WORLD BANK GROUP

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SIERRA LEONE

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS[1]

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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 risk of external and overall debt distress remains high, but debt is sustainable**.** Fiscal slippages and external factors have increased the risks around the baseline, as a larger and more frontloaded fiscal adjustment is now required to achieve the program objectives. Although Sierra Leone's debt carrying capacity has been upgraded to medium compared to the previous DSA report, one external debt burden indicator and the PV of public debt-to-GDP ratio exhibit sustained breaches of their respective sustainability thresholds. A heavy reliance on short-term domestic financing (T-Bills) creates potential rollover risks, as reflected in persistently elevated debt service ratios and gross financing needs over the medium- and long-term. Domestic rollover risks are mitigated by limited alternative investment options for domestic banks and the authorities' commitment to limit future domestic borrowing. That said, a lengthening of the maturity structure of domestic debt (via active liability management operations) is critical to reduce refinancing risks. Sierra Leone's debt is sustainable as all the debt indicators remain on a declining trend over the medium- to long-term. This assessment is predicated on the authorities' ambitious fiscal adjustment and continued reliance on concessional financing and grants, and moderately high growth rates. Maintaining debt sustainability requires sustained fiscal adjustment underpinned by strengthened public financial management, effective expenditure prioritization, redoubling structural and revenue mobilization reforms.

[1] The Composite Indicator score of 2.75, based on the April 2022 WEO and the World Bank's 2020 CPIA, indicates a medium debt-carrying capacity, upgraded from weak in the previous DSA report.

PUBLIC DEBT COVERAGE

1. The DSA covers known sources of public debt (Text Table 1). As in earlier DSAs, the debt stock includes central government public and publicly -guaranteed debts. 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, to improve its financial and debt management systems, and to enhance the accounting and timely reporting of public debt, including those of state-owned enterprises (SOEs) and self-accounting-bodies.

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	

2. The contingent liability stress test accounts for vulnerabilities associated with SOEs and financial market risks (Text Table 2). The contingent liability for SOE debt is set at 7 percent of GDP, higher than the default 2 percent of GDP, reflecting the authorities' estimate of indebtedness of SOEs and self-accounting bodies, which is not captured in the baseline. Contingent liabilities from financial markets are set at the standard minimum value of 5 percent of GDP, which represents the average fiscal cost 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 because the baseline reflects estimated domestic arrears. Overall, total contingent liabilities are estimated at 12 percent of GDP, as in the previous DSA.

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	

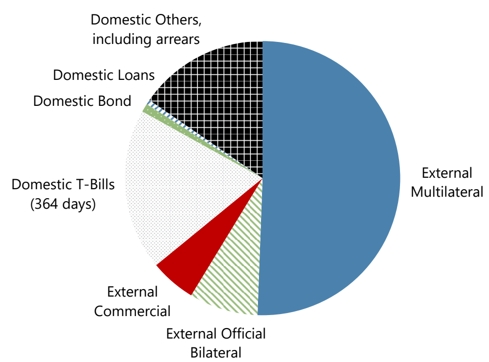
1/ The default shock of 2 percent of GDP will be triggered for countries whose government-guaranteed debt is not fully captured under the country's public debt definition (1). If it is already included in the government debt (1) and risks associated with SOE's debt not guaranteed by the government is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

BACKGROUND ON DEBT

3. The COVID-19 shock seriously strained Sierra Leone's public finances, and total public debt increased in 2021. The large shock to growth and revenues and measures to counter the impact of the pandemic, increased the fiscal deficit in 2020 and 2021. Total public debt at end-2021 is estimated to be around 76.8 percent of GDP, slightly increased from the level of end-2020. Public debt would slightly increase further in 2022-2023 and steadily decrease over the medium term.

4. Public and publicly guaranteed (PPG) external debt was around 50 percent of GDP in 2021, almost the same level as at end-2020 (Text Figure 1). It is expected to increase further in 2022. This reflects additional loans incurred in 2022, including planned ECF disbursements (SDR 15.56 million or 7.5 percent of quota in both June 2022 and December 2022), and SDR retrocessions (6). About 79 percent of Sierra Leone's PPG external debt at end-2021 comprised non-restructurable obligations to multilateral creditors. The IMF and World Bank account for about 27 percent and 23 percent of total PPG external debt (US$541 million and US$464 million respectively), followed by the African Development Fund (around 8 percent or US$165 million), the Islamic Development Bank (around 6 percent or US$128 million), the EEC/EIB (around 4 percent or US$78 million). Each of the other multilateral creditor accounts for less than 5 percent. Official bilateral creditors account for around 13 percent of total PPG external debt, with the Kuwait Fund the largest (around 3 percent or US$62 million).[2] Sierra Leone has pre-HIPC arrears to external commercial creditors (about 8 percent of PPG external debt or around US$168 million at end-2021).

Text Figure 1. Composition of Public Debt, End-2021

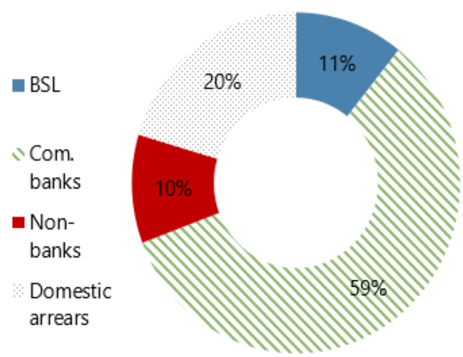


5. Sierra Leone domestic public debt increased from 26.6 percent of GDP at end-2020 to 27.6 percent at end-2021. Around 59 percent of domestic debt is owed to commercial banks mainly in the form of 364-day T-Bills, while the rest are distributed between the BSL, the non-bank, and legacy domestic

[2] Each of other official bilateral creditors' accounts for less than 3 percent of total PPG external debt.

arrears owed to suppliers (Text Figure 2). The pre-April 2018 legacy arrears have been progressively paid down from about 9.8 percent of GDP in 2019 to about 5.6 percent of GDP in 2021, largely at face value.

Text Figure 2. Composition of Domestic Public Debt, End-2021



6. A retrocession transaction based on the 2021 SDR allocation is envisaged in 2022 and 2023 to provide fiscal space to finance priority expenditures. Of the total SDR assets and liabilities (6.6 percent of GDP), this DSA assumes the equivalent of 1.6 percent of GDP in 2022, and 0.3 percent of GDP in 2023, will be transferred to the government (retrocession transaction) and then the SDR assets will be sold back to the central bank to convert them into the local currency for financing priority expenditures. These operations would leave to the government with SDR liabilities which are counted as additional long-term and highly concessional external debt in the DSA.[3]

KEY ASSUMPTIONS UNDER THE BASELINE SCENARIO

7. The assumptions are consistent with the macroeconomic framework in the staff report.

Text Table 3. Macroeconomic Assumptions

	Current DSA			Previous DSA (July 2021)		
	2022	2032	LT ave.	2021	2031	LT ave.
Real GDP growth (in percent)	3.6	4.5	4.4	3.2	4.5	4.5
Inflation (GDP deflator, in percent)	15.8	6.6	10.7	11.5	5.1	7.6
Primary deficit (percent of GDP)	1.1	0.8	0.4	1.1	-2.0	-1.1
Non-interest current account deficit (percent of GDP)	12.8	6.4	7.1	15.2	11.6	12.3

[3] Assumptions for the DSA calculation include a maturity of 100 years, and payment of USD-equivalent of the SDR interest rate on the government SDR liabilities net of SDR assets.

- **Growth**. Real GDP growth is estimated to have rebounded to about 3.2 percent in 2021 following the COVID shock in 2020, and to increase to 3.6 percent in 2022. Growth in 2022 has been downgraded from 5.9 percent in the previous DSA, due to lower forecasts for iron ore production, greater uncertainty around the global trajectory of the COVID-19 pandemic, and the likely shock to terms-of-trade[4] and global growth as a result of the ongoing war in Ukraine. Nearly three-fourths of the country is assessed to be food insecure and recent rise in food prices and supply disruptions, precipitated by the war in Ukraine, has intensified this concern and poses risks to economic activity. Growth is projected to converge to its long-run potential and historical average of around 4½ percent over the medium term, supported by the recent resumption of production at both the Tonkolili and Marampa iron ore mines (for the first time since Ebola), good prospects for new developments in the diamond mining sector, and continued policy support for the agricultural sector. Around 17¼ percent of the population have received two vaccination doses as of mid-May. Vaccine hesitancy and logistical challenges persist.

- **Inflation**. Inflation, as measured by the GDP deflator, is estimated to be broadly in line with average consumer price inflation in 2021 at 11.1 percent and increases to 15.8 percent in 2022.[5] Inflation projections for 2022 and beyond have been revised up relative to the previous DSA due to recent trends in global food and fuel price inflation, and the outturn through March 2022, which was higher than expected. Inflation is projected to decline gradually after 2022, and to reach single digits by 2027 measured by the GDP deflator, as fiscal financing pressures recede, and the monetary policy framework improves.

- **Fiscal**. Successive shocks and emerging spending pressures have rendered an extremely tight budget situation. Notwithstanding revenues being on target, the overall fiscal deficit widened by about 3.5 percentage points higher than the target of 3.8 percent of non-iron ore GDP in 2021. These overruns reflected expenditure pressures (containing a third wave of COVID-19, wages and salaries, goods and services due to inflationary pressures, accelerated domestic capital projects following COVID delays) and more than anticipated energy subsidies. These pressures have persisted into the FY2022 budget with preliminary 2022Q1 out-turn showing continued increases in energy subsidies, wages, goods and services amidst revenues shortfalls. A supplementary 2022 budget covers emerging spending pressures, while ensuring that the fiscal targets under the program remain on course. Pressures on social transfers, wage bills and pre-election spending will continue to pose risks to planned fiscal consolidation. Under the baseline scenario, the domestic primary balance shifts into surplus in 2023 and to 1.7 percent of non-iron ore GDP by 2024, as domestic revenues improve.

- **External**. Due to the ongoing Russia-Ukraine war and the resulting fuel price increases, the current account deficit is projected to remain high in 2022. The deficit will be partly offset by strong exports

[4] The shock to import prices (in particular for fuel, food and fertilizer) is likely to outweigh any boost to iron ore or other mineral prices.

[5] Consumer price inflation averaged 11.9 percent in 2021 and is projected to average 17.3 percent in 2022.

due to the commodity (iron ore) price increase. The current account will gradually improve towards the medium-term, supported by mining production.

- **IDA financing**. IDA financing is assumed to be all grants until 2027, and 100 percent regular IDA credits after 2028, consistent with the 2017 LIC DSF guidance note. Previously, the LIC DSA assumed that 100 percent of the IDA financing after 2028-31 would be disbursed by grants and a 50:50 split between grants and credit (2032-41). However, the assumptions have been revised to be consistent with IDA's commitment capacity and to reflect change in IDA Financing terms. This revision of IDA financing results in widened fiscal deficits and primary balance (financing needs increase due to a decrease in grants) and increase external debt after 2028 as previous grants are now treated as program loans (PV of external debt to GDP ratio increases by more than 10 percent in the long run). Further, higher credit financing from IDA would put pressure on Sierra Leone to undertake a relatively steep medium-term fiscal adjustment relative to the previous DSA —to reach given fiscal deficit and public debt objectives**.**

- **Other assumptions.** This DSA reflects two RCF disbursements in June 2020 (SDR 103.7 million or 50 percent of quota) and in March 2021 (SDR 35.3 million or 17 percent of quota), actual and projected future disbursements under the Extended Credit Facility (ECF), SDR allocation in August 2021, debt relief under the CCRT, and debt deferment under the DSSI.[6] This DSA also takes into account the projected external financing gap during 2026-27, and assumes that the gap will be covered by concessional financing with an overall grant element of 35.5 percent.[7] Further, the assumption of excluding T-Bills issued in the past from calculation of GFN and the debt service to revenue ratio has been changed and they are now included to capture the full GFN and debt service even if rollover risks are manageable (see Text Table 6 and 13).

8. **Arrears' clearance**. The authorities have paid large amount of the pre-April 2018 legacy arrears (or Le. 457 billion over 2020-21) without large discounts (i.e., overall NPV reduction on total stock of 35-40 percent) envisaged under the approved arrears clearance strategy. The lack of resources for upfront payment ("sweetener") of discounted amount was mentioned as one of the reasons for rejection of haircuts by vendors but also because some of the creditors are strategically important e.g., in the supply of medicine to the security sector, which necessitate selected payments. Authorities are planning to update the current arrears clearance strategy with TA from IMF FAD to make it implementable. In the meantime, a temporary halt in clearance of legacy arrears was agreed for 2022 until a new strategy is in place. This has implications on the assumptions on the term (years) within which the arrears will be fully paid after the NPV reductions-extending this by a year to 2028, assuming a new plan comes into effect from 2023. As in the previous DSA, the overall NPV reduction on total stock is set at about 35-40 percent.

9. **The realism tools suggest optimism relative to the historical trend, as a bigger and more frontloaded fiscal adjustment is now needed to achieve program objectives.** Regarding the primary

[6] Debt service deferment under the DSSI was around US$6.6 million in 2020 and around US$11 million in 2021. This DSA also reflects all five tranches of the CCRT and the corresponding early repayment to the Fund.
[7] 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.

balance, fiscal adjustment over the coming years includes recovery from a sharp deterioration due to the shocks amid the authorities' strong commitment to the reform program (Figure 4). The three-year average of fiscal adjustment over 2022-25 reflects a structural break recovery from a sharp deterioration in the primary balance in 2020 and 2021 due to the COVID-19 shock and its impact on revenues, higher energy subsidies, and wage pressures from key sectors (education, security and health). To maintain the fiscal path under the program, Sierra Leone authorities will have to frontload a steeper fiscal adjustment than anticipated in the previous DSA. Regarding domestic revenue, it is projected to increase from about 13.8 percent of GDP in 2020 to about 16.0 percent in 2025, lower relative to previous DSA due to lower than anticipated efficiency yields from the automation program. However, continued reforms on revenue mobilization, including the adoption of a new duty waiver policy will support revenue collection in the medium-term. Regarding the expenditure side, improved expenditure control and greater efficiencies in spending on will be essential to support a fiscally sustainable adjustment in the medium term. Finally, under the IMF ECF-supported program and the World Bank Sustainable Development Finance Policy (SDFP), the authorities have also committed to a concessional debt ceiling and a zero non-concessional borrowing policy and continue to seek additional budget support grants for priority and social spending, which will contain debt vulnerabilities.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TEST

10. Sierra Leone's debt-carrying capacity has been upgraded to medium compared to the previous DSA report assessment based on improved reserves coverage and stronger remittances. With the Composite Indicator (CI) score of 2.76 based on the latest data including April 2022 WEO and the World Bank's latest CPIA, Sierra Leone's debt carrying capacity is evaluated as medium, upgraded from weak in the previous DSA report (Text Table 4). Comparing to the previous DSA, reserves coverages improved due to the SDR allocation in August 2021, and remittances increased.[8] Due to the upgrade, thresholds for the external debt burden indicators and the benchmark for the PV of total public debt have been elevated. Text Table 5 shows applicable thresholds for debt indicators.

[8] Balance of payments data for 2020 have been subject to large revisions due to new estimates of unrecorded diamond exports and remittances.

Text Table 4. Composite Indicator (CI) Rating

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Medium	Medium 2.75	Medium 2.76	Medium 2.69

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.161	1.22	44%
Real growth rate (in percent)	2.719	3.583	0.10	4%
Import coverage of reserves (in percent)	4.052	36.560	1.48	54%
Import coverage of reserves^2 (in percent)	-3.990	13.366	-0.53	-19%
Remittances (in percent)	2.022	3.555	0.07	3%
World economic growth (in percent)	13.520	3.050	0.41	15%
CI Score			2.75	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

11. 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.

- Under the baseline scenario, the PV of PPG external debt-to-GDP ratio and the PV of PPG external debt-to-export ratio are projected to stay below the threshold and decline over the medium term (Figure 1, Table 1).[9] The projected decline in the debt ratios reflects several factors such as repayment of past ECF disbursements including those from Ebola period and the projected

[9] The residuals in Table 1 reflect exchange rate changes.

improvement in GDP and exports. While the historical scenario indicates increasing debt ratios, this reflects the COVID-19 crisis and Ebola crisis and commodity price shocks earlier.

- PPG external debt service-to-revenue ratio rises over the medium term,[10] 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 ten years. PPG external debt service-to-exports ratio stays slightly below the threshold of 15 percent over the medium term.

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

- Since one of the external debt indicators breaches its threshold 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, PPG external debt is assessed to be sustainable.

OVERALL RISK OF PUBLIC DEBT DISTRESS

12. 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 fiscal adjustment and continued reliance on concessional financing and grants, and moderately high growth rates.

- Under the baseline scenario, the PV of public debt-to-GDP ratio gradually declines to the threshold of 55 percent by 2025 (Figure 2). The public debt service-to-revenue ratio is projected to rise over the medium term, suggesting a tight liquidity situation. This increasing debt service is expected to be financed with external grants and concessional loans and government revenues. In this context, Sierra Leone will need continued access to concessional financing to ensure that financing terms remain contained. In the long term, as the economy fully 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 commodity price. 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.

- Nevertheless, public debt is assessed as sustainable given the downward trend in all debt indicators under the policy settings in the ECF-supported program. In this context, (i) sustained and significant fiscal adjustment, and (ii) continued reliance on highly concessional external financing (ideally grants) including from the IFIs which account for a large share of Sierra Leone's PPG external debt, while limiting recourse to expensive domestic debt are particularly important.

[10] The ratio shifted up slightly compared to the previous DSA due to the adjustment in revenue projections based on the outturn in 2021.

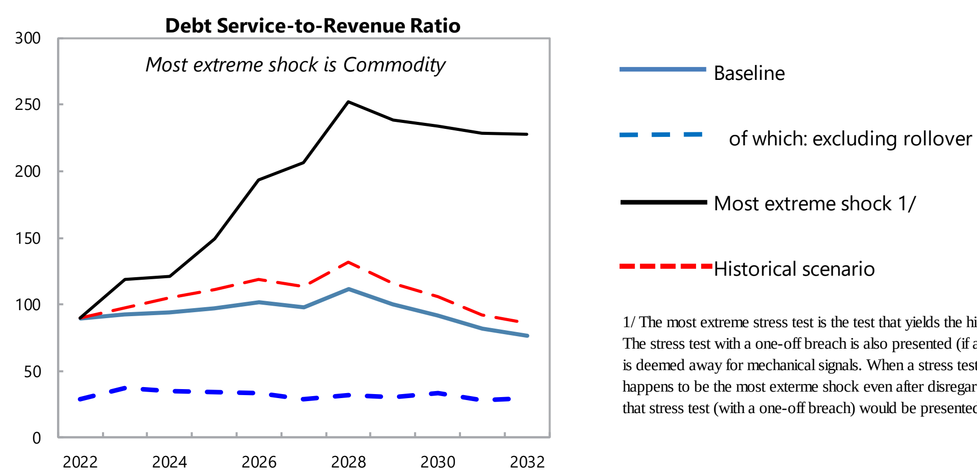
13. The debt service to revenue ratio and gross financing needs in Sierra Leone are persistently high and their reduction is contingent on very strong fiscal policies and greater grant and/or concessional borrowing. The need to rollover T-Bills issued in the previous year(“T-Bills amortization” in Text Table 6) accounts for around 70 percent of gross financing needs and the debt service-to-revenue ratio (Text Table 6 and Text Figure 3).[11] However, considering the characteristics of Sierra Leone’s domestic financial market—where commercial banks’ business model has relied heavily on T-Bills, there is no secondary market, and foreign participation is absent—liquidity risks from this rollover appear manageable. 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. Reducing residual rollover risks is a medium-term endeavor, including containing inflation and extending issuance maturities. Therefore, lengthening of the maturity structure, along with strong fiscal consolidation and efforts to secure more grant financing is imperative.[12]

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

	Actual	Projections											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2042
Debt service-to-revenue and grants ratio 1/	**80.2**	**89.5**	**92.6**	**93.8**	**97.4**	**101.5**	**97.7**	**111.9**	**100.0**	**92.1**	**81.7**	**76.9**	**40.1**
of which: T-bills amortization	55.5	60.4	55.7	58.5	62.9	68.2	68.5	80.0	69.4	58.9	53.7	47.0	22.5
of which: others	**24.7**	**29.1**	**37.0**	**35.3**	**34.5**	**33.3**	**29.2**	**31.8**	**30.6**	**33.1**	**28.0**	**29.8**	**17.7**
Gross financing need 2/	**20.6**	**19.2**	**17.5**	**17.5**	**17.8**	**18.3**	**18.3**	**20.2**	**18.3**	**17.0**	**15.3**	**14.5**	**8.9**
of which: T-bills amortization	11.3	12.2	10.5	11.6	12.2	12.8	13.0	13.2	11.5	10.1	9.4	8.4	4.4
of which: others	**9.3**	**7.0**	**7.1**	**5.9**	**5.6**	**5.5**	**5.3**	**6.9**	**6.8**	**6.9**	**5.9**	**6.1**	**4.5**

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.

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



1/ The most extreme stress test is the test that yields the highest ratio in or before 2031. The stress test with a one-off breach is also presented (if 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 exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

[11] There is a structural break in 2027-2028 in the debt service to revenue and grants ratio and gross financing needs because the World Bank financing assumption changes from all grants to all loans at that time.
[12] This follows a 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.

RISK RATING AND VULNERABILITIES

14. While Sierra Leone is assessed to be at high risk of external and overall public debt distress, its debt is assessed to be sustainable. Setbacks in fiscal adjustment have increased the risks around the baseline, as a bigger and more frontloaded fiscal adjustment is now necessary to achieve program objectives. While the COVID-19 shock worsened the public debt situation by weakening growth, revenue, and exports, the medium- to long-term trajectories of debt ratios remain largely unchanged from the pre-pandemic projection. However, 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 commodity price.

15. This DSA underscores the importance of continued fiscal discipline efforts and structural reforms, supported by technical assistance and prudent financing choices. Although the number of indices exceeding the thresholds has decreased compared to the previous DSA, it should be noted that these changes are due to the relaxed thresholds resulting from the changes in the debt carrying capacity, which was driven by exogenous factors including some statistical fluctuations, rather than the shift in the path of debt-to-GDP itself; the overall risk has not changed significantly, and the importance of fiscal effort remain unchanged.

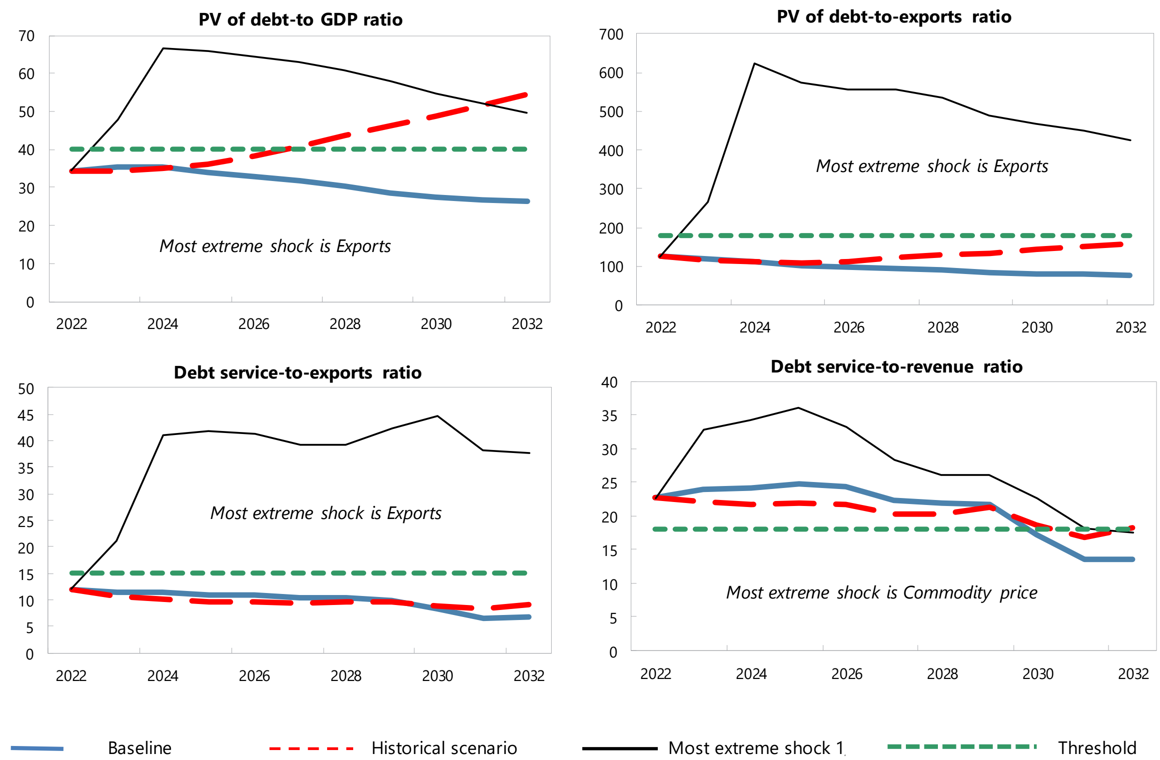
16. It should also be mentioned that the baseline outlook is subject to downside risks mainly due to the Russia-Ukraine war and emergence of new COVID-19 variants. Further increases in fuel, food and fertilizer prices or health shocks could exacerbate the severe burden on the population, deteriorate budget and external balances, increase costs for businesses, prolong fuel subsidies, provoke social discontent, and put debt sustainability at risk. Given these vulnerabilities to exogenous shocks and potential fiscal pressure stemming from upcoming elections, reducing debt and maintaining debt sustainability requires, first and foremost, sustained fiscal adjustment, underpinned by strengthened public financial management, effective expenditure prioritization, and redoubling structural and revenue mobilization reform efforts. 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 continue addressing its large development needs, it will be vital to rely on highly concessional financing and ideally grants. 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.

17. Development of a deeper domestic debt market will be critical in mitigating potential rollover risks. While these risks remain manageable so far given the characteristics of Sierra Leone's market, greater exposure of commercial banks to the sovereign risks that unanticipated future shocks could impact financial stability. This risk is mitigated by the authorities' commitment to limit future domestic borrowing and continued technical assistance in debt management and development of a domestic market, including drawing on recent IMF technical assistance on debt recording and joint World Bank/IMF technical assistance on a medium-term debt strategy. Plans for issuance of medium to long term papers would also be essential in extending the yield curve and reducing rollover risks on bonds held by domestic banks.

AUTHORITIES' VIEW

18. The authorities agreed with the conclusions of the DSA. They concurred with the importance of efforts to ensure sustained fiscal adjustment and highlighted the ongoing reforms to strengthen revenue administration, improve public expenditure management, and further enhance debt management. They committed to continuing to prioritize grants, 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 rollover risks of T-Bills and would make efforts to issue medium-to-long-term bonds to reduce these risks and support the development of the domestic debt market. The authorities reiterated their commitment to clear domestic arrears and are working to address the challenges of obtaining NPV discounts through an updated arrears clearance strategy.

Figure 1. Sierra Leone: Indicators of Public and Publicly Guaranteed External Debt Under Alternative Scenarios, 2022–32

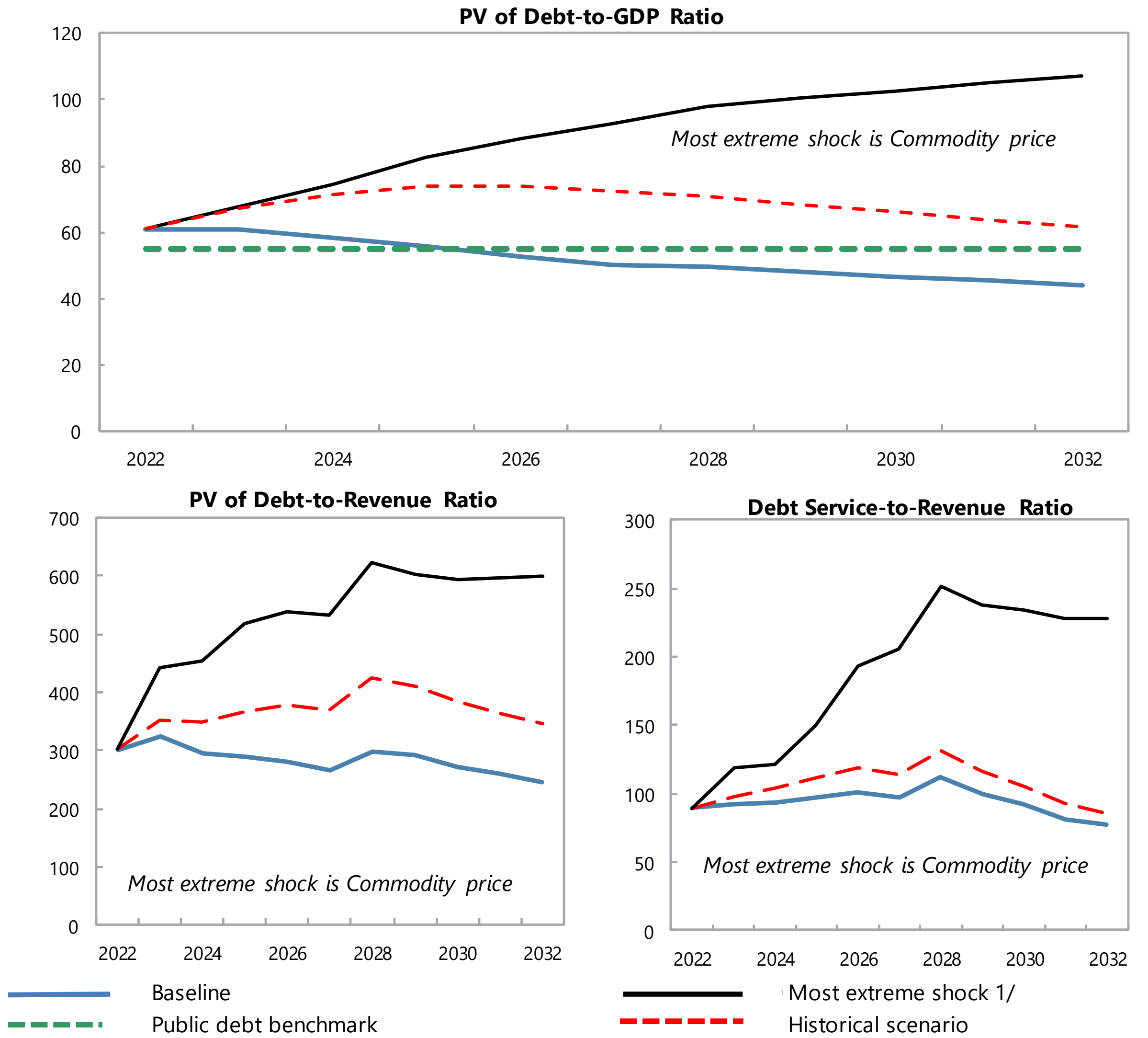


Sources: Sierra Leonean authorities; and IMF staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2031. 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, 2022–32

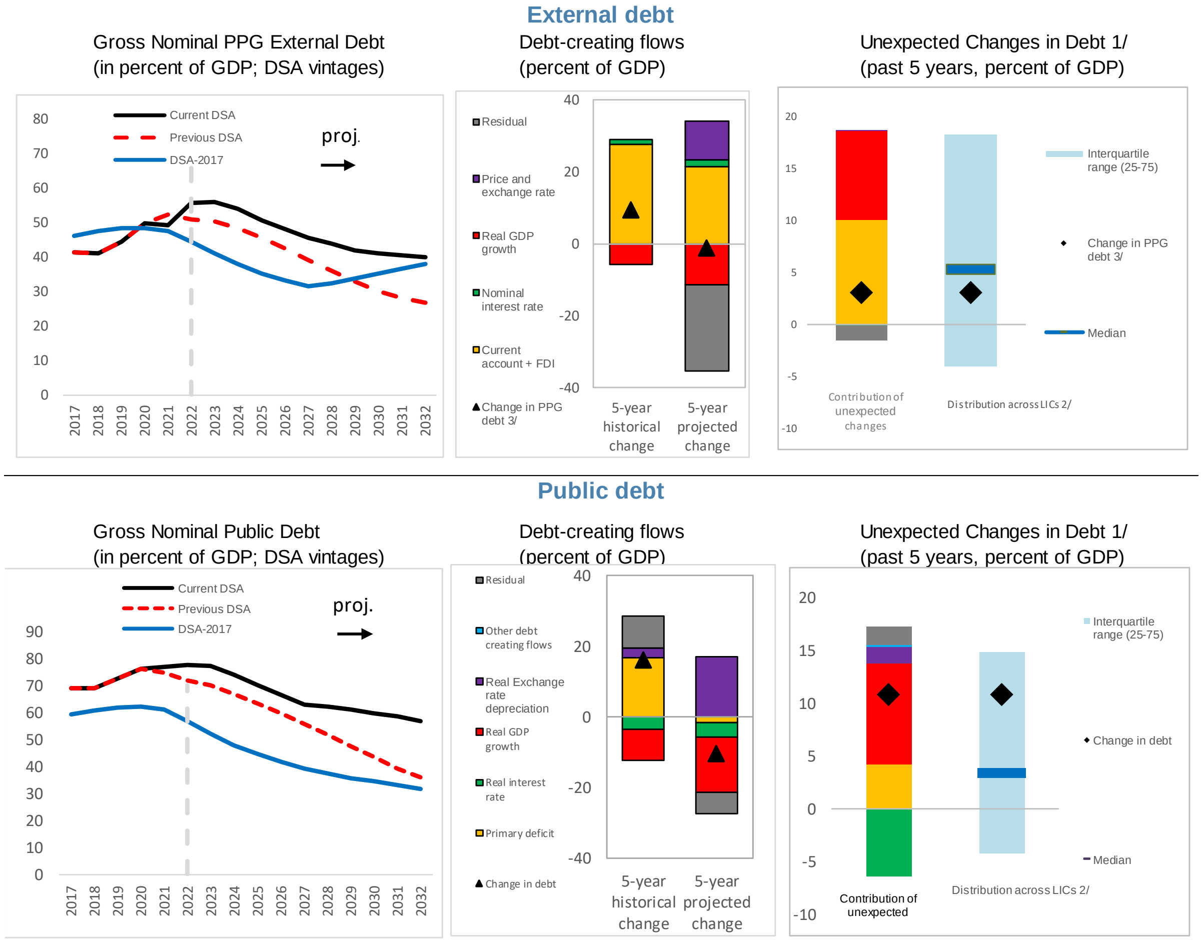


* Note: The public DSA allows for domestic financing to cover the additional financing needs generated by the shocks under the stress tests in the public DSA. Default terms of marginal debt are based on baseline 10-year projections.

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 2031. 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, 2017–32



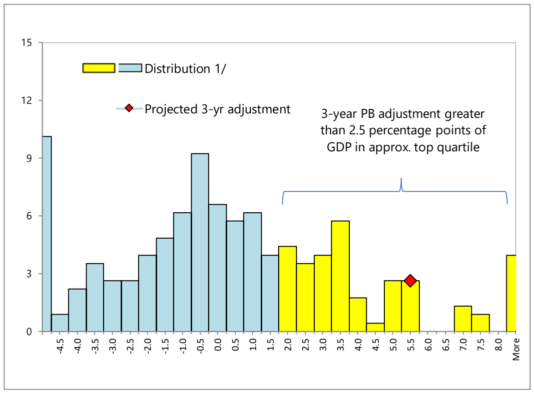
1/ Difference between anticipated and actual contributions on debt ratios.

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.

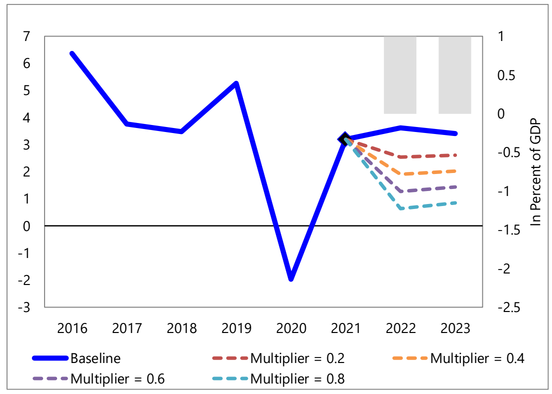
Figure 4. Sierra Leone: Realism Tools

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



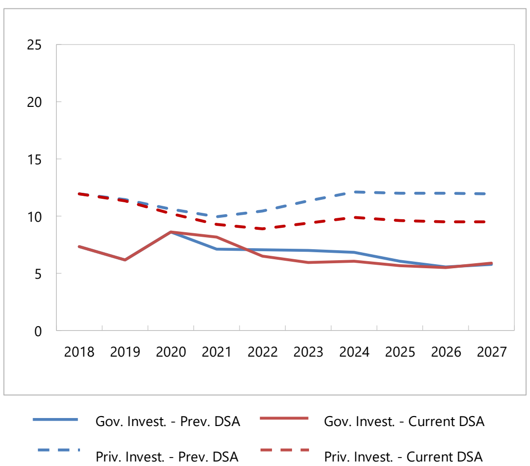
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

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)

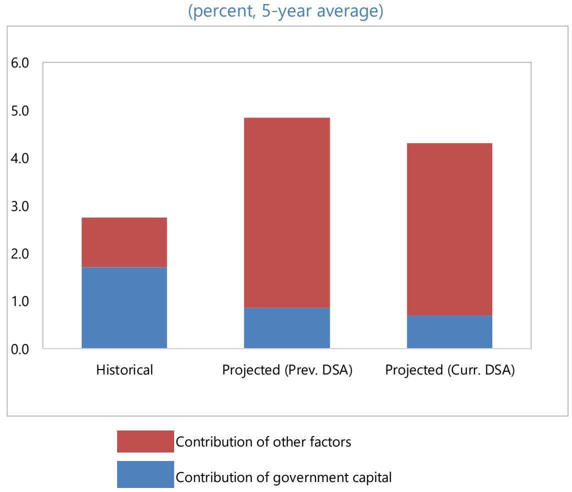
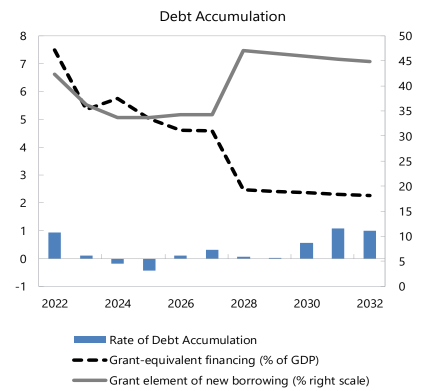
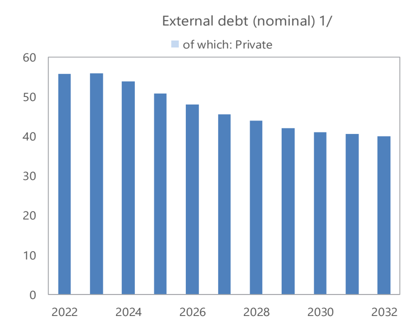


Table 1. Sierra Leone: External Debt Sustainability Framework, Baseline Scenario, 2021–42
(Percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 8/	
	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
External debt (nominal) 1/	**49.2**	**55.7**	**55.9**	**53.9**	**50.7**	**48.0**	**45.6**	**39.9**	**38.0**	**37.0**	**47.0**
of which: public and publicly guaranteed (PPG)	**49.2**	**55.7**	**55.9**	**53.9**	**50.7**	**48.0**	**45.6**	**39.9**	**38.0**	**37.0**	**47.0**
Change in external debt	-0.5	6.5	0.2	-2.0	-3.2	-2.7	-2.4	-0.5	0.1		
Identified net debt-creating flows	**...**	**8.4**	**3.1**	**0.7**	**0.0**	**-0.3**	**0.1**	**0.4**	**-6.5**	**...**	**1.0**
Non-interest current account deficit	**14.0**	**12.8**	**10.1**	**8.1**	**5.7**	**5.1**	**5.0**	**6.4**	**5.2**	**15.0**	**7.1**
Deficit in balance of goods and services	23.9	23.0	20.1	18.7	16.3	15.6	15.3	14.2	11.4	**21.6**	**16.5**
Exports	21.1	27.6	30.2	31.5	33.9	34.2	33.5	34.5	34.1		
Imports	45.0	50.6	50.4	50.2	50.2	49.8	48.8	48.7	45.5		
Net current transfers (negative = inflow)	-11.2	-11.5	-11.3	-11.9	-11.9	-11.8	-11.6	-9.2	-7.5	**-9.8**	**-10.7**
of which: official	-3.1	-3.2	-2.7	-3.1	-3.0	-2.9	-2.8	-1.2	-0.9		
Other current account flows (negative = net inflow)	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	**3.2**	**1.3**
Net FDI (negative = inflow)	**-8.9**	**-2.9**	**-5.4**	**-4.9**	**-3.4**	**-3.6**	**-3.4**	**-4.7**	**-10.5**	**-7.6**	**-4.5**
Endogenous debt dynamics 2/	**...**	**-1.5**	**-1.6**	**-2.4**	**-2.3**	**-1.7**	**-1.5**	**-1.3**	**-1.3**		
Contribution from nominal interest rate	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.4	0.3		
Contribution from real GDP growth	-1.5	-1.8	-1.9	-2.8	-2.7	-2.2	-2.0	-1.7	-1.6		
Contribution from price and exchange rate changes	...	...	...	...	...	...	...	...	...		
Residual 3/	**...**	**-1.9**	**-2.9**	**-2.7**	**-3.2**	**-2.4**	**-2.6**	**-0.9**	**6.6**	**...**	**-1.8**
of which: exceptional financing	...	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0		
Sustainability indicators											
PV of PPG external debt-to-GDP ratio	**32.8**	**34.4**	**35.5**	**35.3**	**34.1**	**32.9**	**31.7**	**26.2**	**24.1**		
PV of PPG external debt-to-exports ratio	**155.5**	**124.4**	**117.3**	**112.0**	**100.6**	**96.2**	**94.6**	**76.0**	**70.7**		
PPG debt service-to-exports ratio	**12.0**	**12.0**	**11.4**	**11.4**	**11.0**	**10.9**	**10.3**	**6.7**	**5.4**		
PPG debt service-to-revenue ratio	**16.0**	**22.7**	**23.9**	**24.2**	**24.7**	**24.3**	**22.2**	**13.5**	**9.9**		
Gross external financing need (Million of U.S. dollars)	325.7	553.0	333.3	273.7	250.8	224.3	230.9	241.0	-372.8		
Key macroeconomic assumptions											
Real GDP growth (in percent)	3.2	3.6	3.4	5.0	5.1	4.4	4.3	4.5	4.5	**4.0**	**4.4**
GDP deflator in US dollar terms (change in percent)	2.2	-5.3	-5.9	-4.9	-2.6	-0.6	0.5	1.5	1.0	**0.6**	**-1.1**
Effective interest rate (percent) 4/	0.6	0.6	0.6	0.7	0.8	0.9	1.0	1.1	0.9	**0.7**	**0.9**
Growth of exports of G&S (US dollar terms, in percent)	28.7	28.6	6.4	4.2	10.0	4.8	2.7	6.7	6.5	**13.5**	**8.1**
Growth of imports of G&S (US dollar terms, in percent)	35.7	10.5	-3.3	-0.4	2.3	3.0	2.9	6.0	0.0	**-0.1**	**4.0**
Grant element of new public sector borrowing (in percent)	...	42.4	36.2	33.7	33.7	34.2	34.2	44.8	40.1	**...**	**40.4**
Government revenues (excluding grants, in percent of GDP)	15.8	14.6	14.4	14.8	15.1	15.4	15.5	17.1	18.8	**12.6**	**15.6**
Aid flows (in Million of US dollars) 5/	191.1	234.6	177.5	200.9	175.7	190.5	196.4	164.8	190.2		
Grant-equivalent financing (in percent of GDP) 6/	...	7.5	5.4	5.7	5.0	4.6	4.6	2.3	2.0	**...**	**4.1**
Grant-equivalent financing (in percent of external financing) 6/	...	74.3	75.0	78.0	76.0	67.8	67.7	53.1	48.7	**...**	**64.4**
Nominal GDP (Million of US dollars)	4,280	4,200	4,084	4,082	4,177	4,334	4,543	6,063	10,936		
Nominal dollar GDP growth	5.5	-1.9	-2.7	-0.1	2.3	3.8	4.8	6.1	5.6	**4.7**	**3.3**
Memorandum items:											
PV of external debt 7/	32.8	34.4	35.5	35.3	34.1	32.9	31.7	26.2	24.1		
In percent of exports	155.5	124.4	117.3	112.0	100.6	96.2	94.6	76.0	70.7		
Total external debt service-to-exports ratio	12.0	12.0	11.4	11.4	11.0	10.9	10.3	6.7	5.4		
PV of PPG external debt (in Million of US dollars)	1403.4	1443.8	1448.1	1440.3	1422.8	1426.9	1440.6	1588.2	2634.0		
(PVt-PVt-1)/GDPt-1 (in percent)		0.9	0.1	-0.2	-0.4	0.1	0.3	1.0	1.4		
Non-interest current account deficit that stabilizes debt ratio	14.5	6.3	9.9	10.1	8.9	7.7	7.5	6.9	5.1		

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.

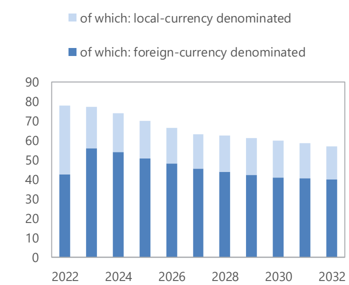
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

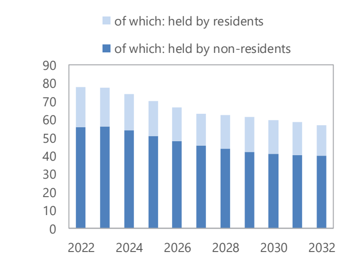
Table 2. Sierra Leone: Public Sector Debt Sustainability Framework, Baseline Scenario, 2021–42
(Percent of GDP, unless otherwise indicated)

	Actual	Projections								Average 6/	
	2021	2022	2023	2024	2025	2026	2027	2032	2042	Historical	Projections
Public sector debt 1/	76.8	77.7	77.2	74.0	70.1	66.4	63.0	56.9	46.2	57.4	66.1
of which: external debt	49.2	55.7	55.9	53.9	50.7	48.0	45.6	39.9	38.0	37.0	47.0
Change in public sector debt	0.5	0.9	-0.5	-3.3	-3.9	-3.7	-3.3	-1.5	-0.7		
Identified debt-creating flows	2.2	4.2	0.1	-2.3	-3.1	-3.2	-2.7	-1.5	-0.8	2.1	-1.1
Primary deficit	4.3	1.1	0.1	-1.0	-1.0	-0.8	-0.3	0.8	1.1	3.4	0.4
Revenue and grants	20.3	20.2	18.8	19.8	19.3	18.8	19.0	17.8	19.4	16.2	18.3
of which: grants	4.5	5.6	4.3	4.9	4.2	3.5	3.4	0.6	0.6		
Primary (noninterest) expenditure	24.6	21.3	18.9	18.7	18.3	18.0	18.7	18.6	20.5	19.6	18.7
Automatic debt dynamics	-2.1	3.0	-0.1	-1.2	-2.0	-2.4	-2.4	-2.3	-1.9		
Contribution from interest rate/growth differential	-4.1	-6.3	-3.1	-4.0	-3.5	-2.8	-2.5	-2.5	-2.2		
of which: contribution from average real interest rate	-1.7	-3.7	-0.5	-0.3	0.1	0.2	0.2	0.0	-0.2		
of which: contribution from real GDP growth	-2.4	-2.7	-2.6	-3.7	-3.6	-3.0	-2.7	-2.5	-2.0		
Contribution from real exchange rate depreciation	1.9	...	...	...	...	...	...	...	...		
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	-1.7	6.1	2.5	1.7	0.6	-0.1	-0.6	0.2	0.4	1.4	0.9
Sustainability indicators											
PV of public debt-to-GDP ratio 2/	62.1	61.0	60.8	58.5	55.7	52.9	50.3	43.8	33.4		
PV of public debt-to-revenue and grants ratio	306.2	302.4	323.7	295.9	288.3	280.7	264.9	246.7	172.0		
Debt service-to-revenue and grants ratio 3/	80.2	89.5	92.6	93.8	97.4	101.5	97.7	76.9	40.1		
Gross financing need 4/	20.6	19.2	17.5	17.5	17.8	18.3	18.3	14.5	8.9		
Key macroeconomic and fiscal assumptions											
Real GDP growth (in percent)	3.2	3.6	3.4	5.0	5.1	4.4	4.3	4.5	4.5	4.0	4.4
Average nominal interest rate on external debt (in percent)	0.7	0.7	0.7	0.8	0.9	1.0	1.1	1.1	1.0	0.7	1.0
Average real interest rate on domestic debt (in percent)	-0.4	-4.1	1.2	3.0	3.6	3.5	3.7	2.0	2.1	0.6	2.2
Real exchange rate depreciation (in percent, + indicates depreciation)	4.2	...	...	...	...	...	...	...	...	2.4	...
Inflation rate (GDP deflator, in percent)	11.1	15.8	17.9	15.9	13.4	11.2	8.9	6.6	6.1	9.9	10.7
Growth of real primary spending (deflated by GDP deflator, in percent)	11.9	-10.4	-8.2	4.0	2.7	3.0	8.2	4.9	5.7	6.6	1.9
Primary deficit that stabilizes the debt-to-GDP ratio 5/	3.8	0.2	0.6	2.2	2.9	2.9	3.1	2.3	1.8	-0.1	2.2
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, 2022-2032

	Projections 1/										
	2022	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**
	PV of debt-to GDP ratio										
Baseline	34.4	35.5	35.3	34.1	32.9	31.7	30.2	28.5	27.3	26.8	26.2
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	34.4	34.5	35.2	36.2	38.3	**40.6**	**43.5**	**46.1**	**48.9**	**51.8**	**54.3**
B. Bound Tests											
B1. Real GDP growth	34.4	**42.5**	**50.6**	**48.9**	**47.2**	**45.5**	**43.3**	**40.8**	39.2	38.4	37.6
B2. Primary balance	34.4	36.1	37.2	36.9	36.5	35.8	34.7	33.3	32.2	31.7	31.1
B3. Exports	34.4	**47.9**	**66.6**	**65.7**	**64.5**	**62.9**	**60.9**	**57.9**	**54.6**	**52.1**	**49.7**
B4. Other flows 3/	34.4	**42.1**	**49.3**	**48.3**	**47.3**	**46.0**	**44.3**	**42.0**	39.7	38.2	36.6
B5. One-time 30 percent nominal depreciation	34.4	**45.6**	**41.8**	**40.1**	38.7	37.1	35.2	33.0	31.9	31.4	30.9
B6. Combination of B1-B5	34.4	**47.0**	**55.5**	**54.3**	**53.0**	**51.5**	**49.6**	**46.8**	**44.4**	**42.7**	**41.1**
C. Tailored Tests											
C1. Combined contingent liabilities	34.4	36.9	37.8	37.3	36.8	36.0	34.8	33.4	32.4	32.0	31.5
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	34.4	**40.7**	**45.7**	**44.9**	**43.7**	**42.1**	39.7	36.7	34.0	32.0	30.1
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	124.4	117.3	112.0	100.6	96.2	94.6	89.9	81.6	79.4	78.1	76.0
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	124.4	114.0	111.6	106.9	112.1	121.2	129.7	132.1	142.0	151.0	157.5
B. Bound Tests											
B1. Real GDP growth	124.4	117.3	112.0	100.6	96.2	94.6	89.9	81.6	79.4	78.1	76.0
B2. Primary balance	124.4	119.4	118.1	109.0	106.6	106.8	103.4	95.2	93.6	92.4	90.1
B3. Exports	124.4	**265.7**	**624.6**	**573.0**	**556.7**	**554.6**	**536.2**	**489.7**	**468.5**	**449.0**	**425.8**
B4. Other flows 3/	124.4	139.4	156.4	142.7	138.1	137.2	132.1	120.2	115.4	111.3	106.3
B5. One-time 30 percent nominal depreciation	124.4	117.3	103.0	92.1	87.8	86.0	81.4	73.5	71.9	71.2	69.6
B6. Combination of B1-B5	124.4	**187.5**	150.2	**231.4**	**223.7**	**221.9**	**213.4**	**193.3**	**186.0**	179.7	171.9
C. Tailored Tests											
C1. Combined contingent liabilities	124.4	122.0	119.8	110.2	107.5	107.5	103.8	95.6	94.1	93.2	91.3
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	124.4	176.7	179.1	154.7	143.0	135.2	122.8	109.0	102.4	96.9	90.7
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	180	180	180	180	180	180	180	180	180	180	180
	Debt service-to-exports ratio										
Baseline	12.0	11.4	11.4	11.0	10.9	10.3	10.4	9.8	8.2	6.6	6.7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	12.0	10.6	10.2	9.7	9.7	9.3	9.6	9.7	9.0	8.3	9.1
B. Bound Tests											
B1. Real GDP growth	12.0	11.4	11.4	11.0	10.9	10.3	10.4	9.8	8.2	6.6	6.7
B2. Primary balance	12.0	11.4	11.4	11.1	11.1	10.5	10.6	10.1	8.8	7.3	7.5
B3. Exports	12.0	**21.0**	**41.0**	**41.9**	**41.4**	**39.2**	**39.3**	**42.4**	**44.6**	**38.3**	**37.6**
B4. Other flows 3/	12.0	11.4	11.8	11.7	11.6	11.0	11.0	11.7	11.2	9.5	9.4
B5. One-time 30 percent nominal depreciation	12.0	11.4	11.4	10.9	10.8	10.2	10.2	9.7	7.6	6.0	6.2
B6. Combination of B1-B5	12.0	14.8	**20.1**	**19.6**	**19.5**	**18.4**	**18.5**	**20.1**	**18.2**	**15.3**	**15.2**
C. Tailored Tests											
C1. Combined contingent liabilities	12.0	11.4	11.5	11.1	11.1	10.5	10.6	10.0	8.4	6.8	6.9
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	12.0	**15.2**	14.9	14.1	13.6	12.5	12.1	12.4	11.3	9.2	9.0
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	**22.7**	**23.9**	**24.2**	**24.7**	**24.3**	**22.2**	**21.9**	**21.6**	17.1	13.5	13.5
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	**22.7**	**22.2**	**21.6**	**21.8**	**21.6**	**20.2**	**20.3**	**21.3**	**18.7**	16.8	**18.3**
B. Bound Tests											
B1. Real GDP growth	**22.7**	**28.6**	**34.7**	**35.4**	**34.9**	**31.9**	**31.4**	**31.0**	**24.6**	**19.4**	**19.4**
B2. Primary balance	**22.7**	**23.9**	**24.3**	**24.9**	**24.6**	**22.6**	**22.3**	**22.3**	**18.3**	14.9	15.1
B3. Exports	**22.7**	**26.3**	**29.5**	**31.8**	**31.2**	**28.6**	**28.1**	**31.5**	**31.5**	**26.4**	**25.6**
B4. Other flows 3/	**22.7**	**23.9**	**25.0**	**26.3**	**25.8**	**23.7**	**23.3**	**25.6**	**23.4**	**19.3**	**18.9**
B5. One-time 30 percent nominal depreciation	**22.7**	**30.7**	**31.1**	**31.3**	**30.9**	**28.2**	**27.8**	**27.5**	**20.4**	15.8	15.9
B6. Combination of B1-B5	**22.7**	**25.6**	**29.5**	**30.5**	**30.0**	**27.5**	**27.0**	**30.6**	**26.3**	**21.6**	**21.2**
C. Tailored Tests											
C1. Combined contingent liabilities	**22.7**	**23.9**	**24.4**	**24.9**	**24.7**	**22.6**	**22.3**	**22.0**	17.6	13.9	13.9
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**22.7**	**32.8**	**34.3**	**36.1**	**33.1**	**28.4**	**26.1**	**26.2**	**22.6**	**18.1**	17.5
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	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, 2022-2032

	Projections 1/										
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
	PV of Debt-to-GDP Ratio										
Baseline	**61.0**	**60.8**	**58.5**	**55.7**	52.9	50.3	49.4	48.3	46.8	45.4	43.8
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	**61**	**67**	**71**	**74**	**74**	**72**	**71**	**69**	**66**	**64**	**62**
B. Bound Tests											
B1. Real GDP growth	**61**	**75**	**90**	**91**	**91**	**92**	**95**	**98**	**100**	**102**	**104**
B2. Primary balance	**61**	**66**	**70**	**66**	**62**	**59**	**58**	**56**	55	53	51
B3. Exports	**61**	**70**	**82**	**79**	**76**	**73**	**72**	**70**	**67**	**64**	**60**
B4. Other flows 3/	**61**	**68**	**74**	**71**	**68**	**65**	**64**	**62**	**59**	**57**	55
B5. One-time 30 percent nominal depreciation	**61**	**62**	**59**	**56**	52	49	47	45	43	41	38
B6. Combination of B1-B5	**61**	**67**	**68**	**60**	**58**	**56**	**56**	**55**	54	53	52
C. Tailored Tests											
C1. Combined contingent liabilities	**61**	**72**	**69**	**65**	**62**	**59**	**58**	**56**	54	53	51
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**61**	**68**	**74**	**82**	**88**	**93**	**98**	**100**	**103**	**105**	**107**
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	302.4	323.7	295.9	288.3	280.7	264.9	298.6	291.4	272.3	259.7	246.7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	302	353	350	367	379	369	425	411	383	364	346
B. Bound Tests											
B1. Real GDP growth	302	382	415	433	453	454	567	581	572	575	575
B2. Primary balance	302	353	352	341	332	313	350	341	318	302	287
B3. Exports	302	372	415	410	404	385	434	421	387	364	340
B4. Other flows 3/	302	363	373	367	360	343	386	375	346	327	307
B5. One-time 30 percent nominal depreciation	302	337	304	293	281	261	285	272	249	233	216
B6. Combination of B1-B5	302	354	340	308	305	292	337	332	314	302	290
C. Tailored Tests											
C1. Combined contingent liabilities	302	384	349	338	329	310	348	339	316	301	286
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	302	444	455	517	540	531	623	604	595	598	599
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	89.5	92.6	93.8	97.4	101.5	97.7	111.9	100.0	92.1	81.7	76.9
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2022-2032 2/	89	97	105	111	119	114	132	116	105	92	86
B. Bound Tests											
B1. Real GDP growth	89	105	129	153	176	183	234	229	224	217	217
B2. Primary balance	89	93	114	138	134	125	137	121	110	97	90
B3. Exports	89	93	95	99	103	100	114	105	101	90	85
B4. Other flows 3/	89	93	94	99	103	99	113	104	98	87	82
B5. One-time 30 percent nominal depreciation	89	89	91	93	98	94	107	96	88	77	73
B6. Combination of B1-B5	89	94	99	103	111	110	131	121	114	104	100
C. Tailored Tests											
C1. Combined contingent liabilities	89	93	138	131	130	121	134	118	107	94	87
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	89	119	121	149	193	206	252	238	234	228	228
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.