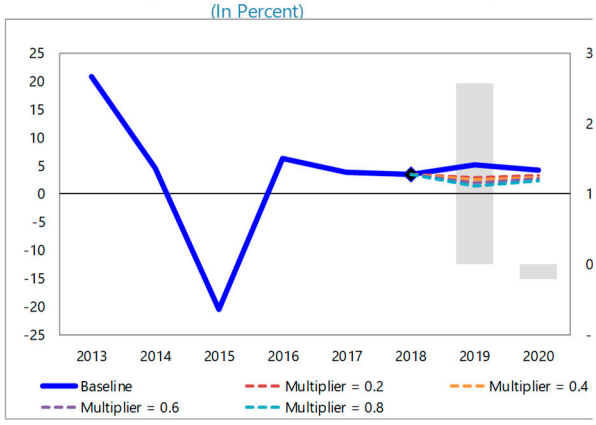
Figure 4. Sierra Leone: Realism Tools

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



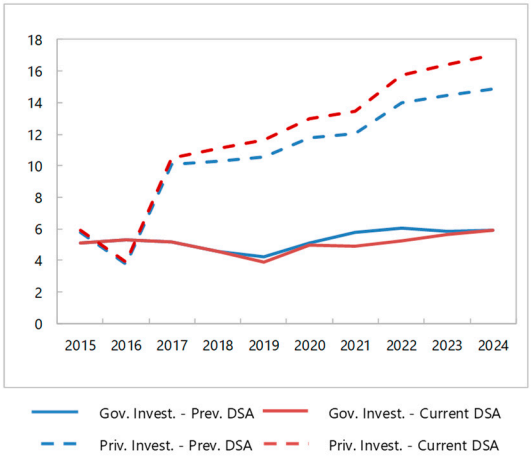
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

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



1/ Bars refer to annual projected fiscal adjustment (right-hand side scale) and lines show possible real GDP growth paths under different fiscal multipliers (left-hand side scale).

Public and Private Investment Rates
(% of GDP)



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

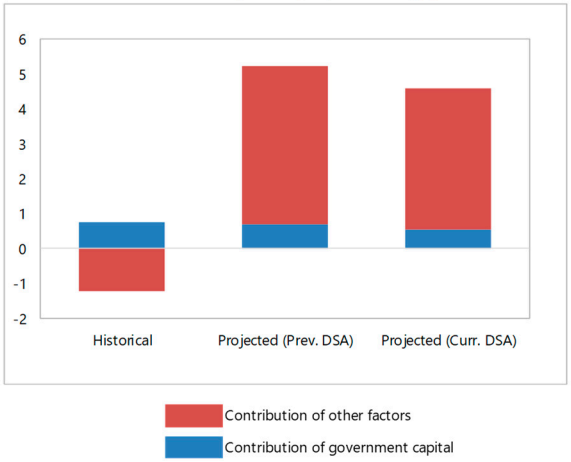
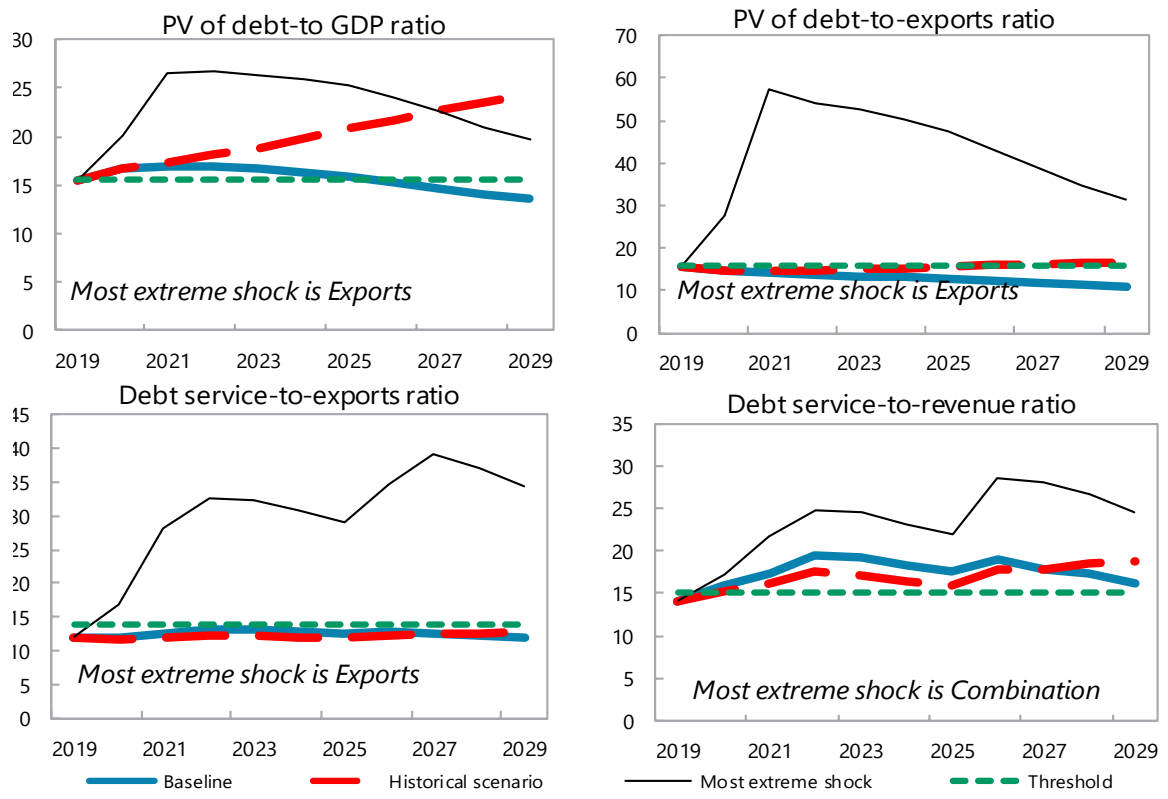


Figure 5. Sierra Leone: Probability of Debt Distress of Public and Publicly Guaranteed External Debt under Alternatives Scenarios[1/]



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

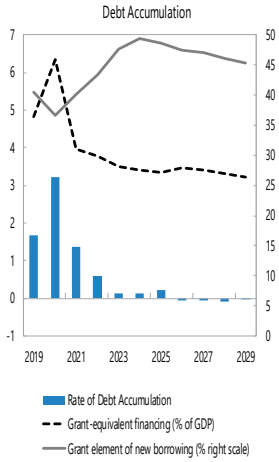
1/ The probability approach focuses on the evolution of the probability of debt distress over time, rather than on the evolution of debt burden indicators.

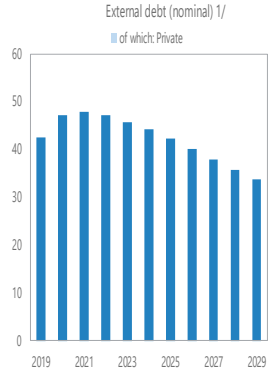
Table 1. Sierra Leone: External Debt Sustainability Framework, Baseline Scenario, 2016–39

(Percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2016	2017	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections
External debt (nominal) 1/	41.1	41.4	40.8	42.6	47.2	47.8	47.2	45.8	44.2	33.9	30.5	32.5	42.3
of which: public and publicly guaranteed (PPG)	41.1	41.4	40.8	42.6	47.2	47.8	47.2	45.8	44.2	33.9	30.5	32.5	42.3
Change in external debt	8.8	0.3	-0.6	1.9	4.6	0.6	-0.6	-1.4	-1.6	-1.9	-0.1		
Identified net debt-creating flows	...	...	...	3.1	3.8	2.0	1.0	-0.1	-0.2	0.0	1.2	...	0.7
Non-interest current account deficit	9.0	20.7	18.4	13.8	11.0	11.1	10.6	10.4	10.0	5.6	2.3	19.2	9.4
Deficit in balance of goods and services	17.9	22.5	21.0	19.1	17.3	16.4	15.9	15.4	14.9	10.2	6.0	24.6	14.4
Exports	19.7	20.3	18.1	22.1	26.9	28.6	30.2	30.7	31.3	34.6	31.0		
Imports	37.6	42.8	39.0	41.3	44.2	45.0	46.1	46.1	46.2	44.8	36.9		
Net current transfers (negative = inflow)	-11.2	-4.2	-4.0	-7.1	-7.7	-6.6	-6.6	-6.4	-6.3	-5.8	-4.5	-9.0	-6.5
of which: official	-8.2	-1.4	-1.1	-3.3	-3.9	-2.8	-2.8	-2.7	-2.5	-2.3	-1.4		
Other current account flows (negative = net inflow)	2.3	2.4	1.5	1.7	1.4	1.3	1.3	1.5	1.4	1.3	0.8	3.6	1.4
Net FDI (negative = inflow)	-3.7	-11.1	-6.1	-8.8	-5.6	-7.2	-7.7	-8.8	-8.5	-4.3	-0.1	-11.2	-7.0
Endogenous debt dynamics 2/	...	...	...	-1.9	-1.6	-1.9	-1.9	-1.8	-1.8	-1.4	-1.0		
Contribution from nominal interest rate	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3		
Contribution from real GDP growth	-2.3	-1.6	-1.3	-2.0	-1.8	-2.1	-2.1	-2.0	-2.0	-1.6	-1.3		
Contribution from price and exchange rate changes	...	...	...	...	...	...	...	...	...	...	...		
Residual 3/	...	...	...	-1.2	0.8	-1.4	-1.6	-1.3	-1.4	-1.9	-1.3	...	-1.4
of which: exceptional financing	...	...	...	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	26.0	27.1	30.3	31.2	31.1	30.3	29.3	21.7	20.8		
PV of PPG external debt-to-exports ratio	...	...	144.0	122.3	112.5	109.1	102.9	98.7	93.6	62.7	67.0		
PPG debt service-to-exports ratio	1.4	1.3	9.9	8.1	8.1	8.7	9.5	9.5	9.1	7.8	4.6		
PPG debt service-to-revenue ratio	2.2	2.2	13.1	12.6	14.7	16.3	18.3	18.1	17.1	15.0	7.4		
Gross external financing need (Million of U.S. dollars)	210.8	367.8	574.4	281.9	314.4	272.2	248.1	206.0	205.3	253.6	446.1		
Key macroeconomic assumptions													
Real GDP growth (in percent)	6.4	3.8	3.5	5.1	4.2	4.6	4.5	4.5	4.5	4.8	4.6	4.8	4.7
GDP deflator in US dollar terms (change in percent)	-16.3	-5.1	5.8	-2.7	-4.1	-2.8	-2.3	-1.4	-0.6	2.1	3.0	1.0	-0.7
Effective interest rate (percent) 4/	0.7	0.6	0.7	0.4	0.4	0.5	0.5	0.5	0.5	0.7	0.9	0.7	0.6
Growth of exports of G&S (US dollar terms, in percent)	-1.7	1.7	-2.6	25.4	21.6	7.8	8.0	4.8	5.9	8.2	6.1	15.8	10.5
Growth of imports of G&S (US dollar terms, in percent)	-23.6	12.0	0.0	8.1	7.1	3.5	4.6	3.0	4.1	5.9	4.9	16.8	5.3
Grant element of new public sector borrowing (in percent)	...	...	...	40.5	36.6	40.1	43.5	47.6	49.4	45.3	33.2	...	44.8
Government revenues (excluding grants, in percent of GDP)	11.9	12.2	13.7	14.2	14.8	15.2	15.7	16.2	16.7	17.9	19.2	11.1	16.3
Aid flows (in Million of US dollars) 5/	113.2	92.7	84.7	200.0	215.9	165.0	178.5	188.2	198.6	229.0	242.6		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	4.8	6.4	4.0	3.8	3.5	3.4	3.2	2.5	...	3.9
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	69.3	61.1	62.8	66.3	69.4	69.1	66.9	56.6	...	67.1
Nominal GDP (Million of US dollars)	3,786	3,729	4,082	4,177	4,175	4,244	4,335	4,466	4,639	6,252	12,229		
Nominal dollar GDP growth	-11.0	-1.5	9.5	2.3	0.0	1.6	2.1	3.0	3.9	7.0	7.7	5.9	4.0
Memorandum items:													
PV of external debt 7/	...	...	26.0	27.1	30.3	31.2	31.1	30.3	29.3	21.7	20.8		
In percent of exports	...	...	144.0	122.3	112.5	109.1	102.9	98.7	93.6	62.7	67.0		
Total external debt service-to-exports ratio	1.4	1.3	9.9	8.1	8.1	8.7	9.5	9.5	9.1	7.8	4.6		
PV of PPG external debt (in Million of US dollars)			1062.8	1130.8	1265.5	1323.2	1348.0	1354.0	1359.9	1358.8	2538.0		
(PVt-PVt-1)/GDPt-1 (in percent)				1.7	3.2	1.4	0.6	0.1	0.1	0.0	1.6		
Non-interest current account deficit that stabilizes debt ratio	0.2	20.4	19.0	11.9	6.4	10.5	11.2	11.8	11.6	7.5	2.4		

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





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

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

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

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

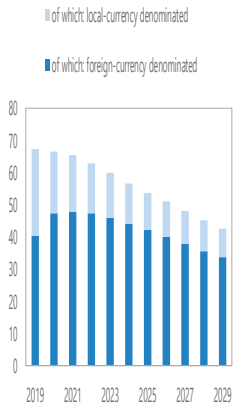
Table 2. Sierra Leone: Public Sector Debt Sustainability Framework, Baseline Scenario, 2016–39

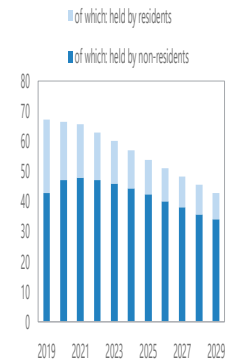
(Percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 6/	
	2018	2019	2020	2021	2022	2023	2024	2029	2039	Historical	Projections
Public sector debt 1/	**68.7**	**67.2**	**66.5**	**65.5**	**63.0**	**59.9**	**56.7**	**42.8**	**37.7**	**48.8**	**56.3**
of which: external debt	**40.8**	**42.6**	**47.2**	**47.8**	**47.2**	**45.8**	**44.2**	**33.9**	**30.5**	**32.5**	**42.3**
Change in public sector debt	-0.5	-1.5	-0.7	-1.0	-2.5	-3.1	-3.2	-2.5	0.0		
Identified debt-creating flows	**-0.9**	**-1.6**	**-0.3**	**-0.6**	**-1.2**	**-1.3**	**-1.4**	**-1.5**	**0.0**	**1.4**	**-1.3**
Primary deficit	**2.8**	**0.2**	**0.5**	**0.7**	**0.2**	**0.3**	**0.4**	**0.2**	**1.3**	**3.3**	**0.4**
Revenue and grants	15.7	17.6	18.8	17.6	18.0	18.3	18.6	19.9	20.7	**15.1**	**18.6**
of which: grants	2.1	3.4	4.0	2.4	2.3	2.1	1.9	1.9	1.6		
Primary (noninterest) expenditure	18.6	17.8	19.2	18.4	18.3	18.6	18.9	20.1	22.1	**18.5**	**19.0**
Automatic debt dynamics	**-3.8**	**-1.8**	**-0.8**	**-1.3**	**-1.4**	**-1.6**	**-1.8**	**-1.7**	**-1.3**		
Contribution from interest rate/growth differential	-3.8	-4.2	-2.9	-3.1	-3.0	-2.9	-2.6	-1.7	-1.4		
of which: contribution from average real interest rate	-1.5	-0.9	-0.2	-0.2	-0.1	-0.2	0.0	0.4	0.3		
of which: contribution from real GDP growth	-2.3	-3.3	-2.7	-2.9	-2.8	-2.7	-2.6	-2.1	-1.7		
Contribution from real exchange rate depreciation	0.0	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.1**	**0.0**
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		
Residual	**0.4**	**2.4**	**1.8**	**1.4**	**0.2**	**-0.6**	**-0.9**	**-1.0**	**0.1**	**1.3**	**-0.1**
Sustainability indicators											
PV of public debt-to-GDP ratio 2/	**55.4**	**53.6**	**51.7**	**50.8**	**48.5**	**45.8**	**43.0**	**31.0**	**28.4**		
PV of public debt-to-revenue and grants ratio	**352.2**	**305.3**	**275.5**	**288.1**	**268.9**	**250.7**	**231.1**	**156.0**	**136.9**		
Debt service-to-revenue and grants ratio 3/	**27.3**	**23.4**	**29.4**	**41.4**	**47.3**	**46.9**	**45.9**	**40.8**	**33.8**		
Gross financing need 4/	7.1	4.4	6.0	8.0	8.7	8.9	8.9	8.3	8.4		
Key macroeconomic and fiscal assumptions											
Real GDP growth (in percent)	3.5	5.1	4.2	4.6	4.5	4.5	4.5	4.8	4.6	**4.8**	**4.7**
Average nominal interest rate on external debt (in percent)	0.7	0.5	0.5	0.5	0.5	0.5	0.6	0.7	1.0	**0.7**	**0.6**
Average real interest rate on domestic debt (in percent)	-3.0	-1.4	1.0	2.4	3.1	3.1	4.6	8.9	9.0	**-0.3**	**4.8**
Real exchange rate depreciation (in percent, + indicates depreciation)	0.1	...	...	...	...	...	...	...	...	**1.4**	**...**
Inflation rate (GDP deflator, in percent)	14.0	11.3	11.0	11.0	9.6	8.8	8.1	5.2	5.0	**11.2**	**8.1**
Growth of real primary spending (deflated by GDP deflator, in percent)	-9.2	0.9	12.5	-0.1	3.9	6.4	6.5	5.8	4.5	**7.7**	**5.5**
Primary deficit that stabilizes the debt-to-GDP ratio 5/	3.3	1.8	1.1	1.7	2.7	3.4	3.5	2.7	1.3	**-2.2**	**2.7**
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**

Public sector debt 1/





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/ The underlying PV of external debt-to-GDP ratio under the public DSA differs from the external DSA with the size of differences depending on exchange rates projections.

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

4/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period and other debt creating/reducing flows.

5/ Defined as a primary deficit minus a change in the public debt-to-GDP ratio ((-): a primary surplus), which would stabilizes the debt ratio only in the year in question.

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

Table 3. Sierra Leone: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2019-2029

	Projections 1/										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
PV of debt-to GDP ratio											
Baseline	27.1	30.3	31.2	31.1	30.3	29.3	28.1	26.7	25.0	23.3	21.7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	27.1	30.2	32.1	33.9	35.8	37.9	**40.3**	**42.4**	**44.4**	**46.1**	**47.8**
B. Bound Tests											
B1. Real GDP growth	27.1	36.1	**44.3**	**44.2**	**43.0**	**41.6**	39.9	37.9	35.5	33.0	30.9
B2. Primary balance	27.1	31.6	34.4	35.5	35.3	34.6	33.5	32.0	30.2	28.2	26.4
B3. Exports	27.1	38.8	**52.5**	**52.8**	**52.2**	**51.2**	**49.7**	**47.5**	**44.2**	**40.9**	37.9
B4. Other flows 3/	27.1	39.4	**49.7**	**50.0**	**49.4**	**48.5**	**47.2**	**45.0**	**41.9**	38.7	35.8
B5. One-time 30 percent nominal depreciation	27.1	38.8	36.5	36.3	35.3	34.0	32.5	30.7	28.8	26.8	25.2
B6. Combination of B1-B5	27.1	**42.4**	**51.4**	**51.6**	**50.8**	**49.7**	**48.2**	**45.7**	**42.6**	39.4	36.6
C. Tailored Tests											
C1. Combined contingent liabilities	27.1	33.4	36.0	36.9	36.7	36.0	34.9	33.4	31.7	29.8	28.1
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	27.1	32.9	36.2	36.3	35.5	34.4	33.0	31.1	28.8	26.6	24.5
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	40	40	40	40	40	40	40	40	40	40	40
PV of debt-to-exports ratio											
Baseline	122.3	112.5	109.1	102.9	98.7	93.6	88.1	80.7	74.0	67.9	62.7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	122.3	112.1	112.4	112.0	116.6	121.0	126.4	128.4	131.3	134.7	138.1
B. Bound Tests											
B1. Real GDP growth	122.3	112.5	109.1	102.9	98.7	93.6	88.1	80.7	74.0	67.9	62.7
B2. Primary balance	122.3	117.3	120.5	117.3	114.8	110.4	105.1	96.9	89.3	82.3	76.3
B3. Exports	122.3	**239.8**	**458.6**	**436.2**	**424.0**	**407.8**	**389.3**	**359.0**	**327.0**	**298.1**	**273.0**
B4. Other flows 3/	122.3	146.4	173.7	165.3	160.9	154.8	147.9	136.1	123.9	112.9	103.3
B5. One-time 30 percent nominal depreciation	122.3	112.5	99.8	93.9	89.7	84.8	79.6	72.4	66.5	61.2	56.7
B6. Combination of B1-B5	122.3	**188.8**	150.7	**219.3**	**212.6**	**203.9**	**194.1**	177.6	162.0	147.9	135.7
C. Tailored Tests											
C1. Combined contingent liabilities	122.3	124.1	126.1	122.2	119.4	114.8	109.3	101.1	93.7	87.0	81.2
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	122.3	145.0	144.6	132.5	124.2	115.1	105.8	96.2	87.3	79.3	72.4
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.
Threshold	180	180	180	180	180	180	180	180	180	180	180
Debt service-to-exports ratio											
Baseline	8.1	8.1	8.7	9.5	9.5	9.1	8.6	9.0	8.6	8.3	7.8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	8.1	7.6	8.0	8.5	8.4	8.1	7.7	8.4	8.6	9.0	9.2
B. Bound Tests											
B1. Real GDP growth	8.1	8.1	8.7	9.5	9.5	9.1	8.6	9.0	8.6	8.3	7.8
B2. Primary balance	8.1	8.1	8.7	9.7	9.7	9.3	8.9	9.5	9.3	9.2	8.7
B3. Exports	8.1	14.2	**24.7**	**28.4**	**28.3**	**27.1**	**25.6**	**29.9**	**33.3**	**31.8**	**29.7**
B4. Other flows 3/	8.1	8.1	9.2	10.4	10.4	10.0	9.4	11.5	12.5	12.0	11.1
B5. One-time 30 percent nominal depreciation	8.1	8.1	8.7	9.4	9.4	9.0	8.5	8.9	8.0	7.8	7.3
B6. Combination of B1-B5	8.1	10.6	14.0	**15.5**	**15.4**	14.8	14.0	**17.0**	**17.0**	**16.3**	**15.2**
C. Tailored Tests											
C1. Combined contingent liabilities	8.1	8.1	8.8	9.7	9.8	9.4	8.9	9.3	8.8	8.5	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	8.1	9.6	10.2	10.9	10.7	10.0	9.3	10.1	10.0	9.6	8.9
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	15	15	15	15	15	15	15	15	15	15	15
Debt service-to-revenue ratio											
Baseline	12.6	14.7	16.3	**18.3**	**18.1**	17.1	16.3	17.8	16.7	16.1	15.0
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	12.6	13.9	14.9	16.3	16.0	15.2	14.7	16.6	16.7	17.4	17.7
B. Bound Tests											
B1. Real GDP growth	12.6	17.6	**23.1**	**25.9**	**25.7**	**24.3**	**23.2**	**25.3**	**23.6**	**22.9**	**21.3**
B2. Primary balance	12.6	14.7	16.4	**18.6**	**18.5**	17.5	16.8	**18.8**	**18.2**	17.9	16.8
B3. Exports	12.6	15.5	**18.6**	**21.8**	**21.5**	**20.4**	**19.5**	**23.7**	**25.9**	**24.7**	**22.9**
B4. Other flows 3/	12.6	14.7	17.2	**20.0**	**19.8**	**18.7**	17.9	**22.8**	**24.4**	**23.2**	**21.5**
B5. One-time 30 percent nominal depreciation	12.6	**18.9**	**20.8**	**23.0**	**22.8**	**21.6**	**20.6**	**22.5**	**19.9**	**19.3**	18.0
B6. Combination of B1-B5	12.6	16.1	**20.4**	**23.1**	**22.9**	**21.6**	**20.7**	**26.2**	**25.7**	**24.6**	**22.8**
C. Tailored Tests											
C1. Combined contingent liabilities	12.6	14.7	16.6	**18.7**	**18.6**	17.7	16.9	**18.4**	17.1	16.6	15.4
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	12.6	16.1	**18.1**	**20.6**	**20.0**	**18.6**	17.5	**19.6**	**19.0**	**18.2**	16.9
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Threshold	18	18	18	18	18	18	18	18	18	18	18

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

Table 4. Sierra Leone: Sensitivity Analysis for Key Indicators of Public Debt, 2019-2029

	Projections 1/										
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
PV of Debt-to-GDP Ratio											
Baseline	53.6	51.7	50.8	48.5	45.8	43.0	40.2	38.0	35.6	33.2	31.0
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	54	53	53	52	50	47	45	42	39	37	35
B. Bound Tests											
B1. Real GDP growth	54	**63**	**78**	**79**	**79**	**79**	**79**	**79**	**79**	**79**	**79**
B2. Primary balance	54	**56**	**58**	55	52	49	46	44	41	38	36
B3. Exports	54	**59**	**68**	**66**	**64**	**61**	**58**	**55**	51	47	44
B4. Other flows 3/	54	**61**	**70**	**68**	**66**	**63**	**60**	**57**	53	49	45
B5. One-time 30 percent nominal depreciation	54	54	52	49	45	42	38	35	32	29	26
B6. Combination of B1-B5	54	**56**	**58**	52	50	47	45	43	40	38	35
C. Tailored Tests											
C1. Combined contingent liabilities	54	**61**	**59**	**56**	53	50	47	45	42	40	37
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	54	55	**61**	**65**	**67**	**70**	**71**	**73**	**74**	**75**	**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.
Public debt benchmark	55	55	55	55	55	55	55	55	55	55	55
PV of Debt-to-Revenue Ratio											
Baseline	305.3	275.5	288.1	268.9	250.7	231.1	215.3	203.1	183.6	169.1	156.0
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	305	282	302	288	274	256	242	229	207	192	179
B. Bound Tests											
B1. Real GDP growth	305	324	418	414	412	406	404	404	391	387	384
B2. Primary balance	305	297	328	304	284	262	246	232	211	195	181
B3. Exports	305	312	389	368	349	328	310	294	264	242	221
B4. Other flows 3/	305	328	399	379	360	338	321	303	272	249	228
B5. One-time 30 percent nominal depreciation	305	290	296	273	251	227	206	190	166	148	132
B6. Combination of B1-B5	305	300	324	288	272	254	238	225	205	190	176
C. Tailored Tests											
C1. Combined contingent liabilities	305	325	334	311	290	269	252	239	218	202	188
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	305	310	369	382	386	384	384	385	378	379	381
C4. Market Financing	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Debt Service-to-Revenue Ratio											
Baseline	23.4	29.4	41.4	47.3	46.9	45.9	44.3	45.0	44.2	42.9	40.8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2019-2029 2/	23	29	41	46	45	43	40	40	38	35	32
B. Bound Tests											
B1. Real GDP growth	23	33	64	85	92	95	96	99	99	100	99
B2. Primary balance	23	29	57	70	59	53	48	48	47	46	44
B3. Exports	23	29	42	49	48	47	46	48	50	49	46
B4. Other flows 3/	23	29	42	49	48	47	46	49	51	49	47
B5. One-time 30 percent nominal depreciation	23	29	42	46	47	46	44	45	44	43	40
B6. Combination of B1-B5	23	30	44	50	53	53	53	54	53	52	50
C. Tailored Tests											
C1. Combined contingent liabilities	23	29	78	67	58	52	48	47	46	44	42
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	23	32	46	79	92	95	95	97	96	96	96
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.