SIERRA LEONE
ECONOMIC UPDATE

Unlocking the Potential of the Power Sector in Sierra Leone
Breaking the Crisis Cycle

October 2024

WORLD BANK GROUP

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF BOXES

LIST OF TABLES

ACRONYMS

BSL	Bank of Sierra Leone
CLSG	Côte d'Ivoire, Liberia, Sierra Leone and Guinea
COVID-19	Coronavirus Disease of 2019
EGTC	Electricity Generation and Transmission Company
EDSA	Electricity Distribution and Supply Authority
EWRC	Electricity and Water Regulatory Commission
GDP	Gross Domestic Product
HFO	Heavy Fuel Oils
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
IPP	Independent Power Producer
MDAs	Ministries, Departments, and Agencies
MOE	Ministry of Energy
MOF	Ministry of Finance
MW	Megawatts
NLe	New Leones
NPA	National Power Authority
PPA	Power Purchase Agreement
PPP	Purchasing Power Parity
RESPITE	Regional Emergency Solar Power Intervention Project
SSA	Sub-Saharan Africa
Stats SL	Statistics Sierra Leone
US$	United States Dollars

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EXECUTIVE SUMMARY

Recent Economic Developments and Outlook

Sierra Leone's economic growth in 2023 surprised on the upside, reaching 5.7 percent, but the economy is projected to slow in 2024. Robust performance in the mining sector, particularly iron ore, was the key driver of growth. However, the economy is projected to slow to 4.3 percent in 2024 on the back of continued decline in iron ore prices and relatively weak performance of the mining sector. In the medium term, growth is expected to recover to its long run average of 4.7 percent supported by resurgence in the service sector as inflation eases and boosts household consumption and enhances trade, by improved agricultural productivity buoyed by the government's 'Feed Salone' program, by improvements in the mining sector, and by ongoing fiscal efforts to restore macroeconomic stability. While the growth outlook is contingent on external and domestic developments, the binding constraint to growth has been low access to power with only 36 percent of the population with access to electricity, limiting opportunities for health, education, communication, and economic empowerment. There are large geographic and income disparities in access to electricity with 8 out of 10 people living in rural areas having no access compared to 6 in 10 in urban areas. Firms report that inadequate electricity is one of their most important constraints, leading to increased costs, disrupted production, and reduced profitability

While repeated spending overruns have cast doubt on fiscal sustainability, the energy sector poses a significant fiscal risk. There has been a marginal improvement in fiscal management following the significant slippages of 2022, but the gains are tenuous, especially in an election year marked by heightened social instability. The situation underscores the critical need for decisive measures to stabilize the fiscal outlook and rebuild trust in budgetary processes. Domestic revenue remains among the lowest in the world at 7.4 percent of GDP, improving only modestly in 2023 compared to 2022, affected by the delay in the implementation of tax policies in the 2023 Finance Act and a large compliance gap. Revenue performance was also held back by the impasse on the tax regime between the government and the mining company, Sierra Rutile, and by the coup attempt that led to the declaration of lockdown for several days. Revenue outturn for the first half of 2024 was higher than target due to improved compliance and progress on implementation of revenue measures in the 2024 and 2023 Finance Acts. Expenditure pressures persisted during 2023 due to the clearance of unbudgeted arrears and security and elections spending, leading to an overrun in the budget. As a result, the fiscal deficit narrowed only modestly to 4.9 percent of GDP, slightly better than the previous year (5.3 percent of GDP) but still falling short of budget targets. During the first half of 2024, expenditures outturns were higher than target due to overruns on goods and services and energy subsidies. The energy sector presents the biggest risk to the fiscal due to the poor performance of the sector. The government has provided over US$100 million to support the sector during 2019-2022, placing strains on the budget and reducing public spending on important social sectors such as education and health. In 2023, the government transferred US$38 million (0.6 percent of GDP) in subsidies for the sector. Despite this, by August 2024, the cumulative arrears from independent power producers (IPPs), and electricity imports had reached US$75.7 million. Subsidies to the sector in 2024 have increased to 1 percent of GDP. If the situation does not improve, the sector will need nearly US$100 million annually from the government to support power purchases.

There is an urgent need to improve Electricity Distribution and Supply Authority (EDSA) operational and commercial performance and transition away from expensive liquid fuel-based power generation to reduce the negative fiscal impact The dependence on liquid fuel-based power generation, means the costs of power purchase are relatively high, making it difficult for EDSA's revenue to cover its power purchase given that EDSA earns revenue on only four out of every ten units purchased due to excessive losses caused by low revenue collection, power pilferage, poor billing cycles, and network constraints. The government adopted a Sector Recovery Plan in 2020, but implementation has been slow. Sierra Leone needs to move away from liquid fuel-based energy generation towards solar and other renewable sources as well as cheaper imported electricity. Negotiations are underway to increase power imports from neighboring countries, and a new development-aid-funded gas-to-power IPP has achieved financial closure. While this will help reduce cost of supply, the central piece of the puzzle remains improving EDSA's performance. Taking no-regret, low-cost actions can help improve EDSAs performance by lowering losses and improving collections. The government's plans to bring in a private operator for the operation and maintenance of EDSA's network should improve the situation, provided they have the mandate to make operational decisions. In addition, strong reforms on creating an independent regulatory framework with a transparent tariff-setting mechanism and accounting mechanism for sector performance parameters will play a key role in improving the financial health of the sector that will attract more private sector investments across the value chain.

Sierra Leone remains at high risk of debt distress while the cost of domestic financing has increased significantly. Public debt as a share of GDP declined from 53.5 percent in 2022 to 46.2 percent in 2023, primarily due to stability in the exchange rate and higher nominal GDP growth. Despite this, risks to debt sustainability remain high due to significant and rising debt service obligations. As financing conditions remain tight and mostly from domestic sources, the strong government borrowing appetite has elevated the one-year treasury bill rate to 41 percent during 2024 and could lead to a debt spiral, increasing the debt service burden. This expensive borrowing crowds out productive public expenditures, reducing the fiscal space available for essential services such as healthcare, education, infrastructure and social welfare. The government will need to reduce its reliance on domestic borrowing, which is expensive and inflationary and reduces the private sector's access to credit.

Inflationary pressures intensified in 2023 and remain elevated despite easing to 25 percent by August 2024. Headline inflation peaked at 54.6 percent (year-on-year) in October before moderating to 25 percent by August 2024. Food and energy inflation were the primary drivers of price increases in 2023. Exchange rate stability, declining food and energy prices, and monetary tightening were credited for the decline in inflation. Monetary policy was continuously tightened to address inflation, with the central bank--the Bank of Sierra Leone (BSL)--raising policy rates by a cumulative 525 basis points in 2023 and further by 250 basis points by September 2024 to 24.75 percent. While monetary tightening has supported the contraction of base money growth, its effectiveness is often limited by the dominant role of government borrowing in the financial sector and the underdeveloped state of the financial system. The Leone depreciated by 18 percent in 2023 compared to 40 percent in 2022 and has showed relative stability since the latter half of 2023 into 2024. BSL's negative capital position has worsened and poses significant challenges for effective monetary policy operation. The government will need to follow through on announced plans to recapitalize BSL to maintain confidence in the national currency.

The reserves position has deteriorated despite improvements in the current account. Reserves have declined to 1.8 months of import cover as of August 2024 on the back of high external debt servicing needs and external obligations. However, the current account deficit has improved slightly, narrowing to 5 percent of GDP in 2023 from 5.4 percent in 2022, driven by stronger export performance, particularly iron ore, and subdued import demand.

The financial sector in Sierra Leone appears stable but is characterized by a significant sovereign-bank nexus. The banking system remains well-capitalized and liquid, but a large share of banks' assets is concentrated in government securities, which presents a financial stability risk and crowds out private sector lending. While commercial bank performance indicators improved in 2023, the high concentration of sovereign debt on their balance sheets poses a risk. Non-bank financial institutions, including microfinance institutions and financial service associations, play a crucial role in financial inclusion and intermediation, particularly for micro, small, and medium enterprises. However, these institutions often face higher costs of funds and interest rates.

Growth in Sierra Leone is projected to average 4.7 percent in the medium term, supported by mining, agriculture and a recovery in services. Inflation is expected to ease but remain in double digits as global prices moderate and the Leone shows relative strength. Fiscal consolidation efforts will be crucial for maintaining macroeconomic stability, with a focus on improved revenue mobilization and expenditure controls. The external position is projected to improve but will remain negative in the near and medium term due to ongoing global economic uncertainties.

The outlook for Sierra Leone's economy is shaped by both external and domestic developments. Geopolitical uncertainties, particularly around the war in Gaza and the economic slowdown in China, pose significant risks. Domestically, political stability following the attempted coup in 2023 will influence the effectiveness of economic policy reforms. Climatic and health risks, including extreme weather events and a fragile health system, also present significant threats to the economy.

Key policy priorities for Sierra Leone include restoring macroeconomic stability, protecting vulnerable households, and improving fiscal and debt sustainability. Strengthening the agricultural sector, enhancing infrastructure, particularly in energy, and maintaining a focus on social spending in education and healthcare are essential for sustained economic growth and development. Fiscal consolidation efforts should continue with a focus on effective expenditure controls and improved budget processes to ensure fiscal and debt sustainability. To achieve the targeted deficit, the authorities need to implement outstanding revenue measures in the 2024 Finance Act and enhance tax compliance while rationalizing spending in line with the approved budget.

Bold reforms are needed to strengthen public financial management and restore budget credibility. The availability of funds is often unpredictable, posing a risk to budget credibility and leading to non-implementation of government expenditure programs. Only 22 percent of ministries, departments, and agencies (MDAs) have strategic plans aligned with expenditure policy proposals and budget estimates. Budgets lack consistency with prior year estimates. MDAs commit expenditures based on ceilings from the Ministry of Finance, but actual cash is not released in time, leading to high arrears to suppliers. Less than one-third of the 251 audit recommendations from the 2021 Auditor General's Rreport were fully implemented.

The government has signaled its commitment to make bold reforms in the energy sector, and all stakeholders are aligned on the steps necessary to improve the sector's performance. The Government of Sierra Leone has made significant progress on access to electricity, which has risen from 13.5 percent in 2013 to 36 percent in 2023 and has also rationalized tariffs in October 2023 to reduce the fiscal impact of the sector. However, there is a need to implement specific actions and steps in a time bound manner to help make the sector financially viable. All stakeholders are aligned around the reform steps needed. The European Union and the United Kingdom's Foreign, Commonwealth and Development Office are focused on improving off-grid access with their mini grid programs, the United States' Millennium Challenge Corporation is preparing a comprehensive compact that will improve the transmission network significantly while the Japan International Cooperation Agency is working to improve the distribution network in the Freetown peninsula region. The World Bank is supporting the government in improving EDSA's performance by strengthening the distribution network and supporting governance changes including bringing in private sector in EDSA.

Based on the discussion with various stakeholders and the current sector crisis, an Action Plan 2030 is proposed with an aim to make the sector financially sustainable. The action plan has three main pillars- **Pillar 1- Green Energy Transition** focusing on action to transition away from expensive liquid fuel-based (heavy fuel oil and diesel) generation to bring down costs and help meet power demand over the long term; **Pillar 2- Improving EDSA Performance** through a low-cost, no regret approach to reduce fiscal stress by improving EDSA's billing and collections, incorporating global best practices for corporate governance, and enhancing energy and commercial management; **Pillar 3- Policy and Regulatory Framework** to provide a clear, transparent, and comprehensive policy and regulatory framework to enhance sector viability especially as the government attempts to attract private investment in distribution.

PART ONE

RECENT ECONOMIC DEVELOPMENTS AND OUTLOOK

Global and Regional Trends

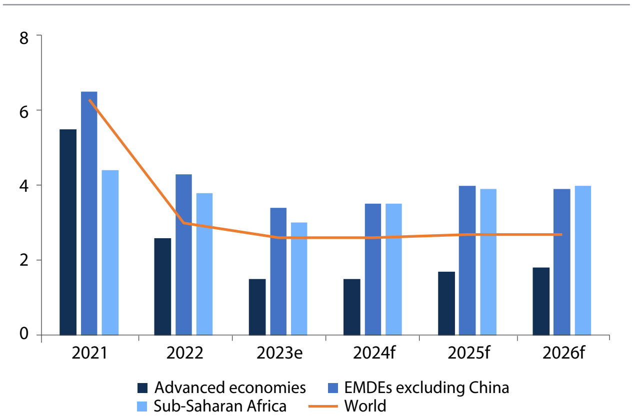
Global growth slowed in 2023 with weaker prospects for 2024. Global growth slowed to 2.6 percent in 2023 from 3.0 percent in 2022, reflecting the ongoing effects of tight monetary policies, restrictive financial conditions, and sluggish global trade and investment. Growth is forecast to stabilize at 2.6 percent in 2024, the first time in three years that global growth is not expected to decelerate but at a level insufficient for making significant progress on key development goals. Although global inflation has begun to moderate, ongoing geopolitical tensions, softening labor markets, the delayed effects of monetary tightening, reduced demand for services, and fiscal consolidation continue to be drag on growth (Figure 1).

The outlook is promising for emerging markets and Sub-Saharan Africa. In emerging markets and developing economies (excluding China), growth is projected to improve slightly from 3.4 percent in 2023 to 3.5 percent in 2024, driven by trade improvements and a recovery in domestic demand as inflation and interest rates fall. Sub-Saharan Africa (SSA) experienced growth of 3 percent in 2023, marking a second consecutive year of slowdown due to weakened economic activities and domestic policy tightening. However, SSA's growth is expected to rebound to 3.5 percent in 2024, supported by a recovery in global trade, easing financial conditions, improved private consumption as inflation moderates, and policy measures to restore macroeconomic stability (Figure 1).

Global commodity prices are declining significantly from the peaks observed during 2022. Despite some fluctuations, global commodity prices have fallen as global supply chains normalize, although they remain elevated compared to pre-pandemic levels. Crude oil prices moderated in 2023, despite some volatility in the wake of the conflict in Gaza, averaging US$83 per barrel, down from US$100 per barrel in 2022 (Figure 2). Average oil prices in 2024 are projected to edge down to US$81 per barrel as global growth weakens and oil production increases. Metal prices fell by 10 percent in 2023 due to sluggish demand from China, which accounts for 60 percent of global metal consumption, amidst protracted weakness in the country's property sector. Metal prices are set to decline again as the slower growth in China further weighs on demand. Prices of iron ore, Sierra Leone's main export, have declined by 27 percent since December 2023 as the downturn in the Chinese property market continue to affect demand (Figure 2). Food prices declined by 9 percent in 2023, reflecting ample supplies of major crops, particularly grains. However, rice prices rose by 27 percent following India's export restrictions. Food prices are expected to soften further this year amid ample supplies for major crops but will remain elevated by historical standards.

As global growth slows, emerging markets and Sub-Saharan Africa continue to expand.

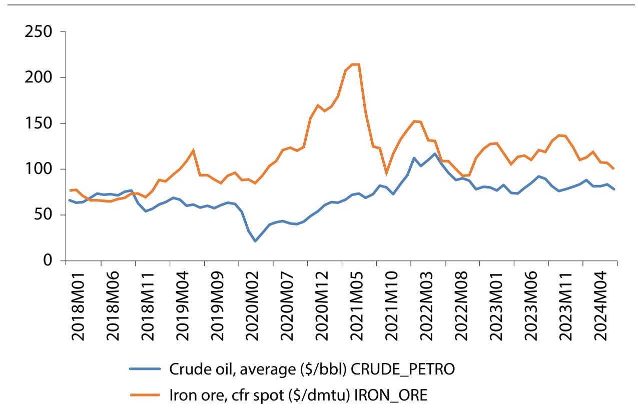
FIGURE 1: Global and regional GDP growth (in %), 2021 – 2026f



Notes; AE: advanced economies, EMDE: emerging markets and developing economies, SSA: Sub-Saharan Africa, e=estimates, f=forecast. Growth rates for country groups are calculated as weighted averages using GDP shares consistent with purchasing power parity as weights.
Sources: June 2024 Global Economic Prospects database.

Iron ore prices are falling in 2024 as the downturn in the Chinese property market continues to affect demand.

FIGURE 2: Commodity prices, crude oil and iron ore, 2018-2024



Notes: $/bbl is US$ per barrel of oil; cfr spot ($/dmtu) is US$ per dry metric ton unit current market price, including the cost of freight to the port of destination.

Recent Developments in Sierra Leone

Real sector

Sierra Leone's economic growth in 2023 exceeded expectations due to robust iron ore performance and despite a challenging macroeconomic and social environment.

Growth in Sierra Leone averaged 4.3 percent during the last decade, with high volatility marked by episodes of boom and bust. The country's concentrated economic structure--heavily reliant on low-value agriculture and mining and with a sizable informal services sector--lends itself to volatility. Macroeconomic management has amplified, instead of mitigating, the impact of external shocks. In addition to lower potential growth, this situation increased the risk of debt crisis and elevated headline inflation to a two-decade high in 2023. Economic growth has also been held back by structural factors such as low private sector participation and investment, inadequate human capital, poor infrastructure, and weak institutions. Urgent and robust reforms are needed if the country is to achieve its target of lower-middle income status by 2039, as set out in the Sierra Leone Medium Term National Development Plan, 2024-2030 (Box 1).

Growth in 2023 surprised on the upside due to robust iron ore mining, despite a challenging macroeconomic context. The economy grew by 5.7 percent in 2023 compared to 5.3 percent in 2022, buoyed by strong industry performance, mostly in iron ore production, which more than compensated for a slowdown in agriculture and services (Figure 3) (based on revised GDP data as of July 2024, Box 2). 2023 marks the third consecutive year of strong growth since the COVID-19 outbreak. On the demand side, growth was driven by stronger than expected exports. Improvements in the terms of trade and modest private investment growth (both domestic and foreign) partly offset the slack in consumption spending due to fiscal consolidation and inflationary pressures which eroded household purchasing power (Figure 4).

Agricultural sector performance slowed despite positive crop yields. The sector, which had the second highest share of growth, grew by an estimated 2.4 percent in 2023, compared to 3.0 percent in the previous year. The slowdown reflects weaker growth of the overall livestock, forestry and fishing sector despite improved crop outputs (especially rice). Expansion in farmed hectares, availability of fertilizer, and favorable planting and harvest seasons

Box 1 Sierra Leone Medium-Term National Development Plan, 2024-2030

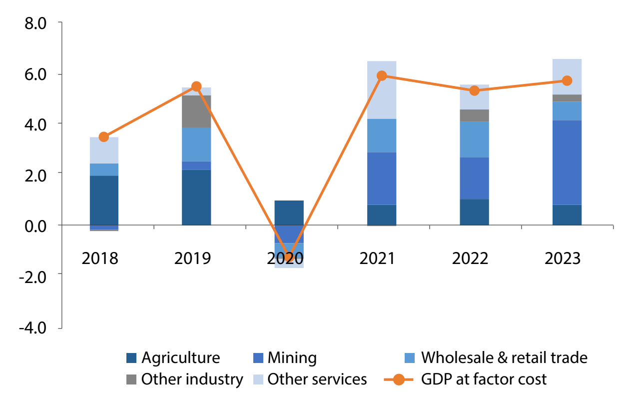
Sierra Leone has launched its Medium-Term National Development Plan for 2024-2030, titled "A Transformative Acceleration Agenda for Food Security, Human Capital Development, and Job Creation." This plan aims for the country to achieve lower-middle-income status by 2039 and focuses on food self-sufficiency, a skilled workforce, youth employment, economic growth, and an efficient public service. It outlines five key national goals:

i. **"Feed Salone" Program:** Achieve food self-sufficiency by 2030 through enhanced agricultural productivity and commercialization, sustainable fisheries management, and access to nutritious foods.
ii. **Human capital development:** Develop a skilled, healthy, and inclusive workforce by providing free quality education, strengthening tertiary education, improving healthcare, and enhancing sanitation and hygiene.
iii. **Youth employment:** Create 500,000 youth jobs by 2030 across various sectors, including agriculture, tourism, mining, transport, small and medium enterprises, and digital services.
iv. **Infrastructure, technology, and innovation:** Expand energy production, improve transport systems, and enhance access to affordable communication and technology services.
v. **Public service infrastructure:** Cultivate an efficient, professional civil service by conducting employee audits and digitizing public services by 2026.

The Plan emphasizes economic diversification, governance enhancement, climate resilience, environmental action, and gender mainstreaming. Addressing the US$2.56 billion financing gap out of the estimated US$12.05 billion budget will require innovative financing and strong partnerships. The Ministry of Planning and Economic Development will coordinate implementation across all government levels.

In 2023, mining remained the largest contributor to growth, with agricultural performance also boosting output.

FIGURE 3: Contribution to GDP growth, from production accounts (percentage points), 2018–2023



Notes: Gaps between total GDP growth rate and the sum of sectoral contributions is equivalent to the contribution from "taxes less subsidies of products" per national accounting standards. July 2024 revised GDP data (Box 2).
Source: Stats SL and World Bank staff estimates.

together contributed to marginally increased output of most crops. Improved mechanization and agricultural support services following government efforts to promote private sector participation in the sector have also contributed to improvements in crop yields. Rice production grew by 4 percent during 2023, recording the highest output since before COVID-19.

Industrial activity remained robust and an important driver of growth, thanks to improved iron ore production and manufacturing. OOverall industry activity is estimated to have grown by 14.4 percent after 9.9 percent growth in 2022, due to the resumption of mining activities in 2021. Mining activity, which makes up more than half of the industry sector, is estimated to have grown by 48.3 percent during 2023, compared to 33.9 percent in 2022. Iron ore production improved by 130 percent due largely to expansions at the two large iron-ore mining operations at Tonkolili and Marampa, which more than outweighed the contraction in diamond and other minerals (including rutile, bauxite, and gold). A fall in rutile prices and delayed negotiations of a rutile agreement with the government affected rutile production while major underground flooding at Koidu Holdings affected diamond production. Manufacturing grew by 2 percent during 2023 and was supported by improved production of cement, paint, and palm oil while construction activities improved, registering growth of 2.7 percent during 2023 compared to 2.4 percent in 2022.

Access to electricity is a significant bottleneck to enhancing private sector growth, and the sector has suffered from inefficiency, frequent outages, and high costs. Not only does it take 16 days for a firm to obtain an electricity connection, but also 66 percent of firms in Sierra Leone experience power outages. These outages impose high costs as firms are forced to turn to heavy fuel oil generators to power their factories or suffer disruption of production.[1] Buildups of arrears to independent power producers (IPPs), especially Kapowership, have typically resulted in the IPPs' cutting power to the electricity distributor (the Electricity Distribution and Supply Agency, EDSA), causing widespread power outages that affect both households and businesses. The special focus of this economic update, presented in Part II, is on Sierra Leone's power sector.

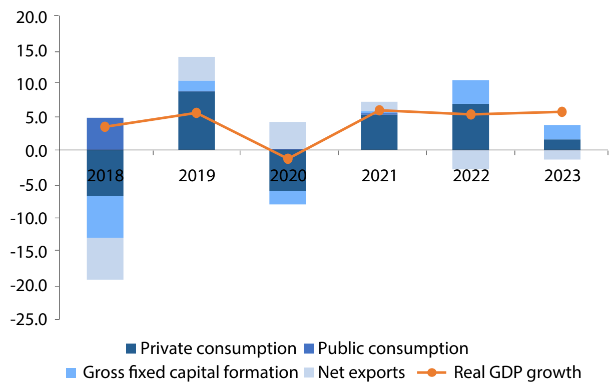
Growth in services slowed by 0.7 percentage points during 2023. The services contribution to overall growth is yet to reach levels attained during the rebound in 2021 when it outpaced other sectors of the economy. Both wholesale and retail trade and other services are yet to reach the levels attained in 2021 (Figure 3). After rebounding in 2021, the sector slowed in 2022 and again in 2023 due to difficult global economic conditions, elevated prices and domestic socio-economic instability, which limited trade-related services and tourism.

On the demand side, investment was the biggest contributor to growth while the contribution from household consumption slowed amid elevated prices during 2023. FFollowing the resumption of mining exploration and production expansions as well as expansion of beneficiation capacity (to separate minerals from waste) in the two large-scale iron-ore mines, investment was the higher contributor to growth with 2.1 percent. Meanwhile, private consumption slowed to 1.6 percent compared to 6.8 percent in 2022 amid high inflationary pressure. High and stubborn inflation eroded purchasing power, muted household spending and worsened food insecurity. Despite marginal improvement in credit growth, financial conditions remained tight due to high lending rates and fiscal dominance which continued to limit the availability of credit to households. Net exports showed improvements due to the slowdown in imports and improved performance of exports (Figure 4).

[1] World Bank Enterprise Survey 2023.

In 2023, investment was the highest contributor to growth while household consumption slowed.

FIGURE 4: Contribution to GDP growth, from expenditure accounts (percentage points), 2018–2023



Notes: July 2024 revised GDP data (Box 2).
Source: Stats SL and World Bank staff estimates.

Fiscal sector

Public finances remain severely strained, with only minimal and insufficient improvements seen in 2023.

The fiscal position saw only a slight improvement in 2023, following three consecutive years of deterioration, yet fell short of budgeted targets. The overall fiscal deficit narrowed to 4.9 percent of GDP (5.3 percent in 2022) while the primary deficit shrank to 2.2 percent from 5.2 percent in 2022 (Figure 5). The impetus for the slight improvement was the marginal moderation in expenditures, which fell from 16.1 percent of GDP in 2022 to 15.2 percent in 2023 and the slight improvement in domestic revenue from 7.0 percent in 2022 to 7.4 percent (Figure 6). While these outcomes represented slight improvements over 2022, they were worse than the original budgeted targets set in November 2022 and the revised targets agreed in October

Box 2 Sierra Leone's GDP Rebasing

The government has revised the National Accounts, using 2018 as the new base year As of July 2024, the government has revised the National Accounts, using 2018 as the new base year. As well as rebasing GDP, the government has updated its GDP measurement methodology to the System of National Accounts, 2008. Statistics Sierra Leone (Stats SL), the national statistical office, included comprehensive statistical information from census data, surveys, and administrative records, specifically designed for this rebasing. Both the demand and supply side national accounts have been released in June 2024.

As a result, the economy's size and structure have significantly changed. Newly-rebased nominal GDP for 2018 was around NLe50.7 billion (US$6.4 billion), a 56.4 percent increase from NLe32.4 billion (US$4.1 billion) calculated under the old base. The new accounts show a decrease in the agricultural sector's share from 50.5 percent to 35.0 percent, while industry and services expanded to 17.5 percent (from 8.7 percent) and 44.0 percent (from 37.0 percent), respectively. These changes are due to broader coverage of economic activities, including new mining, entertainment, research and development, patents, copyrights, financial intermediation services, and informal activities. Information and communications technology-related activities, previously dispersed, are now grouped together.

The rebasing affects key macroeconomic indicators. For 2023, public debt as a share of GDP fell from 78.7 percent to 46.2 percent, and per capita GDP increased from US$440 to US$743. However, domestic revenue as a share of GDP decreased from 12.5 percent to 7.4 percent.

	Percent of GDP (Post-rebasing)				Percent of GDP (Pre-rebasing)			
	2020	2021	2022	2023	2020	2021	2022	2023
Domestic revenue	8.4	9.2	7.0	7.4	13.8	16.1	12.3	12.5
Expenditure	15.0	16.1	16.0	15.2	25.3	28.3	28.1	25.7
Deficit	-3.4	-3.9	-5.3	-4.9	-5.8	-6.9	-9.2	-8.2
Current account balance	-4.0	-5.0	-5.3	-5.1	-6.8	-8.7	-9.3	-7.8
Public debt	46.2	48.2	53.1	46.2	75.8	80.7	89.9	78.7

Source: World Bank staff estimates, Sierra Leonean authorities as of September 2024

Tightened expenditures improved budget balances in 2023.

FIGURE 5: Overall budget and primary balances (in % of GDP), 2018-2023e

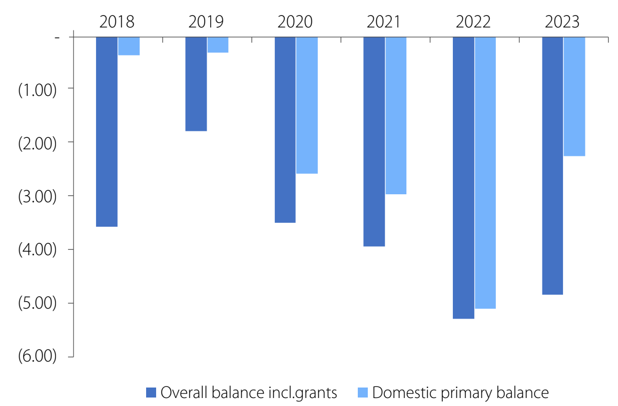
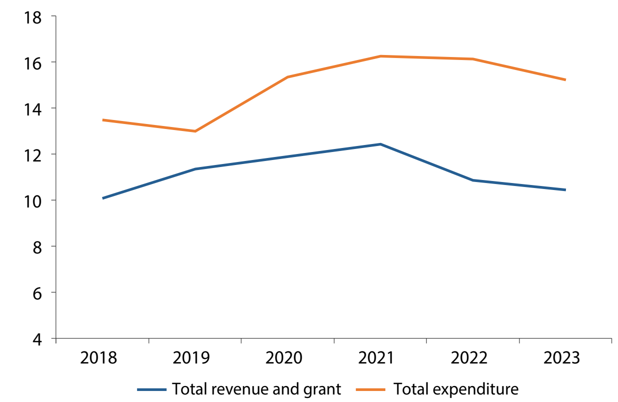


FIGURE 6: Total revenue and expenditures (in % of GDP), 2018-2023



Source: Ministry of Finance (MOF) and World Bank staff estimates.

Spending on goods and services and wages as well as capital expenditures dampened expenditure growth, while goods and services tax collection bolstered revenue.

FIGURE 7: Expenditures by type (in % of GDP), 2018-2023e

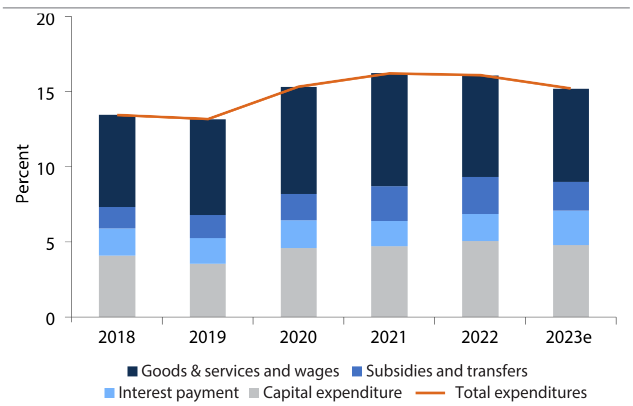
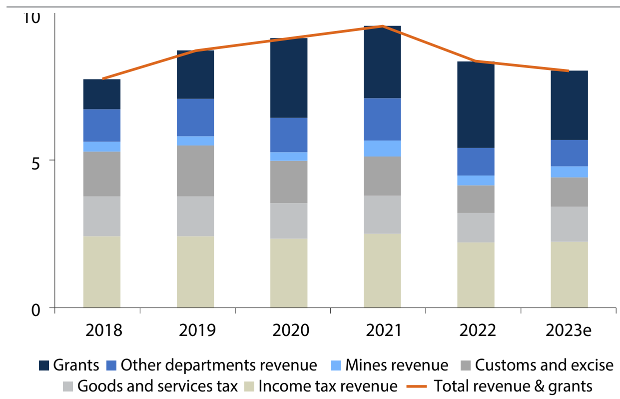


FIGURE 8: Total revenue by source (in % of GDP), 2018-2023e



Source: MOF and World Bank staff estimates.

2023 (Figure 9, Figure 11). This performance comes on the back of significant slippages observed in 2022 due to expenditure overruns that resulted in an overall deficit of 5.2 percent of GDP.

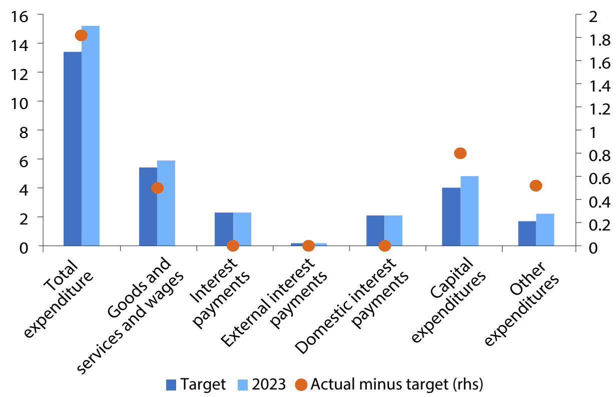
Expenditures remained elevated and were higher than budgeted in 2023, but outturns improved modestly compared to the previous year. Total expenditures for 2023 are estimated to have reached 15.2 percent of GDP, 0.9 percentage points lower than in 2022 but 1.8 percentage points above the October 2023 revised target (Figure 7, Figure 9, Figure 10). Expenditure overruns compared to budget were due to higher defense security spending (to restore stability following the failed attempted coup in November 2023), unbudgeted clearance of arrears,[2] and higher election expenditures, along with overruns on contingency spending. Nevertheless, spending on goods and services and wages, interest payments, and domestic capital expenditures as a share of GDP were broadly within target. Foreign capital expenditure explains the overruns on the capital budget due to higher capital project disbursements (Figure 9).

Domestic revenue collection saw a modest boost from tax policy measures introduced in 2023 and is among the lowest in sub-Saharan Africa. RRevenues (excluding grants) improved slightly in 2023 to 7.4 percent of GDP, 0.4 percentage points above 2022 but 0.1 percentage points below target (Figure 11, Figure 12). While this performance showed a modest improvement, domestic revenue is among the lowest in SSA region. Tax revenue accounted for 78 percent of the total or 6.2 percent of GDP. During 2023, the domestic revenue target was revised upwards to reflect tax measures in the Finance Act 2023, including a 2 percent tourism levy; a 15 percent goods

[2] The stock of domestic arrears stood at NLe211.5 at end-2023, declining by 31 percent compared to 2022.

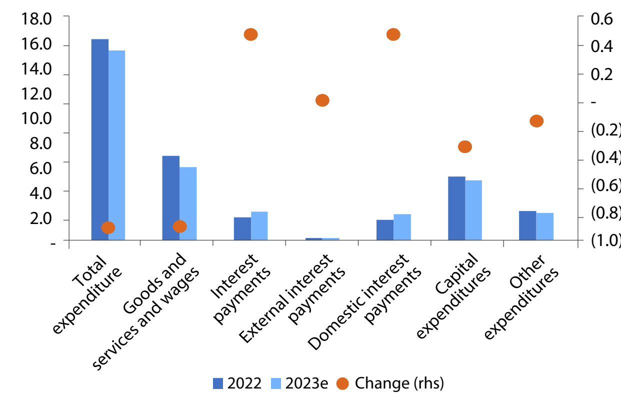
Actual expenditures in 2023 exceeded budget targets but showed improvement relative to 2022.

FIGURE 9: **Expenditure performance, 2023 actual vs. target (% of non-iron ore GDP)**



Notes: Targets are from the revised budget agreed in October 2023.
Source: MOF and World Bank staff estimates.

FIGURE 10: **Expenditure performance, 2023 vs. 2022 (% of non-iron ore GDP)**

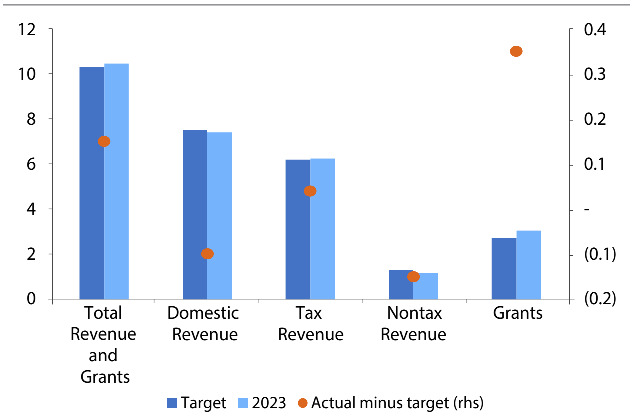


and sales tax on digital services; and the reintroduction of taxes on fee-based financial services and a 2 percent minimum alternate tax, among others. However, revenue collection was hampered by technical challenges in implementation, socio-political instability resulting from the failed coup attempt, a compliance gap, and failure to reach an agreement with the mining company, Sierra Rutile, on its tax regime. Nevertheless, sales tax (goods and services tax) revenues improved by 0.2 percent of GDP in 2023 relative to 2022 mainly due to increased rollout of the Electronic Cash Register system, removal of exemptions for telecommunications and airline tickets, and enforcement of compliance actions (including penalties). Mining revenues improved due to increased collection of license fees and of iron ore royalties. Other mining royalties underperformed, especially because of lower production by Sierra Rutile and their failure to revert to the original tax regime. The petroleum excise tax performed better relative to 2022 due to the full passthrough of the petroleum formula with a restoration of the excise rate in the formula.

The fiscal deficit was largely financed by domestic borrowing, including from Sierra Leone's central bank—the Bank of Sierra Leone (BSL). The fiscal deficit in 2023 (4.9 percent of GDP) was largely financed by BSL (1.9 percent of GDP) and commercial banks (2.4 percent of GDP). External financing showed net foreign repayment due to external debt amortization (1.4 percent of GDP), despite high foreign-financed project disbursements. Over the years, government has upheld its commitment to eschew non-concessional financing as debt service obligations continue to pose a huge strain on the budget.

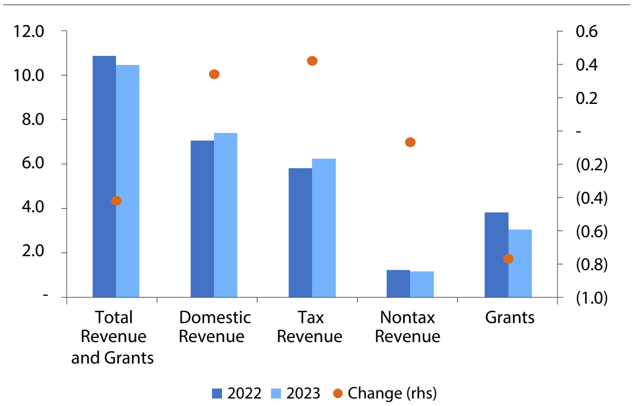
Domestic revenue rose slightly in 2023 and came in just below budget targets.

FIGURE 11: **Revenue and grants performance, 2023 actual vs. target (% of GDP)**



Notes: Targets are from the revised budget agreed in October 2023.
Source: MOF and World Bank staff estimates.

FIGURE 12: **Revenue and grants performance, 2023 vs. 2022 (% of GDP)**



Following substantial slippages in 2022, there has been marginal improvement in fiscal management, thwarted by an election year with heightened social instability. Fiscal pressure during 2023 mounted partly due to the general elections expenditures and security spending to restore stability following a failed attempted coup. Yet the government was able to take difficult policy actions to restrain spending. For example, subsidies to EDSA were limited following the review of the pricing formula and allowance of full passthrough of petroleum prices, leading to an increase in pump prices of 40 percent and electricity tariffs of 100 percent. Moreover, a range of corrective actions around expenditure management have been put in place, including strengthening the cash and debt management committee; expanding and regularizing cash management meetings; a public sector recruitment freeze until July 2023; a freeze on new procurement of furniture and fittings; and activating the contract management committee to investigate the frequent variations in contract prices of goods, works, and services.

Preliminary data for the first half of 2024 showed mixed results as both revenues and expenditures were above target. Domestic revenue was 0.2 percentage point of GDP above the first semester target of 3.8 percent of GDP, boosted by improved tax collection partly due to implementation of tax policy measures in the 2024 Finance Act[3] and revenue from oil and gas exploration licenses.[4] Total expenditures were at 6.3 percent of GDP or 0.3 percentage points above budgeted spending, mainly due to energy subsidies and increased transfers to government Treasury Single Account agencies and the National Revenue Authority following improved revenue performance in the first half of 2024. To achieve the targeted deficit for the year, the authorities need to implement all revenue measures in the 2024 Finance Act and outstanding measures in the 2023 Finance Act, enhance tax compliance, rationalize spending in line with the approved budget, and strengthen public financial management to make spending more effective (Box 3).

3 The Finance Act 2024 includes new tax policy measures that include; (i) revised minimum alternate tax of 2 percent, (ii) increased withholding tax from 10 percent to 15 percent, (iii) increased goods and services tax threshold from NLe100 to NLE500; (iv) multiple import duty rates were increased: import duty on rice from 0 percent to 5 percent, cement: 10 percent to 20 percent, iron rods: 5 percent to 10 percent, cooking gas: 0 percent to 5 percent; among other policy measures on excises, telecommunication surcharges, extractives taxes, stamp duty, and 1 percent education levy.

4 Sierra Leone is set to harness its oil and gas potential, with 63,000 square kilometers on offer. In 2023, the country launched its fifth licensing round to kickstart new exploration with strong interest from international oil companies. An evaluation conducted in 2023 by a Nigerian company indicated gas prospects, which could support transition to lower carbon fuels from the country's current reliance on heavy fuel oil.

The energy sector continues to pose a substantial fiscal risk. While state-owned enterprises in Sierra Leone are broadly underperforming and pose significant contingent liability risk to the government, the energy sector poses the largest fiscal risk and continues to be the only sector receiving direct subsidy from the government. Direct subsidies to the Electricity Distribution and Supply Authority (EDSA) rose from 0.1 percent of GDP in 2018 to 0.8 percent of GDP in 2022 before slightly declining to 0.6 percent of GDP in 2023 following a near 100 percent increase in electricity tariffs in September 2023. While the tariff increase has improved revenue collection by about 60 percent, revenue remains insufficient to meet the cost of buying power from independent power producers (IPPs). Arrears continue to accumulate, driven by technical and commercial losses that average over 60 percent. As of October 2023, the outstanding arrears to IPPs owed by the government amounted to US$56.9 million with over 60 percent owed to Karpowership (KPS). However, the reliance on KPS during the dry season drove further arrears accumulation, and total arrears to IPPs is estimated at US$73.0 million as of June 2024. This level already reflects the payment plan agreed with KPS in April following weeks of power outages that led to a down payment of US$17.5 million and monthly payment of US$1 million to clear outstanding arrears. EDSA continues to explore several options to improve performance and meet obligations by connecting more mining companies[5] to the grid and rolling out advanced metering infrastructure to large industrial customers (discussed in detail in Part II).

Debt

Risks to debt sustainability remain elevated despite marginal decline in overall public debt to GDP.

Public debt as a share of GDP declined in 2023, but risks to debt sustainability remain high. The public debt-to-GDP ratio is estimated to have declined from 53.1 percent in 2022 to 46.2 percent at the end of 2023 due to stability in the exchange rate and higher nominal GDP growth (Figure 13). According to the latest joint World Bank-International Monetary Fund (IMF) Debt Sustainability Analysis, Sierra Leone remains at high risk of debt distress. The country's debt is assessed as sustainable predicated on strong fiscal adjustment and macroeconomic stability. As the debt stock and associated debt payments rise,

5 Octea Mining company has been connected to the grid, and payment is in foreign exchange.

Box 3 Bold reforms needed to strengthen public financial management and restore budget credibility

Over the past five to ten years, budget credibility and expenditure execution have been among the poorest performing aspects of public financial management. Several factors contribute to this issue.

Unpredictability of resources: The availability of funds is often unpredictable, posing a risk to budget credibility and leading to non-implementation of government expenditure programs. This unpredictability, symptomatic of fund diversion, significantly affected expenditure forecasts, particularly in wages, goods and services, and domestic capital spending, accounting for over 50 percent of the variation in 2021. Expenditure ceilings are determined separately for different categories, often misaligned with the available resource envelope, and Cabinet approval of these ceilings occurs late in the budget process. Additionally, Parliament does not approve adjustments within budget appropriations. The Ministry of Finance approves budget *virement* (adjustments to shift funds within a budgetary unit) requests, but there is no record or analysis of these changes, including reallocations from contingency funds.

Lack of multi-year costed sector strategies: Only 22 percent of Ministries, Departments, and Agencies (MDAs) have strategic plans aligned with expenditure policy proposals and budget estimates. Budgets lack consistency with prior year estimates, and budget documents do not explain changes between medium-term budget estimates. Assessing the reliability and horizon of periodic in-year information to MDAs on expenditure commitment ceilings is crucial.

Weak internal controls/commitment controls: Weak internal controls lead to significant leakages, irregularities, and inefficient use of public funds. Expenditure commitment issues are highlighted by high arrears, which were 67 percent of total expenditures in FY2018, 60 percent in FY2019, and 30 percent in FY2020, caused by inadequate cash availability to meet commitments. MDAs commit expenditures based on ceilings from the Ministry of Finance, but actual cash is not released in time. The Integrated Financial Management Information System (IFMIS) limits commitments to quarterly expenditure limits but not to approved cash availability. Priority expenses are often processed outside IFMIS.

Lack of implementation of audit recommendations: Despite efforts to address this problem, such as developing a Standard Operating Procedure for Follow-Up on Audit Recommendations and an audit follow-up tracking system, implementation remains a challenge. A 2023 report showed that less than one-third of the 251 audit recommendations from the 2021 Auditor General's Report were fully implemented. This neglect undermines internal controls, reduces audit effectiveness, and weakens the audit process.

liquidity risk has risen, with the most significant risk stemming from large debt service obligation.[6] Deviation from the current fiscal consolidation path and possible exchange rate depreciation pose significant risk to overall and external debt.

Total debt is composed primarily of external multilateral debt, which is mostly concessional, but the contribution from expensive domestic debt is rising. External debt (US$1.87 billion) accounted for 67.4 percent of total public debt (29.3 percent of GDP) at end-2023 and comprised mostly of obligations to multilateral creditors (80.3 percent of external debt), with IMF and World Bank obligations accounting for 64 percent of multilateral debt (35 percent of total public debt) (Figure 13, Figure 14). Official bilateral creditors accounted for around 12 percent of external debt, of which the largest creditors are the Kuwait Fund, China, and South Korea.[7] The share of domestic debt in total public debt rose from 31 percent in 2022 (US$848 million) to 33 percent in 2023 (US$907 million) and indicates government's increasing reliance on domestic financing sources. Domestic public debt held by the BSL jumped by more than 27 percent in local currency terms to NLe6,061 billion in 2023 and holdings by commercial banks by 28 percent to NLe12,203 billion. As of June 2024, the total stock of domestic debt rose by 17 percent due to new domestic borrowing to finance the budget.

6 This analysis is based on the World Bank-IMF Low-Income Country Debt Sustainability Framework of April 2024. This framework analyzes four public and publicly-guaranteed external debt ratios against empirically estimated thresholds. If any one of the indicators breach their thresholds under baseline assumptions, then the country is assessed to be at high risk of debt distress. In the case of Sierra Leone, since one of the external debt indicators (debt service to revenue) breaches its threshold under the baseline, the country is assessed to be at high risk of external debt distress. However, since all the external debt indicators are on a declining trend over the medium- to long-term, debt is assessed to be sustainable.

7 Sierra Leone also has legacy pre-HIPC (Heavily Indebted Poor Countries Initiative) arrears to external commercial creditors, which accounted for around 8 percent of public and publicly-guaranteed external debt or approximately US$152 million by the end of 2023.

Public debt, mostly multilateral external debt, is declining, but interest payments are rising.

FIGURE 13: Global and regional GDP growth (in %), 2021 – 2026f

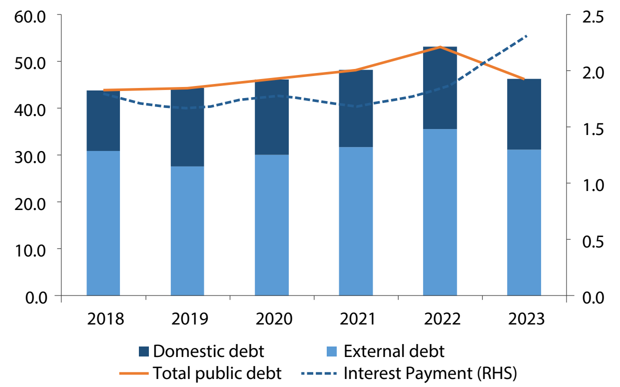
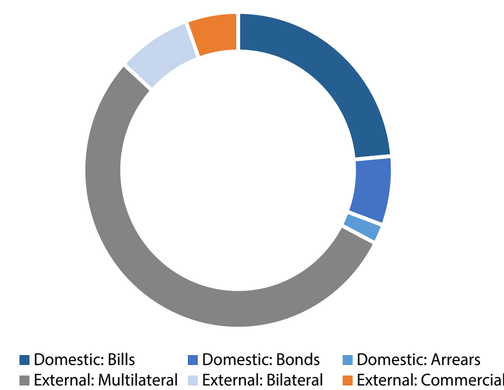


FIGURE 14: Composition of public debt (in %), 2023



Source: Sierra Leonean authorities and World Bank staff estimates.

The cost of domestic borrowing has increased significantly, and rollover risk remains high. Domestic debt is predominantly short-term, held by commercial banks (58 percent of domestic debt) primarily in the form of 364-day treasury bills and by the Bank of Sierra Leone. Small and declining amounts are held by non-bank entities or are domestic legacy debt from arrears owed to suppliers (Figure 15). With 80 percent of domestic debt held as short-term securities, rollover risk remains high. However, banks have limited investment options, remaining heavily reliant on government securities even in the face of negative real interest rates. That situation has recently changed--as inflation has cooled, real returns on 1-year treasury bills turned positive early in 2024 as nominal yields rose to 41 percent since March 2024 (Figure 16), translating to substantial real financing costs for government.

Debt service payment remains a significant burden on government budgetary resources, partly because domestic debt markets remain underdeveloped. Debt service obligations, including interest and amortization, increased from 3.1 percent of GDP in 2022 to 3.6 percent of GDP in 2023. Total debt service as a share of domestic revenue rose from 45 percent in 2022 to 52 percent in 2023. This ongoing financial burden diverts resources away from critical investments in infrastructure, education, healthcare, and social programs that are crucial for long-term development. In addition, amortization payments on foreign public debt places a strain on the country's foreign exchange reserves. Given that the cost of domestic debt is higher because the domestic debt market in Sierra Leone is underdeveloped, with a low average time to maturity and high interest costs, the government has published a new Medium Term Debt Strategy, 2023-2027, aimed at lengthening maturities of domestic debt and reducing interest costs (Box 4).

Domestic debt stocks continue to pile up and real borrowing costs turn positive as inflation cools.

FIGURE 15: Domestic debt by holders (NLe billions), 2022-2023

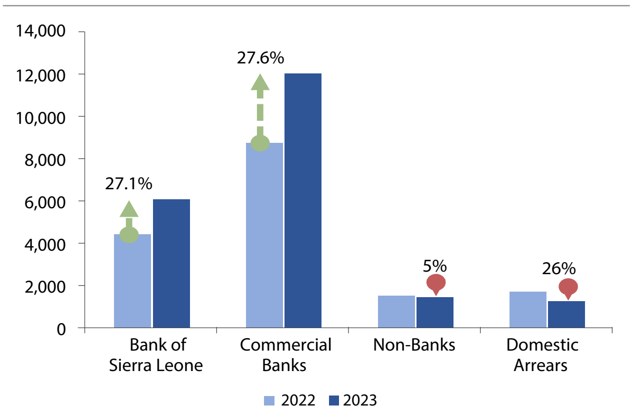
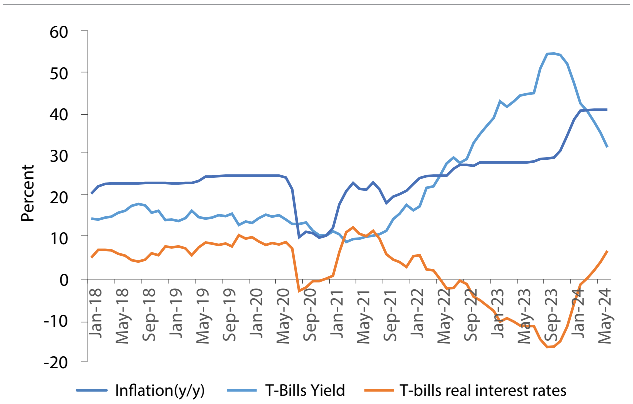


FIGURE 16: Treasury bill yields, inflation, and real interest rates (in %), January 2018 to August 2024



Source: Sierra Leonean authorities and World Bank staff estimates.

Box 4 **Medium Term Debt Strategy (2023-27)**

A new Medium Term Debt Strategy, 2023-27, approved in October 2023 aims to lengthen maturities and address debt-related risk. With domestic debt composed largely of one-year treasury securities (over 80 percent), the Strategy seeks to increase the share of treasury bonds to 40 percent by 2027 by stimulating demand through: (i) limiting the primary dealership role to a few commercial banks while moving other banks to the secondary market; (ii) raising limits on T-bond yields to allow appropriate price discovery; and (iii) improving communication with market participants.

The Strategy explored different policy scenarios (strategies) underpinned by a strong macroeconomic framework agreed with the IMF, including limits on annual external borrowing and concessional financing. To evaluate the cost and risk implications of the proposed strategies, three crucial debt and cost indicators are employed- (i) interest payment to GDP ratio; (ii) interest payment to budget revenue; and (iii) present value of debt to GDP ratio. These indicators provide a comprehensive assessment of the financial burden, and potential vulnerabilities associated with the strategies.

Among the four strategies explored, the Strategy recommend Strategy 3 which has a focus on issuing medium to long term bonds and emphasis on increased domestic financing to support domestic debt market development especially on the longer end. The objective is to increase average time to maturity and reduce interest rate cost and rollover risk (Table 1).

Table 1: Risk indicators of Sierra Leone's debt (% of GDP unless otherwise indicated), by strategy, 2022 and 2027

Risk Indicators		2022	As at end 2027			
		Current	S1	S2	S3	S4
Nominal debt as percent of GDP		92.9	61.7	61.3	61.8	61.3
Present value debt as percent of GDP		75.8	48.8	48.1	50.2	46.9
Interest payments as percent of GDP		6.2	4.0	3.7	4.3	3.7
Implied interest rate (percent)		6.6	6.4	6.0	7.6	5.8
Refinancing risk	Debt maturing in 1yr (percent of total)	20.9	23.1	20.1	21.1	21.4
	Debt maturing in 1yr (% of GDP)	28.2	14.3	12.3	13.0	13.1
	ATM External Portfolio (years)	10.6	11.6	11.7	11.4	12.7
	ATM Domestic Portfolio (years)	1.1	0.9	1.14	1.47	0.9
	ATM Total Portfolio (years)	8.5	8.5	8.8	7.8	9.6
Interest rate risk	ATR (years)	7.7	8.2	8.5	7.5	9.3
	Debt refixing in 1yr (percent of total)	27.7	27.0	24.0	24.9	25.3
	Fixed rate debt incl T-bills (percent of total)	93.0	95.9	95.9	95.9	95.9
	T-bills (percent of total)	15.8	12.1	7.9	10.4	11.0
FX risk	FX debt as % of total	67.8	71	73	64	73
	ST FX debt as % of reserves	21.3	20.7	20.7	20.7	20.7

Source: World Bank staff estimates

External sector

The current account balance improved slightly due primarily to higher iron ore exports.

The trade and current account deficits narrowed somewhat in response to stronger merchandise export performance and subdued import demand. The current account deficit is estimated to have narrowed to 5 percent of GDP in 2023, from 5.4 percent in 2022 due to stronger export performance (US$1.3 billion compared to US$1.1 billion in 2022). Earnings from merchandise exports increased by 25 percent relative to the previous year--mainly on account of strong iron ore exports totaling more than half of export receipts (Figure 17). There was also a slowdown in imports due to election uncertainties, declining global commodity prices, modest improvement in domestic production, and consumer demand dampened by high domestic inflation. Merchandise imports declined marginally by 3 percent (from around US$2.0 billion in 2022 to US$1.9 billion in 2023) due to a small decline in food and fuel imports, which account for over 50 percent of the overall imports bill (Figure 18). The trade deficit slightly narrowed to US$248 million (3.6 percent of GDP) in the first half of 2024 compared to US$287 million (4 percent of GDP) during 2023H1 as export growth outpaced imports. Goods shipments grew by 18 percent (year-over-year) driven largely by iron ore exports (61 percent of total export volume) whereas the goods import bill grew by 9 percent during the same period due to lower import demand for food and vegetable oil. Import substitution industrialization has played a big part in the decline of vegetable oil which is largely produced locally using palm oil.

However, official reserves continued to decline in 2023 due to weak inflows and high repayments. Capital inflows improved marginally on account of higher project grants and investments in the mining sector but not enough to offset the slowdown in foreign direct investment (Figure 19). Foreign currency reserves, which are essential to serve as a buffer in the event of shocks, declined by 23 percent to US$468 million (2.6 months of import cover) by end-2023, and further by 17 percent by August 2024 to US$370 million (1.8 months of import cover) (Figure 20). The continued decline of reserves is primarily due to the heavy burden of external debt service and foreign currency obligations. In a bid to boost reserves, the authorities have instituted a 30 percent repatriation rule for all export proceeds through the banking system in 2024.

In recent years, export growth has been driven by iron ore while the import bill is largely driven by food and fuel.

FIGURE 17: Merchandise export receipts (US$ millions), 2018-2023

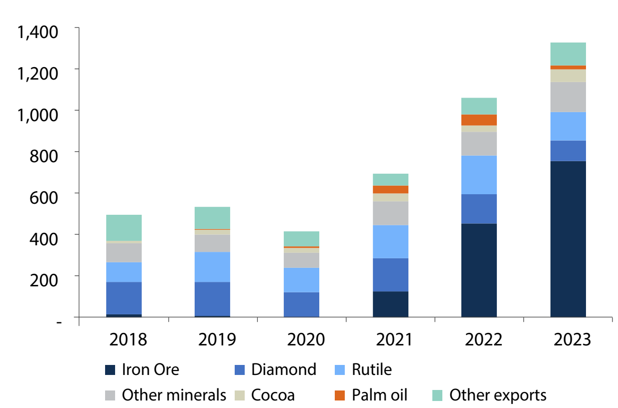
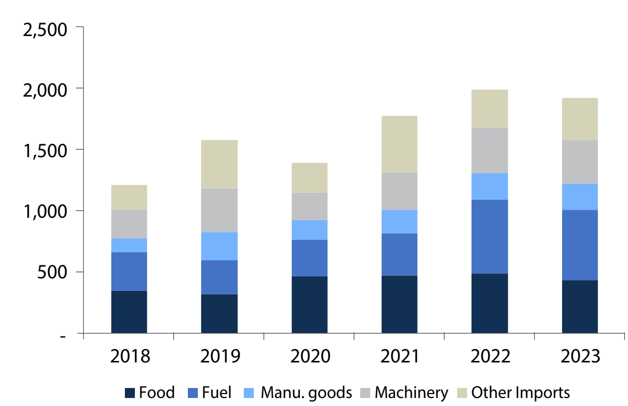


FIGURE 18: Import bills (US$ millions), 2018-2023



Source: Sierra Leonean authorities and World Bank staff estimates.

The current account deficit has narrowed, but a slowdown in capital inflows has elevated financing needs and driven down reserve coverage.

FIGURE 19: Current account and source of financing (US$ millions), 2019-2023e

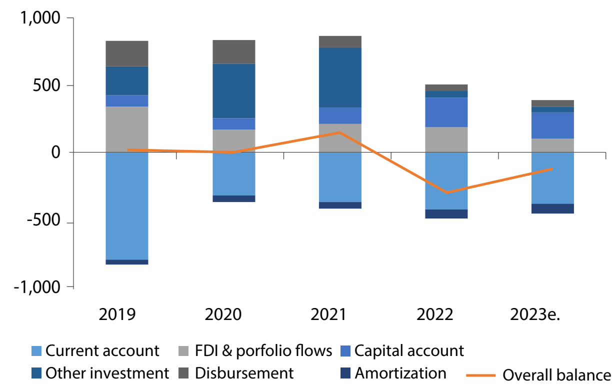
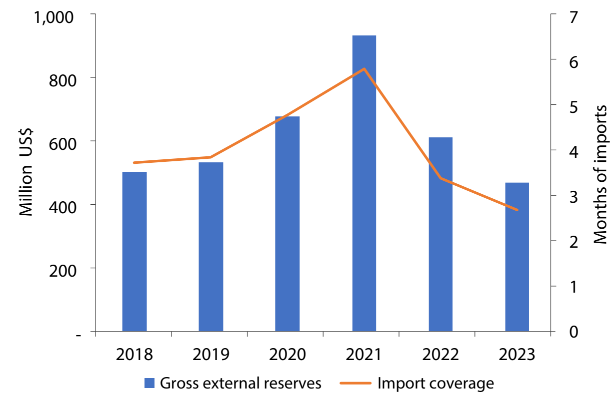


FIGURE 20: Reserve coverage (US$ millions and months of imports), 2019-2023



Source: Sierra Leone authorities, IMF and World Bank staff estimates.

Monetary sector

Very high Inflation is finally moderating in the wake of ever tighter monetary policy.

Headline inflation peaked at 54.6 percent (year-over-year) in October 2023, among the worst in Sub-Saharan Africa, before moderating to 25.5 percent by August 2024. Headline inflation averaged 47 percent during 2023, compared to an average of 27 percent during 2022. Price pressures from supply chain disruptions, currency depreciation, and domestic policy slippages intensified during 2023, pushing Sierra Leone's inflation to the second highest in Africa after Sudan. A primary driver was food inflation, rising continuously since April 2022 and peaking at 64 percent (year-over-year) in September 2023, kept high by the price of rice, the country's main staple, as India banned rice exports. The other primary driver of Sierra Leone's inflation was energy, pushing up non-food inflation by 8 percentage points in August 2023 following the government's liberalization of fuel prices to allow a full passthrough of global prices, resulting in a 40 percent rise in pump prices. Then, in October, authorities raised electricity tariffs by nearly 100 percent to help contain government subsidies to the electricity distribution company, further spurring non-food inflation.

High food inflation eroded households' purchasing power, worsening poverty and food insecurity. High food inflation disproportionately affects the pooHigh food inflation disproportionately affects the poor, as food typically accounts for a significant share of their overall spending. According to the World Food Program's Hunger Map Live, as of March 2024, 55 percent of Sierra Leone's population (2.2 million people) experienced insufficient food consumption. Meanwhile, poverty (measured at US$2.15 per person per day in 2017 purchasing power parity (PPP)) slowed its decline in 2023, with 23.2 percent of population living in extreme poverty rate compared to 24.1 in the previous year.[8]

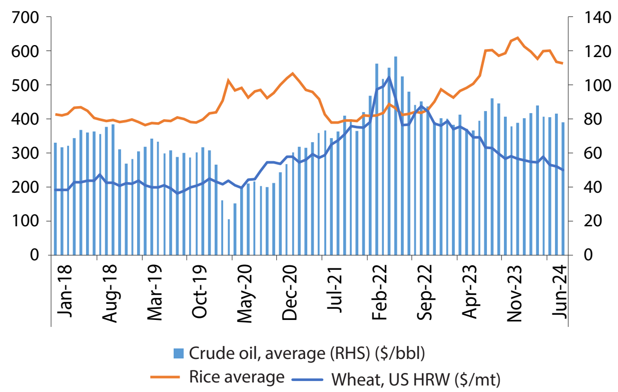
Inflationary pressures continued to weaken from November 2023 into 2024. While inflation remains elevated, it has moderated from its peak in October 2023 to 25.5 percent in August 2024, the tenth consecutive month of decline. Food and non-food inflation have moderated to 22.8 percent and 27.5 percent, respectively, as of August 2024, mirroring the easing of international food and energy prices (Figure 22). The beginning of the slowdown coincided with encouraging rice harvests and a marginal decline in global food and energy prices (Figure 21). Food inflation in Sierra Leone slowed from 64.7 percent in September 2023 to 22.8 percent in August 2024 while non-food inflation went down by 19.7 percentage points to 35.3 percent (year-over-year) over the same period. The continued slowdown has been supported by stability in the exchange rate, slowdown in the growth of monetary aggregates, and a decline in pump prices by 7 percent from NLe30 per liter to NLe28 per liter as of August, following the review of the fuel pricing formula[9] and the global slowdown in energy prices.

8 World Bank, Macro Poverty Outlook 2024, forthcoming.

9 The Sierra Leone Petroleum Regulatory Agency reviewed the petroleum pricing formula in June 2024 following technical assistance from the World Bank through the GTP fund. The formula, which was originally developed with support from the World Bank, was reviewed with input from key stakeholders and reflected global best practice. The new formula eliminated uniform prices and introduced price variation prices between fuel types, utilized the West African benchmark price, introduced import premium and price correction levy while reducing the 'other charges' components from $13.6 to $7.3 per metric ton.

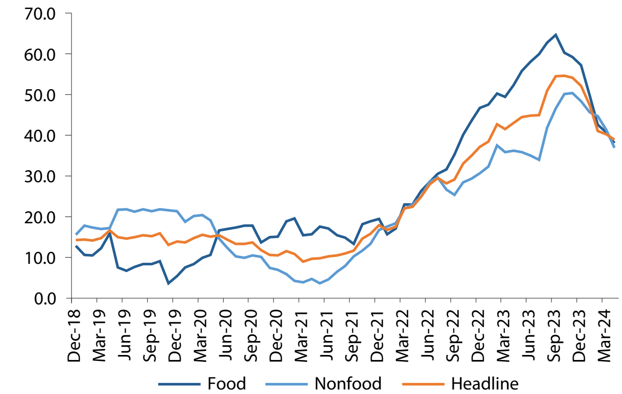
Headline inflation remains elevated despite moderation since 2023, partly because of domestic policy choices.

FIGURE 21: Global price trends for wheat, rice, and oil (US$ per metric ton and US$ per barrel), January 2018- December 2023



Source: World Bank (Pink sheet).

FIGURE 22: Domestic inflation trends, headline, food, and non-food (in % year-over-year), December 2018-April 2024



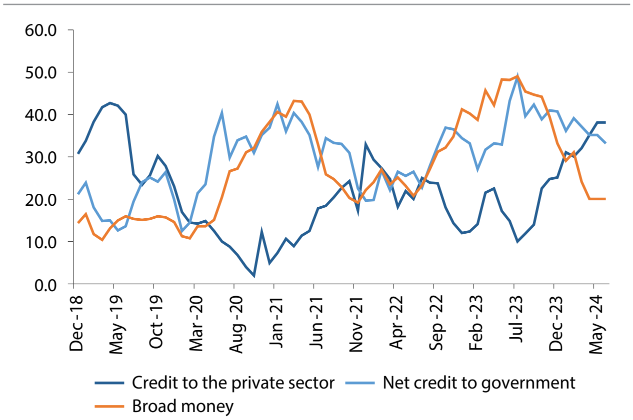
Source: Stats SL and World Bank staff estimates.

Monetary policy was continuously tightened during 2023 to rein in stubbornly high inflation, but loose fiscal policy and limited monetary policy transmission weakened its impact. The BSL raised the monetary policy rate by a cumulative 525 basis points in 2023 to 22.25 percent by year-end and further by 250 basis point to 24.75 percent by September 2024 (Figure 24). However, the impact of higher policy rates was limited due to weak response of lending and deposit rates in a fragmented banking sector where bank credit largely serves the public sector. Base money growth expanded to 43 percent (year-over-year) in December 2023, compared to 32 percent the previous year, but has moderated to 14 percent by July 2024 as the BSL unwound purchases of government securities in the secondary market, decelerating net domestic assets of the banking system. Meanwhile, private sector credit growth improved during 2023 (by 25 percent) and continues to expand, with a growth rate of 35 percent (year-over-year) in July 2024 as asset quality in the banking system improves and permission to lend in foreign currency on a case by case basis supports access to credit by the private sector (Figure 23).

While the government has announced plans to recapitalize the BSL, its current capital deficiency poses significant challenges for the effective implementation of monetary policy. A well-capitalized central bank is crucial for maintaining confidence in the domestic currency, managing foreign exchange reserves, and executing monetary policy operations effectively. The BSL's negative capital position worsened considerably throughout 2023, reflecting a confluence of factors: (i)

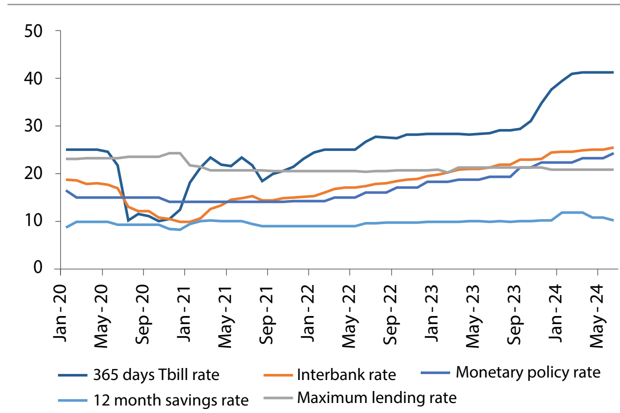
With limited transmission of tight monetary policy to market interest rates, credit growth continues.

FIGURE 23: Key monetary aggregates (% change year-over-year), December 2018-July 2024



Source: Bank of Sierra Leone

FIGURE 24: Key market interest rates (in %), January 2020-July 2024



the costs associated with the redenomination of the currency in July 2022; (ii) a notable decrease in foreign currency inflows but higher outflows, which reduced the BSL's foreign exchange reserves; and (iii) the BSL's foreign currency-indexed obligations that further strained its financial position.

Currency depreciation slowed during 2023 and showed relative stability since the second half of the year. The New Leone depreciated by 18 percent in 2023, compared to 40 percent in 2022, stabilizing at NLe22 per US$ since September 2023 (Figure 26). The sharp depreciation of the Leone coincided with the redenomination announcement in August 2021. This stronger performance was due to reduced import demand, increased remittance inflows, and tighter fiscal and monetary policies. In 2023, the BSL took steps to stabilize the currency by removing administrative barriers in the foreign exchange market, amending the BSL Act to allow the use of other currencies for specific transactions, permitting foreign currency lending by commercial banks, and restricting offshore brokers from using non-BSL reference rates. Additionally, dollarization slowed, with foreign currency deposits growing by 40 percent in 2023 compared to 105 percent in 2022, indicating renewed confidence in the Leone. However, the spread between official and parallel exchange rates widened to 3.9 percent from 0.5 percent in 2022, although volatility decreased due to the BSL's stabilizing actions, enhancing predictability and reducing speculative behavior (Figure 26).

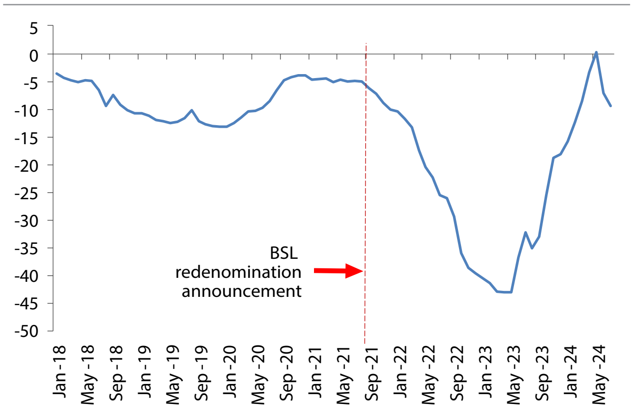
Financial sector

The financial sector appears stable but with significant risks.

The financial sector is dominated by commercial banks, but other financial institutions play a crucial role in financial intermediation. The asset base of the banking system expanded by 33 percent during 2023, to reach 23 percent of GDP, with commercial banks accounting for 95 percent of the total assets of the banking system (or 22 percent of GDP) (Figure 27). The increase in the asset base came largely from customer deposits and shareholder funds (due to an increase in paid-up capital and retained profits). Commercial bank assets are highly concentrated in government securities, which are considered zero risk and do not require provisioning even if the investments are rolled over upon maturity, while loans to the private sector are considered high risk. The limited development of the financial system in Sierra Leone makes government securities very attractive, but private sector lending is crowded out. In such an environment, other financial institutions play a key role despite their insignificant share of the total banking assets (at 1 percent of GDP).[10] They provide critical financial intermediation in the form of loans to micro, small and medium enterprises, although often at higher lending rates because of their high cost of funds (Figure 28).

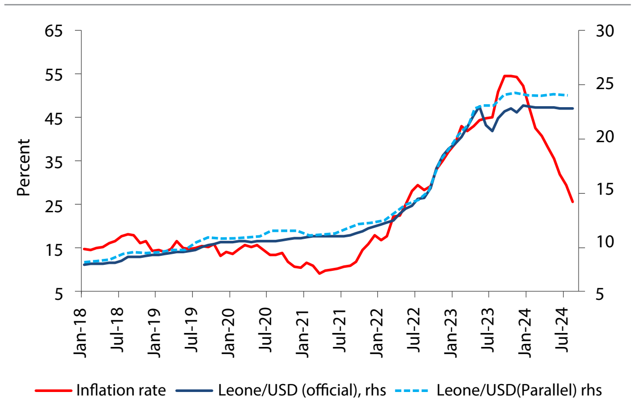
The pace of depreciation against the US dollar slowed in 2023, but the spread between the parallel and official exchange rates widened slightly.

FIGURE 25: Exchange rate developments (% change in US$/NLe), January 2018-July 2023



Source: Bank of Sierra Leone and World Bank staff estimates.

FIGURE 26: Monetary policy rate, Inflation, and exchange rates (in % and NLe/US$), January 2018-August 2024



[10] Other financial institutions include community banks, discount houses, credit-only microfinance institutions, and deposit-taking microfinance institutions.

Commercial banks dominate assets of the banking system.

FIGURE 27: Asset base of the banking system (NLe millions), 2018-2023

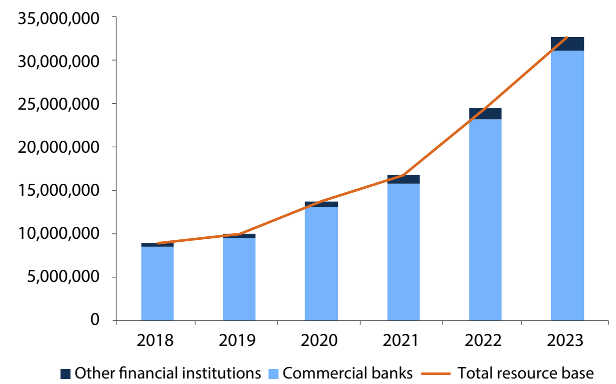
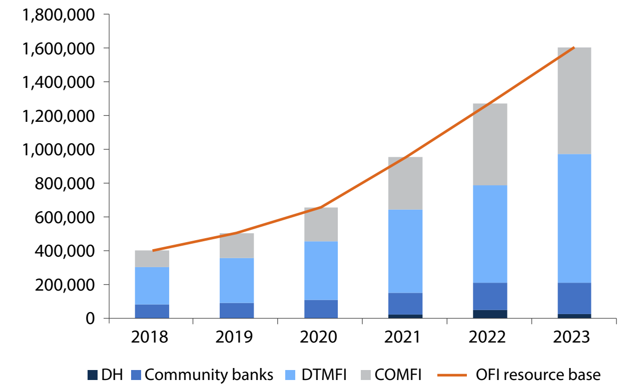


FIGURE 28: Other financial institutions asset base (NLe millions), 2018-2023



Notes: Other financial institutions include community banks, discount houses, credit-only microfinance institutions, and deposit-taking microfinance institutions.
Source: Bank of Sierra Leone and World Bank staff estimates

Banks are assessed to be generally well-capitalized and liquid, except for a single domestic bank that faces persistent solvency challenges. Banking sector performance improved during 2023 as capital, liquidity, asset quality and profitability indicators improved. The banking system remains well-capitalized and liquid as the capital adequacy ratio of 42 percent (35 percent in 2022) and liquidity ratio of 77 percent (78 percent in 2022) stood above regulatory requirements of 15 percent and 20 percent, respectively. However, these ratios are largely supported by bank holdings of zero-risk-weighted government securities which accounted for about 40 percent of bank financial assets compared to just 12 percent for domestic credit to the private sector. Banks are assessed to be profitable as both return on asset and return on equity improved markedly in 2023. However, one domestic private bank has continued to face solvency challenges due to write-offs of high non-performing assets and increased capital requirements, with a capital adequacy ratio of negative 73.8 percent.

An improvement in the credit portfolio followed an improvement in asset quality within the banking system. Total credit within the banking system grew by 28 percent (year-on-year) and is concentrated within the services and commerce and finance sectors (Figure 29). Credit quality improved as commercial bank non-performing loans declined to single digits at 9 percent of the loan portfolio for the first time in over a decade (compared to 12.1 percent in 2022) and below the regulatory limit of 10 percent, with non-performing loans concentrated in the commerce and finance sector (Figure 30). On the other hand, for other financial institutions, non-performing loans improved from 13.5 percent in 2022 to 11.6 percent in 2023 but remained above the regulatory limit of 4.8 percent. These improvements in asset quality are supported by BSL directives to banks to write off non-performing loans and enhance corporate governance frameworks and reflect banks' successful recoveries of bad debts and improvement in credit risk management.

The strong performance in the banking sector continued in 2024 but sovereign risk persists with modest improvement in private sector credit. As of June 2024, the capital adequacy and liquidity ratio of the commercial banks were estimated at 45.4 percent, and the liquidity ratio is estimated at 75 percent respectively – both well-above the regulatory requirement of 15 and 20 percent. These ratios continue to be supported in large measure by the banks' holdings of short-term government T-bills which continue to pose a huge sovereign-bank risk to the sector. Credit to the private sector as a share of total asset improved during Q2 2024 and account for 15 percent of total assets, compared to 13 percent as of December 2023, and has improved by 35 percent (year-on year) as of July 2024 as non-performing loans remain below the regulatory threshold (10 percent) at 7.8 percent.

As global growth slows, emerging markets and Sub-Saharan Africa continue to expand.

FIGURE 29: Composition of private credit by economic sector (NLe millions), 2018-2023

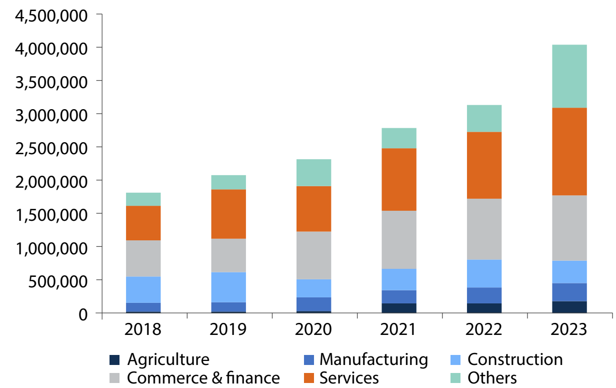
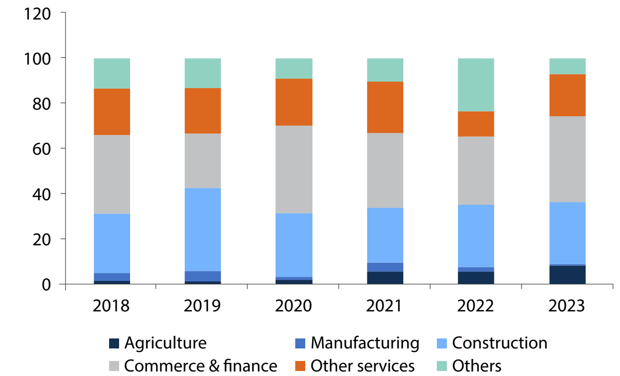


FIGURE 30: Composition of commercial bank non-performing loans by economic sector (shares in %), 2018-2023



Source: Bank of Sierra Leone and World Bank staff estimates

Outlook, Risks, and Policies

Near and medium-term economic outlook

Growth is expected to recover amidst growing macroeconomic stability.

Economic prospects are mixed and contingent on ongoing reforms and external developments. Economic growth is projected to moderate to 4.3 percent in 2024 before gradually recovering and converging to its long-run potential average of 4.7 percent in the medium term. The slowdown in 2024 is due to falling iron ore prices which may impact iron ore production and export. The recovery in the medium term is expected to be supported by: (i) continued efforts to restore macroeconomic stability and contain inflation through fiscal and monetary policy tightening; (ii) continued expansion of iron-ore mining operations; and (iii) some modest easing of inflationary pressures and an improvement in purchasing power of households; and (iv) improved agricultural productivity supported by efforts on the government's flagship 'Feed Salone' program. Private investments will slightly improve as global financial conditions continue to improve following the easing of a tighter monetary policy stance in advanced economies. However, public investments are expected to be muted in 2024 (before recovering in 2026) as part of ongoing fiscal consolidation. The external position remains uncertain, especially given the ongoing slump in China's economy and low growth forecasts for most advanced economies. Global prices for Sierra Leone's dominant export (iron ore) has slumped during 2024, down by 23 percent by August 2024 as recovery in steel demand is delayed following the slowdown in Chinese property market.[11] However, global fuel and food prices have been moderating in 2024 and should improve Sierra Leone's terms of trade (Table 2).

Agriculture and mining will buoy economic recovery in the medium-term. Government's prioritization of the agricultural sector through the 'Feed Salone' program will accelerate agriculture reforms, strengthen value chains, and enhance private sector participation in the sector. Agricultural GDP is expected to grow by 3 percent in 2024 and over the medium term as fertilizer prices moderate further following a 35 percent decline in 2023. Plans to improve irrigation across identified ecological zones, improve access to markets, and connect farms to the power grid will support agribusiness development across the value chain and enhance private sector led investment. The BSL's Agricultural Credit Facility is expected to improve access to credit and support the purchase of farm inputs and other services. The mining sector will continue to face muted global prices for metals and precious minerals until Chinese demand picks up. Mining output and exports are expected to improve in the medium-term following expansions at both the Kingho and Marampa mines. The Marampa iron ore mines reopened in 2021 under a 15-year mining license and began an expansion project to boost output to 7 million tons per year by 2025. Additionally, the deep underground diamond mining at both Koidu Holdings and Meya Mines will ramp up diamond production and exports.[12]

[11] World Bank, 2024 Commodity Markets Outlook.

[12] Meya Mines recently discovered a 391.45 carat Type II diamond, which was originally part of a larger rough stone weighing 514.99 carats, broken into three pieces during the mining process. This discovery is the second largest discovery at the mines following a 523.44-carat Type IIa diamond discovered during 2017.

Domestic inflation will ease gradually as inflationary pressures moderate globally and the depreciation of the Leone continues to slow. In the medium-term, inflation will recede but will remain in double digits, as global prices moderate, and the Leone shows relative strength. Trends in global commodity prices (especially for food and energy) will remain a key factor influencing domestic headline inflation which is projected to decelerate to 12.6 percent on average by 2026.

Fiscal consolidation through improved revenue mobilization and spending rationalization would support macro-stability in the medium-term. Following spending slippages in recent years, fiscal consolidation efforts will necessitate strong and intentional corrective measures on both revenue and expenditures. Revenue mobilization will be anchored around revenue and administrative measures identified from the Medium-Term Revenue Strategy and implemented through subsequent Finance Acts. Implementing these measures and strengthening tax administration and compliance will support revenue performance in the medium term. Expenditure rationalization will be supported by: (i) a decline in wages as a share of GDP through the implementation of the wage bill management strategy, (ii) implementation of the revised arrears clearance strategy (2023-2026); (iii) limiting subsidy transfers to EDSA; and (iv) strengthening public financial management and cash management to enhance budget execution. These corrective measures and others will be needed to reduce the fiscal deficit by 3.6 percentage points to 1.3 percent by 2026.

Table 2: Economic outlook for Sierra Leone

	2021	2022	2023	2024 e	2025 f	2026 f
Real GDP growth, at constant market prices	5.9	5.3	5.7	4.3	4.7	4.7
Private consumption	5.8	7.4	1.8	4.4	4.7	4.9
Government consumption	3.2	-0.7	0.5	2.8	2.8	4.9
Gross fixed capital investment	2.4	22.2	12.8	15.3	16.8	17.8
Exports, goods and services	69.8	9.0	7.0	6.8	7.3	7.3
Imports, goods and services	24.0	15.8	9.3	12.5	13.5	14.9
Real GDP growth, at constant factor prices	5.9	5.3	5.7	4.3	4.7	4.7
Agriculture	2.2	3.0	2.4	2.4	3.0	3.0
Industry	8.0	9.9	14.4	7.0	7.1	7.1
Services	8.2	5.4	4.7	4.5	4.8	4.9
Inflation (consumer price index)	11.8	27.0	46.7	30.5	20.0	12.6
Current account balance (% of GDP)	-5.0	-5.4	-5.1	-4.3	-4.1	-4.0
Net foreign direct investment inflow (% of GDP)	4.9	4.7	3.1	5.0	6.1	8.4
Fiscal balance (% of GDP)	-3.9	-5.3	-4.9	-3.2	-2.2	-1.3
Revenues (% of GDP)	12.4	10.9	10.4	11.7	12.6	13.4
Debt (% of GDP)	48.6	53.5	46.2	43.1	41.5	38.3
Primary balance (% of GDP)	-2.2	-3.5	-2.5	-0.9	-0.2	0.4
International poverty rate ($2.15 in 2017 PPP)[a,b]	25.1	24.2	23.2	22.7	22.0	21.3
Lower middle-income poverty rate ($3.65 in 2017 PPP)[a,b]	63.5	62.7	61.8	61.3	60.6	60.0
Upper middle-income poverty rate ($6.85 in 2017 PPP)[a,b]	89.6	89.2	88.8	88.6	88.3	88.0
GHG emissions growth (mtCO2e)	8.1	3.2	1.6	1.6	1.7	1.8
Energy related GHG emissions (% of total)	10.7	10.4	10.3	10.3	10.4	10.3

Source: World Bank, Poverty & Equity and Macroeconomics, Trade & Investment Global Practices. Emissions data sourced from CAIT and OECD.
Notes: e = estimate, f = forecast. Poverty data are expressed in 2017 PPP, versus 2011 PPP in previous editions - resulting in major changes. See pip.worldbank.org
(a) Calculations based on 2011-SLIHS and 2018-SLIHS. Actual data: 2018. Nowcast: 2019-2023. Forecasts are from 2024 to 2026.
(b) Projection using point-to-point elasticity (2011-2018) with pass-through = 0.4 based on GDP per capita in constant LCU.

Risks to debt sustainability will remain elevated until fiscal balances improve further and the reliance on expensive and short-term domestic borrowings can be addressed through the lengthening of maturities and greater access to concessional borrowings. During 2023, public debt is estimated at 46.2 percent of GDP and is expected to moderate further in the medium term as fiscal tightening continues and macroeconomic stability is restored. The government's new Medium Term Debt Strategy 2023-2027 proposed lengthening maturities and developing the domestic debt market. The Medium-Term Revenue Strategy targets improvement in revenue generation by 2027, which would reduce domestic borrowing, improve solvency indicators and reduce fiscal dominance and government appetite for borrowing in the domestic market.

The external position is projected to improve but will remain in deficit in the near and medium term. Strong export performance will be supported by reforms in the mining sector and expansions at Kingho and Marampa and developments at the Sembehun rutile mine. Improvements in domestic production and manufacturing and the slowdown in food and energy prices are expected to suppress the import bill in the medium term as domestic rice production improves and value addition across the agricultural value chain limits the import of essential commodities. However, muted growth in advanced economies and especially in China will hamper export prospects for major commodities (iron, rutile, diamonds). The current account deficit is expected to contract to 4 percent of GDP by 2026 as external inflows like foreign direct investment pick up. External debt service will continue to elevate external financing needs, but foreign reserves are expected to improve to three months of imports cover, although remaining below four months of imports cover, leaving the external position at risk of unexpected shocks.

The pace of poverty reduction is projected to accelerate as inflation eases in the medium-term. Although persistent inflation has weakened consumers' purchasing power, poverty estimates suggest a gradual decline as inflation moderates. The poverty rate, measured using the international poverty line of US$2.15 per person per day (2017 PPP), is expected to fall to 21.3 percent by 2026. Moderating inflationary pressures, driven by lower global food and energy prices and improved agricultural productivity, should help alleviate food insecurity and restore household purchasing power. Strengthening linkages between the mining sector and others, particularly services, will further enhance the positive spillover effects on households.

Risks to the outlook

Multiple external and internal factors pose risks to Sierra Leone's economy.

Risks to the outlook for the Sierra Leonean economy are shaped by both external and domestic developments. Geopolitical uncertainties around the war in Gaza and the ongoing war in Ukraine could reverse the slowdown in energy and agricultural prices if supply chains are disrupted, especially along the Red Sea. Developments in emerging market and developing economies, notably China, will continue to influence the prices of commodities such as iron ore. On the domestic front, the degree of political stability following the attempted coup in 2023 will influence reform appetite and the effectiveness of the government's economic policy programs to restore macroeconomic stability and deliver on medium to long term plans in the face of global uncertainties. Any deviation from fiscal consolidation will jeopardize efforts to restore macroeconomic stability. To cushion against external vulnerabilities and build resilience, the government would need to build up foreign reserves to protect against future shocks.

The energy sector presents a significant fiscal risk to the national budget, diverting critical resources away from essential social spending. Delays in implementing key tax policy reforms, coupled with weak enforcement of existing tax measures and poor public financial management practices, further threaten the fiscal outlook. In particular, the energy distribution sector, driven by the poor performance of EDSA, poses a substantial risk. The continued accumulation of arrears to IPPs is straining government finances, necessitating the diversion of resources towards sustaining energy provision, thereby undermining fiscal sustainability and social investment.

Monetary expansion through the central bank's secondary market interventions to finance the deficit would scupper efforts to rein in inflation and crowd out private sector investment. An expansion in base money growth--as a result of BSL's purchase of government securities through the secondary market to provide liquidity for commercial banks to participate in the primary auction--would be inflationary. While global conditions and currency depreciation continue to have significant influence on domestic prices, fiscal expansions have often been inflationary as the increase in net credit to the government through the banking system increases the amount of currency in circulation and crowds out private sector investment needed to support growth. Instead, strengthened domestic revenue mobilization and additional grants resources can serve to reduce government's reliance on external and domestic debt.

Following the attempted coup in November 2023, the risk of political and social instability remains high while a continued cost-of-living crisis may risk social unrest. An unsuccessful coup plot following a highly contested election in June 2023 proved costly and worsened socio-political instability across the country. The coup attempt led to overruns on the goods and services budget with higher than budgeted security spending to restore stability and undermined efforts on domestic revenue mobilization. Worsening food insecurity may lead to widespread social dissatisfaction, which could result in similar protests to those observed in August 2022, which would negatively impact the business and investment environment and most likely require increased contingency spending on security.

Climatic and health risks will continue to pose a significant threat to the economy. Sierra Leone is increasingly vulnerable to climatic shocks from extreme and unpredictable weather conditions. Rising temperatures and erratic rainfall have proved challenging for the agriculture sector through disruptions to planting and harvest seasons. Predominantly unplanned city expansions have led to the cutting down of trees and removal of mangroves across the Freetown peninsular, resulting in severe and deadly flooding and landslides. In addition, the country's health system remains fragile, with limited resources and infrastructure, making it ill-prepared to cope with large-scale disease outbreaks. The recently established National Public Health Agency is expected to support the country in its response to health emergencies.

Policy priorities

Action	Description	Institution Responsible	Timeline	Impact
Fiscal Consolidation	Continue fiscal consolidation to support macroeconomic stability while protecting social spending on education, healthcare, and social safety nets.	Ministry of Finance	Medium-term (1-3 years)	Restores macroeconomic stability, protects vulnerable households, and supports long-term growth.
Improved Domestic Revenue Mobilization	Enhance domestic revenue collection by implementing outstanding measures in the 2023 and 2024 Finance Acts and strengthening tax compliance.	Ministry of Finance, National Revenue Authority	Immediate to medium-term	Increases fiscal space, improves revenue generation, and supports public investments and debt management.
Expenditure Controls & Budget Discipline	Strengthen expenditure controls, improve budget preparation, and ensure proper execution to prevent budget overruns.	Ministry of Finance, MDAs	Immediate to medium-term	Minimizes fiscal risks, improves budget credibility, and enhances fiscal discipline across MDAs.
Energy Sector Reform	Improve EDSA's revenue collection, address technical/commercial losses, and install Advanced Metering InfrastructureAMI meters to reduce fiscal risks.	Ministry of Energy, EDSA	Immediate to medium-term	Reduces energy sector arrears and ensures financial sustainability, lessening the fiscal burden.
Debt Management & Lengthening Maturities	Continue reliance on concessional financing and lengthen maturities to reduce debt vulnerabilities and manage liquidity risks.	Ministry of Finance, Central Bank	Medium-term (1-3 years)	Reduces rollover risk, manages debt service burden, improves fiscal sustainability.
Wage Bill Management	Implement a medium-term wage bill management strategy and operationalize the Wages and Salaries Compensation Commission.	Ministry of Finance	Medium-term (1-3 years)	Reduces wage pressure to target levels, creating fiscal space for other priorities.
Energy Sector Reform	Improve EDSA's revenue collection, address technical/commercial losses, and install AMI meters to reduce fiscal risks.	Ministry of Energy, EDSA	Immediate to medium-term	Reduces energy sector arrears and ensures financial sustainability, lessening the fiscal burden.
Monetary Policy Tightening	Adjust monetary policy rate to combat inflation and prevent a currency-inflation spiral.	Central Bank	Immediate to medium-term	Controls inflation, stabilizses the exchange rate, and protects reserves.
Improve Reserves Position	Take immediate steps to rebuild international reserves, including tightening monetary policy, reducing imports, and promoting exports.	Central Bank, Ministry of Trade	Immediate to medium-term	Strengthens reserves, mitigates external shocks, and improves the country's balance of payments.
Public Financial Management (PFM) Reforms	Improve PFM practices, including linking quarterly budget allocations to revenue performance and rolling out IFMIS across all MDAs.	Ministry of Finance, Accountant General	Immediate to medium-term	Enhances budget credibility, improves cash management, and reduces arrears accumulation.
Arrears Clearance Strategy	Implement a credible arrears clearance strategy and strengthen the Expanded Cash and Debt Management Committee.	Ministry of Finance	Immediate	Restores budget credibility and reduces accumulation of new arrears.

Action	Description	Institution Responsible	Timeline	Impact
Currency Management	Use wholesale currency auctions only in exceptional cases to support the currency, ensuring clear communication to avoid excessive reserve use.	Central Bank	Immediate	Minimizes depletion of reserves, maintains currency stability.
Targeted Social Safety Nets	Scale up safety nets linked to productive activities (farming, fishing) and social programmes (school feeding, maternal health).	Ministry of Social Welfare, Education	Immediate to short-term	Protects vulnerable households, mitigates food insecurity, and improves education and healthcare access.
School Feeding & Healthcare	Do a mapping of school feeding intervention and expand school feeding for primary schools. Enhance and enhance healthcare delivery by strengthening health systems and governance.	Ministry of Health, Ministry of Education	Immediate to short-term	Reduces malnutrition and , maternal and infant mortality, and improves educational outcomes.
Addressing Climate Risk	Implement reforestation programmes, restore mangrove ecosystems, and enforce urban planning regulations to reduce flooding, landslides, and environmental degradation.	Ministry of Environment, Ministry of Lands & Housing	Immediate to long-term	Mitigates climate-related risks, prevents severe flooding and landslides, improves environmental sustainability.
Address the Sovereign-Bank Nexus & Improve Private Sector Credit	Reduce reliance on government securities by encouraging banks to diversify their portfolios and introduce regulatory limits on government security holdings. Facilitate measures to lower interest rates on government securities to reduce fiscal dominance and encourage lending to the private sector.	Central Bank, Ministry of Finance	Immediate to medium-term	Reduces sovereign-bank risk, mitigates rollover risk, lowers interest costs, and increases credit to the private sector.
Debt Market Development	Strengthen coordination between the Central Bank and the Ministry of Finance for liquidity management and develop a deeper financial market.	Central Bank, Ministry of Finance	Medium-term (1-3 years)	Improves monetary policy transmission, deepens financial markets, and enhances economic stability.
Structural Reforms	Address structural constraints in natural resource management, public sector governance, and inclusiveness to promote long-term development.	Government of Sierra Leone	Long-term (3+ years)	Supports sustainable growth, attracts foreign direct investmentFDI, and improves governance and accountability.
Foreign Direct Investment (FDI) Attraction	Improve the business investment landscape to attract FDI, enhancing economic diversification and resilience.	Ministry of Trade, Ministry of Finance	Long-term (3+ years)	Increases investment inflows, supports diversification, and fosters long-term economic growth.

PART TWO

UNLOCKING THE POTENTIAL OF THE POWER SECTOR IN SIERRA LEONE

BREAKING THE CRISIS CIRCLE

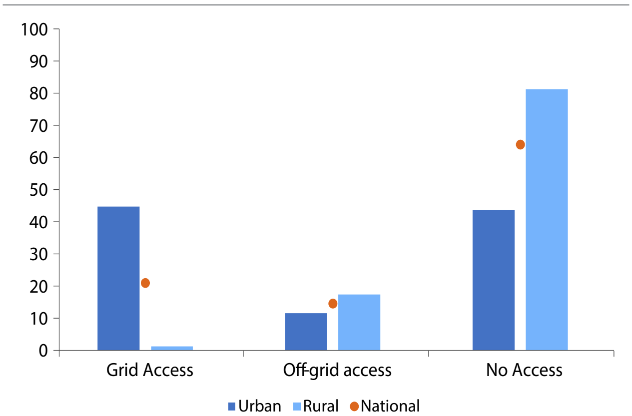
Introduction

Most Sierra Leoneans lack access to electricity, despite unbundling of the sector to improve performance.

Approximately one-third of the population in Sierra Leone has access to electricity, including both grid access and off-grid solutions. Just 21 percent of the Sierra Leonean population has access to electricity through the grid, while about 15 percent access electricity through off-grid solutions, predominantly through solar products such as solar lanterns, solar home systems, and solar lighting systems (Figure 31, Box 5).[13] Geographic location and economic well-being are found to be significant determinants of access with 44.7 percent of the urban population connected to the grid while 81.3 percent of the rural population have no access to any form of electricity. The main grid covers the urban centers of Freetown, Makeni, Magburaka, Kono, Kenema, and Bo, with other centers such as Portloko, Lungi, and Lunsar being run as isolated grids by EDSA. Out of the seven district headquarter towns, four (Moyamba, Pujehun, Kailahun and Bonthe) have diesel generators with some households connected via a distribution network. Sierra Leone also has a growing off grid sector connective people at a rapid pace (see Box 5).

Access to electricity, both grid and off-grid, remains low outside of Freetown and other urban areas.

FIGURE 31: Access to electricity, grid and off-grid, by region (% of households)



Source: Multi-Tier Framework for Energy Access survey.

Unbundling of Sierra Leone's power sector was launched in 2011 to improve its ability to provide electricity to the country. Prior to unbundling, the power sector had a single vertically integrated national utility, the National Power Authority (NPA), that was established by the National Power Authority Act of 1982. The National Electricity Act of 2011 repealed the previous law and unbundled the NPA into two state-owned enterprises and allowed the private sector to generate electricity.[14] The NPA was split into: (i) the Electricity Generation and Transmission Company (EGTC) responsible for power generation and transmission at high voltage levels at 66 kilovolts and above; and (ii) the Electricity Distribution and Supply Authority (EDSA) to oversee the distribution network at lower voltages and responsible for sale of electricity to end users. The transition from NPA took a long time, and the two utilities became fully functional in January 2015. The Electricity and Water Regulatory Commission (EWRC), created by the Electricity and Water Regulatory Commission Act 2011 and commissioned in 2014, has the mandate to independently regulate the sector. The Ministry of Energy (MoE) oversees the sector by providing sector policy formulation, sector planning, and coordination. EDSA has the mandate for trading power and serves as the offtaker (or purchaser) for all electricity purchased from EGTC and independent power producers (IPPs) under power purchase agreements approved by EWRC. EWRC determines electricity tariffs and carries out regular tariff reviews in line with the provisions of the 2011 Act.

Electricity Sector Performance

Generation

Over reliance on heavy fuel oil in the power generation mix has led to high power purchase costs.

Sierra Leone currently has three main sources of power generation, with the largest share coming from liquid fuels. Overall, Sierra Leone has about 240 megawatts (MW) of installed capacity--the maximum that can be generated if all power plants are functional at full capacity. However, due to poor maintenance,

13 According to a survey released in 2024 conducted under the Multi-Tier Framework for Energy Access, an initiative launched by the Energy Sector Management Assistance Program of the World Bank. The initiative redefines energy access "as the ability to obtain energy that is adequate, available when needed, reliable, of good quality, affordable, legal, convenient, healthy, and safe for all required energy applications across households, productive enterprises, and community institutions."

14 National Electricity Act 2011, Supplement to the Sierra Leone Gazette CXLII, No. 62, dated September 22, 2011.

Distributed Renewable Energy (DRE) solutions such as mini-grids and solar home systems have potential to expand rural access to electricity

Box 5 Sierra Leone's mini-grid and off-grid programs

The mini-grid program in Sierra Leone is relatively large, providing electricity to about 0.6 percent of the population. To date, there are 104 mini grids in Sierra Leone. The EWRC issued its mini-grid regulations in 2019 based on a cost-reflective tariff approach, kicking off the mini-grid market in the country. Since then, several programs, supported by development institutions, such as the Rural Renewable Energy Project, Enhancing Sierra Leone Energy Access Project, and the Universal Energy Facility, among others, have supported the roll out of about 95 mini-grids. These mini-grids, operated by the private sector, have a capacity of about 5 megawatts with an estimated 15,000 connections. The EWRC-approved tariffs for these mini-grids range from US$0.32 per kilowatt-hour to US$0.35. With 80 percent of the rural population not connected to electricity, mini-grids and off-grid solutions are at the forefront of increasing access in the country.

While grid related expansion of electricity has been slow, the off-grid solar sector has expanded steadily in the past few years. The MTF report shows that 14.7 percent of the population (or about 1.2 million people) is using off grid solutions such as solar home systems, or solar lighting systems and solar lanterns. The government's decision to provide tax exceptions to VeraSol-certified products in 2014 has led to a boom in the sector. With GIS-based least-cost access analysis showing that nearly 26.3 percent of the population will have to be connected using off grid solar solutions, the sector is set to play a large role in the coming years. Development partners are supporting the government in deploying mini grid and off grid solutions using result-based financing or energy as a service model.

Source: World Bank, Mini Grid Deployment in Sierra Leone, 2022.

non-availability of spare parts, and seasonal variation in water levels, a large part of this capacity is never available for generation. With all the constraints mentioned, the total available generation capacity is about 140 MW in the wet season and only about 100 MW or even lower in the dry season depending on how much generation capacity EDSA is willing to buy from the heavy fuel oil-fueled plant owned by the IPP, Karpowership (KPS). This capacity is not enough to meet peak demand that already exceeds 100 MW, with no reserve margin--the gap between peak demand and available capacity. The three main sources of power supply in Sierra Leone today are: (i) Bumbuna hydro power plant (5 to 50 MW, depending on dry or wet season) which is owned by the government; (ii) an independent power producer (IPP) liquid fuel-based generation plant (using heavy fuel oils, HFO) owned by KPS, (20 and 65 MW for wet and dry seasons, respectively); and (iii) the Côte d'Ivoire, Liberia, Sierra Leone and Guinea (CLSG) regional transmission line with an initial power purchase agreement (PPA) of 10 MW and transmission service agreement of 27 MW. There is also generation from solar IPPs amounting to 10 MW. Apart from these sources, EGTC has 40 MW of HFO units that are either not operating or working intermittently due to poor maintenance, a lack of spare parts, and lack of funds for fuel supply.

Heavy fuel oil generation provides the largest share of electricity and is the costliest among all of EDSA's power purchases, pushing up overall costs for the sector. In 2023, EDSA's power purchases to supply Sierra Leone's grid included 35 percent from HFO-based IPPs, 33 percent from the Bumbuna hydropower plant, and 31 percent from imports from the Cote D'Ivoire-based *Compagnie Ivoirienne d'Electricite* (Ivorian Electricity Company) through the CLSG interconnector (Figure 32). These generation sources had greatly varying costs: HFO-based IPPs are more than twice as expensive as the imports from Cote D'Ivoire, which utilize cheaper sources of fuels such as hydro and natural gas (Figure 33).

Sierra Leone's power supply sources have sharply varying costs.

FIGURE 32: Contribution of power supply sources (shares in %)

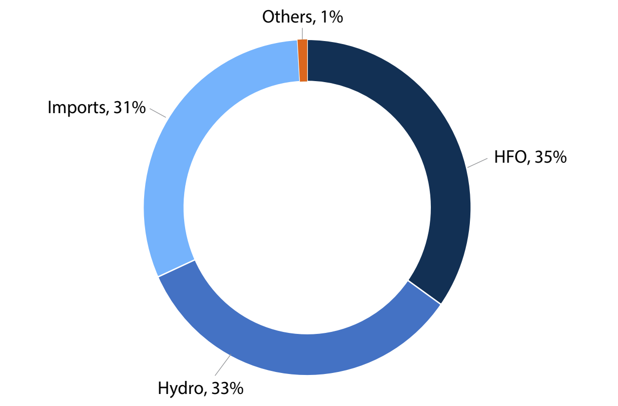
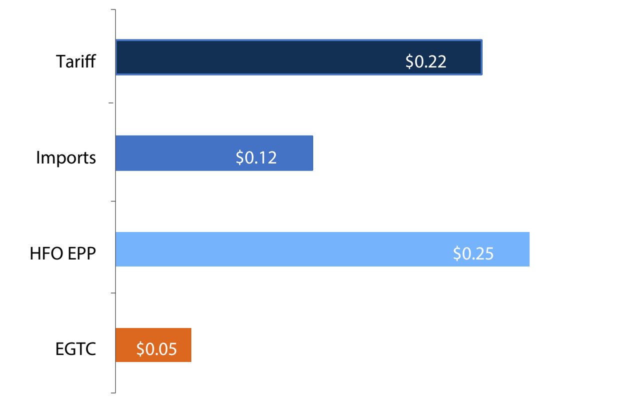


FIGURE 33: Tariff and average power purchase costs by supply source (US$/kWh)



Note: kWh is kilowatt hour.
Source: Electricity Distribution and Supply Authority (EDSA) and World Bank staff estimates

Transmission and distribution

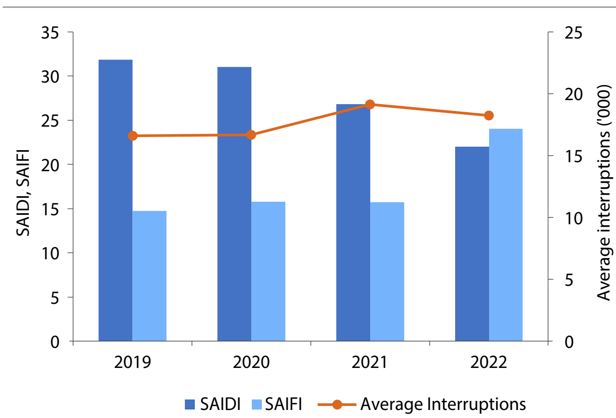
Transmission is severely limited, and distribution is unreliable and expensive.

Sierra Leone's transmission network is severely constrained in its capacity and reach to transport electricity from generation sites to areas of demand. There is only one single circuit 161 kilovolt line that serves as the main feed from the Bumbuna hydro plant (including imports) to Makeni, Magburuka and the capital city, Freetown. The CLSG 225 kilovolt regional transmission interconnection line that supplies power imports into the country serves as the only feed to the urban centers of Kono, Kenema and Bo located in the southeastern side of the country. With a peak demand of about 100 MW, Freetown is the major load center in the country. However, due to design limitations on the 161 kilovolt transmission line leading to voltage drop along the route length, the line is unable to evacuate at full capacity. There is an urgent need to address the power transmission bottlenecks to Freetown for the country to benefit from cheaper power imports and to reduce reliance on heavy-fuel-oil power supply, thereby reducing the average cost of supply.

Households and firms who have access are faced with unreliable electricity coupled with high end user tariffs. EDSA has about 320,000 electricity consumers connected to its distribution network. The distribution network is faced with multiple challenges which include over-loaded networks (lines and transformers), aged infrastructure, poor maintenance practices, and the lack of advanced network operation practices. In 2022, the year for which the latest data is available, EDSA recorded 18,231 electricity supply interruptions, with increasing frequency since 2019 but with declining duration (Figure 34). Only two out of 10 households have access to four or more hours of electricity supply.[15] Over 60 percent of firms reported experiencing at least four outages of up to nine hours in a month.[16] Given the existing power supply constraints, let alone future demand, both households and enterprises have resorted to alternate means of power supply such as diesel generators, which carry a heavy financial burden. Nearly 62 percent of firms in Sierra Leone own generators, accounting for over a quarter of their power supply usage.

Those who have access to the grid experience unreliable supply.

FIGURE 34: Interruptions to electricity provision (indices and number in '000), 2019-2022



Notes: SAIDI- System Average Interruption Duration Index and SAIFI- System Average Interruption Frequency Index are used to measure the duration and frequency of interruptions.
Source: EDSA

[15] Multi-Tier Framework for Energy Access survey.

[16] World Bank Enterprise Survey, 2023.

Financial performance

Technical struggles are compounded by the inability to collect revenues.

Inefficiencies across the electricity sector value chain have played a big role in the deterioration of sector finances. Installed capacity is not available. Billing falls well short of electricity supplied, and collections fall further short. This cascade of inefficiencies contributes to poor financial performance of the power sector.

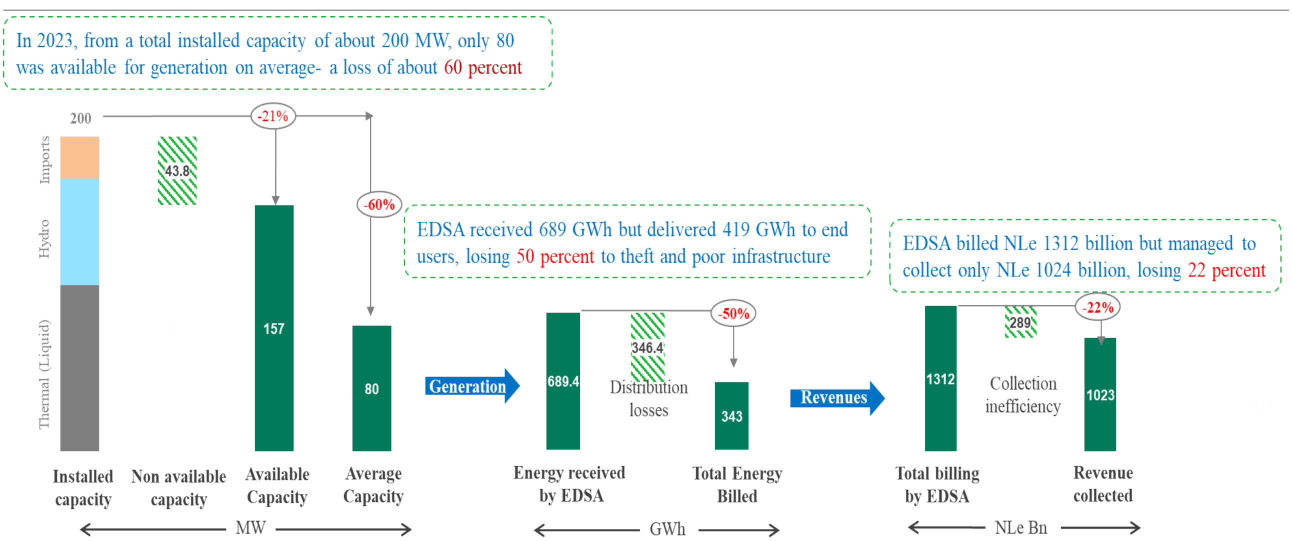
Most of the installed generation capacity is not available to supply electricity. Despite having installed capacity of about 200 MW, on average only 80 MW is available for supply (Figure 35). This situation is attributed to: (i) seasonal variability, such as dry season capacity of Bumbuna hydro power plant; (ii) the lack of maintenance and spare parts for the diesel generator sets owned by EGTC (leaving about 44 MW unutilized), and (iii) transmission constraints to be able to evacuate power to major load centers in Sierra Leone.

EDSA receives revenues from only four out of every ten units of electricity it purchases. In 2023, EDSA purchased about 684 gigawatt hours (NLe2.1 billion) of electricity from EGTC, IPPs and from imports. However, EDSA was able to bill only 344.5 gigawatt hours, representing a 50 percent loss. This situation is due to technical and commercial losses related to theft, non-metering of customers, and other inefficiencies (i.e., sporadic billing cycles). In addition, of the 344.5 gigawatt hours of electricity billed, translating into NLe1.27 billion, EDSA was able to collect only NLe1.018 billion, representing a collection loss of about 20 percent. Overall, EDSA is unable to earn revenues on 60 percent of its power purchases.

Since 2019, EDSA has been loss making and has never been able to cover even its power purchase costs, let alone the operations and maintenance costs of the network. This situation is mainly because the cost of power purchases outstrips the revenue generated by EDSA, further aggravated by the impact of local currency depreciation on the cost of power that is contracted in US dollars. Given the high technical and commercial losses as well as collection losses, it is not surprising that EDSA is struggling financially. EDSA's income statement reveals negative gross income. Revenues covered around 75 percent of the cost of energy for financial years 2019 and 2020 but only 50 percent in 2021 and 2022. EDSA's lack of liquidity contributed to deteriorating EDSA liabilities, as accounts payables (what EDSA owes to its suppliers and creditors) reached NeL2.319 billion (equivalent to US$108.3 million) by the end of 2023 (Table 3). It is also important to note that the account receivables had accumulated to NeL937.994 million (equivalent to US$43.8 million) by the end of 2023 (Table 4), with receivables from government institutions taking the largest share (49 percent).

Failures at each stage of power sector delivery compound to undermine sector finances.

FIGURE 35: Inefficiencies across the power sector value chain



Source: Analysis is based on EDSA's audited financial statements from 2019-2022.

Table 3: EDSA trade payables, 2019-2023

NLE'000	Audited accounts				Management accounts
	Dec 19	Dec 20	Dec 21	Dec 22	Dec 23
EGTC	338,774	460,628	573,955	618,871	600,130
Other local creditors	275,521	292,633	466,430	343,348	518,319
Taxes and other statutory obligations	35,001	53,734	82,074	85,298	260,558
Other payables	29,339	13,499	(490)	14,605	-
Other trade payables/bank loans	-	-	87,331	481,889	940,237
Total	678,635	820,494	1,209,300	1,544,011	2,319,244

Source: EDSA audited financial statements the year ended 31 December 2019 to 31 December 2022, Management account for 2023 and Deloitte analysis

Table 4: EDSA trade receivables, 2019-2023

NLE'000	Audited accounts				Management accounts
	Dec 19	Dec 20	Dec 21	Dec 22	Dec 23
Gov't and Gov't institutions	205,336	98,090	239,194	368,639	454,087
Domestic customers	86,198	165,774	251,426	323,327	436,097
Prepaid receivables	11,428	5,126	4,505	-	21
Aggregators account	-	(690)	346	-	(3,506)
EDSA Sas	-	(993)	(2,624)	-	-
GST Output Tax	-	-	-		33,415
Unreconciled difference (Casting error)	-	-	-	(43,374)	-
Gross trade receivables	302,963	267,307	492,847	648,592	920,113
Allowance for impairment	(39,297)	(33,583)	(33,583)	(41,296)	-
Net trade receivables	263,665	233,724	459,264	607,296	920,113
Staff receivables	147	87	185	-	(133)
Other receivables	34,097	34,524	23,599	-	18,014
Balance at 31 December	297,910	268,335	483,048	607,296	937,994

Source: EDSA audited financial statements the year ended 31 December 2019 to 31 December 2022, Management account for 2023 and Deloitte analysis

Fiscal Risk

Upward tariff adjustments, after years of government subsidies, failed to reduce the fiscal risk posed by the power sector.

To help absorb EDSA's losses, the government has been contributing a high level of subsidies every year, representing considerable fiscal pressure. The level of subsidies ballooned to NLe708.3 million in 2022 (US$39.0 million), representing more than 6.5 times the level of 2019 (NLe101.2 million, or US$11.0 million) (Table 5). While subsidies equaled 22 percent of revenues in 2019, they reached 102 percent of revenues in 2022--admittedly a year of particularly high fuel prices. During 2019 to 2022, EDSA's accounts show that the government has provided over US$100 million in subsidies to the distribution utility. In 2023, the government allocated US$38 million (0.6 percent of GDP) as subsidies for the sector in its annual budget. Furthermore, subsidies are expected to rise to US$61.3 million (1 percent of GDP) by end 2024.

Table 5: Government subsidies to EDSA, 2019-2023

NLE '000	Audited accounts				Audited Accounts
	FY19	FY20	FY21	FY22	FY23
Subsidies	101,230	144,718	201,939	708,343	814,905

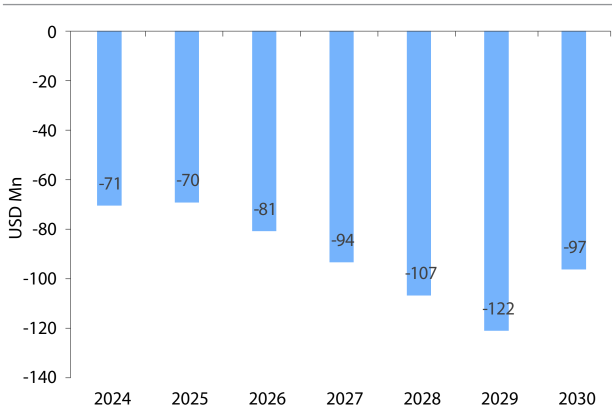
Source: EDSA audited financial statements the year ended 31 December 2019 to 31 December 2022, Management accounts for 2023 and Deloitte analysis.

Despite government intermediate actions of increasing end-user tariffs, providing subsidies for power purchase payments, and assuming EDSA debts, power sector arrears continue to accrue. Sierra Leone's public electricity tariffs were historically below cost recovery levels. Since the unbundling of the sector, tariffs for consumers were adjusted first in December 2019 (12 percent increase) and then in July 2022 (30 percent increase). The average tariff for customers was equivalent to US$0.22 per kilowatt hour (at an exchange rate of one US$1 to NLe11.569), which would be a cost recovery tariff if EDSA's commercial and technical losses were close to 40 percent rather than the actual 60 percent. Cost recovery further deteriorated as currency depreciation against the US dollar reduced the average tariff to about US$0.12 per kilowatt hour by January 2023, while IPP invoices remained denominated in US dollars. The government stepped in to assist with paying EDSA power purchase invoices and assumed all debts to IPPs and CLSG accrued through October 2023 (about US$57 million). The government then more than doubled the tariff in October 2023, back to US$0.22 per kilowatt hour in real terms, one of the highest electricity prices in the region, with the view that EDSA should be able to meet all its financial obligations going forward. However, from November 2023 to May 2024, EDSA has accrued new arrears to IPPs of US$18.7 million.

The enormous fiscal risk posed by ongoing power sector losses makes clear the urgency to improve EDSA's operational and commercial performance. If EDSA's losses remain at around 60 percent and Sierra Leone continues to rely mainly on HFO-fueled generation, then by 2030 the utility will face a cumulative loss of US$640 million (Figure 36). The average annual losses (US$92 million) in this scenario are more than double the government's annual budget allocation for health and close to that for education in 2023. Given the dire situation in the sector, there is clearly a need for a comprehensive overhaul of EDSA's operational and commercial performance to ensure that the sector can finance itself and provide adequate support to the country's economic growth.

Without reforms, EDSA will continue to run up losses.

FIGURE 36: EDSA's projected cash flow, status quo scenario (US$ millions), 2024-2030



Note: Status quo scenario assumes EDSA losses of 60 percent and reliance on HFO generation. See discussion in text of assumptions for scenario.
Source: World Bank staff calculations

Sector Turnaround - Setting the Sector on a Financially Sustainable Path

Action Plan 2030 for recovery in the electricity sector

Recognizing the urgency to address sector challenges, the government adopted a Sector Recovery Plan in May 2020. The plan contains key reforms and a private sector participation agenda in the distribution value chain that aims for cost recovery in the sector. The plan revolves around: (i) preparation of a least-cost development plan; (ii) implementation of an institutional policy aimed at adopting competitive, transparent, and open procedures for the procurement of electricity assets by state authorities; (iii) reduction of technical and commercial losses through investments in the network and adopting advanced metering infrastructure; (iv) improving access to electricity for all customer categories, particularly large industries, through adequate generation and transmission/distribution grid capacity; and (v) promoting private sector participation to improve operational and management performance, with a strong focus on customer service and reduction of commercial losses. Only limited progress on each of these areas has been made.[17] The US Millennium Challenge Corporation, as part of its support to the Government of Sierra Leone, also developed an electricity sector reforms roadmap,[18] that focuses on five strategic themes: (i) increased electricity access; (ii) improved financial sustainability; (iii) improved service delivery; (iv) enhanced institutional capacity; and (v) enhanced private sector participation

Despite some progress, there is a need to accelerate implementation of the Sector Recovery Plan to achieve key goals by 2030. The government has made significant progress on electricity access, from 13.5 percent in 2013 to 36 percent in 2023, and has also moved to rationalize tariffs in October 2023. However, there is a need to

17 A least cost development plan was prepared in 2021. Competitive procurement procedures were prepared but not implemented, and all new generation has been added via negotiated direct contracting. Advanced metering is in progress, but the focus needs to be on industrial customers. Improvements of the distribution network are underway. Promotion of private sector participation is under implementation but with delays.

18 Electricity Sector Reform Update 2023 - MCC

implement specific actions in a time-bound manner that would help the sector achieve two things by 2030: (i) reduce fiscal dependence of the power sector by reducing subsidies from 0.8 percent of GDP in 2023 to less than 0.2 percent of GDP; and (ii) enable the sector to achieve universal access. Figure 37 lays out a schematic of the Action Plan, summarizing its three areas of action (pillars) and a timeline to 2030.

Activities under Action Plan 2030 fall under three pillars:

Pillar 1- Green Energy Transition: transitioning away from expensive liquid fuel-based (HFO and diesel) generation to bring down costs and help meet power demand over the long term. This pillar includes activities such as setting up a payment plan for CLSG arrears and preparing and implementing a plan for transitioning out of liquid fuel-based generation;

Pillar 2- Improving EDSA Performance: taking a low-cost approach to reduce fiscal stress until a private sector partner comes on board and further improves EDSA performance. This pillar includes activities that will increase EDSA's billing and collections, improve its corporate governance, and enhance energy and commercial management.

Pillar 3- Policy and Regulatory Framework: to provide a clear, transparent, and comprehensive policy and regulatory framework to enhance sector viability especially as the government attempts to attract private investment. The pillar will focus on aligning sector policies and regulations to enable strategic private sector partnership at EDSA.

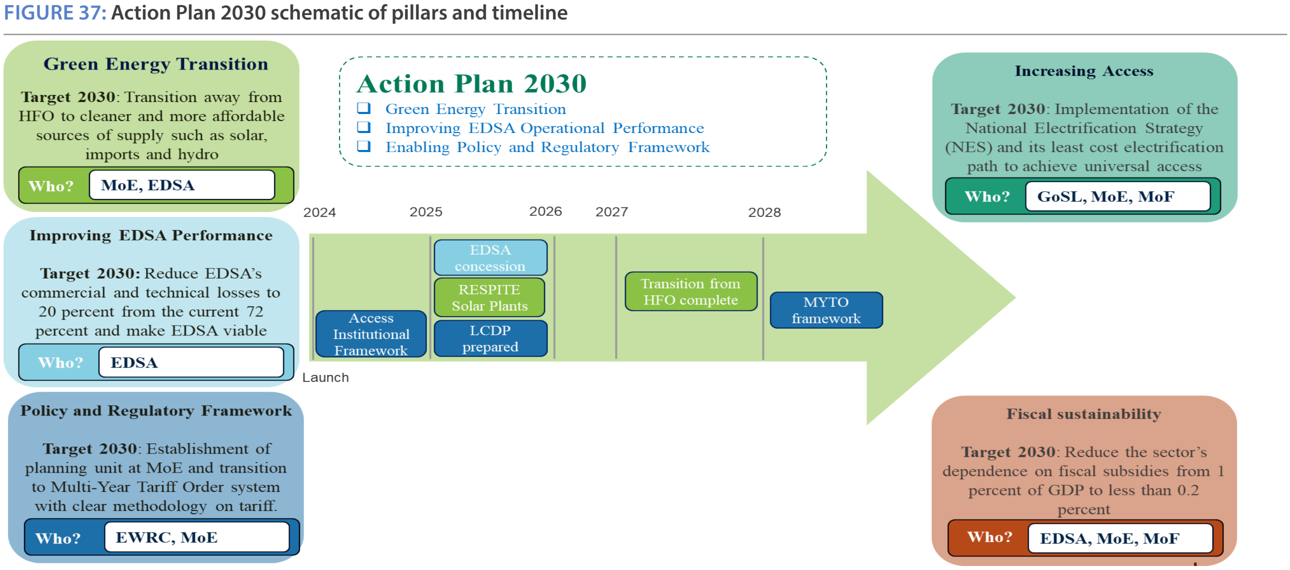
Pillar 1. Green energy transition

There is an urgent need to transition away from expensive liquid fuel-based generation to improve sector finances. In 2023, EDSA spent US$57 million purchasing HFO-based power, with the per unit cost hitting US$0.36 per kilowatt hour in December 2023, an amount greater than all revenues EDSA generated. HFO power purchases constitute the largest cost item for EDSA, partly because of the high cost of fuel in HFO generation and partly because HFO generation was not contracted through competitive procurement. If EDSA was to meet all demand during 2024-2030 using cheaper imported electricity instead of liquid fuel-based generation, it would save a cumulative US$1.18 billion.

To transition away from HFO-based generation, there is a need to prepare a clear and realistic plan. The plan will allow government to understand its needs and inform renegotiations of HFO generation contracts or competitive procurement of other generation, possibly clean energy, of 28 MW within the next 12 months. The government needs to put in place a clear payment plan for arrears that includes setting up a collections account with a 'waterfall' mechanism for prioritizing payments. A payment plan will help build credibility about government ability to pay for power purchases on time, which is necessary to attract new IPPs. In the medium term, there is a need to improve the transmission backbone to facilitate more electricity trade, institutionalize least cost generation planning, ensure that only competitive procurement is used for new generation, and finally, negotiate power purchase agreements with

Action Plan 2030 for the electricity sector lays out three pillars of action to achieve two key goals

FIGURE 37: Action Plan 2030 schematic of pillars and timeline



Source: World Bank and Government of Sierra Leone.

CLSG countries for more electricity imports. Expediting implementation of the World Bank-supported Regional Emergency Solar Power Intervention Project (RESPITE) that includes the construction of a 52 MW solar PV plant and 28 MW battery storage will help provide much needed generation. RESPITE also supports improvements to the existing 161 kilovolt transmission line to transport power from the CLSG interconnector to demand centers.

There have been recent attempts to increase supply by attracting new IPPs and increasing regional trade. The government recently announced that the US International Development Finance Corporation has approved financing for up to US$412 million (including US$120 million for risk insurance to attract the private sector) for the proposed 140 MW Western Area Power Generation Project. The proposed natural gas power project is expected to come online in 2027 and replace HFO generation in the country. The government has also tried to increase power imports from Guinea and Cote d'Ivoire using the CLSG line. These are positive and indeed critical steps that are needed to move the country away from expensive and polluting HFO, however, their viability depends on EDSA's ability to pay for power purchases and hence requires a massive improvement in EDSA operations.

Pillar 2. Improving EDSA performance.

The key to sector sustainability is improving EDSA's performance. As noted above, EDSA loses 50 percent of its energy before billing, an unsustainable situation for any business. On top of not being able to bill all the energy it provides; EDSA is not able to collect all the bills. At the end of 2023, government institutions, ministries and departments owed EDSA NLe454 millions (US$21 million) for electricity. Every billing cycle, EDSA collect only 80 percent of billed amounts on average. EDSA has taken some steps to improve its performance, such as implementing a Management Information System and improving its 33 kilovolt and 11 kilovolt networks as well as constructing new substations.

Relatively low cost actions can help improve EDSA performance by lowering losses and improving collections. A first key step is to clarify EDSA's operational and financial performance through a detailed audit. Then, EDSA should move to enforce that all commercial and management operations are carried out through the Management Information System which has been operational since February 2023. Another critical step is to update the customer database regularly to ensure that EDSA has all its customers in the system and can bill them properly. Since 3000 of EDSA's largest customers are responsible for over 40 percent of its revenues, installing tamper proof Advanced Metering Infrastructure meters for the largest consumers and ensuring a dedicated meter control center for monitoring will go a long way to improve collections. This should be followed by a strategy to reduce theft and implemented with support from other government agencies. Another important step is to ensure that arrears due from MDAs to EDSA are cleared and a collection mechanism is set up so that MDAs pay their electricity bills on time, both to improve EDSA's finances but also to signal government intention on timely payments of bills. EDSA is already trying to connect large customers such as mining companies in a bid to improve its collections. Finally, investments in the 33 kilovolt and 11 kilovolt networks need to continue to ensure that the grid can meet the growing demand in the larger Freetown area.

Improving EDSA's corporate governance is critical for introducing transparency and accountability in the sector. Although corporate governance rules exist and are followed by EDSA, implementation is weak. The EDSA Board's composition is dictated by law, but no formal requirements have been set for qualifications or expertise of Board members, apart from the Chairman of the Board. Delays in nominations have left the Board incomplete for many months. In addition, no formal calendar for Board meetings is set. The mandates of Board committees are not defined in written documents, and their performance is not assessed. On financial reporting, EDSA does not make its financial statements public, and it does not publish an annual report. Implementing established corporate governance best practices such as appointing a professional board with clear roles and responsibilities and regular financial reporting are key to improving EDSA performance. Moreover, clear qualification requirements should be set out for senior EDSA management positions, and recruitment should be through a competitive process, providing much needed technical expertise at the utility.

Privatizing the operations of EDSA can foster heightened efficiency, transparency, and performance. An experienced and technically capable private sector player could be effective in improving EDSA's operational and commercial performance, including reducing losses and increasing revenues over the medium to long term. The government is in the process of competitively recruiting such a private sector player. International experience in India and elsewhere in Sub-Saharan Africa has shown that an operations concession or 'Affermage contract' where the private operator is responsible for operating and maintaining the utility (but not for financing capital investments) can reduce losses and improve utility performance.[19] However, a key success factor in such an arrangement is to ensure there the right regulatory framework in place that monitors and enforces performance against set KPIs; allows for autonomy on the management of network operations including disconnection of consumers for non-payment and a commitment from Government on ensuring government agencies pay for energy consumed.

Pillar 3. Enabling the policy and regulatory framework

The policy and regulatory framework will need to be brought in line with the government's goal of bringing in private sector investments across the sector value chain. Policies and regulations need to be aligned with a prospective strategic private sector partnership at EDSA, including changes to the current policy framework (Electricity Act, EWRC Act, and 2010 Public Private Partnership Act). Other revisions will be needed to attract IPPs for expansion of generation capacity. A least-cost planning framework must be set up, and a planning unit must be established at the MoE for all sector planning, including the preparation of a long term least-cost generation plan. While the preparation of the plan is key, it is equally important to ensure that the plan is followed, and all new generation is added through competitive procurement. It is also important that EGTC takes over operations and maintenance of its generation assets and transmission line as specified in the law after adequate capacity is built among its technical staff.

[19] In such a model, the concessionaire has full freedom to determine human resource functions and run operations in the utility. The government retains ownership of the assets and is responsible for all power purchases and long-term investments in the sector. The concessionaire collects revenues which first are allocated for operational expenses and its fee and then are transferred to the government to make payments for power purchases and other charges.

Putting in place a transparent and reliable tariff-setting methodology is key to building investor confidence. The main issue about tariff reviews in Sierra Leone is the lack of clarity on what methodology or process is followed. The EWRC has struggled to impose its control over the sector, especially given its limited technical capacity and clear mandate over monitoring and enforcement of performance of sector entities. At present, the tariff-setting methodology is not clear nor public, and no set procedure for adjustments or reviews is being followed. For the private sector to have the confidence to invest, the tariff methodology and review process will need to be clear as to how their investments and O&M expenses will be recovered through the tariff; and the allows for timely adjustments to accommodate shocks due to foreign exchange movement. This will ensure that the experience of 2022 and 2023, when currency depreciation completely upended the tariff rationalization, is not repeated. In the medium term, EWRC wants to move to a multi-year tariff order mechanism, which will require a review of the methodology and adjustment procedures to make them clear and transparent.

Projecting Action Plan Outcomes: Increased Access and Reduced Fiscal Dependency

The Government of Sierra Leone has two main goals under the Action Plan for the power sector: increasing access to electricity and reducing the fiscal dependency of the sector by 2030. The Action Plan outlined above will allow the sector to become financially sustainable, with EDSA able to meet its power purchase requirements, contribute to clearing arrears and able to fund future investments. This will allow EDSA to focus on making the investments needed to expand and densify the network to increase access. At the same time, EDSA's financial sustainability will mean the pressure on government budget from the sector will be reduced. Detailed actions by Pillar to implement the Plan, as well as possible impacts of each action, are summarized in Table 5.

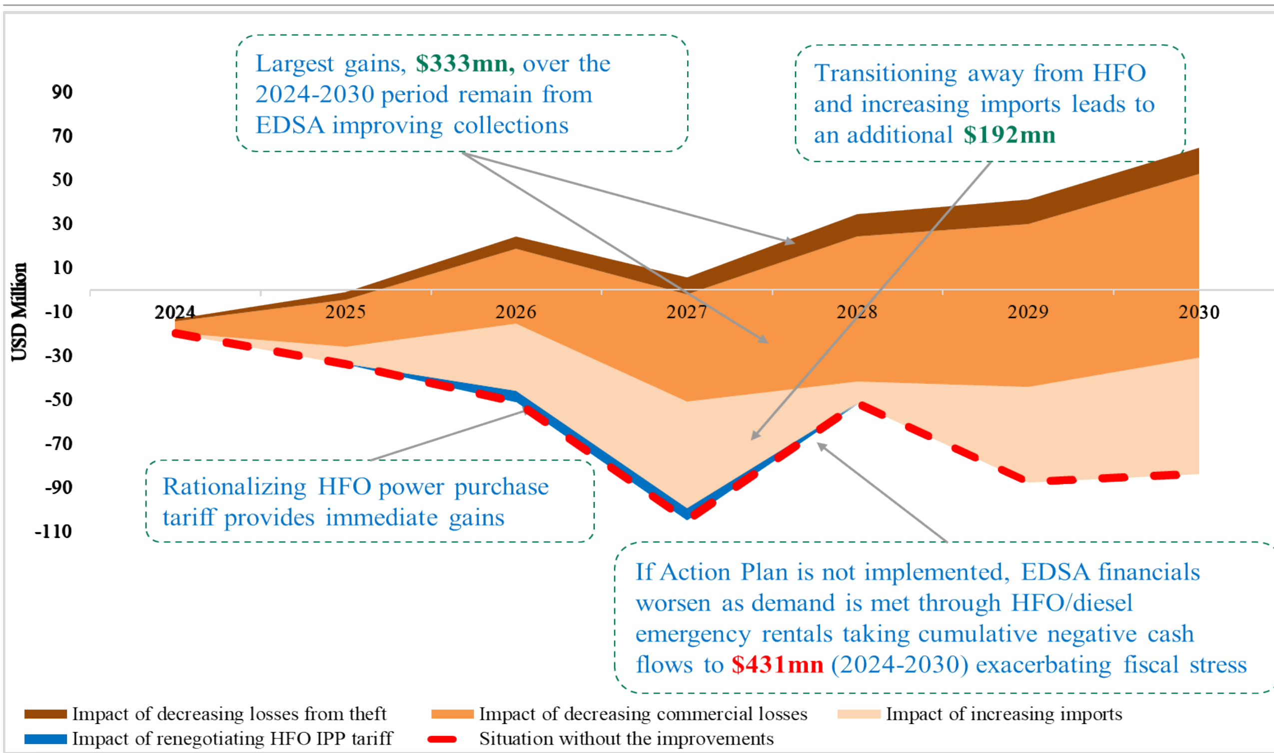
Implementing the entire set of activities under the Action Plan 2030 can turn EDSA into a financially viable utility able to clear all arrears by 2029. Given the large fiscal footprint of the sector as it stands today, it is important to model the impact of implementing the Action Plan 2030. A few assumptions are made to model this scenario. On generation, it is assumed that HFO-based power is used (with gradually reducing capacity until 2027), RESPITE solar comes online in 2025, the Western Area Power Generation plant comes online in 2027 with 83 MW, and CLSG imports increase to 110 MW to meet demand. It is also assumed that demand grows at 7 percent annually, and EDSA can meet almost all demand (so that unmet demand falls to less than 7 percent). It is also assumed that EDSA will not accrue any more arrears with IPPs or exporters and pay its power purchase invoices, while its collection losses are reduced to 3 percent by 2030, and technical and commercial losses fall to 21 percent by 2030 (Figure 38).

Implementing the Action Plan 2030 can lead to EDSA becoming a financially viable utility able to pay its bills and eliminating its dependence on government finances. The status quo scenario which assumes new solar and gas additions as well as Bumbuna added by 2030 but with no improvements in losses sees EDSA accumulating US$431 million in losses. By rationalizing the HFO power purchase contracts and transitioning away from HFO-based generation by 2027 through increased imports, EDSA adds US$192 million to its cash flows, getting closer to sustainability. However, the largest improvement comes through reduction in EDSA losses. Over the period 2024-2030, if EDSA manages to improve its losses to about 25 percent (combined technical, commercial and collections) from the current 72 percent, EDSA will add US$333 million to its cash flows. This would mean that EDSA would be able to generate positive cash flows by 2027 and clear all arrears by 2029. .

Implementing the Action Plan will allow EDSA to clear its arrears with power purchasers, reducing the need for government intervention. The analysis above highlights the importance of reducing EDSA's losses, improving collections and transition away from expensive sources of power supply such as HFO-based generation. The measures outlined in the Action Plan will begin to generate positive cash flows at EDSA as early as 2027, allowing for the utility to slowly draw down on its arrears with IPPs and CLSG. However, a clear payment plan and waterfall framework for all arrears and future payments for IPPs and CLSG imports is needed immediately. It is critical for the Government to build credibility, in terms of its ability to pay for power purchases on time, allowing for increased power purchases on CLSG and attracting IPPs. If the reform plan is implemented and the private sector also brought on board by 2025, EDSA's dependence on fiscal transfers will be reduced to zero.

The largest financial benefits of implementing the Action Plan for the power sector are likely to come from improved collections by EDSA.

FIGURE 38: Financial impact of implementing Action Plan 2030



Source: Sierra Leonean authorities and World Bank staff estimates.

Table 6: Detailed Sierra Leone Power Sector Action Plan 2030

	Action	Description	Institution Responsible	Deadline	What Impact these Steps Could have
Pillar 1 Green Energy Transition					
1	Prepare Energy Transition Plan	A clear short-term transition plan to replace emergency IPP with increased imports and more generation	MoE	Oct-24	Provide a clear transition framework for GoSL
2	Expedite RESPITE Implementation	Expedite RESPITE implementation to get 52 MW of additional solar power to supply Freetown	EDSA PIU, MoE	Mar-25	Reduce dependence on HFO and increase renewable generation
3	Renegotiate HFO IPP contract or competitively procure replacement	The HFO IPP contract is scheduled to be completed in 2025. Renegotiate contract with new terms and completion by 2027 or explore competitive procurement of rental power for two years	Government of Sierra Leone	Dec-24	Reduce power purchase costs. ex. In Dec invoice from IPP was $0.36/kWh
4	Prepare Payment Plan for CLSG	CLSG payment plan using waterfall mechanism to clear arrears and provide confidence to exporters	Government of Sierra Leone (MoF, MoE)	Dec-24	Provide confidence to CLSG exporters (Cote D'Ivoire and Guinea) that they will receive payments allowing for Sierra Leone to negotiate for larger PPAs leading to reduced power purchase costs.
5	Set up a Collection Account with Waterfall Payment Mechanism	As a follow up to the payment plan for CLSG a collections account is set with a clear waterfall mechanism	MoE, MoF, EDSA	Oct-24	
6	Increase Imports	Negotiate increased PPA and transmission service agreement with Cote D'Ivoire and Guinea	MoE, MoF, EDSA	Jun-25	Provide long term clarity to private sector and development partners on least cost generation options that should be pursued in a competitive manner.
7	Update and implement Least Cost Generation Plan and institutionalize competitive procurement	Update the existing IRP and Least Cost Development Plan to prepare a clear long term least cost generation plan leveraging imports, hydro and solar potential. Implement LCDP and increase generation capacity through competitive procurement of least cost generation.	MoE	Jun-25	
8	Improve 161 kilovolt line capacity	Complete tendering process to increase capacity of 161 kilovolt line to transmit more electricity to Freetown	EDSA PIU	Jun-25	Provide the necessary infrastructure to transport power, especially imports across the country in an efficient manner.
9	Improve transmission backbone	Enhance transmission backbone to increase capacity for imports	Government of Sierra Leone	Dec-30	
Pillar 2 Improving EDSA Operational Performance					
10	Optimize MIS Implementation	Map all customers in the CMS, regularly update customer database, ensure managers use system for day-to-day processes, ensure EDSA's organogram is reflected correctly in the MIS, organize regular training for key staff, OMS needs to be implemented properly to allow for outage recording	EDSA	Jun-25	Increase accountability and transparency within EDSA leading to better management of energy and commercial operations
11	EDSA energy purchases and collections Audit	Complete a comprehensive audit of energy purchases and collections for EDSA	EDSA	Aug-24	Provide a clear status of EDSA losses to inform decision making

	Action	Description	Institution Responsible	Deadline	What Impact these Steps Could have
12	Establish a Meter Control Center	Establish a 24/7-meter control center in EDSA to monitor the largest 3000 customers	EDSA	Oct-24	Improve collections and protect revenues. Provide clear KPIs for EDSA performance.
13	Improve Metering	Install smart meters (Advanced Metering Infrastructure) especially for 3000 largest customers and all postpaid clients	EDSA	Dec-24	
14	Connect High Value Customers	Connect high consumption customers such as mining among others	EDSA	Ongoing	
15	Establish Performance Contract	Establish a performance contract between EDSA and Government of Sierra Leone based on clear KPIs	EDSA, MoE	Dec-24	
16	Institutionalize Financial Reporting	Incorporate regular financial reporting publicly	Government of Sierra Leone	Dec-24	Improve corporate governance, increase transparency and accountability. Provide technical expertise to reduce losses
17	Professionalize EDSA Board	Appoint technically experienced people to EDSA Board with clear roles and responsibilities.	Government of Sierra Leone	Oct-24	
18	Clarify Board Role	Develop formal written corporate charter clarifying clear duties and obligations of Board and its committees	EDSA	Oct-24	
19	Recruit COO	Recruit experienced COO to manage technical operations	EDSA	Aug-24	
20	Clear MDA arrears	Clear arrears with MDAs while densifying grid and implementing anti-theft strategies including legal and policy changes.	Government of Sierra Leone	Dec-24	Protect revenues and improve collections. Provide signal to consumers to pay bills
21	Create Call Center	Create a full scope call center integrated with the Call Center System in MIS can go a long way in improving customer experience	EDSA	Dec-24	Improve consumer experience and allow for proper recording of issues
22	Establish a Walk-in Center in Freetown	Walk in center operations should be separated from Call Center operations	EDSA	Dec-24	
23	Implement Anti-Theft Strategy	Implement strategies to eliminate theft is critical and may include legal and policy changes. Strict implementation of measures is necessary for both customers as well as EDSA staff enabling theft	EDSA	Jul-25	Reduce commercial losses
24	Continue Investment in 33 kilovolt and 11 kilovolt network	Improve kilovolt networks and substations around Freetown will reduce losses	EDSA	ongoing	Reduce technical losses
Pillar 3 Enabling Policy and Regulatory Framework					
25	Prepare for Private Sector Partnership	Align policies and regulations to lay groundwork for strategic private sector partnership at EDSA	MoE, MoF, EDSA, EWRC	Dec-24	Support private sector partnership in EDSA
26	Set Up Planning Unit at MoE	Set up planning unit at MoE that is responsible for all sector planning and is responsible for preparing a long term least cost generation plan	MoE	Dec-24	Provide long term planning expertise
27	Competitive procurement of generation	Formalize competitive procurement of new generation in line with the Least Cost Development Plan	Government of Sierra Leone	Dec-25	Lead to procurement of affordable power
28	Establish multi-year tariff order mechanism framework	Review and update EWRC Tariff Rules established in 2019 to prepare for a multi-year tariff mechanism	EWRC	Jul-28	Clarity on tariff outlook for private sector

Notes: GoSL= Government of Sierra Leone. MIS = Management Information System.

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