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ZAMBIA

JOINT WORLD BANK-IMF DEBT SUSTAINABILITY ANALYSIS

Approved by:

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ZAMBIA: JOINT BANK-FUND DEBT SUSTAINABILITY ANALYSIS	
Risk of external debt distress	In debt distress
Overall risk of debt distress	In debt distress
Granularity in the risk rating	Unsustainable
Application of judgment	No

Zambia remains in debt distress. The stock of external arrears reached 11½ percent of GDP by end-year 2022 and continued accumulating in 2023 in the absence of a debt restructuring agreement. Despite significant fiscal adjustment, in the absence of a signed debt restructuring agreement, Zambia is in overall and external debt distress and public debt remains unsustainable. Under the baseline, all four external debt burden indicators would breach their indicative thresholds by large margins through the medium term.[1] The authorities have reached an agreement with official bilateral creditors on a debt treatment under the G20 Common Framework, formalized in a Memorandum of Understanding, and have a credible strategy in place to treat commercial creditors on comparable terms. Several rounds of discussions took place with Eurobond holders in October/November 2023. While significant progress has been achieved, adjustments still need to be made to meet both program parameters and the OCC Comparability of Treatment (CoT) requirements. Under an alternative scenario, where the treatment agreed with the official bilateral creditors is applied to the baseline and commercial claims are treated on comparable terms, debt would be assessed to be sustainable on a forward-looking basis.

[1] Zambia's debt-carrying capacity is rated as weak based on the composite indicator (CI). The composite indicator is calculated using data from the October 2023 WEO and the 2022 CPIA, the latest available.

PUBLIC DEBT COVERAGE

1. **The coverage of Zambia's public and publicly guaranteed (PPG) debt for the purpose of the DSA includes as in the previous DSA the following:** i) central government domestic and external debt, including US$1.5 billion of arrears to external suppliers (fuel and contractors) and central government guaranteed external debt; ii) the nonguaranteed external debt of Zambia Electricity Supply Company (ZESCO), the fiscally important state-owned utility;[2] and iii) the domestic and external arrears of the same enterprise. Central bank external debt (including outstanding Fund credit), together with the debt of social security funds guaranteed by the central government,[3] are also included in the coverage.

2. **The DSA incorporates non-guaranteed SOE debt in the baseline**. In accordance with the LIC-DSF Guidance Note, given the significant fiscal risks posed by ZESCO, its non-guaranteed external debt (US$93 million at end-2022)[4] and outstanding payables to domestic (US$1.5 billion at end-2022) and external (US$139 million at end-2022) independent power producers (IPPs), are included in the DSA perimeter. The authorities are taking steps to restore ZESCOs' financial viability over the medium term. As progress is made, the inclusion of its non-guaranteed debt in the DSA debt perimeter will be reassessed. The authorities reported no other outstanding non-guaranteed external debt of nonfinancial SOEs that staff consider to pose a contingent fiscal risk warranting inclusion in the DSA. Local governments in Zambia currently cannot borrow externally without the central government's guarantee. The authorities confirmed that no extrabudgetary funds with outstanding external debt currently exist.

3. **The 2021 General SDR allocation has been incorporated into the DSA in line with the staff guidance note.**[5] The authorities have used the SDR allocation (approved by the IMF in August 2021) to finance the budget over 2022-23;[6] in line with their plans, they used 50 percent of the allocation in 2022, and another 50 percent in 2023, respectively, as domestic market pressures increased in the first half of the year.

4. **The DSA is conducted on a residency basis**. In line with the LIC-DSF Guidance Note, nonresident holdings of domestic-currency debt (as recorded by the authorities) are treated as external debt for the purpose of this DSA, while recognizing the underlying measurement challenges. End-September 2023 data indicates the stock held by non-resident increased during 2023H2 and is projected to reach K 54.1 billion by end-2023, (US$2.5 billion or 24 percent of the outstanding domestic-currency government securities). This compares with a stock of K 47.4 billion (about US$2.6 billion, 23 percent of outstanding domestic-currency government securities) at end-2022. Due to the projected depreciation of

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[2] The government guaranteed debt of ZESCO and other SOEs has always been included in the DSA and is now also part of the authorities' officially published debt metric. ZESCO's contingent risks to the sovereign relate to its persistent and large cash deficits. See *Guidance Note on the Bank-Fund Debt Sustainability Framework for Low Income Countries*, 2018, https://www.imf.org/en/Publications/Policy-Papers/Issues/2018/02/14/pp122617guidance-note-on-lic-dsf

[3] As of end-December 2022, this debt consists solely of an outstanding government guaranteed external loan to the Public Service Pension Fund of US$52.7 million.

[4] ZESCO generated sufficient revenues in 2022 to continue servicing its nonguaranteed external debt.

[5] See Guidance Note for Fund Staff on the Treatment and Use of SDR Allocations, August 2021, https://www.imf.org/en/Publications/Policy-Papers/Issues/2021/08/19/Guidance-Note-for-Fund-Staff-on-the-Treatment-and-Use-of-SDR-Allocations-464319.

[6] Equivalent to about US$1.3 billion.

the exchange rate by end of the year, the dollar amounts of the stock held by non-residents is decreasing. The authorities are restricting participation of non-residents in the primary market given the debt sustainability risks. In 2024-25, a limit of 5 percent of the face value of gross domestic bonds issuance will be applied in line with the agreement on the restructuring perimeter reached with the OCC in June 2023.

Text Table 1. Zambia: Public Debt Coverage and the Magnitude of the Contingent Liability Tailored Stress Test

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

1	**The country's coverage of public debt**	The central government plus social security, central bank, government-guaranteed debt, non-guaranteed SOE debt			
		Default		Used for the analysis	Reasons for deviations from the default settings
2	Other elements of the general government not captured in 1.	0	percent of GDP	0.0	
3	SoE's debt (guaranteed and not guaranteed by the government) 1/	2	percent of GDP	12.0	ZCCM-IH purchase of Mopani from Glencore.
4	PPP	35	percent of PPP stock	1.4	
5	Financial market (the default value of 5 percent of GDP is the minimum value)	5	percent of GDP	5.0	
	Total (2+3+4+5) (in percent of GDP)			18.4	

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

BACKGROUND ON DEBT

5. **The July 2023 DSA, assessed Zambia's debt risk as in debt distress.**[7] This followed Zambia's default on its sovereign Eurobonds in 2020 and the accumulation of arrears to both official bilateral and other commercial external creditors. Note that the accumulation of arrears in 2023 only relates to claims in the debt restructuring perimeter. To help address their debt sustainability challenge, the authorities requested a debt treatment under the G20 Common Framework (CF) in January 2021.

6. **The Official Creditor Committee (OCC) under the CF, formed in June 2022, reached agreement on a memorandum of understanding (MoU) on terms of the debt restructuring in October 2023.** The OCC delivered the necessary financing assurances to support the IMF-supported program request in July 2022 and enabled the World Bank to approve Development Policy Financing in October 2022. The MoU reflects the agreed debt treatment consistent with program parameters announced in June 2023. In parallel, the authorities engaged in good faith negotiations with its Eurobond holders, facilitated by the bondholder committee that was established in July 2020, and other external private creditors. An agreement in principle for restructuring Zambia's Eurobonds, announced in October 2023 had to be revisited to ensure consistency with program parameters and Comparability of Treatment (CoT) requirements as set by the OCC. While good progress has been achieved, the treatment for private creditors remains under negotiation to ensure CoT as defined by official bilateral creditors and alignment with LIC-DSF debt sustainability parameters.

[7] Zambia: Request for an Arrangement Under the Extended Credit Facility-Press Release; Staff Report; Staff Supplement; Staff Statement; and Statement by the Executive Director for Zambia. The LIC DSF Guidance Note (footnote 2) calls for an assessment of 'in debt distress' when restructuring with the majority of commercial creditors has not been completed.

7. **Zambia's external PPG debt increased to US$20.9 billion by end-2022.** This reflected close to US$1 billion in new foreign-currency denominated external debt disbursements to the central government—principally by the IMF and World Bank—and an increase in interest arrears on central government foreign currency-denominated external debt of about US$397 million in 2022. The stock of expenditure arrears (fuel and contractors) due to non-resident suppliers, together with the stock of ZESCO's arrears to external IPPs was broadly unchanged at US$1.7 billion at end-December 2022. However, the stock of non-resident holdings of domestic-currency debt declined significantly to US$2.6 billion by end-2022. In parallel, while further interest arrears (of US$62 million) also accumulated on government guaranteed external debt, ZESCO's non-guaranteed external debt declined by US$42.5 million as it generated sufficient revenues in 2022 to continue servicing it. As a result, external PPG debt ended the year about US$896 million higher (see text Table 1). In parallel, the outstanding stock of domestically-issued government securities stood at K 210 billion at end-2022 (or 44 percent of GDP), up from K 193 billion a year ago. With domestic budget arrears declining, and ZESCO domestic IPP arrears remaining flat, total PPG debt ended 2022 at US$33.4 billion (or 119.6 percent of GDP).

8. **By end-September 2023, the stock of public and publicly guaranteed (PPG) external debt (excluding interest arrears, fuel, contractors and guarantees on ZESCO other payables) amounted to US$15.6 billion**. This includes US$14.2 billion attributed to the central government and US$1.4 billion in guaranteed external obligations. Non-guaranteed liabilities decreased to US$0.2 million at end-September 2023 due to principal repayments by ZESCO. The domestic debt stock increased, consistent with planned domestic financing, whilst external financing remained constrained. The stock of government securities reached K 221.7 billion at end-September 2023, an increase of 5.5 percent from K 210 billion as at end-December 2022, of which 25 percent were held by non-residents.

9. **The creditor composition of external debt (see text Table 1) reflects the representation of the official creditors in the OCC.** Official representatives of some countries with eligible claims represented in the OCC have made requests to re-classify their claims backed by an official export-credit agency as commercial claims, in particular China has requested to re-classify all Sinosure-backed commercial claims as private claims.[8] These claims are now included as part of commercial creditors' claims, and the arrears related to these claims are considered as arrears to the private sector for the purpose of the application of Fund's policies. Given this classification, commercial creditors share in total external debt has reached 12¾ percent in this DSA update.

[8] Under the Debt Service Suspension Initiative (DSSI), China requested to classify its national development bank, the China Development Bank, as a commercial creditor. This is consistent with the classification requested under the Common Framework.

Text Table 2. Zambia: Public and Publicly Guaranteed Debt Stock—Creditor Composition and Contracted Debt Service[1] (as of end-2022)

	Debt stock (end of period) [2]			Debt service [3]			
	2022			2023	2024	2023	2024
	(In US$)	*(Percent total debt)*	*(Percent GDP) [10]*	*(In US$)*		*(Percent GDP)*	
Total	33,349	100.0	122.1	5,443	6,412	18.7	22.0
External Foreign-Currency Debt	18,324	54.9	67.1	2,452	3,330	8.4	11.4
Multilateral creditors[4]	3,563	10.7	13.0	139	149	0.5	0.5
IMF	186	0.6	0.7				
World Bank	2,078	6.2	7.6				
ADB/AfDB/IADB	886	2.7	3.2				
Other Multilaterals	413	1.2	1.5				
o/w EIB	195	0.6	0.7				
o/w IFAD	136	0.4	0.5				
Bilateral creditors[5]	6,315	18.9	23.1	1,053	1,027	3.6	3.5
Paris Club	1,474	4.4	5.4	301	291	1.0	1.0
o/w: Israel	473	1.4	1.7				
o/w: UK	238	0.7	0.9				
Non-Paris Club	4,842	14.5	17.7	752	737	2.6	2.5
o/w: China	4,137	12.4	15.1				
o/w: India	331	1.0	1.2				
Eurobonds	3,517	10.5	12.9	451	1,408	1.5	4.8
Commercial creditors	3,235	9.7	11.8	809	746	2.8	2.6
Fuel arrears	721	2.2	2.6	n/a	n/a	n/a	n/a
Arrears to external contractors	832	2.5	3.0	n/a	n/a	n/a	n/a
ZESCO external IPP arrears	139	0.4	0.5	n/a	n/a	n/a	n/a
Domestic-Currency Debt	15,025	45.1	55.0	2,991	3,081	10.3	10.6
Held by residents, total	8,993	27.0	32.9	2,550	3,347	8.8	11.5
Held by non-residents, total	2,621	7.9	9.6	441	314	1.5	1.1
T-Bills	2,211	6.6	8.1	2,000	2,000	6.9	6.9
Bonds	9,403	28.2	34.4	991	1,082	3.4	3.7
Loans	-	-	-				
Domestic budget arrears and ZESCO domestic IPP arrears	3,412	10.2	12.5				
Memorandum Items:							
Collateralized debt[6]	2,428	7.3	6.9				
o/w: Related							
o/w: Unrelated							
Contingent liabilities	n/a	n/a	n/a				
o/w: Public guarantees							
o/w: Other explicit contingent liabilities[7]							
SOE guaranteed external debt[8]	1,517	4.5	4.3				
SOE non-guaranteed external debt (ZESCO)[8]	93	0.3	0.3				
Total external PPG debt[9]	20,944	62.8	59.9				
Nominal GDP	29,122						

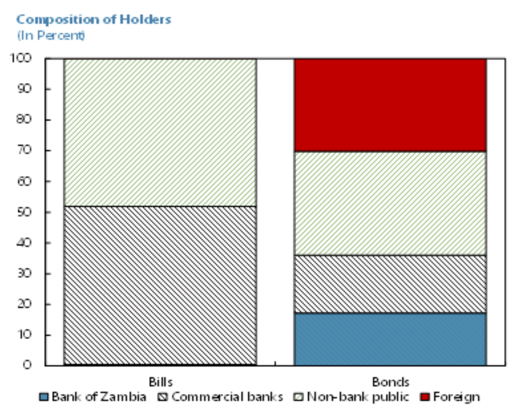
1/ Based on end-December 2022 data from the authorities (before the application of the debt treatment) and IMF staff estimates. It includes arrears on principal and interest. It does not include any penalty fees or interest on the arrears.
2/ Includes direct debt to central government, SOE guaranteed debt and non-guaranteed debt of ZESCO
3/ Contracted debt service; creditor classification according to the OCC representation.
4/ "Multilateral creditors" are simply institutions with more than one sovereign as a shareholder and may not necessarily align with creditor classification under other IMF policies (e.g. Lending Into Arrears).
5/ Includes loans to central government and loans backed by guarantee from an official export-credit agencies, except Sinosure backed commercial claims.
6/ Based on latest available data, as of end-December 2022, there was around $2.5 billion of disbursed external foreign-currency debt (inlcuding non-guaranteed debt of ZESCO) with some form of security or escrow arrangement that could be considered as collateralized debt, including debt with a government guarantee or third-party (exporter) guarantee as security. Almost all this debt is in arrears and, where the security or escrow provides for a claim on funds in a specific account, the authorities have reported zero balances in those accounts. The exception is the non-guaranteed external debt of ZESCO which is collateralized with receivables and which is being serviced. Debt is collateralized when the creditor has rights over an asset or revenue stream that would allow it, if the borrower defaults on its payment obligations, to rely on the asset or revenue stream to secure repayment of the debt. Collateralization entails a borrower granting liens over specific existing assets or future receivables to a lender as security against repayment of the loan. Collateral is "unrelated" when it has no relationship to a project financed by the loan. An example would be borrowing to finance the budget deficit, collateralized by oil revenue receipts. See the joint IMF-World Bank note for the G20 "Collateralized Transactions: Key Considerations for Public Lenders and
7/ Based on information received, there are no such contingent liabilities. Includes other-one off guarantees not included in publicly guaranteed debt (e.g. credit lines) and other explicit contingent liabilities not elsewhere classified (e.g. potential legal claims, payments resulting from PPP arrangements).
8/ Reflected in external foreign-currency public debt in this table.
9/ Total PPG external debt comprises total external foreign-currency debt, domestic-currency debt held by non-residents, fuel arrears, arrears to external contractors, and ZESCO non-guaranteed external debt and arrears.

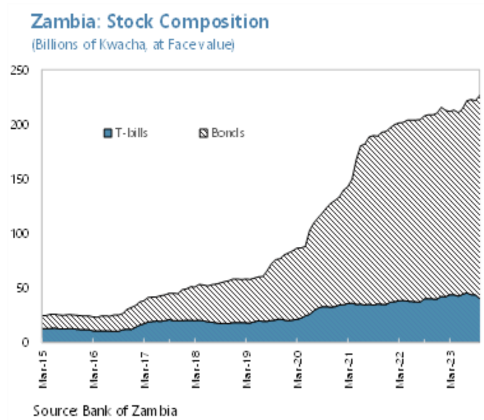
10/ The debt-to-GDP ratios are calculated from the value in national currency by converting outstanding debt in US dollars at eop exchange rate, and nominal GDP at average period exchange rate.

Sources: Zambian authorities and IMF staff calculations.

10. Zambia remains without access to international capital markets. After peaking at 6,954 basis points (bps) on March 20, 2023, weighted average spreads on Eurobonds narrowed to 1,959 bps by end-October. Reflecting a decrease in uncertainty around the debt restructuring process, non-resident investors came back to the domestic debt market in 2023, notably in the bonds market, reaching 30 percent of total bonds issued by end-September 2023. As a consequence, the share of non-resident holders of domestic debt is projected to increase to 24 percent at end-2023, up from about 22.5 percent at end-2022, but still lower than a peak of around 29 percent earlier in 2022 (see Text Figure 1). The return of non-residents led to an increase in demand at bond auctions and domestic yields began to come down since end-August. Financing risks remain elevated consistent with the DSF market-financing module, although the signal of this module is currently less relevant given Zambia is currently shut-out from international markets (Figure 5).

Text Figure 1. Zambia: Profile of Central Government Domestically Issued Securities (end-September 2023)





Sources: Zambia authorities and IMF staff estimates

MACROECONOMIC ASSUMPTIONS

The macroeconomic framework underpinning this DSA is consistent with the baseline of the Second Review of the ECF program. Key changes from the previous DSA include a slight upward revision to real GDP growth, less fiscal adjustment in 2023, a more deteriorated current account balance in the near term, and a weaker exchange rate.

11. Recent developments. Despite supply-chain and weather-related disruptions in the mining sector, real GDP is estimated to have grown by 5.2 percent in 2022 and projected to reach 4.3 percent in 2023. Fiscal performance in 2022 was strong with a 6.6 percentage point improvement in the primary balance (on a commitment basis), leading to surplus of 0.8 percent of GDP. In 2023, due to an underperformance in mining revenues, the surplus decreased to 0.6 percent. In parallel, the primary balance on a cash basis improved by 1.8 percentage points of GDP to a surplus of 0.2 percent of GDP in 2023, including on the back of accumulation of expenditure arrears.

12. Growth. Growth assumptions for 2023-28 have been revised slightly upward from the previous DSA, including to reflect the robust performance of 2022 and 2023. Reflecting the perceived improvement in the business environment, Zambia Development Authority (ZDA) reported a significant increase in interest in direct investment opportunities in 2022. The authorities selected a new strategic partner for Mopani Copper Mines on December 1, 2023, and have found an investor to resolve the situation with Konkola Copper Mines, both of which would boost copper and cobalt production significantly. Growth is expected to average around 4.8 percent over 2023-32, a slight improvement from the previous DSA. Structural, fiscal, and institutional reforms are projected to build the foundation for sustained growth over the long run that is driven by a competitive private sector. For example, the improved mining fiscal regime should contribute to meeting the authorities' target of tripling copper production by 2030, while measures to implement the WTO Investment Facilitation Agreement and the AfCFTA Investment Protocol should attract increased FDI more generally, implementation of ZESCO's turnaround plan and the introduction of a five-year electricity tariff schedule should bring financial sustainability to the power sector and attract investments in new generation in line with the Ministry of Energy's Integrated Resource Plan that was approved in November 2023. Implementation of the Comprehensive Agricultural Transformation Support Programme should increase agricultural productivity and the sector's resilience to climate change. Reorienting of expenditure away from inefficient subsidies and toward investments in education, health, and social protection will help build human capital. Decentralization of public services to the communities is anticipated to increase the efficiency of spending and aid reforms to increase budget credibility and fight corruption.

13. Inflation. Near-term Inflation projections have been revised upwards relative to the previous DSA. At the end of 2022, inflation dropped to 9.9 percent from the 24.6 percent peak in August 2021, but picked up in the beginning of 2023. Delays in signing the Memorandum of Understanding with the OCC and reaching an agreement with the Eurobonds holders have adversely affected confidence, with kwacha depreciating and inflation projected to increase to 13 percent by end-2023.[9] The Bank of Zambia tightened monetary conditions—increasing both the monetary policy rate and statutory reserve requirements on deposits—in response to emerging inflationary pressures. Over the medium term, inflation is projected to stabilize around the mid-point of the Bank of Zambia target band, broadly unchanged from the previous DSA.

[9] The inflation figures in the text refer to end of period projections, while Text Table 3 shows the average over the period assumptions.

Text Table 3. Zambia: Macro and Debt Assumptions

	2020	2021	2022	2023	2024	2025	2026	2027
				(Annual percentage change)				
Real GDP Growth								
July DSA	-2.8	4.6	4.7	3.6	4.3	4.5	4.7	5.0
Current DSA	-2.8	6.2	5.2	4.3	4.7	4.8	4.8	4.9
Inflation								
July DSA	15.7	20.5	11.0	10.6	9.6	7.5	7.0	7.0
Current DSA	15.7	20.5	11.0	11.0	11.4	7.8	7.0	7.0
GDP Deflator								
July DSA	13.7	27.6	8.6	12.1	9.9	7.3	6.9	6.5
Current DSA	13.9	25.1	6.1	10.2	10.6	7.6	6.6	6.7
				(Percent of GDP)				
Primary Deficit (on Commitment Basis)								
July DSA	10.1	5.8	-0.8	-2.0	-2.9	-3.3	-2.4	-2.6
Current DSA	10.1	5.8	-0.8	-0.6	-2.9	-3.7	-2.7	-2.6
Non-Interest Current Account Balance								
July DSA	15.0	13.3	3.5	7.5	9.7	10.8	10.8	11.1
Current DSA	14.9	19.1	7.2	0.6	6.7	8.1	9.6	11.6
Net FDI Inflows								
July DSA	1.0	0.7	1.7	2.1	2.8	3.7	4.5	4.5
Current DSA	1.0	3.1	1.2	1.3	2.0	2.9	3.8	2.7
				(Percent)				
Avg. Nominal Interest Rate on External Debt								
July DSA	5.8	4.8	3.0	3.7	3.7	3.9	3.9	4.0
Current DSA	5.8	4.8	3.0	3.7	4.0	3.9	4.8	5.1
				(Millions of dollars)				
Project Loan Disbursements (Incl. Guarantees)								
July DSA	1424	522	396	505	363	279	237	324
Current DSA	1424	522	396	559	417	447	297	204

Source: IMF staff projections.

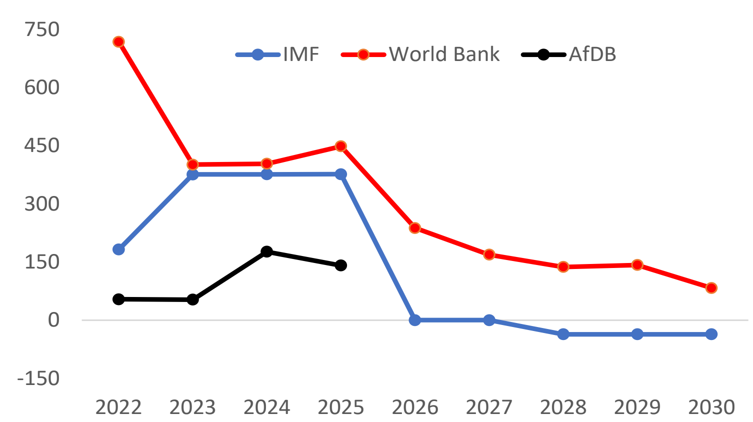
Note: Zamstats revised upwards its 2021 and 2022 GDP growth rates since the previous DSA update.

14. External. The medium-term outlook for the external position remains broadly unchanged from the previous DSA, with a significant improvement expected over the program period. The current account deteriorated by US$1.6 billion in 2023 on account of a significant decline in the trade balance, turning into a deficit of about US$505 million. Export growth was lower than projected in the ECF-request on account of weaker copper production. Economic recovery, fiscal expansion, high fuel and energy prices did lead to an increase in imports by US$0.9 billion. The fall in mining export revenues led to a sharp decline in assets held abroad by resident and a decline in the financial account, despite the return of non-residents to the domestic market, and a slight improvement in net FDI flows. Due to these pressures, the Bank of Zambia is not expected to increase the level of gross reserves to the level estimated at the time of the first review. The external position is projected to improve following the debt restructuring and the continued implementation of policies under the program that will reduce the deficit, improve business confidence, and attract further foreign direct investment. The current account balance is expected to register an average of 7 percent of GDP surplus for the period 2023-2032, a slight decrease from the previous DSA. The global green energy transition should boost long-term demand for Zambia's copper, cobalt, and other mineral resources. The improved current and financial accounts are expected to support the build-up of FX reserves to the targeted five months of prospective imports by the end of the program.

15. Fiscal. Fiscal performance is expected to continue improving under the program. Building on the success in delivering a sharp consolidation in 2022, and to continue helping place public debt on a declining path, the primary balance (commitment basis) is targeted to further improve to a surplus of 3.7 percent of GDP by 2025 (an additional 3.1 percentage point adjustment relative to 2023). Revenues (adjusted for arrears on VAT refunds) are projected to increase to 22 percent of GDP by 2025, compared to their 2019 (pre-COVID) level of 19.6 percent of GDP, underpinned by the authorities' medium-term revenue mobilization plan, which includes eliminating tax expenditures (implicit subsidies) on fuel worth about 1.2 percent of GDP, together with other measures to broaden the tax base and strengthen compliance. The authorities are making further efforts to improve spending efficiency by strengthening cash management and commitment controls and through new systems for screening and approving new public investment projects. Implementation of a new Public-Private Partnership Law should enable the authorities to close Zambia's infrastructure gaps by mobilizing private capital to finance the public investment program. Overall, these efforts are projected to translate into a further adjustment of 1.6 percentage points in the primary balance (cash basis).

16. Financing. Financing assumptions are guided by the debt conditionality under the program. Looking ahead, domestic borrowing will remain a key source of financing for Zambia, though concessional borrowing—primarily from the IMF, World Bank and African Development Bank—will comprise an important part of the financing mix (Text Figure 2). External financing during 2022-25 will come from the disbursements of US$1.4 billion on contracted but undisbursed priority project loans, about US$1.4 billion expected new financing from the World Bank (including grants), US$1.3bn financing from the IMF, and US$300 million from the African Development Bank.[10] Under the program, Zambia will not undertake any non-concessional borrowing unless an exception is granted in line with the IMF's Debt Limits Policy or World Bank Sustainable Development Finance Policy. Access to international markets is assumed to be lost through the medium term, and non-residents participation in the domestic debt market is expected to remain limited, including due to the authorities' efforts to limit their participation in new issues over the program period in order to protect external debt sustainability.

Text Figure 2. Zambia: Net Financing from IFIs, 2022–30 (US$ million)



Sources: IMF and World Bank staff estimates

[10] Beyond the IDA20 replenishment cycle (July 2022 through June 2025), IDA financing figures are based on assumptions. Actual financing will depend on IDA replenishment volumes, country performance, and other operational factors. Delivery of DPFs will be dependent on an agreement with the government on a strong program of policy and institutional reforms, and adequacy of the macroeconomic policy framework.

17. As in the previous DSA update, the restructuring strategy is presented as an alternative scenario of the DSA, as discussions with private sector creditors are still ongoing. Official creditors represented by the G20 Common Framework OCC have reached an agreement on a debt treatment for Zambia that is in line with the financing assurances provided in June 2022. This agreement entails a fully quantified two-stage approach that includes a state contingent treatment with a trigger linked to Zambia's debt carrying capacity (DCC). In the base case that is consistent with Zambia remaining assessed as having a weak DCC, official creditors will significantly lengthen the maturity of their claims and reduce their interest costs consistent with the parameters of the ECF-arrangement. The state-contingent clause will be evaluated at end-2025. If, at this stage, the assessment of Zambia's economic performance and policy making warrants an upgrade to a medium DCC, the upside treatment will be triggered and there will be some acceleration of principal payments and higher interest payments to official creditors. This treatment will remain anchored in the LIC-DSF and meet the corresponding DSA thresholds at medium DCC, i.e., the PV of external debt-to-exports at "substantial space to absorb shocks" threshold at 108 percent by 2027 and maintaining the external debt service-to-revenue ratio at or below the 18 percent threshold over 2026-31.

18. Private creditors are expected to deliver a treatment consistent with the DSA parameters and on comparable terms with the OCC. Treatment provided by private creditors must also remain anchored in the LIC-DSF and meet the corresponding DSA thresholds. In line with the provisions of the G20 Common Framework, comparable treatment will be assessed by taking into account the change in debt service, the NPV loss, and the change in the duration of the claims.[11]

19. At the operational level, debt sustainability will also be supported by the debt conditionality under the IMF program and the IDA Sustainable Development Finance Policy. These stipulates a zero ceiling on new nonconcessional external borrowing during the program period. The program sets a ceiling on the PV of new concessional external borrowing as well. The Indicative Target (IT) on the present value of new external borrowing is set in line with the expected borrowing plan for 2023-24, with the envisaged new borrowing from IFIs to be signed in 2024 rather than in the second half of 2023 (see Text Table 4). In 2025, no other new external borrowing is expected, except the financing from the IMF, World Bank, AfDB, and issuances on domestic market.

20. Downside risks to the outlook. Uncertainties around the outlook for copper prices and production is a key source of risk.[12] Rainfall variability also remains a key risk to Zambia's sustainable growth, affecting critical sectors like agriculture, electricity and mining, and also likely to aggravate external vulnerabilities, although the authorities' reform agenda aims to mitigate these risks over time. The materialization of these risks would increase debt vulnerabilities

[11] As described in the Common Framework term sheet adopted by the G20 and endorsed by the Paris Club in November 2020.
[12] The baseline is based on futures market prices, which suggest prices will remain at recent elevated levels, and are consistent with the assumptions under underpinning the April 2023 IMF World Economic Outlook.

Text Table 4. Zambia: Summary Table of Projected Borrowing Program [1/]

January 1, 2023 to December 31, 2024

PPG external debt	Volume of new debt in 2023-24		PV of new debt in 2023-24 (program purposes)		PV of new debt in 2023-24 (including negative GEs)	
	USD million	Percent	USD million	Percent	USD million	Percent
By Sources of Debt Financing	**175.0**	**100**	**71.9**	**100**	**71.9**	**100**
Concessional Debt, of which	**175.0**	**100**	**71.9**	**100**	**71.9**	**100**
IFI debt	175.0	100	71.9	100	71.9	100
Other	0.0	0	0.0	0	0.0	0
Non-Concessional Debt, of which	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**
By Creditor Type	**175.0**	**100**	**71.9**	**100**	**71.9**	**100**
IFI	175.0	100	71.9	100	71.9	100
Other	0.0	0	0.0	0	0.0	0
Uses of Debt Financing	**175.0**	**100**	**71.9**	**100**	**71.9**	**100**
Infrastructure	175.0	100	71.9	100	71.9	100
Memo Items						
Indicative projections						
Year 2	**0.0**		**0.0**		**0.0**	

1/ In line with the TMU definition of debt ceilings, it does not include new financing from IMF, World Bank, AfDB and projected issuances of local-currency debt to non-residents

Sources: IMF staff calculations based on authorities' reported data

21. Upside risks. These stem mainly from a faster global and domestic growth, a speedy resolution of the remaining aspects of the debt restructuring, greater confidence effects, including from stronger and broader reform momentum, higher copper prices and realization of announcements to invest in mineral development.

22. Realism tools suggest that baseline scenario projections are reasonable. The DSA realism tools (Figure 3, 4) highlight the large size of the programmed fiscal adjustment relative to outcomes in other LIC programs, and the likelihood of a diminished growth contribution from public investment over the forecast period. However, the risk that the adjustment proves infeasible is mitigated by the demonstrated track record of the authorities to take needed measures.

COUNTRY CLASSIFICATION AND DETERMINATION OF SCENARIO STRESS TESTS

23. Zambia's debt-carrying capacity under the Composite Indicator (CI) rating is assessed as weak, unchanged from the previous DSA.[13] The latest CI score of 2.57 remains below the cut-off for medium debt-carrying capacity of 2.69,[14] so the assessment of debt sustainability is based on the thresholds for a weak debt-carrying capacity country.

[13] The composite indicator is calculated using data from the October 2023 WEO and the latest available 2022 CPIA.

[14] The import coverage of reserves projections, which have an important contribution to the CI score (see text table) may be overestimated due to data quality and possible misclassification of items that should be recorded more accurately as imports

Text Table 5. Zambia: Composite Indicator and Thresholds

Debt Carrying Capacity	Weak

Final	Classification based on current vintage	Classification based on the previous vintage	Classification based on the two previous vintages
Weak	Weak	Weak	Weak
	2.57	2.59	2.38

Note: Until the April 2019 WEO vintage is released, the two previous vintages ago classification and corresponding score are based solely on the CPIA per the previous framework.

APPLICABLE	
EXTERNAL debt burden thresholds	
PV of debt in % of	
Exports	140
GDP	30
Debt service in % of	
Exports	10
Revenue	14

APPLICABLE	
TOTAL public debt benchmark	
PV of total public debt in percent of GDP	35

Calculation of the CI Index

Components	Coefficients (A)	10-year average values (B)	CI Score components (A*B) = (C)	Contribution of components
CPIA	0.385	3.157	1.22	47%
Real growth rate (in percent)	2.719	3.404	0.09	4%
Import coverage of reserves (in percent)	4.052	28.751	1.17	45%
Import coverage of reserves^2 (in percent)	-3.990	8.266	-0.33	-13%
Remittances (in percent)	2.022	1.676	0.03	1%
World economic growth (in percent)	13.520	2.889	0.39	15%
CI Score			2.57	100%
CI rating			Weak	

New framework			
	Cut-off values		
Weak	CI <	2.69	
Medium	2.69	≤ CI ≤	3.05
Strong	CI >	3.05	

24. The DSA includes stress tests that follow standardized and tailored settings. The standardized stress tests indicate breaches of all debt thresholds for an extended period. Zambia has a significant reliance on commodity exports that triggers the commodity price shock, but the natural disasters shock does not apply. Given significant Eurobond issuance in the past, the market financing tool applies. The contingent liabilities shock is calibrated to Zambia, with an additional 10 percent of GDP added to the standard SOE shock to account for risks stemming from the debt of SOEs, as well as potential contingent risks arising from the 2020 acquisition of the Mopani mine by ZCCM-IH, a majority state-own investment holding company.[15] The rest of the components under the contingency liability shock are kept at their default settings.

EXTERNAL DSA ASSESSMENT

25. Under the baseline, all four external debt burden indicators breach their respective thresholds (Figure 1). The debt service-to-revenue ratio soars to a peak of 65.4 percent in 2024 given the large amount of debt service falling due and the relatively low revenue base, and remains well above the 14 percent threshold until 2033 (averaging about 35.7 percent in 2023-32). Similarly, the debt service-to-exports ratio peaks at around 29.2 percent in 2024 and only falls to the threshold of 10 percent in 2029 and breaches again in 2031 (averaging about 16½ percent over 2023-32). On the stock side, the PV of PPG external debt-to-GDP averages about 58 percent from 20232-32, falling below the prudent threshold of 30

rather than elsewhere in the financial account (e.g., in the case of multinational companies, intragroup provision of services). The ongoing technical assistance with the authorities is expected to address this weakness in the balance of payments statistics over the program period.

[15] Sensitivity analysis conducted by staff at the time of Staff Level Agreement in December 2021 showed that the Mopani mine would be financially viable even if copper prices fell to US$7,070 per metric tonne and copper output only reached 86,000 metric tonnes. In that scenario, it would take ZCCM-IH until 2040 to repay the debt due to Glencore. However, the net cash flow would remain marginally positive after royalties and capex. On December 1, 2023, after a lengthy search, the authorities selected United Arab Emirates' International Resources Holdings (IRH) as the new strategic equity partner.

percent only in 2039,[16] while the PV of PPG external debt-to-exports indicator also breaches the threshold at about 166 percent in 2023 (averaging about 123½ percent over 2023-32).

26. The thresholds for all four external debt indicators are breached by large margins under stress tests. The standardized exports shock is the most extreme for all external debt indicators. Under the standardized exports shock, the PV of PPG external debt-to-exports ratio peaks at 354 percent in 2025 and remains well above the threshold throughout the medium and long term. The market financing tool also points to significant vulnerabilities debt vulnerabilities in Zambia, although the relevance of this signal is reduced given Zambia has currently no access to international capital markets.

PUBLIC DSA ASSESSMENT

27. Under the baseline, the benchmark for the PV of total PPG debt-to-GDP is breached throughout the medium and long term (Figure 2). After peaking at 118 percent in 2023, the ratio remains elevated (at an average of about 86 percent from 2023-32), before finally falling below the threshold in 2038. The most extreme shock for this indicator is still the exports shock, which peaks at 126 percent in 2025. Similarly, the combined contingent liabilities shock, which accounts for risks from SOE debt, PPPs and the financial sector, peaks at 113 percent in 2025 and remains above the threshold throughout the long term forecast horizon.

RISK RATING AND VULNERABILITIES

28. Zambia remains in debt distress, and debt is deemed unsustainable in the absence of a debt treatment in line with program parameters. This DSA update is based on the macroeconomic framework underpinning the second review, which entails significant fiscal adjustment over the medium term and incorporates the expected new financing of around US$3 billion from the IMF, World Bank (including grants), and the African Development Bank together over 2022-25.[17] Nevertheless, large financing gaps will remain over this period and would need to be filled through a debt restructuring operation in line with the DSA and IMF program parameters.

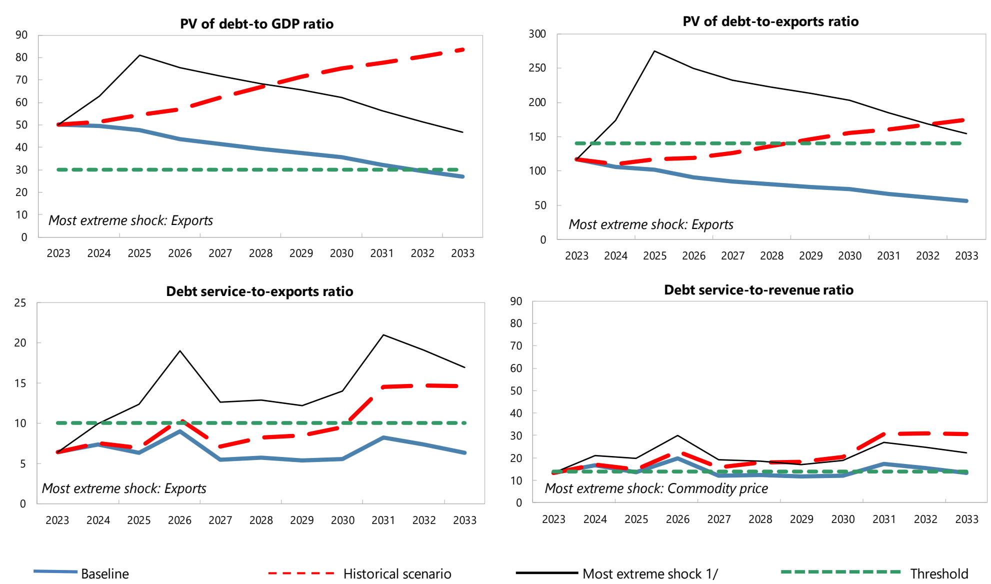
[16] Note the measurement of this indicator is complicated by the fact that the authorities are currently working on rebasing GDP; however, this work is not expected to be concluded until end-2025 at the earliest.

[17] Total financing from the World Bank (including projected disbursements from existing commitments) amounts to about US$2.2 billion over 2022-25. New financing from new operations that were approved after the SLA and which contribute to reducing the BoP financing gap amounts to US$1.4 billion out of which about US$292 million will be provided in grants.

29. In the alternative restructuring scenario that takes into account the treatment agreed with the OCC, Zambia would remain in debt distress due to arrears to private creditors. However, taking into account the authorities' continuing good faith negotiations with private creditors on a treatment on comparable terms, Zambia's would be assessed as sustainable on forward-looking basis. Under the restructuring scenario that incorporates the delivery of the state-contingent debt relief agreed within the framework of the G20 Common Framework, two alternative baselines might materialize depending on the evaluation of Zambia's DCC at the end of the program period:

- **Under the scenario where Zambia remains assessed as weak DCC, the base case treatment will prevail (Text Figure 3).** Under this alternative baseline, the PV of external debt-to-exports falls steadily below the "substantial space to absorb shocks" threshold of 84 percent by 2027, while the debt service-to-revenue ratio reaches the 14 percent threshold by 2025, and remains at 14 percent on average over 2026-31. Therefore the targets under the IMF-supported program are met, and Zambia's debt would be assessed as sustainable with a moderate risk of debt distress over the medium term, despite the protracted and large breach of the threshold by the PV of PPG external debt-to-GDP ratio indicator that averages about 40½ percent from 2023-32, and only falls below the threshold of 30 percent in 2032.[18] In parallel, the external debt service-to-exports indicator would remain well below its threshold, averaging 6½ percent over 2026-31.

Text Figure 3. Zambia: Alternative baseline, Base Case Treatment – Indicators of PPG External Debt, 2023–2033 1/

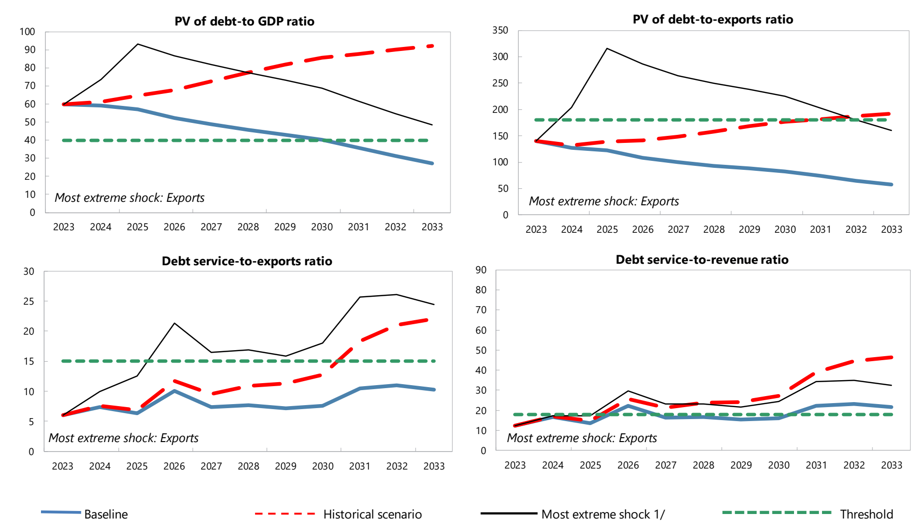


1/ Includes the agreed OSI, and a treatment of private claims that is consistent with comparability of treatment.
Sources: IMF staff projections based on the main elements of the agreed OCC treatment.

[18] Note the measurement of this indicator is complicated by the fact that the authorities are currently working on rebasing GDP; however, this work is not expected to be concluded until end-2024 or even 2025.

- **Under a scenario where Zambia's debt-carrying capacity is upgraded to medium, the Upside treatment will be triggered.** Under this scenario, risks to Zambia's debt sustainability are mitigated by the steady decline of the PV of external debt-to-exports that falls below the "substantial space to absorb shocks" threshold of 108 percent by 2027, while the external debt service-to-revenue ratio remains at about 18 percent on average over 2026-31. This mitigates the protracted and large breach of the threshold by the PV of PPG external debt-to-GDP ratio indicator, which averages about 47 percent from 2023-32, and only falls below the threshold of 40 percent in 2030. In parallel, the external debt service-to-exports indicator remains well below its threshold, averaging 8½ percent over 2026-31. All external debt burden indicators do decline to levels consistent with Zambia reaching a moderate risk of external debt distress over the medium term (see Text Figure 4).

Text Figure 4. Zambia: Alternative baseline, Upside Case Treatment – Indicators of PPG External Debt, 2023-2033 1/



1/ Includes the agreed OSI, and a treatment of private claims that is consistent with comparability of treatment.
Sources: IMF staff projections based on the main elements of the agreed OCC treatment.

30. Risks to the debt outlook are significant. This DSA is predicated on the Zambian authorities' commitment under their program to undertake credible steps to restore medium-term debt sustainability, including to restore macroeconomic stability and achieve higher economic growth. Delays or slippages in fiscal policy adjustment, or external shocks that impact the macroeconomic framework, could significantly impact the debt trajectory. These risks are mitigated by the authorities' track record of implementing robust policy reforms since coming to power in August 2021.

31. Other reforms to support debt sustainability following the debt restructuring are also in train and further mitigate risks. To strengthen the institutional framework, the authorities adopted a new Public Debt Management Act in August 2022.[19] This provides greater oversight on the contracting of debt. This will be supported by ongoing efforts to strengthen public financial management more broadly and to

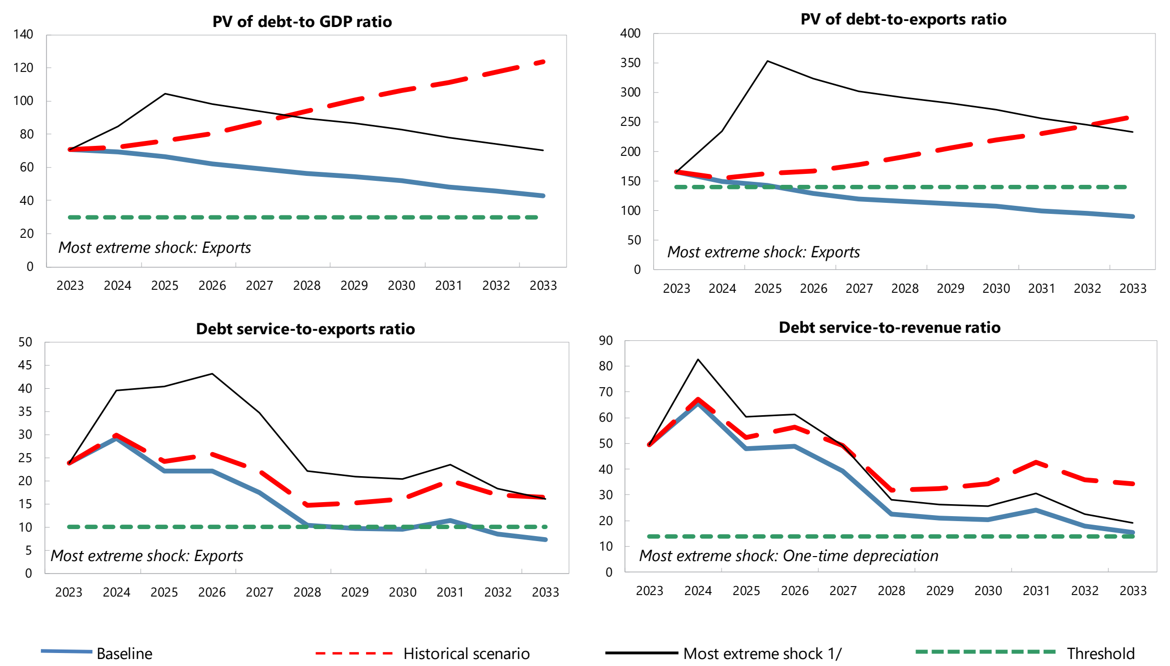
[19] The adoption of the Public Debt Management Act was supported under the IMF program and IDA's Sustainable Debt Financing Policy.

strengthen debt transparency, as well as plans to modernize and strengthen capacity of the debt management unit.

AUTHORITIES' VIEWS

32. The authorities shared staff's assessment of their debt sustainability and emphasized their commitment to restore debt sustainability by seeking a restructuring of their external debt. The authorities highlighted that an agreement has been reached with the OCC on a debt treatment consistent with the parameters of the IMF-supported program, and work on signing the MOU is advancing well. The authorities also emphasized their commitment to reach restructuring agreements with other external creditors on comparable terms and consistent with IMF-program parameters. The authorities agreed that once these agreements are implemented debt sustainability would be restored.

Figure 1. Zambia: Indicators of Public and Publicly Guaranteed External Debt Under Alternatives Scenarios, 2023–33



Customization of Default Settings		
	Size	Interactions
Tailored Stress		
Combined CL	Yes	
Natural disaster	n.a.	n.a.
Commodity price 2/	No	No
Market financing	No	No

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

Borrowing assumptions on additional financing needs resulting from the stress tests*		
	Default	User defined
Shares of marginal debt		
External PPG MLT debt	100%	
Terms of marginal debt		
Avg. nominal interest rate on new borrowing in USD	4.2%	4.2%
USD Discount rate	5.0%	5.0%
Avg. maturity (incl. grace period)	32	32
Avg. grace period	13	13

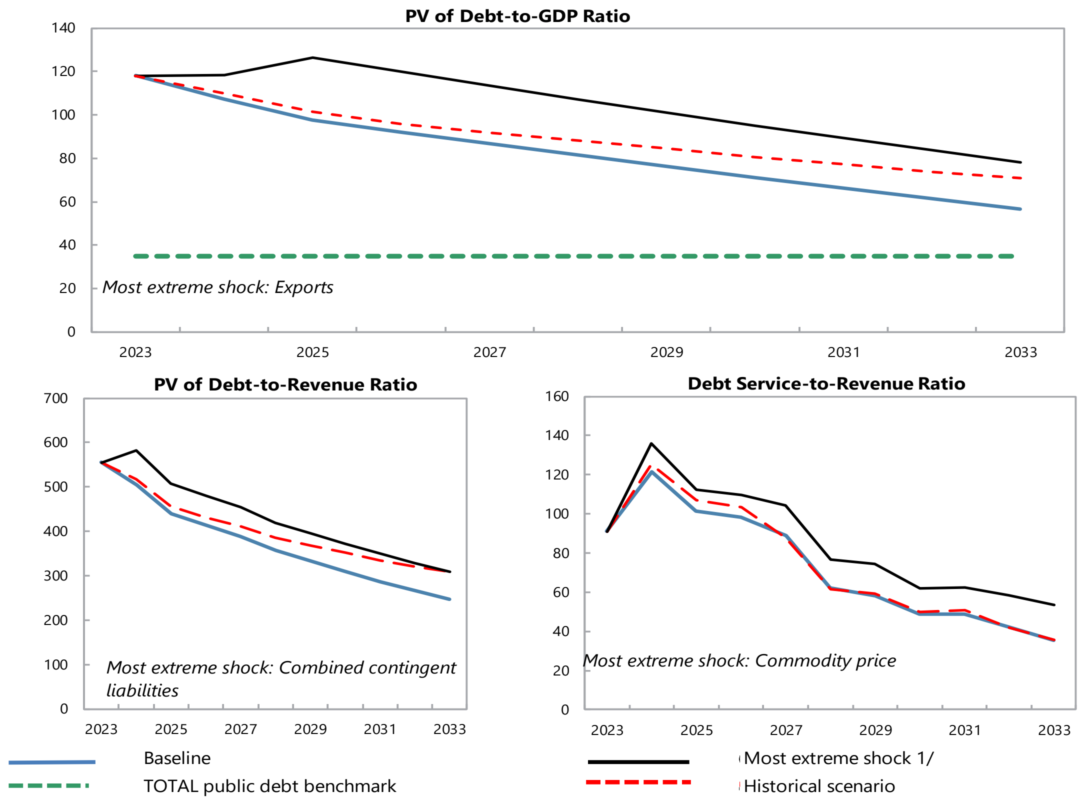
* Note: All the additional financing needs generated by the shocks under the stress tests are assumed to be covered by PPG external MLT debt in the external DSA. Default terms of marginal debt are based on baseline 10-year projections.

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

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

Figure 2. Zambia: Indicators of Public Debt Under Alternative Scenarios, 2023–33



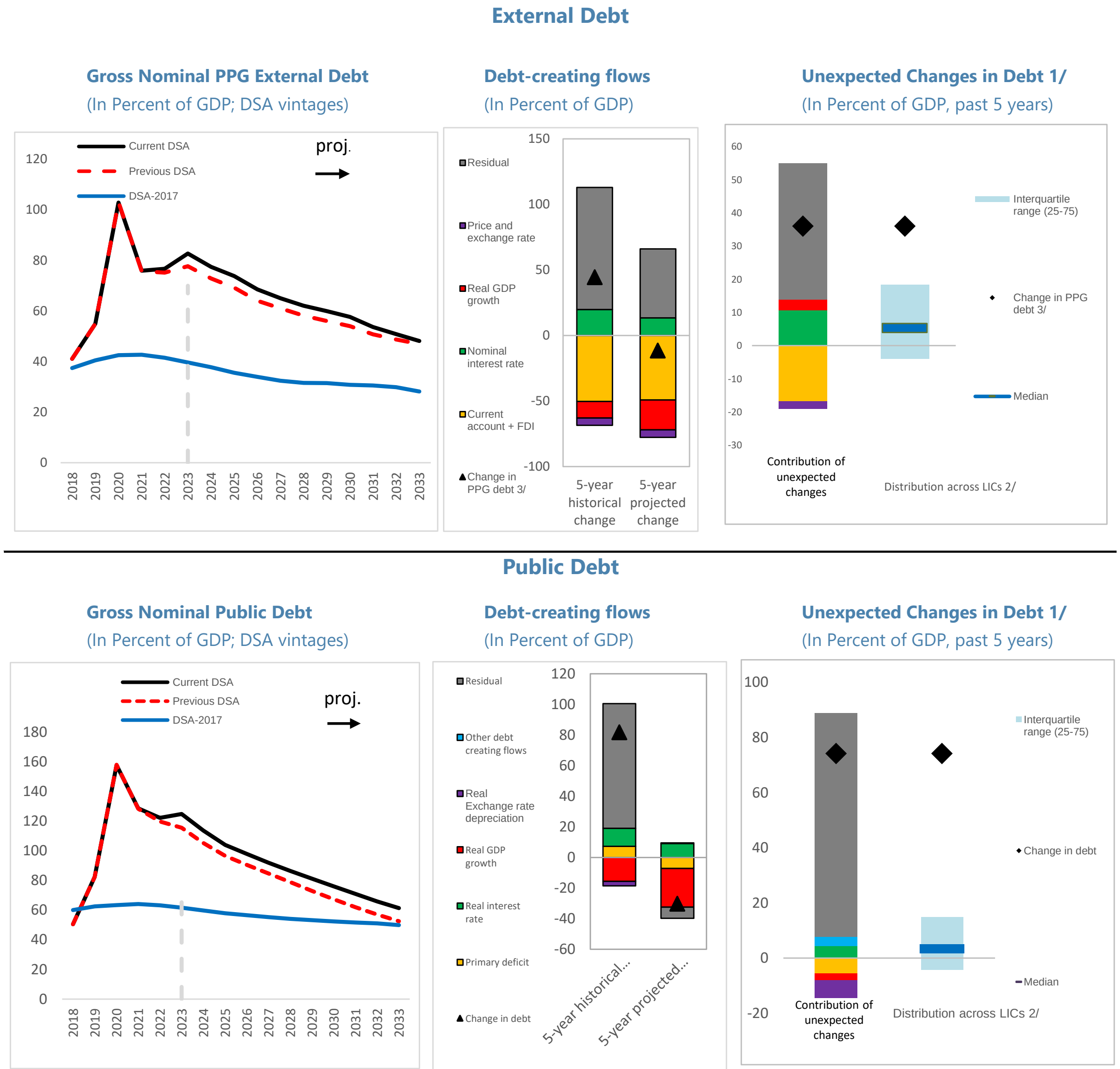
Borrowing assumptions on additional financing needs resulting from the stress tests*	Default	User defined
Shares of marginal debt		
External PPG medium and long-term	50%	50%
Domestic medium and long-term	22%	22%
Domestic short-term	28%	28%
Terms of marginal debt		
External MLT debt		
Avg. nominal interest rate on new borrowing in USD	4.2%	4.2%
Avg. maturity (incl. grace period)	32	32
Avg. grace period	13	13
Domestic MLT debt		
Avg. real interest rate on new borrowing	6.0%	6.0%
Avg. maturity (incl. grace period)	6	6
Avg. grace period	5	5
Domestic short-term debt		
Avg. real interest rate	1.6%	1.6%

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

Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio in or before 2033. The stress test with a one-off breach is also presented (if any), while the one-off breach is deemed away for mechanical signals. When a stress test with a one-off breach happens to be the most exterme shock even after disregarding the one-off breach, only that stress test (with a one-off breach) would be presented.

Figure 3. Zambia: Drivers of Debt Dynamics – Baseline Scenario



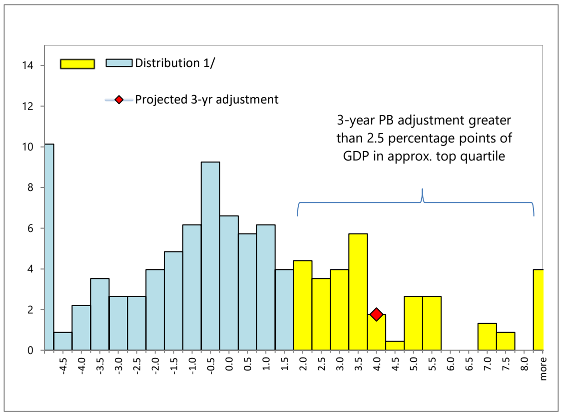
1/ Difference between anticipated and actual contributions on debt ratios.

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

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

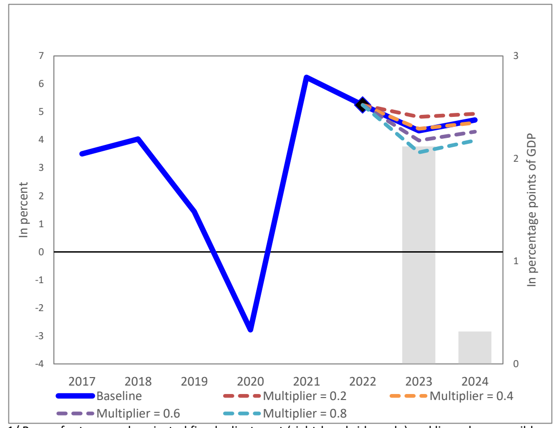
Figure 4. Zambia: Realism Tools

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



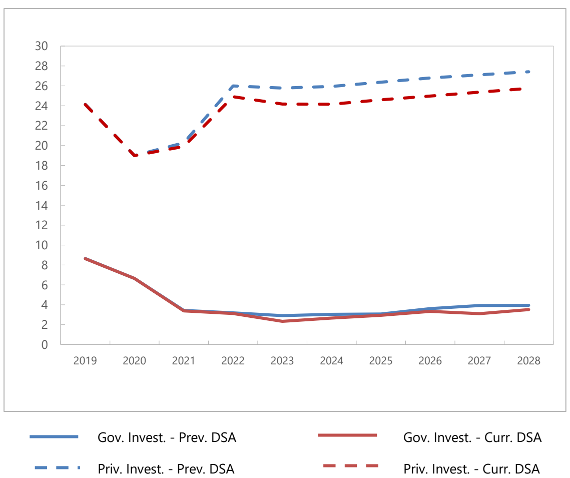
1/ Data cover Fund-supported programs for LICs (excluding emergency financing) approved since 1990. The size of 3-year adjustment from program inception is found on the horizontal axis; the percent of sample is found on the vertical axis.

Fiscal Adjustment and Possible Growth Paths 1/



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

Public and Private Investment Rates
(In Percent of GDP)



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

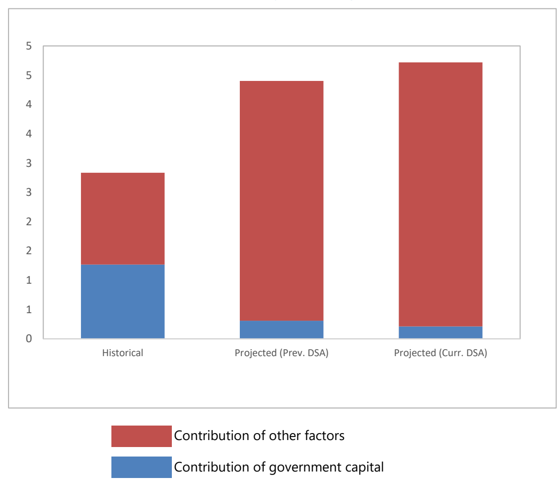
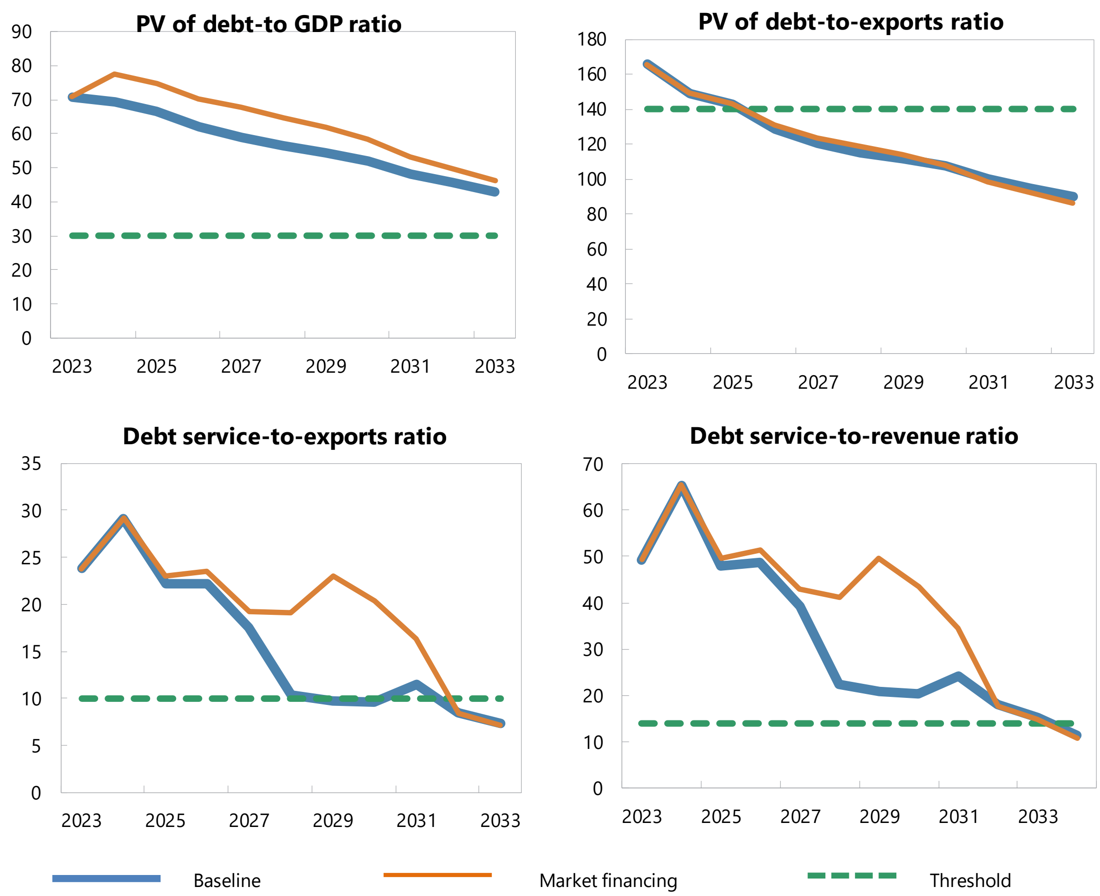


Figure 5. Zambia: Market-Financing Risk Indicators

	GFN 1/	EMBI 2/
Benchmarks	14	570
Values	24	5000
Breach of benchmark	Yes	Yes
Potential heightened liquidity needs	High	

1/ Maximum gross financing needs (GFN) over 3-year baseline projection horizon.
2/ EMBI spreads correspond to the latest available data.

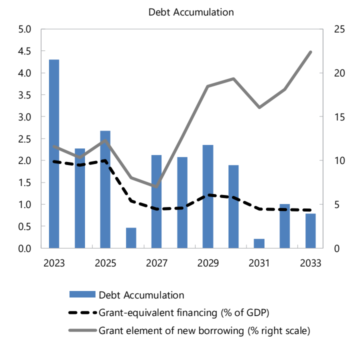


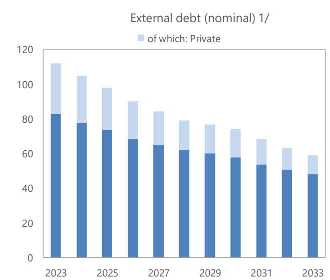
Sources: Country authorities; and staff estimates and projections.

Table 1. Zambia: External Debt Sustainability Framework, Baseline Scenario, 2020–38
(In Percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 8/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2038	Historical	Projections
External debt (nominal) 1/	150.0	113.5	105.8	112.1	104.6	98.0	90.1	84.2	78.9	58.9	54.7	79.3	82.6
of which: public and publicly guaranteed (PPG)	102.9	75.9	76.7	82.7	77.4	73.8	68.5	65.1	62.0	48.1	35.5	47.7	63.6
Change in external debt	56.8	-36.5	-7.7	6.3	-7.5	-6.6	-7.9	-5.9	-5.3	-4.4	-0.6		
Identified net debt-creating flows	14.2	-40.0	-30.4	-4.2	-10.8	-12.8	-15.0	-15.7	-15.3	-14.3	-12.8	-8.0	-13.3
Non-interest current account deficit	-14.9	-19.1	-7.2	-0.4	-6.7	-8.1	-9.6	-11.6	-11.3	-10.8	-10.6	-4.0	-9.3
Deficit in balance of goods and services	-15.0	-18.3	-8.3	-4.3	-9.3	-10.3	-12.3	-13.4	-13.2	-12.7	-11.5	-3.7	-11.5
Exports	47.2	53.1	42.7	42.7	46.5	46.6	48.0	49.0	48.8	47.8	40.8		
Imports	32.2	34.8	34.4	38.4	37.3	36.3	35.7	35.7	35.6	35.1	29.3		
Net current transfers (negative = inflow)	-1.2	-1.4	-1.0	-1.4	-1.1	-1.4	-1.2	-1.2	-1.2	-1.1	-1.0	-1.2	-1.2
of which: official	0.0	0.0	0.0	-0.7	-0.5	-0.7	-0.4	-0.3	-0.3	-0.3	-0.3		
Other current account flows (negative = net inflow)	1.3	0.5	2.1	5.3	3.7	3.6	3.8	2.9	3.0	3.0	1.8	0.9	3.4
Net FDI (negative = inflow)	-1.0	-3.1	-1.2	-1.3	-2.0	-2.9	-3.8	-2.7	-2.7	-2.7	-2.3	-3.8	-2.6
Endogenous debt dynamics 2/	30.1	-17.8	-22.0	-2.5	-2.1	-1.8	-1.5	-1.5	-1.3	-0.8	0.0		
Contribution from nominal interest rate	4.3	9.5	3.5	2.2	2.9	2.9	2.8	2.6	2.6	2.0	2.5		
Contribution from real GDP growth	3.3	-7.7	-4.5	-4.7	-5.0	-4.7	-4.3	-4.1	-3.9	-2.8	-2.5		
Contribution from price and exchange rate changes	22.4	-19.6	-21.0	...	...	...	...	...	...	...	...		
Residual 3/	42.6	3.5	22.6	10.5	3.3	6.3	7.1	9.8	9.9	9.9	12.2	17.5	9.1
of which: exceptional financing	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Sustainability indicators													
PV of PPG external debt-to-GDP ratio	...	...	64.7	70.8	69.5	66.5	61.9	59.0	56.3	42.9	31.2		
PV of PPG external debt-to-exports ratio	...	...	151.5	165.9	149.3	142.6	129.0	120.3	115.4	89.8	76.5		
PPG debt service-to-exports ratio	26.6	25.9	13.1	23.8	29.2	22.2	22.2	17.5	10.4	7.3	5.1		
PPG debt service-to-revenue ratio	63.5	63.1	28.0	49.3	65.4	48.1	48.7	39.1	22.4	15.3	9.2		
Gross external financing need (Million of U.S. dollars)	-3.9	-205.7	-152.4	3105.4	2283.4	667.6	-17.0	-1124.2	-2576.7	-4525.5	-10232.0		
Key macroeconomic assumptions													
Real GDP growth (in percent)	-2.8	6.2	5.2	4.3	4.7	4.8	4.8	4.9	5.0	4.8	4.9	3.4	4.8
GDP deflator in US dollar terms (change in percent)	-20.0	14.7	25.2	-6.5	0.4	3.5	3.3	3.4	3.3	3.1	3.3	-0.7	2.1
Effective interest rate (percent) 4/	3.6	7.7	4.1	2.0	2.8	3.0	3.1	3.2	3.3	3.4	5.0	2.9	3.1
Growth of exports of G&S (US dollar terms, in percent)	3.6	37.0	6.1	-2.6	14.7	8.7	11.3	10.9	7.9	7.6	0.6	3.2	8.1
Growth of imports of G&S (US dollar terms, in percent)	-42.7	31.8	30.3	8.8	2.1	5.7	6.5	8.3	8.3	7.5	0.0	5.8	7.1
Grant element of new public sector borrowing (in percent)	...	...	...	11.6	10.3	12.3	8.0	7.0	12.7	22.4	30.7	...	14.2
Government revenues (excluding grants, in percent of GDP)	19.8	21.8	20.0	20.6	20.7	21.5	21.8	22.0	22.6	22.7	22.6	18.9	22.1
Aid flows (in Million of US dollars) 5/	394.2	262.5	226.4	582.9	638.4	733.6	588.9	511.8	551.9	670.7	757.6		
Grant-equivalent financing (in percent of GDP) 6/	...	...	...	2.0	1.9	2.0	1.1	0.9	0.9	0.9	0.7	...	1.2
Grant-equivalent financing (in percent of external financing) 6/	...	...	...	16.7	13.5	17.7	12.3	10.6	18.4	29.9	43.3	...	19.3
Nominal GDP (Million of US dollars)	18,138	22,096	29,122	28,406	29,872	32,410	35,064	38,035	41,233	60,796	90,236		
Nominal dollar GDP growth	-22.2	21.8	31.8	-2.5	5.2	8.5	8.2	8.5	8.4	8.1	8.3	2.9	7.0
Memorandum items:													
PV of external debt 7/	...	...	93.8	100.2	96.6	90.7	83.5	78.1	73.2	53.8	50.4		
In percent of exports	...	...	219.6	234.7	207.6	194.5	174.0	159.4	149.9	112.4	123.5		
Total external debt service-to-exports ratio	33.7	40.0	18.2	29.6	35.1	28.1	27.9	23.0	15.8	12.6	3.8		
PV of PPG external debt (in Million of US dollars)			18853.7	20105.4	20751.6	21550.4	21699.0	22444.1	23234.6	26109.3	28171.5		
(PVt-PVt-1)/GDPt-1 (in percent)				4.3	2.3	2.7	0.5	2.1	2.1	0.8	0.4		
Non-interest current account deficit that stabilizes debt ratio	-71.7	17.4	0.5	-6.7	0.8	-1.6	-1.7	-5.7	-6.0	-6.4	-10.0		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**





Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

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

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

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

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

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

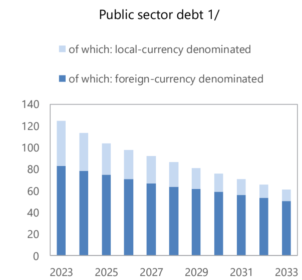
7/ Assumes that PV of private sector debt is equivalent to its face value.

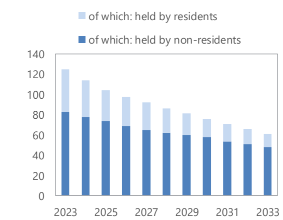
8/ Historical averages are generally derived over the past 10 years, subject to data availability, whereas projections averages are over the first year of projection and the next 10 years.

Table 2. Zambia: Public Sector Debt Sustainability Framework, Baseline Scenario, 2019–38
(In Percent of GDP, unless otherwise indicated)

	Actual			Projections								Average 6/	
	2020	2021	2022	2023	2024	2025	2026	2027	2028	2033	2038	Historical	Projections
Public sector debt 1/	157.6	128.4	122.1	124.7	113.6	103.9	97.7	91.8	86.3	61.3	42.1	70.2	88.4
of which: external debt	102.9	75.9	76.7	82.7	77.4	73.8	68.5	65.1	62.0	48.1	35.5	47.7	63.6
Change in public sector debt	75.3	-29.2	-6.4	2.6	-11.1	-9.7	-6.2	-5.9	-5.5	-4.5	-3.4		
Identified debt-creating flows	32.0	-44.2	-0.7	-1.3	-7.8	-5.7	-3.6	-4.5	-4.6	-4.0	-3.4	0.9	-4.4
Primary deficit (cash basis)	3.6	2.1	1.6	-0.5	-0.8	-2.2	-1.4	-2.2	-2.5	-2.2	-1.6	1.4	-1.9
Revenue and grants	20.3	22.4	20.4	20.9	21.2	21.9	21.9	22.0	22.6	22.8	22.8	19.4	22.2
of which: grants	0.5	0.6	0.4	0.7	0.5	0.7	0.4	0.3	0.3	0.3	0.3		
Primary (noninterest) expenditure	28.1	24.4	22.0	20.7	20.4	20.0	20.8	20.1	20.4	20.8	21.3	21.2	20.6
Automatic debt dynamics	28.4	-46.3	-2.3	-0.8	-7.0	-3.5	-2.2	-2.3	-2.2	-1.9	-1.8		
Contribution from interest rate/growth differential	9.6	-12.3	-5.1	-7.2	-4.4	-1.9	-1.3	-1.5	-1.4	-1.3	-1.3		
of which: contribution from average real interest rate	7.2	-3.1	1.3	-2.1	1.3	3.3	3.4	3.1	2.9	1.7	0.8		
of which: contribution from real GDP growth	2.4	-9.3	-6.4	-5.1	-5.6	-5.3	-4.7	-4.6	-4.4	-3.0	-2.1		
Contribution from real exchange rate depreciation	18.9	-34.0	2.8	...	...	...	...	...	...	...	...		
Other identified debt-creating flows	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Privatization receipts (negative)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Recognition of contingent liabilities (e.g., bank recapitalization)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Debt relief (HIPC and other)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Other debt creating or reducing flow (please specify)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Residual	43.3	15.0	-5.6	10.3	-5.9	-5.6	-3.4	-2.3	-1.6	-1.0	-0.5	10.0	-1.4
Sustainability indicators													
PV of public debt-to-GDP ratio 2/	...	...	114.4	118.1	107.3	97.7	92.1	86.7	81.5	56.8	38.3		
PV of public debt-to-revenue and grants ratio	...	...	561.4	555.3	505.4	439.3	413.8	388.9	356.2	246.8	167.0		
Debt service-to-revenue and grants ratio 3/	124.3	126.6	88.2	91.0	121.5	101.6	98.1	88.8	62.2	35.5	20.3		
Gross financing need 4/	33.0	30.4	19.6	13.6	24.4	19.9	20.0	17.2	11.4	5.9	3.0		
Key macroeconomic and fiscal assumptions													
Real GDP growth (in percent)	-2.8	6.2	5.2	4.3	4.7	4.8	4.8	4.9	5.0	4.8	4.9	3.4	4.8
Average nominal interest rate on external debt (in percent)	5.7	5.2	4.3	2.9	4.0	4.2	4.1	4.2	4.4	4.3	3.8	4.3	4.1
Average real interest rate on domestic debt (in percent)	15.6	-10.7	0.1	-5.4	-0.6	5.4	7.1	6.7	6.4	4.8	2.9	7.9	4.2
Real exchange rate depreciation (in percent, + indicates depreciation)	33.1	-35.9	4.5	...	...	...	...	...	...	...	...	7.4	...
Inflation rate (GDP deflator, in percent)	13.9	25.1	6.1	10.2	10.6	7.6	6.6	6.7	6.6	6.5	6.6	10.6	7.3
Growth of real primary spending (deflated by GDP deflator, in percent)	29.8	-7.6	-5.3	-1.5	2.9	3.0	9.0	1.4	6.4	5.5	4.9	7.4	4.3
Primary deficit that stabilizes the debt-to-GDP ratio 5/	-71.7	31.2	7.9	-3.1	10.2	7.5	4.7	3.7	3.1	2.3	1.8	-9.5	3.6
PV of contingent liabilities (not included in public sector debt)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

Definition of external/domestic debt	**Residency-based**
Is there a material difference between the two criteria?	**Yes**





Sources: Country authorities; and staff estimates and projections.

1/ Coverage of debt: The central government plus social security, central bank, government-guaranteed debt, non-guaranteed SOE debt . Definition of external debt is Residency-based.

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

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

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

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

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

Table 3. Zambia: Sensitivity Analysis for Key Indicators and Publicly Guaranteed External Debt, 2023–33
(In Percent)

	Projections 1/										
	2023	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**
PV of debt-to GDP ratio											
Baseline	**71**	**69**	**66**	**62**	**59**	**56**	**54**	**52**	**48**	**46**	**43**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**71**	**72**	**76**	**80**	**87**	**94**	**100**	**106**	**111**	**117**	**124**
A2. Alternative Scenario : Contingent Liabilities + FX debt	**71**	**84**	**83**	**79**	**76**	**73**	**71**	**70**	**66**	**64**	**61**
B. Bound Tests											
B1. Real GDP growth	**71**	**74**	**75**	**70**	**67**	**64**	**61**	**59**	**55**	**52**	**49**
B2. Primary balance	**71**	**74**	**76**	**72**	**70**	**67**	**65**	**63**	**60**	**57**	**54**
B3. Exports	**71**	**85**	**104**	**98**	**94**	**90**	**86**	**83**	**78**	**74**	**70**
B4. Other flows 3/	**71**	**73**	**73**	**68**	**65**	**62**	**60**	**57**	**53**	**50**	**48**
B5. Depreciation	**71**	**86**	**83**	**77**	**74**	**70**	**68**	**65**	**60**	**57**	**53**
B6. Combination of B1-B5	**71**	**83**	**86**	**81**	**77**	**74**	**72**	**69**	**65**	**62**	**59**
C. Tailored Tests											
C1. Combined contingent liabilities	**71**	**80**	**80**	**76**	**73**	**70**	**68**	**67**	**64**	**61**	**58**
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**71**	**74**	**76**	**72**	**70**	**68**	**66**	**64**	**60**	**58**	**55**
C4. Market Financing	**71**	**78**	**75**	**70**	**68**	**65**	**62**	**58**	**53**	**50**	**46**
Threshold	30	30	30	30	30	30	30	30	30	30	30
PV of debt-to-exports ratio											
Baseline	**166**	**149**	**143**	129	120.3	115.4	111.5	107	99.97	95	90
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**166**	**155**	**163**	**167**	**177**	**192**	**206**	**220**	**230**	**244**	**259**
A2. Alternative Scenario : Contingent Liabilities + FX debt	**166**	**180**	**177**	**164**	**155**	**150**	**146**	**144**	138	133	127
B. Bound Tests											
B1. Real GDP growth	**166**	**149**	**143**	129	120	115	112	107	100	95	90
B2. Primary balance	**166**	**158**	**164**	**151**	**142**	137	134	130	124	119	114
B3. Exports	**166**	**234**	**354**	**323**	**303**	**291**	**281**	**271**	**256**	**245**	**233**
B4. Other flows 3/	**166**	**156**	**156**	**142**	132	127	123	118	110	105	100
B5. Depreciation	**166**	**146**	**141**	127	119	114	110	106	99	94	88
B6. Combination of B1-B5	**166**	**205**	**166**	**215**	**202**	**195**	**189**	**184**	**173**	**166**	**158**
C. Tailored Tests											
C1. Combined contingent liabilities	**166**	**173**	**171**	**158**	**149**	**144**	**141**	139	132	128	122
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**166**	**176**	**177**	**160**	**149**	**143**	138	134	127	122	117
C4. Market Financing	**166**	**149**	**143**	131	123	119	114	108	99	93	86
Threshold	140	140	140	140	140	140	140	140	140	140	140
Debt service-to-exports ratio											
Baseline	**24**	**29**	**22**	**22**	**18**	**10**	10	10	**11**	8	7
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**24**	**30**	**24**	**26**	**22**	**15**	**15**	**16**	**20**	**17**	**16**
A2. Alternative Scenario : Contingent Liabilities + FX debt	**24**	**29**	**24**	**24**	**19**	**12**	**11**	**11**	**13**	**10**	9
B. Bound Tests											
B1. Real GDP growth	**24**	**29**	**22**	**22**	**18**	**10**	10	10	**11**	8	7
B2. Primary balance	**24**	**29**	**23**	**23**	**19**	**11**	**11**	**11**	**13**	10	8
B3. Exports	**24**	**40**	**40**	**43**	**35**	**22**	**21**	**20**	**24**	**18**	**16**
B4. Other flows 3/	**24**	**29**	**22**	**23**	**18**	**11**	**10**	**10**	**12**	9	8
B5. Depreciation	**24**	**29**	**22**	**22**	**17**	**10**	10	9	**11**	8	7
B6. Combination of B1-B5	**24**	**36**	**33**	**34**	**27**	**17**	**16**	**16**	**19**	**14**	**12**
C. Tailored Tests											
C1. Combined contingent liabilities	**24**	**29**	**23**	**23**	**19**	**12**	**11**	**11**	**13**	10	9
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**24**	**32**	**25**	**25**	**20**	**12**	**11**	**11**	**13**	10	9
C4. Market Financing	**24**	**29**	**23**	**23**	**19**	**19**	**23**	**20**	**16**	8	7
Threshold	10	10	10	10	10	10	10	10	10	10	10
Debt service-to-revenue ratio											
Baseline	**49.35**	**65.45**	**48.05**	**48.71**	**39.141**	**22.415**	**20.958**	**20.357**	**24.213**	**17.945**	**15.321**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**49**	**67**	**52**	**56**	**49**	**32**	**33**	**34**	**43**	**36**	**34**
A2. Alternative Scenario : Contingent Liabilities + FX debt	**49**	**65**	**51**	**52**	**42**	**26**	**24**	**24**	**28**	**21**	**19**
B. Bound Tests	**49**	**65**	**51**	**52**	**42**	**26**	**24**	**24**	**28**	**21**	**19**
B1. Real GDP growth	**49**	**70**	**54**	**55**	**44**	**25**	**24**	**23**	**27**	**20**	**17**
B2. Primary balance	**49**	**66**	**49**	**51**	**42**	**25**	**23**	**23**	**27**	**20**	**18**
B3. Exports	**49**	**69**	**55**	**60**	**49**	**30**	**28**	**27**	**31**	**24**	**21**
B4. Other flows 3/	**49**	**65**	**49**	**50**	**40**	**24**	**22**	**21**	**25**	**19**	**16**
B5. Depreciation	**49**	**83**	**60**	**61**	**49**	**28**	**26**	**26**	**30**	**23**	**19**
B6. Combination of B1-B5	**49**	**69**	**57**	**59**	**48**	**29**	**27**	**27**	**31**	**24**	**21**
C. Tailored Tests											
C1. Combined contingent liabilities	**49**	**66**	**50**	**51**	**42**	**25**	**24**	**23**	**27**	**21**	**18**
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**49**	**72**	**54**	**56**	**45**	**26**	**24**	**23**	**27**	**21**	**18**
C4. Market Financing	**49**	**65**	**50**	**52**	**43**	**41**	**50**	**44**	**35**	**18**	**15**
Threshold	14	14	14	14	14	14	14	14	14	14	14

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

Table 4. Zambia: Sensitivity Analysis for Key Indicators of Public Debt, 2023–33
(In Percent)

	Projections 1/										
	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033
	PV of Debt-to-GDP Ratio										
Baseline	**118**	**107**	**98**	**92**	**87**	**82**	**76**	**71**	**66**	**61**	**57**
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	**118**	**110**	**101**	**96**	**92**	**88**	**84**	**81**	**77**	**74**	**71**
B. Bound Tests											
B1. Real GDP growth	**118**	**114**	**112**	**108**	**105**	**102**	**99**	**96**	**93**	**90**	**88**
B2. Primary balance	**118**	**110**	**107**	**101**	**96**	**90**	**85**	**80**	**75**	**71**	**66**
B3. Exports	**118**	**118**	**126**	**120**	**113**	**107**	**101**	**95**	**89**	**84**	**78**
B4. Other flows 3/	**118**	**111**	**104**	**98**	**93**	**87**	**82**	**76**	**71**	**66**	**62**
B5. Depreciation	**118**	**121**	**109**	**102**	**96**	**90**	**84**	**78**	**72**	**67**	**62**
B6. Combination of B1-B5	**118**	**107**	**104**	**99**	**94**	**90**	**85**	**80**	**76**	**72**	**68**
C. Tailored Tests											
C1. Combined contingent liabilities	**118**	**124**	**113**	**107**	**101**	**96**	**91**	**86**	**81**	**76**	**71**
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	**118**	**111**	**103**	**101**	**99**	**97**	**94**	**91**	**89**	**86**	**84**
C4. Market Financing	**118**	**107**	**98**	**93**	**88**	**83**	**77**	**71**	**65**	**60**	**55**
TOTAL public debt benchmark	35	35	35	35	35	35	35	35	35	35	35
	PV of Debt-to-Revenue Ratio										
Baseline	555	505	439	414	389	356	333	310	287	266	247
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	555	517	456	431	412	386	369	352	335	321	308
B. Bound Tests											
B1. Real GDP growth	555	536	503	486	470	445	431	417	403	392	382
B2. Primary balance	555	516	481	454	429	395	372	350	327	307	289
B3. Exports	555	558	568	538	508	468	441	414	387	363	340
B4. Other flows 3/	555	521	468	442	416	381	357	333	309	288	268
B5. Depreciation	555	573	492	459	429	392	365	339	314	292	271
B6. Combination of B1-B5	555	505	468	444	422	391	371	350	330	312	295
C. Tailored Tests											
C1. Combined contingent liabilities	555	583	507	480	454	420	396	373	349	329	310
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	555	564	500	489	469	437	417	397	384	374	364
C4. Market Financing	555	505	441	418	396	364	338	311	284	261	240
	Debt Service-to-Revenue Ratio										
Baseline	91	122	102	98	89	62	58	49	49	42	35
A. Alternative Scenarios											
A1. Key variables at their historical averages in 2023-2033 2/	91	125	107	103	88	62	59	50	51	42	36
B. Bound Tests											
B1. Real GDP growth	91	131	119	118	109	80	79	68	70	64	57
B2. Primary balance	91	124	109	111	97	69	67	58	59	50	43
B3. Exports	91	122	104	104	94	67	63	53	53	46	40
B4. Other flows 3/	91	122	102	99	90	63	59	50	50	43	36
B5. Depreciation	91	126	113	113	102	72	69	58	60	52	44
B6. Combination of B1-B5	91	122	106	109	98	71	69	57	59	52	45
C. Tailored Tests											
C1. Combined contingent liabilities	91	124	130	112	99	71	69	67	62	52	44
C2. Natural disaster	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
C3. Commodity price	91	136	112	110	104	76	74	62	62	59	54
C4. Market Financing	91	122	103	101	93	81	86	72	59	42	35

Sources: Country authorities; and staff estimates and projections.

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

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

3/ Includes official and private transfers and FDI.