INTERNATIONAL MONETARY FUND

IMF Country Report No. 17/327

ZAMBIA

October 2017

2017 ARTICLE IV CONSULTATION—PRESS RELEASE; STAFF REPORT; AND STATEMENT BY THE EXECUTIVE DIRECTOR FOR ZAMBIA

Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. In the context of the 2017 Article IV consultation with Zambia, the following documents have been released and are included in this package:

- A **Press Release** including a statement by the Chair of the Executive Board.
- The **Staff Report** prepared by a staff team of the IMF for the Executive Board's consideration on October 6, 2017, following discussions that ended on June 9, 2017, with the officials of Zambia on economic developments and policies. Based on information available at the time of these discussions, the staff report was completed on September 25, 2017.
- An **Informational Annex** prepared by the IMF staff.
- A **Debt Sustainability Analysis** prepared by the staffs of the IMF and the World Bank.
- A **Statement by the Executive Director** for Zambia.

The documents listed below have been or will be separately released:

Selected Issues

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IMF Executive Board Concludes 2017 Article IV Consultation with Zambia

On October 6, 2017, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation[1] with Zambia.

The near-term outlook for the Zambian economy has improved in recent months, driven by good rains and rising world copper price. The economy was in near-crisis from the fourth quarter of 2015 through most of 2016, reflecting the impacts of exogenous shocks and lax fiscal policy in the lead up to general elections. Low copper prices reduced export earnings and government revenues, while poor rainfall in the catchment areas of hydro-power reservoirs led to a marked reduction in electricity generation and severe power rationing. A sharp depreciation of the kwacha fueled inflation which rose from an annual rate of 7 percent in mid-2015 to nearly 23 percent in February 2016.

Tight monetary policy succeeded in stabilizing the exchange rate and slowing down inflation to 6.3 percent in August 2017, but contributed to elevated stress in the financial system evidenced by a sharp rise in nonperforming loans and a plunge in the growth of credit to the private sector. Stress tests suggest that the banks are resilient to credit and liquidity pressures, but the financial system faces considerable risks, owing to high dependence on copper exports, rising public debt and funding pressures.

Fiscal imbalances have remained high. The fiscal deficit on a cash basis reached 9.3 percent of GDP in 2015, twice the budgeted level. On a commitment basis—taking into account accumulation of arrears and delays in paying VAT refunds—the deficit exceeded 12 percent of GDP in 2015, and remained elevated at about 9 percent of GDP in 2016. The deficit on a commitment basis is projected to decline significantly in 2017, but the cash deficit will remain elevated as the government clears arrears.

[1] Under Article IV of the IMF's Articles of Agreement, the IMF holds bilateral discussions with members, usually every year. A staff team visits the country, collects economic and financial information, and discusses with officials the country's economic developments and policies. On return to headquarters, the staff prepares a report, which forms the basis for discussion by the Executive Board.

Public debt has been rising at an unsustainable pace and has crowded out lending to the private sector and increased the vulnerability of the economy. The outstanding public and publicly guaranteed debt rose sharply from 36 percent of GDP at end-2014 to 60 percent at end-2016, driven largely by external borrowing and the impact of exchange rate depreciation. Increased participation of foreign investors in the government securities market has eased the government's financing constraint but has made the economy more vulnerable to swings in market sentiments and capital flow reversals.

The medium-term outlook for the economy is contingent on policies. Real GDP growth has picked up after a marked deceleration from 7.6 percent in 2012 to 2.9 percent in 2015. Growth is projected to reach 4 percent in 2017. However, achieving sustained high and inclusive growth requires a stable macroeconomic environment as well as policies and reforms to increase productivity, enhance competitiveness, strengthen human capital and support financial inclusion for small and medium scale enterprises. Domestic risks to the outlook include delayed fiscal adjustment which would continue to crowd out credit to private sector and entrench an unsustainable debt situation, and unfavorable weather conditions which would affect hydro power generation and agricultural output. External risks include tighter global financial conditions and volatility in the world copper price.

Executive Board Assessment[2]

Executive Directors welcomed the recent improvement in Zambia's economic outlook. However, Directors noted that domestic and external risks pose significant challenges. They advised the authorities to take advantage of the current favorable conditions and implement decisive and prudent macroeconomic policies and reforms to place public finances and debt on a sustainable path, build international reserves, increase the economy's resilience to shocks, and achieve higher and inclusive growth. In this regard, they welcomed the launch of the Economic Stabilization and Growth Program and the Seventh National Development Plan.

Directors commended the authorities for taking strong measures to phase-out regressive fuel and electricity subsidies, and for scaling-up spending on social protection programs. At the same time, they noted that achieving the government's fiscal consolidation goals will require stronger efforts to increase domestic revenues, including by addressing widespread exemptions and broadening the VAT and income tax bases. Directors emphasized the importance of containing recurrent spending, improving commitment controls, phasing out subsidies, and strengthening public financial management.

Directors expressed concern at the pace at which public debt, especially external debt, has increased and now put Zambia at high risk of debt distress. They commended the progress made in developing a medium-term debt strategy. While recognizing the need to address infrastructure

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[2] At the conclusion of the discussion, the Managing Director, as Chairman of the Board, summarizes the views of Executive Directors, and this summary is transmitted to the country's authorities. An explanation of any qualifiers used in summings up can be found here: http://www.imf.org/external/np/sec/misc/qualifiers.htm.

gaps, they emphasized that to maintain debt sustainability, it is critical to slow down on the contraction of new debt, especially non-concessional loans, strengthen debt management capacity, and improve project appraisal and selection processes.

Directors welcomed the recent easing of monetary policy. They commended the Bank of Zambia (BoZ) for unwinding the quantitative and administrative measures it had used to tighten monetary conditions. Directors underscored that greater reliance on interest rates and market mechanisms would enhance the transparency and effectiveness of monetary policy. They stressed that credible fiscal consolidation is necessary to sustain the current monetary policy stance.

Directors emphasized the importance of safeguarding financial stability. They welcomed BoZ's positive response to implementing the Financial Sector Assessment Program (FSAP) recommendations, including taking steps to strengthen supervision capacity and the crisis preparedness framework. Directors endorsed BoZ's plans to complete on-site inspection of all banks within 12–18 months, and advised the BoZ to take action to address weaknesses that may be revealed. Directors encouraged the authorities to accelerate the process of revamping the BoZ Act, to give the central bank more operational autonomy while enhancing its transparency and accountability.

Directors emphasized that macroeconomic stability, policy consistency, and investment in human capital are critical to addressing Zambia's high rates of poverty and income inequality and promoting sustainable growth. They encouraged the authorities to address policy uncertainties that are clouding the investment climate, including clarifying the roles of the state and the private sector in the energy and agriculture sectors.

Table 1. Zambia: Selected Economic Indicators, 2014–22

	2014	2015	2016	2017	2018	2019	2020	2021	2022
			Prel.	Baseline Projections					
	(Percentage change, unless otherwise indicated)								
National account and prices									
GDP growth at constant prices	4.7	2.9	3.4	4.0	4.5	4.5	4.5	4.5	4.5
Mining	-2.3	0.2	7.0	7.0	5.0	5.0	6.0	6.0	6.0
Non mining	5.6	3.2	3.0	3.6	4.4	4.4	4.3	4.3	4.3
GDP deflator	5.4	6.7	14.3	7.9	8.1	8.1	7.8	8.0	7.9
GDP at market prices (millions of kwacha)	167,052	183,381	216,826	243,284	274,845	310,305	349,546	394,301	444,362
GDP at market prices (USD)	27,151	21,243	21,012	25,576	27,328	28,242	29,521	31,267	33,345
Consumer prices									
Consumer prices (average)	7.8	10.1	17.9	6.8	7.4	8.0	8.0	8.0	8.0
Consumer prices (end of period)	7.9	21.1	7.5	5.8	8.0	8.0	8.0	8.0	8.0
External sector									
Terms of trade (deterioration -)	-2.4	-4.0	-1.9	6.8	3.4	2.2	-0.4	1.0	-1.3
Real exchange rate (depreciation +)	9.2	30.0	-3.9	…	…	…	…	…	…
Money and credit									
Domestic credit to the private sector	26.4	29.3	-9.4	13.0	12.9	14.4	14.7	14.2	14.8
Reserve money (end of period)	31.1	22.2	12.8	5.9	23.4	21.3	16.1	15.1	15.5
Broad Money (M3)	12.6	35.2	-5.7	14.0	27.0	20.6	15.4	15.6	15.1
Credit to the private sector (percent of GDP)	13.4	15.7	12.1	12.1	12.1	12.3	12.5	12.7	12.9
	(Percent of GDP, unless otherwise indicated)								
National accounts									
Gross investment	33.6	42.1	41.7	41.9	43.6	42.7	41.1	39.2	38.2
Government	4.8	6.0	3.8	5.3	7.2	7.3	7.2	6.7	6.0
Private	28.7	36.1	38.0	36.6	36.4	35.4	33.9	32.5	32.2
National savings	35.7	38.2	37.3	38.3	40.8	41.2	41.1	39.0	37.8
External current account balance	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4
Central government budget									
Revenue	18.9	18.8	18.2	17.3	18.4	18.4	18.9	19.4	19.6
Taxes	15.5	14.4	12.9	13.8	14.9	14.8	15.2	15.7	15.9
Grants	0.8	0.2	0.2	0.7	0.6	0.6	0.6	0.6	0.6
Other revenue	2.7	4.2	5.0	2.8	2.9	3.0	3.1	3.1	3.1
Expenditure	24.3	27.6	23.8	25.3	26.2	25.6	25.5	24.7	23.9
Expense	19.0	21.0	20.1	20.0	19.0	18.3	18.2	18.0	17.9
Net acquisition of nonfinancial assets	5.3	6.6	3.8	5.3	7.2	7.3	7.2	6.7	6.0
Net lending/borrowing (cash basis)	-5.7	-9.3	-5.8	-8.0	-7.8	-7.2	-6.5	-5.3	-4.3
Excluding grants	-6.5	-9.5	-6.0	-8.7	-8.4	-7.8	-7.2	-5.9	-4.9
Net lending/borrowing (commitment basis)	-9.8	-12.1	-8.6	-5.6	-6.8	-6.5	-5.5	-5.1	-4.3
Net acquisition of financial assets	0.4	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0
Domestic	0.4	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net incurrance of liabilities	6.1	8.7	5.2	8.0	7.8	7.2	6.5	5.3	4.3
Domestic	1.2	1.4	3.8	4.9	3.3	2.4	2.9	2.8	2.7
Foreign	4.9	7.3	1.4	3.2	4.5	4.8	3.6	2.5	1.6
Financing gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
External sector									
Current account balance	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4
(including current and capital grants)	2.8	-3.5	-4.2	-3.4	-2.6	-1.2	0.2	0.1	-0.2
(excluding grants)	1.9	-4.0	-4.4	-4.4	-3.3	-2.0	-0.5	-0.6	-0.9
Gross International Reserves (months of prospective imports)	4.2	4.5	3.1	2.5	2.8	3.1	3.0	3.2	3.3
Public debt									
Total central government debt, gross (end-period)	35.6	61.4	60.5	55.6	60.0	62.4	63.3	64.0	63.1
External	20.1	43.1	36.5	32.9	37.3	40.4	42.4	42.6	41.4
Domestic[1]	15.5	18.3	24.0	22.7	22.7	22.0	21.0	21.4	21.7
PV of Public External Debt[2]	20.1	46.2	37.0	34.5	39.1	42.6	44.3	44.3	43.3

Sources: Zambian authorities; and IMF staff estimates and projections.

[1] Including arrears.

[2] Public and publicly guaranteed external debt.

INTERNATIONAL MONETARY FUND

ZAMBIA

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION

September 25, 2017

KEY ISSUES

Context. The Zambian economy has started recovering from a marked slowdown in growth. In 2015Q4 and most of 2016, it was in near-crisis, reflecting the impacts of exogenous shocks and lax fiscal policy in the lead up to general elections. Tight monetary policy helped to stabilize the exchange rate and lower inflation, but the ensuing liquidity crunch combined with government arrears and subdued economic activity caused a rise in non-performing loans and put the financial system under substantial stress. Public debt has been rising at an unsustainable pace, crowding out lending to the private sector. The government has initiated bold reforms of subsidies in the agriculture and energy sectors, and is scaling up spending on social protection programs. However, ambivalence on key measures is creating uncertainties about its commitment to fiscal consolidation, with potential adverse effects on private investment and growth.

Outlook and risks. Good rains and rising copper price have improved the near-term economic outlook, but significant vulnerabilities remain. Increased participation of foreign investors in government securities markets has eased the government's financing constraint but has made the economy more vulnerable to swings in market sentiments and capital flow reversals. The medium-term outlook is contingent on policies. Returning to high growth requires a stable macroeconomic environment as well as policies and reforms to increase productivity, enhance competitiveness, and boost market confidence. Domestic risks to the medium-term outlook include delayed fiscal adjustment which would continue to crowd out credit to the private sector and entrench an unsustainable debt situation. External risks include tighter global financial conditions and volatility in the world copper price.

Fiscal policy. Improved performance is needed to put public finances on a sound footing and public debt on a sustainable path. This requires measures and policies that will permanently boost domestic revenue, rein in spending on costly and poorly targeted subsidies while boosting social spending, and more effectively prioritize public investment projects. Public financial management reforms are needed to restore budget credibility and eliminate arrears.

Monetary policy and operations. Against a backdrop of receding inflation and emerging exchange rate appreciation pressures, the Bank of Zambia (BoZ) has eased monetary policy significantly since November 2016. Notably, it has unwound the quantitative and administrative measures it relied on heavily in tightening monetary conditions in 2015. BoZ should rely increasingly on market and price-based instruments to implement monetary policy and deepen money markets to improve the transmission mechanism.

Financial sector stability. Despite deterioration in asset quality and declining profitability, reported financial soundness indicators suggest that most banks remain well capitalized. The recently completed report under the Financial Sector Assessment Program (FSAP) found that supervision was not fully effective, due to an outdated legal framework and under resourcing of the function. Also, a weak crisis management framework and a lack of resolution funding resulted in overuse of forbearance. The BoZ is in the process of upgrading the legal and regulatory framework for financial supervision. It is also hiring more staff and scheduling more regular on-site inspection of banks. The authorities are also taking steps to strengthen BoZ's bank resolution powers and tools, and are preparing to introduce a deposit protection scheme.

Inclusive growth. To achieve inclusive growth, the authorities should focus on maintaining stable and coherent policies, improving the investment climate, promoting productivity growth, and strengthening the country's human capital. They should also reverse recent declines in financial inclusion for small and medium-scale enterprises.

Approved By
Michael Atingi Ego and Bob Traa

Discussions were held in Lusaka during March 9–24 and May 29–June 10, and continued via VTC through August 28. The staff team comprised Tsidi Tsikata (head), Manuel Rosales, Tito da Silva Filho, Jasmin Sin, Leonard Kipyegon (all AFR), Kevin Greenidge (SPR), and Alfredo Baldini (Resident Representative). Paul Mathieu (MCM, head of FSAP team) participated in the March mission. Ladslous Mwansa (Economist, Office of the Resident Representative) assisted the missions. Gillian Nkhata and Tanka Tlelima (OED) participated in the discussions in March and June, respectively. Staff met His Excellency President Edgar Lungu, Minister of Finance Felix Mutati, Bank of Zambia (BoZ) Governor Denny Kalyalya, Minister of Development Planning Lucky Mulusa, Minister of Agriculture Dora Siliya, Minister of Health Chitalu Chilufya, other senior government and BoZ officials, members of parliament, senior officials of selected parastatals, as well as representatives of the private sector, labor unions, civil society organizations, and Zambia's development partners.

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CONTEXT: SHOCKS, POLICIES, AND VULNERABILITIES

1. **The Zambian economy was in near-crisis in 2015Q4 and most of 2016, reflecting the impacts of exogenous shocks and lax fiscal policy**. Low copper prices reduced export earnings and government revenues, weakening the kwacha. Poor rainfall led to a contraction in agriculture output in 2015, and to a sharp drop in hydropower generation. Severe power rationing contributed to a marked slowdown in the pace of economic activity. Government spending was significantly above budget while revenues underperformed. Tightened financing conditions during 2016 and lack of expenditure restraint in the lead up to general elections in August, resulted in the government accumulating substantial arrears.

2. **Monetary policy carried the burden of policy adjustments**. Tightening of monetary policy in 2015Q4 helped to stabilize the exchange rate and lower inflation. The ensuing liquidity crunch combined with government arrears and subdued economic activity put the financial system under considerable stress. Non-performing loans (NPLs) rose sharply, credit growth plunged, and the Bank of Zambia (BoZ) took over a small bank and intervened in three nonbanks in late 2016. Since November 2016, with inflation receding and the emergence of exchange rate appreciation pressures (reflecting capital inflows and weak demand for imports), BoZ eased monetary policy considerably by unwinding administrative and quantitative measures it employed to tighten liquidity in 2015.

3. **Public debt has been rising unsustainably**. It increased from 36 percent of GDP at end-2014 to 61 percent at end-2016. External debt now accounts for 60 percent of public debt, making the portfolio highly susceptible to exchange rate risk. Government securities account for about half of domestic debt, with commercial banks and foreign investors holding about 40 percent and 17 percent of the total, respectively. Public debt is crowding out lending to the private sector and making the economy vulnerable to capital flow reversals.

4. **The government has initiated important fiscal reforms, but is ambivalent on its commitment to debt sustainability**. It has reduced regressive subsidies in the energy sector and is implementing reforms to enhance the efficiency and focus of subsidies in the agriculture sector. However, the pace and scale of contracting new loans for capital projects—sometimes before appraisals are ready—are inconsistent with stated debt sustainability objectives.

5. **The near-term economic outlook has improved, driven by good rains and rising copper price**. A bumper harvest and increased hydro power generation are expected to boost real GDP growth to 4 percent in 2017 from 3.4 percent in 2016. Inflation is projected to remain within the authorities' target range of 6-8 percent, reflecting recent appreciation of the exchange rate. Increased foreign investor participation in the government securities auctions since late-2016 has eased the government's financing constraint and supplied foreign exchange to the domestic market. With copper accounting for about 70 percent of Zambia's export earnings, the recent increase in the world price—from about US$5,700 per metric ton in December 2016 to nearly US$6,500 in August 2017—has brightened the economy's prospects.

6. **The government has launched its Economic Stabilization and Growth Program (ESGP) and the Seventh National Development Plan (7NDP)**. The ESGP (2017-2019) aims at restoring macroeconomic stability and creating conditions for sustained growth, with a heavy emphasis on public financial management: enhancing resource mobilization, refocusing public spending on core public sector mandates, scaling up social protection programs, strengthening accountability and transparency in the use of public resources, and restoring budget credibility. The 7NDP outlines the medium-term strategy for creating jobs, encouraging economic diversification, and supporting human capital development, with the overarching objectives of reducing poverty and inequality.

7. **Rising political tensions pose risks**. Following closely contested general elections in August 2016, political tensions rose between the ruling Patriotic Front party and the main opposition United Party for National Development (UPND). Tensions heightened when the UPND leader was charged with treason and jailed in April 2017. Following mediation by national religious leaders and the Commonwealth Secretariat, the UPND leader was released in August, and the treason charges have been dropped. In response to a series of arson attacks on markets and electricity infrastructure, on July 5, 2017 President Lungu declared the existence of a situation that could degenerate into a state of emergency if not addressed.

8. **IMF staff and the Zambian authorities have held discussions on a possible Fund-supported program**. Further progress will require greater clarity on fiscal policy commitments and aligning the government's borrowing plans to achieving public debt sustainability.

9. **Implementation of past IMF policy advice has been mixed (Annex I)**. Advice on fiscal policy was not followed. Some progress was made on structural fiscal reforms, but weaknesses in commitment control persist, resulting in the accumulation of arrears. In line with staff advice, BoZ maintained a tight monetary policy stance in 2015 and most of 2016. The level of international reserves has declined, but BoZ has been opportunistically purchasing foreign exchange from the market.

RECENT ECONOMIC DEVELOPMENTS AND NEAR-TERM OUTLOOK

10. **Economic growth is beginning to recover (Figure 1 and Table 1)**. After averaging 7 percent a year during 2005-2014, real GDP growth dipped to 2.9 percent in 2015, reflecting the dampening impacts of low copper price, power rationing, government arrears, and restrictive monetary policy. Growth picked up to 3.4 percent in 2016, driven mainly by mining activities and private construction. A bumper harvest and increased hydro power generation are expected to lift growth to 4 percent in 2017.

11. **Annual inflation has fallen to single-digit levels (Figure 1)**. A doubling of the kwacha value of the US dollar—from a monthly average of K6.34/US$ in December 2014 to K12.18/US$ in November 2015—pushed inflation from 7 percent in mid-2015 to 22.9 percent in February 2016. Thereafter, inflation declined gradually to 18.9 percent in September 2016 before falling sharply in 2016Q4 as the depreciation-fueled jump dissipated. Inflation fell further to 6.3 percent in August 2017, and is projected to remain within the authorities' target (6-8 percent).

12. **BoZ has recently eased its very tight monetary policy stance (Text Table 1).** In 2015Q4, BoZ reacted strongly to the sharp kwacha depreciation and spike in inflation by raising the Policy Rate (PR), increasing the premium on the Overnight Lending Facility (OLF), restricting banks' access to the OLF to once a week, and raising the statutory reserve requirement (SRR). It mopped up liquidity further by forced sales of foreign exchange to banks. BoZ also abolished caps on interest rates that were introduced in 2012. In November 2016, against a backdrop of receding inflation and exchange rate appreciation pressures, BoZ started easing monetary conditions; it normalized OLF access, lowered the SRR, and reduced the PR and the OLF premium. In contrast to 2014 and 2015 when BoZ sold large amounts of foreign exchange to stem depreciation pressures, since 2016 it has made net purchases to rebuild international reserves.

Text Table 1. Zambia: Exchange Rate Movements and Monetary Policy Responses

	2014	2015	2016	Jan-Aug. 2017
Exchange rate movements (+ depreciation)	15.8%	69.1%	-9.9%	-7.6%
FOREX interventions (+ sales, million US$)	698.5	759.5	-340.2	-347.9
BoZ policy rate	9.75% → 12.5%	12.5% → 15.5%	No Change	15.5% → 11.0%
Reserve requirements	8.0% → 14.0%	14.0% → 18.0%	No Change	18.0% → 9.5%
Overnight Lending Facility (premium over the policy rate)[1]	250bps → 1000bps	No Change	No Change	1000bps → 600bps

Sources: Bank of Zambia and IMF staff calculations.

[1] Changes in OLF often involves also quantitative restrictions.

13. **Fiscal imbalances have remained very high (Figure 2 and Tables 2 and 3)**. In 2015, the fiscal deficit on a cash basis reached 9.3 percent of GDP compared to 4.6 percent budgeted, due to shortfalls in revenue, spending overruns on subsidies, and a larger interest bill than budgeted. Net accumulation of arrears and clearance of VAT refund claims totaled 2.8 percent of GDP, pushing the deficit on a commitment basis to 12.1 percent of GDP. The cash deficit was financed mainly with proceeds from Eurobonds placed in July 2015. In 2016, the fiscal deficit on a cash basis was 5.8 percent of GDP (compared to 3.3 percent in the budget), driven by shortfalls in VAT collections and customs duties, and overruns on subsidies. The deficit on a commitment basis reached 8.6 percent of GDP.

14. **The government faced tight financing constraints during most of 2016**. It had difficulty rolling over maturing securities as liquidity was scarce. It turned to BoZ which provided financing beyond the legal limit.[1] The situation improved in 2016Q4 following the easing of monetary policy and the return of foreign investors—drawn by high real yields—to the government securities market.

15. **Fiscal performance in 2017 is projected to fall slightly short of budget estimates**. The 2017 budget targeted a cash deficit of 7 percent of GDP (5.5 percent of GDP on a commitment basis), based on optimistic revenue projections (including high yields from administrative measures) and under-budgeting of some expenditures (the operations of the Food Reserve Agency (FRA), wages). Reacting to indications of revenue underperformance early in the year, the authorities introduced a tax amnesty in April, under which penalties and interest on back taxes were waived. It is expected to yield 1.2 percent of GDP, much more than initially projected. Half of the estimated proceeds are expected to be collected in 2017, and the other half in 2018. Notwithstanding the improved outlook for revenues, staff projects a cash deficit around 8 percent of GDP due to unbudgeted and under-budgeted lines (Table 3).

16. **Public debt has risen sharply since 2011, driven mainly by external debt and a sharp depreciation of the kwacha in 2015 (Figure 2)**. Public debt tripled from 21 percent of GDP at end-2011 to 60.5 percent of GDP at end-2016. External debt quadrupled to US$8 billion (36.5 percent of GDP) at end-2016, including US$3 billion in Eurobonds, compared to US$1.9 billion (8 percent of GDP) at end-2011, and now accounts for 60 percent of total public debt. Also of concern is the fast pace at which new debt is being contracted (Text Table 2).

[1] In the BoZ Act, direct lending to government is limited to the equivalent of 15 percent of the previous year's domestic revenue.

Text Table 2. Zambia: Evolution of Public and Publicly Guaranteed External Debt
(Millions of U.S. dollars)

	2010	2011	2012	2013	2014	2015	2016
Public and publicly guaranteed							
Stock of Outstanding debt	**1,481**	**1,868**	**3,491**	**3,801**	**5,263**	**7,193**	**7,992**
Central Government[1]							
Stock of Outstanding debt	**1,088**	**1,448**	**2,954**	**3,092**	**4,335**	**6,283**	**7,038**
Disbursements	161	397	1,157	224	1,372	1,965	864
EuroBond			750		1,000	1,250	
Budget support	69	30	52	0	0	0	0
Project support	92	367	355	224	372	715	864
of which: on-lending						*140*	*418*
Amortization	39	26	235	119	102	145	154
BoZ							
Stock of Outstanding debt	**393**	**419**	**406**	**387**	**333**	**257**	**182**
Disbursements	56	29	0	0	0	0	0
Amortization	1	5	12	18	35	61	69
Publicly guaranteed							
Stock of Outstanding debt			**131**	**322**	**594**	**653**	**771**
Disbursements			131	207	298	101	181
Amortization			0	16	26	43	62
Memo:							
Value of New loans contracted (US$ millions)	727	505	1,308	1,249	1,576	2,215	3,447
Cumulative Value of New loans contracted (US$ millions)		1,232	2,540	3,789	5,364	7,579	11,026
Number of loans contracted in year	13	5	4	13	9	12	30

Source: Zambian authorities.

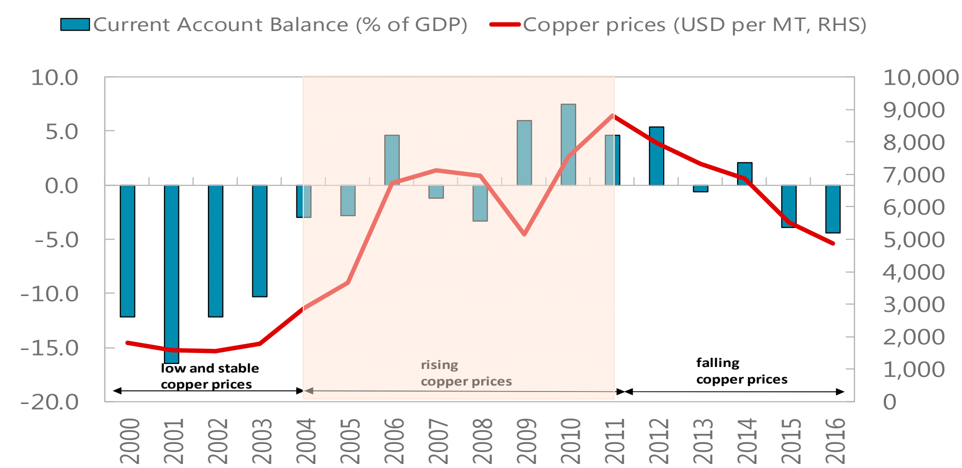
[1] Data for 2016 excludes US$420 million arrears to PTA Bank.

17. **Monetary conditions remain tight and an unbalanced policy mix has placed the financial system under considerable stress**. Very tight liquidity conditions caused funding costs to soar and lending rates to reach levels above 40 percent in 2016. Economic activity, already hit by electricity shortages and mounting government arrears to private contractors, weakened further due to high funding costs, leading to a sharp rise in NPLs—from 6 percent of outstanding loans at the end of 2014 to 12 percent in July 2017 (Table 7). The increase in NPLs across banks has been greatly heterogeneous, with a handful of banks accounting for most of the increase in the average for the system. Rising NPLs, high macroeconomic uncertainty, and very high lending rates led to a sharp reduction in credit growth (Figure 4a and 4b). While the OIR and yields on government securities have fallen as liquidity increased, lending rates have barely moved; the average annual real lending rate for the banking system is about 20 percent. BoZ took over a small bank and intervened three nonbanks in 2016. Other small banks and several non-bank financial institutions face challenging conditions.

18. **The external position has been under pressure from low copper price (Text Figure 1)**. The current account balance turned from a 2.1 percent of GDP surplus in 2014 to a 3.9 percent of GDP deficit in 2015 and 4.4 percent of GDP in 2016, reflecting lower copper export earnings

and higher interest payments. Despite the large currency depreciation in late-2015, imports in 2016 fell by only 12 percent due to higher imports of fuel and electricity to cope with the shortages in the domestic power supply. Gross international reserves declined to US$2.4 billion at end-2016 (3⅓ months of import cover) compared to nearly US$3 billion at the end of 2015 (4.5 months of import cover). With copper accounting for about 70 percent of Zambia's export earnings, the recent steady increase in the world price has brightened prospects in the mining and external sectors, with positive spillovers to other sectors.

Text Figure 1. Zambia: Current Account Balance and Copper Prices



Sources: Bank of Zambia and IMF staff estimates

19. **The spreads on Zambia's Eurobonds have narrowed significantly (Figure 5).** The Eurobonds traded on the secondary market at substantial spreads over U.S. treasury bonds of comparable tenor for most of 2015, but the spreads narrowed significantly in 2016Q4 and early 2017. The movement in spreads also occurred in other sovereigns, indicating that common market factors were at play.

MEDIUM-TERM OUTLOOK AND RISKS

20. **The medium-term economic outlook is contingent on policy actions.** Zambia has great potential, based on its abundant natural resources (e.g., minerals, fertile lands, and water resources). However, returning to high growth requires stable policies and reforms to increase productivity and enhance competitiveness.

21. **In view of significant uncertainties, two macroeconomic scenarios are presented (Text Tables 3 and 4).** A "baseline" or "current policies" scenario assumes that the authorities will pursue a more gradual fiscal consolidation path than that outlined in the 2017 budget, including a larger public investment plan funded by external loans. Additional financing needs emerge for domestic borrowing, including to cover government's contribution to projects that are funded predominantly with external resources. The second scenario, "adjustment policies", assumes that the

authorities prioritize infrastructure projects in line with absorptive capacity and the need to put public debt indicators on a downward path. Growth in the baseline scenario is projected to be lower than in the adjustment scenario due to government borrowing crowding-out lending to the private sector, slower pace of clearance of government arrears, and lower non-mining private investment. Inflation is projected to be somewhat higher over the medium-term in the baseline scenario reflecting delays in fiscal consolidation and larger depreciation pressures on the exchange rate.

Text Table 3. Zambia: Selected Economic Indicators

	2014	2015	2016	Baseline						Adjustment					
			prel.	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
Real GDP growth (%)	4.7	2.9	3.4	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	5.0	5.5	5.5	5.5
Inflation (y-o-y, %, end-period)	7.9	21.1	7.5	5.8	8.0	8.0	8.0	8.0	8.0	5.8	6.5	6.0	6.0	6.0	6.0
Overall balance (cash basis, % of GDP)	-5.7	-9.3	-5.8	-8.0	-7.8	-7.2	-6.5	-5.3	-4.3	-7.3	-5.9	-3.9	-3.1	-2.3	-2.0
Overall balance (committment)[1]	-9.8	-12.1	-8.6	-5.6	-6.8	-6.5	-5.5	-5.1	-4.3	-4.9	-4.2	-2.9	-2.1	-2.3	-2.0
External current account balance (% of GDP)	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4	-3.0	-1.7	-0.2	0.8	1.0	1.2
Gross international reserves															
US$ billions	3.1	3.0	2.4	2.2	2.6	3.0	3.2	3.7	4.3	2.4	2.8	2.9	3.2	3.7	4.4
Months of prospective imports	4.2	4.5	3.1	2.5	2.8	3.1	3.0	3.2	3.3	2.8	3.1	3.1	3.1	3.4	3.5
Public debt[2]	35.6	61.4	60.5	55.6	60.0	62.4	63.3	64.0	63.1	54.9	56.1	54.7	53.1	51.4	49.1
External[2]	20.1	43.1	36.5	32.9	37.3	40.4	42.4	42.6	41.4	33.0	35.4	35.6	35.1	33.9	32.5
Copper price (US$/tonne)	6,863	5,510	4,868	6,030	6,430	6,462	6,471	6,469	6,469	6,030	6,430	6,462	6,471	6,469	6,469
Oil price (US$/barrel)	96	51	43	50	50	51	51	52	53	50	50	51	51	52	53

Sources: Zambian authorities; and IMF staff estimates and projections.
[1] Adjusted for the accumulation/clearance of VAT refund claims and arrears relating to FRA, FISP, subsidies, public investment projects, and pensions.
[2] Includes public and publicly guaranteed external debt.

Text Table 4. Zambia: Fiscal Operations of the Central Government, 2014–22

(Percent of GDP)

	2014	2015	2016		2017	Baseline						Adjustment					
			Budget	Prel.	Budget	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
Revenue	18.9	18.8	20.7	18.2	19.4	17.3	18.4	18.4	18.9	19.4	19.6	17.3	18.3	18.4	19.0	19.5	19.5
Of which: One-off receipts	0.0	0.1	0.0	1.9	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
VAT refunds (+ accumulation)	1.8	-0.2	0.0	-0.5	0.0	-0.5	-0.3	-0.3	-0.1	0.0	0.0	-0.5	-0.3	-0.3	-0.1	0.0	0.0
Adjusted revenues	17.1	19.0	20.7	18.7	19.4	17.8	18.7	18.7	19.1	19.4	19.6	17.8	18.6	18.6	19.2	19.5	19.5
Expenditure	27.0	31.1	24.0	27.2	25.0	23.4	25.4	25.1	24.4	24.5	23.7	22.7	22.9	21.6	21.3	21.8	21.5
Current	21.7	22.7	19.7	22.5	19.8	18.5	18.6	18.2	18.0	17.8	17.7	18.5	18.3	17.6	17.5	17.1	16.7
Of which: Arrears (+ accumulation)	2.4	1.3	0.0	2.3	-1.4	-1.5	-0.3	-0.1	-0.2	-0.3	-0.2	-1.5	-0.9	-0.3	0.0	0.0	0.0
Capital	5.3	8.4	4.3	4.8	5.2	4.9	6.8	6.9	6.4	6.7	6.0	4.2	4.6	4.0	3.8	4.7	4.8
Of which: Arrears (+ accumulation)	0.0	1.7	0.0	1.0	0.0	-0.4	-0.4	-0.4	-0.8	0.0	0.0	-0.4	-0.4	-0.4	-0.8	0.0	0.0
Overall balance, (committment)[1]	-9.8	-12.1	-3.3	-8.6	-5.5	-5.6	-6.8	-6.5	-5.5	-5.1	-4.3	-4.9	-4.2	-2.9	-2.1	-2.3	-2.0
Primary balance (committment)[1]	-7.6	-9.3	0.1	-5.2	-1.9	-2.0	-2.8	-2.5	-1.6	-1.3	-0.5	-1.3	-0.4	0.7	1.3	0.9	1.0
Deficit (cash basis)	-5.7	-9.3	-3.3	-5.8	-7.0	-8.0	-7.8	-7.2	-6.5	-5.3	-4.3	-7.3	-5.9	-3.9	-3.1	-2.3	-2.0
Primary balance (cash basis)	-3.5	-6.5	0.1	-2.3	-3.3	-4.3	-3.8	-3.2	-2.7	-1.6	-0.5	-3.7	-2.0	-0.3	0.3	0.9	1.0

Sources: Zambian authorities; and IMF staff estimates and projections.
[1] Adjusted for the accumulation/clearance of VAT refund claims and arrears relating to FRA, FISP, subsidies, public investment projects, and pensions.

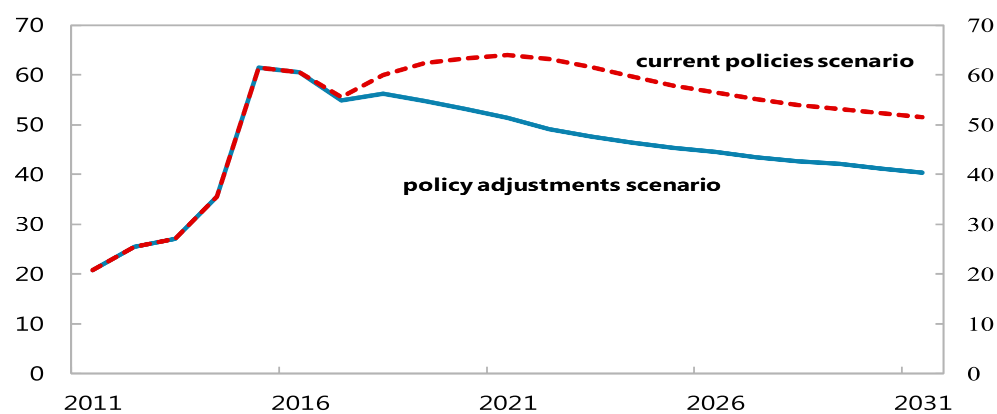
22. **The external position improves at a more gradual pace under the current policies scenario.** Exports earnings are projected to recover driven by the pick-up in copper prices, while lower electricity imports partially offset the higher imports associated with public sector capital projects. Foreign exchange reserves are projected to increase gradually to 3-3½ months of import cover under both scenarios, underscoring the need for structural reforms to support export growth and diversification.

23. **Zambia is assessed to be at high risk of debt distress based on a full LIC-DSA prepared by Fund and World Bank staff (Text Figure 2)**. Under "current policies", the present value (PV) of external debt-to-GDP ratio breaches its threshold (40 percent) during 2019-23, while the PV of debt service to revenue ratio breaches its threshold (20 percent) in 2022 and 2024 when Eurobonds mature. Sensitivity analyses indicate that all indicators breach relevant thresholds in the face of shocks related to export earnings, growth and the exchange rate. Debt dynamics improve substantially under the "adjustment" scenario; the PV of external debt-to-GDP remains below the 40 percent threshold throughout the projection horizon, but the debt-service-to-revenue ratio temporarily breaches the threshold in years when Eurobonds mature. The DSA suggests that Zambia would return to a moderate risk rating if the authorities restrain non-concessional borrowing and implement measures to achieve the fiscal consolidation path consistent with the adjustment policies scenario.

24. **Analysis of total public debt indicates a heightened level of vulnerabilities under current policies.** Total public debt is projected to exceed the benchmark level (56 percent of GDP) associated with heightened vulnerabilities for medium performers (the relevant group for Zambia) over an extended period. Under the adjustment scenario, characterized by improving primary balances, public debt declines steadily after 2018, falling below the benchmark level from 2019.

Text Figure 2. Zambia: Evolution of Public Sector Debt under Alternative Scenarios

(Percent of GDP)



Sources: Zambian authorities and IMF staff estimates and projections

25. **Risks to the medium-term outlook (Annex II)**. Domestic risks include delayed fiscal adjustment, policy inconsistencies, and rising political tensions. Delayed fiscal adjustment increases

the risks of an unsustainable debt path and capital flow reversal. Sharply rising domestic debt would crowd out credit to the private sector, harming growth. Policy inconsistencies and rising political tension deter investment and growth. The Zambian economy is vulnerable to exogenous shocks, including from volatile global financial conditions, fluctuations in the world copper price, and droughts. In view of the current large fiscal deficits and modest level of international reserves, materialization of these risks could impact investors' sentiment, resulting in capital outflows and much slower growth and higher inflation than indicated under the current policies scenario.

POLICY DISCUSSIONS

A. Achieving Fiscal Fitness

"We cannot spend what we do not have. We cannot borrow beyond our ability to repay." 2017 Budget Speech.

26. **Improved fiscal performance is needed to put public finances and debt on a sustainable path (Text Table 4)**. Achieving "fiscal fitness" requires boosting domestic revenue mobilization, reining in recurrent spending, and effective prioritization of public investment taking into consideration the country's absorptive capacity and the authorities' objective of lowering the risk of debt distress from high to moderate.

27. **Staff advised that fiscal policies over the medium-term be anchored on the primary balance on a commitment basis.** Consistent with the authorities' objective of reducing Zambia's risk of debt distress from high to moderate, staff stressed that the primary balance on a commitment basis should target a 4 percent of GDP adjustment in 2017 followed by a 1 percent of GDP improvement over the next two years. This would result in a primary surplus of about 0.7 percent of GDP by 2019, in contrast to the 2.5 percent primary deficit projected under the current policies scenario.

Revenue Mobilization

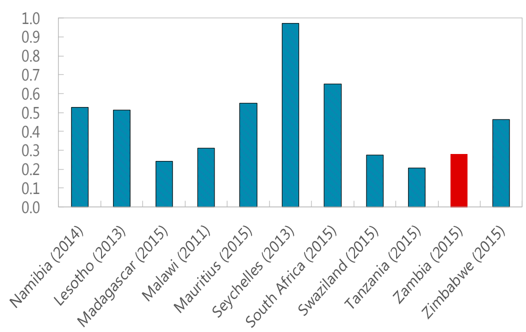
28. **Zambia's domestic revenue mobilization is lagging behind peers**. Fund staff stressed that Zambia's VAT efficiency[2] and corporate income tax productivity[3] are well below SADC comparators due to widespread tax incentives, a multitude of income tax rates, and the extension of zero-rating to non-exportable goods, and broad exemptions (Text Figures 3 and 4). Given projected revenue shortfalls in 2017, staff urged the authorities to fully implement measures already approved by parliament including on land titling, and to speed up the introduction of fiscal devices aimed at improving the monitoring of tax compliance. Staff indicated that priority should be given

[2] VAT C efficiency is defined as actual VAT collections as the share of its potential base. See SIP on Fiscal Sustainability,

[3] CIT productivity is defined as the tax yield in percent of GDP relative to the standard CIT rate.

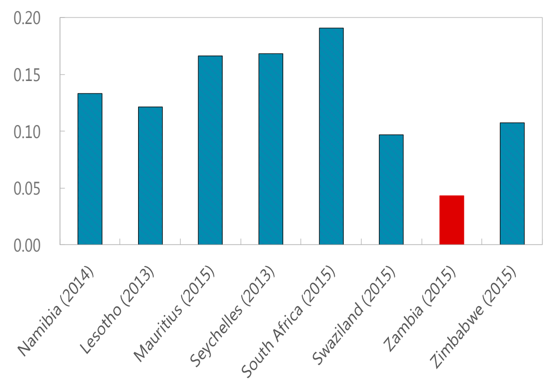
to cleaning the taxpayer database, strengthening tax-auditing capacity, and enhancing the monitoring of high income taxpayers.

Text Figure 3. VAT C-Efficiency SADC Comparators, Latest Year of Actual Data Available



Sources: IMF Fiscal Affairs Department.

Text Figure 4. CIT Productivity SADC Comparators, Latest Year of Actual Data Available



Sources: IMF Fiscal Affairs Department.

29. **Authorities' views**. The authorities agreed with staff's assessment and indicated that they have taken measures to increase tax compliance by appointing as VAT withholding agents, key players in the mining and construction sector. They noted that substantive progress has been made toward implementing measures already approved by parliament which would start yielding results in the second half of 2017. To partially offset the revenue shortfall, the authorities launched the tax amnesty (April 20-September 15) which is yielding good results.

Expenditure Measures

30. **The authorities are taking strong measures to address the sources of spending overruns**. In October 2016, fuel prices were adjusted to full-cost recovery levels. Since then, the Energy Regulatory Board (ERB) lowered pump prices in January and August 2017 in line with declining world oil prices and kwacha appreciation. Staff urged the authorities to continue adhering to the cost-recovery policy going forward to avoid the reemergence of fuel subsidies and pressures on the budget, noting the highly regressive nature of these subsidies as highlighted in a recent incidence analysis prepared by staff (Text Figure 5).[4]

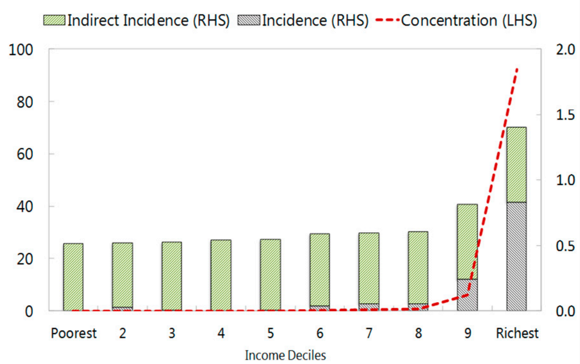
31. **A plan to reduce electricity subsidies is in place.** The government has commissioned a cost of service study which will provide a framework for moving to cost-reflective electricity tariffs. The study is expected to be completed in early-2018. Meanwhile, electricity tariffs to non-mining consumers were recently hiked by 75 percent in two-steps: a 50 percent increase on May 15, and a second adjustment (16 percent increase) on September 1. Staff estimates the effective average tariff increase at about 48 percent, reflecting the increase in the lifeline threshold from 100 kwh to 200 kwh. For the mining companies, the authorities have recently negotiated an increase in the

[4] See SIP on Distributional Impact of Subsidies and Proposed Reforms.

average tariff (across companies) from less than US$0.06/kwh to US$0.093/kwh, effective (retroactively) from January 2017. Staff estimates based on information from ZESCO (the state-owned electricity utility) suggest that with the current adjustments, there should no longer be a need for the government budget to subsidize electricity tariffs.

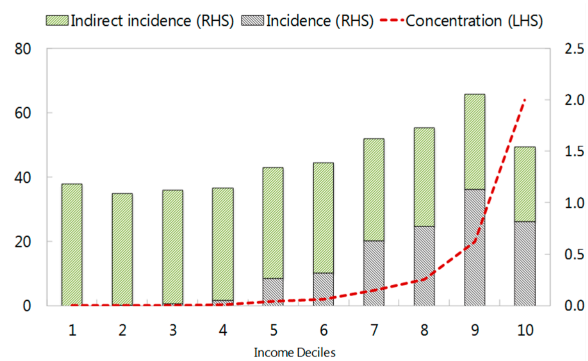
32. **Staff expressed concern about the doubling of the lifeline threshold, done ostensibly to protect the poor.** Staff noted that the new level is much higher than in Zambia's peer countries, and most of the poor are not connected to the grid. Staff presented results from its recent incidence analysis which indicates that 84 percent of electricity subsidies accrue to the richest 20 percent households in Zambia (Text Figure 6).[5]

Text Figure 5. Zambia: Fuel Subsidy Concentration and Incidence



Sources: 2015 Living Conditions Monitoring Survey; Commitment to Equity Institute; and IMF staff calculations.

Text Figure 6. Zambia: Electricity Subsidy Concentration and Incidence



Sources: Living Conditions Monitoring Survey; Commitment to Equity Institute; and IMF staff calculations.

33. **Subsidies in the agriculture sector are also being reformed**. In line with the policies stated in the 2017 Budget Speech, the government is reforming the Farmer Input Support Program (FISP) by fully migrating to an E-voucher system, which will reduce substantially the program's operational costs, broaden the range and sources of inputs, and rationalize the number of beneficiaries by stricter application of the eligibility criteria. The government announced that with effect from the 2017 marketing season, purchases of maize by the Food Reserve Agency (FRA) will be limited to 500,000 metric tons, in line with Zambia's strategic food reserves requirement. This will curtail the role FRA has played in the marketing of maize in recent years—buying maize above prevailing market prices at harvest time and selling below market prices in the lean season—leaving room for greater private sector participation.

34. **Authorities' views.** The authorities expressed their commitment to adhere to the cost-plus model for setting fuel prices. On electricity, they expect the results of an on-going cost of service study to guide the setting of cost-reflective tariffs. On FISP, they indicated that preparations were on track for the full migration to the e-voucher system in the 2017/18 season.

[5] See SIP on Distributional Impact of Subsidies and Proposed Reforms.

Arrears Clearance Strategy

35. **Staff highlighted the negative economic impact of government arrears**. Delays in government payments contributed to slowing down economic activity and a significant rise in banking NPLs. They also contributed to revenue underperformance as taxpayers were running arrears with the revenue authority due to delays in getting paid by the government.

36. **The government has started to clear the stock of arrears**. Staff welcomed the authorities' plan to reduce the stock by 2 percent of GDP in 2017. Preliminary information shows that as of end-June 2017, arrears totaling 1.1 percent of GDP had been cleared. Additionally, the backlog of VAT refund claims is being addressed and as of end-April 2017 the backlog stood at K2.9 billion compared to K6.3 billion as of end-February 2015.

37. **Authorities' views**. The authorities agreed with staff's assessment. They plan to clear the stock of arrears over the next three years.

Public Financial Management

38. **The government is taking steps to strengthen commitment control and the legal framework for managing public finances**. Staff welcomes the heightened attention and efforts underway to strengthen the legal framework for managing public resources, including the introduction of the Planning and Budgeting Bill, and amendments to the Public Finance and Public Procurement Acts. Staff urged the authorities to continue strengthening their public debt management capacity to put public debt on a sustainable path.

39. **Staff urged the authorities to strengthen the public investment cycle**. Public investment projects should be prioritized in line with Zambia's developmental needs while ensuring public debt sustainability. Staff stressed the need for feasibility studies before public projects are included in the budget.

40. **Authorities views**. To strengthen commitment controls, the authorities are rolling out the IFMIS to all central government institutions in 2017. Additionally, they plan to fully rollout the Treasury Single Account to help improve liquidity management. They welcomed the findings and key recommendations of a recent Public Investment Management Assessment (PIMA) mission from the Fund and expressed their commitment to draw on this to strengthen the planning and execution of public infrastructure projects. They agreed to strengthen project selection with a view to align projects with the 7NDP and the ESGP and enhance the procurement and execution processes with a view to ensure value for money.

B. Enhancing the Effectiveness of Monetary Policy

41. **The BoZ has faced several challenges transitioning to a more forward-looking Monetary Policy Framework (MPF)**. In April 2012, it introduced a new MPF under which the Policy Rate (PR) was expected to be the principal instrument for signaling the monetary policy stance.

For the first two years, BoZ implemented the new framework faithfully. However, during two extended periods in 2014-16, it allowed the interbank overnight rate (IOR) to deviate substantially from the PR. Instead of hiking the PR, BoZ relied heavily on quantitative and administrative measures to constrain liquidity. The choice appears to have been influenced by political pressures on BoZ to lower interest rates at a time of loose fiscal policy and depreciation pressures on the exchange rate. The move away from using the PR blurred monetary policy signals and undercut the credibility of the new framework. Recent measures such as lifting the cap on lending rates and improved liquidity management within a narrow PR corridor have strengthened the MPF and made MP more transparent. Going forward, fiscal policy prudence will be necessary in supporting the MPF.

42. **To strengthen the MPF, staff advised the authorities to:**[6]

- Grant BoZ formal operational independence to pursue price stability as its primary mandate.
- Strengthen open market operations as the main instrument of monetary policy.
- Formalize the policy rate corridor by introducing deposit and lending standing facilities to keep the IOR inside the policy corridor.
- Separate liquidity management from access to standing liquidity facilities to banks.
- Continue reducing SRRs as part of BoZ's move to greater reliance on market- and price-based instruments. Unremunerated SRR are an implicit tax on the financial system, which increases the cost of credit and hinders financial development.

43. **Authorities' views.** BoZ acknowledged the need to strengthen the MPF. In line with staff suggestions, BoZ reduced the width of the PR corridor, enhancing policy transparency and predictability, and increased the use of OMOs for liquidity management. It indicated that it would seek technical assistance to review the issues around formalizing the policy corridor before taking a decision.

C. Exchange Rate Policy and Foreign Exchange Market

44. **The Interbank Foreign Exchange Market (IFEM), which had functioned effectively for many years, came under enormous pressure in 2015, largely reflecting the impact of significantly reduced FX inflows.** The strong reaction of the BoZ to the sharp depreciation of the Kwacha in the second half of 2015-including forcing banks deemed to be speculating to buy large amounts of FX, and closely monitoring individual banks transactions-appears to have produced lasting effects on the functioning of IFEM. Since 2016, the average volume of transactions in IFEM has plunged to 15 percent of the volume observed in 2014 and 2015. However, the FX retail market seems to be functioning normally; importantly, there is no evidence of FX shortages or long

[6] See SIP on Modernizing the Monetary Policy Framework.

waiting time to get FX for current international transactions, or of the emergence of a parallel market.

45. **Staff advised the authorities to:**

- Limit intervention in FX market to smoothing excessive volatility and opportunistically rebuilding reserves.

- Let market forces determine the bid-offer spread in IFEM. The market needs to know that spreads and volumes can be adapted flexibly when needed; this will not be the case if flexibility is at the discretion of the BoZ and its use is uncertain.

46. **Authorities' views:** BoZ indicated that it is committed to a flexible exchange rate policy, with intervention in the market aimed at smoothing volatility and building international reserves when the opportunity arises. It has taken advantage of the recent trend of appreciation of the kwacha to rebuild reserves. BoZ and the Bankers Association of Zambia are collaborating in reviewing the IFEM framework to make it more resilient to liquidity shocks.

D. Safeguarding Financial Stability

47. **Despite the deterioration in asset quality and declining profitability, reported financial soundness indicators suggest that banks remain well capitalized overall**. However, several small banks are under pressure. FSAP stress tests suggest that the system is resilient to credit stress but vulnerable to moderate liquidity stress.

48. **The FSAP found that supervision was not fully effective and that a weak crisis management framework and lack of resolution funding mechanisms resulted in an overuse of forbearance**. An increasingly out-of-date legal and regulatory framework, data limitations and an under resourced supervisor has undermined the effectiveness of financial supervision. Inadequate supervisory resources (staffing, expertise, and information technology) has led to large gaps in onsite inspections. Insufficient analytical content in offsite supervision reports hinder the effectiveness of risk assessment and onsite inspections. Troubled banks have accessed the emergency liquidity assistance (ELA) instrument, reflecting weak limitations and safeguards on its use. The main FSAP recommendations (Annex III) include:

- Upgrade the banking, BoZ and other financial sector laws to improve: licensing; risk-based consolidated supervision; intervention; crisis management and resolution powers across the financial sector.

- Hire more supervisors and complete onsite inspections of all banks over the next 12–18 months.

- Strengthen ELA regulations to establish adequate statutory safeguards to prevent BoZ from providing solvency support.

- Start work on a deposit protection scheme that meets international norms; to be introduced when necessary preconditions (including an effective resolution regime) are in place.

49. **Authorities' views:** BoZ agreed with the FSAP findings and is taking several actions to start addressing the issues raised by the FSAP. The Banking and Financial Services Act (BFSA) has been signed by the President and BoZ is drafting the regulations to operationalize it. The BoZ Act is being revised and BoZ indicated that it will seek comments from Fund staff before it is sent to Parliament. To strengthen supervision, BoZ is hiring and training new staff. It has also developed a schedule for full onsite examination of all banks by end-2018. BoZ plans to implement a deposit insurance scheme, with technical assistance from the Fund.

E. External Sector Assessment

50. **The Fund's EBA-lite methodologies suggest that Zambia's external position is broadly consistent with fundamentals (Annex IV)**. The kwacha lost half of its value against the U.S. dollar in 2015. Due to a large inflation differential vis-à-vis Zambia's trade partners, the depreciation in the real effective exchange rate (REER) has been considerably less than that in the nominal effective exchange rate. The REER has appreciated thus far in 2017, but does not seem out of line with the recent increase in the copper price.

51. **According to the Fund's cost-benefit approach, Zambia's international reserves are assessed to be below adequate levels**. International reserves have taken a hit since the issuance of a US$1.25 billion Eurobond in 2015, the third issuance in a 4-year period, and is assessed as below an adequate level as at end-2016. Staff advised the authorities to build reserves to a level of at least 4-4½ months of imports over the medium-term.

52. **The need for diversification of the economy and export base remains a serious challenge**. An analysis of non-price indicators underscores significant competitiveness weakness. Attaining the diversification objective requires improvement in the business climate to boost competitiveness and help attract investment beyond copper mining. Zambia's ranking in the World Bank Doing Business indicators has deteriorated, from 83 (out of 189) in 2014 to 98 (out of 190) in 2017. Areas in need of improvement include electricity supply, trading across borders, registering property, and policy consistency. The government needs to enhance its budget spending efficiency to support investment in human capital and physical infrastructure.

53. **The authorities have initiated some measures towards improving the business climate**. These include passage of a law on the use of moveable collateral to improve access to finance. Policy consistency in the agriculture sector such as avoiding export bans of maize and allowing prices to reflect market conditions could attract private investments to take advantage of potential market from the surrounding countries with maize deficits. In addition, the move towards cost reflective electricity tariffs would attract private investments in the sector boosting domestic power supply. Enhancing transparency in petroleum product procurement and pricing, and improving efficiency to cut the underlying cost of supplying fuels would enhance competitiveness

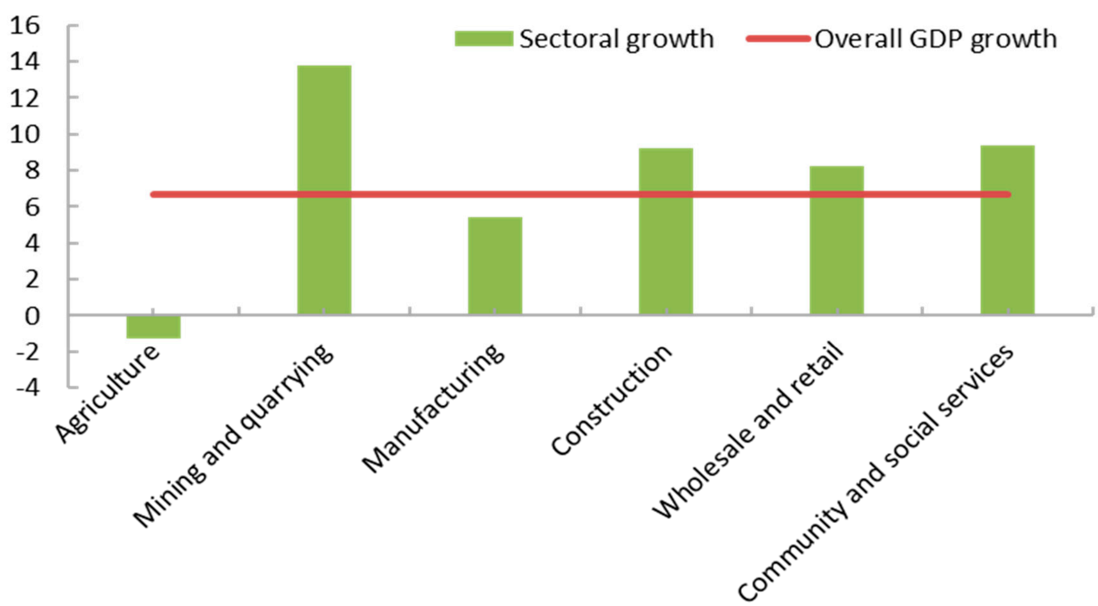
of the Zambia's economy. Increased consultation with stakeholders on a stable mining tax regime is expected to boost investment in the sector and promote value addition.

54. **Authorities' views**. The authorities broadly agreed with staff's assessment of the external balance and the exchange rate. They underscored the government's priority of improving physical infrastructure such as in electricity which has been a bottleneck to growth. The recent move toward cost-reflective electricity tariffs is aimed at attracting private investment into the sector. The government also plans to withdraw from the procurement of refined petroleum products, not only to reduce fiscal risks, but also to improve efficiency and reliability of supply.

F. Facilitating More Inclusive Growth

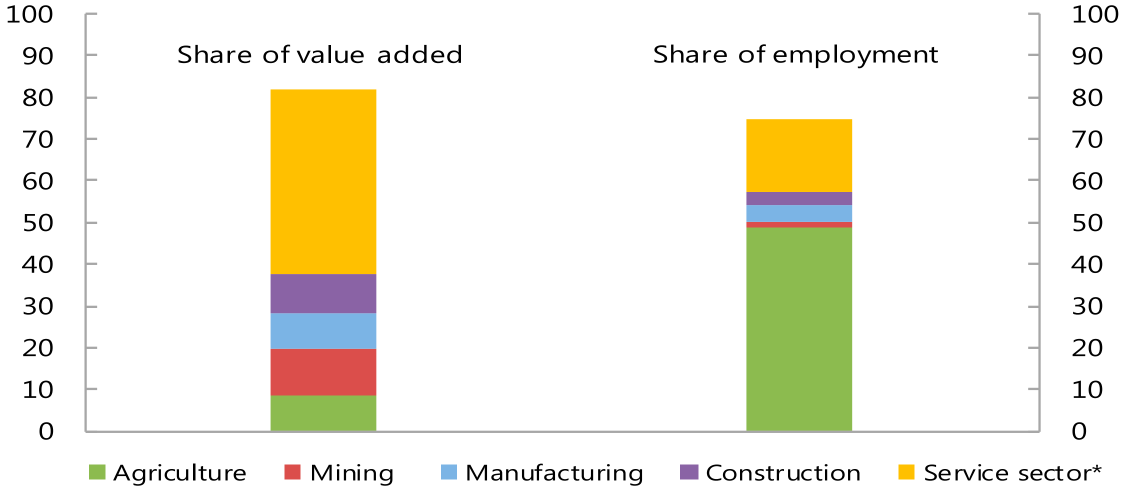
55. **Zambia recorded strong average annual growth in the past decade and a half**. At an annual average of 6.7 percent during 2001-15, Zambia's growth rate was higher than the Sub-Saharan Africa average (5.5 percent). The mining sector grew faster than other major sectors (Text Figure 7). Agriculture which employs by far the most people (Text Figure 8), contracted by an annual average of about 1 percent.

Text Figure 7. Average Annual Growth for the Largest 6 Sectors, 2001–2015
(Percent)



Note: The largest 6 sectors constitute more than 70 percent of overall GDP.
Sources: CSO and staff estimates

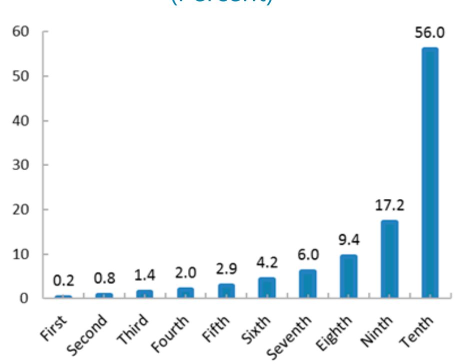
Text Figure 8. Share of Value-Added vs Share of Employment
(Percent)



* Service sector includes wholesale and retail, accommodation and food services, information and communication, transportation, real estate, finance and insurance, professional and administrative services.

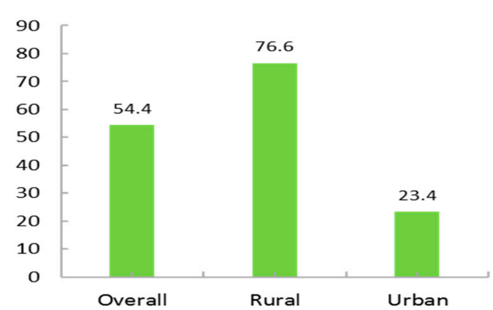
56. **Income distribution is highly skewed and poverty remains high.** The 2015 Living Conditions Monitoring Survey (LCMS) showed that the top 10 percent of households accounted for more than half of total national income, while the bottom 50 percent of households accounted for less than 10 percent of national income (Text Figure 9). The Gini coefficient is estimated to have worsened from 0.65 in 2010 to 0.69 in 2015. The LCMS also reported an overall poverty rate of 54 percent in 2015, with a sharp divide between rural (76 percent) and urban (24 percent) areas (Text Figure 10).

Text Figure 9. Share of Income by Decile, 2015
(Percent)



Source: CSO Living Conditions Monitoring Survey 2015

Text Figure 10. Population Living in Poverty, 2015,
(Percent)



Source: CSO Living Conditions Monitoring Survey 2015

57. **To achieve inclusive growth, the authorities should focus on stable policies, improving the investment climate, promoting productivity growth, increasing financial inclusion, and strengthening the country's human capital**.[7] Periodic trade bans (e.g., on maize exports), and market distortions caused by FRA pricing and procurement policies in recent years have discouraged private investment in commercial maize production. The government is preparing a National Financial Inclusion Strategy to address obstacles to accessing finance, especially by small and medium-size enterprises. The World Bank is providing training to financial institutions on the use of movable collateral for credit decision making. Investments in education and health are key to prepare the labor force for productive employment. Given limited resources, increasing the efficiency of public spending would help create space for human capital development.

58. **Authorities views**. The 7NDP lays out the government's strategy for promoting inclusive growth over the medium-term (2017–2022). It identifies the agriculture and mining sectors as having high potential for value addition to boost industrialization and job creation. They also view tourism as having high potential to generate jobs and boost incomes. Measures to promote the development of livestock and fisheries industries will help diversify the agriculture sector. The full migration of FISP to the e-voucher system would help diversify agriculture beyond maize production. The government aims to diversify the mining sector beyond copper by promoting the mining of gemstones and industrial minerals. To address infrastructure bottlenecks, 7NDP identifies improvements in energy supply and transportation infrastructure as development priorities. The 7NDP also identifies measures that promote human capital development, including strengthening the healthcare system through capacity development of the health workforce, and increasing access to quality education through the provision of the required infrastructure and teacher training.

RELATIONS WITH THE FUND

59. **Data provision has some shortcomings but is broadly adequate for surveillance purposes**. Staff encourages the authorities to make further progress in the context of dissemination of data under the e-GDDS, by updating data more regularly and increasing the categories of data disseminated through Zambia's National Summary Data Page.

60. **The Fund provides capacity development to Zambia through targeted technical assistance and training (Annex V)**. Current priorities include assistance to: enhance domestic revenue mobilization (revenue and customs administration); strengthen public financial management (budget controls and execution); strengthen financial supervision; enhance the effectiveness of monetary policy and operations; and improve the compilation and dissemination of statistics to inform policy analysis and implementation.

[7] IMF (2013), "Jobs and Growth: Analytical and Operational Considerations for the Fund", IMF Policy Paper, Washington DC: International Monetary Fund.

STAFF APPRAISAL

61. **An unbalanced response to the shocks that hit the economy in 2015-16 exacerbated their adverse impact**. Tight monetary policy succeeded in stabilizing the exchange rate and slowing down inflation, but contributed to elevated stress in the financial system. The recent easing of monetary policy has been appropriate but cannot be sustained if fiscal policy remains lax.

62. **The economy has started recovering from the slowdown, thanks in part to good rains and rising copper prices.** The authorities should take advantage of the current favorable environment to reduce the fiscal deficit and build international reserves to make the economy more resilient to future adverse shocks.

63. **The government has initiated some bold fiscal measures, but doubts remain about its commitment to fiscal consolidation.** It has made impressive moves toward phasing out subsidies in the energy sector, as well as implementing a more cost-effective subsidy in support of the agriculture sector. Full implementation of these measures would represent major accomplishments in addressing key sources of budget pressure in recent years. However, the pace and haste with which new loans for infrastructure are being contracted undermine the government's stated fiscal and debt sustainability objectives.

64. **Public debt is increasing at an unsustainable pace, crowding out credit to the private sector and making the economy more vulnerable to capital outflows**. Staff recommends that the government restrain its spending commitments and redouble efforts to mobilize domestic revenues.

65. **BoZ's recent unwinding of quantitative and administrative measures is welcome, as is its re-commitment to greater reliance on interest rates and market-based mechanisms to steer monetary policy**. Staff encourages BoZ to steadfastly implement the new MPF when faced again with a challenging macroeconomic situation such as occurred in 2015; this would improve the quality of the MP response and dampen the volatility in the economy.

66. **Staff urges BoZ to use the period of relative calm in the Foreign Exchange Market to reform the IFEM.** At a minimum, BoZ should adjust the regulations to allow widening spreads when liquidity is low and volatility is unusually high.

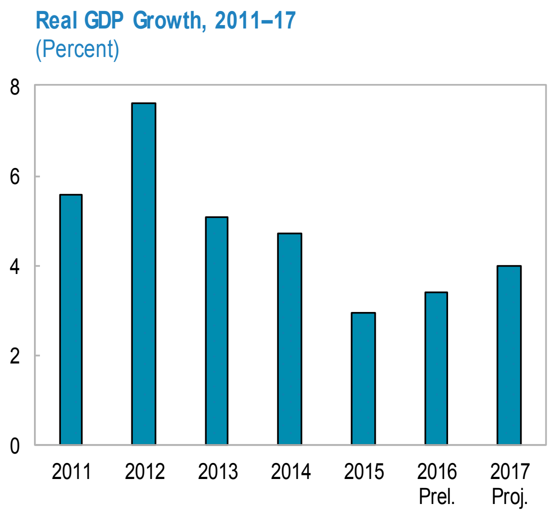
67. **Staff welcomes BoZ's positive response to the recommendations of the FSAP, including strengthening its supervision capacity and taking steps to enhance its crisis preparedness**. Staff encourages the authorities to strengthen further the licensing, supervision and resolution regime and ensure the prior conditions are met before introducing a deposit insurance scheme. An important pending issue is the revamping of the BoZ Act to give it more operational autonomy, improve its governance practices, and enhance its transparency and accountability.

68. **Staff urges the authorities to address policy uncertainties that are clouding the investment climate**. These include mixed signals on the role of the private sector in the energy and agriculture sectors. The authorities should speak with one voice on key objectives and policies.

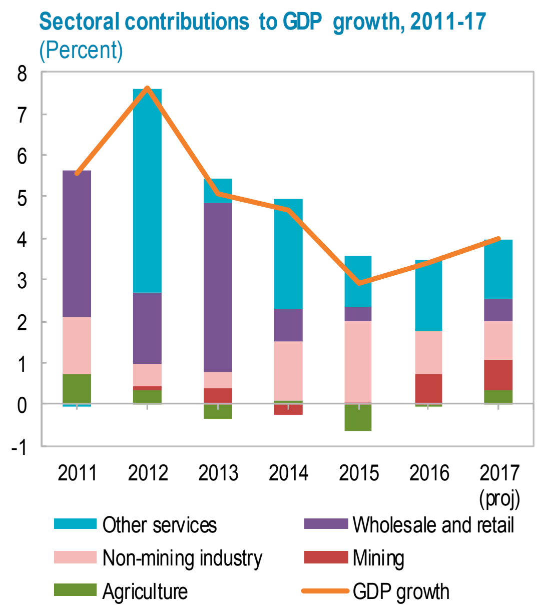
69. **Staff recommends that the next Article IV consultation be held on the standard 12-month cycle.**

Figure 1. Zambia: Recent Developments

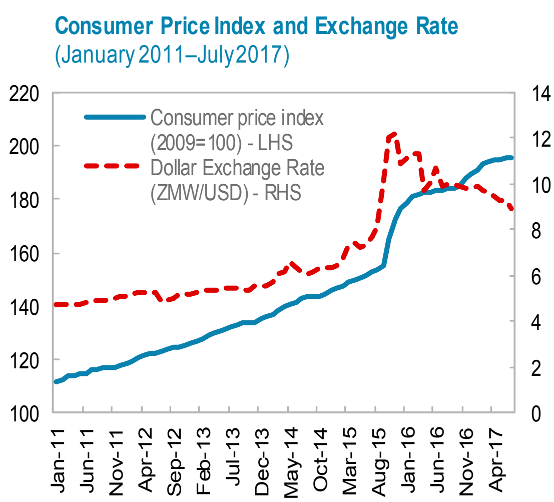
Growth has slowed down sharply in recent years...



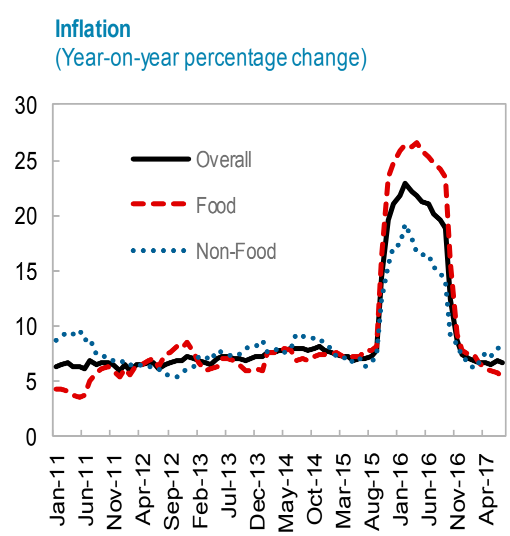
...driven by agriculture and wholesale and retail.



The kwacha depreciated sharply in late 2015, which drove up inflation.



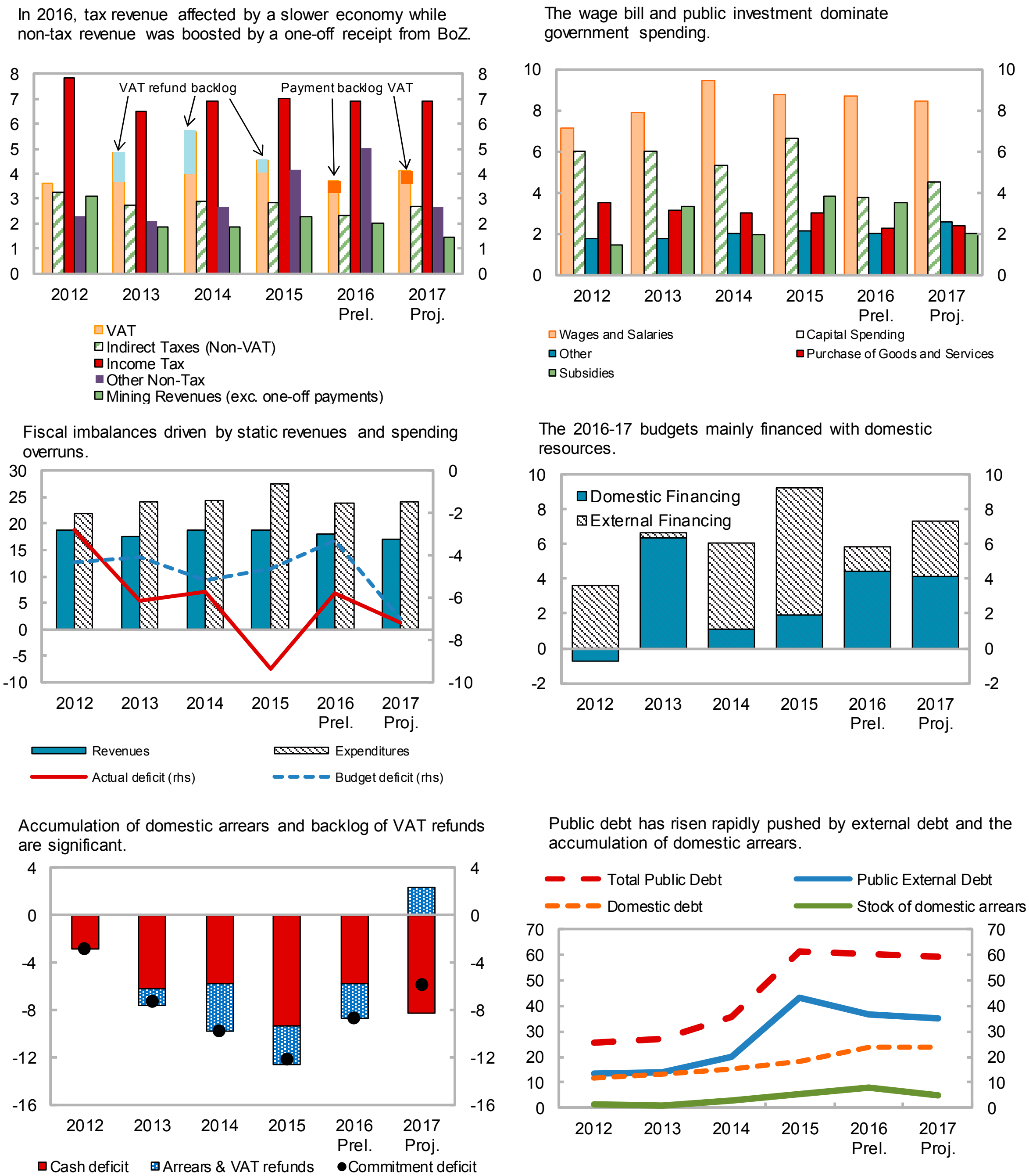
The appreciation of the kwacha in the recent months has helped bring inflation down.



Sources: Zambia Central Statistics Office; LME; IMF, World Economic Outlook database; and IMF staff estimates and projections.

Figure 2. Zambia: Fiscal Developments

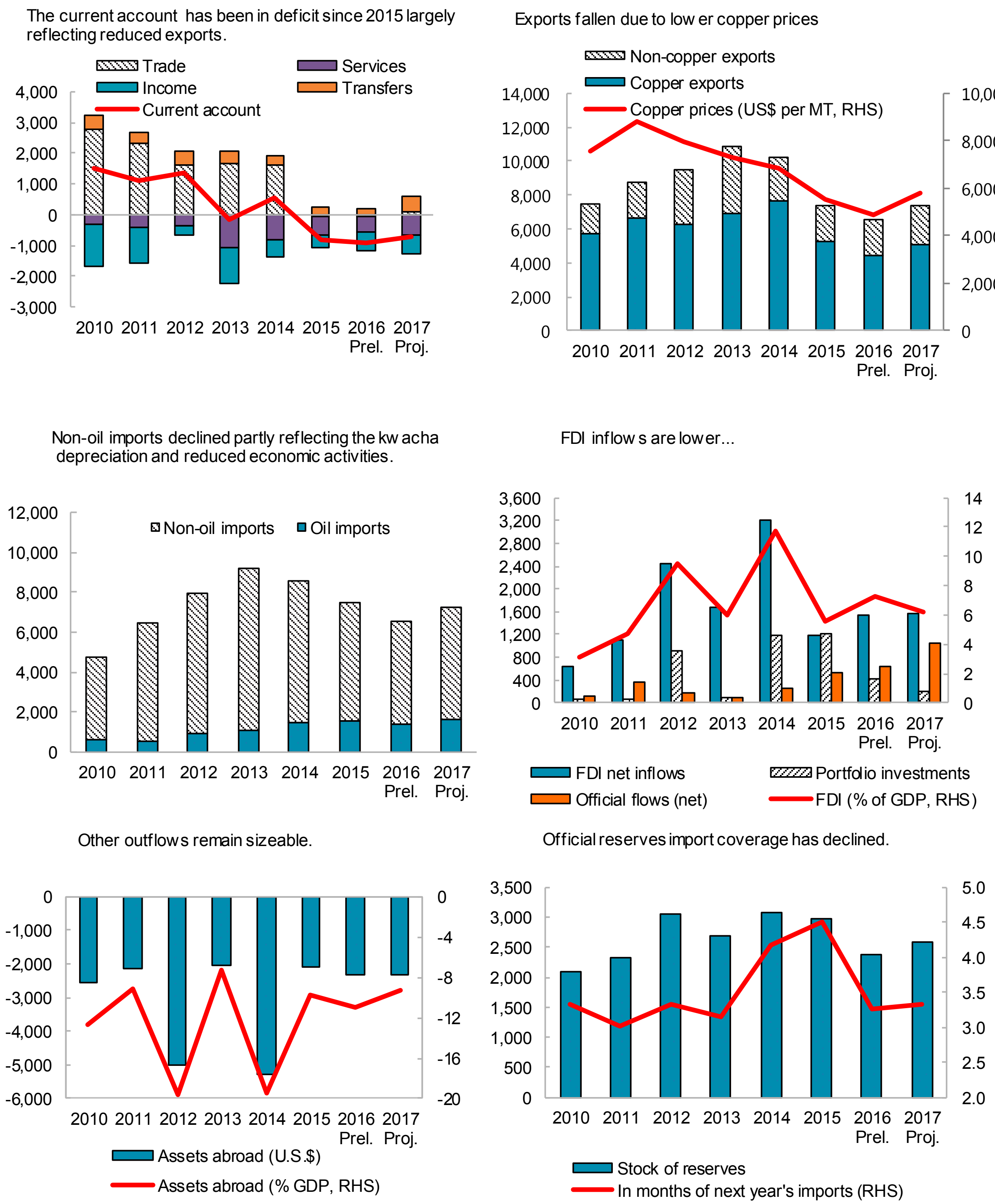
(Percent of GDP, unless otherwise indicated)



Sources: Zambian authorities and IMF estimates and calculations.

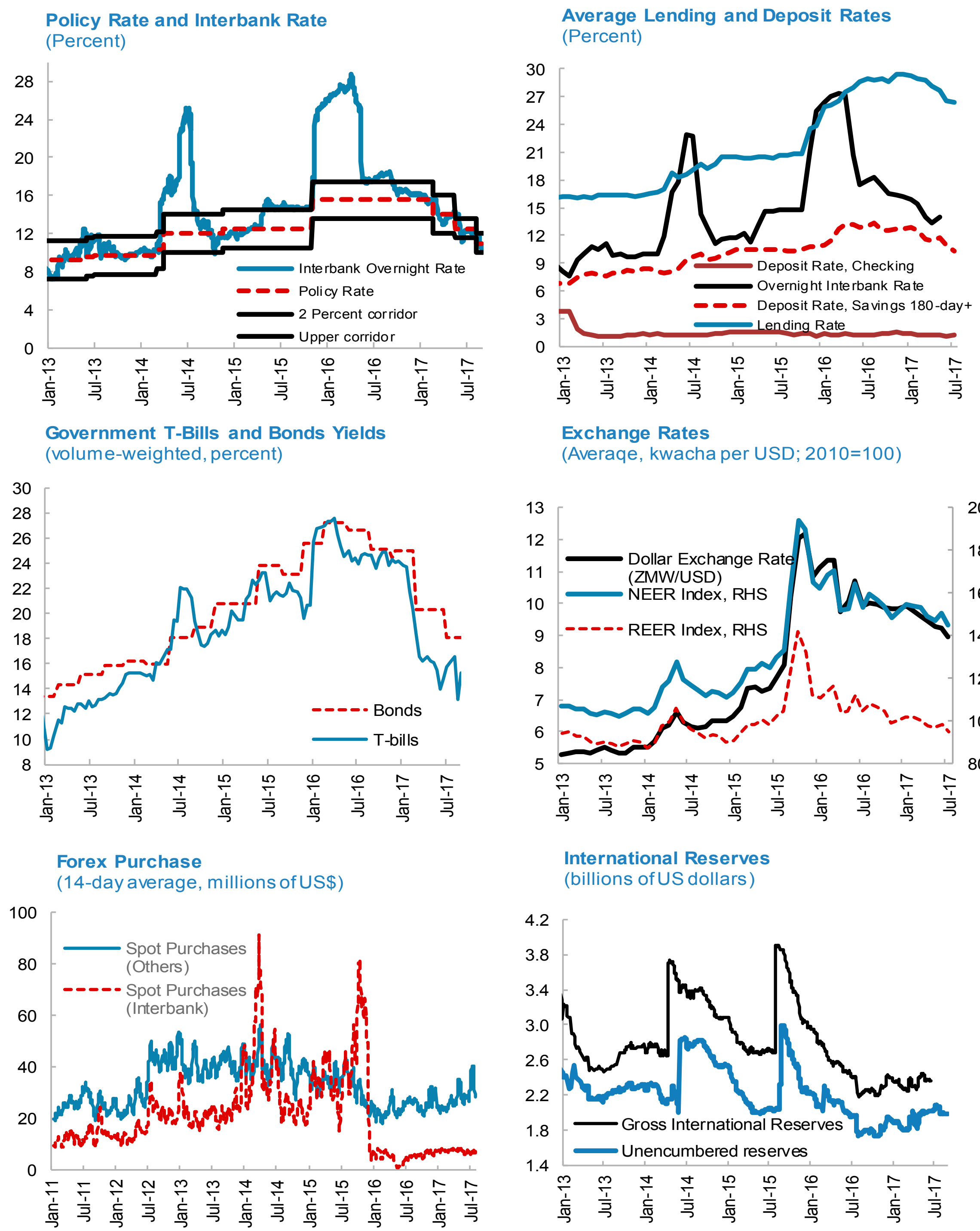
Figure 3. Zambia: External Sector

(Millions of U.S. dollars, unless otherwise indicated



Sources: Bank of Zambia and IMF staff forecasts.

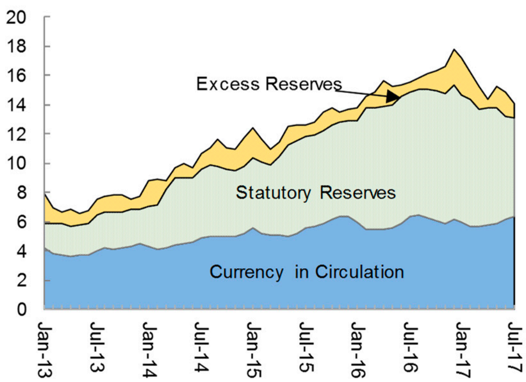
Figure 4. Zambia: Monetary and Financial Developments



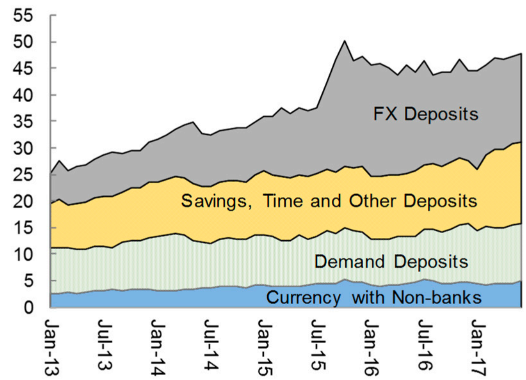
Source: Bank of Zambia.

Figure 4. Zambia: Monetary and Financial Developments (concluded)

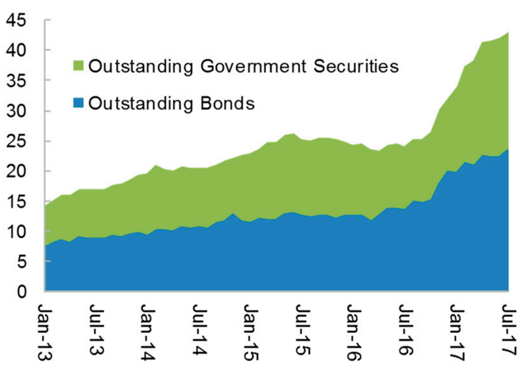
Reserve Money
(monthly average, billions of kwacha)



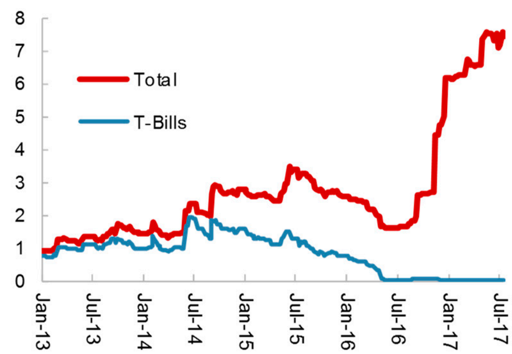
Broad Money
(billions of kwacha)



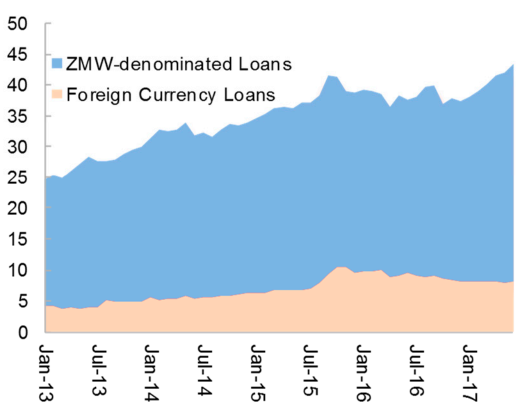
Outstanding Government Securities
(T-bills and bonds, billions of kwacha, face value)



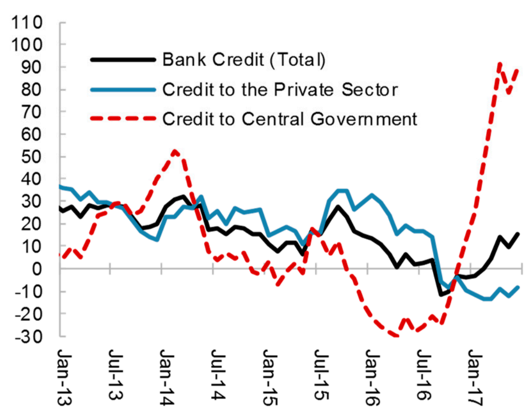
Foreign Holdings of Government Securities
(Face Value, kwacha billions)



Bank Credit to Domestic Economy
(billions of kwacha)



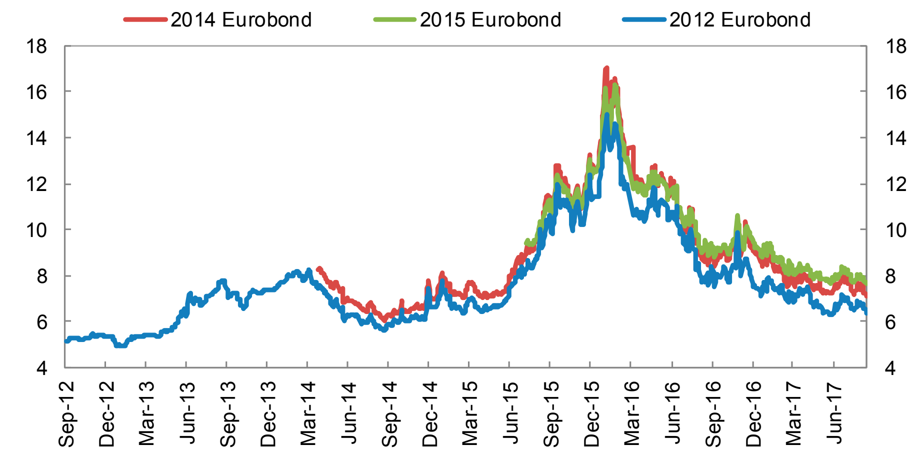
Bank Credit Growth
(year-on-year percent change)



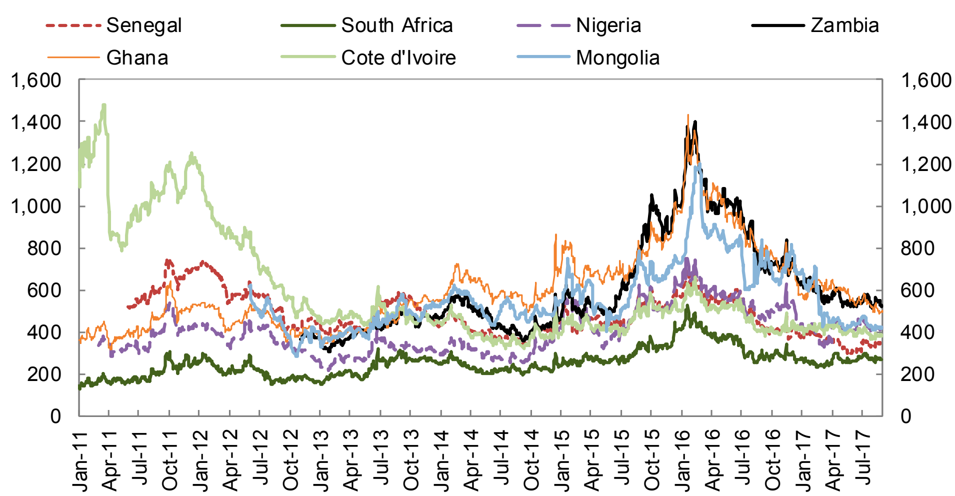
Source: Bank of Zambia.

Figure 5. Yields on Zambian Eurobonds and Spreads for Selected Countries

Zambia Eurobonds: Yield to Maturity
(Percent)



Spread over U.S. Treasury for Selected Eurobonds
(Basis points)



Source: Bloomberg.

Table 1. Zambia: Selected Economic Indicators, 2014–22

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Prel.	Baseline						Adjustment					
				(Percentage change, unless otherwise indicated)											
National account and prices															
GDP growth at constant prices	4.7	2.9	3.4	4.0	4.5	4.5	4.5	4.5	4.5	4.0	4.5	5.0	5.5	5.5	5.5
Mining	-2.3	0.2	7.0	7.0	5.0	5.0	6.0	6.0	6.0	7.0	5.0	5.0	6.0	6.0	6.0
Non mining	5.6	3.2	3.0	3.6	4.4	4.4	4.3	4.3	4.3	3.6	4.4	5.0	5.4	5.4	5.4
GDP deflator	5.4	6.7	14.3	7.9	8.1	8.1	7.8	8.0	7.9	7.9	6.8	6.3	6.0	6.0	5.8
GDP at market prices (millions of kwacha)	167,052	183,381	216,826	243,284	274,845	310,305	349,546	394,301	444,362	243,284	271,499	302,909	338,632	378,522	422,675
GDP at market prices (USD)	27,151	21,243	21,012	25,576	27,328	28,242	29,521	31,267	33,345	25,576	27,522	28,997	30,718	32,788	35,256
Consumer prices															
Consumer prices (average)	7.8	10.1	17.9	6.8	7.4	8.0	8.0	8.0	8.0	6.8	6.2	6.3	6.0	6.0	6.0
Consumer prices (end of period)	7.9	21.1	7.5	5.8	8.0	8.0	8.0	8.0	8.0	5.8	6.5	6.0	6.0	6.0	6.0
External sector															
Terms of trade (deterioration -)	-2.4	-4.0	-1.9	6.8	3.4	2.2	-0.4	1.0	-1.3	6.8	3.4	2.2	-0.5	0.9	-1.5
Real exchange rate (depreciation +)	9.2	30.0	-3.9	...	...	...	...	...	...	...	...	...	...	...	...
Money and credit															
Domestic credit to the private sector	26.4	29.3	-9.4	13.0	12.9	14.4	14.7	14.2	14.8	12.2	14.7	14.4	14.0	13.7	13.5
Reserve money (end of period)	31.1	22.2	12.8	5.9	23.4	21.3	16.1	15.1	15.5	6.0	19.6	13.6	14.2	13.6	13.1
Broad Money (M3)	12.6	35.2	-5.7	14.0	27.0	20.6	15.4	15.6	15.1	14.1	23.1	12.9	13.5	14.0	12.6
Credit to the private sector (percent of GDP)	13.4	15.7	12.1	12.1	12.1	12.3	12.5	12.7	12.9	12.1	12.4	12.7	13.0	13.2	13.4
				(Percent of GDP, unless otherwise indicated)											
National accounts															
Gross investment	33.6	42.1	41.7	41.9	43.6	42.7	41.1	39.2	38.2	41.6	42.3	41.8	40.8	39.8	39.5
Government	4.8	6.0	3.8	5.3	7.2	7.3	7.2	6.7	6.0	4.6	5.0	4.4	4.6	4.7	4.8
Private	28.7	36.1	38.0	36.6	36.4	35.4	33.9	32.5	32.2	37.0	37.3	37.5	36.2	35.1	34.7
National savings	35.7	38.2	37.3	38.3	40.8	41.2	41.1	39.0	37.8	38.6	40.6	41.7	41.6	40.8	40.7
External current account balance	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4	-3.0	-1.7	-0.2	0.8	1.0	1.2
Central government budget															
Revenue	18.9	18.8	18.2	17.3	18.4	18.4	18.9	19.4	19.6	17.3	18.3	18.4	19.0	19.5	19.5
Taxes	15.5	14.4	12.9	13.8	14.9	14.8	15.2	15.7	15.9	13.8	14.8	14.8	15.4	15.8	15.8
Grants	0.8	0.2	0.2	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6
Other revenue	2.7	4.2	5.0	2.8	2.9	3.0	3.1	3.1	3.1	2.8	2.9	3.0	3.0	3.1	3.1
Expenditure	24.3	27.6	23.8	25.3	26.2	25.6	25.5	24.7	23.9	24.6	24.2	22.2	22.1	21.8	21.5
Expense	19.0	21.0	20.1	20.0	19.0	18.3	18.2	18.0	17.9	20.0	19.2	17.9	17.5	17.1	16.7
Net acquisition of nonfinancial assets	5.3	6.6	3.8	5.3	7.2	7.3	7.2	6.7	6.0	4.6	5.0	4.4	4.6	4.7	4.8
Net lending/borrowing (cash basis)	-5.7	-9.3	-5.8	-8.0	-7.8	-7.2	-6.5	-5.3	-4.3	-7.3	-5.9	-3.9	-3.1	-2.3	-2.0
Excluding grants	-6.5	-9.5	-6.0	-8.7	-8.4	-7.8	-7.2	-5.9	-4.9	-8.0	-6.5	-4.5	-3.7	-2.9	-2.6
Net lending/borrowing (commitment basis)	-9.8	-12.1	-8.6	-5.6	-6.8	-6.5	-5.5	-5.1	-4.3	-4.9	-4.2	-2.9	-2.1	-2.3	-2.0
Net acquisition of financial assets	0.4	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Domestic	0.4	-0.6	-0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign	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	0.0	0.0
Net incurrance of liabilities	6.1	8.7	5.2	8.0	7.8	7.2	6.5	5.3	4.3	7.3	5.9	3.9	3.1	2.3	2.0
Domestic	1.2	1.4	3.8	4.9	3.3	2.4	2.9	2.8	2.7	4.1	2.4	1.3	1.8	1.3	0.9
Foreign	4.9	7.3	1.4	3.2	4.5	4.8	3.6	2.5	1.6	3.3	3.4	2.6	1.3	1.0	1.1
Financing gap	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	0.0	0.0
External sector															
Current account balance	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4	-3.0	-1.7	-0.2	0.8	1.0	1.2
(including current and capital grants)	2.8	-3.5	-4.2	-3.4	-2.6	-1.2	0.2	0.1	-0.2	-2.7	-1.5	0.1	1.0	1.3	1.4
(excluding grants)	1.9	-4.0	-4.4	-4.4	-3.3	-2.0	-0.5	-0.6	-0.9	-3.8	-2.2	-0.7	0.3	0.5	0.8
Gross International Reserves (months of prospective imports)	4.2	4.5	3.1	2.5	2.8	3.1	3.0	3.2	3.3	2.8	3.1	3.1	3.1	3.4	3.5
Public debt															
Total central government debt, gross (end-period)	35.6	61.4	60.5	55.6	60.0	62.4	63.3	64.0	63.1	54.9	56.1	54.7	53.1	51.4	49.1
External	20.1	43.1	36.5	32.9	37.3	40.4	42.4	42.6	41.4	33.0	35.4	35.6	35.1	33.9	32.5
Domestic[1]	15.5	18.3	24.0	22.7	22.7	22.0	21.0	21.4	21.7	21.9	20.7	19.1	18.1	17.5	16.6
PV of Public External Debt[2]	20.1	46.2	37.0	34.5	39.1	42.6	44.3	44.3	43.3	34.3	36.6	37.0	36.1	34.7	33.9

Sources: Zambian authorities; and IMF staff estimates and projections.

[1] Including arrears.

[2] Public and publicly guaranteed external debt.

Table 2. Zambia: Fiscal Operations of Central Government, 2014–22
(Millions of Kwacha)

	2014	2015	2016	2016	2017	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Budget	Prel.	Budget	Baseline						Adjustment					
Revenue	31,564	34,421	42,655	39,410	45,171	42,058	50,485	57,159	66,114	76,509	86,988	42,058	49,740	55,667	64,476	73,818	82,459
Revenue excluding grants	30,297	34,051	42,109	38,885	42,940	40,248	48,834	55,273	63,966	74,139	84,370	40,248	48,112	53,836	62,413	71,560	79,986
Tax	25,837	26,437	30,349	28,028	35,213	33,496	40,819	45,827	53,064	61,979	70,701	33,496	40,215	44,750	52,151	59,893	66,871
Tax revenues adjusted by the backlog of VAT refunds	22,910	26,833	30,349	29,114	35,213	34,624	41,625	46,633	53,548	61,979	70,701	34,624	41,021	45,556	52,635	59,893	66,871
Other revenue, including mineral royalties	4,460	7,615	11,760	10,856	7,727	6,753	8,015	9,446	10,902	12,160	13,670	6,753	7,897	9,086	10,262	11,667	13,116
Of which: Mineral royalties	1,617	3,749	2,889	3,053	1,891	2,598	3,321	3,922	4,554	5,000	5,600	2,598	3,260	3,688	4,102	4,782	5,277
Grants	1,267	369	546	525	2,231	1,809	1,650	1,886	2,148	2,370	2,618	1,809	1,628	1,831	2,063	2,258	2,472
Expenditure	40,640	50,701	49,450	51,713	61,378	61,449	71,914	79,437	88,970	97,469	106,079	59,802	65,682	67,387	74,881	82,566	91,081
Expense	31,770	38,508	40,647	43,555	49,360	48,626	52,084	56,799	63,763	71,084	79,507	48,626	52,125	54,158	59,149	64,656	70,715
Compensation of employees	15,750	16,091	20,394	18,807	20,055	21,070	23,093	25,307	28,323	31,764	35,645	21,070	22,816	24,574	26,976	29,669	32,647
Use of goods and services	5,062	5,519	5,167	4,897	7,982	5,587	6,600	7,405	8,399	9,476	10,666	5,587	6,516	7,201	8,092	9,046	10,089
Interest	3,711	5,224	7,099	7,448	8,408	8,812	10,876	12,280	13,550	14,812	16,699	8,812	10,383	10,860	11,578	12,136	12,981
Subsidies	3,308	7,083	2,909	7,672	4,929	4,932	3,895	3,361	4,148	4,468	4,701	4,932	4,895	3,298	3,480	3,694	3,817
Fertilizer support program	1,456	2,118	1,004	1,902	2,824	2,626	1,800	1,866	2,537	2,703	2,856	2,626	2,826	1,877	1,980	2,074	2,154
Strategic Food Reserve (FRA)	1,545	1,887	750	910	943	1,294	1,368	1,495	1,611	1,765	1,846	1,294	1,342	1,421	1,500	1,620	1,663
Electricity	0	364	0	1,014	662	662	727	0	0	0	0	662	727	0	0	0	0
Fuel	307	2,713	1,156	3,845	500	350	0	0	0	0	0	350	0	0	0	0	0
Intergovernmental transfers	3,196	3,738	3,928	4,195	5,741	5,914	5,743	6,388	7,100	7,934	8,831	5,914	5,668	6,227	6,865	7,599	8,376
Social benefits	742	852	1,150	537	2,246	2,311	1,877	2,058	2,243	2,630	2,964	2,311	1,846	1,997	2,158	2,512	2,805
Net acquisition of nonfinancial assets	8,870	12,193	8,803	8,157	12,018	12,823	19,830	22,638	25,207	26,386	26,572	11,175	13,557	13,229	15,733	17,910	20,366
Of which: non-donor financed	6,210	7,529	5,565	3,357	4,289	4,611	6,216	6,102	8,359	11,092	13,908	4,611	5,166	5,315	7,555	9,188	10,853
Statistical Discrepancy (-overfinancing)	-454	-844	0	-233	0	0	0	0	0	0	0	0	0	0	0	0	0
Net lending/borrowing (overall balance, cash basis)	-9,530	-17,124	-6,795	-12,535	-16,207	-19,392	-21,429	-22,279	-22,856	-20,960	-19,090	-17,744	-15,942	-11,720	-10,405	-8,748	-8,622
Primary balance (cash basis)	-5,819	-11,900	304	-5,087	-7,799	-10,579	-10,553	-9,998	-9,306	-6,148	-2,392	-8,931	-5,559	-860	1,173	3,388	4,359
Domestic arrears (- payments)	3,937.9	5,516	0	7,287	-3,276	-4,601	-2,000	-1,412	-3,077	-1,045	0	-4,601	-3,618	-2,094	-2,733	0	0
Backlog of VAT refunds (flow)	2,927.0	-396.0	0	-1,086	0	-1,128	-806	-806	-484	0	0	-1,128	-806	-806	-484	0	0
Overall balance, (commitment basis)[1]	-16,395	-22,244	-6,795	-18,736	-12,930	-13,662	-18,624	-20,061	-19,295	-19,915	-19,090	-12,015	-11,518	-8,820	-7,188	-8,748	-8,622
Primary balance (commitment basis)[1]	-12,683	-17,020	304	-11,288	-4,523	-4,850	-7,747	-7,780	-5,746	-5,103	-2,392	-3,202	-1,134	2,041	4,390	3,388	4,359
Financing	9,530	17,124	6,795	12,535	16,207	19,392	21,429	22,279	22,856	20,960	19,090	17,744	15,942	11,720	10,405	8,748	8,622
Net acquisition of financial assets	733	-1,103	129	-1,314	73	106	0	0	0	0	0	106	0	0	0	0	0
Domestic	733	-1,103	129	-1,314	73	106	0	0	0	0	0	106	0	0	0	0	0
Currency and deposits	171	-938	-834	-1,437	0	-167	0	0	0	0	0	-167	0	0	0	0	0
Loans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Foreign	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net incurrence of liabilities	10,263	16,021	6,924	11,221	16,280	19,497	21,429	22,279	22,856	20,960	19,090	17,850	15,942	11,720	10,405	8,748	8,622
Domestic	2,082	2,656	1,750	8,216	3,026	11,816	9,148	7,464	10,155	11,203	12,164	9,914	6,588	3,876	6,089	5,036	3,845
Debt securities	2,432	720	2,509	4,718	3,836	12,626	9,148	7,464	10,155	11,203	12,164	10,724	6,588	3,876	6,089	5,036	3,845
Loans	-220	2,066	-759	3,498	-810	-810	0	0	0	0	0	-810	0	0	0	0	0
Foreign	8,181	13,365	5,174	3,005	13,254	7,681	12,282	14,814	12,701	9,757	6,926	7,936	9,354	7,844	4,316	3,712	4,777
Loans	1,501	3,342	5,174	3,005	13,254	7,681	12,282	14,814	12,701	9,757	-3,068	7,936	9,354	7,844	4,316	3,712	-4,215
Budget support, gross	93	0	0	0	0	0	0	0	0	0	0	1,902	2,269	1,567	0	0	0
Project loans, gross	2,289	4,964	4,017	4,966	7,470	8,215	14,753	17,767	16,680	15,123	12,491	6,567	9,509	9,085	8,021	8,565	9,355
Other, gross	0	0	3,121	0	8,033	1,275	0	0	0	0	0	1,275	0	0	0	0	0
Amortization	-788	-1,621	-1,964	-1,961	-2,249	-1,808	-2,471	-2,953	-3,980	-5,366	-15,560	-1,808	-2,424	-2,808	-3,705	-4,853	-13,570
Debt securities	6,680	10,023	0	0	0	0	0	0	0	0	9,995	0	0	0	0	0	8,992
Financing gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Memorandum items:																	
Net Domestic Financing	1,911	3,594	2,584	9,653	3,226	11,983	9,148	7,464	10,155	11,203	12,164	10,081	6,588	3,876	6,089	5,036	3,845
Backlog of VAT refunds (stock)	4,706.0	4,310.0	0	3,224	3,224	2,096	1,290	484	0	0	0	2,096	1,290	484	0	0	0
Primary balance, excluding mining revenue (cash basis)	-8,943	-16,104	-2,954	-9,420	-11,311	-14,286	-15,601	-15,992	-16,250	-13,925	-11,102	-12,638	-10,515	-6,522	-5,160	-3,945	-3,726
Primary balance, excluding mining revenue (commitment ba	-15,808	-21,224	-2,954	-15,621	-8,035	-8,557	-12,795	-13,774	-12,689	-12,880	-11,102	-6,909	-6,090	-3,622	-1,944	-3,945	-3,726
Mining revenue	3,125	4,204	3,258	4,332	3,512	3,707	5,048	5,993	6,944	7,777	8,711	3,707	4,956	5,662	6,333	7,333	8,085
Stock of domestic debt, gross	25,830	33,593	...	51,979	...	55,130	62,278	68,330	73,245	84,448	96,612	53,227	56,197	57,978	61,128	66,164	70,009
Of which: Stock of domestic arrears	5,042	10,148	...	17,317	...	8,652	6,652	5,240	0	0	0	8,652	5,033	2,939	0	0	0
Stock of external debt, gross	33,643	78,989	...	79,132	...	80,102	102,497	125,364	148,157	167,928	183,934	80,350	96,245	107,808	118,692	128,207	137,491
Total public debt	59,473	112,582	...	131,111	...	135,231	164,774	193,695	221,402	252,376	280,547	133,577	152,442	165,786	179,820	194,371	207,501

Sources: Zambian authorities; and IMF staff estimates and projections.

1 Adjusted for accumulation/clearance of VAT refund claims and arrears relating to FRA, FISP, subsidies, public investment, and pensions.

Table 3. Zambia: Fiscal Operations of Central Government, 2014–22
(Percent of GDP, unless otherwise indicated)

	2014	2015	2016	2016	2017	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Budget	Prel.	Budget	Baseline						Adjustment					
Revenue	18.9	18.8	20.7	18.2	19.4	17.3	18.4	18.4	18.9	19.4	19.6	17.3	18.3	18.4	19.0	19.5	19.5
Revenue excluding grants	18.1	18.6	20.4	17.9	18.4	16.5	17.8	17.8	18.3	18.8	19.0	16.5	17.7	17.8	18.4	18.9	18.9
Tax	15.5	14.4	14.7	12.9	15.1	13.8	14.9	14.8	15.2	15.7	15.9	13.8	14.8	14.8	15.4	15.8	15.8
Tax revenues adjusted by the backlog of VAT refunds	13.7	14.6	14.7	13.4	15.1	14.2	15.1	15.0	15.3	15.7	15.9	14.2	15.1	15.0	15.5	15.8	15.8
Other revenue, including mineral royalties	2.7	4.2	5.7	5.0	3.3	2.8	2.9	3.0	3.1	3.1	3.1	2.8	2.9	3.0	3.0	3.1	3.1
Of which: Mineral royalties	1.0	2.0	1.4	1.4	0.8	1.1	1.2	1.3	1.3	1.3	1.3	1.1	1.2	1.2	1.2	1.3	1.2
Grants	0.8	0.2	0.3	0.2	1.0	0.7	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6
Expenditure	24.3	27.6	24.0	23.8	26.3	25.3	26.2	25.6	25.5	24.7	23.9	24.6	24.2	22.2	22.1	21.8	21.5
Expense	19.0	21.0	19.7	20.1	21.2	20.0	19.0	18.3	18.2	18.0	17.9	20.0	19.2	17.9	17.5	17.1	16.7
Compensation of employees	9.4	8.8	9.9	8.7	8.6	8.7	8.4	8.2	8.1	8.1	8.0	8.7	8.4	8.1	8.0	7.8	7.7
Use of goods and services	3.0	3.0	2.5	2.3	3.4	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.4	2.4	2.4	2.4	2.4
Interest	2.2	2.8	3.4	3.4	3.6	3.6	4.0	4.0	3.9	3.8	3.8	3.6	3.8	3.6	3.4	3.2	3.1
Subsidies	2.0	3.9	1.4	3.5	2.1	2.0	1.4	1.1	1.2	1.1	1.1	2.0	1.8	1.1	1.0	1.0	0.9
Fertilizer support program	0.9	1.2	0.5	0.8	1.2	1.1	0.7	0.6	0.7	0.7	0.6	1.1	1.0	0.6	0.6	0.5	0.5
Strategic Food Reserve (FRA)	0.9	1.0	0.4	0.3	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4
Electricity	0.0	0.2	0.0	0.5	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0
Fuel	0.2	1.5	0.6	1.9	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Intergovernmental transfers	1.9	2.0	1.9	1.9	2.5	2.4	2.1	2.1	2.0	2.0	2.0	2.4	2.1	2.1	2.0	2.0	2.0
Social benefits	0.4	0.5	0.6	0.2	1.0	0.9	0.7	0.7	0.6	0.7	0.7	0.9	0.7	0.7	0.6	0.7	0.7
Net acquisition of nonfinancial assets	5.3	6.6	4.3	3.8	5.2	5.3	7.2	7.3	7.2	6.7	6.0	4.6	5.0	4.4	4.6	4.7	4.8
Of which: non-donor financed	3.7	4.1	2.7	1.5	1.8	1.9	2.3	2.0	2.4	2.8	3.1	1.9	1.9	1.8	2.2	2.4	2.6
Statistical Discrepancy (-overfinancing)	-0.3	-0.5	0.0	-0.1	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
Net lending/borrowing (overall balance, cash basis)	-5.7	-9.3	-3.3	-5.8	-7.0	-8.0	-7.8	-7.2	-6.5	-5.3	-4.3	-7.3	-5.9	-3.9	-3.1	-2.3	-2.0
Primary balance (cash basis)	-3.5	-6.5	0.1	-2.3	-3.3	-4.3	-3.8	-3.2	-2.7	-1.6	-0.5	-3.7	-2.0	-0.3	0.3	0.9	1.0
Domestic arrears (- payments)	2.4	3.0	0.0	3.4	-1.4	-1.9	-0.7	-0.5	-0.9	-0.3	0.0	-1.9	-1.3	-0.7	-0.8	0.0	0.0
Backlog of VAT refunds (flow)	1.8	-0.2	0.0	-0.5	0.0	-0.5	-0.3	-0.3	-0.1	0.0	0.0	-0.5	-0.3	-0.3	-0.1	0.0	0.0
Overall balance, (commitment basis)[1]	-9.8	-12.1	-3.3	-8.6	-5.5	-5.6	-6.8	-6.5	-5.5	-5.1	-4.3	-4.9	-4.2	-2.9	-2.1	-2.3	-2.0
Primary balance (commitment basis)[1]	-7.6	-9.3	0.1	-5.2	-1.9	-2.0	-2.8	-2.5	-1.6	-1.3	-0.5	-1.3	-0.4	0.7	1.3	0.9	1.0
Financing	5.7	9.3	3.3	5.8	7.0	8.0	7.8	7.2	6.5	5.3	4.3	7.3	5.9	3.9	3.1	2.3	2.0
Net acquisition of financial assets	0.4	-0.6	0.1	-0.6	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
Domestic	0.4	-0.6	0.1	-0.6	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
Currency and deposits	0.1	-0.5	-0.4	-0.7	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
Loans	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	0.0	0.0	0.0	0.0
Foreign	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	0.0	0.0	0.0	0.0
Net incurrence of liabilities	6.1	8.7	3.4	5.2	7.0	8.0	7.8	7.2	6.5	5.3	4.3	7.3	5.9	3.9	3.1	2.3	2.0
Domestic	1.2	1.4	0.8	3.8	1.3	4.9	3.3	2.4	2.9	2.8	2.7	4.1	2.4	1.3	1.8	1.3	0.9
Debt securities	1.5	0.4	1.2	2.2	1.6	5.2	3.3	2.4	2.9	2.8	2.7	4.4	2.4	1.3	1.8	1.3	0.9
Loans	-0.1	1.1	-0.4	1.6	-0.3	-0.3	0.0	0.0	0.0	0.0	0.0	-0.3	0.0	0.0	0.0	0.0	0.0
Foreign	4.9	7.3	2.5	1.4	5.7	3.2	4.5	4.8	3.6	2.5	1.6	3.3	3.4	2.6	1.3	1.0	1.1
Loans	0.9	1.8	2.5	1.4	5.7	3.2	4.5	4.8	3.6	2.5	-0.7	3.3	3.4	2.6	1.3	1.0	-1.0
Budget support, gross	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.5	0.0	0.0	0.0
Project loans, gross	1.4	2.7	2.0	2.3	3.2	3.4	5.4	5.7	4.8	3.8	2.8	2.7	3.5	3.0	2.4	2.3	2.2
Other, gross	0.0	0.0	1.5	0.0	3.4	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
Amortization	-0.5	-0.9	-1.0	-0.9	-1.0	-0.7	-0.9	-1.0	-1.1	-1.4	-3.5	-0.7	-0.9	-0.9	-1.1	-1.3	-3.2
Debt securities	4.0	5.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	2.1
Financing gap	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	0.0	0.0	0.0	0.0
Memorandum items:																	
Net Domestic Financing	1.1	2.0	1.3	4.5	1.4	4.9	3.3	2.4	2.9	2.8	2.7	4.1	2.4	1.3	1.8	1.3	0.9
Backlog of VAT refunds (stock)	2.8	2.4	0.0	1.5	1.4	0.9	0.5	0.2	0.0	0.0	0.0	0.9	0.5	0.2	0.0	0.0	0.0
Primary balance, excluding mining revenue (cash basis)	-5.4	-8.8	-1.4	-4.3	-4.9	-5.9	-5.7	-5.2	-4.6	-3.5	-2.5	-5.2	-3.9	-2.2	-1.5	-1.0	-0.9
Primary balance, excluding mining revenue (commitment b	-9.5	-11.6	-1.4	-7.2	-3.4	-3.5	-4.7	-4.4	-3.6	-3.3	-2.5	-2.8	-2.2	-1.2	-0.6	-1.0	-0.9
Mining revenue	1.9	2.3	1.6	2.0	1.5	1.5	1.8	1.9	2.0	2.0	2.0	1.5	1.8	1.9	1.9	1.9	1.9
Stock of domestic debt, gross	15.5	18.3	...	24.0	...	22.7	22.7	22.0	21.0	21.4	21.7	21.9	20.7	19.1	18.1	17.5	16.6
Of which: Stock of domestic arrears	3.0	5.5	...	8.0	...	3.6	2.4	1.7	0.0	0.0	0.0	3.6	1.9	1.0	0.0	0.0	0.0
Stock of external debt, gross	20.1	43.1	...	36.5	...	32.9	37.3	40.4	42.4	42.6	41.4	33.0	35.4	35.6	35.1	33.9	32.5
Total public debt	35.6	61.4	...	60.5	...	55.6	60.0	62.4	63.3	64.0	63.1	54.9	56.1	54.7	53.1	51.4	49.1
Nominal GDP (millions of kwacha)	167,052	183,381	205,978	216,826	233,123	243,284	274,845	310,305	349,546	394,301	444,362	243,284	271,499	302,909	338,632	378,522	422,675

Sources: Zambian authorities; and IMF staff estimates and projections.

1 Adjusted for accumulation/clearance of VAT refund claims and arrears relating to FRA, FISP, subsidies, public investment, and pensions.

Table 4. Zambia: Monetary Accounts, 2014–22[1]
(Millions of Kwacha, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Prel.	Baseline						Adjustment					
Monetary survey															
Net foreign assets	15,306	29,575	21,881	19,412	27,217	34,424	40,007	48,662	59,281	21,120	27,668	31,648	36,433	44,668	54,715
Net domestic assets	19,653	17,687	22,686	31,401	37,302	43,356	49,788	55,111	60,120	29,744	34,929	39,020	43,809	46,841	48,368
Domestic claims	31,987	40,416	41,339	52,819	62,582	73,348	85,542	97,923	111,414	51,405	60,002	67,942	77,298	86,097	94,765
Net claims on central government	9,182	10,933	14,606	22,687	28,633	34,605	41,205	47,367	53,449	21,469	25,752	28,852	32,810	35,580	37,502
Claims on other sectors	22,805	29,483	26,733	30,132	33,949	38,744	44,336	50,556	57,965	29,936	34,250	39,090	44,488	50,517	57,263
Claims on other financial corporations	202	275	284	284	284	284	284	284	284	284	284	284	284	284	284
Claims on state and local government	37	50	74	74	74	74	74	74	74	74	74	74	74	74	74
Claims on public non-financial corporations	232	285	223	223	223	223	223	223	223	223	223	223	223	223	223
Claims on private sector	22,335	28,872	26,152	29,551	33,368	38,163	43,756	49,976	57,384	29,355	33,670	38,509	43,907	49,937	56,682
Other items net	-12,334	-22,728	-18,653	-21,418	-25,280	-29,992	-35,754	-42,812	-51,294	-21,661	-25,073	-28,922	-33,489	-39,256	-46,398
Broad money (M3)	34,959	47,262	44,567	50,813	64,519	77,781	89,795	103,774	119,401	50,864	62,597	70,669	80,242	91,509	103,083
Of which: foreign exchange deposits	9,939	20,762	17,051	…	…	…	…	…	…	…	…	…	…	…	…
Monetary authorities															
Net foreign assets	12,722	22,524	15,216	13,185	20,193	26,745	31,782	39,934	50,094	14,892	20,902	24,438	28,837	36,744	46,522
Asset	19,211	32,641	23,315	20,248	27,520	34,233	39,591	48,158	58,745	21,956	27,963	31,475	36,057	44,220	54,249
Liabilities	-6,488	-10,117	-8,099	-7,064	-7,327	-7,488	-7,809	-8,224	-8,650	-7,064	-7,061	-7,038	-7,220	-7,476	-7,726
Net domestic assets	578	-6,409	3,107	6,217	3,752	2,293	1,931	-1,116	-5,245	4,529	2,329	1,945	1,289	-2,514	-7,802
Net domestic claims	2,535	5,985	10,197	13,308	11,267	10,259	10,376	7,835	4,065	11,619	9,774	9,539	9,187	5,778	822
Net claims on other depository corporations	32	163	165	3,918	1,877	870	986	-1,555	-5,325	2,230	384	149	-203	-3,611	-8,568
Net claims on central government	2,438	5,699	9,940	9,298	9,298	9,298	9,298	9,298	9,298	9,298	9,298	9,298	9,298	9,298	9,298
Claims on other sectors	66	122	92	92	92	92	92	92	92	92	92	92	92	92	92
Other items (net)	-1,957	-12,394	-7,090	-7,090	-7,516	-7,967	-8,445	-8,951	-9,309	-7,090	-7,445	-7,594	-7,897	-8,292	-8,624
Reserve money	13,301	16,248	18,323	19,402	23,945	29,038	33,713	38,818	44,849	19,421	23,231	26,383	30,127	34,230	38,720
Currency outside banks and cash in vaults	5,724	6,446	6,551	10,103	15,176	20,758	26,696	33,060	43,256	10,113	14,724	18,860	23,856	29,153	37,345
Other depository corporation reserves [2]	7,557	9,774	11,740	9,261	8,722	8,223	6,954	5,685	1,512	9,270	8,462	7,471	6,214	5,014	1,305
Liabilities to other sectors	20	27	32	38	47	56	63	73	81	38	46	51	57	64	70
Memorandum items:															
Reserve money (end-of-period, annual percent change)	31.1	22.2	12.8	5.9	23.4	21.3	16.1	15.1	15.5	6.0	19.6	13.6	14.2	13.6	13.1
Broad money (M3) (annual percent change)	12.6	35.2	-5.7	14.0	27.0	20.6	15.4	15.6	15.1	14.1	23.1	12.9	13.5	14.0	12.6
Credit to the private sector (annual percent change) [3, 4, 5]	26.4	29.3	-9.4	13.0	12.9	14.4	14.7	14.2	14.8	12.2	14.7	14.4	14.0	13.7	13.5
Velocity (nominal GDP/M3)	4.8	3.9	4.9	4.8	4.3	4.0	3.9	3.8	3.7	4.8	4.3	4.3	4.2	4.1	4.1
Money multiplier (M3/reserve money)	2.6	2.9	2.4	2.6	2.7	2.7	2.7	2.7	2.7	2.6	2.7	2.7	2.7	2.7	2.7
Credit to the private sector (percent of GDP)	13.4	15.7	12.1	12.1	12.1	12.3	12.5	12.7	12.9	12.1	12.4	12.7	13.0	13.2	13.4
Gross foreign exchange reserves of the															
Bank of Zambia (millions of U.S. dollars)	3,078	2,978	2,366	2,180	2,629	2,992	3,232	3,705	4,295	2,365	2,773	2,930	3,187	3,747	4,447
Exchange rate (kwacha per U.S. dollar, end period)	6.4	11.0	9.9	…	…	…	…	…	…	…	…	…	…	…	…
Nominal GDP (million Kwacha)	167,052	183,381	216,826	243,284	274,845	310,305	349,546	394,301	444,362	243,284	271,499	302,909	338,632	378,522	422,675

Sources: Zambian authorities; and IMF staff estimates and projections.

[1] End of period.

[2] The required reserve ratio increased from 8 to 14 percent from mid-March 2014, and to 18 percent from early April 2015.

[3] For 2014, private sector credit increased by 17.1 percent (rather than 26.4 percent) if valuation adjustements to FX denominated loans and K800 million due to an expanded coverage of the monetary data from January 2014 are excluded.

[4] For 2015, credit to the private sector is estimated to have increased by about 10 percent (rather than 29.3 percent) if valuation adjustments to FX-

[5] For 2016, credit to the private sector dropped by 5.4 percent (rather than drop by 9.4 percent) if valuation adjustments are excluded.

Table 5. Zambia: Balance of Payments, 2014–22
(Millions of U.S. dollars, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Prel.	Baseline						Adjustment					
Current account	571	-831	-934	-918	-776	-416	-6	-48	-137	-761	-470	-56	233	337	434
Trade balance	1,625	-74	-34	16	234	569	907	938	930	154	510	906	1,118	1,252	1,426
Exports, f.o.b.	10,220	7,362	6,505	7,659	8,841	9,774	10,451	11,471	12,321	7,659	8,833	9,761	10,464	11,520	12,411
Of which: copper	7,619	5,234	4,399	5,422	6,230	6,869	7,357	8,125	8,698	5,422	6,230	6,869	7,357	8,125	8,698
Imports, f.o.b	-8,595	-7,436	-6,539	-7,643	-8,607	-9,205	-9,545	-10,534	-11,391	-7,505	-8,323	-8,855	-9,346	-10,268	-10,985
Of which: oil	-1,442	-1,561	-1,408	-1,637	-1,730	-1,793	-1,891	-1,997	-2,104	-1,637	-1,752	-1,860	-2,001	-2,150	-2,305
Services (net)	-794	-571	-508	-756	-828	-832	-847	-936	-998	-737	-799	-818	-844	-905	-973
Income (net)	-562	-412	-605	-642	-598	-602	-551	-564	-618	-643	-599	-596	-533	-535	-583
Of which: interest on public debt	-134	-204	-347	-371	-387	-428	-416	-426	-476	-372	-386	-418	-393	-391	-435
Current transfers (net)	301	226	213	464	416	448	486	515	549	464	417	452	492	525	564
Of which: Private transfers	253	211	213	259	285	312	344	364	389	259	285	312	344	367	395
Capital and financial account	-151	788	393	795	1,285	825	260	524	727	822	939	257	39	226	265
Capital account	202	81	55	59	65	72	79	75	72	59	65	72	79	76	73
Project grants	202	81	55	59	65	72	79	75	72	59	65	72	79	76	73
Financial account	-353	707	338	735	1,220	753	181	449	655	763	874	186	-40	150	192
Foreign direct investment (net)	3,195	1,177	1,538	1,600	1,669	1,685	1,715	1,816	1,937	1,600	1,737	1,844	1,934	2,064	2,219
Portfolio investment (net)	1,197	1,203	413	200	100	100	100	100	850	200	100	100	100	100	850
Financial derivatives (net)	-25	-18	15	19	20	21	22	23	24	19	20	21	22	24	26
Other investments (net)	-4,719	-1,655	-1,628	-1,084	-570	-1,052	-1,655	-1,491	-2,157	-1,056	-983	-1,780	-2,096	-2,038	-2,903
Public sector (net)	244	527	648	1,060	1,430	1,324	1,158	864	-188	1,087	1,157	650	483	419	-301
Disbursements	372	715	864	1,269	1,675	1,732	1,494	1,240	980	1,296	1,402	1,059	819	790	831
Of which: budget support	0	0	0	0	0	0	0	0	0	200	230	70	0	0	0
Amortization due	-128	-188	-216	-209	-246	-409	-336	-376	-1,168	-209	-246	-409	-336	-370	-1,132
Commercial banks (net)	-149	-228	-66	0	0	0	0	0	0	0	0	0	0	0	0
Other sectors	-4,815	-1,954	-2,211	-2,144	-1,999	-2,376	-2,813	-2,355	-1,969	-2,143	-2,139	-2,430	-2,579	-2,457	-2,602
Errors and omissions	0	4	-2	0	0	0	0	0	0	0	0	0	0	0	0
Overall balance	419	-39	-543	-123	509	409	255	476	590	61	470	201	272	563	700
Financing	-470	39	543	123	-509	-409	-255	-476	-590	-61	-470	-201	-272	-563	-700
Central bank net reserves (- increase)	-470	39	543	123	-509	-409	-255	-476	-590	-61	-470	-201	-272	-563	-700
Of which: Gross reserve change	-441	100	612	185	-448	-363	-239	-473	-590	1	-409	-156	-257	-561	-700
Of which: Use of Fund resources	-30	-61	-69	-62	-61	-45	-16	-3	0	-62	-61	-45	-16	-3	0
Financing gap	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Memorandum items:															
Current account (percent of GDP)	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4	-3.0	-1.7	-0.2	0.8	1.0	1.2
Total official grants (percent of GDP)	0.9	0.5	0.3	1.0	0.7	0.7	0.7	0.7	0.7	1.0	0.7	0.7	0.7	0.7	0.7
Change in copper export volume (percent)	17.7	-14.4	-5.1	9.1	7.1	5.0	6.0	7.1	6.7	9.1	7.1	5.0	6.0	7.1	6.7
Copper export price (U.S. dollars per tonne)	6,863	5,510	4,868	6,030	6,430	6,462	6,471	6,469	6,469	6,030	6,430	6,462	6,471	6,469	6,469
Crude oil price	96	51	43	50	50	51	51	52	53	50	50	51	51	52	53
Gross international reserves (total)	3,078	2,978	2,366	2,180	2,629	2,992	3,232	3,705	4,295	2,365	2,773	2,930	3,187	3,747	4,447
In months of prospective imports	4.2	4.5	3.1	2.5	2.8	3.1	3.0	3.2	3.3	2.8	3.1	3.1	3.1	3.4	3.5
GDP (millions of U.S. dollars)	27,151	21,243	21,012	25,576	27,328	28,242	29,521	31,267	33,345	25,576	27,522	28,997	30,718	32,788	35,256

Sources: Zambian authorities; and IMF staff estimates and projections.

Table 6. Zambia: Balance of Payments, 2014–22
(Percent of GDP, unless otherwise indicated)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017	2018	2019	2020	2021	2022
			Prel.	Baseline						Adjustment					
Current account	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4	-3.0	-1.7	-0.2	0.8	1.0	1.2
Trade balance	6.0	-0.3	-0.2	0.1	0.9	2.0	3.1	3.0	2.8	0.6	1.9	3.1	3.6	3.8	4.0
Exports, f.o.b.	37.6	34.7	31.0	29.9	32.4	34.6	35.4	36.7	36.9	29.9	32.1	33.7	34.1	35.1	35.2
Of which: copper	28.1	24.6	20.9	21.2	22.8	24.3	24.9	26.0	26.1	21.2	22.6	23.7	23.9	24.8	24.7
Imports, f.o.b	-31.7	-35.0	-31.1	-29.9	-31.5	-32.6	-32.3	-33.7	-34.2	-29.3	-30.2	-30.5	-30.4	-31.3	-31.2
Of which: oil	-5.3	-7.3	-6.7	-6.4	-6.3	-6.3	-6.4	-6.4	-6.3	-6.4	-6.4	-6.4	-6.5	-6.6	-6.5
Services (net)	-2.9	-2.7	-2.4	-3.0	-3.0	-2.9	-2.9	-3.0	-3.0	-2.9	-2.9	-2.8	-2.7	-2.8	-2.8
Income (net)	-2.1	-1.9	-2.9	-2.5	-2.2	-2.1	-1.9	-1.8	-1.9	-2.5	-2.2	-2.1	-1.7	-1.6	-1.7
Of which: interest on public debt	-0.5	-1.0	-1.7	-1.5	-1.4	-1.5	-1.4	-1.4	-1.4	-1.5	-1.4	-1.4	-1.3	-1.2	-1.2
Current transfers (net)	1.1	1.1	1.0	1.8	1.5	1.6	1.6	1.6	1.6	1.8	1.5	1.6	1.6	1.6	1.6
Budget support grants	0.0	0.0	0.0	0.8	0.5	0.5	0.5	0.5	0.5	0.8	0.5	0.5	0.5	0.5	0.5
Sector-wide approach grants	0.2	0.1	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
Private transfers	0.9	1.0	1.0	1.0	1.0	1.1	1.2	1.2	1.2	1.0	1.0	1.1	1.1	1.1	1.1
Capital and financial account	-0.6	3.7	1.9	3.1	4.7	2.9	0.9	1.7	2.2	3.2	3.4	0.9	0.1	0.7	0.8
Capital account	0.7	0.4	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
Project grants	0.7	0.4	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
External debt cancellation	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	0.0	0.0
Financial account	-1.3	3.3	1.6	2.9	4.5	2.7	0.6	1.4	2.0	3.0	3.2	0.6	-0.1	0.5	0.5
Foreign direct investment (net)	11.8	5.5	7.3	6.3	6.1	6.0	5.8	5.8	5.8	6.3	6.3	6.4	6.3	6.3	6.3
Portfolio investment (net)	4.4	5.7	2.0	0.8	0.4	0.4	0.3	0.3	2.5	0.8	0.4	0.3	0.3	0.3	2.4
Financial derivatives (net)	-0.1	-0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other investments (net)	-17.4	-7.8	-7.7	-4.2	-2.1	-3.7	-5.6	-4.8	-6.5	-4.1	-3.6	-6.1	-6.8	-6.2	-8.2
Public sector (net)	0.9	2.5	3.1	4.1	5.2	4.7	3.9	2.8	-0.6	4.3	4.2	2.2	1.6	1.3	-0.9
Disbursements	1.4	3.4	4.1	5.0	6.1	6.1	5.1	4.0	2.9	5.1	5.1	3.7	2.7	2.4	2.4
Of which: budget support	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.2	0.0	0.0	0.0
Amortization due	-0.5	-0.9	-1.0	-0.8	-0.9	-1.4	-1.1	-1.2	-3.5	-0.8	-0.9	-1.4	-1.1	-1.1	-3.2
Commercial banks (net)	-0.5	-1.1	-0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other sectors	-17.7	-9.2	-10.5	-8.4	-7.3	-8.4	-9.5	-7.5	-5.9	-8.4	-7.8	-8.4	-8.4	-7.5	-7.4
Errors and omissions	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	0.0	0.0
Overall balance	1.5	-0.2	-2.6	-0.5	1.9	1.4	0.9	1.5	1.8	0.2	1.7	0.7	0.9	1.7	2.0
Financing															
Central bank net reserves (- increase)	-1.7	0.2	2.6	0.5	-1.9	-1.4	-0.9	-1.5	-1.8	-0.2	-1.7	-0.7	-0.9	-1.7	-2.0
Of which: Gross reserve change	-1.6	0.5	2.9	0.7	-1.6	-1.3	-0.8	-1.5	-1.8	0.0	-1.5	-0.5	-0.8	-1.7	-2.0
Of which: Use of Fund resources	-0.1	-0.3	-0.3	-0.2	-0.2	-0.2	-0.1	0.0	0.0	-0.2	-0.2	-0.2	-0.1	0.0	0.0
Exceptional financing	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	0.0	0.0
Financing gap	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	0.0	0.0
Memorandum items:															
Current account (percent of GDP)	2.1	-3.9	-4.4	-3.6	-2.8	-1.5	0.0	-0.2	-0.4	-3.0	-1.7	-0.2	0.8	1.0	1.2
Total official grants (percent of GDP)	0.9	0.5	0.3	1.0	0.7	0.7	0.7	0.7	0.7	1.0	0.7	0.7	0.7	0.7	0.7
Change in copper export volume (percent)	17.7	-14.4	-5.1	9.1	7.1	5.0	6.0	7.1	6.7	9.1	7.1	5.0	6.0	7.1	6.7
Copper export price (U.S. dollars per tonne)	6,863	5,510	4,868	6,030	6,430	6,462	6,471	6,469	6,469	6,030	6,430	6,462	6,471	6,469	6,469
Crude oil price	96	51	43	50	50	51	51	52	53	50	50	51	51	52	53
Gross international reserves (total)	3,078	2,978	2,366	2,180	2,629	2,992	3,232	3,705	4,295	2,365	2,773	2,930	3,187	3,747	4,447
In months of prospective imports	4.2	4.5	3.1	2.5	2.8	3.1	3.0	3.2	3.3	2.8	3.1	3.1	3.1	3.4	3.5
GDP (millions of U.S. dollars)	27,151	21,243	21,012	25,576	27,328	28,242	29,521	31,267	33,345	25,576	27,522	28,997	30,718	32,788	35,256

Sources: Zambian authorities; and IMF staff estimates and projections.

Table 7. Zambia: Financial Soundness Indicators, 2008–17
(Percent, unless otherwise indicated)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 July
Capital adequacy										
Regulatory capital to risk-weighted assets	18.6	22.3	22.1	19.2	21.3	26.8	27.0	21.2	26.2	27.8
Tier 1 regulatory capital to risk-weighted assets	15.7	18.9	19.1	16.8	19.4	24.5	24.6	19.2	23.4	25.5
Capital to total assets	9.9	11.2	10.4	10.2	12.0	14.1	15.1	12.2	13.5	13.1
Asset quality										
Past due advances (NPL) to total advances	7.2	12.6	14.8	10.4	8.1	7.0	6.1	7.3	9.7	12.1
Loan loss provisions to nonperforming loans	104.6	86.6	80.3	76.7	73.5	83.2	76.5	70.5	71.5	62.9
Bad debt provisions to advances	6.1	10.9	11.9	8.0	6.0	5.8	3.9	4.6	5.6	6.7
Loan concentration										
Of Which										
Households	30.1	30.9	32.2	30.8	34.3	34.5	36.0	30.2	28.7	27.9
Government and parastatals	1.9	3.1	4.6	4.7	3.9	2.1	4.3	3.0	4.8	6.0
Sectoral Breakdown										
Agriculture	16.0	19.0	17.6	17.7	22.6	20.2	16.6	17.3	17.0	19.9
Mining	5.0	4.0	3.2	4.2	5.7	6.6	5.0	6.4	6.3	5.8
Manufacturing	11.0	12.0	12.7	12.2	11.3	9.5	11.5	13.5	12.8	10.8
Construction	4.0	3.0	5.8	4.2	3.7	3.5	3.4	3.4	3.9	3.6
Services	9.0	8.0	7.0	7.1	3.9	4.1	2.5	2.7	1.8	2.9
Others	55.0	54.0	53.7	54.6	52.8	56.1	61.0	56.7	58.2	57.1
Earnings and profitability										
Return on average assets	3.6	2.1	2.9	3.7	3.9	3.4	3.7	2.8	2.5	2.8
Return on equity	20.8	9.4	12.1	25.5	20.8	18.2	17.3	13.1	12.3	13.6
Gross interest income to total gross income	66.6	65.1	58.6	59.3	61.3	64.5	66.4	67.1	68.6	69.8
Gross noninterest income to total gross income	33.4	34.9	41.4	40.7	38.7	35.5	33.7	32.9	31.4	30.2
Net interest margin	10.4	10.7	9.0	8.1	8.4	8.3	8.5	8.2	8.7	9.2
Liquidity										
Liquid assets to total assets	35.5	38.0	43.8	40.3	36.0	38.9	35.8	34.8	39.1	44.3
Liquid assets to total deposits	49.9	52.6	58.5	53.3	49.0	52.6	49.8	47.9	54.2	59.7
Advances to deposits ratio	66.3	60.1	53.1	57.1	66.0	61.4	62.0	56.4	50.0	47.3
Exposure to foreign currency										
Foreign currency loans to total gross loans	42.1	36.4	32.8	39.1	28.7	25.6	29.0	36.9	35.7	34.9
Foreign currency liabilities to total liabilities	35.8	38.0	39.6	39.0	22.9	30.4	32.1	48.9	45.0	40.5
Net open position in foreign exchange to capital	6.9	2.5	4.1	5.5	2.8	3.6	1.6	4.7	0.8	2.6

Source: Bank of Zambia.

Annex I. Main Recommendations of the 2015 Article IV Consultation

Main Recommendations of the 2015 Article IV Consultation	
Recommendations	**Status**
Fiscal policy: Reduce the fiscal deficit on a commitment basis to less than 6 percent of GDP in 2015 and to 3 percent over the medium term.	Fuel and electricity subsidies and huge spending overruns on programs to support maize production compounded by revenue underperformance widened the deficit in 2015, on a commitment basis, to 12.1 percent of GDP and remained elevated at 8.6 percent of GDP in 2016.
Public financial management: Fully roll out IFMIS, enhance commitment controls, and implement the Treasury Single Account (TSA), to strengthen transparency and accountability and reduce the risk of accumulating arrears.	Some progress has been made in implementing the TSA and rolling out the IFMIS. Weak expenditure controls led to significant accumulation of expenditure arrears
Monetary policy: Maintain the tight monetary policy stance and rebuild reserves buffers.	BoZ maintained a tight monetary policy during most of 2015-16. Reserves declined, largely reflecting BoZ's intervention in the market in 2015. Since mid-2016, BoZ has opportunistically purchased foreign exchange in the market to build reserves.
Financial sector policy: Remove lending rate ceilings as part of the effort to improve access to financial services. Strengthen banking supervision.	BoZ removed the interest rate caps in November 2015. Individual financial inclusion has increased but SMEs' access to finance remains low. The passage of a law on the use of moveable collateral in 2016 is expected to support access to finance. The 2016 FSAP mission found that financial supervision was not fully effective.
Inclusive growth and competitiveness: Reduce policy uncertainty to promote inclusive job-creating growth.	Frequent changes in regulations, periodic bans on maize exports, and payment arrears to suppliers and contractors are clouding the business climate.

Annex II. Risk Assessment Matrix

Sources of Risks	Likelihood	Expected Impact on Economy	Recommendations
		Domestic Risks	
Delayed fiscal adjustment/sharply rising public debt	High	**High.** Increased domestic borrowing will crowd out credit to the private sector. Continued accumulation of domestic arrears will increase stress in the financial sector and slowdown growth. Increased non-concessional external borrowing will worsen debt dynamics. Delayed fiscal adjustment increases risk of sudden stop/reversal of portfolio inflows to domestic government securities market.	Implement fiscal consolidation measures, including: increase domestic revenues; strengthen prioritization of capital spending; rationalize subsidies by full application of cost-reflective pricing in the energy sector and improved efficiency in the Farmer Input Support Program.
Policy inconsistency	Medium	**Medium to High.** Ambivalent policies (e.g., on fiscal consolidation, maize exports, and private sector role in procurement of refined petroleum products) are clouding the investment climate.	The government should speak with one voice on key objectives and policies. Provide space for private sector to take the lead in maize marketing and procurement of refined petroleum products.
Rising political tensions	Medium	**Medium.** Rising tensions sour investor sentiments, with negative impact on investment and capital inflows.	Maintain the relative political stability enjoyed by Zambia over the years to sustain investor confidence in the economy.
		External Risks	
Tighter and more volatile global financial conditions	High	**Medium.** Increased external commercial borrowing costs will squeeze fiscal space for priority spending.	Rely more on concessional external borrowing for public investment projects. Greater scrutiny of financial and economic viability of projects financed by non-concessional loans.
Volatility in global copper prices	Medium	**High.** Rising global copper prices is positive in the near term; but volatility in the copper prices remain a risk to export earnings and the exchange rate.	Maintain exchange rate flexibility and build resilience against external shocks by strengthening the efforts to diversify the economy.

Annex III. FSAP Key Recommendations

Zambia FSAP Key Recommendations	
Recommendations and Authority Responsible for Implementation	**Time[1]**
Bank Supervision and Regulation	
Upgrade the BoZ and banking Acts to grant BoZ operational independence, provide for Basel II-III standards, sole BoZ licensing powers, setting down broad supervisory principles and leaving the details for regulations.	I
Complete onsite inspections of all banks and nonbanks, and conduct an asset quality review that focuses on the loan classification process.	I
Introduce a regular cycle of on-site inspections on a risk basis, informed by offsite analysis.	
Implement a centralized, structured, relational database for banking supervision and stress testing.	I
Urgently increase staff resources in number and expertise, in an orderly and manageable fashion.	I
Introduce a consolidated supervision regime and BoZ implement the new risk-based approach to onsite supervision.	NT
Introduce proactive information sharing by BoZ with home supervisors of Zambian Banks and ensure that BoZ is involved in resolution plans of parents of Zambian banks.	NT
Issue risk management directives incorporating concentration and cross-border exposure limits.	NT
Strengthen the AML/CFT legal framework and terrorist financing offense, in line with the FATF standards.	NT
Crisis Preparedness and Management	
Stipulate exceptional nature of ELA in regulatory texts and establish adequate statutory safeguards to prevent the BoZ from providing solvency support.	I
Include purchase and assumption, bridge bank, and bail-in resolution provisions in new BFSA.	I
Refine draft deposit protection scheme (DIS) bill in line with IADI norms.	I
Introduce DIS law only once the preconditions for deposit protection are fully in place, as per IADI norms.	NT
Capital Markets, Pensions, and Insurance	
Review Insurance Bill to allow enforcement of risk-based solvency criteria and market conduct supervision before submission to Parliament.	I
Pass Securities Bill to allow SEC to conduct effective supervision and enforcement.	I
Rollout uniform compliance-based supervision by SEC, ahead of implementing risk-based supervision.	I
Upgrade SEC systems and staff resources	I
Insolvency and Creditor/Debtor Rights (Interest Coverage Ratio)	
Reform insolvency legislation (Companies Act and Insolvency Bill) to incorporate best practices such as modern corporate restructuring and robust regulation of insolvency practitioners.	I
Payment System, Credit Information, and Consumer Protection	
Finalize Credit Reporting Bill and ensure compliance with BoZ directive to report to credit bureau.	I
Assign adequate resources to payment systems oversight function and ensure its independence from other BoZ functions.	NT
[1] I (immediate)" is within one year; "NT (near-term)" is one–three years; "MT (medium-term)" is three–five years.	

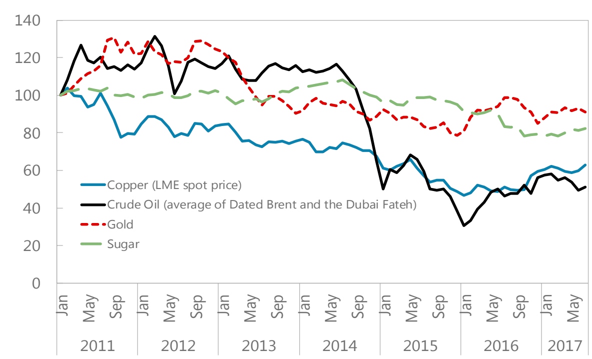
Annex IV. External Sector Assessment

A number of factors have adversely impacted Zambia's external sector since end-2014, including the fall in commodity prices, which eventually contributed to a sharp depreciation of the Zambian Kwacha. The exchange rate is assessed to have realigned from an overvalued positioned, as assessed in the 2015 Article IV staff report, to broadly in line with equilibrium at end-2016, but has since appreciated. Reserves have also taken a hit, and are assessed to have been below an adequate level at end-2016. An analysis of broader non-price indicators underscores significant competitiveness weakness. This highlights the need for Zambia to undertake structural reforms to broaden the economic base and strengthen the country's resilience.

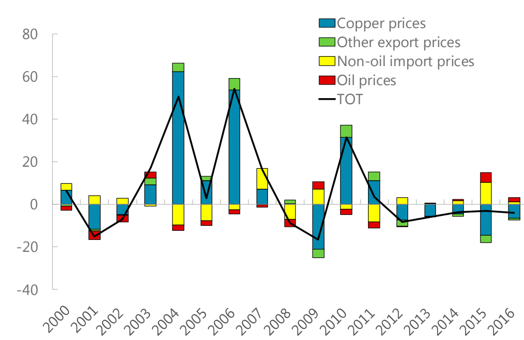
A. Developments in the external sector

1. **The decline in copper prices by almost 30 percent during 2012–16 adversely affected Zambia's external position**. Copper accounts for about 70 percent of export earnings. On the import side, oil prices have fallen significantly since early 2014. The terms of trade deteriorated every year during 2012–16.

Zambia: Commodity Prices
(indexes, January 2011 = 100)



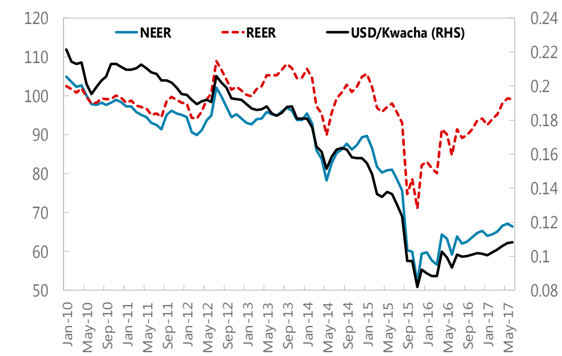
Zambia: Decomposition of changes in the Terms of Trade



2. **By end 2016, the Zambian Kwacha lost more than half its value against the dollar compared to mid-2014**. The depreciation pressures arose from a combination of lower copper prices, electricity shortages, policies inconsistencies and waning market confidence. The authorities intervened the latter months of 2015 and the rate has since stabilized, appreciating moderately in 2016. With the inflation differential vis-à-vis Zambia's trade partners widening, the REER depreciation was considerable less than the nominal depreciation. The REER has appreciated by 5.3 percent for the first half of 2017, with the nominal depreciation around 6.4 percent.

3. **Zambia's external current account has deteriorated since 2014 with the fall in copper prices**. The current account position was broadly characterized by surpluses between 2005 and 2014, averaging 2.2 percent of GDP supported by high copper prices and increased volumes of copper exports as new mines came on stream. Since then, current account balance has shifted to deficits; 3.5 percent of GDP in 2015 and 5.5 percent of GDP in 2016. The surge in oil and electricity imports to cover for shortages in domestic power supply, and rising interest payments on public debt as well as elevated non-oil imports have exerted pressure on the non-copper current account. Although non-copper exports are growing, the economy remains vulnerable to heavy export concentration in copper.

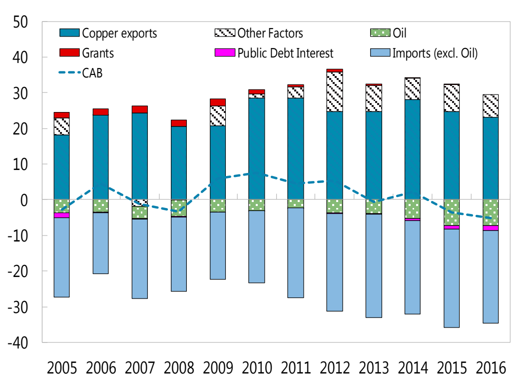
Zambia: NEER, REER and Exchange Rate
(Jan 2010–December 2016



Note: a decline represents a depreciation

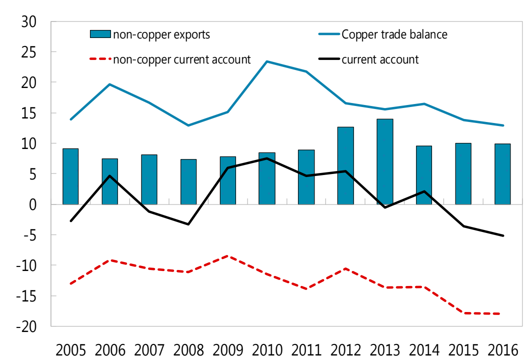
Sources: Bank of Zambia and IMF Staff estimates

Zambia: Current Account and its Components
(Percent of GDP)



Sources: Bank of Zambia and IMF staff estimates

Zambia: Current Account Balance and its Components
(Percent of GDP)



Source: Bank of Zambia and IMF staff estimates

4. **The current account deficit is projected to remain substantial in 2017 and gradually improve over the medium term**. Exports are expected to pick up gradually, supported by a recovery in copper prices and improving export volumes. Over the medium-term imports are projected to grow in line with aggregate demand, as the economy recovers.

B. Real exchange rate assessment

5. **A large depreciation brought the real effective exchange rate closer to equilibrium in 2016**. The results are based on the External Balance Assessment (EBA-lite) methodology[1] which includes three approaches: the current account model (CA), the real exchange rate model (REER), and the external sustainability (ES) approach. The current account and real exchange rate models are based on panel regressions. They provide estimated current account and exchange rate "norms", which values are consistent with fundamentals and desirable policies.[2] External positions are represented by the gaps between the actual current account and real exchange rate and their corresponding norms. The ES approach calculates a current account norm that would stabilize the net foreign asset (NFA) position at some benchmark level (in the present case, NFA is stabilized at its recent level).

Zambia: Real Effective Rate Gap

	(Percent of GDP)				
	Norm	acutal	Gap	Elasticity	REER GAP[1]
1. Current Account Model	-4.3	-5.5	-1.3	-0.23	5.6%
2. Real Effective Exchange Rate Model					-1%
3. External sustainability (ES) approach[2]					
Scenario 1: Stabilizing net IIP at 2.2% of GDP[3]	1.4	2.3	0.9		4.2%
Scenario 2: Stabilizing net IIP at -15% of GDP[4]	0.0	2.3	2.3		10.5%

[1] A positive number indicates overvaluation

[2] The projected current account balance is 2.3 percent for 2022.

[3] This is the IIP value at end-2016.

[4] This is the 5-year average IIP value up to 2014.

6. **The current account approach suggests that the real effective exchange rate is about 5½ percent overvalued**. The CA panel regression model includes variables that are grouped into three categories: (i) policy variables that can be directly affected by policy actions; (ii) non-policy fundamentals are generally slow-moving in the absence of structural reforms; and (iii) cyclical factors capture the cyclical component in the current account.[3] In this regard, the desirable fiscal policy stance is assumed to be a 3½ percent deficit over the medium term. On this basis, the CA approach estimates a CA norm of -4.3 percent of GDP and a CA gap of -1.3 percent of GDP in 2016. The real effective exchange rate adjustment that would eliminate this difference over the medium term is then calculated using an estimated elasticity of the current account with respect to the real

[1] See IMF, 2013, "The External Balance Assessment (EBA) Methodology", IMF Working Paper, WP/13/272 and IMF, 2016, "Methodological Note on EBA-Lite", Policy Paper.

[2] The current account norm is the level of the current account that is in line with fundamentals and desirable policy values. The policy gap is defined as the gap between a country's actual policies and its optimal policies and the 'fittedcurrent account' (a product of the level of economic fundamentals and the coefficients of the EBA regression panel). The regression panel, estimated on a sample of about 150 countries over the period 1995–2013, includes a set of 'traditional fundamentals, 'financial factors', 'cyclical/temporary factors' and policy-related regressors, most of thesevariables being computed as a country's deviation from the 'world' counterpart.

[3] *Policy variables* include fiscal balance, foreign exchange intervention, private credit and capital controls, (ii) *non-policy fundamentals* include NFA, productivity, oil and gas exports, demographic indicators, real GDP growth forecast, country risk, financial center, aid and remittances, and (iii) *cyclical factors* include output gap and terms of trade.

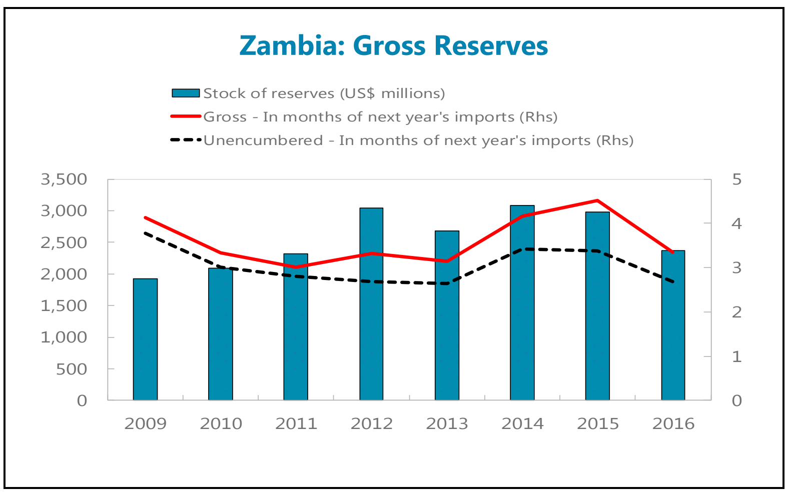
exchange rate. The adjustment is calculated to be about 5.6 percent, based on an estimated elasticity of -0.23.[4]

7. **The REER[5] approach suggests that the real effective exchange rate is in line with fundamentals**. In addition to the above assumptions, the REER model assumes that actual interest rate will converge a value that is consistent with inflation and output stabilization needs in the near term. Staff estimates this to be 6 percent for Zambia. Under these assumptions, the REER is estimated to be roughly 1 percent lower that its equilibrium value at end-2016.

8. **The external sustainability method indicates an overvaluation of about 10 percent**. Under the assumption of a benchmark equal to the projected external position for 2016 of 2.2 percent of GDP, the required adjustment in the current account implies an overvaluation of the real exchange rate of 4.2 percent. Under one possible hypothesis of an external position target equal to the 5-year average position up to 2014, which is prior to the sharp depreciation and economic recession (-15 percent of GDP) to be achieved by 2021, the implied real exchange rate overvaluation would be about 10.5 percent.

C. Reserves adequacy assessment

9. **Zambia's international reserves buffer has fallen in recent years, mainly reflecting the challenging external environment.** Export earnings have fallen considerably since 2014 reflecting declining global commodity prices, while import compression has been tempered by the need to import additional fuel and electricity. In addition, the Bank of Zambia intervened on a number of occasions in the foreign exchange market in 2015 to stem exchange rate depreciation. At end-2015, Zambia's gross international reserves stood at US$2.98 billion (4 months of future imports), which includes proceeds from the Eurobond issuance during the year of US$1.25 billion. Reserves fell by a further $612 million during 2016 to $2.4 billion or (3.3 months of future imports). Zambia reserve buffers are significantly lower than in several of its peers.

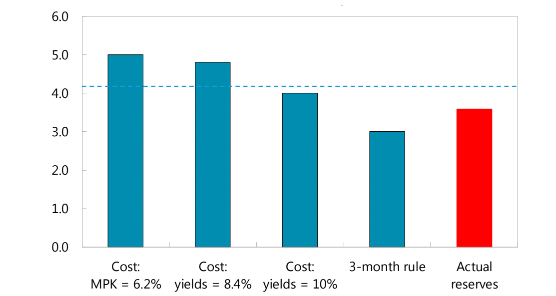


[4] The average REER adjustment to eliminate the CA gap is based on the elasticity of the CA to the REER estimated by Lee et al, 2008, "Exchange Rate Assessment CGER Methodologies", *IMF Occasional Paper* No. 261 and Tokarick, S., 2010, "A Method for Calculating Export Supply and Import Demand Elasticities", *IMF Working Paper* No. 180.

[5] The panel regression model for the REER index includes variables that would affect the REER directly and indirectly though changes to the CA balance. These variables are: (i) *policy variables* include FX intervention, short-term real interest rate, private credit and capital controls, and (ii) *non-policy fundamentals* include NFA, productivity, financial home bias, terms of trade, trade openness, output gap, aid and remittances.

10. **The end-2016 reserves level is below what can be considered adequate.** This assessment uses a cost-benefit approach developed by Fund staff for low-income country analysis, which attempts to balance the absorption smoothing benefits of reserves in the event of adverse shocks against the opportunity cost of holding reserves taking into account country specificities including the exchange rate regime, fiscal balance, institutional quality, the nature of external drains and degree of access to international capital markets.[6] This analysis suggests, that at the end-2016, the reserves level of 3.5 months of current imports was at the lower end of what can be considered as the optimal level range of 4–5 months of current year's imports.[7] As such, the baseline scenario projection of 2.2 months of imports for 2017 would be an inadequate level.

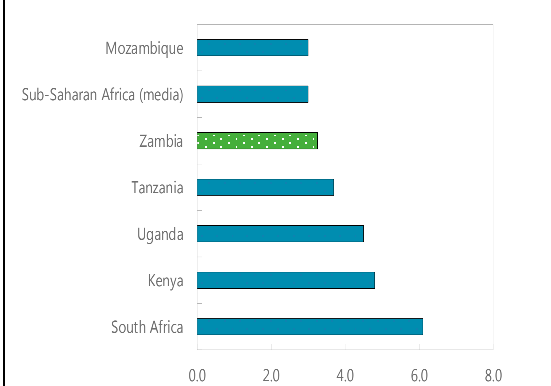
Zambia: Reserve Adequacy Assessment
(months of current imports)



Sources: Staff estimates

11. **Alternative assessments of reserves adequacy suggest a cover larger than the 3-month rule.** Zambia's reserves holdings are mainly for precautionary purpose for absorption smoothing in the event of shocks and prevent disorderly market conditions as well as to cover against episodes of capital flight. Given Zambia's heavy reliance copper exports, the need to protect against current account shocks (larger driven by volatility in copper prices) would suggest a higher reserves buffer than the three-month rule is needed; essentially to dampen the country's vulnerability to fall in copper prices. Some of the regional peers (e.g. Kenya, Uganda and Tanzania) with relatively more diversified exports products and markets have relatively higher reserves' months of import cover. In relation to broad money, which is another common measure for reserve adequacy against capital flight, the end-2016 reserves were equivalent to about 80 percent of broad money liabilities, which is less than full cover. Another traditional rule requires reserve coverage of 100 percent of short-term debt. Zambia however has very little short-term debt and although public external debt amortization has

Zambia: Gross Reserves in Months of Imports Relative to Peers: 2016



Sources: Bank of Zambia and IMF, African Department database

[6] The methodology is outlined in *Assessing Reserve Adequacy*, IMF Policy Paper, February 2011 and also in the Guidance Note On the Assessment of Reserves Adequacy and Related Considerations, June 2016.

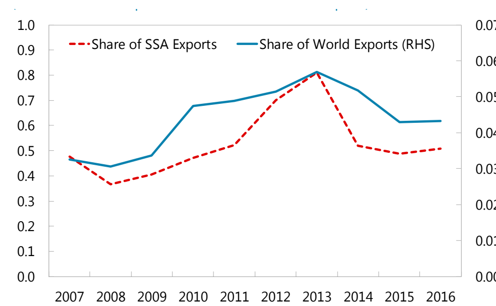
[7] This analysis uses the average yields in 2015 on the three Eurobonds and the marginal product of capital as alternative proxies for the costs of holding reserves, which is in accordance with the guidance notes (see paragraph 40 of the above-mentioned guidance note). The former is justified as providing an estimate of the interest rate that banks are willing to take to enter into a cross-currency swap with another bank or client to exchange the local currency for a foreign currency during the tenor of contract, while the latter is a proxy capturing the opportunity cost of foregone fixed investment.

been rising, the end-2016 reserve coverage was about 6-fold the expected debt repayments due within the next 12-months. Nevertheless, the first bullet payment on the Eurobonds is due in 2022 and the others in the immediate years following. In addition, non-resident holdings of domestic currency debt have increased since late 2016 in response to attractive yields and relative stability in exchange rate but are susceptible to sudden stops or reversal if market sentiments adversely change. This implies the necessity for returning to a path of reserve buildup to sustain investors' confidence.

D. Assessment of Structural Competitiveness

12. **Exports remain heavily concentrated in one product, copper**. Zambia's export market shares in the global exports increased between 2008 and 2013. This largely reflected increased copper exports due to improved domestic production as new mines came on stream, and increased copper concentrates imported from the Democratic Republic of Congo for processing. Since then, however, there was notable decline in the global export market shares, largely reflected in reduced copper concentrates from Congo DR, which more than offset the increase in domestic production of copper. The country remains vulnerable to reliance on one dominant export product.

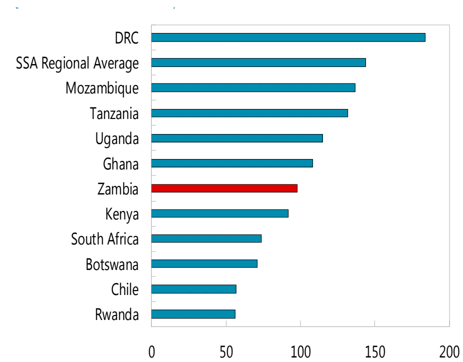
Market Share of Zambia's Total Exports
(Percent of World Exports and Sub-Saharan African Exports)



Source: IMF, *Direction of Trade Statistics*

13. **Zambia business environment has deteriorated based on the 2017 World Bank Doing Business indicators**[8]. The country was ranked at position 98 out of 190 economies in 2017, down from position 83 out of 189 economies in 2014. Although its ranking is higher than the SSA regional average, there is room for improvement towards the status of some regional peers such as Rwanda and South Africa, and other commodity exporters such as Chile and Botswana. Weak areas on business environment include getting electricity, starting a business, trading across borders, registering property and enforcing contracts. According to the World Economic Forum Global Competitiveness

Zambia: Overall Ease of Doing Business, 2017
(Rank, lower is better)



Source: World Bank, *Doing Business*.

[8] Economies are ranked on their ease of doing business, from 1–190. A lower ease of doing business ranking means the regulatory environment is more conducive to the starting and operation of a local firm. The rankings are determined by sorting the aggregate distance to frontier scores on 10 topics. These indicators should be interpreted

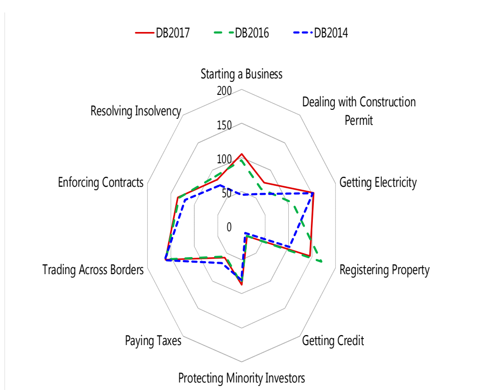
(continued)

report for 2016–17, the main constraints to doing business as perceived by investors were access to financing, tax rates, corruption, and inflation.[9] The 2014 version of the report also listed inadequate supply of infrastructure as a major constraint.

14. **Improvement in the business climate will boost competitiveness and help attract investment and promote growth**. Zambia government has initiated some measures to address these weaknesses. These include passage of law on the use of moveable collateral to access finance and focus on economy diversification, including facilitating diversification of agricultural output to cash crops such as cotton, cashew nuts, soya beans, cassava and rice, to broaden the export base and improve the country's resilience to external shocks. Establishing policy consistency in the agriculture sector such as abolishing maize export ban and limiting the role of the Food Reserve Agency in the marketing of maize could attract more private sector investments to take advantage of potential market from surrounding countries with maize deficits. In addition, the move towards cost reflective tariffs on electricity would provide an opportunity to attract private investments in the sector boosting domestic supply of electricity. Enhanced transparency in petroleum product procurement and pricing, and improving efficiency to cut the underlying cost of supplying fuels would enhance competitiveness of the Zambia's economy. There has been increased consultation with the stakeholders in the mining sector towards establishing a stable mining tax regime, which is expected to boost investment in the sector and promote value addition.

Zambia: Components of the Ease of Doing Business

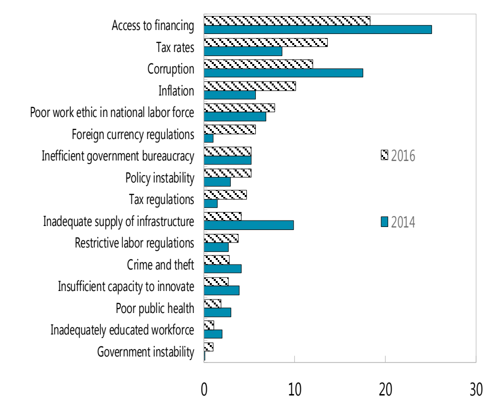
(Rank, lower indicate more business friendly regulations)



Source: World Bank, *Doing Business*.

Zambia: The Most Problematic Factors for Doing Business

(Percent of



Source: World Economic Forum, Global Competitiveness Report

with caution due to a limited number of respondents, a limited geographical coverage and standardized assumptions on business constraints and information availability.

[9] The World Economic Forum Global competitiveness report examines a set of structural indicators that could potentially impact on competitiveness. The report broadly shows the same results that Zambia's ranking deteriorated to 118th (out of 138 countries) in 2016–17, down from 96 (out of 140 countries) in 2015–16.

15. **Structural reforms to enhance higher value-added exports and diversified export products would enhance export performance, and improve the economy's resilience to external shocks**. It is crucial for Zambia to step up reforms to improve investment prospects and attract FDI that allows it to diversify into higher value-added products and investments in other sectors of the economy. Improving agriculture productivity in Zambia would enhance export, particularly for maize given potential market from the surrounding countries with maize deficits. Although Zambia's average cereal yields per hectare is higher than SSA regional average and most of its neighboring countries, it remains quite low compared to South Africa. Establishing policy consistency in the agriculture sector such as abolishing on maize export ban and setting of prices create certainty, and would attracts more private sector investments. Rationalizing farm subsidies, and the savings invested on measures to enhance crop yields and long-term competitiveness.

Annex V. Capacity Development Strategy for FY 2018

The Fund's capacity development assistance provides support on implementation of the authorities economic and financial policies. The technical assistance activities for FY 2018 are drawn from key surveillance and program priorities discussed with the authorities.

Overall Assessment of Capacity Development

1. **Capacity development by the Fund to the authorities through targeted TA helps in addressing capacity building and institutional weaknesses**. Zambia has benefited from many TA missions[1] from the Fund focusing on key priorities. Broadly, the priority areas are revenue and customs administration to enhance domestic revenue mobilization, public finance management (PFM) to improve budget controls and execution, financial supervision and regulations to strengthen financial stability, monetary policy and operations, and compilation and dissemination of statistics to inform policy analysis and implementation.

2. **Implementation of the TA recommendations in most areas is mixed**. Good progress has been made with the compilation of national accounts statistics, including quarterly GDP, and external sector statistics. More progress, however, is required to strengthen domestic revenue mobilization and public financial management to put public debt on a downward path. The 2016 FSAP for Zambia pointed to risks to financial stability arising from inadequate capacity for bank supervision, systemic risk analysis and financial crisis management. Limitations slowing implementation of some of the TA recommendations include; lack of buy-in from key national stakeholder (line ministries on PFM), lack of financial resources to conduct surveys to improve statistics, inadequate staffing and complementary trainings, and lack of coordination between various government agencies.

Forward Looking Priorities

3. **Fiscal consolidation, debt management and financial stability are key themes in surveillance and program discussions with the Zambian authorities in 2017**. They inform the capacity development priorities during the FY2018. The key priorities and objectives for FY 2018 include:

[1] A list of Resident advisors and Technical Assistance missions to Zambia in the recent years are shown in the Informational Annex.

Priorities	Objectives
Public Financial Management	Comprehensive, credible, and policy based budget preparation
	Budget execution and control, including measures to avoid the accumulation of new arrears as well as accounting and fiscal reporting reforms
	Management of fiscal risks
	Debt management
	Public investment
Tax policy	Revenue quantity particularly by broadening the income tax and value added tax bases and enhancing tax compliance
Financial supervision and regulation	Risk-based supervision and other supervisory processes
Systemic risk analysis	Systemic risk monitoring
Financial crisis management	Contingency planning for crisis, and deposit insurance.
National accounts statistics	High frequency output indicators and improvement in estimates of informal activity
Tax and customs administration	Administration organizational structure and core functions
Central bank operations	Foreign exchange market and operations, monetary policy implementation and operations
Prices	Producer price index, import price index
External sector statistics	Compilation of quarterly international investment position statistics and timelier quarterly balance of payments statistics

4. **The main risk to capacity development is slow implementation of TA recommendations and weak absorptive capacity**. Measures to mitigate these risks include; proper sequencing of TA and complementary trainings, adequate engagement of implementing agencies and stakeholders, and communications strategy on consequences of inaction.

Authorities Views

The authorities are broadly in agreement with the overall assessment and priorities of the capacity development strategy.

INTERNATIONAL MONETARY FUND

ZAMBIA

STAFF REPORT FOR THE 2017 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

September 25, 2017

Prepared By

African Department
(In Consultation with Other Departments)

CONTENTS

RELATIONS WITH THE FUND

As of August 31, 2017

Membership Status: Joined: September 23, 1965; Article VIII
General Resources Account:

	SDR Million	Percent Quota
Quota	978.20	100.0
Fund holdings of currency	978.20	100.0
Reserve position in Fund	0.02	0.0

SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	469.14	100.0
Holdings	238.92	50.93

Outstanding Purchases and Loans

	SDR Million	Percent Quota
ECF arrangements	108.85	11.13

Latest Financial Arrangements

Type	Approval Date	Expiration Date	Amount Approved (SDR Million)	Amount Drawn (SDR Million)
ECF [1]	06/04/2008	06/29/2011	220.10	220.10
ECF [1]	06/16/2004	09/30/2007	220.10	220.10
ECF [1]	03/25/1999	03/28/2003	278.90	237.52

Projected Payments to the Fund[2]
(SDR million; based on existing use of resources and present holdings of SDRs)

	Forthcoming				
	2017	2018	2019	2020	2021
Principal	20.72	43.32	31.93	11.04	1.84
Charges/interest	0.31	1.23	1.23	1.23	1.23
Total	21.03	44.55	33.16	12.27	3.07

[1] Formerly PRGF.

[2] When a member has overdue financial obligations outstanding form more than three months, the amount of such arrears will be shown in this section.

Implementation of HIPC Initiative

	Enhanced Framework
Commitment of HIPC assistance	
Decision point date	Dec. 2000
Assistance committed (1999 NPV terms)[3]	
By all creditors (US$ million)	2,499.20
Of which: Fund assistance (US$ million)	602.00
(SDR equivalent in millions)	468.80
Completion point date	April 2005
Disbursement of IMF assistance (SDR million)	
Assistance disbursed to Zambia	468.80
Interim assistance	351.60
Completion point balance	117.20
Additional disbursements of interest income[4]	39.47
Total Disbursement	508.27

Implementation of MDRI Assistance

I. Total debt relief (SDR million)[5]		402.59
Of which:	MDRI	398.47
	HIPC	4.12

II. Debt relief by facility (SDR million)

Delivery date	GRA	PRGT	Total
January 2006	n/a	402.59	402.59

[3] Net present value (NPV) terms at the decision point under the enhanced framework.

[4] Under the enhanced framework, an additional disbursement is made at the completion point corresponding to interest income earned on the amount committed at the decision point but not disbursed during the interim period.

[5] The Multilateral Debt Relief Initiative (MDRI) provides 100 percent debt relief to eligible member countries that are qualified for assistance. The debt relief covers all debt owed to the Fund as of end-2004 that is outstanding at the time the member qualifies for the relief.

Safeguard Assessments

Safeguards assessments of the Bank of Zambia (BoZ) were completed in June 2004, January 2009, and October 2010. The 2009 assessment concluded that the bank had adequate safeguards in several areas, but confirmed the existence of certain vulnerabilities in the BoZ's legal framework and financial reporting. The 2010 update report concluded that the BoZ had made progress in implementing safeguards recommendations. Staff noted improvements in the internal audit and internal control mechanisms. Weak statutory independence remains a substantive safeguards concern.

Exchange Rate Arrangement

The currency of Zambia is the kwacha. The exchange rate arrangement is a "float," with the kwacha exchange rate determined in the interbank market. The buying rate of the BoZ is a simple average of the primary dealers' low bid rates, and the BoZ's selling rate is the simple average of the primary dealers' high offer rates. On April 19, 2002, Zambia accepted the obligations of Article VIII, Sections 2, 3, and 4 of the Articles of Agreement.

Zambia continues to maintain an exchange restriction, which is subject to Fund approval under Article VIII, arising from limitations imposed by the government on access to foreign exchange for the making of payments and transfers for current international transactions, which is evidenced by the existence of external payments arrears accumulated prior to October 4, 1985.

Article IV Consultations

Zambia is on the standard 12-month Article IV consultation cycle, subject to Decision No. 14747– (10/96), as amended. The Executive Board concluded the last Article IV consultation on May 20, 2015.

FSAP Participation and ROSC

Zambia has participated in the financial sector assessment program (FSAP); an FSAP mission from the Fund and the World Bank conducted a comprehensive external assessment of the financial system on April 30–May 15, 2002, and July 15–26, 2002. A follow-up FSAP mission was conducted by the Fund and the World Bank in November 2008. More recently, another joint World Bank-Fund FSAP mission was conducted on July 11-August 3, 2016 to assess the stability of the financial system. On June 8-16, 2017, a mission from the Fund was conducted to update the stress tests of the 2016 FSAP.

The fiscal transparency module of a Report on Observance of Standards and Codes (ROSC) assessing compliance with the IMF's Code of Good Practices on Fiscal Transparency—Declaration of Principles was issued to the Executive Board on October 31, 2001. A ROSC data module was issued to the Executive Board on January 18, 2005.

Technical Assistance (since 2011)

Resident advisors

Department	Dates	Position
FAD	2012–15	Peripatetic advisor on tax administration
MCM	2011–15	Advisor on capacity building at the Bank of Zambia

Technical assistance missions

Department	Dates	Purpose
FAD	February 2012	Mining tax administration
	April 2012	Public financial management
	October 2012	Tax administration
	July 2012	Tax policy
	April 2013	Pension reform
	November 2013	Tax administration
	November 2013	Public financial management
	January 2014	Cash management
	February 2014	Program based budgeting
	May 2014	Mining and large taxpayer administration reforms
	July–August 2014	Cash basis financial reporting
	October–November 2014	Treasury single account
	March 2015	Mining Tax administration
	April–May 2015	PFM legislation
	January–February 2016	Macro-fiscal management and budget formulation
	April 2016	Customs administration
	May 2016	Assessment of Tax administration (TADAT)
	May–July 2016	Review of the Performance Budget System
	June 2016	Macro-fiscal planning and fiscal risks management
	July 2016	Tax administration
	July–August 2016	Audit effectiveness for Telecoms

Department	Dates	Purpose
	Nov.–Dec. 2016	Customs administration
	February 2017	Public Investment Management assessment
	April 2017	Tax administration
MCM	November 2011	Monetary policy framework
	January 2012	Inflation targeting framework
	January 2012	Payments system reforms
	January 2012	Central Bank organizational restructuring
	February 2012	Currency management
	March 2012	Macro modeling of transmission mechanism
	May 2012	Stress testing and risk profile of banks
	May 2012	Currency management
	July 2012	Payments system
	September 2012	Currency management
	October 2012	Inflation targeting
	November 2012	Organization review
	November 2012	Financial stability
	December 2012	Bank supervision and regulations
	February 2013	Information handling
	March 2013	Organization of economic analysis
	March 2013	Macro modeling of transmission mechanism
	May 2013	Payments system
	June 2013	Markets for government securities
	August 2013	Financial stability analysis
	September 2013	Liquidity forecasting and interbank market
	November 2013	Monetary policy reports and recommendations
	November 2013	Tasks and performance of the executives
	February 2014	Internal planning functions of BOZ
	February 2014	Automation of book-keeping and accounting in currency operations
	March–April 2014	Stress testing

Department	Dates	Purpose
	April–May 2014	Econometric modeling
	May 2014	Improving efficiency of payment system
	July 2014	Assessing the functioning of the FX market
	August 2014	Project Management
	September 2014	Monetary policy formulation and implementation
	September–October 2014	Improving efficiency of payment systems-National Switch project
	November 2014	Enhancement of the stress testing framework
	January 2015	Improving liquidity of the secondary market for Government securities and deepening interbank money markets
	February 2015	Bank supervision
	March 2015	Organizational structure and operational set up
	June 2015	Payment systems development and oversight
	August 2015	Bank supervision
	September 2015	Macroeconomic modelling
	September–October 2015	Establishment of a centralized database management system
	October 2015	Bank of Zambia organizational structure
	November 2015	Secondary market for Government securities
	February–March 2016	Secondary market for Government securities
	April 2016	Business opinion and expectations survey
	April 2016	Stress testing
	July 2016	Forecasting and policy analysis system
	December 2016	Forecasting and policy analysis system
	April 2017	Forecasting and policy analysis system
	May 2017	TA needs assessment
	June 2017	Risk based supervision
	July 2017	Deposit insurance system
	July 2017	Monetary policy communications

Department	Dates	Purpose
	Aug.-Sept. 2017	Foreign exchange market developments
STA	February 2013	SRF data development
	April 2013	Price statistics
	April 2013	National accounts
	December 2013	Price statistics
	January 2014	National accounts
	January 2014	Open data platform
	April-May 2014	Monetary and financial statistics
	August 2014	National accounts
	March 2015	Quarterly National accounts
	March 2015	Price statistics
	February–March 2016	External sector statistics
	March 2016	National accounts statistics
	March–April 2016	Government finance statistics
	April 2016	Enhanced general data dissemination system
	April–May 2016	National accounts statistics
	May 2016	Natural resources revenue pilot study
	October 2016	National accounts statistics
	December 2016	External sector statistics
	February 2017	National accounts statistics
	March 2017	International investment position and External debt and statistics compilation training
	March 2017	Producer price index
	June 2017	National accounts statistics
	June 2017	External sector statistics
	August 2017	National accounts statistics

Resident Representative

A Fund Resident Representative first took up the position in Lusaka in June 1990. Mr. Alfredo Baldini has been the Resident Representative since August 2016.

JOINT WORLD BANK-FUND WORK PROGRAM, 2017–18

Title	Products	Expected Delivery Date
World Bank work program in next 12 months	1. Analytical work – biannual *Economic Briefs* focused on debt (December 2017) and the tourism sector (June 2018)	December 2017 and June 2018
	2. Analytical work – Inflation and Exchange Rate Dynamics Working Paper	July 2017
	3. Lending – DPO focused on Fiscal/ debt, agriculture and social protection reforms (2 operations of $100 million)	December 2017 and September 2018
	4. TA – PFM reform program and dialogue	Continuous
	5. TA – E-procurement support	Continuous
	6. Analytical work – Debt Management Reform Plan	June 2018
	7. TA – Financial Inclusion Support Framework (2-3 year program)	Start June 2015
	8. Analytical work – Health Public Expenditure Review	January 2018
	9. Analytical work –Zambia Fiscal Charter	December 2017
	10. Analytical work – Structural Transformation in Zambia	June 2018
IMF work program in next 12 months	1. Technical assistance: Foreign operations and foreign exchange policy implementation	August–September 2017
	2. Technical assistance: Public financial management	2017/18
	3. Technical assistance: Revenue administration	2017/18
	4. Technical assistance: Contingency planning for crisis preparedness and management	2017/18
	5. Technical assistance: Financial supervision and regulation	2017/18
	6. Technical assistance: Monetary policy implementation and operations	2017/18

	7. Technical assistance: National accounts statistics	2017/18
	8. Technical assistance: External sector statistics	2017/18
	9. Technical assistance: Producer price index	2017/18
	10. Technical assistance: Government finance statistics	2017/18
Fund request to Bank	1. Analytical work on health public expenditure review	January 2018
	2. Analytical work on structural transformation	June 2018
	3. Analytical work on debt management reform	June 2018
Bank request to Fund	1. Medium-term macroeconomic framework	Continuous
Joint products in next 12 months	1. DSA for Article IV and for WB DPO	August 2017
	2. FSAP Financial System Stability Assessment	August 2017
	3. Regular meetings with the Bank of Zambia	Continuous

STATISTICAL ISSUES

As of September 11, 2017

I. Assessment of Data Adequacy for Surveillance
General: Data provision has some shortcomings, but is broadly adequate for surveillance. Issues with source data and compilation affect most datasets, but are particularly problematic in fiscal reporting.
National accounts: The Central Statistics Office (CSO) estimates GDP for the current year from benchmark year 2010 and a combination of survey and administrative data. The authorities now compile GDP estimates using value added (VAT) and business income tax data from the Zambian Revenue Authority (ZRA). In October 2016, the CSO started publishing quarterly GDP estimates using quarterly source data, including VAT records from the ZRA. The three priority areas for attention are: (a) developing a Memorandum of Understanding between the CSO and the ZRA to ensure administrative data has appropriate coverage and quality assurance; (b) obtaining additional resources to sustain the quality of GDP—now that some of the available recourses are assigned to the production of quarterly GDP; and (c) developing a new GDP benchmark within the next five years.
Price statistics: The classification system used for compilation of the CPI closely follows the Classification of Individual Consumption by Purpose. The current weights are based on expenditure data reported by households in 2002. There is urgent need for a household expenditure survey to update the CPI weights. An ongoing AFRITAC South project on the compilation of the producer price index (PPI) is expected to enhance the measurement of volume changes of GDP and its components.
Government finance statistics (GFS): The coverage of GFS data is limited to budgetary central government. These data include intergovernmental transfers of about 2 percent of GDP to extra-budgetary, social security, and local government units—the economic nature of these expenses are not known and all sources of own revenue of these entities are excluded from the fiscal data. The authorities report monthly budget releases data to the IMF's African Department for operational use in a timely manner, but the data are often subject to substantial revisions. The reconciliation of data on fiscal outturn in fiscal reports and government's accounts in monetary statistics requires significant improvement. Zambia last reported data to STA in GFSM 2001 format for fiscal year 2011, including data on transactions in financial assets and liabilities. There is a GFS TA mission planned for after October 2017.
Monetary statistics: The Bank of Zambia (BOZ) reports monetary data to STA for the central bank, other depository corporations, and other financial corporations on a timely basis, based on the standardized report forms, which accords with the concepts and definitions of the IMF's *Monetary and Financial Statistics Manual (MFSM)*.

Financial sector surveillance: The BOZ resumed reporting financial soundness indicators (FSIs) to STA following a recent e-GDDS mission. The reported data are being reviewed for posting on the IMF's FSI website.
Balance of payments statistics: The data adequacy has gradually improved in recent years. The BoZ compiles balance of payments (BOP) and international investment position (IIP) statistics according to the Sixth edition of Balance of Payments and International Investment Position Manual (BPM6). BOP data are compiled quarterly and IIP data annually although the publication time lag is higher than 120 days of the reference quarter. Plans are underway to compile quarterly IIP. The BoZ has started conducting new services surveys in compliance with BPM6 which have contributed to the significant revision in the services series as well as the fob valuation of exports and imports of goods. The coverage of the quarterly investment survey (relating to financial account and primary income) should be improved as well is its incorporation in the BOP statistics.
External and domestic debt statistics: Data provision is broadly adequate for surveillance purposes. Recent efforts, facilitated by technical assistance, have led to an improvement in the consolidation of the debt databases, both in terms of external and domestic debt. Further work is underway in these areas.
II. Data Standards and Quality
Zambia has participated in the General Data Dissemination System (GDDS) since November 2002, and in June 2016 it implemented the e-GDDS recommendations and disseminated a National Summary Data Page (NSDP; http://nso.zambia.opendataforafrica.org/ddaiaof/national-summary-data-page-nsdp), publishing 14 of the 15 e-GDDS data categories and remaining in Baseline 2 of the e-GDDS. Since June 2016, updating of the NSDP has not been consistent. A Data ROSC Assessment was published in February 2005.

Zambia: Table of Common Indicators Required for Surveillance

As of September 21, 2017

	Date of Latest Observation	Date Received	Frequency of Data[7]	Frequency of Reporting[7]	Frequency of Publication[7]	Memo Items:	
						Data Quality – Methodological soundness[8]	Data Quality – Accuracy and Reliability[9]
Exchange rates	September 21 2017	September 21, 2017	D	D	D		
International reserve assets and reserve liabilities of the monetary authorities[1]	September 14 2017	September 14, 2017	D	W	M		
Reserve/base money	July 17 2017	July 18, 2017	D	W	M	LO, LO, LO, LO	LO, O, O, O, O
Broad money	July 2017	August, 2017	M	M	M		
Central bank balance sheet	July 2017	August, 2017	M	M	M		
Consolidated balance sheet of the banking system	July 2017	August, 2017	M	M	M		
Interest rates[2]	June 2017	July 17, 2017	W	W	M		
Consumer Price Index	August 2017	August 31, 2017	M	M	M	O, LO, O, LO	LNO, LO, LO, LNO, LO
Revenue, expenditure, balance and composition of financing[3]—general government[4]	N/A	N/A				LO, LNO, LNO, LO	LNO, LO, O, O, LNO
Revenue, expenditure, balance and composition of financing[3]— central government	June 2017	July 31, 2017	M	M	M		
Stocks of central government and central government–guaranteed debt[5]	March 2017	June 2017	M	M	A		
External current account balance	Q1 2017	May 24, 2017	Q	Q	M	LO, LNO, LNO, O	LNO, O, LNO, LO, LNO
Exports and imports of goods and services	May 2017	June 29, 2017	M	M	M		
GDP/GNP	Q1 2017	June 26, 2017	Q	Q	M	LO, LO, LO, LO	LNO, LO, LNO, LNO, LNO
Gross external debt	May 2017	July 10 2017	M	M	M		
International investment position[6]	2015	Dec 2, 2016	A				

[1] Any reserve assets that are pledged of otherwise encumbered should be specified separately. Also, data should comprise short-term liabilities linked to a foreign currency but settled by other means as well as the notional values of financial derivatives to pay and to receive foreign currency, including those linked to a foreign currency but settled by other means.

[2] Both market-based and officially determined, including discounts rates, money market rates, rates on treasury bills, notes and bonds.

[3] Foreign, domestic bank, and domestic nonbank financing.

[4] The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

[5] Including currency and maturity composition.

[6] Includes external gross financial asset and liability positions vis-à-vis nonresidents.

[7] Daily (D), weekly (W), monthly (M), quarterly (Q), annually (A); irregular (I); or not available (NA).

[8 & 9] Reflects the assessment provided in the data ROSC, published February 1, 2005, and based on the findings of the mission that took place during May 18–June 3, 2004 for the dataset corresponding to the variable in each row. The assessment indicates whether international standards concerning (respectively) concepts and definitions, scope, classification/sectorization, and basis for recording are fully observed (O), largely observed (LO), largely not observed (LNO), or not observed (NO).

ZAMBIA

STAFF REPORT ON THE 2017 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

September 25, 2017

Approved By
Michael Atingi Ego and Bob Traa (IMF) and Paloma Anos-Casero (IDA)

Prepared by the staffs of the International Monetary Fund and the International Development Association

Risk of external debt distress (current policies):	High
Augmented by significant risks stemming from domestic public and/or private external debt?	Yes

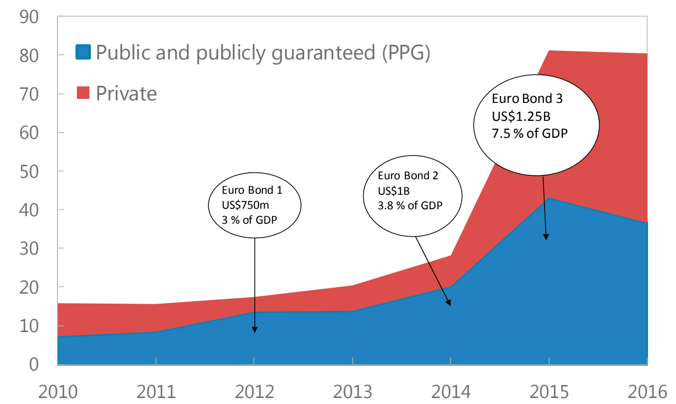
This full Debt Sustainability Analysis[1] (DSA) indicates that Zambia is at high risk of debt distress, which represents a downgrade from the moderate rating of the previous DSA reported in the 2015 Article IV consultation (IMF Country Report No. 15/152). The present value (PV) of the public and publicly guaranteed external debt breaches the 40 percent of GDP threshold; it rises from 37 percent in 2016 to 42.6 percent by 2019 and to a peak of 44.3 percent in 2022. The debt-service-to-revenue ratio temporarily breaches its 20 percent threshold in 2022 and 2024 when Eurobond payments fall due. All indicators breach their respective thresholds in the case of extreme shocks. Overall public sector debt vulnerabilities are also elevated; the fixed primary balance scenario, which keeps the primary deficit-to-GDP ratio unchanged from 2016 (at 2.2 percent), shows the debt ratio rising throughout the forecast period, highlighting the urgent need for fiscal consolidation. Reducing the risk of debt distress requires strong and sustained fiscal consolidation, including measures to increase domestic revenue, strengthen public investment management, and contain fiscal risks (especially contingent liabilities of state-owned enterprises). Adoption and implementation of an appropriate debt management strategy is also critical.

[1] A Debt Sustainability Analysis Update was prepared in April 2015 in the context of the last (2015) Article IV consultation (IMF Country Report No. 15/152). Zambia's three-year average score of the Country Policy and Institutional Assessment (CPIA) for 2014–16 was 3.38, which is within the band for medium performance. Therefore, the current DSA uses the policy-dependent thresholds for medium policy performers.

BACKGROUND AND RECENT DEVELOPMENTS

1. **Zambia's stock of total external debt (public and private) has risen sharply since 2011, mainly reflecting issuance of Eurobonds by the government and a rapid rise in private sector debt.** At end-2016, outstanding public and publicly guaranteed (PPG) external debt stood at nearly US$8 billion (36.5 percent of GDP) compared to US$1.9 billion (8.4 percent of GDP) at end-2011 (Text Table 1). Publicly guaranteed debt (for ZESCO and ZAMTEL)[2] stood at US$771 million (3.5 percent of GDP), almost six times the amount at end-2012.

Text Figure 1. Total External Debt
(Percent of GDP)



2. **The composition of public debt has shifted towards external non-concessional debt.** The share of central government's debt from multilaterals has fallen sharply from about 60 percent in 2011 to 20.5 percent, while the share of private banks/investors has risen to almost 50 percent.

3. **Improved data collection has shown that private sector debt is much larger than previously reported.** Private sector debt, which had been relatively modest, rose from 6 percent at end-2014 to 40 percent at end-2016, which in large part reflects an increase in the coverage of firms used to estimate private sector debt; the number of firms in the survey increased from 30 in 2014 to about 350 in 2015.

4. **The pace at which the authorities have contracted debt has increased considerably in recent years**. The number and value of loans has increased sharply from 5 loans with a combined value of US$0.5 billion in 2011 to 30 loans totaling US$3.4 billion in 2016. This pace of borrowing needs to be slowed significantly to align resources with the country's absorptive capacity and to ensure the sustainability of debt. The public investment cycle, including the selection, procurement, and monitoring of infrastructure projects, needs substantial strengthening to ensure public investment projects deliver value for money.

5. **Domestic public debt increased from 12.4 percent of GDP in 2011 to 24 percent of GDP in 2016.** In 2011, treasury bills (T-bills) and treasury bonds (T-bonds) accounted for about 93 percent of the total domestic debt, with the remainder coming from accumulation of arrears and financing from the banking system. In 2016, the share of government securities (T-bills and T-bonds) dropped

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[2] ZESCO Ltd. is the state-owned electricity utility company. ZAMTEL is the Zambia Telecommunications Company, a state-owned telecommunications service provider.

to 49.8 percent of total domestic debt while arrears increased to about 33 percent of the total and the remaining reflected debt to the Bank of Zambia and domestic commercial banks.

Text Table 1. Evolution of Debt Indicators

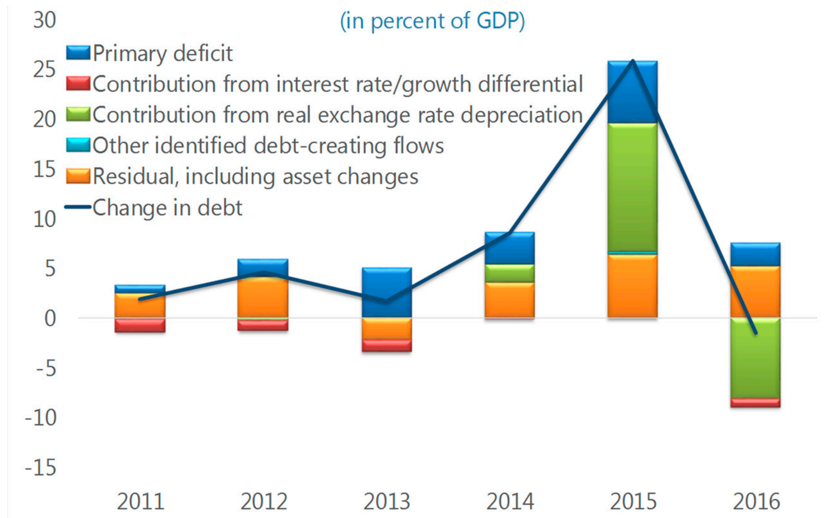
	2011	2012	2013	2014	2015	2016
	Percent of GDP					
Total External debt	15.9	17.3	20.5	28.5	91.5	78.5
Public and publicly guaranteed	8.4	13.7	13.8	20.1	43.1	36.5
Central Government	6.5	11.6	11.3	16.6	37.6	32.1
BoZ	1.9	1.6	1.4	1.3	1.5	0.8
Publicly guaranteed	0.0	0.5	1.2	2.3	3.9	3.5
Private and Parastatal	7.5	3.6	6.7	8.4	48.4	42.0
Private	7.5	3.6	6.7	6.0	44.4	39.8
Parastatal	0.1	0.0	0.0	2.4	4.0	2.3
Total Public debt	20.8	25.4	27.1	35.6	61.4	60.5
Domestic debt	12.4	11.7	13.2	15.5	18.3	24.0
Securities	11.4	11.2	12.2	11.7	10.7	11.9
T-bills	6.0	5.9	6.1	5.6	5.3	6.0
T-bonds	5.4	5.3	6.0	6.1	5.4	5.9
Other 1/	1.0	0.6	1.1	3.8	7.6	12.1
External debt	8.4	13.7	13.8	20.1	43.1	36.5
	Composition of Central Government's External Debt (percent)					
Multilaterals	59.7	33.6	35.5	27.1	20.2	20.5
Bilaterals	9.4	3.2	2.1	3.0	3.3	6.2
Private banks/investors	0.0	34.7	32.5	45.7	51.2	46.3
Suppliers' Credit	31.0	28.5	30.0	24.3	25.3	26.9
	Composition of Domestic Debt (percent)					
Securities	92.6	93.2	79.0	74.4	57.0	49.8
T-bills	48.5	48.8	40.0	71.7	28.3	25.1
T-bonds	44.1	44.4	39.1	38.8	28.7	24.7
Other 1/	7.5	6.8	21.1	25.6	43.0	50.2

Sources : Zambia authorities and IMF staff calculations.

1/ Includes accumulation of domestic arrears and financing from BoZ and commercial banks.

6. Fiscal performance and exchange rate movements have been the main drivers of public debt dynamics (Text Figure 2). Total public sector debt at end-2016, as a ratio of GDP, is almost tripled that at end-2011. Fiscal deficits have been a significant contributor to the evolution of public debt, although in 2015 and 2016 exchange rate movements had the largest impact.

Text Figure 2. Contributors to the Evolution of Public Sector Debt



UNDERLYING ASSUMPTIONS

7. The DSA presents two scenarios that differ mainly on the assumptions about new public investment projects and associated debt. The risk rating is based on the "current policies" scenario. This scenario reflects the government's ongoing efforts to increase tax compliance and address energy and agriculture subsidies. Based on information provided to IMF staff on loans in the pipeline, the current policies scenario also assumes that the authorities will disburse approximately US$3.5 billion in new non-concessional loans over the next five years, on top of US$4 billion in already contracted loans, mainly to support capital projects (executed at a pace that raises quality-of-spending concerns). Additionally, large domestic financing needs emerge, including to meet the government's contribution to funding projects that are predominantly externally-financed. The second scenario, an "adjustment policies" scenario, assumes that capital spending will be more restrained, in line with the policies and targets outlined in the 2017 Budget Speech, including restrictions on new capital projects and major equipment purchases.

8. The current policies scenario reflects a modest fiscal adjustment over the medium term. Absent additional measures to reduce the deficit beyond the subsidy reforms undertaken thus far, the fiscal stance will remain unsustainable driven by the ambitious public investment program over the next five years, with total public debt continuing to rise. Clearance of domestic arrears is projected to slow down to accommodate the new capital spending. Key assumptions under the current policies scenario are:

- **Economic growth will remain subdued over the medium-term** mainly reflecting a crowding out of private sector investment due to the significant reliance on domestic debt to finance the budget deficit, which will affect domestic interest rates and access to credit by the private sector.

- **The external sector current account will remain in deficit up to 2022**, primarily reflecting higher imports related to government's capital outlays over the next five years. Nonetheless, a pickup in copper exports and less dependence on imported electricity will help to narrow the deficit.

- **A total of US$7.5 billion in external debt will be disbursed over the next five years.** This assumes US$4.2 billion in non-concessional loans and US$3.3 billion concessional. Additionally, it is assumed that the three Eurobonds will be rolled over as they become due starting in 2022, and that there are no new Eurobond issuances prior to this.

- **The authorities implement the fiscal consolidation measures in line with the 2017 Budget Speech.** These include measures to strengthen tax enforcement and compliance, and removing obstacles to the full implementation of measures already approved by parliament, including on land titling, road-user charges, and the introduction new technology to enhance the monitoring of taxpayers' activity reporting, including in the telecommunication sector. On the expenditure side, it assumes: (i) the streamlining of the Farmer Input Support Program and full migration to the e-voucher system; (ii) keeping Food Reserve Agency (FRA) operations in line with its core mandate (in contrast to a large role in the marketing of maize in some recent years); and (iii) cost-reflective pricing of petroleum products and electricity. However, higher capital expenditure along with higher interest payments will limit the authorities' consolidation efforts.

9. Under the adjustment policies scenario, the authorities are assumed to implement more moderate public investment program aimed at restoring debt sustainability over the medium term. This scenario assumes that the authorities halt the contracting of new non-concessional external loans except for a US$282 million communications project and debt to rollover the Eurobonds as they mature.

10. Compared to the 2015 DSA, the current policies scenario shows a much lower growth path, largely reflecting lower copper prices and production than was projected in the 2015 exercise. Larger budget deficits are projected over the medium term, given looser fiscal policy in 2015–16 and the larger investment program than assumed at the time of the 2015 DSA. The current account balance has been revised down mainly because of lower exports (particularly of copper), higher energy imports (fuel and electricity), and the larger import of capital goods associated with the government public investment plan, which were not envisaged in 2015. The adjustment scenario shows a steady pick-up in growth driven by increased confidence in government policies and lower inflation and improvements in the external sector current account due to more coherent fiscal consolidation policies.

Text Table 3. Assumptions on Disbursements

	2017		2018		2019		2020		2021		2022		2023		2,024		2025	
	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies	Cur. Policies	Adj. poicies
Eurobond	0	0	0	0	0	0	0	0	0	0	750	750	0	0	1,000	1,000	425	425
Budget support - IDA; AfDB	0	200	0	230	0	70	0	0	0	0	0	0	0	0	0	0	0	0
Project support	864	690	1,467	964	1,617	870	1,409	728	1,199	742	937	780	858	788	965	953	1,012	1,032
Project support - concessional	489	383	751	645	563	489	451	501	478	517	519	547	532	473	544	562	556	608
Non-concessional borrowing	375	308	716	319	1,054	380	958	227	721	225	419	233	343	315	421	391	456	424
Other commercial borrowing	134	134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOE (ZESCO, RDA, WSSDC)	272	272	208	208	115	120	86	92	41	48	42	50	46	54	49	59	53	63

Text Table 4. 2015 AIV DSA vs. Current DSA (assumptions)

	2016	2017	2018	2019	2020	2021
(Percentage Change)						
Real Growth						
2015 DSA	6.2	6.9	7.0	6.8	6.8	6.5
Current Policies DSA	3.4	4.0	4.5	4.5	4.5	4.5
Adjustments Policies DSA	3.4	4.0	4.5	5.0	5.5	5.5
Inflation (deflator, av.)						
2015 DSA	7.3	6.3	5.2	4.8	4.8	5.0
Current Policies DSA	14.3	7.9	8.1	8.1	7.8	8.0
Adjustments Policies DSA	14.3	7.9	6.8	6.3	6.0	6.0
(Percent of GDP)						
Budget Deficit						
2015 DSA	6.0	5.0	4.0	3.4	2.9	2.9
Current Policies DSA	5.7	8.0	7.8	7.2	6.5	5.3
Adjustments Policies DSA	5.7	7.3	5.9	4.0	3.2	2.4
Net FDI						
2015 DSA	6.6	6.6	6.6	6.6	6.6	6.2
Current Policies DSA	7.3	6.3	6.1	6.0	5.8	5.8
Adjustments Policies DSA	7.3	6.3	6.1	6.0	5.8	5.8
Current Account Balance						
2015 DSA	1.4	2.5	3.0	3.3	3.4	3.2
Current Policies DSA	-4.4	-3.6	-2.8	-1.5	0.0	-0.2
Adjustments Policies DSA	-4.4	-3.0	-1.5	0.1	1.2	1.4

EXTERNAL DSA

11. **Under current policies, Zambia is assessed to be at high risk of debt distress.** Under current policies, the present value (PV) of public and publicly guaranteed external debt as a share of GDP rises gradually from 34.5 percent in 2017 to 44.3 percent of GDP in 2020 and is sustained at that level up to 2022 before gradually falling below the 40 percent threshold in 2024 (Figure 1 and Table 1). The debt-service-to-revenue ratio in the baseline temporarily breaches the 20 percent threshold in 2022 and 2024 when Eurobond payments become due (Figure 1 and Table 1). The other debt burden indicators are below their respective thresholds.

12. **All the debt indicators breach the relevant thresholds in the presence of shocks (Figure 1 and Table 2).** A shock to exports would push the PV of debt-to-exports and the debt service-to-exports ratios well above their thresholds[3]. The shock that generates the largest impact for the PV of debt-to-GDP and PV of debt-to-revenue ratios is a combination shock where both growth and the primary balance fall below their historical average by half a standard deviation. Both indicators would rise sharply above their threshold, almost doubling by 2019, and would remain elevated well into the medium-term. This highlights the sensitivity of the debt trajectory to the fiscal and growth assumptions and further confirms the need for strong fiscal consolidation.

13. **Under the adjustment policies scenario, debt dynamics improve substantially.** The present value (PV) of public external debt as a share of GDP remains below the 40 percent threshold, peaking at 37 percent of GDP in 2019 before tapering down on a sustainable trajectory (Figure 3, Table 5). The debt-service-to-revenue ratio breaches the 20 percent threshold in 2022 and 2024 when Eurobond payments become due (Figure 3, Table 5). The authorities need to monitor, and anticipate, these breaches carefully, even though they are temporary, reflecting bullet payments. The most extreme stress test indicates that those external debt burden indicators that are expressed as ratios to GDP would breach their respective thresholds in the event of a combined shock, while those measured relative to exports are sensitive to an exports shock (Figure 3 and Table 6).[4] Zambia quickly reverts to a moderate risk rating under the adjustment policies scenario assuming the authorities halt the contracting of new non-concessional external borrowing.

PUBLIC DSA

14. **Analysis of total public debt suggests a heightened level of vulnerability under current policies (Figure 2 and Table 3).** The PV of total public debt to GDP reached 61 percent at end-2016, 5 percentage points above the benchmark level associated with heightened public debt

[3] The export shock is where nominal export growth (in USD) is set to its historical average minus one standard deviation, and GDP deflator is where the deflator is set to its historical average minus one standard deviation.

[4] The combination shock is where real GDP growth and the primary balance-to-GDP ratio are set to their historical average minus half a standard deviation. The export shock is where nominal export growth (in USD) is set to its historical average minus one standard deviation.

vulnerabilities for medium performers. Following a projected temporary improvement in 2017 driven by the strengthening of the exchange rate relative to 2016, this indicator will continue to rise through 2022. Similarly, under the fixed primary balance scenario, this indicator is above the threshold and is projected to continue rising, underscoring the need for an improved fiscal position (Figure 2).

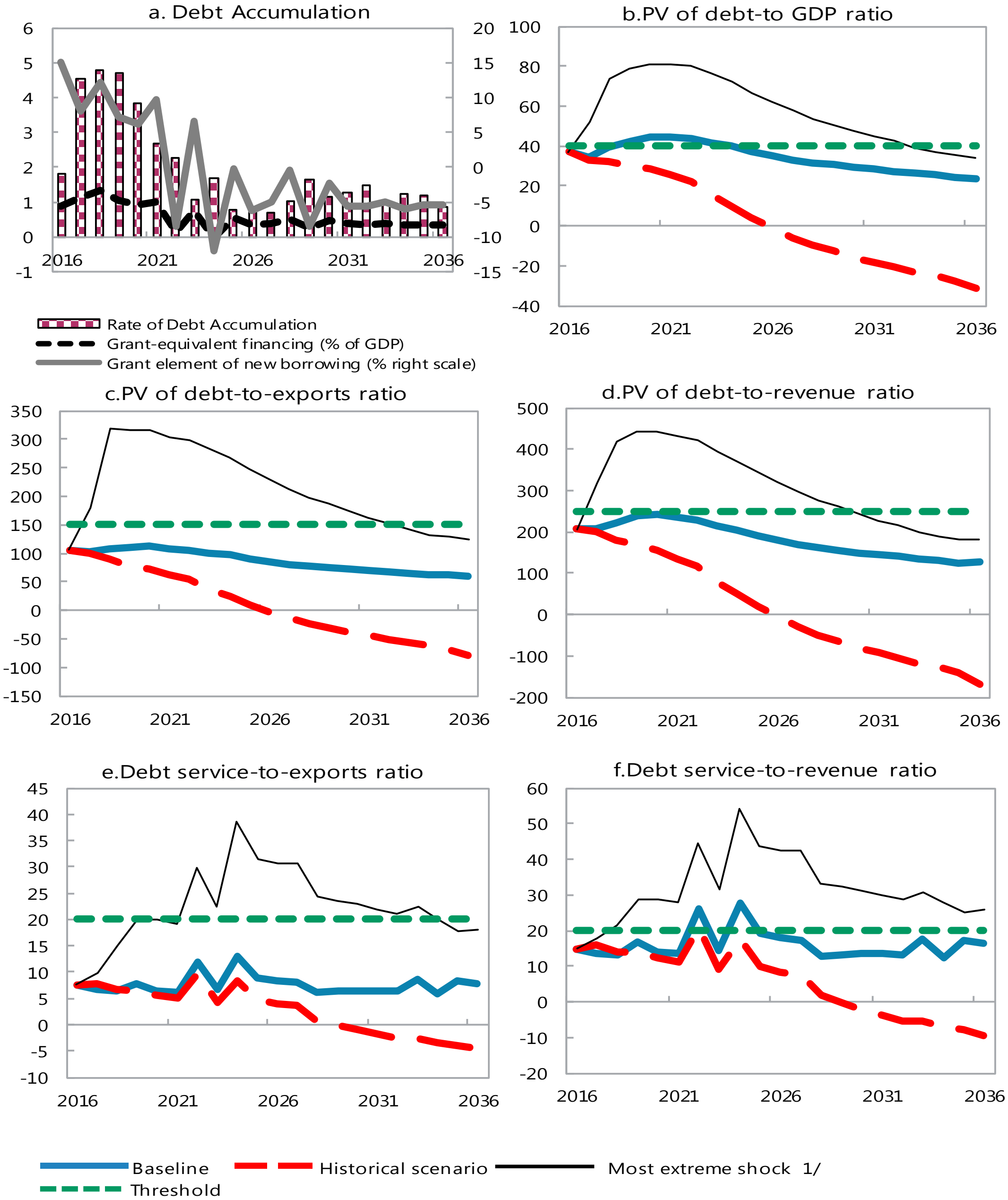
15. Debt metrics improve under the adjustment scenario. If the authorities were to take additional consolidation measures and slow down on the contracting of new non-concessional external loans, this would improve the fiscal position and the public debt dynamics (Figure 4 and Table 7).

CONCLUSION

16. Zambia faces a *high* risk of external debt distress, and heightened vulnerabilities on total public debt. Under current policies, the PV of the external debt-to-GDP ratio breaches the 40 percent threshold during 2019-23, while the debt-service-to-revenue ratio temporarily breaches its threshold in 2022 and 2024 when Eurobonds mature. All indicators breach their thresholds for extensive periods under a variety of shocks, underscoring the sensitivity of the external debt burden to fiscal performance and developments in exports, growth and the exchange rate. The ratio of total public debt to GDP breaches the benchmark level associated with heightened vulnerabilities. Debt dynamics improve substantially under the adjustment policies scenario. Fiscal consolidation, restraint on non-concessional borrowing, and strengthened debt and public investment management capacities are needed to put debt on a sustainable path.

17. The authorities broadly agreed with the DSA assessment. They indicated that they will soon be publishing the Medium-Term Debt Strategy which will guide government borrowing, with a view to ensuring that public debt remains at sustainable levels. In this context, they will seek to maximize concessional loans. They also plan to strengthen parliamentary over-sight of public borrowing through an amendment to the Loans and Guarantees Act.

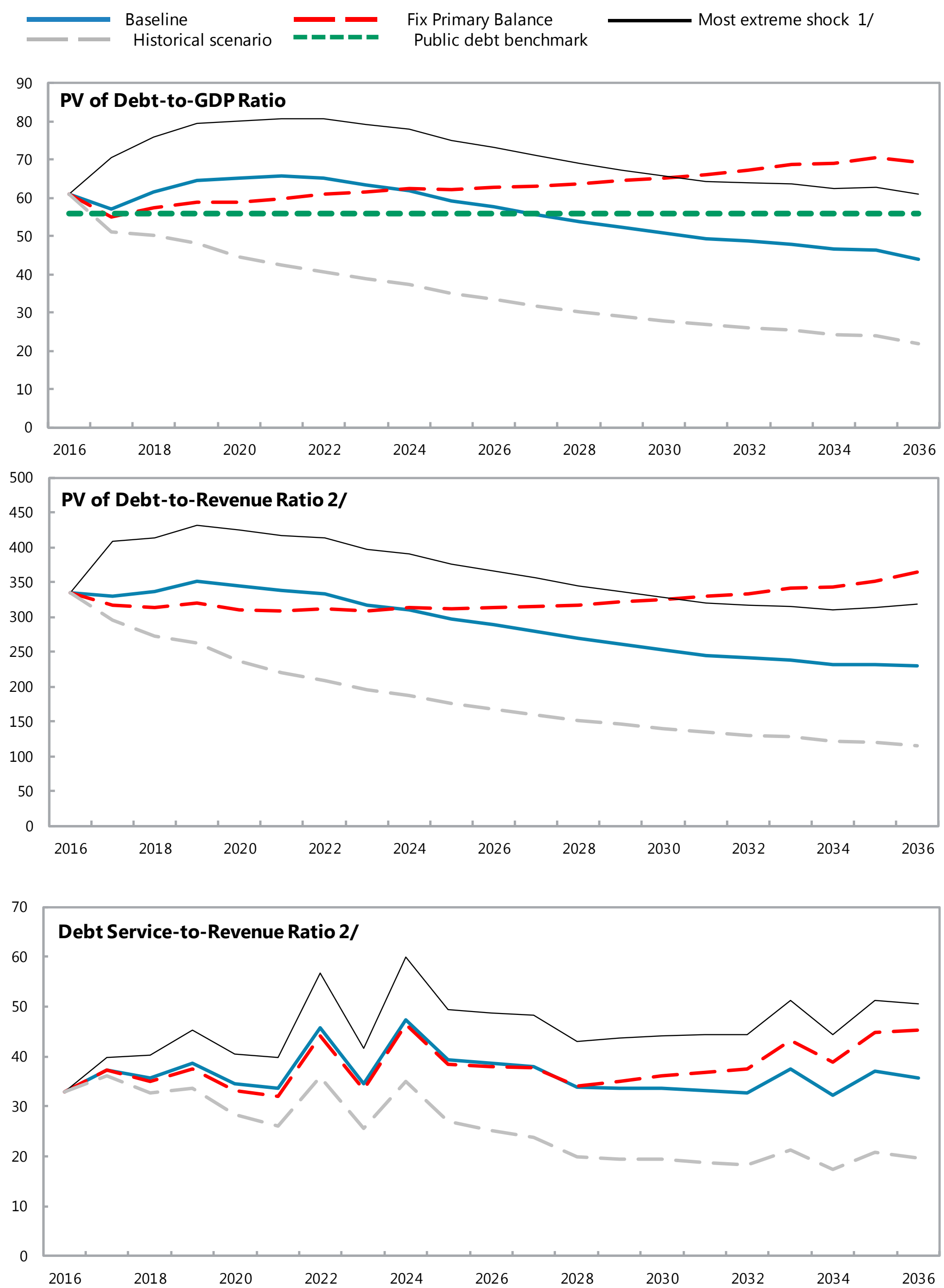
Figure 1. Zambia: Current Policies: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2016–36 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026. In figure b. it corresponds to a Combination shock; in c. to a Exports shock; in d. to a Combination shock; in e. to a Exports shock and in figure f. to a Combination shock

Figure 2. Zambia: Current Policies: Indicators of Public Debt under Alternatives Scenarios, 2016–36 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2026.
2/ Revenues are defined inclusive of grants.

Table 1. Zambia: Current Policies: External Debt Sustainability Framework, Baseline Scenario, 2013–36 1/

(Percent of GDP, unless otherwise indicated)

	Actual			Historical [6/] Average	Standard [6/] Deviation	Projections									
	2013	2014	2015			2016	2017	2018	2019	2020	2021	2016-2021 Average	2026	2036	2022-2036 Average
External debt (nominal) 1/	**20.4**	**28.2**	**91.5**			**78.5**	**68.5**	**73.3**	**75.8**	**76.6**	**75.3**		**58.3**	**38.4**	
of which: public and publicly guaranteed (PPG)	13.8	20.1	43.1			36.5	32.9	37.3	40.4	42.4	42.6		33.8	24.1	
Change in external debt	3.1	7.8	63.3			-12.9	-10.1	4.8	2.5	0.8	-1.3		-3.1	-3.2	
Identified net debt-creating flows	-7.0	-13.2	6.3			-5.5	-5.3	-6.2	-7.6	-9.0	-8.8		-5.8	-4.0	
Non-interest current account deficit	**0.2**	**-2.8**	**2.2**	**-2.6**	**4.0**	**2.5**	**1.7**	**1.1**	**-0.4**	**-1.7**	**-1.6**		**1.4**	**2.3**	1.4
Deficit in balance of goods and services	-2.1	-3.1	3.0			2.6	2.9	2.2	0.9	-0.2	0.0		2.9	3.7	
Exports	41.4	40.8	38.7			35.2	33.4	35.9	38.5	39.6	41.0		41.1	39.0	
Imports	39.3	37.7	41.7			37.7	36.3	38.1	39.4	39.4	41.0		44.1	42.7	
Net current transfers (negative = inflow)	-1.4	-1.1	-1.1	-2.2	1.0	-1.0	-1.8	-1.5	-1.6	-1.6	-1.6		-1.6	-1.5	-1.6
of which: official	-0.4	-0.2	-0.1			0.0	-0.8	-0.5	-0.5	-0.5	-0.5		-0.5	-0.4	
Other current account flows (negative = net inflow)	3.7	1.4	0.3			0.9	0.6	0.4	0.3	0.1	0.1		0.1	0.1	
Net FDI (negative = inflow)	**-6.0**	**-11.8**	**-5.5**	**-6.3**	**3.0**	**-7.3**	**-6.3**	**-6.1**	**-6.0**	**-5.8**	**-5.8**		**-5.8**	**-5.4**	-5.8
Endogenous debt dynamics 2/	**-1.2**	**1.4**	**9.6**			**-0.7**	**-0.7**	**-1.1**	**-1.2**	**-1.4**	**-1.5**		**-1.4**	**-0.9**	
Contribution from nominal interest rate	0.4	0.7	1.7			2.5	1.9	1.7	1.9	1.8	1.8		1.5	1.1	
Contribution from real GDP growth	-0.8	-1.0	-1.1			-3.2	-2.6	-2.9	-3.2	-3.2	-3.2		-2.8	-1.9	
Contribution from price and exchange rate changes	-0.8	1.7	8.9			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**10.1**	**21.0**	**57.0**			**-7.4**	**-4.7**	**11.0**	**10.1**	**9.7**	**7.5**		**2.7**	**0.8**	
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	
PV of external debt 4/	...	...	94.6			79.0	70.0	75.1	78.0	78.5	76.9		59.4	37.7	
In percent of exports	...	...	244.4			224.7	209.7	209.0	202.6	198.3	187.4		144.5	96.7	
PV of PPG external debt	**...**	**...**	**46.2**			**37.0**	**34.5**	**39.1**	**42.6**	**44.3**	**44.3**		**34.9**	**23.5**	
In percent of exports	**...**	**...**	**119.4**			**105.2**	**103.2**	**108.8**	**110.6**	**111.9**	**107.8**		**85.0**	**60.2**	
In percent of government revenues	**...**	**...**	**248.9**			**206.3**	**208.4**	**220.0**	**239.1**	**241.9**	**235.4**		**179.7**	**126.1**	
Debt service-to-exports ratio (in percent)	**2.8**	**6.5**	**8.0**			**9.8**	**9.6**	**8.7**	**9.8**	**8.5**	**8.2**		**10.2**	**9.4**	
PPG debt service-to-exports ratio (in percent)	**1.7**	**2.4**	**4.8**			**7.6**	**6.8**	**6.4**	**7.7**	**6.4**	**6.2**		**8.4**	**7.9**	
PPG debt service-to-revenue ratio (in percent)	**4.4**	**5.3**	**9.9**			**14.9**	**13.7**	**13.0**	**16.6**	**13.9**	**13.6**		**17.8**	**16.5**	
Total gross financing need (Billions of U.S. dollars)	-1.2	-3.1	0.1			-0.1	-0.2	-0.4	-0.6	-1.1	-1.1		0.1	0.7	
Non-interest current account deficit that stabilizes debt ratio	-2.9	-10.6	-61.0			15.4	11.7	-3.8	-2.9	-2.5	-0.2		4.5	5.4	
Key macroeconomic assumptions															
Real GDP growth (in percent)	5.1	4.7	2.9	6.9	2.3	3.4	4.0	4.5	4.5	4.5	4.5	4.2	5.0	5.0	5.0
GDP deflator in US dollar terms (change in percent)	4.7	-7.5	-24.0	4.4	19.7	-4.4	17.1	2.3	-1.1	0.1	1.4	2.6	3.1	3.1	3.0
Effective interest rate (percent) 5/	2.6	3.2	4.8	2.9	1.8	2.7	2.9	2.7	2.7	2.5	2.4	2.7	2.6	2.8	2.8
Growth of exports of G&S (US dollar terms, in percent)	10.4	-4.6	-25.7	14.3	28.8	-10.1	15.6	14.9	10.7	7.5	9.9	8.1	8.1	5.0	7.7
Growth of imports of G&S (US dollar terms, in percent)	18.9	-7.0	-13.4	15.4	22.5	-10.6	17.0	12.2	6.9	4.4	10.4	6.7	8.2	5.0	8.4
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	15.0	8.1	12.2	7.1	6.1	9.6	9.7	-6.2	-5.5	-4.7
Government revenues (excluding grants, in percent of GDP)	16.2	18.1	18.6			17.9	16.5	17.8	17.8	18.3	18.8		19.5	18.6	19.4
Aid flows (in Billions of US dollars) 7/	0.4	0.2	0.4			0.5	0.7	0.9	0.7	0.6	0.7		0.9	1.7	
of which: Grants	0.4	0.2	0.0			0.1	0.2	0.2	0.2	0.2	0.2		0.3	0.5	
of which: Concessional loans	0.0	0.0	0.4			0.4	0.5	0.8	0.6	0.5	0.5		0.6	1.2	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			0.9	1.1	1.3	1.0	0.9	1.0		0.3	0.3	0.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			19.8	20.1	20.1	15.5	16.3	21.5		8.8	10.1	10.3
Memorandum items:															
Nominal GDP (Billions of US dollars)	28.0	27.2	21.2			21.0	25.6	27.3	28.2	29.5	31.3		45.5	100.4	
Nominal dollar GDP growth	10.0	-3.2	-21.8			-1.1	21.7	6.9	3.3	4.5	5.9	6.9	8.2	8.2	8.1
PV of PPG external debt (in Billions of US dollars)			7.7			8.1	9.1	10.3	11.6	12.6	13.4		15.7	23.4	
(PVt-PVt-1)/GDPt-1 (in percent)						1.8	4.5	4.8	4.7	3.8	2.7	3.7	0.8	0.9	1.2
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	46.2			37.0	34.5	39.1	42.6	44.3	44.2		34.9	23.5	
PV of PPG external debt (in percent of exports + remittances)	...	...	119.3			105.1	103.1	108.7	110.6	111.8	107.7		84.9	60.2	
Debt service of PPG external debt (in percent of exports + remittanc	...	...	4.8			7.6	6.8	6.4	7.7	6.4	6.2		8.4	7.9	

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)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.

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. The large residual in 2015 is manily due to the large increase in private sector debt which reflects an increase in the survey coverage of firms (from 32 to 250) but this change in debt does not appear to be capture in the BOP flows for 2015.

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

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

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

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

8/ 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).

Table 2. Zambia: Current Policies: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016–36

(Percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
PV of debt-to GDP ratio								
Baseline	37	34	39	43	44	44	**35**	23
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	37	33	32	30	28	25	**-1**	-31
A2. New public sector loans on less favorable terms in 2016-2036 2/	37	36	40	44	47	48	**43**	35
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	37	35	37	41	42	43	**34**	23
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	37	44	63	67	69	69	**52**	27
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	37	49	63	69	72	72	**57**	39
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	37	39	44	48	50	50	**39**	24
B5. Combination of B1-B4 using one-half standard deviation shocks	37	52	74	79	81	81	**62**	34
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	37	48	51	55	58	58	**46**	31
PV of debt-to-exports ratio								
Baseline	105	103	109	111	112	108	**85**	60
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	105	99	89	78	72	62	**-3**	-80
A2. New public sector loans on less favorable terms in 2016-2036 2/	105	109	110	115	119	117	**104**	91
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	105	106	105	107	108	105	**84**	59
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	105	180	319	315	315	304	**230**	125
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	105	106	105	107	108	105	**84**	59
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	105	117	124	124	125	121	**95**	62
B5. Combination of B1-B4 using one-half standard deviation shocks	105	149	210	209	210	202	**154**	88
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	105	106	105	107	108	105	**84**	59
PV of debt-to-revenue ratio								
Baseline	206	208	220	239	242	235	**180**	126
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	206	200	179	168	155	135	**-6**	-168
A2. New public sector loans on less favorable terms in 2016-2036 2/	206	220	223	248	257	255	**220**	190
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	206	213	211	228	232	226	**175**	123
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	206	268	355	375	376	365	**268**	144
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	206	297	355	385	391	381	**295**	207
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	206	236	250	268	271	264	**200**	129
B5. Combination of B1-B4 using one-half standard deviation shocks	206	316	416	442	444	431	**319**	181
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	206	288	286	310	315	307	**238**	167

Table 2. Zambia: Current Policies: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016–36 (concluded)

(Percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
Debt service-to-exports ratio								
Baseline	8	7	6	8	6	6	**8**	8
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	8	8	7	6	6	5	**4**	-5
A2. New public sector loans on less favorable terms in 2016-2036 2/	8	7	7	8	8	8	**13**	11
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	8	7	7	8	8	7	**11**	8
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	8	10	15	20	20	19	**31**	18
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	8	7	7	8	8	7	**11**	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	8	7	8	9	9	8	**12**	9
B5. Combination of B1-B4 using one-half standard deviation shocks	8	8	11	14	14	13	**20**	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	8	7	7	8	8	7	**11**	8
Debt service-to-revenue ratio								
Baseline	15	14	13	17	14	14	**18**	17
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	15	16	14	14	12	11	**8**	-9
A2. New public sector loans on less favorable terms in 2016-2036 2/	15	15	14	16	17	17	**27**	23
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	15	15	14	17	17	16	**23**	17
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	15	15	17	24	24	23	**36**	21
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	15	20	24	28	28	27	**39**	29
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	15	15	15	19	19	18	**26**	18
B5. Combination of B1-B4 using one-half standard deviation shocks	15	18	21	29	29	28	**42**	26
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	15	20	19	22	22	22	**31**	23
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	-3	-3	-3	-3	-3	-3	**-3**	-3

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assu an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 3. Zambia: Current Policies: Public Sector Debt Sustainability Framework, Baseline Scenario, 2013–36
(Percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2013	2014	2015	Average 5/	Standard Deviation 5/	2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	27.1	35.6	61.4			60.5	55.6	60.0	62.4	63.3	64.0		56.6	44.7	
of which: foreign-currency denominated	13.8	20.1	43.1			36.5	32.9	37.3	40.4	42.4	42.6		33.8	24.1	
Change in public sector debt	1.7	8.5	25.8			-0.9	-4.9	4.4	2.5	0.9	0.7		-1.2	-3.4	
Identified debt-creating flows	4.1	9.0	22.2			-4.6	-3.1	4.2	2.8	1.1	0.2		-1.3	-0.8	
Primary deficit	4.9	3.2	6.1	-0.1	6.7	2.2	4.4	4.0	3.4	3.0	1.7	3.1	-0.1	0.2	-0.1
Revenue and grants	17.6	18.9	18.8			18.2	17.3	18.4	18.4	18.9	19.4		20.0	19.1	
of which: grants	1.5	0.8	0.2			0.2	0.7	0.6	0.6	0.6	0.6		0.6	0.5	
Primary (noninterest) expenditure	22.6	22.1	24.9			20.3	21.6	22.4	21.8	21.9	21.1		19.9	19.4	
Automatic debt dynamics	-1.1	1.7	13.0			-9.6	-5.1	1.2	0.1	-0.8	-1.3		-1.2	-1.1	
Contribution from interest rate/growth differential	-1.2	-0.1	0.1			-1.1	-0.9	-0.9	-1.0	-1.3	-1.3		-0.8	-0.8	
of which: contribution from average real interest rate	0.1	1.2	1.1			1.0	1.4	1.5	1.5	1.4	1.4		1.9	1.5	
of which: contribution from real GDP growth	-1.2	-1.2	-1.0			-2.0	-2.3	-2.4	-2.6	-2.7	-2.7		-2.7	-2.3	
Contribution from real exchange rate depreciation	0.1	1.8	12.9			-8.5	-4.2	2.0	1.1	0.5	0.1		...	...	
Other identified debt-creating flows	0.2	4.1	3.1			2.9	-2.4	-1.0	-0.7	-1.0	-0.3		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.3			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	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 (includes domestic arrears flows)	0.2	4.1	2.8			2.9	-2.4	-1.0	-0.7	-1.0	-0.3		0.0	0.0	
Residual, including asset changes	-2.5	-0.5	3.6			3.7	-1.8	0.2	-0.3	-0.2	0.5		0.1	-2.6	
Other Sustainability Indicators															
PV of public sector debt	...	...	64.5			61.0	57.1	61.7	64.6	65.2	65.7		57.7	44.1	
of which: foreign-currency denominated	...	...	46.2			37.0	34.5	39.1	42.6	44.3	44.3		34.9	23.5	
of which: external	...	...	46.2			37.0	34.5	39.1	42.6	44.3	44.3		34.9	23.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	11.9	12.5	16.0			13.5	18.2	17.5	17.4	16.3	14.7		14.6	14.0	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	343.8			335.4	330.5	336.2	350.7	344.9	338.5		288.2	230.4	
PV of public sector debt-to-revenue ratio (in percent)	...	...	347.6			339.9	345.4	347.5	362.7	356.4	349.3		296.4	236.4	
of which: external 3/	...	...	248.9			206.3	208.4	220.0	239.1	241.9	235.4		179.7	126.1	
Debt service-to-revenue and grants ratio (in percent) 4/	15.9	19.3	26.3			32.9	37.2	35.6	38.7	34.6	33.6		38.6	35.7	
Debt service-to-revenue ratio (in percent) 4/	17.4	20.1	26.6			33.4	38.9	36.8	40.0	35.8	34.7		39.7	36.6	
Primary deficit that stabilizes the debt-to-GDP ratio	3.3	-5.3	-19.7			3.1	9.2	-0.3	0.9	2.0	1.1		1.1	3.6	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	5.1	4.7	2.9	6.9	2.3	3.4	4.0	4.5	4.5	4.5	4.5	4.2	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	1.8	3.5	3.9	1.7	1.2	4.8	4.6	4.5	4.4	3.8	3.5	4.3	3.7	3.8	3.9
Average real interest rate on domestic debt (in percent)	2.2	8.8	5.6	2.1	4.1	-2.1	2.1	3.3	3.1	3.1	3.7	2.2	6.3	5.1	5.5
Real exchange rate depreciation (in percent, + indicates depreciation)	0.8	13.5	65.2	6.5	23.5	-19.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	9.7	5.4	6.7	9.8	3.4	14.3	7.9	8.1	8.1	7.8	8.0	9.0	5.0	5.0	5.7
Growth of real primary spending (deflated by GDP deflator, in percent)	16.0	2.4	16.2	3.5	6.7	-15.5	10.6	8.2	1.7	4.8	1.0	1.8	5.2	1.8	4.4
Grant element of new external borrowing (in percent)	...	...	...	...	...	15.0	8.1	12.2	7.1	6.1	9.6	9.7	-6.2	-5.5	...

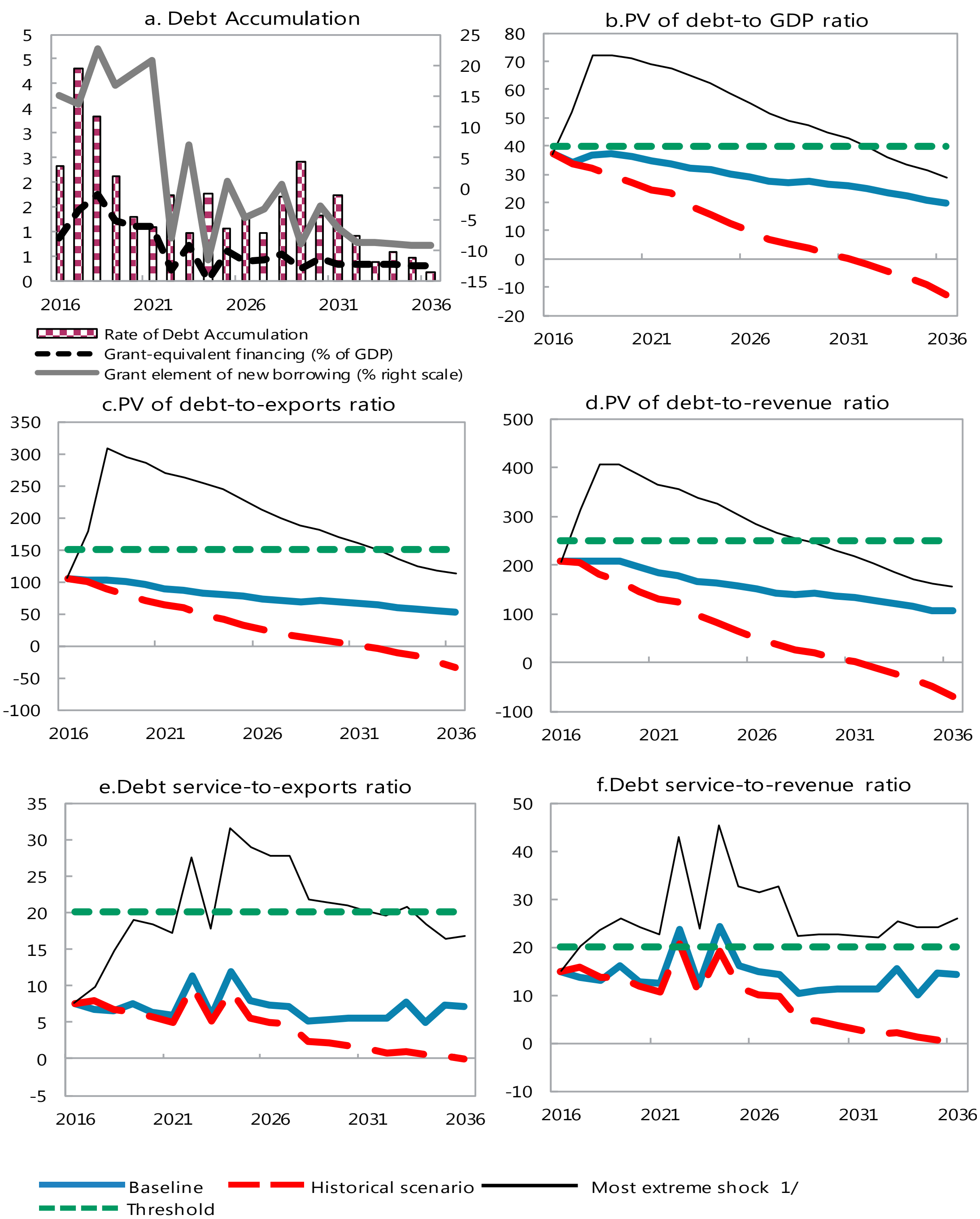
Sources: Country authorities; and staff estimates and projections.
1/ Central government and publicly guaranteed, gross basis.
2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.
3/ Revenues excluding grants.
4/ Debt service is defined as the sum of interest and amortization of medium and long-term debt.
5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 4. Zambia: Current Policies: Sensitivity Analysis for Key Indicators of Public Debt, 2016–36

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	61	57	62	65	65	66	58	44
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	61	51	50	48	45	43	34	22
A2. Primary balance is unchanged from 2016	61	55	57	59	59	60	63	70
A3. Permanently lower GDP growth 1/	61	58	63	66	67	69	65	67
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	61	57	61	64	64	64	56	41
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	61	60	67	70	71	71	62	48
B3. Combination of B1-B2 using one half standard deviation shocks	61	55	58	60	61	60	50	33
B4. One-time 30 percent real depreciation in 2017	61	71	76	79	80	81	73	61
B5. 10 percent of GDP increase in other debt-creating flows in 2017	61	67	72	75	75	75	64	48
PV of Debt-to-Revenue Ratio 2/								
Baseline	335	331	336	351	345	338	288	230
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	335	296	273	262	237	220	169	115
A2. Primary balance is unchanged from 2016	335	318	313	320	311	308	314	364
A3. Permanently lower GDP growth 1/	335	333	341	359	356	354	327	347
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	335	328	332	346	339	332	279	216
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	335	344	365	380	373	366	311	249
B3. Combination of B1-B2 using one half standard deviation shocks	335	319	318	329	320	312	252	174
B4. One-time 30 percent real depreciation in 2017	335	408	413	431	424	417	366	318
B5. 10 percent of GDP increase in other debt-creating flows in 2017	335	390	392	405	395	385	321	251
Debt Service-to-Revenue Ratio 2/								
Baseline	33	37	36	39	35	34	39	36
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	33	36	33	34	28	26	25	20
A2. Primary balance is unchanged from 2016	33	37	35	37	33	32	38	45
A3. Permanently lower GDP growth 1/	33	37	36	39	35	35	42	46
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	33	37	35	38	34	33	38	34
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	33	37	36	40	36	35	41	37
B3. Combination of B1-B2 using one half standard deviation shocks	33	37	34	37	33	32	36	30
B4. One-time 30 percent real depreciation in 2017	33	40	40	45	41	40	49	51
B5. 10 percent of GDP increase in other debt-creating flows in 2017	33	37	38	41	36	35	41	37

Sources: Country authorities; and staff estimates and projections.
1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.
2/ Revenues are defined inclusive of grants.

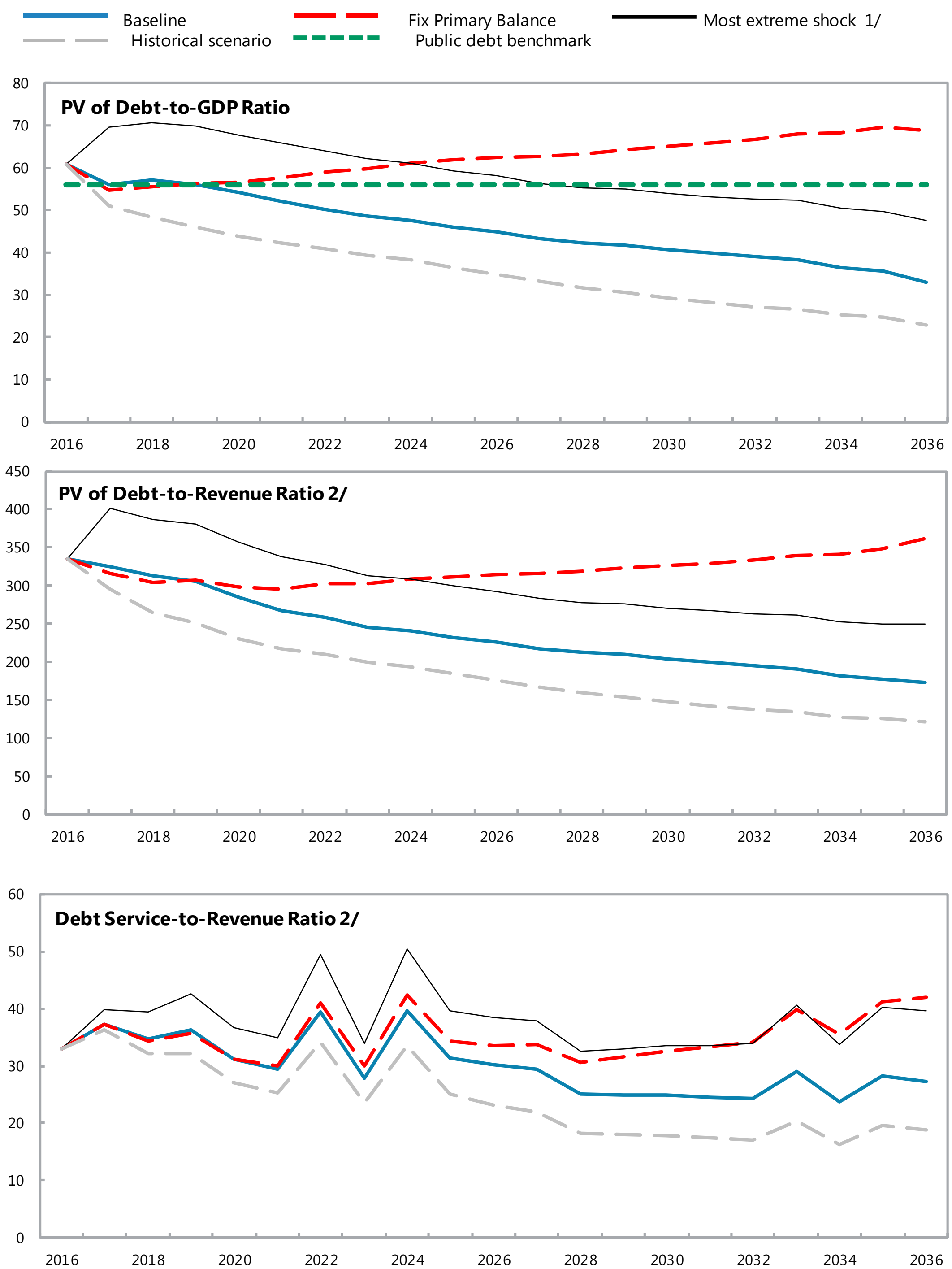
Figure 3. Zambia: Adjustment Framework: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2016–36 1/



Sources: Country authorities; and staff estimates and projections.

1/ The most extreme stress test is the test that yields the highest ratio on or before 2026. In figure b. it corresponds to a Combination shock; in c. to a Exports shock; in d. to a Combination shock; in e. to a Exports shock and in figure f. to a GDP deflator shock

Figure 4. Zambia: Adjustment Framework: Indicators of Public Debt under Alternatives Scenarios, 2016–36 1/



Sources: Country authorities; and staff estimates and projections.
1/ The most extreme stress test is the test that yields the highest ratio on or before 2026.
2/ Revenues are defined inclusive of grants.

Table 5. Zambia: Adjustment Framework: External Debt Sustainability Framework, Baseline Scenario, 2013–36 1/

(Percent of GDP, unless otherwise indicated)

	Actual			Historical 6/	Standard 6/	Projections									
				Average	Deviation							2016-2021			2022-2036
	2013	2014	2015			2016	2017	2018	2019	2020	2021	Average	2026	2036	Average
External debt (nominal) 1/	**20.4**	**28.2**	**81.1**			**80.3**	**69.5**	**69.9**	**68.8**	**66.9**	**64.2**		**51.6**	**32.9**	
of which: public and publicly guaranteed (PPG)	13.8	20.1	43.1			36.5	33.0	35.4	35.6	35.1	33.9		28.4	19.3	
Change in external debt	3.1	7.8	52.9			-0.8	-10.8	0.3	-1.1	-1.9	-2.7		-2.2	-2.7	
Identified net debt-creating flows	-7.0	-13.2	6.3			-7.2	-7.2	-7.5	-9.0	-10.4	-10.6		-7.8	-5.9	
Non-interest current account deficit	**0.2**	**-2.8**	**2.2**	**-2.6**	**4.0**	**2.5**	**1.0**	**-0.1**	**-1.6**	**-2.4**	**-2.6**		**-0.4**	**0.6**	-0.3
Deficit in balance of goods and services	-2.1	-3.1	3.0			2.6	2.3	1.0	-0.3	-0.9	-1.1		1.1	2.1	
Exports	41.4	40.8	38.7			35.2	33.4	35.6	37.4	38.0	39.2		39.2	37.1	
Imports	39.3	37.7	41.7			37.7	35.7	36.7	37.1	37.1	38.2		40.3	39.1	
Net current transfers (negative = inflow)	-1.4	-1.1	-1.1	-2.2	1.0	-1.0	-1.8	-1.5	-1.6	-1.6	-1.6		-1.6	-1.5	-1.6
of which: official	-0.4	-0.2	-0.1			0.0	-0.8	-0.5	-0.5	-0.5	-0.5		-0.5	-0.4	
Other current account flows (negative = net inflow)	3.7	1.4	0.3			0.9	0.6	0.4	0.3	0.1	0.1		0.1	0.1	
Net FDI (negative = inflow)	**-6.0**	**-11.8**	**-5.5**	**-6.3**	**3.0**	**-7.3**	**-6.3**	**-6.3**	**-6.4**	**-6.3**	**-6.3**		**-6.3**	**-5.8**	-6.3
Endogenous debt dynamics 2/	**-1.2**	**1.4**	**9.6**			**-2.4**	**-1.9**	**-1.2**	**-1.1**	**-1.7**	**-1.7**		**-1.2**	**-0.7**	
Contribution from nominal interest rate	0.4	0.7	1.7			0.4	0.7	1.7	2.2	1.9	1.7	1.7	1.3	0.9	
Contribution from real GDP growth	-0.8	-1.0	-1.1			-2.8	-2.6	-2.9	-3.3	-3.6	-3.4		-2.5	-1.6	
Contribution from price and exchange rate changes	-0.8	1.7	8.9			...	...	...	...	...	...		...	...	
Residual (3-4) 3/	**10.1**	**21.0**	**46.7**			**4.6**	**-4.8**	**7.9**	**8.3**	**8.7**	**8.1**		**5.6**	**3.2**	
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	
PV of external debt 4/	...	...	83.6			80.8	70.8	71.0	70.2	67.9	65.1		52.0	33.1	
In percent of exports	...	...	216.0			229.8	212.0	199.2	187.8	178.8	165.9		132.6	89.2	
PV of PPG external debt	**...**	**...**	**45.6**			**37.0**	**34.3**	**36.6**	**37.0**	**36.1**	**34.7**		**28.8**	**19.5**	
In percent of exports	**...**	**...**	**117.7**			**105.2**	**102.7**	**102.6**	**99.0**	**95.0**	**88.6**		**73.6**	**52.5**	
In percent of government revenues	**...**	**...**	**245.4**			**206.3**	**207.4**	**206.3**	**208.2**	**196.0**	**183.7**		**149.5**	**105.1**	
Debt service-to-exports ratio (in percent)	**2.8**	**6.5**	**8.0**			**9.8**	**9.6**	**8.7**	**9.8**	**8.4**	**8.0**		**9.2**	**8.6**	
PPG debt service-to-exports ratio (in percent)	**1.7**	**2.4**	**4.8**			**7.6**	**6.8**	**6.4**	**7.6**	**6.2**	**5.9**		**7.3**	**7.0**	
PPG debt service-to-revenue ratio (in percent)	**4.4**	**5.3**	**9.9**			**14.9**	**13.7**	**13.0**	**16.0**	**12.9**	**12.3**		**14.9**	**14.1**	
Total gross financing need (Billions of U.S. dollars)	-1.2	-3.1	0.1			-0.1	-0.4	-0.7	-1.1	-1.5	-1.7		-1.3	-1.9	
Non-interest current account deficit that stabilizes debt ratio	-2.9	-10.6	-50.7			3.3	11.8	-0.4	-0.5	-0.5	0.1		1.8	3.3	
Key macroeconomic assumptions															
Real GDP growth (in percent)	5.1	4.7	2.9	6.9	2.3	3.4	4.0	4.5	5.0	5.5	5.5	4.6	5.0	5.0	5.0
GDP deflator in US dollar terms (change in percent)	4.7	-7.5	-24.0	4.4	19.7	-4.4	17.1	3.0	0.4	0.4	1.2	2.9	3.1	3.1	3.0
Effective interest rate (percent) 5/	2.6	3.2	4.8	2.9	1.8	2.7	2.9	2.7	2.7	2.6	2.5	2.7	2.7	2.9	2.9
Growth of exports of G&S (US dollar terms, in percent)	10.4	-4.6	-25.7	14.3	28.8	-10.1	15.6	14.8	10.5	7.7	10.2	8.1	8.2	5.0	7.7
Growth of imports of G&S (US dollar terms, in percent)	18.9	-7.0	-13.4	15.4	22.5	-10.6	15.1	10.6	6.5	6.0	9.8	6.2	8.2	5.0	8.3
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	15.0	13.7	22.6	16.8	19.0	20.8	18.0	-4.7	-9.1	-5.5
Government revenues (excluding grants, in percent of GDP)	16.2	18.1	18.6			17.9	16.5	17.7	17.8	18.4	18.9		19.3	18.5	19.3
Aid flows (in Billions of US dollars) 7/	0.4	0.2	0.4			0.5	0.8	1.0	0.7	0.7	0.7		0.7	0.8	
of which: Grants	0.4	0.2	0.0			0.1	0.2	0.2	0.2	0.2	0.2		0.3	0.5	
of which: Concessional loans	0.0	0.0	0.4			0.4	0.6	0.9	0.6	0.5	0.5		0.4	0.3	
Grant-equivalent financing (in percent of GDP) 8/	...	...	...			0.9	1.4	1.8	1.2	1.1	1.1		0.4	0.3	0.4
Grant-equivalent financing (in percent of external financing) 8/	...	...	...			19.8	24.7	30.7	28.6	34.0	36.5		10.4	13.2	12.0
Memorandum items:															
Nominal GDP (Billions of US dollars)	28.0	27.2	21.2			21.0	25.6	27.5	29.0	30.7	32.8		48.0	106.0	
Nominal dollar GDP growth	10.0	-3.2	-21.8			10.0	-3.2	-21.8	-1.1	21.7	7.6	5.9	8.2	8.2	8.1
PV of PPG external debt (in Billions of US dollars)			7.6			8.1	9.0	9.9	10.4	10.8	11.2		13.7	20.4	
(PVt-PVt-1)/GDPt-1 (in percent)						2.3	4.3	3.3	2.1	1.3	1.1	2.4	1.3	0.2	1.2
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
PV of PPG external debt (in percent of GDP + remittances)	...	...	45.6			37.0	34.3	36.6	37.0	36.1	34.7		28.8	19.4	
PV of PPG external debt (in percent of exports + remittances)	...	...	117.7			105.1	102.6	102.5	98.9	95.0	88.5		73.6	52.5	
Debt service of PPG external debt (in percent of exports + remittanc	...	...	4.8			7.6	6.8	6.4	7.6	6.2	5.9		7.3	7.0	

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)]/(1+g+ρ+gρ) times previous period debt ratio, with r = nominal interest rate; g = real GDP growth rate, and ρ = growth rate of GDP deflator in U.S. dollar terms.

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. The large residual in 2015 is manily due to the large increase in private sector debt which reflects an increase in the survey coverage of firms (from 32 to 250) but this change in debt does not appear to be capture in the BOP flows for 2015.

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

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

6/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

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

8/ 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).

Table 6. Zambia: Adjustment Framework: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016–36

(Percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
PV of debt-to GDP ratio								
Baseline	37	34	37	37	36	35	**29**	19
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	37	34	32	29	27	25	**10**	-13
A2. New public sector loans on less favorable terms in 2016-2036 2/	37	36	38	39	39	38	**35**	29
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	37	35	36	36	35	34	**28**	19
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	37	44	61	61	60	58	**46**	23
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	37	49	60	61	59	57	**48**	32
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	37	39	43	43	42	41	**33**	20
B5. Combination of B1-B4 using one-half standard deviation shocks	37	52	72	72	71	69	**55**	29
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	37	47	48	49	47	46	**38**	26
PV of debt-to-exports ratio								
Baseline	105	103	103	99	95	89	**74**	52
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	105	101	89	79	71	63	**25**	-35
A2. New public sector loans on less favorable terms in 2016-2036 2/	105	109	107	104	102	97	**90**	79
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	105	106	101	97	93	87	**73**	52
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	105	178	309	295	285	269	**214**	112
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	105	106	101	97	93	87	**73**	52
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	105	116	120	115	110	103	**85**	55
B5. Combination of B1-B4 using one-half standard deviation shocks	105	147	204	195	189	178	**142**	79
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	105	106	101	97	93	87	**73**	52
PV of debt-to-revenue ratio								
Baseline	206	207	206	208	196	184	**149**	105
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	206	203	180	166	146	130	**51**	-70
A2. New public sector loans on less favorable terms in 2016-2036 2/	206	220	215	219	210	200	**182**	159
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	206	212	201	201	190	178	**147**	103
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	206	266	343	342	324	308	**239**	124
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	206	295	341	342	322	303	**249**	175
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	206	235	241	241	228	215	**172**	109
B5. Combination of B1-B4 using one-half standard deviation shocks	206	313	405	405	384	364	**285**	156
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	206	287	272	273	257	242	**199**	139

Table 6. Zambia: Adjustment Framework: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2016–36 (concluded)

(Percent)

	Projections							
	2016	2017	2018	2019	2020	2021	**2026**	2036
Debt service-to-exports ratio								
Baseline	8	7	6	8	6	6	**7**	7
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	8	8	7	6	6	5	**5**	0
A2. New public sector loans on less favorable terms in 2016-2036 2/	8	7	7	7	7	7	**10**	10
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	8	7	7	7	7	6	**9**	8
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	8	10	15	19	18	17	**28**	17
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	8	7	7	7	7	6	**9**	8
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	8	7	7	8	8	7	**11**	8
B5. Combination of B1-B4 using one-half standard deviation shocks	8	8	11	13	12	12	**18**	12
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	8	7	7	7	7	6	**9**	8
Debt service-to-revenue ratio								
Baseline	15	14	13	16	13	12	**15**	14
A. Alternative Scenarios								
A1. Key variables at their historical averages in 2016-2036 1/	15	16	14	14	12	10	**10**	0
A2. New public sector loans on less favorable terms in 2016-2036 2/	15	15	13	15	15	14	**21**	20
B. Bound Tests								
B1. Real GDP growth at historical average minus one standard deviation in 2017-2018	15	14	14	15	14	13	**19**	15
B2. Export value growth at historical average minus one standard deviation in 2017-2018 3/	15	15	16	22	21	20	**31**	19
B3. US dollar GDP deflator at historical average minus one standard deviation in 2017-2018	15	20	24	26	24	23	**31**	26
B4. Net non-debt creating flows at historical average minus one standard deviation in 2017-2018 4/	15	15	15	17	16	15	**22**	16
B5. Combination of B1-B4 using one-half standard deviation shocks	15	18	21	27	25	24	**37**	23
B6. One-time 30 percent nominal depreciation relative to the baseline in 2017 5/	15	20	19	21	19	18	**25**	21
Memorandum item:								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	-1	-1	-1	-1	-1	-1	**-1**	-1

Sources: Country authorities; and staff estimates and projections.

1/ Variables include real GDP growth, growth of GDP deflator (in U.S. dollar terms), non-interest current account in percent of GDP, and non-debt creating flows.

2/ Assumes that the interest rate on new borrowing is by 2 percentage points higher than in the baseline., while grace and maturity periods are the same as in the baseline.

3/ Exports values are assumed to remain permanently at the lower level, but the current account as a share of GDP is assumed to return to its baseline level after the shock (implicitly assuming an offsetting adjustment in import levels).

4/ Includes official and private transfers and FDI.

5/ Depreciation is defined as percentage decline in dollar/local currency rate, such that it never exceeds 100 percent.

6/ Applies to all stress scenarios except for A2 (less favorable financing) in which the terms on all new financing are as specified in footnote 2.

Table 7. Zambia: Adjustment Framework: Public Sector Debt Sustainability Framework, Baseline Scenario, 2013–36

(Percent of GDP, unless otherwise indicated)

	Actual					Estimate	Projections								
	2013	2014	2015	Average 5/	Standard Deviation 5/	2016	2017	2018	2019	2020	2021	2016-21 Average	2026	2036	2022-36 Average
Public sector debt 1/	27.1	35.6	61.4			60.5	54.9	56.1	54.7	53.1	51.4		44.5	32.8	
of which: foreign-currency denominated	13.8	20.1	43.1			36.5	33.0	35.4	35.6	35.1	33.9		28.4	19.3	
Change in public sector debt	1.7	8.5	25.8			-0.9	-5.6	1.2	-1.4	-1.6	-1.8		-0.8	-2.7	
Identified debt-creating flows	4.1	9.0	22.2			-4.6	-3.8	1.1	-0.8	-1.9	-1.9		-0.9	-1.2	
Primary deficit	4.9	3.2	6.1	-0.1	6.7	2.2	3.7	2.2	0.4	-0.2	-0.8	1.3	0.0	-0.5	-0.4
Revenue and grants	17.6	18.9	18.8			18.2	17.3	18.3	18.4	19.0	19.5		19.8	19.0	
of which: grants	1.5	0.8	0.2			0.2	0.7	0.6	0.6	0.6	0.6		0.5	0.5	
Primary (noninterest) expenditure	22.6	22.1	24.9			20.3	21.0	20.6	18.7	18.9	18.7		19.8	18.5	
Automatic debt dynamics	-1.1	1.7	13.0			-9.6	-5.1	0.5	-0.2	-0.8	-1.1		-0.9	-0.7	
Contribution from interest rate/growth differential	-1.2	-0.1	0.1			-1.1	-0.9	-0.7	-0.9	-1.3	-1.2		-0.6	-0.5	
of which: contribution from average real interest rate	0.1	1.2	1.1			1.0	1.4	1.7	1.7	1.6	1.5		1.6	1.2	
of which: contribution from real GDP growth	-1.2	-1.2	-1.0			-2.0	-2.3	-2.4	-2.7	-2.8	-2.8		-2.2	-1.7	
Contribution from real exchange rate depreciation	0.1	1.8	12.9			-8.5	-4.2	1.2	0.7	0.4	0.1		...	...	
Other identified debt-creating flows	0.2	4.1	3.1			2.9	-2.4	-1.6	-1.0	-0.9	0.0		0.0	0.0	
Privatization receipts (negative)	0.0	0.0	0.3			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	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 (includes domestic arrears flows)	0.2	4.1	2.8			2.9	-2.4	-1.6	-1.0	-0.9	0.0		0.0	0.0	
Residual, including asset changes	-2.5	-0.5	3.6			3.7	-1.8	0.1	-0.6	0.3	0.2		0.1	-1.5	
Other Sustainability Indicators															
PV of public sector debt	...	...	63.9			61.0	56.2	57.3	56.1	54.2	52.2		45.0	33.0	
of which: foreign-currency denominated	...	...	45.6			37.0	34.3	36.6	37.0	36.1	34.7		28.8	19.5	
of which: external	...	...	45.6			37.0	34.3	36.6	37.0	36.1	34.7		28.8	19.5	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	11.9	12.5	16.0			13.5	17.5	15.4	13.4	11.7	10.5		11.0	9.2	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	340.4			335.4	325.0	312.6	305.5	284.5	267.8		226.5	173.5	
PV of public sector debt-to-revenue ratio (in percent)	...	...	344.1			339.9	339.6	323.1	315.9	293.9	276.2		233.0	178.1	
of which: external 3/	...	...	245.4			206.3	207.4	206.3	208.2	196.0	183.7		149.5	105.1	
Debt service-to-revenue and grants ratio (in percent) 4/	15.9	19.3	26.3			32.9	37.2	34.7	36.2	31.1	29.3		30.2	27.2	
Debt service-to-revenue ratio (in percent) 4/	17.4	20.1	26.6			33.4	38.9	35.9	37.4	32.1	30.3		31.0	27.9	
Primary deficit that stabilizes the debt-to-GDP ratio	3.3	-5.3	-19.7			3.1	9.2	1.0	1.8	1.5	1.0		0.8	2.2	
Key macroeconomic and fiscal assumptions															
Real GDP growth (in percent)	5.1	4.7	2.9	6.9	2.3	3.4	4.0	4.5	5.0	5.5	5.5	4.6	5.0	5.0	5.0
Average nominal interest rate on forex debt (in percent)	1.8	3.5	3.9	1.7	1.2	4.8	4.7	4.5	4.4	3.9	3.7	4.3	3.9	4.1	4.2
Average real interest rate on domestic debt (in percent)	2.2	8.8	5.6	2.1	4.1	-2.1	2.1	4.3	4.6	5.1	5.4	3.2	6.6	5.5	6.3
Real exchange rate depreciation (in percent, + indicates depreciation)	0.8	13.5	65.2	6.5	23.5	-19.9	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	9.7	5.4	6.7	9.8	3.4	14.3	7.9	6.8	6.3	6.0	6.0	7.9	5.0	5.0	5.1
Growth of real primary spending (deflated by GDP deflator, in percent)	16.0	2.4	16.2	3.5	6.7	-15.5	7.1	2.5	-4.3	6.3	4.6	0.1	7.2	1.6	5.0
Grant element of new external borrowing (in percent)	...	...	...	...	...	15.0	13.7	22.6	16.8	19.0	20.8	18.0	-4.7	-9.1	...

Sources: Country authorities; and staff estimates and projections.

1/ Central government and publicly guaranteed, gross basis.

2/ Gross financing need is defined as the primary deficit plus debt service plus the stock of short-term debt at the end of the last period.

3/ Revenues excluding grants.

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

5/ Historical averages and standard deviations are generally derived over the past 10 years, subject to data availability.

Table 8. Zambia: Adjustment Framework: Sensitivity Analysis for Key Indicators of Public Debt, 2016–36.

	Projections							
	2016	2017	2018	2019	2020	2021	2026	2036
PV of Debt-to-GDP Ratio								
Baseline	61	56	57	56	54	52	45	33
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	61	51	49	46	44	42	35	23
A2. Primary balance is unchanged from 2016	61	55	56	56	57	58	62	69
A3. Permanently lower GDP growth 1/	61	57	58	57	56	55	52	54
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	61	56	57	55	53	51	43	30
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	61	59	65	64	62	60	51	38
B3. Combination of B1-B2 using one half standard deviation shocks	61	55	56	55	52	50	40	24
B4. One-time 30 percent real depreciation in 2017	61	70	71	70	68	66	58	47
B5. 10 percent of GDP increase in other debt-creating flows in 2017	61	66	67	66	63	61	51	37
PV of Debt-to-Revenue Ratio 2/								
Baseline	335	325	313	305	284	268	227	174
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	335	295	265	252	231	217	177	122
A2. Primary balance is unchanged from 2016	335	316	304	307	298	296	315	362
A3. Permanently lower GDP growth 1/	335	327	317	313	294	281	262	282
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	335	322	309	301	279	262	218	160
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	335	343	354	347	324	306	259	199
B3. Combination of B1-B2 using one half standard deviation shocks	335	318	308	299	275	256	203	128
B4. One-time 30 percent real depreciation in 2017	335	402	386	381	357	337	293	250
B5. 10 percent of GDP increase in other debt-creating flows in 2017	335	384	367	358	332	311	257	192
Debt Service-to-Revenue Ratio 2/								
Baseline	33	37	35	36	31	29	30	27
A. Alternative scenarios								
A1. Real GDP growth and primary balance are at historical averages	33	36	32	32	27	25	23	19
A2. Primary balance is unchanged from 2016	33	37	34	36	31	30	34	42
A3. Permanently lower GDP growth 1/	33	37	35	37	32	30	33	36
B. Bound tests								
B1. Real GDP growth is at historical average minus one standard deviations in 2017-2018	33	37	34	36	31	29	30	26
B2. Primary balance is at historical average minus one standard deviations in 2017-2018	33	37	36	38	33	31	34	30
B3. Combination of B1-B2 using one half standard deviation shocks	33	37	34	35	30	28	29	23
B4. One-time 30 percent real depreciation in 2017	33	40	39	43	37	35	39	40
B5. 10 percent of GDP increase in other debt-creating flows in 2017	33	37	37	38	32	30	33	28

Sources: Country authorities; and staff estimates and projections.
1/ Assumes that real GDP growth is at baseline minus one standard deviation divided by the square root of the length of the projection period.
2/ Revenues are defined inclusive of grants.

Statement by Mr. Maxwell M. Mkwezalamba, Executive Director for Zambia; and Mr. Tanka Tlelima, Senior Advisor to Executive Director

October 6, 2017

1. On behalf of our Zambian authorities, we thank staff for the constructive and wide-ranging dialogue with the authorities on issues related to the 2017 Article IV Consultation. The authorities are broadly in agreement with staff's assessment and policy recommendations. That said, they feel that a broader context is needed to explain the recent fiscal challenges, and greater prominence is also warranted on some of the measures implemented to address the challenges, in particular the risks associated with fiscal imbalances, and rising public debt. In addition, as staff indicates, the authorities and staff have held discussions aimed at agreeing on a Fund-supported program. Given progress achieved thus far, our Zambian authorities remain committed to reaching an agreement, to help in laying a foundation for macroeconomic stability, and thereby attaining sustained and inclusive growth.

Recent Economic Developments

2. Following weak performance in 2015 and 2016, on the back of a series of exogenous shocks, economic activity is beginning to recover. In 2017, GDP growth is expected to increase to over 4.0 percent, from the 3.6 per cent estimated by staff for 2016. The main growth drivers are mining, agriculture, and manufacturing sectors, supported by improved electricity generation. Agricultural output is expected to benefit from a bumper harvest from the 2016/17 farming season. Hydro-power generation has increased during the first eight months of 2017, which has boosted activity in other sectors of the economy, especially mining. In addition, copper production in 2017 is set to exceed the 2016 levels. Furthermore, the authorities' initiatives to modernize their airport infrastructure has spurred growth in tourism. The external sector has also improved significantly during the first half of 2017, on account of higher exports of copper.

3. A sharp slowdown in the pace of economic activity, combined with low copper prices that reduced fiscal revenues, complicated fiscal policy management in 2015 and 2016. Given the limited room to maneuver on the fiscal side, the authorities depended mostly on monetary policy tightening to combat inflationary pressure and stabilize the exchange rate. Notwithstanding the relatively benign prospects, budget execution in 2017 remained challenging. Revenue and grants are projected to be below target by 7.0 percent by the close of 2017, reflecting, among others, low tax compliance and non-disbursement of grants by cooperating partners. However, consistent with their commitment to fiscal sustainability, the authorities aim to reduce expenditures to offset the impact of the revenue shortfall on the overall fiscal position.

Macroeconomic Objectives, Policies, and Strategies

4. To address the challenges facing the economy, the Zambian authorities will pursue policies consistent with the strategic objectives outlined in their Economic Stabilization and Growth Programme 2017-2019 (ESGP) and the Seventh National Development Plan 2017–2021 (7NDP). The ESGP, which is an anchor to the 7NDP, aims at restoring credibility of the budget by

minimizing unbudgeted expenditures and halting the accumulation of arrears. It also aims at enhancing domestic resource mobilization and rebalancing public spending towards core public sector mandates; improving economic and fiscal governance by raising the levels of accountability and transparency in the allocation and use of public finances; promoting macroeconomic stability, growth and job creation through policy consistency to raise confidence for sustained private sector investment; and scaling-up social protection programs in favor of the most vulnerable.

Fiscal Policy and Public Debt Management

5. The authorities agree with the staff's assessment that improved fiscal performance is needed to place public finances and debt on a sustainable trajectory. To this end, the objective of fiscal policy in 2018, as outlined in the 2018 Budget Speech presented to Parliament on September 29, 2017, is to lower the fiscal deficit on a cash basis to 6.1 percent of GDP, which is much closer to the 5.9 percent recommended in the staff's adjustment scenario and lower than staff's baseline projection of 8 percent in 2017.

6. Improved fiscal performance will be achieved through a combination of enhanced domestic resource mobilization and expenditure control measures. The authorities plan to enhance revenue administration and collection by modernizing and automating revenue collection processes while, at the same time, intensifying tax-payer education and services. In addition, tax incentives will be rationalized and audit functions strengthened to address base erosion and profit shifting. On the expenditure side, the authorities have already started implementing strong measures to contain expenditure overruns. In October 2016, fuel prices were adjusted to full-cost recovery, with the aim to eliminate regressive fuel subsidies.

7. Furthermore, as acknowledged in the staff report, a cost of service study has been commissioned to inform efforts towards adoption of cost-reflective electricity tariffs. At the same time, electricity tariffs to non-mining consumers have been increased substantially, starting with a 50 percent increase in May 2017. Moreover, the authorities are implementing reforms aimed at enhancing the efficiency and focus of subsidies in the agriculture sector. Efforts will also be undertaken to control the wage bill by limiting recruitment to critical areas.

8. To restore the credibility of the budget and, consistent with the ESGP, the authorities have started to reduce the stock of arrears. The accrual of arrears to suppliers and contractors over the past years was in part a reflection of weaknesses in commitment controls and expenditure management. With the expected full rollout of the Integrated Financial Management Information System (IFMIS) by end 2017, no government ministry, province or spending agency shall be allowed to spend outside the system.

9. On debt sustainability, the authorities share staff's concern about the rapid accumulation of public debt. Faced with significant infrastructure gaps, the Zambian authorities have embarked on an ambitious program to develop and upscale their infrastructure, to ease the economy's growth constraints and lay a foundation for long-term growth. That said, they remain cognizant of potential debt sustainability risks. In this regard, the Zambian Government has published its Medium-Term Debt Management Strategy that seeks to return public debt to a sustainable level. Consistent with that strategy, the authorities will maximize the use of available concessional financing resources before resorting to commercial borrowing. In addition, the contraction of new debt over the medium-term

will be scaled down, in line with reduced fiscal deficit targets. Further, the authorities intend to strengthen the legal framework for public debt management, by enacting a new law that will enhance oversight of government borrowing activities and require parliamentary approval of loans before they are contracted.

Monetary, Exchange Rate, and Financial Sector Policies

10. The authorities wish to underscore that Zambia maintains a flexible exchange rate regime. In this regard, any intervention in the foreign exchange market will be aimed at smoothing excessive volatility as well as opportunistically building reserves, consistent with staff's recommendation.

11. Despite vulnerabilities and weaknesses identified by the Financial Sector Assessment Program (FSAP), Zambian banks remain, overall, sound and well-capitalized. Nonetheless, the authorities agree with the FSAP findings, and have started to implement appropriate measures to address the identified weaknesses, in support of financial stability, and financial development and inclusion. In this regard, the Banking and Financial Services Act (BFSA) has been signed by the President, and the Bank of Zambia (BoZ) is drafting regulations to operationalize the new law. The BFSA has addressed issues, including those related to operational independence of the BoZ, Basel II/III standards, and licensing.

12. Meanwhile, the authorities are reviewing the BoZ Act and the National Payments System Act. The BoZ is also strengthening its supervisory capacity and enhancing its collaboration with other financial services regulators. Since the FSAP mission in August 2016, staffing levels within the Financial Stability Unit of BoZ have been increased. A prototype Financial Stability report has also been produced and is undergoing internal review. Furthermore, the Government of Zambia is finalizing the financial sector development policy aimed at promoting a well-developed, competitive, and inclusive financial system. The authorities recently received Fund technical assistance that reviewed the draft Deposit Insurance Bill and informed proposed amendments in line with international principles before finalization of the Bill.

13. The authorities are also strengthening their Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT) framework. In June 2017, the BoZ undertook to revise and strengthen the AML/CFT legal framework, in line with the FAFT. This culminated in the development of the Bank of Zambia Anti-Money Laundering and Combating the Financing of Terrorism or Proliferation Directives, 2017. The Directives, which are currently under review, shall apply to all reporting entities licensed or designated by the BoZ. To this effect, the BoZ Anti-Money Laundering Directives of 2004 will be repealed once the new Directives take effect.

Promoting Inclusive growth

14. The authorities' strategies to promoting inclusive growth are articulated in the 7NDP, which emphasizes agriculture, tourism, energy, and mining as the basis for diversification. In agriculture, one of the labor-intensive sectors, the authorities will implement measures aimed at raising farmer productivity and diversification within the sector. Access to markets, ICT, and infrastructure development are emphasized as key growth enablers. Within the context of the 7NDP, energy supply and transportation infrastructure are identified as development priorities to address infrastructure bottlenecks. The 7NDP also identifies human development measures, such as access to quality education and healthcare systems as essential in promoting inclusive growth.

Conclusion

15. Our Zambian authorities remain committed to sound macroeconomic management. In addition, in pursuit of their macroeconomic objectives, they will continue to engage staff towards a Fund-supported program. In this context, the spending plans and fiscal target contained in the 2018-2020 Medium-Term Expenditure Framework and the 2018 Budget reflect the authorities' determination to a growth-friendly fiscal consolidation, which should form a foundation to conclude program discussions.