WORLD BANK GROUP

June 2023

SIERRA LEONE

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

Approved by:

Abebe Adugna and Manuela Francisco (IDA); Montfort Mlachila and Anna Ilyina (IMF)

Prepared by the staff of the International Development Association (IDA) and the International Monetary Fund (IMF).

SIERRA LEONE: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS	
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 public debt is sustainable, but risks of external and overall debt distress are high and have increased notably relative to the previous DSA published in July 2022.[1] Last year's large fiscal overruns and the sharp depreciation of the leone have resulted in a deterioration of both solvency and liquidity indicators. The external debt service-to-revenue ratio and the PV of the public debt-to-GDP ratio exhibit larger breaches of their respective thresholds. In addition, the overall debt-service to revenue ratio and the PV of external debt-to-GDP indicator have shifted up notably. A larger and more frontloaded fiscal adjustment is now urgently needed to ensure that debt remains sustainable. All debt indicators are on a declining trend over the medium to long-term. However, this is predicated on steadfast implementation of the planned fiscal adjustment, continued reliance on concessional financing and grants, and the projected growth recovery. Efforts to seek further grant financing and lengthen the maturity structure of debt remain key as debt service ratios and gross financing needs will remain elevated over the medium and long-term. Domestic rollover risks are attenuated by high interest margins, limited alternative investment options for domestic banks and the authorities' commitment to limit future domestic borrowing. Sierra Leone is susceptible to growth and exchange rate shocks as well as fiscal slippages, all of which present downside risks to the debt outlook.

.

[1] Sierra Leone's debt-carrying capacity remains rated "medium" with a composite indicator value of 2.73 based on the April 2023 IMF's World Economic Outlook (WEO) and the 2021 World Bank's Country Policy and Institutional Assessment (CPIA).

PUBLIC DEBT COVERAGE

1. **Public debt coverage remains the same as in the previous DSA**. As in earlier DSAs, the debt stock includes central government public and publicly guaranteed debts on a residency basis (Text Table 1). The DSA also includes the latest estimate of the consolidated stock of domestic payment arrears. The government is working, with the support of development partners including the World Bank through the Sustainable Development Finance Policy (SDFP), to improve its financial and debt management system, and to enhance the accounting and timely reporting of public debt, including the debts of state-owned enterprises (SOEs) and self-accounting-bodies. This DSA uses the debt stock data as of end-2022 and updated data on debt service and the debt composition. The updated data reflects recently completed reconciliations with bilateral creditors. This has resulted in revised amortization schedules, and increased yields on domestic instruments.

Text Table 1. 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	

Note: Blank indicates there is no data.

Text Table 2. 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 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	

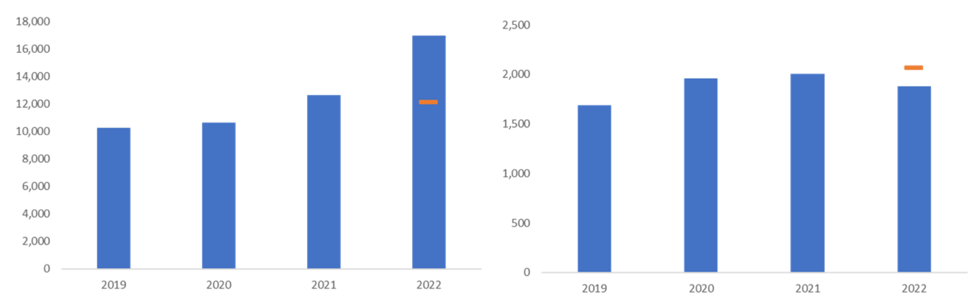
1/ The default shock of 2 percent of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1). If it is already included in the government debt (1) and risks associated with SOE's debt not guaranteed by the government is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

2. The assumptions on the contingent liability stress test remain the same as in the previous DSA. Total contingent liabilities are estimated at 12 percent of GDP (Text Table 2). Specifically, (i) the contingent liability for SOE debt is set at 7 percent of GDP, higher than the default value reflecting the authorities' latest estimates; (ii) contingent liabilities from financial markets are set at the standard minimum value of 5 percent of GDP based on the average fiscal cost of a financial crisis in LICs since 1980; and (iii) the contingent liability of other elements of the general government is set at 0 percent of GDP because the baseline reflects estimated domestic arrears.

BACKGROUND ON DEBT

3. End-2022 stock data shows that Sierra Leone's public debt continued its increasing trend. While external debt turned out to be lower than projected in US dollar terms in 2022, total public debt rose to 96 percent of GDP in 2022 (from 79 percent of GDP in 2021) due to (i) the sharp depreciation of the leone (67.3 percent yoy depreciation at end-2022), and (ii) the high 2022 fiscal deficit, which led to substantial additional domestic borrowing, largely through 364-day T-bills (Text Figure 1). The authorities maintained new external borrowing below the Fund-supported program ceiling.

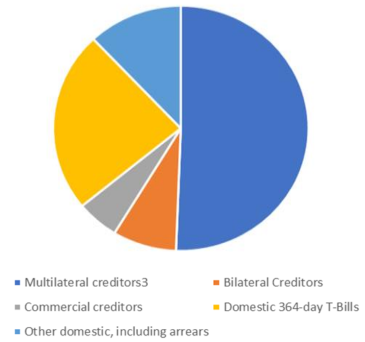
Text Figure 1. Debt Stock (Domestic and External)



Note: Orange markers in 2022 show the projection as of the June 2022 DSA.

4. The composition of public debt is largely unchanged from the previous DSA. Approximately 67 percent of total public and publicly guaranteed (PPG) debt is external debt, of which about 80 percent comprised non-restructurable obligations to multilateral creditors including the IMF (26 percent of total PPG debt stock) and the WB (24 percent of total PPG debt stock). On the domestic debt side, around 60 percent of domestic debt is owed to commercial banks mainly in the form of 364-day T-bills. The remainder is distributed between the BSL, the non-bank sector, and legacy domestic arrears owed to suppliers (Text Figure 2).

Text Figure 2. Debt Stock as of End-2022



BACKGROUND ON MACRO FORECASTS

5. **The macroeconomic assumptions underlying this DSA have deteriorated compared to the July 2022 DSA**. The assumptions are consistent with the macroeconomic framework in the 6th and 7th ECF reviews staff report (Text Table 3).

Text Table 3. Macroeconomic Assumptions

	Current DSA			Previous DSA (July 2022)		
	2023	2033	LT ave.1/	2022	2032	LT ave.
Real GDP growth (in percent)	2.7	4.6	4.5	3.6	4.5	4.4
Inflation (GDP deflator, in percent)	34.7	6.5	12.6	15.8	6.6	10.7
Primary deficit (percent of GDP)	1.4	0.9	0.4	1.1	0.8	0.4
Non-interest current account deficit (percent of GDP)	6.7	5.5	4.0	12.8	6.4	7.1

1/ Average between 2023 to 2033.

- **Growth.** In 2023, growth is projected to decelerate sharply to 2.7 percent (0.9 ppts lower than in the previous DSA) amid the strong fiscal consolidation, and as rapidly rising prices are expected to weigh on domestic demand. The ramp-up of iron ore production at the Marampa and Tonkolili mines should boost production; supportive government policies to provide seed rice and implements to farmers should support agricultural output. Growth in 2024 is expected to accelerate as several factors come into play. Following a sharp and front-loaded adjustment in 2023, in the medium-term fiscal policy becomes relatively less contractionary and lower inflation should bolster consumption, while foreign investment in the mining sector is set to fuel higher investment. Furthermore, the agricultural sector is expected to sustain its expansion. In addition, exports are predicted to recover, and the macroeconomic stabilization is expected to set in. Growth is projected to reach Sierra Leone's long-run potential of about 4½ percent over the medium term, supported by buoyant activity in the mining and agricultural sectors. Downside risks to the growth outlook are significant. The upcoming general election in June 2023 and rising political tensions could undermine investor confidence. An adverse terms of trade (ToT) shock, and a faster acceleration in inflation, could exacerbate the decline in real incomes, further deteriorate the public finances and weaken external balances. Slower growth in China could adversely impact iron ore production and prices. Such scenarios would have substantial negative knock-on effects on Sierra Leone, especially given limited external buffers.

- **Inflation.** Since the previous DSA in July 2022, macro policies have become more expansionary than expected, contributing to rising inflation and depreciation of the leone. Inflation, as measured by the GDP deflator, is projected at 34.7 percent (18.7 ppts higher than the previous DSA) in 2023. The measure is evolving broadly in line with, but is currently lower than, the expected average consumer price inflation of 37 percent for 2023. The upward jump in inflation reflects soaring food and fuel prices, among other price categories, and the continued depreciation of the Leone. Over the medium-term, inflation is projected to gradually decline to single digits amid the contractionary policy stance.

- **Fiscal.** Budget pressures are significantly stronger compared to the July 2022 DSA. The 2022 overall deficit widened by 6.9 ppts of GDP, and the 2023 overall deficit is projected to widen by 2.3 ppts, including because of exogenous shocks and policy related slippages. Domestic revenue mobilization is undermined by numerous exemptions, transition challenges in GST reforms, and the revenue shortfall due to the CITES ban on most timber exports. Continued expenditure pressures arise from the impact of higher inflation on goods and services, high energy subsidies, and domestically financed capex. Looking ahead, the revenue assumptions reflect the authorities' commitment to revenue mobilization underpinned by both revenue administration measures (enhanced ECR enforcement, compliance of the large taxpayers, conversion from analogue to digital IDs, and collection of arrears), and tax base expansion, including through the new Finance Act 2023. The Act introduces a minimum alternative tax, removes exemptions on GST (machinery, equipment, aviation, gambling, fees based financial services), and strengthens the excise tax regime (harmonizing rates). On the expenditure side, the adjustment is large, but of the 5.6 ppts of GDP of spending reduction from 2022 to 2023, the removal of one-offs accounts for 3.4 ppts of GDP (including 0.9 ppts of goods and services, 0.4 ppts in election and NaCOVERC, 0.3 ppts of TSA, and 1.4 ppts in roads projects). Over the medium-term the implementation of the MTRS is expected to anchor tax policy and revenue administration measures to reinforce domestic revenue mobilization. Expenditure containment measures include administrative cuts, limiting discretionary spending, and efficiency improvements in capital expenditures. Reflecting these measures, the overall deficit in 2023 is projected to narrow to 5.6 percent of GDP from 10.9 percent of GDP in 2022 and to continue to decline over the medium term. The assumption on domestic arrears clearance remains unchanged from the July 2022 DSA, with the cash paydown of arrears limited to a low budget ceiling and accompanied by NPV reductions in the face value of debt.[2]

- **External.** Sierra Leone continues to face strong negative terms-of-trade shocks due to higher fuel and food prices and lower iron-ore prices amid Russia's invasion of Ukraine and the slowdown in China. The current account deficit is projected to have remained high in 2022, as import volume growth offset increasing iron-ore exports.[3] The current account is projected to gradually improve over the medium-term, supported by strengthening mining production—unchanged from the assumption in the previous DSA.

- **IDA financing.** The assumption regarding IDA financing modalities is unchanged. IDA financing reflects firm grants commitments until 2027 and 100 percent regular IDA credits after 2028.

[2] The stock of domestic legacy arrears (these all are for suppliers of goods and services and are not caused by the government's liquidity problems) amounted to Le 2,581.3 billion (or 4.8 percent of GDP) by end 2022. The authorities have an arrears clearance strategy in place with annual budgeted amounts to be amortized. https://mofsl.gov.sl/wp-content/uploads/2020/09/Sierra-Leone-Arrears-Clearance-Strategy-and-Principles-2020-2025.pdf

[3] Historical data revisions following the release of the 2021 BOP statistics contributed entailed an upward shift for exports. The estimation methods for mining and timber exports, which had previously been underestimated, were revised retroactively using trading partner data.

- **The additional use of the 2021 IMF SDR allocation is expected to help safeguard priority spending.** Compared to the July DSA, the authorities have utilized an additional Le 376 billion in 2022 and will utilize an additional Le 1,666 billion in 2023. As a result, this DSA assumes approximately Le 1,233 billion (2.3 percent of GDP) and Le 1,866 billion (2.5 percent of GDP), to be used in 2022 and 2023. The amounts will be transferred to the government through a retrocession transaction. The SDR assets will then be sold back to the central bank which will convert them into local currency and credit the government's accounts accordingly. The operation would leave the government with SDR liabilities which are counted as additional long-term and highly concessional external debt in the DSA. The government has committed to transparently account for the use of SDRs to finance priority social spending.

- **Other assumptions**. As before, this DSA reflects actual and projected future disbursements under the ECF, the SDR allocation in August 2021, debt relief under the CCRT, and debt deferment under the DSSI. This DSA also takes into account the projected external financing gap during 2024-28 and assumes that the gap will be covered by concessional financing with an overall grant element of 35.5 percent. More specifically, IMF financing under the ECF has a 5.5-year grace period and 10-year maturity and currently carries a zero interest (the interest rate is subject to Executive Board review every two years). Loans from other multilateral creditors other than the World Bank are assumed to have an overall grant element of 35 percent. This assumption is unchanged from the previous DSA. On domestic debt, 364-day T-bills purchased by the central bank in the secondary markets are now included as part of gross financing needs (GFN) and revised historically through 2020-21.[4] This increases the debt service to revenue-ratio in 2022 but smooths out thereafter, with the benefit of both higher primary surpluses and the extension of maturities for domestic debt in line with the latest MTDS.

6. **The realism tools flag optimism relative to the historical trend as the required fiscal consolidation effort is large**. The 3-year average primary balance adjustment is over 8 ppts of GDP-—close to the 99th percentile of the historical distribution for Sierra Leone's peers. This large adjustment need reflects large fiscal slippages partly due to exogenous shocks (delayed recovery from covid impacts, Russia's invasion of Ukraine, and the cost-of-living crisis), and policy related slippages, calling for a more frontloaded and urgent fiscal consolidation to keep debt on a downward path (¶5). The authorities have begun to implement strong corrective measures ahead of the completion of the 6th and 7th reviews of the Fund-supported program. A package of measures on revenue mobilization and expenditure containment and controls is expected to help address past slippages, ringfence implementation of the current year's budget and underpin a sustainable medium-term fiscal framework. It is supported by the revenue mobilization measures estimated to yield additional annual tax revenues of 2.2 percent of GDP by 2024, of which 1.8 ppts of GDP come from tax policy measures approved by parliament in April and 0.4 ppts from tax administration measures. On expenditure, there is strong commitment to reduce spending by 5.6 percentage points of GDP in 2023 relative to the 2022, of which the removal of one-off spending items accounts for 3.4 ppts of GDP. The authorities have also identified strong contingency measures. They are prepared to take additional revenue measures based on the MTRS in the event the current measures disappoint. They are also seeking

[4] Due to a historical data reconciliation effort, the analysis now distinguishes T-bills from total debt held by the BSL.

additional budget support grants and would further reprioritize spending, including by curbing domestically financed capital expenditure, should spending pressures reemerge. The fiscal drag on near term growth is projected to be cushioned by Sierra Leone's open economy and relatively insulated mining and agricultural sectors.

7. The deterioration of the macroeconomic environment and continued depreciation of the Leone have accentuated the risks around the baseline. Scope to maneuver depends on making progress on planned fiscal adjustment and seeking additional budget support grants. In addition to the gains from the measures already introduced (¶5), domestic revenue is projected to increase over the medium term due to new tax measures with an estimated yield in annual tax revenues of at least 2.2 ppts of GDP. Efficiency gains from automation, a gradual recovery in demand and tax buoyancy, and the implementation of the automatic pricing formula for fuel products are also expected to support revenue mobilization. The medium-term wage bill management strategy (developed with Fund TA), and reforms on subsidies are expected to help contain recurrent expenditures, while domestic capex is expected to continue supporting human capital development objectives. The authorities remain committed to a concessional debt ceiling and a zero non-concessional borrowing policy and are seeking additional budget support grants for priority and social spending, which will help contain debt vulnerabilities. The authorities have committed to strengthening budget execution, including through regular meetings of the extended cash and debt management committee, ensuring that quarterly budget allotments are backed by credible cash flow projections.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

8. Sierra Leone's debt-carrying capacity is medium. With the Composite Indicator (CI) score of 2.73 based on the latest data including the April 2023 WEO and the World Bank's latest 2021 CPIA, Sierra Leone's debt carrying capacity is evaluated as medium, unchanged from the previous DSA (Text Tables 4 and 5).

9. Stress tests generally follow standardized settings, with the addition of two tailored stress tests to capture risks related to contingent liabilities and commodity prices shocks. The combined contingent liabilities stress test is described in ¶2 above. Commodity exports make up a significant part of the export base, leaving it exposed to potential price shocks. 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.

Text Table 4. Composite Indicator

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Medium	Medium 2.73	Medium 2.73	Medium 2.75

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.181	1.22	45%
Real growth rate (in percent)	2.719	3.581	0.10	4%
Import coverage of reserves (in percent)	4.052	33.496	1.36	50%
Import coverage of reserves^2 (in percent)	-3.990	11.220	-0.45	-16%
Remittances (in percent)	2.022	5.493	0.11	4%
World economic growth (in percent)	13.520	2.856	0.39	14%
CI Score			2.73	100%
CI rating			Medium	

Text Table 5. Applicable Thresholds for Debt Indicators

PV of PPG external debt in percent of GDP	40%
PV of PPG external debt in percent of exports	180%
PPG external debt service in percent of exports	15%
PPG external debt service in percent of revenue	18%
PV of total public debt in percent of GDP	55%

EXTERNAL AND PUBLIC DEBT SUSTAINABILITY

EXTERNAL DSA

10. Sierra Leone is assessed to be at high risk of external debt distress, and PPG external debt is assessed to be sustainable. This is predicated on the strong fiscal adjustment and continued reliance on concessional financing and grants, and moderately high growth rates. Compared with the previous DSA, due to the sharp exchange rate depreciation, the PV of external debt-to-GDP and the debt service-to-revenue ratio have risen, underscoring the importance of continuing to limit new external borrowing and restricting external borrowing to highly concessional loans.

- Under the baseline scenario, both the PV of the PPG external debt-to-GDP ratio and the PV of the PPG external debt-to-export ratio decline over the medium term (Figure 1, Table 1). [5] The projected decline in the debt ratios reflects several factors such as the repayment of past ECF disbursements, including those from the Ebola period, and the projected improvement in GDP and exports. While the historical scenario indicates increasing debt ratios, this reflects the COVID-19 and Ebola crises as well as recent large commodity price shocks.

- The PPG external debt service-to-revenue ratio stays above the threshold over the medium term, indicating a tight liquidity situation, before steadily declining in the medium- to long-term, although it remains significantly above its threshold of 18 percent for the next six years. The PPG external debt service-to-exports ratio stays slightly below the threshold of 15 percent over the medium term. Although FX inflows from external borrowing are limited, with minimal borrowing under the IMF program ceiling, the authorities are utilizing measures to increase the FX inflow to maintain reserve adequacy. As such, while the indicator is above the threshold in the near term, staff assesses gross international reserves as adequate to fulfill upcoming debt service obligations.

- Stress tests indicate that the external debt indicators are sensitive to exports and GDP growth. In the stress scenarios, all external debt indicators remain above their thresholds over the medium term.

- Since the PPG external debt service-to-revenue ratio breaches its threshold over the medium term under the baseline, Sierra Leone is assessed to be at high risk of external debt distress. However, all the external debt indicators are on a declining trend over the medium to long term under the policy settings in the ECF-supported program.

OVERALL RISK OF PUBLIC DEBT DISTRESS

11. Sierra Leone is assessed to be at high overall risk of public debt distress, but public debt is assessed to be sustainable. Again, this is predicated on the strong and front-loaded fiscal adjustment and continued reliance on concessional financing and grants, and moderately high growth rates.

- Under the baseline scenario, the PV of the public debt-to-GDP ratio breaches the threshold of 55 percent of GDP initially but gradually declines and falls below it by 2026 (Figure 2). Compared with the previous assessment, the indicator shifted up due to the depreciation of the leone, and falls below the threshold one year later than before. The public debt service-to-revenue ratio is projected to decline steadily over the medium term but remains high even at the end of the projection horizon, suggesting a tight liquidity situation. Recent efforts to lengthen the maturity structure of government borrowing reduces the ratio somewhat compared to the previous DSA.[6] This large debt service is expected to be financed with external grants, concessional loans, and primary surpluses. In this context, Sierra Leone

[5] The residuals in Table 1 reflect exchange rate changes; differential between average and period end exchange rate estimates; and decrease in capital flows, implying higher other BOP inflows, including use of reserves.

[6] As the authorities have successfully continued to issue two- to three-year bonds in recent years, this DSA assumes (i) 15 percent and 20 percent of new domestic debts are financed by 1-3 years bonds in 2023, and 2024, respectively, and (ii) 25 percent of new domestic debts are financed by 1-3 years bonds and 5 percent by 4-7 years bonds between 2025-28. This compares to the previous conservative assumption that all new domestic debt will be financed by 364 days T-bills.

will need continued access to concessional financing to ensure that financing terms remains favorable. In the long term, as the economy recovers and revenue mobilization gains materialize, the public debt service-to-revenue ratio is expected to decline.

- Stress tests indicate that the public debt indicators are most sensitive to shocks to growth. Considering that both external debt indicators and public debt indicators exceed their thresholds under the baseline, the country is assessed to have high overall risk of public debt distress.

- In this context, (i) sustained and significant fiscal adjustment; and (ii) continued reliance on highly concessional external financing (ideally grants) is particularly important, including from IFIs which account for a large share of Sierra Leone's PPG external debt.

12. The debt service to revenue ratio and gross financing needs are high and their reduction is contingent on the ambitious fiscal adjustment and greater grant and/or concessional borrowing. The need to roll over T-bills issued in the previous year ("T-bills amortization" in Text Table 6) accounts for around 70 percent of gross financing needs (Text Table 6 and Text Figure 3). However, considering the characteristics of Sierra Leone's domestic financial market—where commercial banks' business models rely heavily on T-Bills, there is no secondary market trading between commercial banks, and foreign participation is absent—staff assesses that liquidity risks from this rollover are manageable. Staff also assesses that banks have the capacity to absorb the projected volumes assumed under the baseline. Going forward, rollover risks should decline with the reduction in the government's domestic financing needs and the general tightening of macroeconomic policies, which should contain inflation and the depreciation, thus addressing the upward trend in foreign currency deposits. In case significant negative shocks materialize, the burden on banks to absorb short-term government debt will rise further, leading to larger rollover risks, especially if banking sector health also deteriorates following the shock. The gross financing needs will increase if the authorities are unable to roll over at reasonable costs. Lengthening of the maturity structure, along with strong fiscal consolidation and efforts to secure more grant financing is imperative.[7]

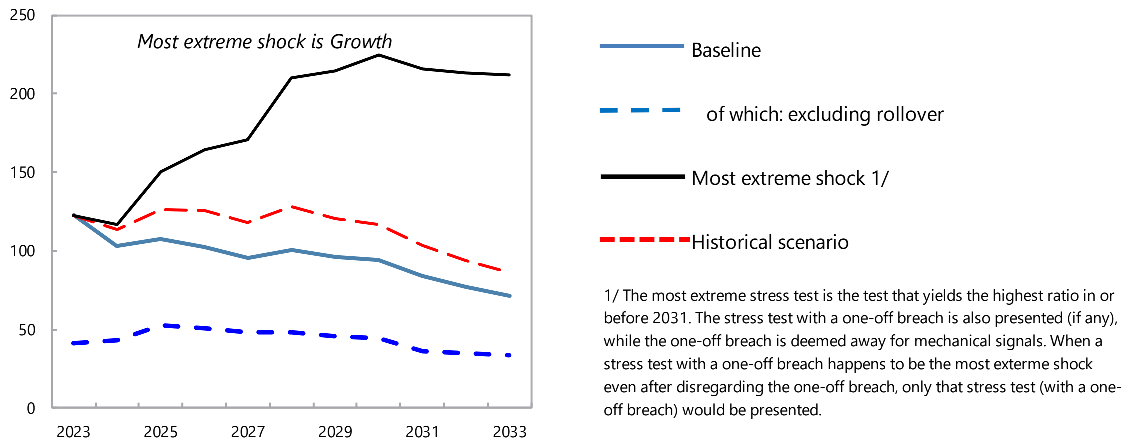
Text Table 6. Debt-Service to Revenue and Grants Ratio

	Actual	Projections											
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2043
Debt service-to-revenue and grants ratio 1/	**111.0**	**122.8**	**102.9**	**107.5**	**102.7**	**95.5**	**100.5**	**95.8**	**94.3**	**84.0**	**76.9**	**71.2**	**23.7**
of which: T-bills amortization	77.9	81.3	59.8	54.8	52.1	47.6	52.1	49.9	50.2	48.0	42.0	37.4	6.6
of which: others	**33.1**	**41.4**	**43.1**	**52.7**	**50.6**	**47.9**	**48.4**	**45.9**	**44.2**	**36.0**	**34.9**	**33.8**	**17.1**
Gross financing need 2/	**28.8**	**24.6**	**20.3**	**21.3**	**19.8**	**18.7**	**19.4**	**18.5**	**18.0**	**16.0**	**14.7**	**13.6**	**5.4**
of which: T-bills amortization	15.1	15.4	12.5	11.5	10.6	9.7	9.1	8.9	8.7	8.5	7.5	6.6	1.2
of which: others	**13.8**	**9.2**	**7.8**	**9.8**	**9.2**	**9.0**	**10.3**	**9.6**	**9.3**	**7.5**	**7.2**	**6.9**	**4.2**

Sources: Country authorities; and staff estimates and projections.
1/ Debt service is defined as the sum of interest and amortization of medium and long-term, and short-term debt.
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 and other debt creating/reducing flows.

[7] In the medium- to long-term, this DSA allows gradual transition towards the financing strategy (strategy 2) proposed by a recent Fund/World Bank TA on MTDS (in Oct 2021) which assumes domestic borrowing includes issuing 2-5-year T-bonds over the medium term.

Text Figure 3. Debt-Service to Revenue and Grants Ratio



RISK RATING AND VULNERABILITIES

13. While Sierra Leone is assessed to be at high risk of external and overall public debt distress, its debt is assessed to be sustainable but growing debt sustainability risks call for increased attention. Large fiscal overruns, together with the depreciation of the exchange rate, have increased risks around the baseline, as a bigger and more frontloaded fiscal adjustment is now necessary to achieve program objectives. The increasing public debt service-to-revenue ratio over the medium term suggests high liquidity-related vulnerabilities. The stress tests also highlight that debt indicators are sensitive to shocks to exports and GDP growth.

14. This DSA underscores the importance of continued fiscal discipline and structural reforms, supported by technical assistance and prudent financing choices. Higher domestic food and fuel prices could exacerbate the already severe burden on the population, deteriorate the budget and external balances, increase costs for businesses, further expand implicit fuel subsidies, provoke social discontent, and put debt sustainability at risk. Given these vulnerabilities to exogenous shocks and potential fiscal pressure stemming from the upcoming elections, reducing debt, and maintaining debt sustainability requires, first and foremost, sustained fiscal adjustment, underpinned by strengthened public financial management. However, to achieve a pace of fiscal adjustment that does not imperil the post-pandemic recovery and allows the country to protect critical social and health spending and to continue addressing its large development needs, it will be vital to rely on highly concessional financing and ideally grants. As debt sustainability risks increase, securing more grant financing is a first order issue. In line with the limit imposed under the ECF-supported program and WB SDFP and performance actions (PPAs), Sierra Leone has a zero ceiling on non-concessional external debt.

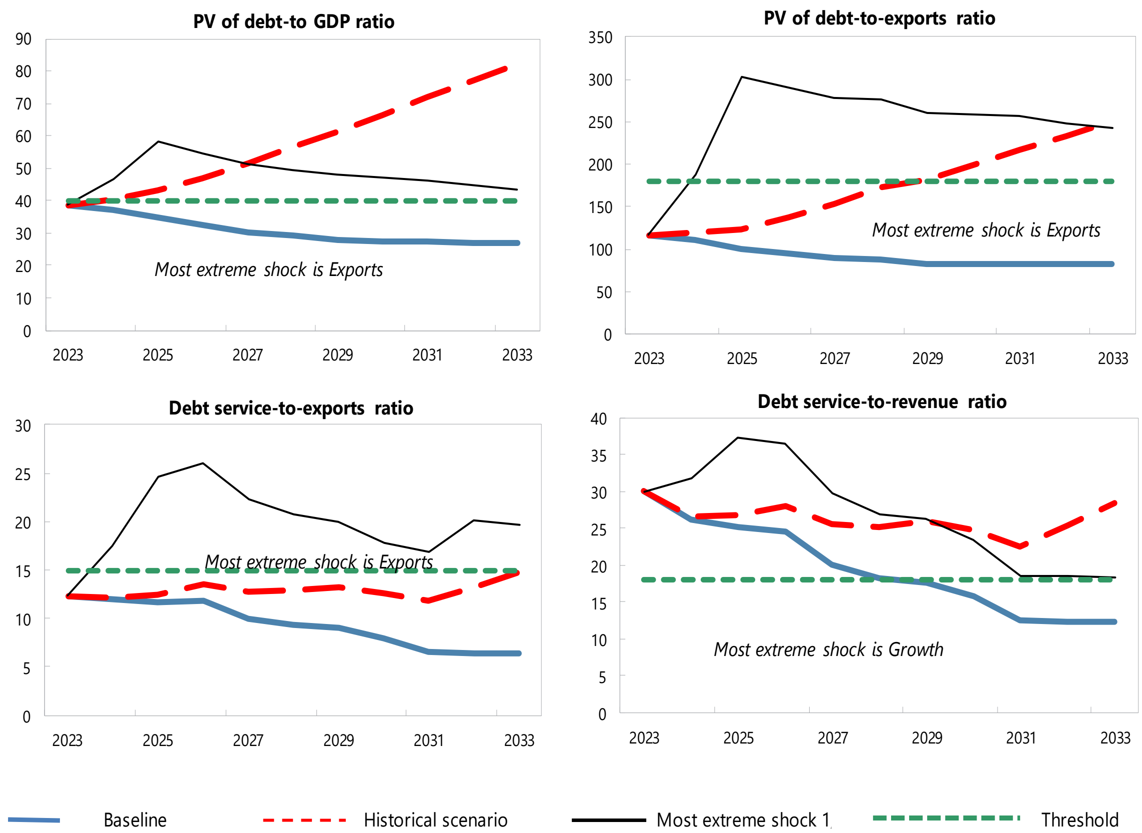
15. Steadfast implementation of the fiscal consolidation, paired with the development of a deeper domestic debt market, will be critical in mitigating rollover risks and maintaining debt

sustainability. While staff assesses that risks remain manageable at the current juncture given the characteristics of Sierra Leone's financial market, they could become imminent, and debt burden indicators could shift up considerably, should the authorities be unable to issue medium maturity domestic debt at a reasonable cost, or should the fiscal adjustment fall short of the programmed path, thus further increasing domestic borrowing needs in a context in which commercial banks may be unable to significantly step-up purchases of government paper. Risks would also increase should the BSL be called upon to finance any additional residual borrowing needs, which would risk reigniting the depreciation and deposit dollarization, thus further constraining banks' domestic currency liquidity. These risks also warrant additional measures including, but not limited to, developing a deeper domestic debt market, together with securing additional grant support. The risks are mitigated by the authorities' commitment to limit future domestic borrowing, as well as continued technical assistance on debt management and the development of the domestic market, including by drawing on recent IMF technical assistance on debt recording and joint World Bank/IMF technical assistance on a medium-term debt strategy. Plans for the issuance of medium- to long-term paper would also be essential in extending the yield curve and reducing rollover risks on bonds held by domestic banks.

AUTHORITIES' VIEWS

16. The authorities agreed with staff's views on the DSA. They concurred with the urgency of ensuring a sustained and credible fiscal adjustment in 2023 and onward. They emphasized that they have taken important steps in this direction, including through recently adopted revenue mobilization measures. They committed to continuing to prioritize grant resources, seeking only highly concessional financing, and ratifying only loans within the agreed annual ceiling under the ECF-supported program to safeguard debt sustainability. The authorities recognized the high T-Bill rollover risks and are committed to addressing these, including by issuing medium-to-long-term bonds and supporting the development of the domestic debt market. The authorities reiterated their commitment to clear domestic arrears and are working to address the challenges in obtaining NPV discounts through an updated arrears clearance strategy.

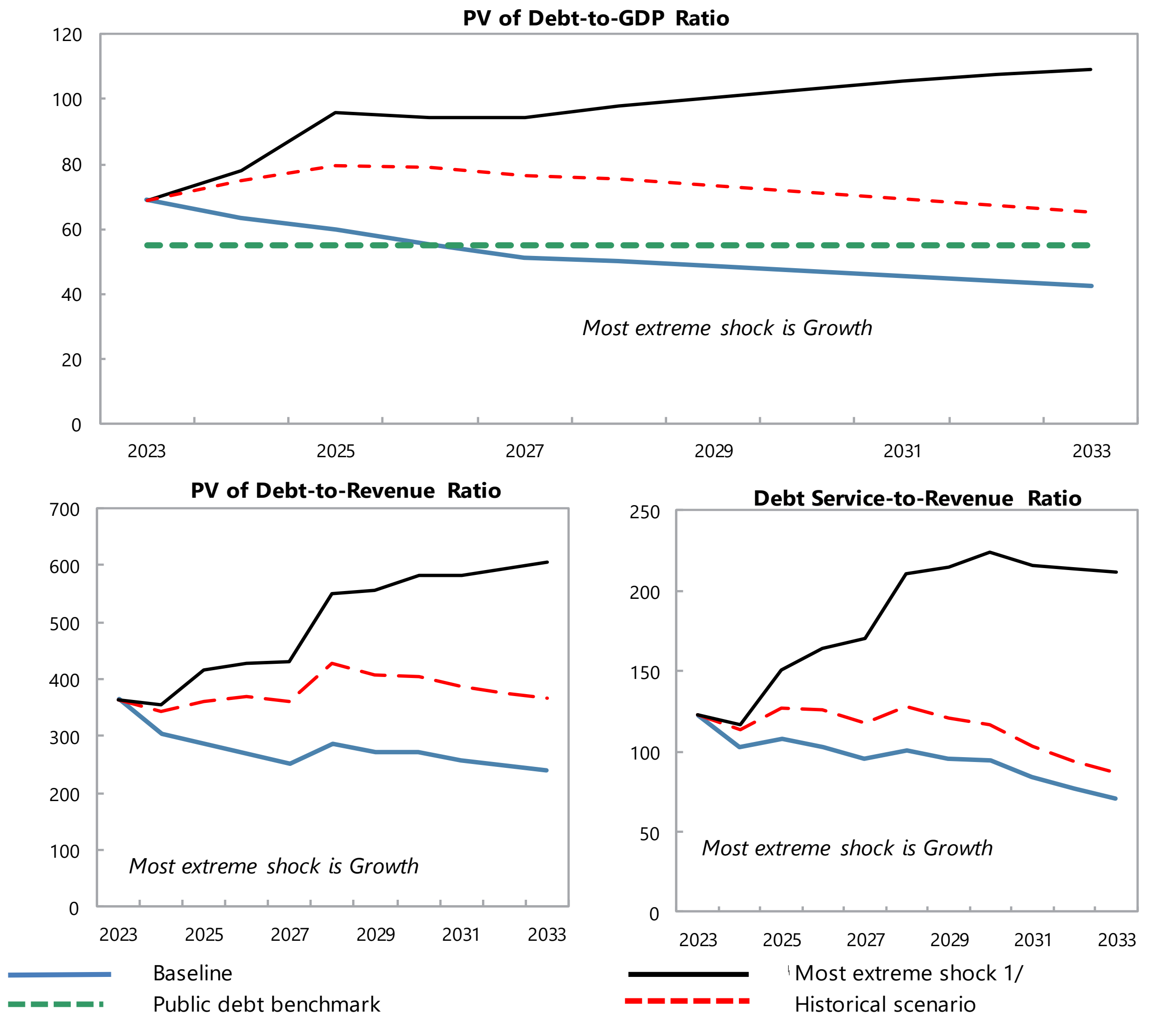
Figure 1. Sierra Leone: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2023–33



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 2032. The stress test with a one-off breach is also presented (in any), while the one-off 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. 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, 2023–33

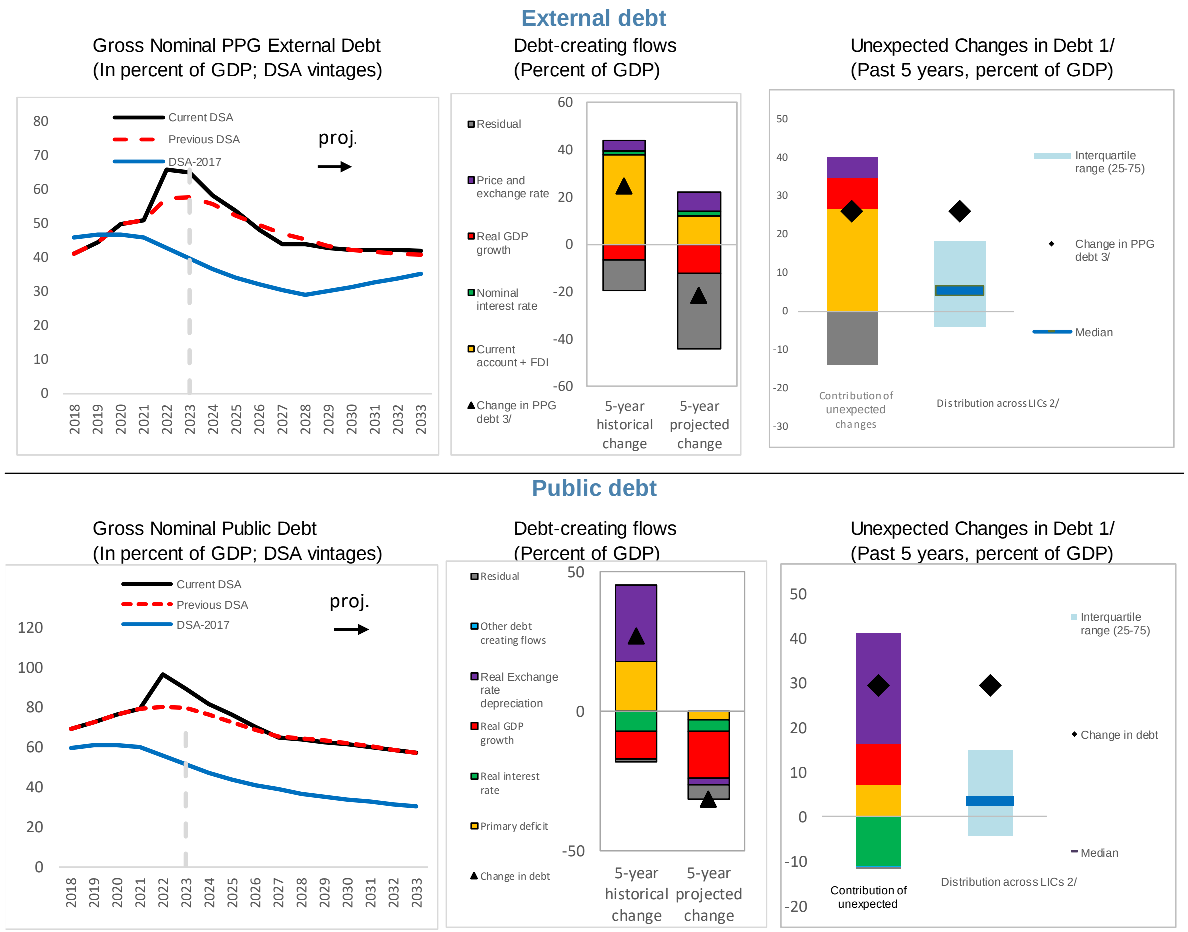


* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2032. 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, 2018–33



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

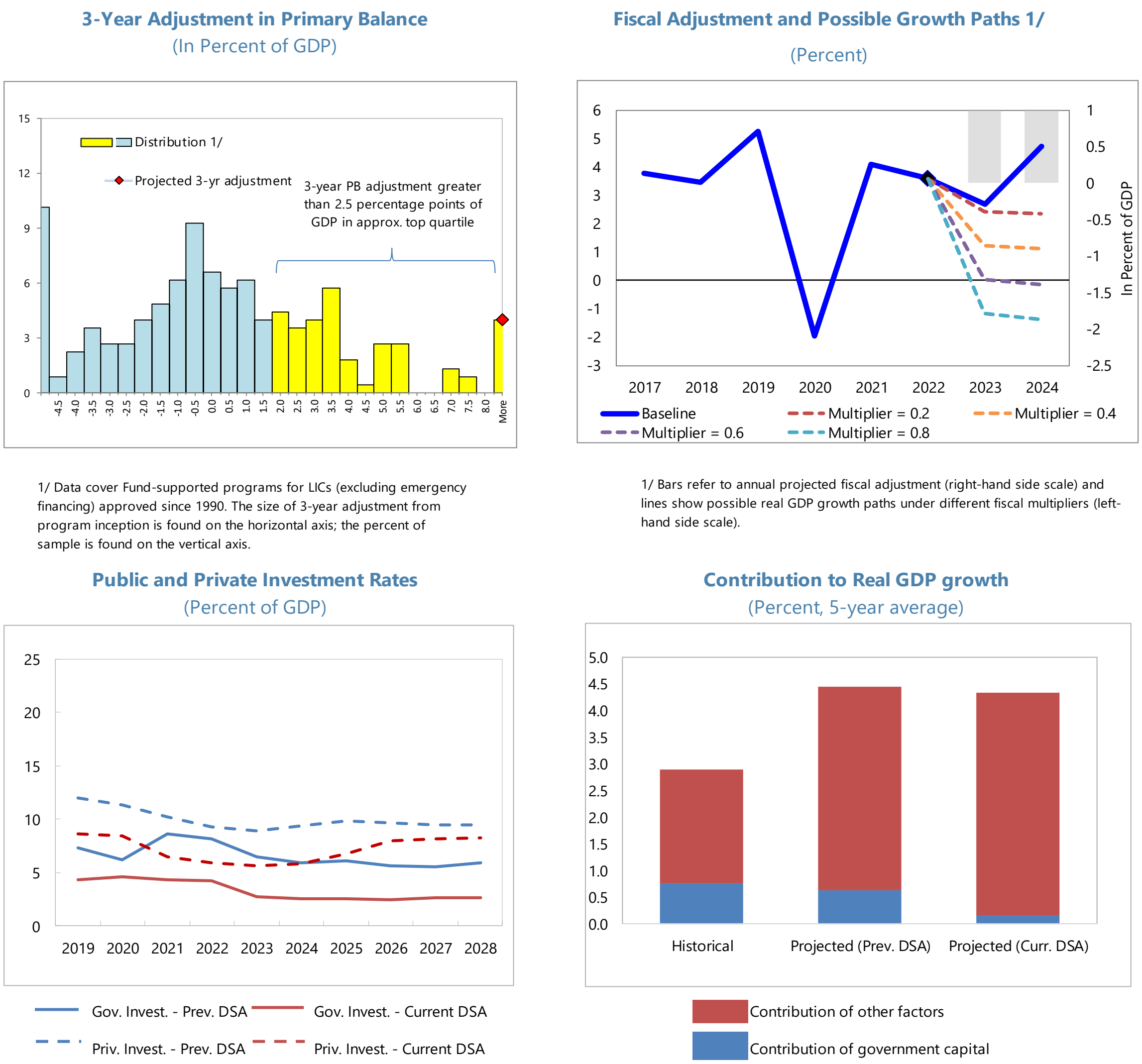
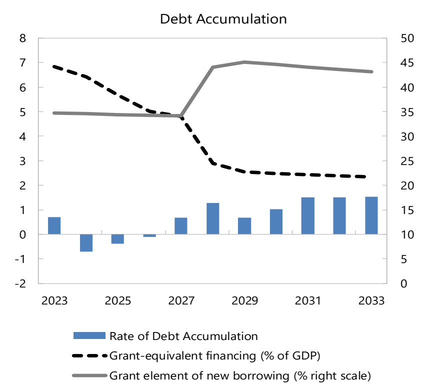
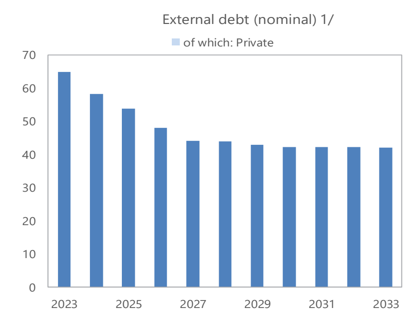


Table 1. Sierra Leone: External Debt Sustainability Framework, Baseline Scenario, 2022–43
(Percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 8/	
	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
External debt (nominal) 1/	65.8	64.9	58.2	53.8	48.0	44.0	43.9	42.1	42.3	41.2	47.6
of which: public and publicly guaranteed (PPG)	65.8	64.9	58.2	53.8	48.0	44.0	43.9	42.1	42.3	41.2	47.6
Change in external debt	15.0	-0.9	-6.7	-4.4	-5.8	-4.0	-0.1	-0.1	0.2		
Identified net debt-creating flows	9.8	4.9	0.3	-0.8	-1.5	-0.9	-0.5	-0.3	13.1	7.8	-0.1
Non-interest current account deficit	8.5	6.7	5.2	2.6	2.1	1.8	3.6	5.5	6.8	13.6	4.0
Deficit in balance of goods and services	19.8	18.4	16.8	13.9	13.0	12.1	12.1	13.0	13.3	21.4	13.5
Exports	31.8	33.4	33.5	35.2	34.5	33.7	32.8	32.9	32.3		
Imports	51.6	51.8	50.3	49.1	47.5	45.7	44.9	45.9	45.6		
Net current transfers (negative = inflow)	-12.5	-12.8	-12.8	-12.6	-12.1	-11.5	-9.7	-8.8	-7.4	-10.7	-10.6
of which: official	-3.8	-3.1	-3.0	-2.9	-2.8	-2.6	-1.0	-0.9	-0.7		
Other current account flows (negative = net inflow)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.8	2.9	1.2
Net FDI (negative = inflow)	-1.3	-0.1	-2.3	-1.0	-1.8	-1.2	-2.6	-4.3	7.8	-6.1	-2.4
Endogenous debt dynamics 2/	2.6	-1.7	-2.6	-2.4	-1.8	-1.5	-1.5	-1.4	-1.4		
Contribution from nominal interest rate	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4		
Contribution from real GDP growth	-1.9	-2.0	-3.0	-2.9	-2.3	-2.0	-1.9	-1.8	-1.8		
Contribution from price and exchange rate changes	4.2	...	...	...	...	...	...	...	...		
Residual 3/	5.1	-5.8	-6.9	-3.6	-4.3	-3.1	0.3	0.2	-13.0	-3.8	-2.1
of which: exceptional financing	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0		
Sustainability indicators											
PV of PPG external debt-to-GDP ratio	33.5	38.7	36.9	34.9	32.4	30.1	29.0	26.9	27.7		
PV of PPG external debt-to-exports ratio	105.3	116.0	110.1	99.2	93.9	89.3	88.3	81.8	85.8		
PPG debt service-to-exports ratio	11.0	12.3	12.0	11.6	11.8	10.0	9.3	6.4	6.3		
PPG debt service-to-revenue ratio	26.7	30.0	26.2	25.1	24.5	20.0	18.1	12.3	11.8		
Gross external financing need (Million of U.S. dollars)	424.3	374.7	247.6	215.4	176.9	178.0	195.3	211.2	1907.4		
Key macroeconomic assumptions											
Real GDP growth (in percent)	3.6	2.7	4.7	5.2	4.5	4.5	4.6	4.6	4.5	2.9	4.5
GDP deflator in US dollar terms (change in percent)	-7.6	-14.1	-1.7	-0.4	2.8	5.2	3.2	1.4	1.2	-1.7	0.2
Effective interest rate (percent) 4/	0.7	0.4	0.6	0.8	0.9	0.9	1.0	1.0	1.0	0.7	0.9
Growth of exports of G&S (US dollar terms, in percent)	13.2	-7.2	3.4	9.9	5.3	7.4	5.4	5.8	6.3	4.8	5.0
Growth of imports of G&S (US dollar terms, in percent)	9.6	-11.5	0.1	2.2	4.0	5.8	6.1	6.6	5.8	0.6	3.6
Grant element of new public sector borrowing (in percent)	...	34.7	34.6	34.4	34.2	34.2	44.0	43.1	39.0	...	39.7
Government revenues (excluding grants, in percent of GDP)	13.0	13.7	15.3	16.3	16.6	16.8	16.8	17.1	17.2	12.8	16.4
Aid flows (in Million of US dollars) 5/	251.1	183.2	243.7	215.7	193.9	196.4	197.9	166.7	193.4		
Grant-equivalent financing (in percent of GDP) 6/	...	6.8	6.4	5.7	5.0	4.8	2.9	2.3	2.2	...	4.0
Grant-equivalent financing (in percent of external financing) 6/	...	69.4	81.5	74.3	68.1	65.7	50.5	50.9	46.7	...	60.7
Nominal GDP (Million of US dollars)	3,970	3,504	3,607	3,780	4,063	4,467	4,823	6,489	11,499		
Nominal dollar GDP growth	-4.3	-11.8	3.0	4.8	7.5	9.9	8.0	6.1	5.8	1.0	4.7
Memorandum items:											
PV of external debt 7/	33.5	38.7	36.9	34.9	32.4	30.1	29.0	26.9	27.7		
In percent of exports	105.3	116.0	110.1	99.2	93.9	89.3	88.3	81.8	85.8		
Total external debt service-to-exports ratio	11.0	12.3	12.0	11.6	11.8	10.0	9.3	6.4	6.3		
PV of PPG external debt (in Million of US dollars)	1328.6	1356.8	1332.3	1318.6	1315.0	1342.5	1399.2	1746.2	3184.1		
(PVt-PVt-1)/GDPt-1 (in percent)		0.7	-0.7	-0.4	-0.1	0.7	1.3	1.5	1.8		
Non-interest current account deficit that stabilizes debt ratio	-6.5	7.6	11.9	7.0	8.0	5.8	3.7	5.6	6.6		

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.

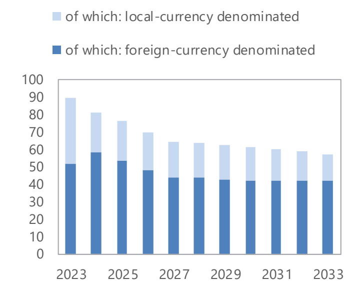
1/ Includes both public and private sector external debt.
2/ Derived as [r - g - ρ(1+g) + Ɛα (1+r)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, ρ = growth rate of GDP deflator in U.S. dollar terms, Ɛ=nominal appreciation of the local currency, 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.

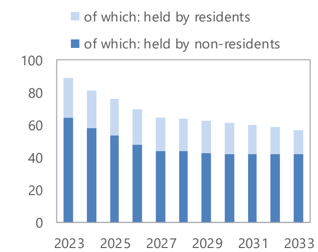
Table 2. Sierra Leone: Public Sector Debt Sustainability Framework, Baseline Scenario, 2022–43
(Percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 6/	
	2022	2023	2024	2025	2026	2027	2028	2033	2043	Historical	Projections
Public sector debt 1/	**96.2**	**89.3**	**81.4**	**76.5**	**69.8**	**64.6**	**64.0**	**57.2**	**45.4**	**63.6**	**67.8**
of which: external debt	**65.8**	**64.9**	**58.2**	**53.8**	**48.0**	**44.0**	**43.9**	**42.1**	**42.3**	**41.2**	**47.6**
Change in public sector debt	16.9	-6.8	-7.9	-4.9	-6.7	-5.2	-0.6	-1.5	-0.8		
Identified debt-creating flows	**21.8**	**-7.1**	**-6.1**	**-4.4**	**-3.6**	**-2.9**	**-0.5**	**-1.6**	**-1.2**	**5.0**	**-2.9**
Primary deficit	**7.3**	**1.4**	**-1.3**	**-1.2**	**-1.1**	**-0.7**	**1.8**	**0.9**	**1.1**	**3.8**	**0.4**
Revenue and grants	19.3	18.9	21.0	21.0	20.4	20.3	17.5	17.8	17.7	**16.7**	**18.9**
of which: grants	6.3	5.2	5.6	4.6	3.8	3.5	0.7	0.6	0.6		
Primary (noninterest) expenditure	26.7	20.3	19.7	19.7	19.3	19.6	19.3	18.7	18.9	**20.5**	**19.3**
Automatic debt dynamics	**14.4**	**-8.6**	**-4.8**	**-3.1**	**-2.5**	**-2.2**	**-2.3**	**-2.6**	**-2.3**		
Contribution from interest rate/growth differential	-7.8	-8.6	-4.8	-3.1	-2.5	-2.2	-2.3	-2.6	-2.3		
of which: contribution from average real interest rate	-5.0	-6.1	-0.8	0.9	0.9	0.8	0.5	0.0	-0.3		
of which: contribution from real GDP growth	-2.8	-2.5	-4.0	-4.0	-3.3	-3.0	-2.8	-2.6	-2.0		
Contribution from real exchange rate depreciation	22.2	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
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	**-4.9**	**0.3**	**-1.9**	**-0.5**	**-3.1**	**-2.3**	**-0.1**	**0.2**	**0.4**	**1.0**	**-0.7**
Sustainability indicators											
PV of public debt-to-GDP ratio 2/	**75.2**	**69.0**	**63.4**	**60.0**	**55.0**	**51.0**	**50.0**	**42.7**	**31.4**		
PV of public debt-to-revenue and grants ratio	**388.9**	**364.6**	**302.5**	**286.1**	**269.9**	**251.5**	**286.0**	**240.3**	**176.9**		
Debt service-to-revenue and grants ratio 3/	**111.0**	**122.8**	**102.9**	**107.5**	**102.7**	**95.5**	**100.5**	**71.2**	**23.7**		
Gross financing need 4/	28.8	24.6	20.3	21.3	19.8	18.7	19.4	13.6	5.4		
Key macroeconomic and fiscal assumptions											
Real GDP growth (in percent)	3.6	2.7	4.7	5.2	4.5	4.5	4.6	4.6	4.5	**2.9**	**4.5**
Average nominal interest rate on external debt (in percent)	0.8	0.6	0.7	0.9	0.9	1.0	1.0	1.0	1.0	**0.7**	**0.9**
Average real interest rate on domestic debt (in percent)	-7.0	-13.2	0.0	6.6	6.3	5.8	4.7	2.3	2.4	**-0.1**	**2.2**
Real exchange rate depreciation (in percent, + indicates depreciation)	48.3	...	...	...	...	...	...	...	...	**8.7**	**...**
Inflation rate (GDP deflator, in percent)	21.4	34.7	24.2	16.6	12.8	9.5	7.8	6.5	6.2	**10.4**	**12.6**
Growth of real primary spending (deflated by GDP deflator, in percent)	8.9	-21.8	1.5	5.2	2.2	6.2	3.2	4.3	4.7	**7.0**	**1.5**
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-9.6	8.2	6.7	3.7	5.6	4.5	2.4	2.4	1.9	**-3.1**	**4.0**
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.

Note: Grants include grants for debt service relief under the Catastrophe Containment and Relief Trust (CCRT).

Table 3. Sierra Leone: Sensitivity Analysis, External Debt, 2023-33

	Projections 1/										
	2023	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**
						PV of debt-to GDP ratio					
Baseline	38.7	36.9	34.9	32.4	30.1	29.0	28.0	27.3	27.2	27.0	26.9
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	38.7	**40.3**	**43.1**	**47.1**	**51.7**	**56.6**	**61.2**	**66.3**	**71.8**	**77.1**	**82.2**
B. Bound Tests											
B1. Real GDP growth	38.7	**44.9**	**51.9**	**48.1**	**44.7**	**43.2**	**41.6**	**40.6**	**40.4**	**40.2**	**40.0**
B2. Primary balance	38.7	37.9	37.3	35.8	34.1	33.6	33.0	32.7	32.7	32.6	32.4
B3. Exports	38.7	**46.5**	**58.0**	**54.6**	**51.1**	**49.3**	**47.9**	**46.9**	**46.0**	**44.6**	**43.3**
B4. Other flows 3/	38.7	**43.3**	**47.5**	**44.6**	**41.7**	**40.2**	39.0	38.1	37.5	36.5	35.6
B5. One-time 30 percent nominal depreciation	38.7	**47.8**	**42.7**	39.5	36.6	35.4	34.1	33.2	33.1	33.1	33.1
B6. Combination of B1-B5	38.7	**48.6**	**56.1**	**52.6**	**49.1**	**47.4**	**45.9**	**44.9**	**44.0**	**43.0**	**42.1**
C. Tailored Tests											
C1. Combined contingent liabilities	38.7	38.4	37.2	35.4	33.5	32.8	32.0	31.5	31.5	31.5	31.4
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	38.7	39.9	**40.6**	38.0	35.4	34.0	32.7	31.5	30.8	30.0	29.2
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.
Threshold	40	40	40	40	40	40	40	40	40	40	40
						PV of debt-to-exports ratio					
Baseline	116.0	110.1	99.2	93.9	89.3	88.3	82.8	82.2	82.4	81.9	81.8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	116.0	120.2	122.5	136.6	153.6	172.2	**181.0**	**199.5**	**217.8**	**233.7**	**249.7**
B. Bound Tests											
B1. Real GDP growth	116.0	110.1	99.2	93.9	89.3	88.3	82.8	82.2	82.4	81.9	81.8
B2. Primary balance	116.0	113.0	106.2	103.8	101.4	102.3	97.7	98.3	99.1	98.8	98.6
B3. Exports	116.0	**187.0**	**302.9**	**290.9**	**278.6**	**275.6**	**260.1**	**258.7**	**256.2**	**248.3**	**241.7**
B4. Other flows 3/	116.0	129.2	135.1	129.4	123.8	122.5	115.4	114.8	113.6	110.6	108.2
B5. One-time 30 percent nominal depreciation	116.0	110.1	93.8	88.6	84.2	83.2	77.9	77.3	77.5	77.5	77.7
B6. Combination of B1-B5	116.0	156.4	129.1	171.9	164.3	162.6	153.1	152.2	150.4	146.9	144.1
C. Tailored Tests											
C1. Combined contingent liabilities	116.0	114.6	105.9	102.7	99.5	99.7	94.7	94.9	95.6	95.5	95.6
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	116.0	134.9	127.4	119.6	111.8	108.0	98.6	96.7	95.2	92.6	90.5
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	180	180	180	180	180	180	180	180	180	180	180
						Debt service-to-exports ratio					
Baseline	12.3	12.0	11.6	11.8	10.0	9.3	9.0	8.0	6.5	6.4	6.4
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	12.3	12.2	12.4	13.5	12.7	12.9	13.2	12.5	11.8	13.2	14.8
B. Bound Tests											
B1. Real GDP growth	12.3	12.0	11.6	11.8	10.0	9.3	9.0	8.0	6.5	6.4	6.4
B2. Primary balance	12.3	12.0	11.7	11.9	10.2	9.5	9.2	8.2	6.9	7.1	7.2
B3. Exports	12.3	**17.4**	**24.7**	**26.0**	**22.3**	**20.7**	**19.9**	**17.8**	**16.8**	**20.1**	**19.6**
B4. Other flows 3/	12.3	12.0	11.9	12.4	10.6	9.8	9.5	8.5	8.0	8.9	8.7
B5. One-time 30 percent nominal depreciation	12.3	12.0	11.6	11.7	9.9	9.2	8.9	7.9	6.4	6.1	6.0
B6. Combination of B1-B5	12.3	14.2	**16.7**	**17.1**	14.6	13.6	13.1	11.7	11.2	11.8	11.6
C. Tailored Tests											
C1. Combined contingent liabilities	12.3	12.0	11.7	11.9	10.1	9.5	9.1	8.1	6.7	6.6	6.6
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	12.3	13.7	13.3	13.5	11.3	10.4	9.8	8.7	7.5	7.8	7.7
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	**30.0**	**26.2**	**25.1**	**24.5**	**20.0**	**18.1**	17.7	15.8	12.5	12.4	12.3
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**30.0**	**26.6**	**26.7**	**28.1**	**25.5**	**25.1**	**26.0**	**24.8**	**22.6**	**25.3**	**28.4**
B. Bound Tests											
B1. Real GDP growth	**30.0**	**31.8**	**37.3**	**36.4**	**29.8**	**27.0**	**26.3**	**23.4**	**18.5**	**18.4**	**18.3**
B2. Primary balance	**30.0**	**26.2**	**25.2**	**24.7**	**20.3**	**18.5**	**18.1**	16.2	13.2	13.6	13.8
B3. Exports	**30.0**	**28.3**	**29.0**	**29.5**	**24.3**	**22.1**	**21.4**	**19.2**	17.6	**21.0**	**20.5**
B4. Other flows 3/	**30.0**	**26.2**	**25.7**	**25.7**	**21.2**	**19.2**	**18.7**	16.7	15.4	17.1	16.7
B5. One-time 30 percent nominal depreciation	**30.0**	**33.9**	**32.4**	**31.4**	**25.7**	**23.2**	**22.7**	**20.2**	15.9	15.1	15.0
B6. Combination of B1-B5	**30.0**	**28.8**	**31.9**	**31.5**	**25.9**	**23.5**	**22.9**	**20.5**	**19.2**	**20.1**	**19.7**
C. Tailored Tests											
C1. Combined contingent liabilities	**30.0**	**26.2**	**25.2**	**24.7**	**20.3**	**18.5**	**18.0**	16.1	12.8	12.8	12.7
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	**30.0**	**30.2**	**29.3**	**29.1**	**23.3**	**20.6**	**19.5**	16.9	14.2	14.8	14.4
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	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, 2023-33

	Projections 1/										
	2023	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**
	PV of Debt-to-GDP Ratio										
Baseline	**69.0**	**63.4**	**60.0**	55.0	51.0	50.0	48.4	47.2	45.7	44.2	42.7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**69**	**75**	**80**	**79**	**77**	**75**	**73**	**71**	**69**	**67**	**65**
B. Bound Tests											
B1. Real GDP growth	**69**	**78**	**96**	**95**	**94**	**98**	**100**	**103**	**105**	**107**	**109**
B2. Primary balance	**69**	**70**	**73**	**67**	**62**	**60**	**58**	**56**	54	52	50
B3. Exports	**69**	**70**	**78**	**71**	**66**	**65**	**63**	**62**	**60**	**57**	55
B4. Other flows 3/	**69**	**70**	**73**	**68**	**63**	**62**	**60**	**58**	**56**	54	52
B5. One-time 30 percent nominal depreciation	**69**	**67**	**62**	**56**	51	49	46	44	42	40	37
B6. Combination of B1-B5	**69**	**71**	**72**	**62**	**59**	**59**	**58**	**57**	**56**	**55**	54
C. Tailored Tests											
C1. Combined contingent liabilities	**69**	**74**	**69**	**64**	**59**	**57**	**55**	54	52	50	48
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	**69**	**68**	**72**	**74**	**76**	**81**	**85**	**89**	**92**	**95**	**98**
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	364.6	302.5	286.1	269.9	251.5	286.0	272.2	270.8	256.8	248.6	240.3
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	365	344	361	368	360	427	408	405	386	376	366
B. Bound Tests											
B1. Real GDP growth	365	354	416	428	431	550	555	582	582	594	605
B2. Primary balance	365	333	347	327	304	342	324	321	303	293	283
B3. Exports	365	334	371	351	328	373	355	354	335	321	307
B4. Other flows 3/	365	336	350	331	309	352	336	334	316	303	290
B5. One-time 30 percent nominal depreciation	365	324	301	278	254	279	260	253	235	223	211
B6. Combination of B1-B5	365	337	335	296	284	335	325	328	315	309	302
C. Tailored Tests											
C1. Combined contingent liabilities	365	352	331	312	290	327	310	308	292	282	273
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	365	355	377	402	408	491	490	509	517	534	550
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	122.8	102.9	107.5	102.7	95.5	100.5	95.8	94.3	84.0	76.9	71.2
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	123	113	127	126	118	128	121	117	103	94	86
B. Bound Tests											
B1. Real GDP growth	123	117	151	164	171	210	215	224	216	214	212
B2. Primary balance	123	103	129	144	130	132	121	115	101	91	84
B3. Exports	123	103	108	104	97	102	97	96	87	83	77
B4. Other flows 3/	123	103	108	104	97	102	97	95	87	81	76
B5. One-time 30 percent nominal depreciation	123	100	106	100	93	97	93	91	80	74	68
B6. Combination of B1-B5	123	105	116	112	109	122	120	122	113	107	103
C. Tailored Tests											
C1. Combined contingent liabilities	123	103	141	132	119	122	113	108	95	86	79
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	123	115	123	142	157	190	194	202	199	200	200
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.