



# ZAMBIA

## 2012 ARTICLE IV CONSULTATION

July 2012

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 2012 Article IV consultation with Zambia, the following documents have been released and are included in this package:

- **Staff Report** for the 2012 Article IV consultation, prepared by a staff team of the IMF, following discussions that ended on March 14, 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 May 24. The views expressed in the staff report are those of the staff team and do not necessarily reflect the views of the Executive Board of the IMF.
- **Debt Sustainability Analysis** prepared by the staffs of the IMF and the World Bank.
- **Informational Annex** prepared by the IMF.
- **Public Information Notice (PIN)** summarizing the views of the Executive Board as expressed during its June 8 discussion of the staff report that concluded the Article IV consultation.
- **Statement by the Executive Director** for Zambia.

The policy of publication of staff reports and other documents allows for the deletion of market-sensitive information.

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**International Monetary Fund**  
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# ZAMBIA

## STAFF REPORT FOR THE 2012 ARTICLE IV CONSULTATION

May 24, 2012

### KEY ISSUES

**Context:** Economic conditions remain favorable and there has been little impact to date from the European crisis. Zambia has achieved sustained high growth and macroeconomic stability over the last decade, but poverty remains high. Inflation has declined to single-digit levels, international reserves have grown to a comfortable position, and debt is low. The key policy challenge is how to make growth more inclusive.

**Outlook for 2012:** Growth is expected to remain robust in 2012 at around 7.7 percent and inflation to remain close to 6 percent. The authorities plan to widen the fiscal deficit (but reduce net domestic borrowing) and have tightened monetary policy in line with achieving these objectives.

**Risks:** The principle downside risks are policy slippages that could arise from a failure to implement measures needed to meet their 2012 budget deficit target or a larger than envisaged global downturn that substantially reduces world copper prices. Large deficits in a government pension fund, below cost recovery energy pricing, and contingent liabilities also pose medium-term risks.

**Promoting inclusive growth will require reforms on a number of fronts while simultaneously continuing to safeguard macroeconomic stability.** These reforms include creating space for growth enhancing and poverty reducing spending; improving access to financial services for the unbanked population; and boosting the agriculture sector and other labor intensive activities.

Approved By  
**Michael Atingi-Ego**  
**and Vivek Arora**

Discussions took place in Lusaka from February 29–March 14, 2012. The team comprised Messrs. Alleyne (head of mission) Maehle, Opoku-Afari, Perone (all AFR), Arena (SPR), and Ms. Arbatli (FAD), P. Perone (Res. Rep.). The mission met the Minister of Finance and National Planning, Mr. Chikwanda; the Governor of the Bank of Zambia, Dr. Gondwe; other senior officials; private sector business groups, and representatives of trade unions, NGOs, and the donor community.

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## BACKGROUND

**1. Zambia has achieved high and sustained growth and macroeconomic stability over the past decade, but poverty remains high.** Real GDP growth averaged 5.2 percent in 2000–10 (or 3.1 percent per capita); inflation declined from 30 percent to single digits; debt declined sharply; and international reserves increased markedly.

	2000	2001–07	2008–10
(Average percentage change)			
GDP volume	3.5	5.2	6.6
Excluding mining	3.8	4.9	6.0
Agriculture	1.0	-0.3	9.3
GDP volume per capita	1.4	3.2	4.6
(End of period)			
Consumer prices (percent change)	30.1	8.9	7.9
Gross reserves (months of prospective imports)	0.8	2.1	3.0
Debt (percent of GDP)	202.6	22.3	20.2
External	192.2	10.3	9.2
Domestic	10.5	12.0	11.1

Source: Zambian authorities.

**2. However, the 2011 Ex-Post Assessment (EPA) found that despite this strong macroeconomic outcome, extreme poverty remained high—about 60 percent of the population still lived below the poverty line in 2010.**<sup>1</sup> The EPA found that economic growth has not sufficiently benefitted the areas and sectors where the poor are most numerous. This may reflect a concentration of growth in highly capital-

<sup>1</sup> IMF Country Report No. 11/197. The EPA, which assessed Zambia's performance during the 2004–07 and 2008–11 Enhanced Credit Facility arrangements, also found that the program performance had been strong.

intensive or urban-based sectors like mining, construction and services. Per capita agricultural growth—a key factor for the rural population—lagged for most of the period. Moreover, policies that kept maize prices high disadvantaged the urban poor and the many poor smallholders that are net buyers of maize in 2008–10 when agriculture growth was strong.<sup>2</sup>

	1998	2006	2009	2010
Incidence of poverty	72	63		61
Rural	83	80		78
Urban	49	30		28
Primary school enrollment (%) <sup>1</sup>	69	94	97	
Mortality rate, under-5 (per 1,000) <sup>1</sup>	166	155	141	
Unemployment (% of labor force)		14.0		13.2
Rural		5.0		5.0
Urban		32.3		29.2
Informal sector employment (% of total) <sup>2</sup>		88	89	
Rural			96	
Urban			71	
Real income per capita (US\$, 2010 prices)				
Gross domestic product	847	995	1031	1221
Gross national income	794	886	997	1111

Sources: Zambia CSO, World Bank WDI, and IMF staff calculations.

<sup>1</sup> 2000, 2005, and 2009 respectively.

<sup>2</sup> 2005 and 2008 respectively.

**3. The EPA also found that despite weathering the 2008–09 global financial crisis well, Zambia could do more to reduce vulnerabilities to future shocks.** Achieving sustainably higher and more inclusive growth would require entrenching macroeconomic stability, improving human capital and infrastructure, and diversifying the economy. In this context, the EPA concluded that policies should focus on: (i) reversing declines in capital

<sup>2</sup> The price at which the government's Food Reserve Agency purchases maize has been set consistently above market clearing levels.

spending and strengthening public infrastructure; (ii) mobilizing revenues; (iii) sustaining the recently achieved low to moderate levels of inflation; and (iv) further

developing the financial sector. The Article IV discussions centered on these issues and on how to achieve a more broad-based inclusive growth more generally.

## RECENT DEVELOPMENTS AND OUTLOOK

### 4. Macroeconomic performance in 2011 was positive, with robust growth and declining inflation (Figure 1).

- Real GDP is estimated to have grown by 6½ percent, driven by a record maize harvest and bank credit growth of about 30 percent.
- Inflation declined to 7.2 percent at end-2011, broadly in line with the authorities' target, and has declined further to 6.0 percent in February 2012. The monetary policy stance was eased in late 2011 with a reduction in both the reserve requirement and liquid asset ratios. The kwacha has depreciated by 7 percent against the U.S. dollar since September 2011, likely reflecting the easing of monetary conditions in Zambia and shifts in foreign portfolio investment flows to other East African markets in search of higher yields, and possibly some perceptions of a less favorable investment climate (Figure 2).
- Despite copper prices rising to record highs, the external current account surplus narrowed from 7.1 percent to 1.3 percent of GDP, mainly reflecting a strong expansion in imports and a decline in

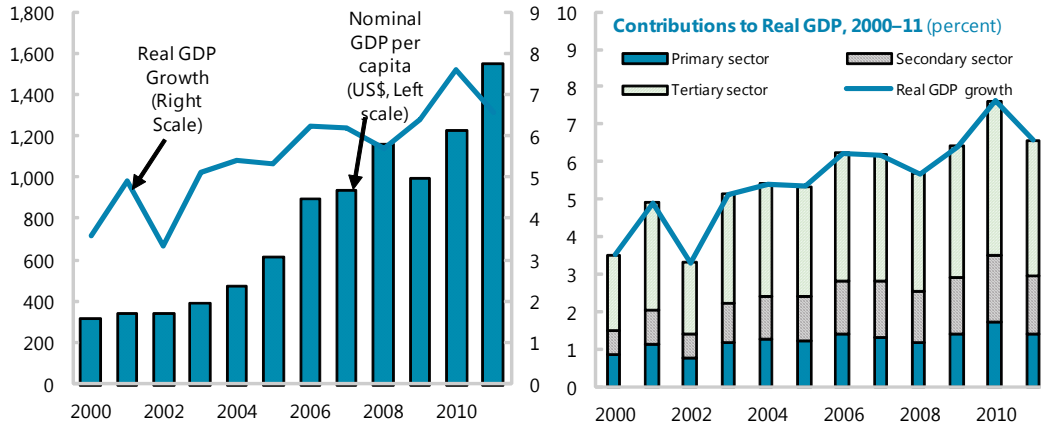
grants. Still, gross international reserves rose above \$2 billion for the first time ever, equivalent to 3 months of prospective imports (Figure 1).

- Preliminary data suggest that the fiscal deficit of the central government remained flat at around 3 percent of GDP in 2011, reflecting a large expansion in election-related current spending and public investment being offset by one-off payment of mining tax arrears (Figure 3).
- **The authorities' 2012 economic program aims to increase growth while keeping inflation below 7 percent.** Real GDP is projected to rise by 7.7 percent, reflecting strong growth in copper production and non-maize agriculture, and an expansionary fiscal policy. The 2012 budget targets a deficit of 4.1 percent of GDP and a significant increase in investment. More than half of budget financing is expected to come from a sovereign bond issue, and net domestic financing is targeted to remain low at about 1 percent of GDP. With a slight tightening of monetary policy, inflation is projected to remain around 6 percent in 2012.

**Figure 1. Zambia: Recent Performance, Achievements, and Challenges**

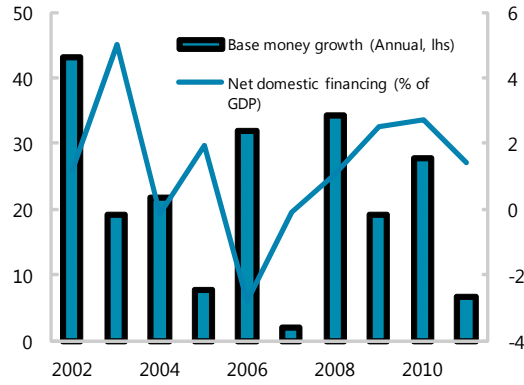
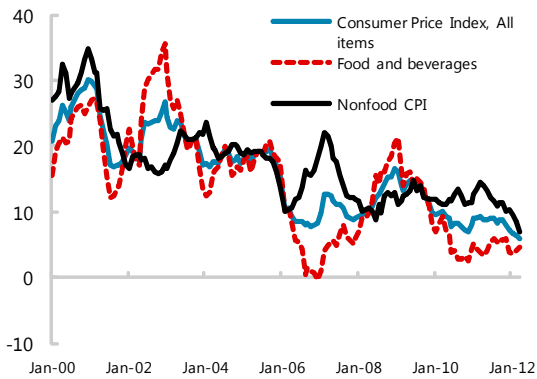
Zambia has achieved lower middle income status following sustained high rates of growth during the past decade ...

...driven mainly by the tertiary sector.



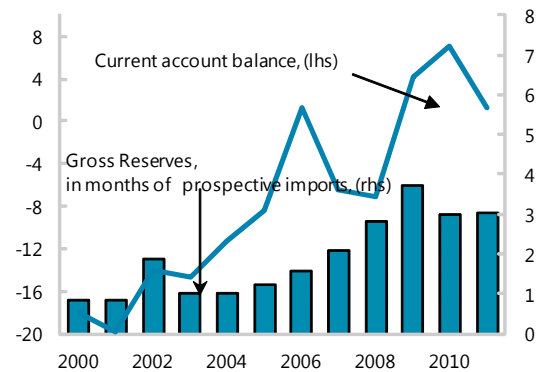
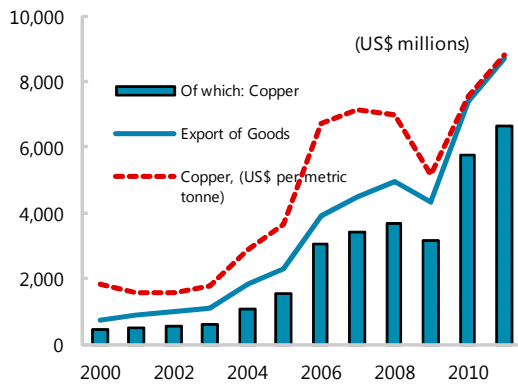
Inflation has declined steadily to single digits...

...supported by prudent macroeconomic policies.



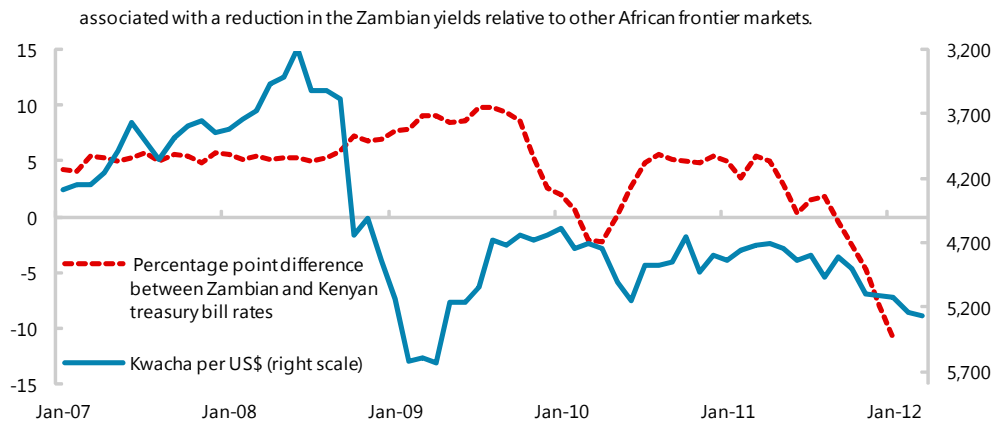
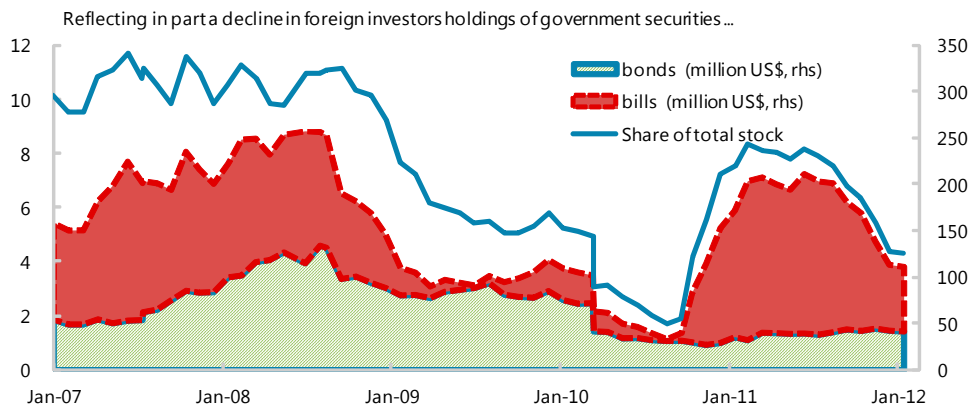
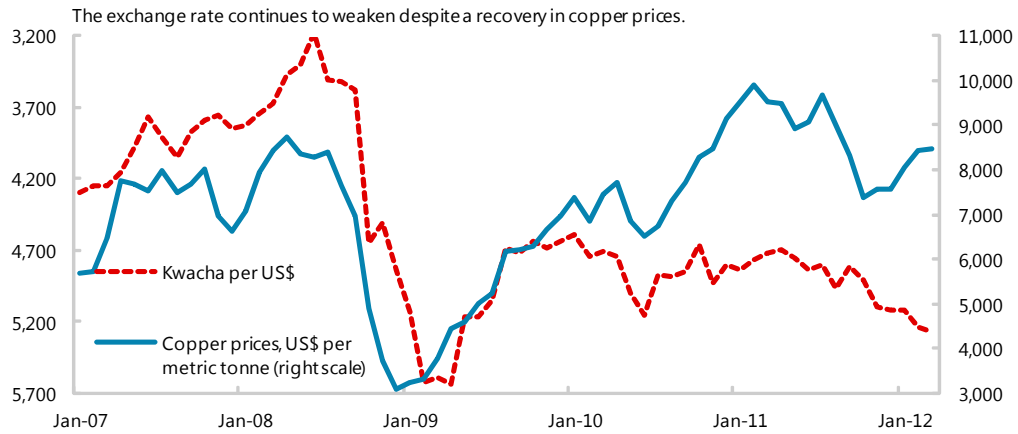
Recent strong growth in copper exports, following sharp increases in copper prices...

...have improved current account balances, and increased reserves to comfortable levels.



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

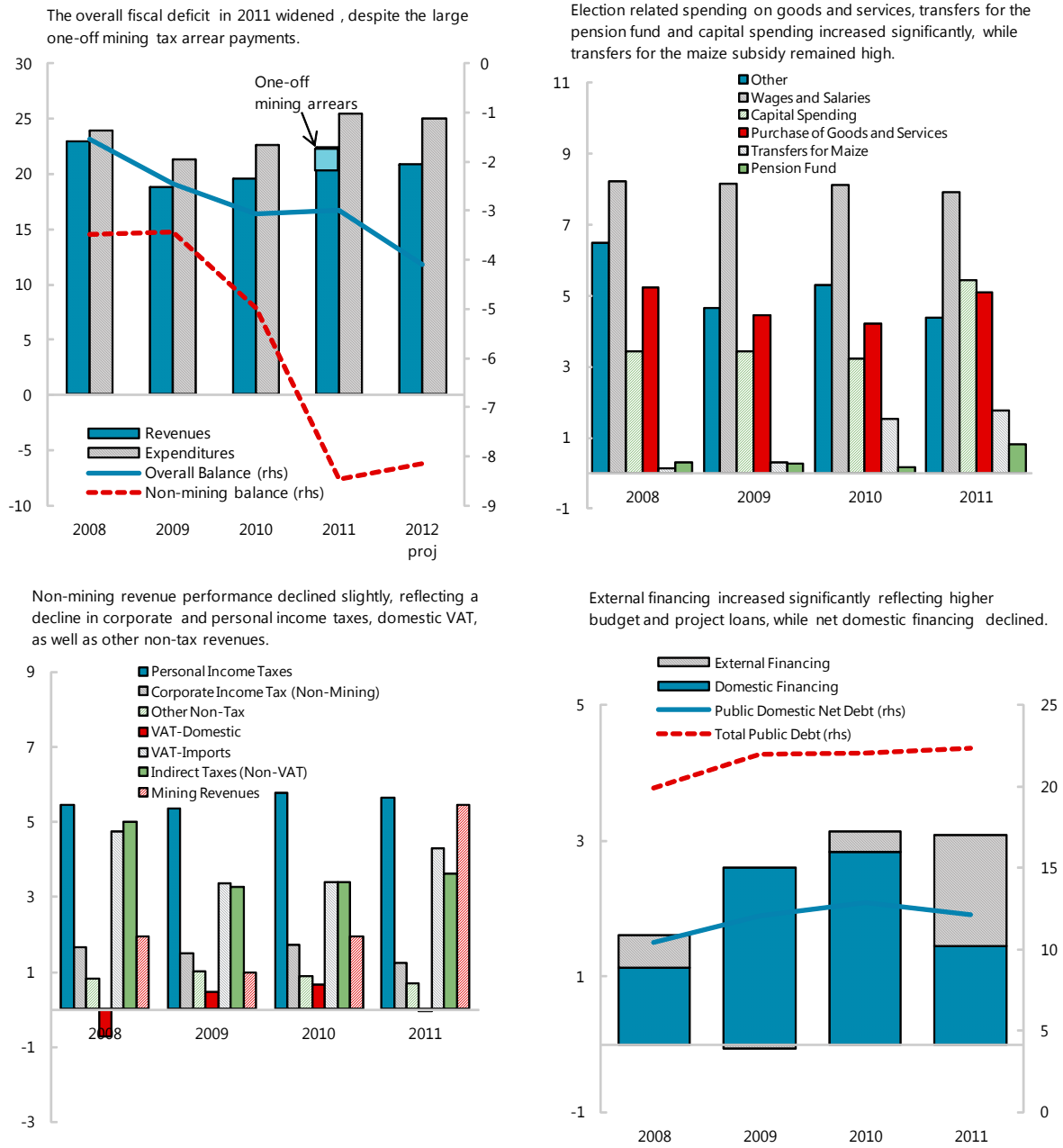
**Figure 2. Zambia: The Exchange Rate, Foreign Portfolio Investments, and Spreads 2007–12**



Sources: Bank of Zambia and International Financial Statistics.



**Figure 3. Zambia: Fiscal Developments, 2008–11  
(Percent of GDP)**



Sources: Zambian authorities and IMF staff estimates.

### 5. **There are near-term downside risks.**

Key risks arise from the uncertain prospects for the global economy that could lower copper prices and from domestic policies. Although the crisis in Europe has had little spillover to the Zambian economy to date, and mining companies are moving forward with ambitious plans to expand their operations, a further deterioration in the global economic conditions could squeeze trade credit lines; reduce demand for Zambian exports; and lower copper prices. On domestic policies, 0.8 percent of GDP in fiscal measures could be needed to ensure that the fiscal, inflation, and reserve targets are met, especially if much needed maize sector reforms are delayed; while careful implementation of planned financial sector reforms will be necessary to safeguard financial sector stability. The perception of a less favorable investment climate is also a risk as there are indications that some early pronouncements had led to

uncertainties about the new government's policy intentions.<sup>3</sup>

### **Authorities' Views**

### 6. **The authorities had a broadly similar view on the outlook and risks.**

There was agreement on the need to continue to build buffers to deal with a possible sharp decline in copper prices given the uncertain prospects for the global economy. Regarding market perceptions about the investment climate, they noted the measures taken by the president to stop unauthorized statements by government officials that did not reflect the views of the Cabinet, and restated their intention to maintain current policies that promote the development of the private sector as the key driver of economic growth under secure property rights and the rule of law.

## PROMOTING INCLUSIVE GROWTH AND REDUCING VULNERABILITIES

### 7. **Over the medium term, the authorities aim to sustainably raise growth and employment and reduce poverty, while maintaining macroeconomic stability.**

Growth is targeted at around 8 percent a year, inflation at around 5 percent, net domestic financing at around 1 percent, and the fiscal deficit at around 2½ percent of GDP, which is consistent with public debt remaining below 25 percent of GDP.

### 8. **Achieving these outcomes will require strong macroeconomic policies and reforms in a number of areas:**

- Fiscal discipline to complement monetary policy efforts to achieve the medium-term inflation objectives without crowding out private sector support;
- Fiscal reforms to create space for increased capital spending, improve public financial management, and strengthen incentives for formal sector development;

<sup>3</sup> This reason was cited by one international rating agency for downgrading Zambia's rating outlook in February this year.

- Financial sector reforms to improve the sector's role in facilitating development;
- Agriculture sector reforms to reduce the dependence on maize and promote poverty reduction; and
- Other reforms designed to improve the business climate and promote private investment, especially in labor intensive activities in the formal sector.

The staff's medium-term macroeconomic projections describe one scenario in which these targets are met (Figure 4).

## A. Creating Fiscal Space

**10. Fiscal policy must walk a fine line between building buffers against a fragile global economy and contingent liabilities, the need to prioritize growth-enhancing expenditures, and maintaining macroeconomic stability.** Declining aid and potentially volatile copper revenues increase the urgency of enhancing domestic revenue mobilization and reorienting spending to create the needed fiscal space to satisfy those fiscal policy objectives.

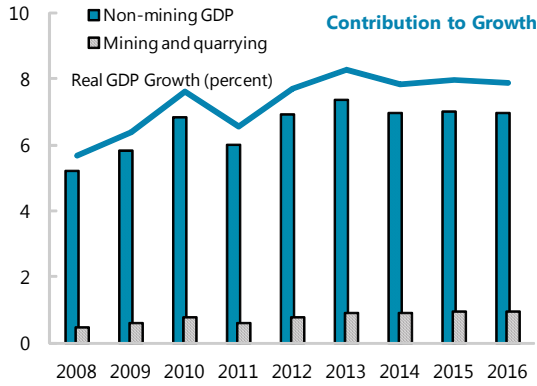
**11. The authorities' 2012 budget is in line with these objectives, but the authorities have yet to outline specific**

**9. Staff developed an alternative scenario that shows the consequences of not undertaking these policy adjustments** (see Figure 5). In that no-adjustment scenario, relatively low non-mining revenues and steadily rising transfers for the maize support program and the public pension scheme limit the ability to scale up public capital spending. Growing fiscal deficits also crowd out credit to the private sector. As a result, growth reverts to the 5–6 percent range, and rising domestic debt and lower-than-recommended international reserve accumulation increase vulnerabilities.

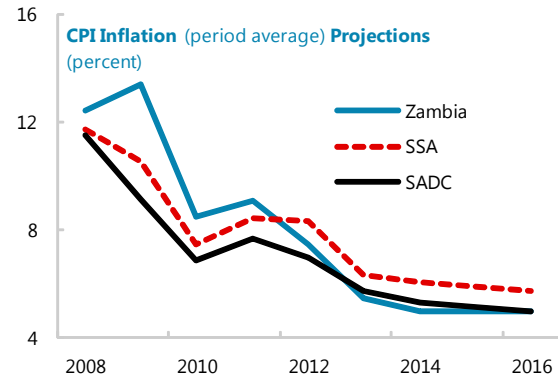
**policy measures to achieve the budget targets.** Staff estimates that fiscal measures of about 0.8 percent of GDP would be needed to meet the budget target. The budget had underestimated the costs of the maize marketing support program (by 0.2 percent of GDP); the fertilizer support program (0.3 percent of GDP); and transfers to fund public pension benefits (0.4 percent of GDP) that would only be partly offset by higher revenues (0.1 percent of GDP). In addition, in April, the government granted higher-than-budgeted increases in basic salaries to government employees 0.9 percent of GDP,

**Figure 4. Zambia: Medium-Term Outlook, 2008–16**

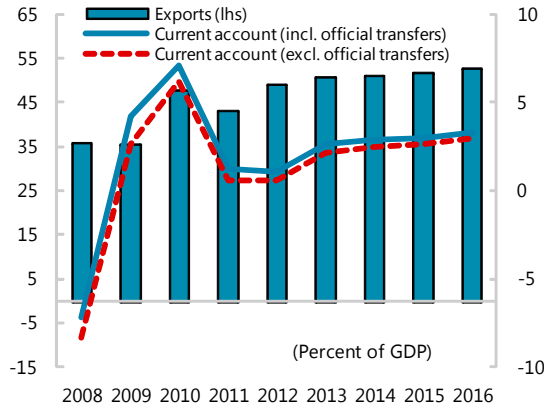
GDP growth is projected to increase and stabilize at 8% over the medium term...



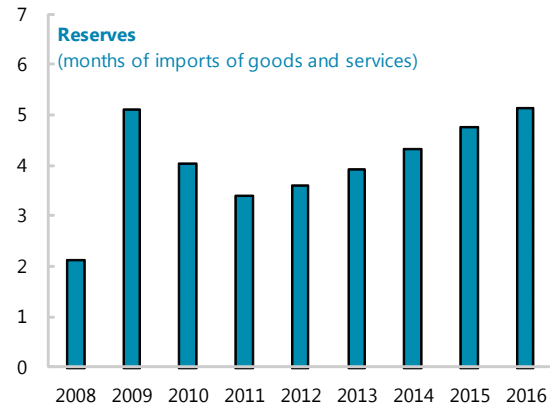
...along with low and stable inflation.



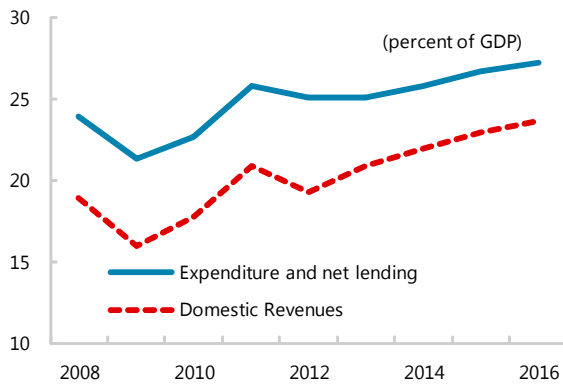
Export-led growth will continue to improve the external current account...



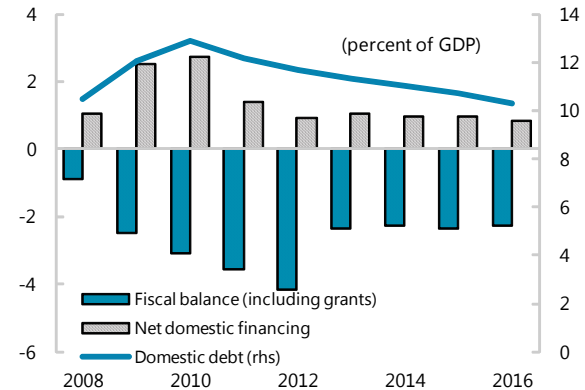
...and support the build-up of reserves.



Increased public capital expenditure to support growth, is backed by additional revenue measures ....



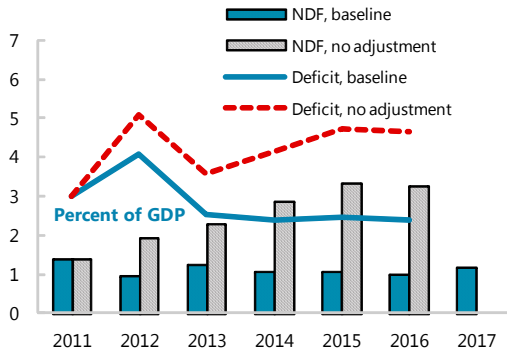
... to safeguard fiscal consolidation and support macroeconomic stability over the medium term.



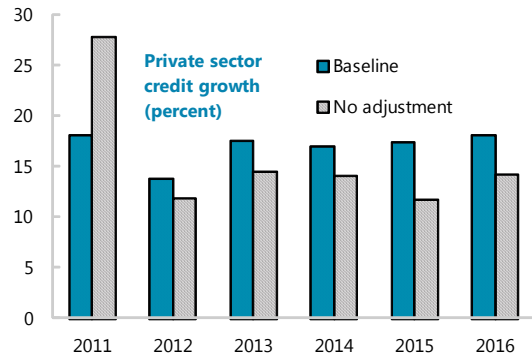
Sources: Zambia authorities and IMF staff estimates and projections.

**Figure 5. Zambia: Alternative Macroeconomic Scenarios**

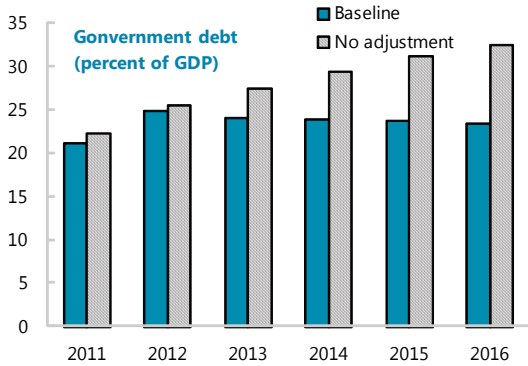
Without fiscal measures, high deficit and net domestic financing ...



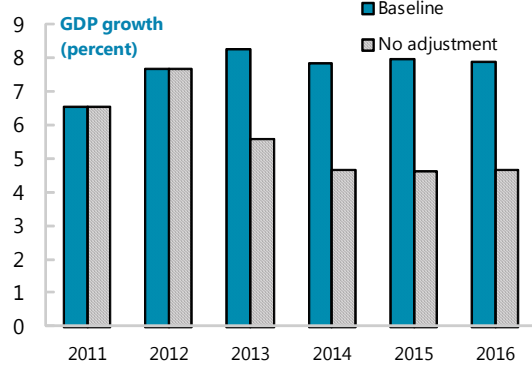
would crowd out credit to the private sector, ...



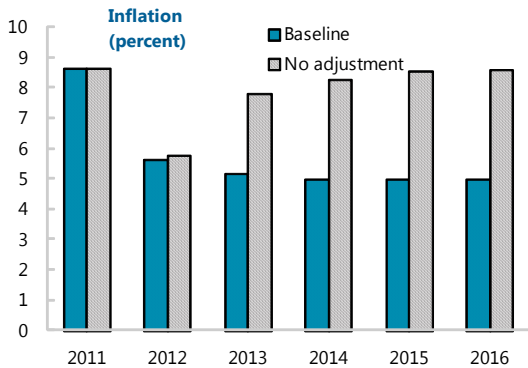
increase government debt, ...



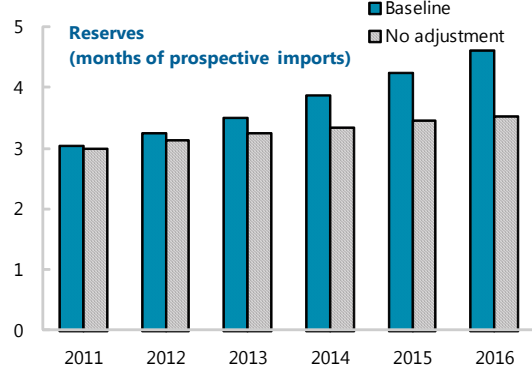
reduce GDP growth,...



increase inflation, and ...



weaken the reserve accumulation.



Source: IMF staff estimates.

which will be offset by eliminating a number of allowances for civil servants, and cuts in other recurrent expenditures.<sup>4</sup> Given the results of the “no-adjustment” scenario, staff emphasized the importance for maintaining macroeconomic stability of implementing measures to secure the budget deficit target.

### ***Reorienting spending***

**12. The marketing and fertilizer support programs for the maize sector have become too costly and hampered diversification of the agricultural sector.** The combined costs of these programs grew from 1.2 percent of GDP in 2009 to 2.7 percent in 2011. Staff noted that reforms envisaged during the recent ECF to reduce fiscal costs and the government’s involvement in maize marketing had not yet been taken and urged that reforms be implemented before the 2012 season starts in May.

**13. Staff warned of the need to minimize fiscal risks arising from the current petroleum and electricity pricing policies.** It argued for the reinstatement of the automatic petroleum price adjustment mechanism as soon as possible. Substantial subsidy costs may be accumulating as prices appear to have been below full cost recovery since October 2011 when prices were last adjusted.<sup>5</sup> There is also the risk of a future build-up of contingent liabilities arising from electricity generation public-private-

<sup>4</sup> The wage adjustment in 2012 also reflects the effects of the ongoing public service pay reform and involves moving certain allowances to the base wage for a more transparent assessment of compensation with respect to grade and performance.

<sup>5</sup> These costs would be reflected in balance sheet information of the petroleum marketing company, which the mission was not able to obtain.

partnerships for new power plants under construction or being planned that have guaranteed purchase agreements based on break-even even tariffs that are more than 30 percent above current tariffs. Staff recommended accelerating the implementation of the multi-year electricity tariff framework aimed at raising tariffs to full cost-recovery levels (which has been slower than originally planned), and introducing of lifeline tariffs to protect the most vulnerable customers.

**14. A reform of the Public Service Pension Fund (PSPF) is also needed to ensure fiscal sustainability.** Staff estimates that budget transfers to fill the funding gap for pension benefits payable from this fund together with the normal pension contributions of the government would reach 0.9 percent of GDP in 2012 and, in the absence of reforms, could rise to 2 percent of GDP by 2015.<sup>6</sup>

### ***Mobilizing Revenues***

**15. There is room to significantly raise revenues to help create fiscal space.** Both with respect to mining and non-mining revenues, Zambia does not compare favorably with its comparators. The authorities have increased the resources allocated to the Zambia Revenue Authority (ZRA) in the 2012 budget, including to the mining unit. However, additional steps to increase technical capacity, including information management and audit functions (especially of mining companies) will be needed.

<sup>6</sup> One reason for the cash flow deficit of the PSPF is that no new entrants are being admitted to the scheme. New entrants take part in the National Pension Scheme, which was started in 2000 and currently runs large cash surpluses.

**16. On tax policy, the authorities doubled the royalty rate for copper production in the 2012 budget.**<sup>7</sup> Staff's analysis of the current mining regime suggests that the average effective tax rate is relatively high (Figure 6), but that there is scope to improve the progressivity of the regime (Annex II). On the VAT, staff argued for substantially reducing exemptions and on corporate income taxes, for streamlining the use of incentives to ensure that they are aligned with the government's objective of promoting inclusive growth.

**Non-Natural Resource Tax Revenues to GDP  
Zambia and Selected Comparator Countries**

	2000	2005	2010
Ghana	11.0	13.5	13.1
Kenya	16.4	17.8	20.1
Mauritius	16.6	17.9	18.4
Mozambique	10.5	12.2	18.1
Senegal	16.1	18.5	18.8
Tanzania	9.0	10.8	14.6
Uganda	9.9	11.4	11.7
Zambia	19.1	17.2	14.9

Source: IMF staff estimates.

### Authorities' Views

**17. The authorities reiterated their commitment to meet the 2012 budget deficit target.** With the assistance of the World Bank, cost-saving agriculture and pension reforms were being prepared:

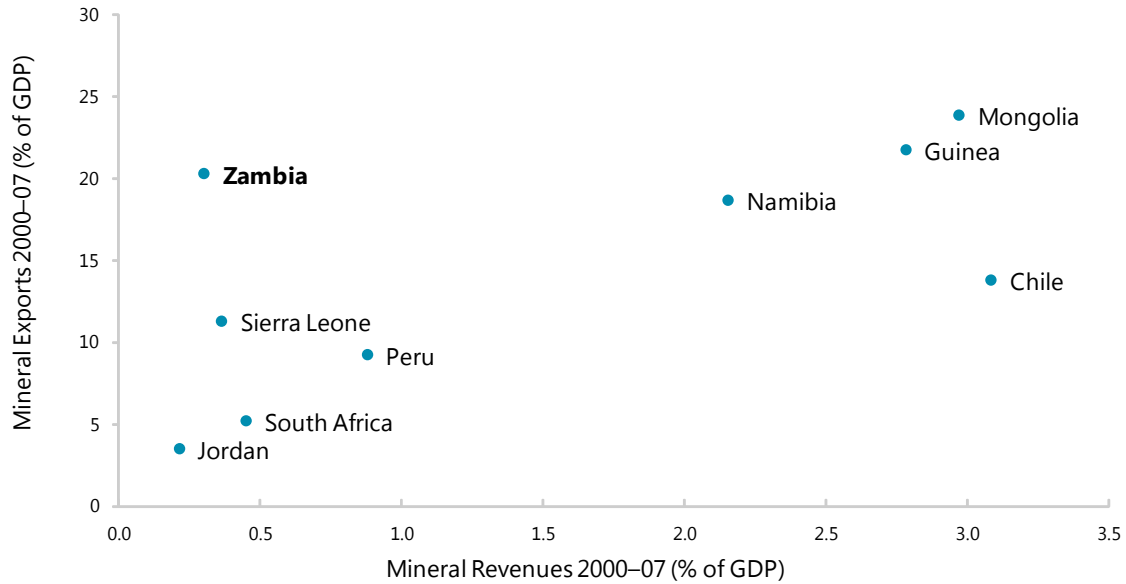
- *Maize marketing and fertilizer support program.* The authorities aim to improve the targeting of the fertilizer program to the neediest farmers while broadening the scope to include non-maize farmers; scale back government's role in maize marketing to allow the private sector to take the lead; and limit government maize purchases to that required to maintain food security stocks.
- *Public Service Pension Fund.* The authorities are contemplating a reduction in the lump-sum benefits paid up front; and accepting new entrants into the pension scheme without jeopardizing the solvency of the other main public pension fund.

**The authorities admitted that securing Cabinet-level support for these reforms could prove challenging.** At the same time, they were optimistic that yields from tax administration reforms, which were supported by Fund TA and focused on improving technical capacity, would yield higher-than-budgeted revenues. The authorities indicated that following the increase in royalty rates, they did not want to implement any further changes to the copper fiscal regime for the time being to avoid any negative impact on the investment climate. They did not indicate any specific contingency plans in the event that the tax administration or expenditure reforms failed to yield the expected savings.

<sup>7</sup> Most mining companies have been carrying forward their losses from early 2000s when they started operations and hence have not declared any corporate income tax liability in the past.

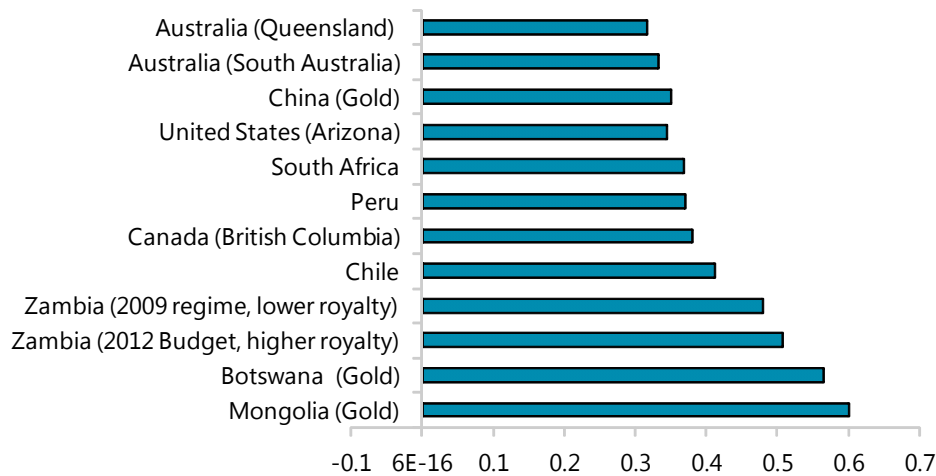
**Figure 6. Zambia: Mining Tax Revenues**

Zambia's mining revenues have been low compared to other mineral producers, despite a relatively high share of mining exports in GDP...



Mining revenues are set to increase in the future as carry-forward losses tapers off—the average effective tax rate over the lifespan of the mining projects is relatively high in Zambia.

**Average Effective Tax Rate – Zambia and Comparators**



Source: IMF staff calculations.

Note: Average effective tax rate over the life time of a mining project in Zambia calculated under different fiscal regimes from comparator countries.



## B. Structural Reforms for Improved Fiscal Management

**18. Public financial management reforms will be crucial to improve budgetary planning and execution, and efficiently scale up capital spending.** Staff recommended a gradual scaling up of capital expenditures to ensure that the authorities have adequate time to build their technical expertise, including to evaluate and implement projects. Moreover, shifting from the current decentralized process for appraising and prioritizing capital expenditure projects to a centralized framework should help reconcile competing funding demands with available resources while ensuring consistency with the government's policies and objectives.

**19. With Zambia set to access international capital markets, it will be important to develop a comprehensive debt management strategy.** While total borrowing should be guided by the medium-term fiscal strategy and debt sustainability considerations, the authorities should develop a strategy to guide their decisions on the different types and quantities of debt they incur. As part of their 2012 funding strategy, the authorities plan to issue a sovereign bond—Zambia's first external bond issue. Staff's debt sustainability analysis (DSA) suggests that the bond issue should have no material impact on debt dynamics: all debt indicators remain below the critical thresholds and the risk of debt distress should remain small.

**20. Contingent liabilities of the public sector, especially the operations of the state-owned enterprises, need to be monitored more closely.** The government of Zambia has interest in 39 state-owned enterprises, the majority of which are not profitable. Some of these enterprises borrow from commercial banks with government guarantees and/or have large outstanding tax arrears.

### *Authorities' Views*

**21. The authorities noted that, with technical assistance from donors and international financial institutions, they have been focusing on improving public financial management.** They plan to complete the implementation of IFMIS and Treasury Single Account by 2013 and have prepared a new Public Expenditure Management and Financial Accountability strategy, with prioritizing agreed. To strengthen debt management, they intend to restructure their International Debt Management department in tandem with a planned restructuring of the Ministry of Finance and Planning. They are also preparing a coherent state ownership policy to enhance performance monitoring of state-owned enterprises, enforce provision of adequate information and disclosures, and provide a legislative framework to address weaknesses in governance.

## C. Enhancing Monetary Policy Formulation and Implementation to Anchor Stability

**22. The BOZ is changing its monetary policy framework to better support the objective of achieving and maintaining low and stable inflation.** Effective April 2, 2012, they introduced the BOZ policy rate—initially set at 9 percent centered within a 400 basis point band for the interbank rate, and to be reviewed monthly—to replace reserve money as BOZ’s main monetary policy tool. This is part of their strategy to create a more flexible monetary policy framework, improve the interbank market, enhance bank competition, and possibly formally adopting full-fledged inflation targeting sometime in the future. Staff welcomed the increased emphasis on stabilizing short-term interest rates, but noted that the trading band is wide and that improvements to BOZ’s daily liquidity management operations would be needed to keep overnight interbank rates close to the policy rate.

**23. The authorities’ official target is to keep inflation below 7 percent in 2012 and declining further to 5 percent in the medium term.** In this context, and to reduce inflation volatility, the Bank of Zambia (BOZ) plans to operationally aim at keeping inflation around 6 percent in 2012. Headline inflation is currently around 6 percent, but there are risks that inflationary pressures could increase as a result of the recent months’ depreciation of the currency, and any delays in fiscal measures to secure the budget target. For this reason, signaling a tightening of the monetary policy stance, the BOZ set the new policy rate 200 basis points above the prevailing interbank

rate. Staff noted that the authorities should remain vigilant and stand ready to tighten monetary policy further as needed.

### **Authorities’ Views**

**24. The authorities agreed that there may be short-term inflation pressures, particularly from the lagged effects of the recent exchange rate depreciation.** They argued that inflationary pressures may be moderated by an expected slow-down in domestic food inflation, and that the introduction of the policy rate, and associated monetary policy tightening, should provide financial markets with a credible and stable anchor for setting of interest rates and help better anchor inflation expectations. They pointed out that, with Fund TA, a plan to increase technical capacity to underpin the setting of the policy rate and improve monetary policy implementation was already being implemented. Furthermore, they noted that monetary aggregates would continue to play a key role in assessing the monetary policy stance and setting the policy rate.

**Exchange Rate Assessment Results<sup>1</sup>**

Approach	Current account/GDP		REER Gap
	Norm	Underlying <sup>2</sup>	
External sustainability <sup>3</sup>	-8.6	-4.7	-11.5
Macroeconomic balance	-7.1	-4.7	-7.1
Equilibrium real exchange rate			0

<sup>1</sup> Based on IMF CGER methodology and extension by Francis Vitek (IMF 2009, unpublished).

<sup>2</sup> Medium-term adjusted current account ratio to GDP.

<sup>3</sup> Current account norm consistent with a stable net foreign liability ratio of 75 percent.

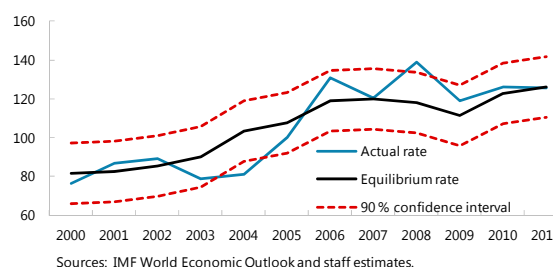
## D. Exchange Rate Policy and Building International Reserves

**25. The flexible exchange rate regime has served Zambia well during a period of several large external shocks.** Staff's updated exchange rate assessment suggests that the real effective exchange rate remains broadly in line with macroeconomic fundamentals. However, Zambia's Doing Business Indicators suggest that there is a need for improvements in a number of non-price competitiveness areas (Annex IV).

**26. Stronger international reserve coverage would provide an added buffer.** Although international reserves are at record levels, import coverage is still lower than in many comparable countries. Staff recommended that the authorities continue to strategically aim to build reserves further over the medium term—as favorable conditions present themselves—as a buffer against a possible sharp decline in copper prices. Preliminary estimates using the new IMF's low-income country reserve adequacy framework, which balances the crisis prevention and

mitigation benefits of holding reserves against the financial cost of reserves, suggests that increasing the reserve coverage to around 4–4½ months of imports over the medium term would be appropriate in light of Zambia's vulnerabilities to external shocks (Annex III).

Figure 7. Equilibrium Real Effective Exchange Rate



### Authorities' Views

**27. The authorities agreed with the staff's exchange rate assessment.** They reiterated their commitment to the floating exchange rate regime, and concurred on the strategy to increase the reserve coverage further.

## E. Promoting Financial Sector Development to Support Growth

**28. The banking sector generally remains sound and profitable.** Lending to the private sector has recovered and exceeded pre-crisis (2008–09) levels, and is booming despite high base lending rates. While asset quality has improved following the crisis, staff expressed concern that the sharp increase in credit to the private sector in 2011, especially personal loans, which increased by 43 percent and accounts for about 30 percent of total

loans and advance, could elevate risks of renewed deterioration.<sup>8</sup>

**29. The authorities are concerned about high lending rates and low access to financial services for broad segments of the population, including for SMEs.** To encourage banks to lower their base rates, in

<sup>8</sup> The authorities are strengthening their financial crisis resolution framework, as part of their implementation of the second phase of their Financial Sector Development plan, as recommended by the 2009 IMF-World Bank Financial Sector Assessment Program Update.

late 2011, the authorities lowered the upper corporate tax rate for banks by 5 percentage points, aligning the tax rate with the 35 percent paid by other non-agriculture firms. They also plan to recapitalize the Zambia Development Bank to be more active in credit delivery to sectors usually under-served by the traditional commercial banks. Staff noted that credit delivery to under-served sectors has been hampered by structural factors such as lack of information on potential borrowers, high transactions costs for creditors to deal with non-performing loans and the high cost of doing business in Zambia. In this context, reforms to improve the coverage and effectiveness of the credit reference bureaus; and streamline procedures for collateral enforcement to ensure collateral enforcement would be crucial. Staff also stressed the importance for growth and poverty reduction of extending other financial services, including payment services and saving facilities, to those without bank accounts. A review of the legal and regulatory framework to allow for the development of innovative products and institutions tailored to the needs of the informal sector would also be important (Appendix V).

**30. To strengthen the balance sheets of commercial banks to support Zambia's growing economy, the authorities have increased the minimum capital requirement.** The capital requirement was increased from \$2.4 million to \$20 million for majority domestically-owned banks and to \$100 million for majority foreign-owned banks. Banks will need to be in compliance with the new requirements by January 1, 2013. While the country's two domestically owned banks should not have any problem meeting the new requirement, this could be a challenge for a number of foreign-owned banks. The top

5 foreign banks have an average capitalization of close to US\$60 million, but the average for the remaining 12 foreign-owned banks is below US\$10 million.

**31. Staff expressed concerns about the measure, citing the risk of unintended consequences, and advised the authorities take a more gradual approach and to seek technical assistance.** On the one hand, the required rapid increase in capital could encourage risky lending and lead to a substantial deterioration in asset quality, as occurred in Nigeria between 2004 and 2006. At the same time, the BOZ could encounter challenges in terms of their capacity to effectively supervise banks as they aggressively extend their loan books. On the other hand, there could be a withdrawal of some foreign banks that either serve small, niche markets or have no corporate interest in expanding/merging, possibly resulting in a decline in competition and the scope of financial services.

**32. The authorities will rebase the local currency and take off three zeros.** This is expected to ease the burden on the payments system, reduce transaction costs, and simplify accounting processes. Staff noted that, as was the case in Europe and other sub-Saharan African economies, rebasing of currencies requires significant lead time for planning, technical work, and extensive public education program to ensure a smooth transition and minimum risks to the banking and payments systems.

#### **Authorities' Views**

**33. The authorities took note of the staff's concerns.** They stressed that in implementing the higher capital requirement, the BOZ will work closely with the commercial

banks to avoid any negative impact on the financial system. The authorities noted that many banks had accumulated sufficient reserves that could be converted into the required capital. The measure would put the banks in a position to participate in financing large projects that have in the past relied on

external financing or required syndication. On the planned rebasing of the currency, the authorities assured staff that technical preparations had been underway for a long time and that a broad public education campaign would soon be launched.

## F. Boosting Competitiveness and Inclusive Growth through Structural Reforms

**34. Achieving economic diversification and inclusive growth remains a challenge.** Zambia remains overly dependent on copper exports; the cost of doing business remains high; unbalanced agriculture policies have caused an over-production of maize and hampered the development of other segments of the agriculture sector; below cost recovery electricity tariffs impede tapping Zambia's hydro power potential; the large informal economy negatively impacts productivity and poverty; and economic governance remains a concern. Against this background, staff highlighted the importance of a broad-based strategy that included the key reforms identified in the Sixth National Development Plan (covering 2011–15) and the fiscal and financial sector reforms discussed earlier.

**35. Efforts to increase productivity in the informal sector and identify and remove barriers to formal sector development are needed.** Currently, around 90 percent of the total workforce is in the informal sector or through informal labor arrangements (casual workers) in the formal sector. Continued efforts to achieve the Millennium Development Goals targets (e.g., in health and education, Table 8) and scale up infrastructure spending should improve informal sector productivity and inclusive growth. Additional gains would come from

addressing impediments to formal sector development. A recent IMF study<sup>9</sup> of the drivers of the informal economy in oil-importing countries in the Middle East and North Africa found that a large informal economy is often the consequence of a difficult business environment and high costs and burdens of entering the formal economy, including restrictive labor market regulations, and excessive taxes. At the same time, limited benefits (weak financial and public service delivery to SMEs) reduce the incentives to operate in the formal sector. Staff urged that better information on the key Zambia-related obstacles to formal sector development, is needed to inform policies in this area.

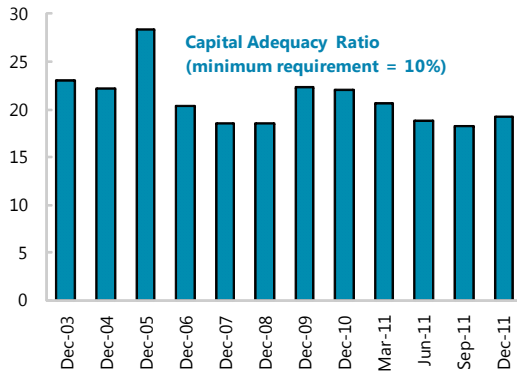
**36. With more than 70 percent of the employed population in the agriculture sector, agriculture development is critical for achieving inclusive growth and poverty reduction.** Staff recommended the government to formulate a broad-based reform strategy for the agriculture sector, with the help of development partners.

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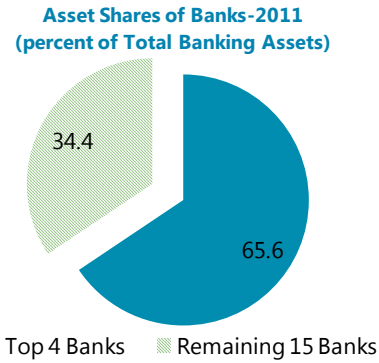
<sup>9</sup> See *Regional Economic Outlook: Middle East and Central Asia*, October 2011.

**Figure 8. Zambia: Developments in the Financial Sector, 2003–11**

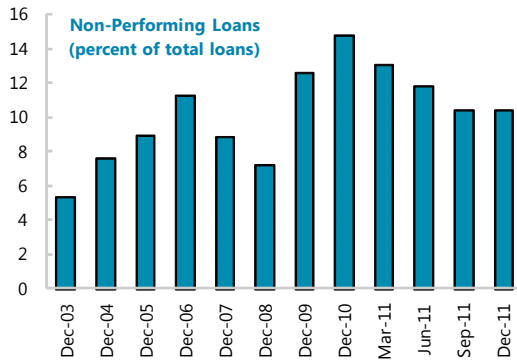
The banking system remains well capitalized...



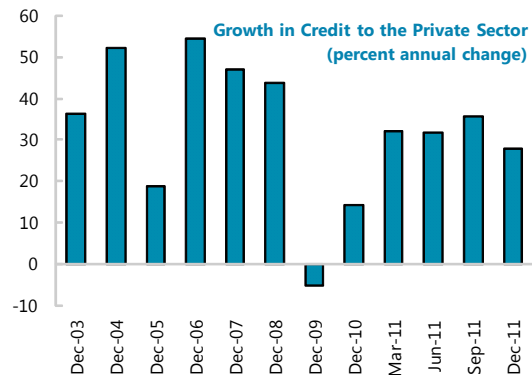
...but highly concentrated.



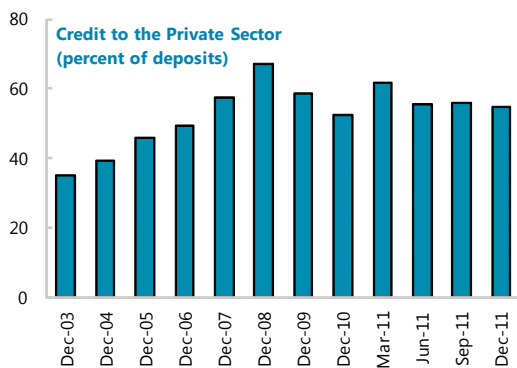
Non-performing loans have started to decline...



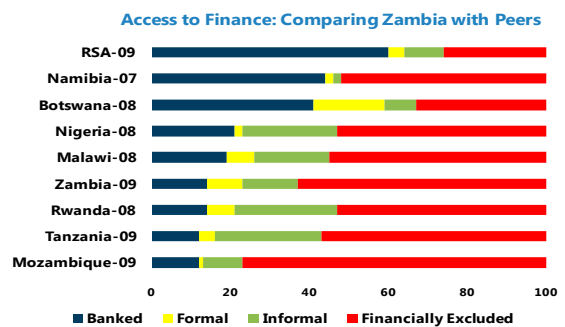
...and banks have started to expand their loan books, ...



backed by an equally strong growth in deposits.



Access to financial services in Zambia has been low compared its peers.



Sources: Zambian authorities; FINSCOPE 2009 Report; and IMF staff estimates.

<sup>1</sup> World Bank Doing Business (2012).

The strategy should include strong participation of the private sector, commodity-neutral agricultural policy, and prioritizing government spending on raising productivity, including through provision of irrigation, roads, research, and extension services.

## STAFF APPRAISAL

**38. Zambia is to be commended for its strong macroeconomic performance in recent years, reflecting sound macroeconomic management.** Economic growth is projected to remain strong and inflation moderate in 2012. The real effective exchange rate is broadly in line with macroeconomic fundamentals and the risks to external stability appear low. However, there are downside risks, related mainly to uncertainties in the global economic outlook and possible delays in implementing fiscal measures needed to meet the authorities' budget deficit target. Large deficits in a government pension fund, below cost recovery energy pricing, and contingent liabilities also pose medium-term risks.

**39. Growth will have to be broadened over the medium term to raise employment and reduce poverty.** Achieving this, while maintaining financial stability will require fiscal and monetary discipline. It will also require a broad set of reforms to provide room for growth-enhancing fiscal spending; broaden access to financial services; and strengthen incentives for labor-intensive activities in the formal sector, including through tax and labor market reforms. Measures to reduce the dependence on maize and promote rural development would also be critical.

### *Authorities' Views*

**37. The authorities agreed with the staff's assessment.** They noted that they already are preparing reforms in line with the staff's recommendation to their agriculture policies.

**40. The government's fiscal targets for 2012 and the medium term are consistent with achieving the authorities' macroeconomic objectives.** Their plans to keep net domestic financing at around 1 percent of GDP and the medium-term fiscal deficit at 2–3 percent would keep debt stable as a percent of GDP, ensure that the risk of debt distress remains low, and provide room for solid private sector credit growth and support a further reserve accumulation.

**41. However, sizable fiscal measures are needed to achieve these targets, while providing room for higher growth-enhancing and poverty-reducing spending.** Failure to take measures to secure the 2012 fiscal targets would likely put significant pressure on inflation and the balance of payments and raise concerns about the authorities' commitment to macroeconomic stability. The authorities are urged to quickly implement reforms currently being considered to maize marketing and pricing, fertilizer subsidies, and public sector pension funds. These reforms should provide sizable fiscal savings both in 2012 and over the medium term, restore sustainability, and, in the case of the agricultural programs, correct serious market distortions that have contributed to an overdependence on maize production.

**42. Enhanced revenue mobilization also has an important role to play in achieving the medium-term fiscal targets.** Staff encourages the authorities to continue to implement tax administration reforms recommended by Fund technical assistance. In the area of tax policy, there is room to substantially reduce the number of exemptions and incentives in non-mining taxes, while ensuring that those that remain are closely linked to facilitating productivity and employment growth in the formal sector. In the mining area, Staff agrees with the authorities' decision not to make any further changes to the mining fiscal regime at this time.

**43. The fiscal risks associated with below cost-recovery energy pricing must also be addressed.** The automatic petroleum price adjustment mechanism should be reinstated as soon as possible to ensure that prices are kept in line with supply costs. The implementation of the multi-year electricity tariff framework aimed at raising tariffs to full cost-recovery levels should also be accelerated to ensure the economic viability of the large private and public investment in electricity generation currently being undertaken. At the same time, lifeline tariffs should be considered to protect the most vulnerable customers.

**44. Further public financial management reforms are needed to improve spending efficiency and transparency and debt management.** The government needs to strengthen its investment management capacity—the targeted scaling up of capital expenditures should be gradual to provide adequate time to build the needed technical expertise. The existing procedures for debt recording and monitoring, especially of contingent liabilities,

should also be strengthened. In that regard, staff welcomes plans for enhanced monitoring of the state-owned enterprises. As the authorities move to tap the international capital markets, it will be important to develop a comprehensive debt management strategy.

**45. Staff believes that the authorities' 2012 monetary program is consistent with achieving their goal of keeping inflation below 7 percent.** However, it will be important for the authorities to be ready to tighten monetary policy further in the event of elevated inflationary pressures from the recent months' currency depreciation or any delays in implementation of fiscal measures.

**46. Staff welcomes BOZ plans to enhance the monetary policy framework.** The introduction of the monetary policy rate, and use of a broad set of economic indicators—including monetary aggregates—to assess the monetary policy stance, should make monetary policy more flexible and forward looking, enhance liquidity management, and better shape the transmission mechanism. At the same time, staff encourages the authorities to continue to develop all the key structures necessary for the effective functioning of the policy rate as the main monetary policy tool.

**47. Staff supports the authorities' efforts to strengthen the financial sector and improve access to financial services.** However, staff is concerned that current plans to raise minimum capital requirements for banks may have unintended results by encouraging risky lending practices or the withdrawal of some specialized foreign banks. Staff welcomes the authorities' intention to work closely with the commercial banks to ensure that these risks do not materialize. To



broaden access to financial services, reforms should focus on improving information on potential borrowers, lowering transactions costs for creditors to deal with non-performing loans, and facilitating the development of

innovative products and institutions tailored to the needs of small and medium enterprises.

**48.** Staff recommends that the next Article IV Consultation takes place on the standard 12-month cycle.

**Table 1. Zambia: Selected Economic Indicators, 2009–16**  
(Percent of GDP, unless otherwise indicated)

Adjustment scenario	2009	2010	2011		2012		2013 Proj.	2014 Proj.	2015 Proj.	2016 Proj.
			CR No. 11/196	Act.	CR No. 11/196	Proj.				
<b>National account and prices</b>										
GDP growth at constant prices	6.4	7.6	6.8	6.6	7.4	7.7	8.3	7.8	8.0	7.9
Mining	20.3	15.2	6.3	-5.2	13.4	23.0	14.5	12.9	15.5	8.0
Non mining	5.2	6.8	6.9	7.9	6.7	6.2	7.6	7.2	7.0	7.9
GDP deflator	10.7	11.7	9.8	12.8	5.7	4.8	4.8	4.6	4.6	4.7
GDP at market prices (Billions of kwacha)	64,616	77,667	91,055	93,354	103,368	105,383	119,551	134,815	152,224	171,899
GDP per capita (US\$)	990	1,221	...	1,414	...	1,457	...	...	...	...
Gross national income per capita (US\$)	958	1,118	...	1,299	...	1,347	...	...	...	...
<b>Consumer prices</b>										
Consumer prices (average)	13.4	8.5	9.0	8.7	6.5	5.6	5.2	5.0	5.0	5.0
Consumer prices (end of period)	9.9	7.9	7.0	7.2	6.0	6.0	5.0	5.0	5.0	5.0
<b>External sector</b>										
Terms of trade (deterioration -)	-16.6	35.2	21.1	4.1	-1.8	-3.0	-0.4	-1.2	-1.3	0.1
Average exchange rate (kwacha per U.S. dollar)	5,046	4,797	4,770	4,861	...	...	...	...	...	...
(percentage change; depreciation -)	-34.7	4.9	0.6	-1.3	...	...	...	...	...	...
Real effective exchange rate (depreciation -) <sup>1</sup>	-14.2	5.8	...	-0.4	...	...	...	...	...	...
<b>Money and credit (end of period, unless otherwise specified)</b>										
Domestic credit to the private sector	-5.7	15.4	18.2	28.2	13.9	17.2	17.0	17.5	18.2	18.3
Reserve money (end of period)	19.3	27.8	-5.6	6.8	13.3	8.6	10.4	15.5	15.0	15.0
Broad Money (M3)	7.7	29.9	9.3	21.7	13.3	17.0	16.5	15.5	15.0	15.0
<b>National accounts</b>										
Gross investment	19.6	21.1	22.8	23.4	24.2	23.6	26.1	27.1	28.1	28.8
Government	3.4	3.2	6.6	5.4	10.8	7.4	7.2	8.0	8.8	9.4
Private	16.1	17.8	16.2	18.0	13.4	16.2	18.9	19.1	19.3	19.5
National savings	23.8	28.1	28.7	24.7	27.2	24.7	28.7	30.0	31.1	32.2
Net lending(+)/net borrowing(-)	4.2	7.1	5.9	1.2	3.0	1.2	2.6	2.9	3.0	3.4
<b>Central government budget</b>										
Revenue	18.9	19.6	21.1	22.5	21.2	20.9	22.7	23.5	24.3	24.9
Taxes	14.6	16.4	17.5	19.3	17.1	16.6	17.8	18.8	19.8	20.5
Social contributions	...	...	...	...	...	...	...	...	...	...
Grants	2.9	1.8	1.8	1.6	2.0	1.7	1.9	1.6	1.4	1.3
Other revenue	1.4	1.4	1.8	1.6	2.1	2.6	3.0	3.1	3.1	3.1
Expenditure	21.3	22.6	23.9	25.5	26.8	25.0	25.2	25.9	26.8	27.3
Expense	17.9	19.4	17.6	20.0	16.1	18.4	18.0	17.9	17.9	17.9
Net acquisition of nonfinancial assets	3.4	3.2	6.3	5.4	10.6	7.4	7.2	8.0	8.8	9.4
Net lending/borrowing <sup>2</sup>	-2.4	-3.1	-2.8	-3.0	-5.6	-4.1	-2.5	-2.4	-2.5	-2.4
Excluding grants	-5.3	-4.8	-4.6	-4.5	-7.6	-5.8	-4.4	-4.0	-3.9	-3.7
Net acquisition of financial assets	1.9	-0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Domestic	1.9	-0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Foreign	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net incurrence of liabilities	4.4	2.8	2.9	3.1	5.7	4.2	2.7	2.5	2.6	2.5
Domestic	4.4	2.5	1.3	1.5	1.2	1.1	1.4	1.2	1.2	1.1
Foreign	-0.1	0.3	1.6	1.6	4.5	3.2	1.3	1.3	1.4	1.4
<b>External sector</b>										
Current account balance	4.2	7.1	5.9	1.2	3.0	1.2	2.6	2.9	3.0	3.4
(excluding grants)	1.8	5.6	5.0	0.5	2.2	0.5	1.8	2.2	2.4	2.8
Gross international reserves (months of prospective imports)	3.7	3.0	3.4	3.0	3.7	3.3	3.5	3.9	4.2	4.6
<b>Public debt</b>										
Total central government debt (end-period)	22.0	22.1	21.1	22.3	24.8	24.1	24.0	23.7	23.5	23.1
External	10.0	9.1	9.7	10.2	13.6	12.5	12.5	12.5	12.4	12.4
Stock of domestic debt, net	12.1	12.9	11.4	12.1	11.2	11.6	11.5	11.3	11.0	10.8

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

<sup>1</sup> Excludes Zimbabwe.

<sup>2</sup> Including discrepancy between the above-the-line balance and below-the-line financing.

**Table 2. Zambia: Fiscal Operations of the Central Government, 2010–16**  
(Billions of Kwacha)

Adjustment scenario	2010	2011		2012			2013	2014	2015	2016
		CR No. 11/196	Proj.	CR No. 11/196	Budget	Proj.	Proj.	Proj.	Proj.	Proj.
Revenue	15,198	19,242	20,969	21,913	21,870	22,047	27,116	31,660	36,962	42,777
Tax	12,700	15,979	18,018	17,683	17,386	17,481	21,260	25,400	30,090	35,181
Income taxes	6,914	8,297	10,655	8,773	8,390	8,665	10,951	13,287	15,903	18,608
Value-added tax	3,160	4,187	3,973	4,851	4,724	4,725	5,564	6,643	7,881	9,287
Excise taxes	1,377	1,821	1,665	2,156	2,164	1,953	2,276	2,635	3,041	3,515
Customs duties	1,250	1,674	1,725	1,903	2,109	2,139	2,469	2,835	3,265	3,772
Grants	1,389	1,638	1,450	2,093	1,894	1,840	2,219	2,120	2,160	2,226
Budget support	912	499	602	516	541	571	542	553	580	621
Project grants	477	1,139	847	1,576	1,353	1,269	1,677	1,568	1,580	1,605
Other revenue <sup>1</sup>	1,109	1,625	1,501	2,137	2,590	2,727	3,637	4,140	4,713	5,370
Expenditure	17,584	21,777	23,765	27,665	26,186	26,350	30,139	34,875	40,729	46,895
Expense	15,073	16,026	18,680	16,683	18,364	19,382	21,537	24,071	27,281	30,799
Compensation of employees	6,325	7,204	7,402	8,122	8,648	9,600	10,955	12,096	13,552	15,304
Use of goods and services <sup>2</sup>	3,272	3,841	4,754	4,582	4,722	3,768	4,332	5,232	6,316	7,283
Interest	1,370	1,422	1,082	1,605	1,708	1,664	2,143	2,365	2,417	2,662
Domestic	1,280	1,356	1,013	1,476	1,650	1,538	1,765	1,935	1,934	2,121
Foreign	90	66	69	129	58	126	378	431	484	542
Subsidies	1,897	1,588	2,837	600	800	1,393	1,133	1,303	1,471	1,661
Of which: Fertilizer support program	591	635	895	500	500	850	833	964	1,089	1,230
Of which: Strategic Food Reserve (FRA)	1,206	653	1,674	100	300	511	300	338	382	431
Intergovernmental transfers	1,098	1,284	1,433	1,352	1,806	1,806	1,782	1,956	2,307	2,590
Social benefits	194	524	977	360	575	1,047	1,074	987	1,068	1,130
Other <sup>3</sup>	917	162	195	63	104	104	118	133	150	170
Net acquisition of nonfinancial assets	2,512	5,751	5,085	10,982	7,823	7,811	8,601	10,804	13,448	16,096
Of which: domestically financed	2,188	3,377	3,131	5,245	5,266	5,266	5,806	8,036	10,593	13,144
Fiscal Measures	...	...	...	...	...	-843	...	...	...	...
Gross Operating Balance	126	3,216	2,289	5,229	3,507	2,666	5,579	7,589	9,681	11,977
Statistical Discrepancy (-overfinancing) <sup>4</sup>	13	0	0	0	0	0	0	0	0	0
Net lending/borrowing	-2,373	-2,535	-2,797	-5,753	-4,316	-4,302	-3,022	-3,216	-3,767	-4,118
Excluding grants	-3,762	-4,174	-4,246	-7,845	-6,210	-6,142	-5,241	-5,336	-5,926	-6,344
Net acquisition of financial assets	-201	140	83	138	153	153	166	170	174	196
Domestic	-201	140	83	138	153	153	166	170	174	196
Currency and deposits	-272	0	0	0	0	0	0	0	0	0
Loans	0	0	0	0	0	0	0	0	0	0
Equity and investment fund shares	71	140	83	138	153	153	166	170	174	196
Foreign	0	0	0	0	0	0	0	0	0	0
Net incurrence of liabilities	2,173	2,675	2,880	5,890	4,469	4,455	3,188	3,386	3,940	4,314
Domestic	1,933	1,220	1,355	1,240	1,324	1,128	1,645	1,600	1,791	1,882
Debt securities	785	...	...	...	...	...	...	...	...	...
Loans	1,148	...	...	...	...	...	...	...	...	...
Foreign	240	1,455	1,524	4,650	3,145	3,327	1,543	1,786	2,149	2,432
Loans	240	1,455	1,524	4,650	3,145	3,327	1,543	1,786	2,149	2,432
Of which: budget support	331	143	149	154	2,652	2,878	110	128	434	824
Of which: project loans	53	1,752	1,475	4,798	1,852	1,883	1,785	1,861	1,956	2,051
<i>Memorandum items:</i>										
Net Domestic Financing	2,205	1,220	1,355	1,240	1,324	1,128	1,645	1,600	1,791	1,882
Overall balance, excl. budget grants and mining taxes	-4,785	-5,961	-8,493	-9,042	-8,709	-9,140	-9,579	-10,884	-12,872	-14,440
Overall balance, adjusting for copper price cycle <sup>5</sup>	-2,968	...	-5,851	...	...	-5,575	-4,355	-4,256	-4,429	-4,556
Primary balance	-1,003	-1,113	-1,714	-4,148	-2,608	-2,638	-879	-850	-1,349	-1,456
Primary balance, excluding mining taxes	-2,503	-4,040	-6,809	-6,921	-6,459	-6,905	-6,893	-7,966	-9,875	-11,157
Mining taxes	1,500	2,927	5,095	2,773	3,851	4,267	6,014	7,115	8,526	9,701
Domestic arrears payments	254	341	361	279	336	336	310	302	50	56
Stock of domestic debt, net	10,025	10,375	11,297	11,616	12,534	12,272	13,751	15,182	16,799	18,485
Stock of domestic debt, gross	12,899	...	14,680	...	16,090	15,827	17,169	18,159	19,288	20,428
Stock of domestic arrears	870	...	508	...	173	172	-138	-440	-489	-545
Stock of domestic government securities	9,941	...	...	...	...	...	...	...	...	...

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

<sup>1</sup> Includes royalties paid by mining companies.

<sup>2</sup> Includes arrears payments for goods and services and other liability payments.

<sup>3</sup> Includes financial restructuring.

<sup>4</sup> The discrepancy largely reflects changes in the carryover of budgetary releases.

<sup>5</sup> Copper revenues are adjusted by deviations from a long-run price which is calculated using a moving average of past copper prices as well as one-off payments.

**Table 3. Zambia: Fiscal Operations of the Central Government, 2010–16**  
(Percent of GDP)

	2007	2008	2009	2010	2011		2012			2013	2014	2015	2016
					CR No. 11/196	Proj.	CR No. 11/196	budget	Proj.				
<b>Adjustment scenario</b>													
Revenue	23.0	23.0	18.9	19.6	21.1	22.5	21.2	20.9	20.9	22.7	23.5	24.3	24.9
Tax	17.7	17.6	14.6	16.4	17.5	19.3	17.1	16.6	16.6	17.8	18.8	19.8	20.5
Income taxes	8.3	8.5	7.5	8.9	9.1	11.4	8.5	8.0	8.2	9.2	9.9	10.4	10.8
Value-added tax	4.8	4.0	3.8	4.1	4.6	4.3	4.7	4.5	4.5	4.7	4.9	5.2	5.4
Excise taxes	2.6	2.6	1.6	1.8	2.0	1.8	2.1	2.1	1.9	1.9	2.0	2.0	2.0
Customs duties	2.0	2.4	1.7	1.6	1.8	1.8	1.8	2.0	2.0	2.1	2.1	2.1	2.2
Grants	4.6	4.1	2.9	1.8	1.8	1.6	2.0	1.8	1.7	1.9	1.6	1.4	1.3
Budget support	1.3	1.2	1.4	1.2	0.5	0.6	0.5	0.5	0.5	0.5	0.4	0.4	0.4
Project grants	3.3	2.9	1.5	0.6	1.3	0.9	1.5	1.3	1.2	1.4	1.2	1.0	0.9
Other revenue <sup>1</sup>	0.7	1.3	1.4	1.4	1.8	1.6	2.1	2.5	2.6	3.0	3.1	3.1	3.1
Expenditure	24.3	23.9	21.3	22.6	23.9	25.5	26.8	25.1	25.0	25.2	25.9	26.8	27.3
Expense	20.3	20.4	17.9	19.4	17.6	20.0	16.1	17.6	18.4	18.0	17.9	17.9	17.9
Compensation of employees	7.6	8.2	8.2	8.1	7.9	7.9	7.9	8.3	9.1	9.2	9.0	8.9	8.9
Use of goods and services <sup>2</sup>	6.7	5.2	4.5	4.2	4.2	5.1	4.4	4.5	3.6	3.6	3.9	4.1	4.2
Interest	1.7	1.7	1.6	1.8	1.6	1.2	1.6	1.6	1.6	1.8	1.8	1.6	1.5
Domestic	1.6	1.6	1.5	1.6	1.5	1.1	1.4	1.6	1.5	1.5	1.4	1.3	1.2
Foreign	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.3
Subsidies	2.2	0.9	1.2	2.4	1.7	3.0	0.6	0.8	1.3	0.9	1.0	1.0	1.0
Of which: Fertilizer support program	0.4	0.8	0.9	0.8	0.7	1.0	0.5	0.5	0.8	0.7	0.7	0.7	0.7
Of which: Strategic Food Reserve (FRA)	0.4	0.1	0.3	1.6	0.7	1.8	0.1	0.3	0.5	0.3	0.3	0.3	0.3
Intergovernmental transfers	2.0	3.1	1.8	1.4	1.4	1.5	1.3	1.7	1.7	1.5	1.5	1.5	1.5
Social benefits	0.6	0.8	0.5	0.2	0.6	1.0	0.3	0.6	1.0	0.9	0.7	0.7	0.7
Other <sup>3</sup>	0.2	0.4	0.2	1.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Net acquisition of nonfinancial assets	4.0	3.5	3.4	3.2	6.3	5.4	10.6	7.5	7.4	7.2	8.0	8.8	9.4
Of which: domestically financed	2.3	2.2	2.7	2.8	3.7	3.4	5.1	5.0	5.0	4.9	6.0	7.0	7.6
Fiscal Measures	...	...	...	...	...	...	...	...	-0.8	...	...	...	...
Gross Operating Balance	2.7	2.5	1.0	0.2	3.5	2.5	5.1	3.4	2.5	4.7	5.6	6.4	7.0
Statistical Discrepancy (-overfinancing) <sup>4</sup>	1.0	-0.6	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	-0.2	-1.5	-2.4	-3.1	-2.8	-3.0	-5.6	-4.1	-4.1	-2.5	-2.4	-2.5	-2.4
Excluding grants	-4.8	-5.6	-5.3	-4.8	-4.6	-4.5	-7.6	-5.9	-5.8	-4.4	-4.0	-3.9	-3.7
Net acquisition of financial assets	1.9	-0.8	1.9	-0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Domestic	1.9	-0.8	1.9	-0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Currency and deposits	1.9	-0.9	1.8	-0.4	0.0	0.0	0.0	0.0	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
Equity and investment fund shares	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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
Net incurrence of liabilities	2.1	0.7	4.4	2.8	2.9	3.1	5.7	4.3	4.2	2.7	2.5	2.6	2.5
Domestic	1.8	0.3	4.4	2.5	1.3	1.5	1.2	1.3	1.1	1.4	1.2	1.2	1.1
Debt securities	1.6	0.5	1.8	1.0	...	...	...	...	...	...	...	...	...
Loans	0.3	-0.2	2.6	1.5	...	...	...	...	...	...	...	...	...
Foreign	0.3	0.5	-0.1	0.3	1.6	1.6	4.5	3.0	3.2	1.3	1.3	1.4	1.4
Loans	0.3	0.5	-0.1	0.3	1.6	1.6	4.5	3.0	3.2	1.3	1.3	1.4	1.4
Of which: budget support	0.0	0.2	0.2	0.4	0.2	0.2	0.1	2.5	2.7	0.1	0.1	0.3	0.5
Of which: project loans	0.7	0.5	0.0	0.1	1.9	1.6	4.6	1.8	1.8	1.5	1.4	1.3	1.2
<b>Memorandum items:</b>													
Net Domestic Financing	-0.1	1.1	2.6	2.8	1.3	1.5	1.2	1.3	1.1	1.4	1.2	1.2	1.1
Overall balance, excl. budget grants and mining taxes	-3.0	-4.7	-4.8	-6.2	-6.5	-9.1	-8.7	-8.3	-8.7	-8.0	-8.1	-8.5	-8.4
Overall balance, adjusting for copper price cycle <sup>5</sup>	-1.1	-2.4	-2.7	-3.8	...	-6.3	...	...	-5.3	-3.6	-3.2	-2.9	-2.7
Primary balance	1.4	0.2	-0.8	-1.3	-1.2	-1.8	-4.0	-2.5	-2.5	-0.7	-0.6	-0.9	-0.8
Primary balance, excluding mining taxes	-0.1	-1.7	-1.8	-3.2	-4.4	-7.3	-6.7	-6.2	-6.6	-5.8	-5.9	-6.5	-6.5
Mining taxes	1.6	1.9	1.0	1.9	3.2	5.5	2.7	3.7	4.0	5.0	5.3	5.6	5.6
Domestic arrears payments	0.7	1.2	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.0	0.0
Stock of domestic debt, net	11.5	10.5	12.1	12.9	11.4	12.1	11.2	12.0	11.6	11.5	11.3	11.0	10.8
Stock of domestic debt, gross	16.8	14.0	16.9	16.6	...	15.7	...	15.4	15.0	...	...	...	...
Stock of domestic arrears	1.5	0.9	1.3	1.1	...	0.5	...	0.2	0.2	...	...	...	...
Stock of domestic government securities	16.4	14.6	14.7	12.8	...	...	...	...	...	...	...	...	...
Nominal GDP (billions of kwacha)	46,195	54,839	64,616	77,667	91,055	93,354	103,368	104,462	105,383	119,551	134,815	152,224	171,899

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

<sup>1</sup> Includes royalties paid by mining companies.

<sup>2</sup> Includes arrears payments for goods and services and other liability payments.

<sup>3</sup> Includes financial restructuring.

<sup>4</sup> The discrepancy largely reflects changes in the carryover of budgetary releases.

<sup>5</sup> Copper revenues are adjusted by deviations from a long-run price which is calculated using a moving average of past copper prices as well as one-off payments.

**Table 4. Zambia: Integrated Balance Sheet of the Central Government, 2009–11**  
(Billions of Kwacha)

	2009				2010			2011 Proj.		
	Opening balance	Transactions	Other economic flows	Closing/Opening balance	Transactions	Other economic flows	Closing/Opening balance	Transactions	Other economic flows	Closing/Opening balance
<b>Net worth and its changes</b>										
Nonfinancial assets	...	...	...	...	...	...	...	...	...	...
<b>Net financial worth</b>	<b>-10,444</b>	<b>-1,606</b>		<b>-13,387</b>	<b>-2,802</b>		<b>-16,260</b>	<b>-2,797</b>		<b>-19,057</b>
<b>Financial assets</b>	<b>1,962</b>	<b>1,232</b>	...	<b>3,146</b>	<b>-201</b>	...	<b>2,874</b>	83	...	2,957
Domestic	1,962	1,232	...	3,146	-201	...	2,874	83	...	2,957
Currency and deposits	1,953	1,184	...	3,138	-272	...	2,865	0	...	2,865
Equity and investment fund shares	...	48	...	...	71	...	...	83	...	...
Other accounts receivable	8	0	...	8	0	...	8	0	...	8
Foreign	...	...	...	...	...	...	...	...	...	...
<b>Liabilities</b>	<b>12,406</b>	<b>2,838</b>	<b>1,290</b>	<b>16,533</b>	<b>2,601</b>	<b>428</b>	<b>19,134</b>	2,880		22,014
Domestic	7,225	2,871	...	10,096	1,933	...	12,029	1,355		13,384
Debt securities	7,223	1,195	...	8,418	785	...	9,202	...		...
Loans	3	1,675	...	1,678	1,148	...	2,826	...		...
Foreign	5,180	-33	1,290	6,437	668	428	7,105	1,524		8,630
Loans	5,180	-33	1,290	6,437	240	428	7,105	1,524		8,630
<b>Memorandum items:</b>										
Publicly guaranteed debt	...	...	...	...	...	...	...	...	...	...
Net financial worth (% of GDP)				-20.72			-20.94			-20.41
Nominal GDP (billions of kwacha)				64,616			77,667			93,354

**Table 5. Zambia: Monetary Account, 2010–16<sup>1</sup>**  
(Billions of Kwacha, unless otherwise indicated)

	2010	2011		2012		2013	2014	2015	2016
		CR No. 11/196	Est.	CR No. 11/196	Proj.	Proj.	Proj.	Proj.	Proj.
<b>Adjustment scenario</b>									
<b>Monetary Survey</b>									
Net foreign assets	6,690	7,534	9,281	7,534	11,146	14,108	18,127	22,869	28,179
Net domestic assets	11,226	12,049	12,523	12,049	14,361	15,600	16,189	16,588	17,183
Domestic Claims	14,683	17,381	16,823	17,381	19,111	21,850	25,041	28,905	33,414
Net Claims on Central Government	5,548	6,623	5,200	6,623	5,486	5,944	6,389	6,894	7,423
Claims on Other Sectors	9,135	10,758	11,623	10,758	13,625	15,906	18,651	22,011	25,992
Claims on Other Financial Corporations	76	76	85	76	85	85	85	85	85
Claims on State and Local Government	7	7	12	7	12	12	12	12	12
Claims on Public Non-financial Corporations	115	115	99	115	99	99	99	99	99
Claims on Private Sector	8,936	10,560	11,454	10,560	13,429	15,710	18,455	21,815	25,796
Other Items net	-3,456	-5,332	-4,299	-5,332	-4,749	-6,250	-8,852	-12,317	-16,232
Broad Money (M3)	17,917	19,583	21,805	19,583	25,508	29,708	34,316	39,457	45,362
Quasi money (M2)	11,714	12,721	14,298	12,721	16,666	19,365	22,369	25,720	29,569
Foreign exchange deposits	6,203	6,861	7,507	6,861	8,842	10,343	11,947	13,737	15,793
<b>Monetary Authorities</b>									
Net foreign assets	4,641	6,258	6,029	6,258	7,443	9,888	13,285	17,510	22,303
Asset	10,026	11,750	12,145	11,750	13,096	15,540	18,938	23,163	27,956
Liabilities	-5,385	-5,492	-6,116	-5,492	-5,653	-5,653	-5,653	-5,653	-5,653
Of which: IMF liabilities	-1,892	-2,052	-2,240	-2,052	-2,070	-2,070	-2,070	-2,070	-2,070
Net Domestic Assets	540	-1,366	-497	-1,366	-1,434	-3,251	-5,620	-8,696	-12,169
Net Domestic Claims	514	-1,116	-176	-1,116	-2,394	-4,211	-6,579	-9,655	-13,129
Net Claims on Central Government	2,233	1,343	-218	1,343	-169	-89	-12	75	167
Claims on Other Sectors	43	43	10	43	10	10	10	10	10
Other Items (Net)	26	-250	-321	-250	959	959	959	959	959
Reserve money	5,181	4,891	5,531	4,891	6,009	6,636	7,666	8,814	10,133
Currency outside banks and cash in vaults	2,748	2,719	3,406	2,719	3,860	4,384	5,065	5,823	6,695
Other depository corporation reserves	2,412	2,149	2,106	2,149	2,126	2,225	2,570	2,955	3,397
Liabilities To Other Sectors	21	23	19	23	23	27	31	36	41
<b>Memorandum items:</b>									
Reserve money (end-of-period, annual percent change)	27.8	-5.6	6.8	-5.6	8.6	10.4	15.5	15.0	15.0
Broad Money (M3) (annual percent change)	29.9	9.3	21.7	9.3	17.0	16.5	15.5	15.0	15.0
Credit to the private sector (annual percent change)	15.4	18.2	27.9	18.2	17.2	17.0	17.5	18.2	18.3
Velocity (Nominal GDP/M3)	4.3	4.6	4.2	5.3	4.1	4.0	3.9	3.9	3.8
Money multiplier (M3/reserve money)	3.5	4.0	3.9	4.0	4.2	4.5	4.5	4.5	4.5
Credit to the private sector (percent of GDP)	11.5	11.6	12.2	10.2	12.7	13.1	13.7	14.3	15.0
Gross foreign exchange reserves of the									
Bank of Zambia (millions of U.S. dollars)	1,896	2,378	2,167	2,815	2,583	3,092	3,801	4,682	5,681
Exchange rate (kwacha per U.S. dollar, end period)	4,796	...	5,117	...	...	...	...	...	...

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

<sup>1</sup> End of period.

**Table 6. Zambia: Balance of Payments, 2010–16<sup>1</sup>**  
(Millions of U.S. dollars, unless otherwise indicated)

Adjustment scenario	2010	2011		2012		2013	2014	2015	2016
		CR No. 11/196	Est.	CR No. 11/196	Proj.	Proj.	Proj.	Proj.	Proj.
Current account	1,144	1,120	238	638	237	577	716	827	1,024
Trade balance	2,704	4,294	2,226	4,314	2,283	2,770	3,099	3,425	3,852
Exports, f.o.b.	7,414	10,411	8,680	11,461	9,545	10,885	12,160	13,590	15,362
Of which: copper	5,768	8,393	6,660	9,256	7,160	8,218	9,167	10,230	11,433
Imports, f.o.b.	-4,710	-6,117	-6,454	-7,147	-7,262	-8,114	-9,061	-10,165	-11,509
Of which: oil	-618	-960	-531	-1,039	-574	-647	-652	-666	-690
Services (net)	-628	-778	-808	-875	-881	-922	-982	-1,046	-1,112
Income (net)	-1,363	-2,793	-1,562	-3,216	-1,534	-1,697	-1,831	-1,990	-2,167
Of which: interest on public debt	-9	-14	-13.9	-28	-28	-73	-82	-90	-99
Current transfers (net)	432	397	382	415	369	425	429	438	450
Budget support grants	148	105	124	107	110	102	102	105	110
Sector-wide approach grants	89	58	23	63	22	66	67	69	70
Private transfers	194	235	235	245	237	257	260	265	270
Capital and financial account	-1,152	-736	-542	-190	191	-49	28	120	53
Capital account	150	181	151	265	223	249	221	217	214
Project grants	150	181	151	265	223	249	221	217	214
External debt cancellation	0	0	0	0	0	0	0	0	0
Financial account	-1,302	-917	-693	-455	-31	-298	-193	-96	-162
Foreign direct and portfolio investments	708	1,283	889	1,485	1,016	1,204	1,349	1,515	1,710
Other investments	-2,010	-2,200	-1,582	-1,939	-1,407	-1,502	-1,542	-1,611	-1,872
Public sector (net)	122	355	308	1,015	641	290	329	388	431
Disbursements	161	447	334	1,078	917	356	366	431	509
Of which: budget support	69	30	31	32	554	21	24	78	146
Amortization due	-39	-92	-26	-63	-276	-66	-38	-43	-78
Monetary authority <sup>2</sup>	0	0	0	0	0	0	0	0	0
Commercial banks (net)	-173	-158	-200	-48	-67	-82	-98	-76	-73
Other sectors	-1,959	-2,397	-1,690	-2,907	-1,621	-1,710	-1,773	-1,923	-2,230
Errors and omissions	91	0	548	0	0	0	0	0	0
Overall balance	83	383	244	448	428	528	744	948	1,076
Financing									
Central bank net reserves (- increase)	-83	-383	-244	-448	-428	-528	-744	-948	-1,076
Of which: Gross reserve change	-138	-418	-270	-436	-416	-510	-708	-881	-999
Of which: Use of Fund resources	55	35	27	-12	-12	-18	-36	-67	-77
Exceptional financing	0	0	0	0	0	0	0	0	0
Financing gap	782	0	592	0	1,688	1,818	1,926	2,124	2,582
<i>Memorandum items:</i>									
Current account (percent of GDP)	7.1	5.9	1.2	3.0	1.2	2.6	2.9	3.0	3.4
Current account, excluding grants (percent of GDP)	5.6	5.0	0.5	2.2	0.5	1.8	2.2	2.4	2.8
Change in copper export volume (percent)	23.1	11.0	0.3	10.8	10.8	14.5	12.9	13.3	13.6
Copper export price (U.S. dollars per tonne)	6,951	9,017	8,018	8,976	7,767	7,785	7,693	7,577	7,454
Total official grants (percent of GDP)	2.4	1.8	1.6	2.0	1.7	1.9	1.6	1.4	1.3
Gross international reserves <sup>3</sup>	1,896	2,378	2,167	2,815	2,583	3,092	3,801	4,682	5,681
In months of prospective imports	3.0	3.4	3.0	3.7	3.3	3.5	3.9	4.2	4.6
GDP (millions of U.S. dollars)	16,190	19,088	19,206	21,459	20,289	22,446	24,808	27,479	30,452

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

<sup>1</sup> Disbursements and imports related to possible future hydropower projects are not included.

<sup>2</sup> SDR allocation, long-term liability.

<sup>3</sup> Reserves are evaluated at market exchange rates.

**Table 7. Zambia: Financial Soundness Indicators, 2006–11**  
(Percent, unless otherwise indicated)

	2006	2007	2008	2009	2010	2011
<b>Capital adequacy</b>						
Regulatory capital to risk-weighted assets	20.4	18.6	18.6	22.3	22.1	19.2
Tier 1 regulatory capital to risk-weighted assets	18.0	15.9	15.7	18.9	19.1	16.8
Capital to total assets	9.1	9.2	9.9	11.2	10.4	10.2
<b>Asset quality</b>						
Past due advances (NPL) to total advances	11.3	8.8	7.2	12.6	14.8	10.4
Loan loss provisions to nonperforming loans	83.3	73.2	104.6	86.6	80.3	76.7
Bad debt provisions to advances	6.8	6.4	6.1	10.9	11.9	8.0
<b>Loan concentration</b>						
Households	16.1	15.5	30.1	30.9	32.2	30.8
Government and parastatals	6.2	9.1	1.9	3.1	4.6	4.7
Agriculture	23.9	18.4	16.0	19.0	17.6	17.7
Mining	4.4	4.1	5.0	4.0	3.2	4.2
Manufacturing	14.0	11.0	11.0	12.0	12.7	12.2
Construction	2.4	3.7	4.0	3.0	5.8	4.2
Services	9.8	13.3	9.0	8.0	7.0	7.1
Others	23.2	25.0	23.0	20.0	16.9	54.5
<b>Earnings and profitability</b>						
Return on average assets	5.1	4.7	3.6	2.1	2.9	3.7
Return on equity	30.6	35.1	20.8	9.4	12.1	25.5
Gross interest income to total gross income	60.2	63.1	66.6	65.1	58.6	59.3
Gross noninterest income to total gross income	39.8	36.9	33.4	34.9	41.4	40.7
Net spread	...	...	...	6.1	-0.5	0.0
Net interest margin	12.8	11.5	10.4	10.7	9.0	8.1
<b>Liquidity</b>						
Liquid assets to total assets	41.3	37.6	35.5	38.0	43.8	40.3
Liquid assets to total deposits	49.6	46.0	49.9	52.6	58.5	53.3
Advances to deposits ratio	49.0	57.4	66.3	60.1	53.1	57.1
<b>Exposure to foreign currency</b>						
Foreign currency loans to total gross loans	34.0	32.5	42.1	36.4	32.8	39.1
Foreign currency liabilities to total liabilities	61.2	27.1	35.8	38.0	39.6	39.0
Net open position in foreign exchange to capital	9.4	7.1	6.9	2.5	4.1	5.5

Source: Bank of Zambia.



**Table 8. Zambia: Millennium Development Goals, 2000–10**

	2000	2003	2005	2007	2008	2009	2010	2015 Target
<b>Goal 1: Eradicate extreme poverty and hunger<sup>1</sup></b>								
Population below US\$ 1 dollar a day (in percent)	...	76.0	64.0	...	...	...	...	29.0
Poverty gap ratio at US\$ 1 dollar a day (in percent)	...	36.0	33.0	...	...	...	...	31.0
Percentage share of income or consumption held by poorest 20 percent	...	6.0	4.0	...	...	...	...	...
Poverty headcount, national (percent of population)	...	...	68.0	...	...	...	...	...
Prevalence of underweight children (percent of children under 5)	...	23.0	...	14.9	...	...	...	11.0
Population below minimum level of dietary energy consumption (percent)	...	47.0	46.0	44	...	...	...	29.0
<b>Goal 2: Achieve universal primary education<sup>2</sup></b>								
Net primary enrollment ratio (percent of relevant age group)	62.6	79.8	88.9	95.4	97.55008	93.04302	91.36795	100.0
Primary completion rate, total (percent of relevant age group)	56.3	66.2	77.5	88.1	92.66941	96.57928	90.15184	...
Percentage of pupils starting grade 1 who reach grade 5 (percent)	98.5	...	...	...	...	...	...	100.0
Youth literacy rate (percent ages 15–24)	69.4	...	69.5	75.1	...	74.58735	...	100.0
<b>Goal 3: Promote gender equality<sup>3</sup></b>								
Ratio of girls to boys in primary and secondary education (percent)	90.4	92.3	...	93.0	95.5	95.8	...	100.0
Ratio of young literate females to males (percent ages 15–24)	...	...	91.2	...	...	82.3	...	100.0
Share of women employed in the nonagricultural sector (percent)	...	...	...	...	...	...	...	...
Proportion of seats held by women in national parliament (percent)	10.0	12.0	15.0	14.6	15.2	15.2	14	30.0
<b>Goal 4: Reduce child mortality<sup>4</sup></b>								
Under 5 mortality rate (per 1,000)	182.0	182.0	182.0	149.6	145.1	141.3	...	56.0
Infant mortality rate (per 1,000 live births)	102.0	102.0	93.8	90.8	87.9	86.3	...	30.0
Immunization, measles (percent of children under 12 months)	85.0	84.0	84.0	85	85	85	...	...
<b>Goal 5: Improve maternal health<sup>5</sup></b>								
Maternal mortality ratio (modeled estimate, per 100,000 live births)	750.0	...	560.0	...	470	...	...	162.0
Births attended by skilled health staff (percent of total)	47.1	43.4	...	46.5	...	...	...	...
<b>Goal 6: Combat HIV/AIDS, malaria, and other diseases<sup>6</sup></b>								
Prevalence of HIV, total (percent of population ages 15–49)	16.7	16.9	17.0	13.7	13.6	13.5	...	16 or less
Contraceptive prevalence rate (percent of women ages 15–49)	53.5	34.0	...	40.8	...	...	...	...
Number of children orphaned by HIV/AIDS	570,000	630,000	...	600,000	...	...	...	...
Incidence of tuberculosis (per 100,000 people)	605.0	658.3	600.1	506	468	433	...	...
Tuberculosis case detection rate (% all forms)	69.00	74.0	72.0	74	74	80	...	...
<b>Goal 7: Ensure environmental sustainability<sup>7</sup></b>								
Forest area (percent of total land area)	60.1	...	67.7	...	...	...	66.5	...
Terrestrial protected areas (% of total land area)	...	36.0	...	36.0	36.0	36.0	...	...
GDP per unit of energy use (PPP US\$ per kg oil equivalent)	1.3	1.4	1.5	2.2	2.3	2.4	...	...
CO2 emissions (metric tons per capita)	0.17	0.19	...	0.14	0.15	...	...	...
Access to an improved water source (percent of population)	...	58.0	...	58	...	60	...	75.5
Access to improved sanitation (percent of population)	...	55.0	...	52	...	49	...	87.0
Access to secure tenure (percent of population)	...	...	...	...	...	...	...	...
<b>Goal 8: Develop a Global Partnership for Development<sup>8</sup></b>								
Youth unemployment rate (percent of total labor force ages 15–24)	...	...	...	...	...	...	...	...
Fixed line and mobile telephones (per 1,000 people)	17.0	29.2	89.2	...	...	...	...	...
Internet users (per 1,000 people)	0.2	1.0	2.9	5.03	...	...	...	...

Source: *World Development Indicators* Database, April 2008.

Note: In some cases the data are for earlier or later years than those stated.

<sup>1</sup> Goal 1 targets: Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day. Halve, between 1990 and 2015, the proportion of people who suffer from hunger.

<sup>2</sup> Goal 2 target: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.

<sup>3</sup> Goal 3 target: Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015.

<sup>4</sup> Goal 4 target: Reduce by two-thirds, between 1990 and 2015, the under-5 mortality rate.

<sup>5</sup> Goal 5 target: Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio.

<sup>6</sup> Goal 6 targets: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS. Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases.

<sup>7</sup> Goal 7 targets: Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources. Halve, by 2015, the proportion of people without sustainable access to safe drinking water.

<sup>8</sup> Goal 8 targets: Develop further an open, rule-based, predictable, nondiscriminatory trading and financial system. Address the special needs of the least developed countries. Address the special needs of landlocked countries and small island developing countries.

## Annex I. Revenue Mobilization and Growth Friendly Tax Reforms in Zambia<sup>1</sup>

### 1. Revenue mobilization will be crucial if Zambia is to create space for higher spending on priority sectors.

Non-mining revenues have displayed a worrying decline in recent years and the composition of tax revenues is unbalanced; relying more on direct income taxes while consumption and property taxes are underexploited. Growth-friendly non-mining tax policy reforms will be necessary to ensure a stable and permanent revenue base, improve economic efficiency, and support employment and growth.

### 2. Revenue mobilization should target indirect taxes which are less distortive and better capture informal activity.

Taxes on consumption, such as VAT and excises, are less distortive than taxes on income and capital since they do not alter labor supply and investment incentives. Also, while income taxes only capture formal sector activity and provides incentives to participate in the formal sector, consumption-based taxes indirectly also capture income originating from informal activities. In addition, indirect taxes account for most of the deterioration in tax yields over the recent years, and reversing this trend can generate considerable revenues. Performance of value added and excise taxes can be improved significantly through revenue administration measures and eliminating exemptions and zero-rating of products.

### 3. More effective use of property taxes would also help increase revenue mobilization and ensure a stable revenue base.

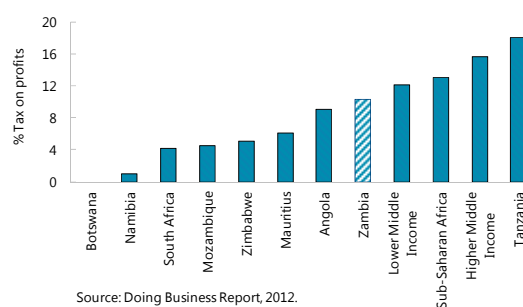
Property taxes are underutilized in Zambia as the property rating system is

inadequate and outdated. If designed properly, property taxes can provide a stable revenue base with a progressive tax burden.

### 4. Finally, there is scope to shift the burden of taxation away from labor taxes, which could support employment growth.

The 2012 Doing Business Report finds that labor taxes (pension and workman compensation contributions) in Zambia constitute 10.4 percent of profits, whereas countries like South Africa and Mozambique have much lower labor taxes relative to profits. There might be scope to lower labor taxes in a revenue-neutral way, through reducing tax holidays and other incentives on corporate income taxes.

Figure AI.1. Labor Taxes in Zambia and Comparators



Source: Doing Business Report, 2012.

<sup>1</sup> Prepared by Elif Arbatli.

## Annex II. Mining Revenues and the Mining Fiscal Regime in Zambia

### 1. Although copper exports constitute about 30 percent of GDP in Zambia, mining revenues have remained relatively low.<sup>1</sup>

This has been driven by a combination of generous development agreements that were signed with the international mining companies in the late 1990s with the privatization of the industry, and the fact that most mining companies had to undertake large capital expenditures to revive production and therefore had losses that they have carried forward.

Figure AII.2. Copper Revenues and Copper Exports in Zambia, 2005–11

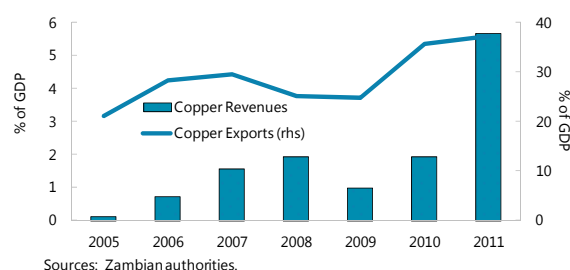


Table AII.1. Changes to the Fiscal Regime in Zambia, 2006–12

	2006	2007	2008	2009	2012
Royalty	0.6%	3%	3%	3%	6%
Corporate Income Tax	25%	30%	30%	30%	30%
Variable Income Tax	No	No	Yes	Yes	Yes
Hedging activity considered part of mining business?	Yes	Yes	No	Yes	No
Windfall Tax	No	No	Yes	No	No
Capital Expenditure Allowance	100% for all capital expenditure	100% for all capital expenditure	100% for prospecting and exploratory work, 25% for other capital expenditures	100% for all capital expenditure	100% for all capital expenditure
Loss Carry Forward	10 years	10 years	10 years	10 years	10 years
Custom Duties	Exports are zero rated.	Exports are zero rated.	15% for unprocessed copper	15% for unprocessed copper	10% for unprocessed copper
Withholding Taxes (non-treaty rate):					
On income of foreign subcontractors and interest	0%	0%	15%	15%	15%
On dividends and payments to residents	0%	0%	0%	0%	0%

Source: Zambia Revenue Agency.

### 2. During 2007–08, Zambia made significant changes to the mining fiscal regime designed to increase revenues.<sup>1</sup>

Some of the major changes included an increase in the corporate income tax and royalty rates, and the introduction of a variable income tax schedule. The 2012 budget introduced additional changes such as a

further increase in the royalty rate for base metals.

**3. Mining related revenues should increase in the medium-term for a number of reasons:** (i) More companies should reach tax-paying status; (iii) the current fiscal regime has a considerably higher average effective tax rate; and (iv) the authorities have launched a program, backed by Fund technical assistance, to improve mining revenue administration, which is a key prerequisite for achieving the

<sup>1</sup> Prepared by Elif Arbatli

higher potential revenues from mining. Sustaining investment in the mining sector and increasing production levels depend on the investor burden that is imposed by the fiscal regime and the investment environment. Compared to other mineral producers, the current fiscal regime in Zambia has a relatively large government take, especially for high cost projects (see table below). The fiscal regime in Zambia is also not very progressive with respect to changes in international copper prices, which can deter investment in periods of low price expectations. Maintaining a positive investment environment will depend on the ability to offer a stable fiscal regime,

and, similar to the case of the non-mining sector, improving infrastructure, and lowering the costs of doing business.

	<b>Fraser Institute Policy Potential Index 2011</b> (Out of 79)	<b>Behre Dolbear Country Rankings 2011</b> (Out of 25 countries)
Australia	17	1
Botswana	14	8
Canada	36	2
Chile	8	3
China	62	13
Ghana	47	10
Mongolia	54	10
Peru	48	8
South Africa	67	19
<b>Zambia</b>	<b>57</b>	<b>19</b>

Sources: McMahon and Cervantes , 2010/11 and Behre Dolbear 2011.  
Notes: For the Fraser Institute rankings we use the ranking of Western Australia for Australia and British Columbia for Canada.

### Annex III. Optimal Level of International Reserves for Zambia

**1. Zambia has gradually increased its gross official reserves over the past few years.** Reserves reached about US\$2.2 billion (3 months of prospective imports) as of December 2011, from about US\$180 million (1 month of prospective imports) in 2001. The authorities consider 3 months of import coverage, the so-called "rule of thumb," to be

the goal for the medium term. They are building up reserves to insure themselves against shocks, but whether 3 months is enough needs to be assessed. This annex analyzes the optimal level of international reserves for Zambia, adopting a new methodology to assess reserve adequacy.

#### A. Potential Sources of External Sector Shocks

**2. The most common external shocks for developing countries are related to terms of trade shocks, sudden reversals in capital inflows (including grants), and global interest rate hikes (Becker et al., 2007).** To determine the frequency and nature of the shocks to which Zambia is exposed, we take into account Zambia's specific characteristics, focusing on the first two types of shocks:

**3. Terms of trade: Zambia's exports (about 38 percent of GDP) are highly concentrated in copper (around 75 percent of total export receipts).** However, the international price of copper has shown a high degree of volatility, in particular during the last decade. The standard deviation of international copper price variations in 2001–10 was five times the standard deviation in 1980 and 2000.

**4. Sudden reversals in capital flows: To assess this potential risk, we analyze Zambia's capital inflows for 2000–10:**

**5. Annual average net foreign direct investment (FDI):** Is estimated to have been about US\$500 million (5¾ percent of GDP), and historically has mainly been in the mining sector. It is expected to increase because large new mining and energy projects are now

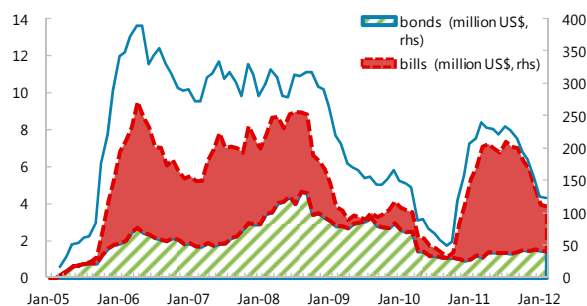
getting underway. FDI is projected to total US\$953 million in 2012 (4.7 percent of GDP).

**6. Annual average grant inflows, including current transfers:** Have been about US\$380 million (almost 5 percent of GDP). Even though the standard deviation for grants is lower than that for FDI, the inability to predict when these inflows will arrive within a given year could affect the build-up of reserves.

**7. Annual average loan disbursements: Have been around US\$140 million (around 2.6 percent of GDP).** The volatility of official disbursements has been much lower than that of loans and FDI.

**8. Foreign portfolio investment: Foreign investment in Zambian government securities began in early 2005, after Zambia reached its HIPC completion point.** The stock of government securities in the hands of foreigners increased rapidly to almost US\$280 million (almost 14 percent of the total stock) in mid-2006, but has declined since then. Foreigners' holding of Zambian government securities was around US\$110 million (around 4 percent of the total stock) in February

Figure AIII.2. Zambia: Foreign Holding of Government Securities (January 2005–February 2012)



Source: Bank of Zambia.

## B. Traditional Measures of Reserve Adequacy

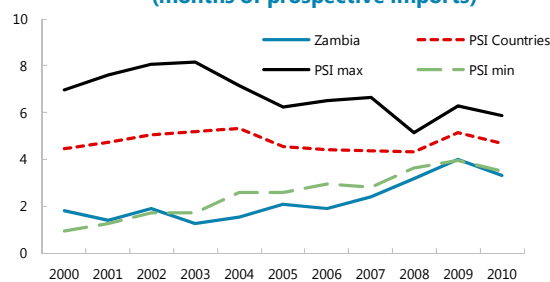
**9. Traditional reserve adequacy measures are useful as a starting point for further analysis.** Zambia's indicators are compared to that of a sample of selected African low-income "mature stabilizers" that have "graduated" from a PRGF arrangement to a PSI.<sup>1</sup> All but one of these countries have benefited from HIPC and MDRI relief.

**10. Reserve-to-imports:** This indicator is particularly relevant for countries that are exposed to terms of trade shocks but do not have significant access to international capital markets. It represents the number of months a country can support its level of imports after all inflows stop. Reserves equivalent to 3 months of prospective imports is the rule of thumb most commonly used (Wijnholds, 2001). While there is no theoretical basis for this rule, in many cases it would be justified by the need to meet unexpected external shocks with reserves to avoid a sudden stop in essential imports (import compression). Although Zambia's reserve coverage has climbed above 3 months of imports, it is still well below the average coverage of the considered PSI countries.

<sup>1</sup> Cape Verde, Mozambique, Rwanda, Senegal, Tanzania, and Uganda.

**11. Reserves-to-short-term external debt by remaining maturity:** This indicator is useful for countries that have significant access to international capital markets and are therefore vulnerable to a financial account crisis.

Figure AIII.3. Reserves (months of prospective imports)



Sources: IMF World Economic Outlook and staff estimates.

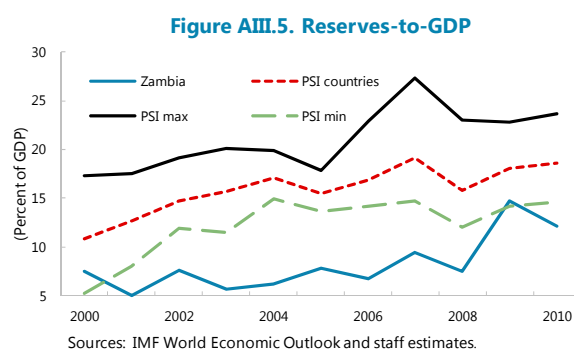
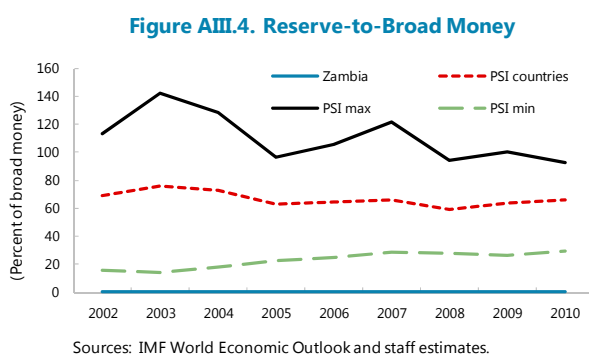
**12. Countries could benefit by holding enough international reserves to cover all obligations falling due within the coming year.** The Guidotti-Greenspan rule recommends that reserves be at least equal to the stock of short-term debt. Both Zambia and the considered PSI countries comfortably exceed the threshold.

**13. Reserves-to-broad money:** This indicator is relevant for countries facing a potential capital flight risk and is particularly

appropriate for countries with a pegged exchange rate. However, even countries with flexible exchange rates must be concerned about the possibility of a run on their currency due to contagion or spillover effects. According to Wijnholds (2001), the usual benchmark range for this indicator would be between 5 percent and 20 percent, with countries having a more flexible exchange rate regime holding a lower ratio. For both Zambia and the comparator PSI countries, the reserve-to-broad money ratio is above the suggested threshold. However, the average reserve-to-

broad money ratio for the comparator PSI countries has been higher than in Zambia during most of the last decade.

**14. Reserves-to-GDP:** Even though there is no threshold for this indicator, it allows cross-country comparisons. Zambia's international reserves-to-GDP ratio has been less than half the average of the ratio for the PSI countries for most of the last decade, but has strengthened over time. Zambia's reserves reached 12 percent of GDP in 2010, still well below the average of 19 percent registered by the comparator PSI countries.



## C. Potential Shock to the Current Account Based on Historical Patterns

**15. Current account shocks have traditionally been the main cause of balance of payments instability in low-income countries.** For that reason, it is useful to assess the reserve coverage against a possible current account shock. Table 1 shows the estimated the import coverage required to fully absorb through change in reserves a one-standard deviation shock to the current account and GDP (as a percent of GDP). As can be seen, Zambia's current account balance has been more volatility than in most of the considered PSI countries—reserves equivalent to 1.9 months of prospective imports would be

needed to fully absorb a one standard deviation current account shock. Similarly, reserves equivalent to 1.4 months of prospective imports would be needed to fully absorb a one standard deviation shock to exports, and reserves equivalent to 2.4 months imports would be needed to fully absorb a one standard deviation shock to copper prices. These reserve requirements are relatively large compared to the current reserve coverage of 3 months of prospective imports. In particular, a one standard deviation copper price shock

would almost exhaust Zambia's 2011 level of reserves.<sup>2</sup> In contrast, the current reserve coverage in the comparator PSI countries would allow them to fully absorb the various

shocks with comfortable margins. Based on this, Zambia would benefit from building up reserves further.

**Table AIII.1. Reserve Coverage Impact on Zambia and PSI Countries**

	Current Account /GDP		Exports /GDP		Actual Reserve Coverage (2011) <sup>3</sup>
	Std. Dev. (1990–10) <sup>1</sup>	Reserve Coverage Impact <sup>2</sup>	Std. Dev. (1990–10) <sup>1</sup>	Reserve Coverage Impact <sup>2</sup>	
Cape Verde	3.7	0.6	11.1	1.8	3.1
Mozambique	3.7	0.9	8.5	2.1	4.4
Rwanda	3.5	1.3	2.8	1.1	5.8
Senegal	2.6	0.7	2.6	0.7	4.9
Tanzania	3.6	0.9	4.0	1.0	4.2
Uganda	3.1	0.9	4.3	1.3	4.6
<b>Zambia</b>	<b>7.1</b>	<b>1.9</b>	<b>5.0</b>	<b>1.4</b>	<b>3.0</b>
<i>Memo</i>					
Average	3.9	1.0	5.5	1.3	4.3
Minimum	7.1	1.9	11.1	2.1	5.8
Maximum	2.6	0.6	2.6	0.7	3.0

Sources: WEO and IMF staff estimates.

<sup>1</sup> Standard deviation (percent of GDP), 1990–2010.

<sup>2</sup> Reserve coverage in months of prospective imports needed to cover one-standard deviation shock.

<sup>3</sup> reserves in months of prospective imports.

## D. Assessing the Optimal Reserve Level for Zambia

**16. Countries hold international reserves to build a buffer against external shocks that could undermine domestic economic welfare.**<sup>3</sup> Reserves mitigate the impact on welfare of a temporary balance of payments crises by reducing the fall in domestic output and consumption needed to restore external balance. Moreover, higher reserves may themselves reduce the

probability of a crisis. However, because building up reserves has a cost, it is necessary to understand the probability and the likely size of shocks in order to properly balance the cost and benefits of holding larger reserves.

**17. Dabla-Norris et al. (2011) and IMF (2011) have proposed a new methodology to assess reserve adequacy for low-income countries that takes into account both the costs and benefits of holding reserves.** In this framework, a crisis is defined as a sharp drop in domestic absorption, and the optimal level of reserves is determined when the crisis prevention and mitigation benefits of holding

2. The standard deviation is around US\$2000 per metric ton for the period between 1990 and 2010.

3. See, among others, Jeanne and Ranciere (2006, 2008) and Zizenman and Lee (2008). Countries may also accumulate reserves for mercantilist motive (Dooley et al., 2004).



reserves, defined in terms of reducing the expected cost of a crisis, are balanced against the net financial cost of reserves, defined as foregone investment opportunities measured by the marginal product of capital. An important feature of the approach is that optimal reserve holdings depend on country characteristics and policy fundamentals.

**18. Based on this methodology, we estimate the optimal level of reserves in the context of potential large external shocks to the country; i.e. we set the shock variables** (terms of trade, external demand, FDI to GDP ratio, and aid to GDP ratio) at the bottom 10 percentile of the country-specific distribution over the past ten years (2001–10).<sup>4</sup> Fundamentals (CPIA and fiscal balance) were set at their 2010 levels.

**Table AIII.2. Variables for Zambia**

Government balance, percent of GDP	-3.1
CPIA	3.3
External demand growth, percent	2.7
Terms of trade growth, percent	-16
Change in FDI to GDP	-3.3
Change in aid to GDP	-3.2

Sources: IMF World Economic Outlook, World Bank and staff calculations.

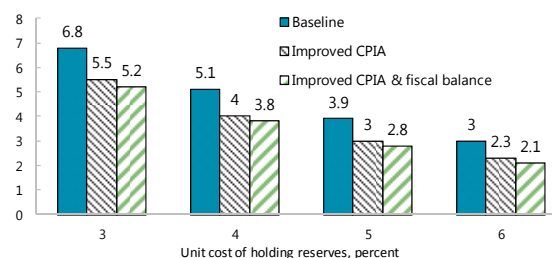
**19. Reserve holdings calculated under these assumptions would be interpreted as the optimal level of reserves in the face of large shocks,** given that the fiscal deficit is 3.1 percent of GDP and the CPIA index, which measures institutional strength, is 3.3. Under these baseline assumptions, the optimal level

4. Longer time series may be more ideal, but we focus on the past 10 years given the significant structural changes experienced by the Zambian economy.

of reserves varies from 4 to 8 months of imports, depending on the unit cost of holding reserves. If higher CPIA (3.8, median of PSI countries) is assumed, optimal reserve holdings will be smaller than the baseline because stronger institutions lower the probability of a crisis. Further assuming an improved fiscal position (a deficit of 2 percent), optimal reserve holdings will become even smaller.

**20. In light of the large infrastructure investment needs, the opportunity costs of holding reserves could be relatively high for Zambia.** The average return of FDI in the last two years is estimated to be between 4.5 and 5 percent. In this context, the model suggests that the optimal reserve holdings for Zambia would be between 4 and 4.5 months of imports.<sup>5</sup>

**Figure AIII.6. Zambia: Optimal Level of Reserves (baseline, months of imports)**

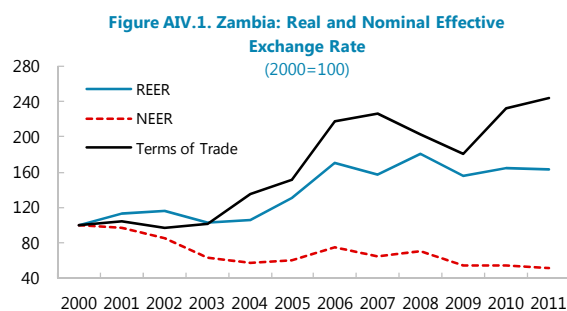


Source: "Staff estimations based on the new reserve adequacy framework for LICs (see "Optimal Precautionary Reserves for Low Income Countries: A Cost Benefit Analysis", IMF, WP/11/249).

5. Note that this estimate is based on current imports. Import coverage based on prospective imports tends to be slightly lower than that based on current imports. In this sense, if we take the higher end (4.5 months of current imports) as the optimal level, the reserve coverage in terms of prospective imports would be between 4 and 4.5 months of prospective imports.

## Annex IV. External Stability Analysis

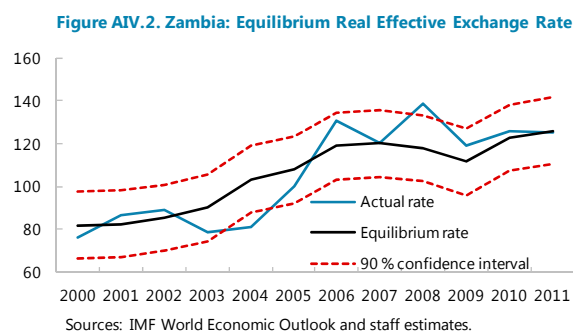
**1. The real effective exchange rate (REER) has appreciated steadily since the early 2000s, mostly because the improvement in Zambia's terms of trade** (Figure 1). High copper prices were a major driver of the terms of trade, and copper contributed about three-fourths of export earnings. The subsequent depreciation in 2008–09 was mainly driven by a plunge in copper prices, and outflows of portfolio capital, associated with the global financial crisis. In 2011, the level of the REER was similar to the one observed in 2010.



**2. We have used the standard tools developed by the IMF's Consultative Group on Exchange Rate (CGER) to assess the Zambian exchange rate.** For that purpose, the current account balance presented in the official Balance of Payments (Table 6) has been adjusted. The official balance of payments for Zambia show the (mostly foreign owned) mining companies as keeping a large share of the mining export proceeds as rapidly increasing deposits abroad. This large financial account outflow is simply the estimated difference between the declared mining-related inflows and outflows, conventionally recorded in the financial account instead of in the current account. To better reflect the true

impact of the mining related flows on the foreign currency market, and the exchange rate and international reserves, for the purpose of this exercise, these outflows have been reclassified to the current account as additional dividends.

**3. The real effective exchange rate is close to its estimated equilibrium level, and there's no evidence of misalignment** (Table 1).<sup>1</sup> The estimates based on the external sustainability and macroeconomic balance approaches suggest that the exchange rate currently could be moderately undervalued, while the estimate of the real equilibrium exchange rate suggests that the exchange rate is close to its equilibrium value. The estimates also suggest that the steady appreciation of the REER since the early 2000s was largely driven by changes in the fundamentals, including in particular the rise in copper prices (Figure 2).



<sup>1</sup> The estimates of Zambia's equilibrium exchange rate and underlying current account are further complicated by additional data weaknesses and structural breaks limiting the scope for precise point estimates.

Table AIV. 1. Zambia: Exchange Rate Assessment Results<sup>1</sup>

Approach	Current account/GDP		REER
	Norm	Underlying <sup>2</sup>	Gap
External sustainability <sup>3</sup>	-8.6	-4.7	-11.5
Macroeconomic balance	-7.1	-4.7	-7.1
Equilibrium real exchange rate			0

<sup>1</sup> Based on IMF CGER methodology and extension by Francis Vitek (IMF 2009, unpublished).

<sup>2</sup> Medium-term adjusted current account ratio to GDP.

<sup>3</sup> Current account norm consistent with a stable net foreign liability ratio of

**4. Zambia still has room to improve its competitiveness.** Even though the exchange rate appears to be broadly in line with the fundamentals, Zambia's Doing Business Indicators suggest that there is a need for improvements in a number of non-price areas. The World Bank's Doing Business 2012 report ranks Zambia 84th out of 183 countries. Zambia compares favorably to other comparator countries in the region in the areas of starting a business, getting credit, paying

taxes, and enforcing contracts (Table 2). However, even though Zambia's scores are better than for the whole SSA region, it needs to improve in the areas of resolving insolvency, protecting investors, and trading across borders. In addition, Zambia ranks 112th out of 142 countries in the Global Competitiveness Index produced by the World Economic Forum (2012). Areas for improvement highlighted are related to infrastructure, health and primary education, higher education and training, and labor market efficiency. In all these areas, Zambia ranks between the position 105 and 125. Dialogue with private sector representatives, including in the mining sector, confirms the issues raised by these competitiveness studies: low productivity levels, higher cost of transport and factor inputs, inadequate transport infrastructure, and shortage of skilled labor.

Table AIV.2. Zambia Ranking in Doing Business Indicators

	Business Environment	Starting a Business	Getting Electricity	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Resolving Insolvency
South Africa	35	44	124	1	10	44	144	81	28
Botswana	54	90	91	48	46	22	150	65	56
Namibia	78	125	105	24	79	102	142	40	69
<b>Zambia</b>	<b>84</b>	<b>69</b>	<b>118</b>	<b>8</b>	<b>79</b>	<b>47</b>	<b>153</b>	<b>85</b>	<b>71</b>
Swaziland	124	161	158	48	122	60	148	171	77
<b>SSA</b>	<b>137</b>	<b>123</b>	<b>122</b>	<b>110</b>	<b>112</b>	<b>115</b>	<b>134</b>	<b>117</b>	<b>96</b>
Lesotho	143	144	141	150	147	61	147	102	127
Angola	172	167	120	126	65	149	163	181	160

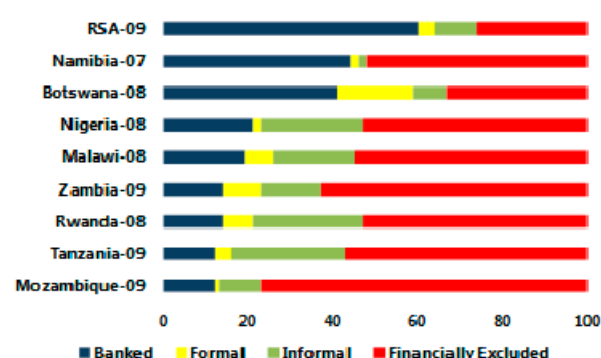
Source: World Bank, Doing Business report.

## Annex V. Challenges to Financial Services in Zambia<sup>1</sup>

**1. The financial sector in Zambia has continued to experience significant growth in the last decade, but access to financial services continues to be low and lags behind Zambia's peers.** About 63 percent of the adult population does not have access to any form of financial services (FINSCOPE Report 2009). Access to financial services is particularly limited for informal sector workers (about 89 percent of the total workforce).

**2. Lack of competition, and regulatory and structural bottlenecks have impeded the delivery of financial services.** Financial penetration has been weak for the following reasons: (i) high overhead costs for the provision of savings and payment services to the large unbanked population; (ii) lack of clarity in the enforcement of collateral even though legal framework exists; (iii) information asymmetry especially from the informal sector; (iv) relatively high funding costs, arising from competition for large institutional depositors; (v) lack of long-term capital; (vi) non-existence of bookkeeping records and corporate governance in the micro, small, and medium enterprises (MSMEs), making it difficult for banks to conduct accurate due diligence; and (vi) in some cases, lack of experience and skills by banks to assess, manage and price risks.

Figure V.1. Access to Finance: Comparing Zambia with Peers



**3. These policy and structural bottlenecks have complicated the delivery of credit and financial services more generally, especially to the informal sector in Zambia.** Where banks have been willing to extend credit; these have been at relatively large premiums, resulting in higher interest rate spreads.

Table AV.1. Access to Credit

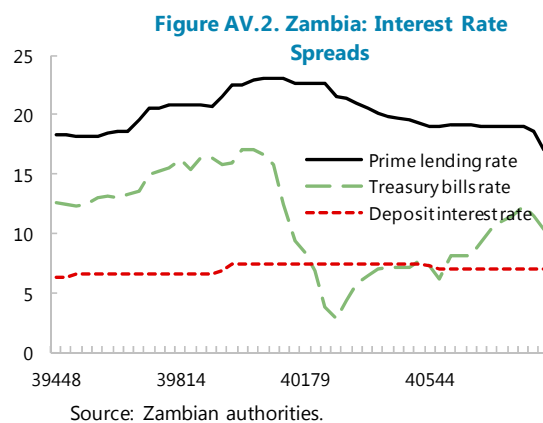
	Zambia	Sub-Saharan Africa	OECD Average
Rank (out of 183)	8	...	...
Strength of legal rights index (0-10)	9	6	9
Depth of credit information index (0-6)	5	2	5
Public registry coverage (% of adults)	0	3	10
Private bureau coverage (% of adults)	4	5	63

Source: World Bank Doing Business, 2012.

**4. A key element for improving access is to address these challenges with a holistic approach, focusing on financial inclusion as a whole.** In particular, efforts should be made to: (i) review the legal and regulatory framework to facilitate development of innovative products tailored

<sup>1</sup> Prepared by Maxwell Opoku-Afari

to the needs of the informal sector, and where possible, creating special purpose vehicles to deliver these services ); (ii) facilitate the use of new technologies for provision of credit, savings, and payment services, including mobile banking and “smart cards” and other micro banking tools; (iii) review provisions underpinning the credit reference bureau to make it central to credit appraisal and delivery; and (iv) provide business support services to MSMEs to ensure minimum standards in bookkeeping and corporate governance. Cross-country evidence shows that addressing these bottlenecks has usually come with rationalization of interest rate spreads, and promotes financial inclusion.





# ZAMBIA

## STAFF REPORT FOR THE 2012 ARTICLE IV CONSULTATION—DEBT SUSTAINABILITY ANALYSIS

May 24, 2012

Approved By  
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Prepared by:  
International Monetary Fund and  
International Development Association

*Based on the Joint Fund-Bank Debt Sustainability Framework for Low-income Countries (LIC DSA), Zambia's risk of external debt distress remains low as all debt indicators stay below the indicative policy thresholds throughout the projection period (2012–32). Under the baseline and alternative scenarios, all external debt sustainability indicators remain below their relevant thresholds. The public DSA suggests that Zambia's overall public sector debt dynamics are sustainable in light of the current size and the evolution of the domestic debt stock. However, besides sound macroeconomic policies, both strong debt management and project appraisal capacity are needed to maintain debt sustainability in the face of access to international capital markets and a gradual increase in non-concessional borrowing.*

## BACKGROUND

**1. Zambia's stock of external and public debt remains relatively low.** External public and publicly guarantee debt was about 11.6 percent of GDP in 2011 (US\$ 2.1 billion).<sup>1</sup> Most of the public external debt is multilateral (around 70 percent) and contracted with concessional terms. In 2011, the Government of Zambia guaranteed the contracting of external debt for US\$ 285 million

(about 1.5 percent of GDP) mainly related to ZESCO (the government owned electric power utility company). Zambia's total public sector debt also remains low at about 28 percent of GDP at end-2011. As for the composition, the share of domestic debt is about 60 percent. In 2012, authorities plan to issue an international sovereign bond.

## UNDERLYING DSA ASSUMPTIONS

**2. The Zambia's strong economic performance is expected to continue in 2012.** GDP is projected to expand by 7.7 percent, reflecting strong growth in copper production (an increase of 23 percent in mining output compared to a decline of 5 percent in 2011) and non-maize agriculture, and an expansionary fiscal policy (increase in public investment of 1 percentage point of GDP). Inflation is projected to remain around 6 percent, in line with the authorities' stated objective. The external current account surplus is projected to be just above 1 percent of GDP (compared to 1.3 percent of GDP in 2011), reflecting both higher export volumes of copper and higher non-traditional exports. However, international reserves are projected to rise to 3.3 months of prospective imports, reflecting a continued current account surplus and strong capital inflows, including a debut US\$500

international sovereign bond issue. The baseline scenario assumes prudent economic policies to provide fiscal space for growth-enhancing expenditure while safeguarding macroeconomic stability. The medium-term assumptions are summarized in Box 1.

**3. The baseline scenario assumes new public external borrowing in the order of US\$2.8 billion in 2012–17** (US\$2.3 billion without the proceeds of the international bond; i.e.; between 1.3 and 1.6 percent of GDP). Of this, US\$ 970 million would be in non-concessional terms (US\$470 million without the proceeds of the international bond). It is assumed that the proportion of non-concessional borrowing would gradually increase from 26 percent of total disbursements in 2013 to around 50 percent by 2032.

**4. The baseline scenario includes potential contingent liabilities arising from the public sector pension fund (PSPF).** Currently, without any policy or reform adjustment, the PSPF would barely manage to cover half its expenses with contributions over the next twenty years, registering an actuarial deficit between 0.3 and 0.4 percent of GDP annually until 2030. Staff

<sup>1</sup> Zambia's stock of external debt declined substantially from about 86 percent of GDP in 2005 to around 9 percent in 2006 as a result of debt cancellation under the HIPC Initiative and MDRI.

estimates that budget transfers to fill the funding gap for pension benefits payable from this fund together with the normal pension contributions of the government would reach 0.9 percent of GDP in 2012 and, in the absence of reforms, could rise to 2 percent of GDP by 2012. This underscores the need of a reform to ensure that the pension scheme does not jeopardize fiscal sustainability.

## Public Investment and Growth

**5. The impact of new borrowing to finance public infrastructure investment on debt sustainability depends critically on its impact on growth.** A number of empirical studies generally find a positive impact of public investment on growth both through a direct impact on economic activity and through spillover effects on private investment.<sup>2</sup> Among these studies, Burnside and Dollar (1997) found that a sustained increase in grant-financed investment by one percent of GDP raised real GDP growth in low-income countries with good policy implementation on a sustained basis by about 0.4 percentage points.<sup>3</sup> Gupta et al. (2011) find that the unadjusted output elasticity of public capital would be 0.25 (however, the marginal product of (unadjusted) capital would be around 0.5).<sup>4</sup> Also, the growth impact of public investment on growth is affected by how it is financed. Aschauer (2000) found that external debt financing of public investment could reduce the impact on growth, depending on the quality

and effective use of the investment, as well as the financing costs.

**6. The baseline scenario projects an increase in capital expenditure in the medium term.** The capital expenditure ratio to GDP would increase from 5.8 percent in 2011 to 9.4 percent in 2016. Between 20 and 35 percent of such increase would be financed with external borrowing, a mix between concessional and non-concessional resources. Based on the empirical studies mentioned above, it would be expected that the projected increase in capital expenditure would raise real GDP growth between 1.25 and 1.75 percentage points over the medium term.

<sup>2</sup> Romp, W. and J. de Haan (2007), "Public Capital and Economic Growth: A Critical Survey," *Perspektiven der Wirtschaftspolitik* 8, 1–140 presents a survey on this topic.

<sup>3</sup> Burnside, Craig, and David Dollar (1997), "Aid Spurs Growth in a Sound Policy Environment." *Finance and Development*, December 1997.

<sup>4</sup> The authors present an alternative measure of efficiency-adjusted capital for which the output elasticity would be around 0.15.



### Box 1: Baseline Macroeconomic Assumptions

**Economic growth:** Real GDP growth is assumed to pick up to about 8 percent in the medium term supported by mining activity (copper production would double by 2016, from 0.7 million tons to 1.4 million tons, giving current production and investment plans), large infrastructure investment (capital expenditures would increase from 5.8 percent of GDP in 2011 to 9.4 percent of GDP in 2016) and increased electricity generation capacity. In the long run, the mining sector remains to be important, but economic diversification is also assumed in other areas such as electricity generation, agriculture, and tourism, and the economy is expected to grow at around 6.5 percent annually.

**Inflation:** The current objective of monetary policy is to reduce inflation to below 7 percent by end-2012 and maintain single digits thereafter. Prudent monetary and fiscal policies are expected to reduce annual inflation to around 5 percent in the medium term.

**External sector:** Mining output is expected to remain strong over the medium term, and the copper price growth is assumed to stabilize at around US\$ 3.3 per pound in the long run. Copper, whose exports have been particularly strong in 2010 and 2011, will remain Zambia's most important export (around 75 percent of total exports). However, nontraditional exports would increase their rate of growth in the medium term (between 16–18 percent) consistent with higher non-mining output growth and infrastructure expenditure that would positively impact on economic diversification and then stabilize at around 10 percent for the rest of the period.

Foreign direct investment (FDI) is expected to rise in the medium term to around 5.5 percent of GDP, especially in mining, manufacturing and transport sectors, but stabilize in the long run at around 3.5 percent of GDP. The current account surplus is expected to increase in the medium-term (at around 3.5 percent of GDP) and then gradually decline (a current account deficit of 0.2 percent of GDP at the end of the period) as the growth rate of copper production decelerates from around 15 percent in the medium term to around 7.5 percent.

**Government revenue and expenditure:** Fiscal policy will be geared at creating space for spending needs to enhance the economic diversification of Zambia. To this end, higher revenue will be mobilized through improvements in tax administration, especially with respect to the VAT and mining taxes, and new tax policy measures that would broaden the tax base (reduction of tax incentives and exemptions and introducing new taxes). As a result, revenues would rise gradually from 22 percent of GDP in 2012 to 26 percent by 2032. Expenditures would stay at an elevated level in the near term mainly due to the growth-critical infrastructure investment and spending on education and health, but are expected to remain at about 26 percent of GDP, with current spending contained.

**Government financing:** External financing is expected to be between 1.3 and 1.6 percent of GDP (excluding the sovereign bond in 2012) in the medium term to finance social and capital spending. However, external financing is expected to decline to about 1 percent of GDP over the long term.

<sup>5</sup> In 2012, the proportion of non-concessional borrowing would be around 40 percent.

## EXTERNAL DEBT SUSTAINABILITY

### Baseline scenario

**7. External debt burden indicators rise in the medium term, but are expected to remain below the indicative policy thresholds** (Figure 1 and Table 1).<sup>6</sup> The stock of external public and publicly guaranteed (PPG) debt is expected to rise to around 13 percent of GDP by 2017 but gradually decline thereafter. The present value (PV) of PPG debt to GDP increases to 11 percent by 2016 before declining to around 6 percent by 2032, well below the 40 percent threshold. The PV of debt to exports increases to 23 percent by 2013, and falls gradually thereafter, remaining well below the threshold of 150 percent. The PV of PPG debt to revenue increases from 24 percent in 2011 to about 44 percent in 2016, falling thereafter, but it is below the threshold of 250 percent.<sup>7</sup>

### Stress test

**8. External debt sustainability is maintained under an array of stress tests.** The standard sensitivity analysis points to a low risk of debt distress (Table 3 and Figure 1), where debt burden indicators remain below their thresholds

<sup>6</sup> The World Bank's Country Policy and Institutions Assessment (CPIA) ranks Zambia as a medium performer (the average 2008–10 CPIA is 3.46). Thus, the external debt burden thresholds for Zambia are (i) a PV of debt-to-GDP at: 40 percent; (ii) a PV of debt-to-exports at: 150 percent; (iii) a PV of debt-to-revenue at: 250 percent; (iv) a debt service-to-exports at: 20 percent; and (v) a debt service-to-revenue at: 30 percent.

<sup>7</sup> The large residuals in Table 1 are caused by the fact that the official balance of payments for Zambia show the (mostly foreign owned) mining companies as keeping a large share of their mining export proceeds as rapidly increasing deposits abroad.

after the shocks. In particular, under the historical scenario (which uses the historical average of the non-interest current account, FDI flows, real GDP growth, and the GDP deflator for the complete period) the ratio of the PV of debt-to-GDP would increase significantly, but would still remain below the threshold. In addition, regarding the bound tests, the most extreme stress test for the debt burden indicators assumes an export value growth equivalent to its historical average minus one standard deviation in 2013–14.<sup>8</sup> This shock scenario illustrates Zambia's vulnerability to copper price volatility and the need to diversify its export base. Under this scenario, the ratio of the PV of debt-to-GDP doubles by 2014, but would still remain below the threshold.

**9. External debt indicators would deteriorate, but remain below their respective thresholds under an alternative high investment-low growth scenario.** This scenario assumes that there are constraints in the appraisal, selection and project implementation capacity of public investment projects in the medium term, which are not mitigated through the implementation of PFM reforms. In this context and based on the discussion provided in paragraphs 5 and 6, real GDP growth would remain about 1 percentage point below the baseline in the medium term (around 7 percent) and about ½ percentage points in the longer term (around 6 percent). In addition, we assume that the decline in GDP growth will have a negative impact on exports growth, in particular to non-traditional exports, due to lower

<sup>8</sup> The most extreme stress test is defined as the test that yields the highest ratio in 2022.

infrastructure capacity (for the purpose of this exercise it is assumed that the calculated decline in GDP growth would reduce the exports-to-GDP ratio by two percentage points in the medium term and one percentage point in the long term). The lower growth would result in lower domestic revenues and a higher financing requirement that are assumed to be met by additional external borrowing on commercial terms. The additional

financing would rise to about 2 percent of GDP in the medium term. By the end of the forecast period, the domestic primary balance would deteriorate by about 1 percent of GDP compared to the baseline. Under this scenario, the ratio of the PV of debt-to-GDP increases by around 13 percentage points by 2022 compared to the baseline, but would still be below the threshold.

## PUBLIC DEBT SUSTAINABILITY

### Baseline scenario

**10. Zambia's public debt rises slightly in the medium term, but declines gradually over time.** Under the baseline assumptions, the PV of public debt to GDP ratio would reach 24 percent in 2015 and comes down thereafter to about 16 percent by 2032.

### Stress test

**11. Risks to public debt dynamics would mainly come from a deterioration of the fiscal position and negative shocks to GDP growth.** Under the alternative scenarios, the results under

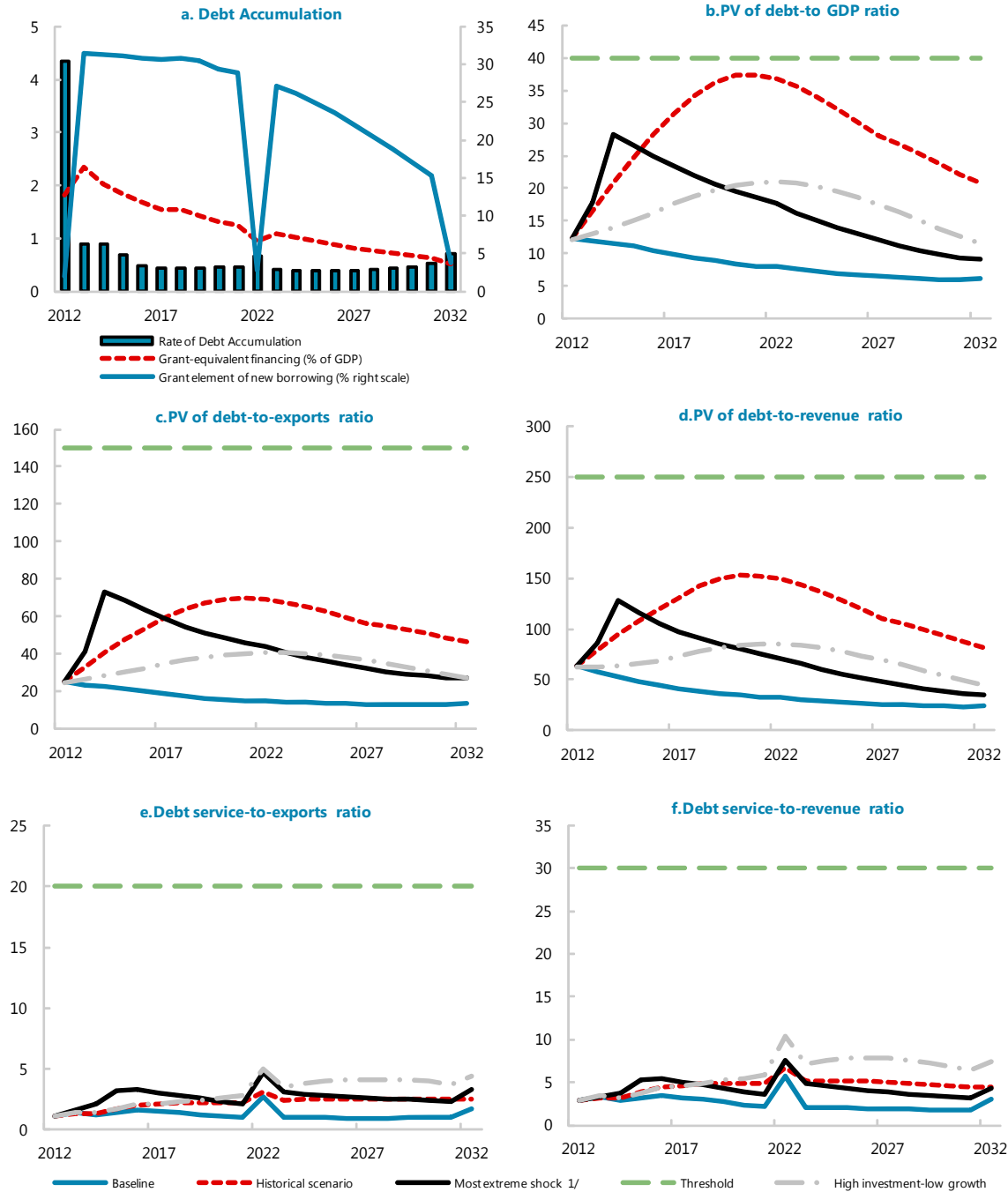
the fixed primary balance scenario (fixing the primary balance unchanged from 2012) underscore the negative effects of not continuing to maintain fiscal discipline over the medium term to maintain public debt sustainability (Figure 2 and Table 4). Under this scenario, PV of debt-to-GDP ratio and PV of debt-to-revenue ratio keep rising over time. Regarding the bound tests, risk would mainly come from lower GDP growth. The latter underscore both the need for Zambia to diversify its production structure to mitigate vulnerabilities related to potential declines in mining production in the long term and to improve public investment management in order to ensure productivity-enhancing investments.

## CONCLUSIONS

**12. Zambia is considered at low risk of debt distress.** The external debt indicators remain below their thresholds in the baseline scenario and bound tests. The public debt DSA also suggests that Zambia's overall public sector debt dynamics is sustainable in light of the current size and the evolution of the domestic debt stock in the baseline scenario. On the other hand, the fixed primary balance scenario demonstrates the need

for an improved fiscal position. Finally, in addition to sound macroeconomic policies, strengthening debt management and developing project appraisal capacity are needed in order to maintain debt sustainability and productivity-enhancing investments in the face of access to international markets and a gradual increase in non-concessional borrowing.

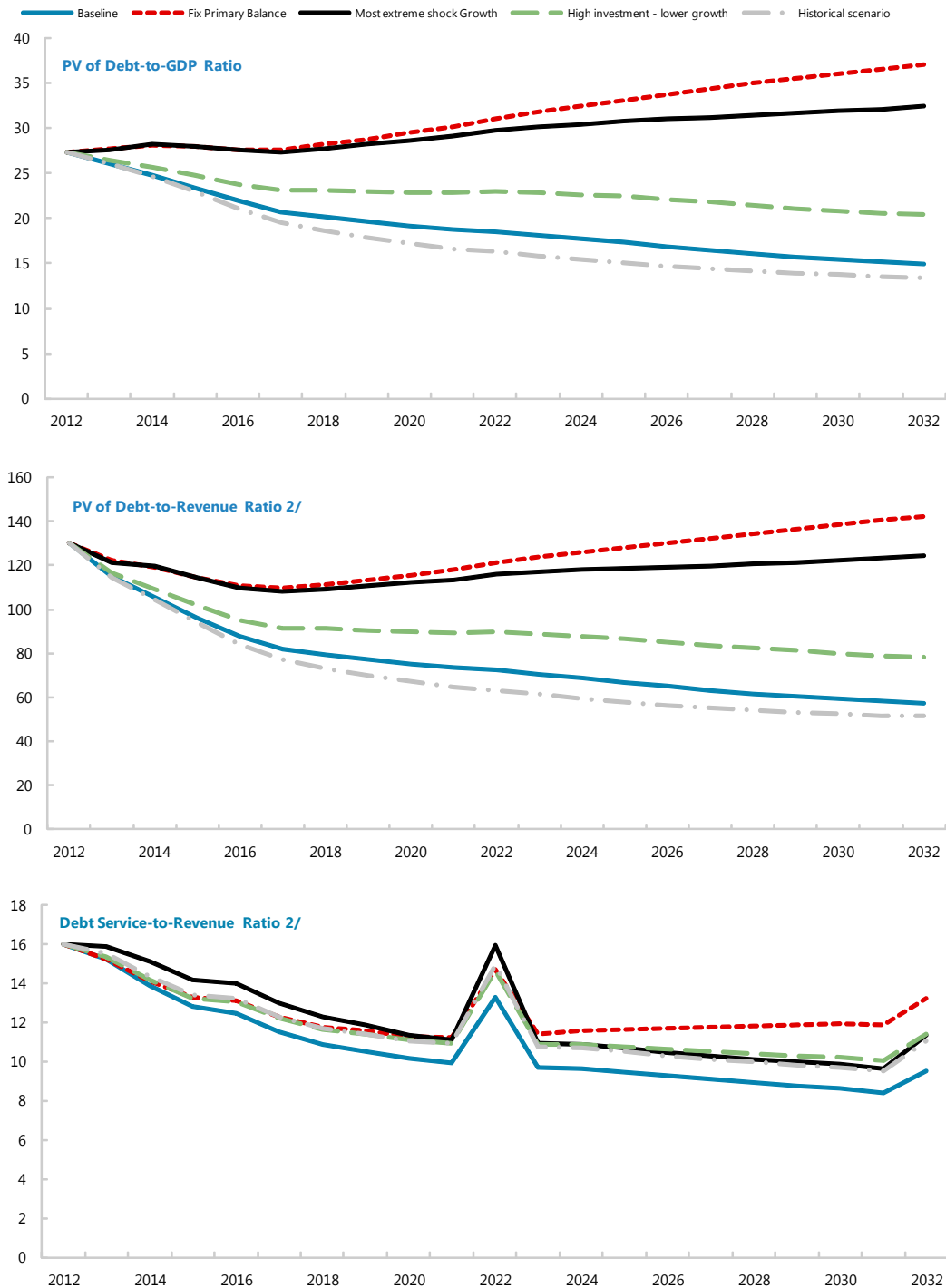
**Figure 1. Zambia: Indicators of Public and Publicly Guaranteed External Debt under Alternatives Scenarios, 2012-2032 1/**



Sources: Country authorities; and staff estimates and projections.

1/ With respect to bound tests, the most extreme stress test that yields the highest ratio in 2022 corresponds to an export shock (figures b, c, and d).

**Figure 2. Zambia: Indicators of Public Debt Under Alternative Scenarios, 2012-2032 1/**



Sources: Country authorities; and staff estimates and projections.  
 1/ The most extreme stress test is the test that yields the highest ratio in 2022.  
 2/ Revenues are defined inclusive of grants.

**Table 1.: External Debt Sustainability Framework, Baseline Scenario, 2009-2032 1/**  
(In percent of GDP, unless otherwise indicated)

	Actual			Historical Average <sup>6/</sup>	Standard Deviation <sup>6/</sup>	Projections						2018-2032 Average		
	2009	2010	2011			2012	2013	2014	2015	2016	2017		2012-2017 Average	2022
<b>External debt (nominal) 1/</b>	<b>11.7</b>	<b>10.5</b>	<b>12.1</b>			<b>14.8</b>	<b>14.6</b>	<b>14.5</b>	<b>14.1</b>	<b>13.5</b>	<b>13.0</b>		<b>10.8</b>	<b>8.2</b>
o/w public and publicly guaranteed (PPG)	11.1	10.0	11.6			14.4	14.2	14.0	13.6	13.1	12.5		10.4	7.9
Change in external debt	0.1	-1.2	1.6			2.8	-0.2	-0.2	-0.4	-0.6	-0.5		-0.4	0.0
Identified net debt-creating flows	-5.8	-13.4	-7.1			-6.8	-8.8	-9.1	-9.3	-9.8	-9.9		-6.7	-3.5
<b>Non-interest current account deficit</b>	<b>-4.4</b>	<b>-7.2</b>	<b>-1.4</b>	<b>4.6</b>	<b>7.4</b>	<b>-1.4</b>	<b>-2.9</b>	<b>-3.3</b>	<b>-3.5</b>	<b>-3.8</b>	<b>-4.0</b>		<b>-1.6</b>	<b>0.1</b>
Deficit in balance of goods and services	-3.4	-12.8	-7.5			-7.0	-8.2	-8.5	-8.7	-9.0	-9.2		-8.5	-3.7
Exports	35.6	47.7	48.1			49.3	50.6	51.1	51.6	52.6	53.1		53.4	44.6
Imports	32.2	34.9	40.5			42.3	42.4	42.6	42.9	43.6	43.9		44.9	40.9
Net current transfers (negative = inflow)	-4.0	-2.7	-2.0	-3.9	1.4	-1.8	-1.9	-1.7	-1.6	-1.5	-1.4		-1.0	-0.5
o/w official	-2.4	-1.5	-0.8			-0.6	-0.7	-0.7	-0.6	-0.6	-0.6		-0.4	-0.2
Other current account flows (negative = net inflow)	3.1	8.3	8.2			7.4	7.2	7.0	6.8	6.7	6.6		7.8	4.3
<b>Net FDI (negative = inflow)</b>	<b>-3.3</b>	<b>-3.9</b>	<b>-4.4</b>	<b>-6.2</b>	<b>2.5</b>	<b>-4.7</b>	<b>-5.1</b>	<b>-5.2</b>	<b>-5.3</b>	<b>-5.4</b>	<b>-5.4</b>		<b>-4.7</b>	<b>-3.3</b>
<b>Endogenous debt dynamics 2/</b>	<b>1.9</b>	<b>-2.3</b>	<b>-1.3</b>			<b>-0.7</b>	<b>-0.7</b>	<b>-0.7</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.5</b>		<b>-0.4</b>	<b>-0.3</b>
Contribution from nominal interest rate	0.2	0.1	0.1			0.2	0.4	0.4	0.5	0.4	0.4		0.3	0.2
Contribution from real GDP growth	-0.8	-0.7	-0.6			-0.9	-1.1	-1.0	-1.0	-1.0	-0.9		-0.7	-0.5
Contribution from price and exchange rate changes	2.5	-1.7	-0.9			...	...	...	...	...	...		...	...
<b>Residual (3-4) 3/</b>	<b>5.9</b>	<b>12.2</b>	<b>8.7</b>			<b>9.6</b>	<b>8.5</b>	<b>8.9</b>	<b>8.9</b>	<b>9.2</b>	<b>9.4</b>		<b>6.3</b>	<b>3.5</b>
o/w 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/	...	...	9.6			12.7	12.3	12.0	11.5	10.9	10.3		8.3	6.4
In percent of exports	...	...	19.9			25.9	24.4	23.5	22.3	20.7	19.4		15.6	14.3
<b>PV of PPG external debt</b>	<b>...</b>	<b>...</b>	<b>9.1</b>			<b>12.3</b>	<b>11.9</b>	<b>11.6</b>	<b>11.1</b>	<b>10.5</b>	<b>9.9</b>		<b>8.0</b>	<b>6.1</b>
In percent of exports	...	...	19.0			25.0	23.5	22.7	21.5	19.9	18.6		14.9	13.7
<b>In percent of government revenues</b>	<b>...</b>	<b>...</b>	<b>42.9</b>			<b>63.9</b>	<b>57.0</b>	<b>52.7</b>	<b>48.3</b>	<b>44.2</b>	<b>41.1</b>		<b>32.4</b>	<b>24.0</b>
<b>Debt service-to-exports ratio (in percent)</b>	<b>11.4</b>	<b>2.5</b>	<b>1.8</b>			<b>4.4</b>	<b>3.7</b>	<b>3.3</b>	<b>3.4</b>	<b>2.8</b>	<b>3.3</b>		<b>4.3</b>	<b>2.7</b>
<b>PPG debt service-to-exports ratio (in percent)</b>	<b>1.2</b>	<b>0.6</b>	<b>0.4</b>			<b>1.1</b>	<b>1.4</b>	<b>1.2</b>	<b>1.4</b>	<b>1.6</b>	<b>1.5</b>		<b>2.7</b>	<b>1.7</b>
<b>PPG debt service-to-revenue ratio (in percent)</b>	<b>2.7</b>	<b>1.7</b>	<b>1.0</b>			<b>2.9</b>	<b>3.4</b>	<b>2.8</b>	<b>3.2</b>	<b>3.5</b>	<b>3.2</b>		<b>5.8</b>	<b>3.0</b>
Total gross financing need (Billions of U.S. dollars)	-0.5	-1.6	-0.9			-0.8	-1.4	-1.7	-1.9	-2.4	-2.6		-2.2	-2.9
Non-interest current account deficit that stabilizes debt ratio	-4.5	-6.0	-2.9			-4.2	-2.7	-3.1	-3.1	-3.2	-3.5		-1.2	0.1
<b>Key macroeconomic assumptions</b>														
Real GDP growth (in percent)	6.4	7.6	6.6	5.8	1.1	7.7	8.3	7.8	8.0	7.9	7.7	7.9	6.9	6.7
GDP deflator in US dollar terms (change in percent)	-17.8	17.5	9.2	12.5	16.3	-0.1	2.2	2.5	2.6	2.7	2.8	2.1	3.0	3.1
Effective interest rate (percent) 5/	1.6	1.1	1.4	1.4	0.5	1.8	2.8	2.9	3.5	3.5	3.4	3.0	3.1	3.1
Growth of exports of G&S (US dollar terms, in percent)	-13.3	69.4	17.2	27.3	29.6	10.3	13.7	11.7	11.7	12.9	11.8	12.0	9.6	8.0
Growth of imports of G&S (US dollar terms, in percent)	-24.7	37.2	35.2	18.5	20.0	12.2	10.9	11.1	11.6	12.5	11.4	11.6	10.2	8.5
Grant element of new public sector borrowing (in percent)	...	...	...	...	...	2.0	31.5	31.3	31.1	30.9	30.7	26.3	2.9	3.8
Government revenues (excluding grants, in percent of GDP)	16.0	17.8	21.3	...	...	19.3	20.9	22.0	22.9	23.7	24.0	...	24.7	25.5
Aid flows (in Billions of US dollars) 7/	0.4	0.3	0.3	...	...	0.7	0.7	0.7	0.7	0.7	0.7	...	0.9	1.3
o/w Grants	0.4	0.3	0.3	...	...	0.4	0.4	0.4	0.4	0.4	0.4	...	0.5	0.7
o/w Concessional loans	0.0	0.0	0.0	...	...	0.3	0.3	0.3	0.3	0.3	0.3	...	0.4	0.7
Grant-equivalent financing (in percent of GDP) 8/	...	...	...	...	...	1.8	2.3	2.0	1.8	1.7	1.6	...	1.0	0.5
Grant-equivalent financing (in percent of external financing) 8/	...	...	...	...	...	29.9	68.3	66.6	66.0	65.6	65.5	...	35.5	30.0
<b>Memorandum items:</b>														
Nominal GDP (Billions of US dollars)	12.8	16.2	18.8			20.3	22.4	24.8	27.5	30.4	33.7		55.3	143.1
Nominal dollar GDP growth	-12.5	26.4	16.3			7.6	10.7	10.5	10.8	10.8	10.6	10.2	10.2	10.0
PV of PPG external debt (in Billions of US dollars)	...	...	1.6			2.5	2.6	2.8	3.0	3.2	3.3		4.4	8.7
(PVT-PVT-1)/GDPT-1 (in percent)	...	...	...			4.4	0.9	0.9	0.7	0.5	0.5	1.3	0.7	0.7
Gross workers' remittances (Billions of US dollars)	0.0	0.0	0.0			0.1	0.1	0.1	0.1	0.1	0.1		0.1	0.2
PV of PPG external debt (in percent of GDP + remittances)	...	...	9.1			12.3	11.9	11.6	11.1	10.4	9.8		7.9	6.1
PV of PPG external debt (in percent of exports + remittances)	...	...	18.9			24.9	23.4	22.5	21.4	19.8	18.5		14.8	13.7
Debt service of PPG external debt (in percent of exports + remittances)	...	...	0.4			1.1	1.4	1.2	1.4	1.6	1.5		2.7	1.7

Sources: Country authorities; and staff estimates and projections.

1/ Includes both public and private sector external debt.

2/ Derived as  $[r - g - \rho(1+g)] / (1+g+\rho+gp)$  times previous period debt ratio, with  $r$  = nominal interest rate;  $g$  = real GDP growth rate, and  $\rho$  = 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.

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: Public Sector Debt Sustainability Framework Baseline Scenario, 2009–32**  
(In percent of GDP, unless otherwise indicated)

	Actual			Average	5/ Standard Deviation	Estimate					Projections				
	2009	2010	2011			2012	2013	2014	2015	2016	2017	2012-17 Average	2022	2032	2018-32 Average
<b>Public sector debt 1/</b>	28.1	26.6	27.7			29.5	28.4	27.2	26.0	24.5	23.4		21.0	16.8	
o/w foreign-currency denominated	11.1	10.0	11.6			14.4	14.2	14.0	13.6	13.1	12.5		10.4	7.9	
Change in public sector debt	2.9	-1.4	1.1			1.8	-1.1	-1.1	-1.3	-1.4	-1.2		-0.4	-0.3	
Identified debt-creating flows	-1.4	-1.0	0.5			1.2	-0.5	-0.3	-0.1	-0.2	-0.2		-0.2	-0.4	
Primary deficit	0.9	1.4	2.4	-0.2	1.5	2.5	0.5	0.5	0.8	0.7	0.6	0.9	0.4	0.2	0.3
Revenue and grants	18.9	19.6	22.7			21.0	22.7	23.5	24.3	25.0	25.2		25.6	26.0	
of which: grants	2.9	1.8	1.4			1.7	1.8	1.6	1.4	1.3	1.2		0.9	0.5	
Primary (noninterest) expenditure	19.7	20.9	25.1			23.5	23.2	24.0	25.1	25.7	25.8		26.0	26.2	
Automatic debt dynamics	-2.6	-2.7	-2.3			-1.7	-1.4	-1.2	-1.3	-1.2	-1.1		-0.8	-0.6	
Contribution from interest rate/growth differential	-1.3	-2.0	-2.1			-1.4	-1.2	-1.0	-1.1	-1.0	-0.9		-0.6	-0.4	
of which: contribution from average real interest rate	0.2	-0.1	-0.5			0.6	1.1	1.1	1.0	0.9	0.9		0.8	0.7	
of which: contribution from real GDP growth	-1.5	-2.0	-1.6			-2.0	-2.2	-2.1	-2.0	-1.9	-1.7		-1.4	-1.1	
Contribution from real exchange rate depreciation	-1.3	-0.7	-0.1			-0.3	-0.3	-0.2	-0.2	-0.2	-0.2		...	...	
Other identified debt-creating flows	0.3	0.3	0.4			0.4	0.4	0.4	0.4	0.3	0.3		0.3	0.0	
Privatization receipts (negative)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recognition of implicit or contingent liabilities	0.3	0.3	0.4			0.4	0.4	0.4	0.4	0.3	0.3		0.3	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 (specify, e.g. bank recapitalization)	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Residual, including asset changes	4.3	-0.4	0.5			0.6	-0.6	-0.8	-1.1	-1.3	-1.0		-0.3	0.1	
<b>Other Sustainability Indicators</b>															
<b>PV of public sector debt</b>	...	...	25.2			27.4	26.1	24.8	23.4	21.9	20.7		18.5	15.0	
o/w foreign-currency denominated	...	...	9.1			12.3	11.9	11.6	11.1	10.5	9.9		8.0	6.1	
o/w external	...	...	9.1			12.3	11.9	11.6	11.1	10.5	9.9		8.0	6.1	
PV of contingent liabilities (not included in public sector debt)	...	...	...			...	...	...	...	...	...		...	...	
Gross financing need 2/	8.3	9.6	9.7			10.4	8.3	7.9	7.7	7.4	6.9		6.9	5.3	
PV of public sector debt-to-revenue and grants ratio (in percent)	...	...	111.2			130.3	115.0	105.4	96.2	87.8	82.2		72.4	57.6	
PV of public sector debt-to-revenue ratio (in percent)	...	...	118.3			142.1	125.1	112.9	102.1	92.5	86.3		75.1	58.6	
o/w external 3/	...	...	42.9			63.9	57.0	52.7	48.3	44.2	41.1		32.2	24.0	
Debt service-to-revenue and grants ratio (in percent) 4/	15.9	16.6	11.8			16.0	15.2	13.9	12.8	12.5	11.5		13.3	9.5	
Debt service-to-revenue ratio (in percent) 4/	18.8	18.2	12.5			17.4	16.6	14.9	13.6	13.1	12.1		13.8	9.7	
Primary deficit that stabilizes the debt-to-GDP ratio	-2.1	2.8	1.4			0.7	1.6	1.7	2.0	2.1	1.8		0.8	0.5	
<b>Key macroeconomic and fiscal assumptions</b>															
Real GDP growth (in percent)	6.4	7.6	6.6	5.8	1.1	7.7	8.3	7.8	8.0	7.9	7.7	7.9	6.9	6.7	6.9
Average nominal interest rate on forex debt (in percent)	1.0	0.6	0.9	1.2	0.6	1.4	2.6	2.6	2.6	2.6	2.7	2.4	2.6	2.9	2.6
Average real interest rate on domestic debt (in percent)	1.7	0.0	-2.5	-2.5	2.5	3.4	6.0	6.5	6.0	6.4	6.3	5.8	6.0	6.0	6.0
Real exchange rate depreciation (in percent, + indicates depreciation)	-12.4	-6.4	-1.5	-7.1	11.5	-2.7	...	...	...	...	...	...	...	...	...
Inflation rate (GDP deflator, in percent)	10.7	11.7	10.6	14.9	4.2	6.8	4.8	4.6	4.5	4.6	4.7	5.0	5.0	5.0	5.0
Growth of real primary spending (deflated by GDP deflator, in percent)	-0.1	0.1	0.3	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Grant element of new external borrowing (in percent)	...	...	...	...	...	2.0	31.5	31.3	31.1	30.9	30.7	26.3	2.9	3.8	...

Sources: Country authorities; and staff estimates and projections.

1/ [Indicate coverage of public sector, e.g., general government or nonfinancial public sector. Also whether net or gross debt is used.]

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.

**Table3. Zambia: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2012–32**  
(In percent)

	Projections							2032
	2012	2013	2014	2015	2016	2017	2022	
<b>PV of debt-to GDP ratio</b>								
<b>Baseline</b>	12	12	12	11	10	10	<b>8</b>	6
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2012-2032 1/	12	17	21	25	28	31	<b>37</b>	21
A2. New public sector loans on less favorable terms in 2012-2032 2	12	13	13	13	12	12	<b>11</b>	10
A3. Alternative Scenario : High investment-low growth	12	13	14	15	16	18	<b>21</b>	11
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	12	12	12	12	11	10	<b>8</b>	6
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	12	18	28	27	25	23	<b>18</b>	9
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	12	13	13	12	12	11	<b>9</b>	7
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	12	12	13	12	11	11	<b>9</b>	6
B5. Combination of B1-B4 using one-half standard deviation shocks	12	11	10	10	9	9	<b>7</b>	6
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	12	17	16	16	15	14	<b>11</b>	9
<b>PV of debt-to-exports ratio</b>								
<b>Baseline</b>	25	24	23	22	20	19	<b>15</b>	14
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2012-2032 1/	25	33	41	48	54	59	<b>69</b>	47
A2. New public sector loans on less favorable terms in 2012-2032 2	25	25	25	25	24	23	<b>20</b>	23
A3. Alternative Scenario : High investment-low growth	25	27	28	30	32	35	<b>41</b>	27
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	25	23	22	21	20	18	<b>15</b>	14
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	25	41	73	69	63	59	<b>44</b>	27
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	25	23	22	21	20	18	<b>15</b>	14
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	25	25	25	24	22	20	<b>16</b>	14
B5. Combination of B1-B4 using one-half standard deviation shocks	25	23	20	19	18	16	<b>13</b>	13
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	25	23	22	21	20	18	<b>15</b>	14
<b>PV of debt-to-revenue ratio</b>								
<b>Baseline</b>	64	57	53	48	44	41	<b>32</b>	24
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2012-2032 1/	64	80	95	108	119	131	<b>149</b>	81
A2. New public sector loans on less favorable terms in 2012-2032 2	64	61	59	56	53	51	<b>44</b>	40
A3. Alternative Scenario : High investment-low growth	63	62	64	65	69	74	<b>85</b>	45
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	64	58	56	51	47	43	<b>34</b>	25
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	64	86	128	116	105	98	<b>71</b>	35
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	64	60	59	54	49	46	<b>36</b>	27
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	64	60	58	53	48	45	<b>35</b>	25
B5. Combination of B1-B4 using one-half standard deviation shocks	64	54	47	43	40	37	<b>29</b>	23
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	64	80	74	68	62	58	<b>45</b>	33



**Table3. Zambia: Sensitivity Analysis for Key Indicators of Public and Publicly Guaranteed External Debt, 2012–32 (continued)**  
(In percent)

<b>Debt service-to-exports ratio</b>								
<b>Baseline</b>	1	1	1	1	2	1	<b>3</b>	2
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2012-2032 1/	1	1	1	2	2	2	<b>3</b>	3
A2. New public sector loans on less favorable terms in 2012-2032 2	1	1	1	1	1	1	<b>1</b>	1
A3. Alternative Scenario : High investment-low growth	1	1	1	2	2	2	<b>5</b>	4
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	1	1	1	1	2	1	<b>3</b>	2
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	1	2	2	3	3	3	<b>5</b>	3
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	1	1	1	1	2	1	<b>3</b>	2
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	1	1	1	1	2	2	<b>3</b>	2
B5. Combination of B1-B4 using one-half standard deviation shocks	1	1	1	1	2	1	<b>3</b>	2
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	1	1	1	1	2	1	<b>3</b>	2
<b>Debt service-to-revenue ratio</b>								
<b>Baseline</b>	3	3	3	3	4	3	<b>6</b>	3
<b>A. Alternative Scenarios</b>								
A1. Key variables at their historical averages in 2012-2032 1/	3	3	3	4	4	5	<b>7</b>	4
A2. New public sector loans on less favorable terms in 2012-2032 2	3	3	2	3	3	3	<b>2</b>	2
A3. Alternative Scenario : High investment-low growth	3	3	3	4	4	5	<b>10</b>	7
<b>B. Bound Tests</b>								
B1. Real GDP growth at historical average minus one standard deviation in 2013-2014	3	3	3	3	4	3	<b>6</b>	3
B2. Export value growth at historical average minus one standard deviation in 2013-2014 3/	3	3	4	5	5	5	<b>8</b>	4
B3. US dollar GDP deflator at historical average minus one standard deviation in 2013-2014	3	4	3	4	4	4	<b>7</b>	3
B4. Net non-debt creating flows at historical average minus one standard deviation in 2013-2014 4/	3	3	3	3	4	3	<b>6</b>	3
B5. Combination of B1-B4 using one-half standard deviation shocks	3	3	3	3	3	3	<b>6</b>	3
B6. One-time 30 percent nominal depreciation relative to the baseline in 2013 5/	3	5	4	4	5	5	<b>8</b>	4
<i>Memorandum item:</i>								
Grant element assumed on residual financing (i.e., financing required above baseline) 6/	14	14	14	14	14	14	<b>14</b>	14
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 4. Zambia: Sensitivity Analysis for Key Indicators of Public Debt, 2012–32

	Projections							
	2012	2013	2014	2015	2016	2017	2022	2032
<b>PV of Debt-to-GDP Ratio</b>								
<b>Baseline</b>	27	26	25	23	22	21	19	15
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	27	26	25	23	21	20	16	13
A2. Primary balance is unchanged from 2012	27	28	28	28	28	28	31	37
A3. Permanently lower GDP growth 1/	27	26	25	24	23	22	21	23
A4. Alternative Scenario : High investment-lower growth	27	26	26	25	24	23	23	20
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	27	28	28	28	28	27	30	32
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	27	27	26	25	23	22	19	15
B3. Combination of B1-B2 using one half standard deviation shocks	27	27	26	26	25	25	27	29
B4. One-time 30 percent real depreciation in 2013	27	31	29	27	25	24	21	17
B5. 10 percent of GDP increase in other debt-creating flows in 2013	27	35	33	31	29	27	23	17
<b>PV of Debt-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	130	115	105	96	88	82	72	58
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	130	115	105	94	84	77	63	51
A2. Primary balance is unchanged from 2012	130	122	119	115	111	110	121	142
A3. Permanently lower GDP growth 1/	130	115	106	98	90	86	83	90
A4. Alternative Scenario : High investment-lower growth	130	117	109	102	95	92	90	78
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	130	121	120	115	110	108	116	124
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	130	118	111	101	92	86	75	59
B3. Combination of B1-B2 using one half standard deviation shocks	130	118	111	106	101	99	105	111
B4. One-time 30 percent real depreciation in 2013	130	137	124	113	102	95	81	65
B5. 10 percent of GDP increase in other debt-creating flows in 2013	130	153	140	127	116	108	91	67
<b>Debt Service-to-Revenue Ratio 2/</b>								
<b>Baseline</b>	16	15	14	13	12	12	13	10
<b>A. Alternative scenarios</b>								
A1. Real GDP growth and primary balance are at historical averages	16	16	14	13	13	12	15	11
A2. Primary balance is unchanged from 2012	16	15	14	13	13	12	15	13
A3. Permanently lower GDP growth 1/	16	15	14	13	13	12	14	11
A4. Alternative Scenario : High investment-lower growth	16	15	14	13	13	12	15	11
<b>B. Bound tests</b>								
B1. Real GDP growth is at historical average minus one standard deviations in 2013-2014	16	16	15	14	14	13	15	13
B2. Primary balance is at historical average minus one standard deviations in 2013-2014	16	15	14	13	13	12	13	10
B3. Combination of B1-B2 using one half standard deviation shocks	16	16	15	13	13	12	15	12
B4. One-time 30 percent real depreciation in 2013	16	16	15	14	14	13	16	11
B5. 10 percent of GDP increase in other debt-creating flows in 2013	16	15	15	14	13	12	14	10

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.



# ZAMBIA

## STAFF REPORT FOR THE 2012 ARTICLE IV CONSULTATION—INFORMATIONAL ANNEX

May 24, 2012

Prepared By

African Department  
(in consultation with other departments)

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## RELATIONS WITH THE FUND

(As of March 31, 2012)

### I. Membership Status: Joined: September 23, 1965; Article VIII

#### II. General Resources Account:

	SDR Million	Percent Quota
Quota	489.10	100.0
Fund holdings of currency	489.10	100.0
Reserve position in Fund	0.02	0.0

#### III. SDR Department

	SDR Million	Percent Allocation
Net cumulative allocation	469.14	100.0
Holdings	400.72	85.42

#### IV. Outstanding Purchases and Loans

	SDR Million	Percent Quota
ECF arrangements	269.62	55.12

#### V. Latest Financial Arrangements

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

#### VI. Projected Payments to the Fund

(SDR million; based on existing use of resources and present holdings of SDRs)

	Forthcoming				
	2012	2013	2014	2015	2016
Principal	6.05	11.70	23.09	43.44	49.88
Charges/interest	0.08	0.11	0.72	0.64	0.53
Total	6.14	11.81	23.81	44.08	50.41

<sup>1</sup> Formerly PRGF.

**VII. Implementation of HIPC Initiative**

	<b>Enhanced Framework</b>
Commitment of HIPC assistance	
Decision point date	Dec. 2000
Assistance committed (1999 NPV terms) <sup>2</sup>	
By all creditors (US\$ million)	2,499.20
<i>Of which:</i> 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 <sup>3</sup>	39.47
Total Disbursement	508.27

**VIII. Implementation of MDRI Assistance**

I. Total debt relief (SDR million) <sup>4</sup>	402.59			
Of which: MDRI	398.47			
HIPC	4.12			
II. Debt relief by facility (SDR million)				
	<b>Delivery date</b>	<b>GRA</b>	<b>PRGT</b>	<b>Total</b>
	January 2006	n/a	402.59	402.59

<sup>2</sup> Net present value (NPV) terms at the decision point under the enhanced framework.

<sup>3</sup> 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.

<sup>4</sup> 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.

## IX. 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.

## X. 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. However, the Fund urged the authorities to eliminate the exchange restriction shown by the accumulation of external payments arrears,

which is subject to Fund approval under Article VIII, as soon as possible.

## XI. Article IV Consultations

Zambia is on the standard 12-month Article IV Consultation cycle, subject to the provisions of the decision on consultation cycles approved on July 15, 2002. The Executive Board concluded the last Article IV consultation on December 14, 2009.

## XII. 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 April 30–May 15, 2002, and July 15–26, 2002. A mission from the Fund and the World Bank conducted a follow up FSAP in November 2008.

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.

**XIII. Technical Assistance (since 2003)****Resident advisors**

<b>Department</b>	<b>Dates</b>	<b>Position</b>
FAD	2002–03	Advisor on public expenditure Management

**Technical assistance missions**

<b>Department</b>	<b>Dates</b>	<b>Purpose</b>
MFD	January and May 2003	Development of foreign exchange interbank market, monetary operations, and reform of the financial system
	September 2003	Monetary operations, reform of the financial system, government securities market, and payments system
	April–October 2004	Resolution of nonbank financial institutions (three missions)
	April–May 2005	Liquidity management operations
	March 2006	Liquidity management, monetary and exchange rate policies
MCM	March 2009	Contingency planning and lender of last resort
	September 2007	Institutional arrangements and operation of the foreign exchange market.
	September 2007	Foreign exchange market
	November 2007	Risk-based supervision
	July 2008	Bank restructuring
	July 2009	Debt Management Strategy
	November 2011	Monetary Policy Framework
	January 2012	Inflation Targeting Framework
	January 2012	Payments System reforms
	January 2012	Central Bank Organizational Restructuring
STA	February 2012	Currency Management
	June 2004	Data ROSC
	April–May 2005	Monetary Statistics (GDDS)
	May 2005	Government Finance Statistics (GDDS)
	February 2006	Real Sector (GDDS)
	July 2006	Real Sector (GDDS)

Department	Dates	Purpose
FAD	April 2008	Monetary and Financial Statistics
	January 2009	Consumer Price Index
	April 2010	Government Finance Statistics
	July–August 2005	Regulations for the Public Finance Act
	November 2005	Fiscal regime for copper mining
	July 2006	Revenue administration
	August 2006	Follow up on fiscal arrangements for the mining sector
	October 2006	Review of tax policy
	June 2008	Tax administration
	November 2008	Tax administration
	January 2009	Tax administration
	April 2009	Public Financial Management
	November 2009	Tax Administration
	February 2010	Tax administration
	June 2010	Public Financial Management
August 2010	Tax Policy	
September 2010	Public Financial Management	
February 2012	Mining Tax Administration	
LEG	August 2004– February 2005	Assistance on amending legislation on nonbank financial institutions
	May 2005	Strengthening the regulatory framework for nonbank financial institutions

#### **XIV. Resident Representative**

A Fund Resident Representative first took up the position in Lusaka in June 1990.

Mr. Perry Perone has been the Resident Representative since December 2009.



## JOINT WORLD BANK-FUND WORK PROGRAM, 2011–12

Title	Products	Expected Delivery Date
World Bank work program in next 12 months	1. Pilot to implement small scale solutions to improve competitiveness in the cattle, tourism and mining industries.	July 2011
	2. Institutional review of the transport sector	July 2011
	3. Study on construction industry unit rates (road sector)	September 2011
	4. Zambia Poverty assessment	December 2011
	5. Social Safety Net Review	March 2012
	6. Study on Agricultural Competitiveness in Zambia	May 2012
IMF work program in next 12 months	1. Technical assistance: tax administration resident advisor Zambia revenue authority	January 2011
	2. Technical assistance: Central bank capacity building resident advisor Bank of Zambia	September 2011
	3. Staff visit, Budget discussions	August 2012
	4. 2013 Article IV mission	March 2013
Fund request to Bank		
Bank request to Fund	1. Medium-term macroeconomic framework	
Joint products in next 12 months	1. DSA	March 2013

## STATISTICAL ISSUES

(As of February 15, 2012)

<b>I. Assessment of Data Adequacy for Surveillance</b>
<p><b>General:</b> 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 the national accounts, balance of payments, and consumer prices.</p>
<p><b>National accounts:</b> There is a high degree of uncertainty attached to estimates of the level and growth rate of real GDP, because 1994 is the latest benchmark year for value-added ratios to estimate GDP under the production approach. For many important industry areas, such as wholesale and retail trade, construction, business services, and many other service industries, (consisting mainly of small-scale private service providers) no appropriate indicators exist. Data on total production and intermediate consumption of establishments are not available. On the expenditure side, no reliable indicators of household consumption exist and private final consumption expenditure is derived as a residual. Source data for estimating gross fixed capital formation and changes in stocks are incomplete. There is also lack of high frequency real sector data to support a more flexible monetary management. The situation largely reflects resource constraints and organizational weakness within the Central Statistical Office that have affected its ability to produce economic statistics on a timely basis.</p>
<p><b>Price statistics:</b> The CPI broadly adheres to international methodological standards. The classification system used for compilation closely follows the Classification of Individual Consumption by Purpose. With STA technical assistance, a new CPI series with updated weights based on the latest household budget survey was released in February 2012.</p>
<p><b>Government finance statistics:</b> Data provision is broadly adequate for surveillance purposes. The transactional coverage of these data is however limited to government operations and transactions in nonfinancial assets. Data on transactions in financial assets and liabilities are still unavailable. The authorities report monthly budget releases data to AFR for operational use in a timely manner, but the data are often subject to substantial revisions, and data on extra-budgetary institutions and local governments are not available. STA is providing technical assistance in this area.</p>
<p><b>Monetary statistics:</b> Data provision is broadly adequate for surveillance purposes. Since the 2005 monetary and financial statistics mission, there has been a noticeable improvement in the quality of monetary accounts compiled and reported in accordance with the standardized report forms (SRFs) for the BoZ and other depository corporations (ODCs).</p>
<p><b>Balance of payments statistics:</b> Little progress had been made since the assessment by the 2004 Data ROSC mission. Data sources remain poor (some items are estimated without reference to current source data) and compilation methods are inadequate. Resources available for balance of payments compilation have been increased, but are still inadequate, while coordination between the BoZ and CSO had improved. As a result, significant gaps in data remain in many areas including reinvested earnings, trade in services, and the financial account (including export proceeds held abroad by mining and nontraditional exporters). While the source data are generally adequate in terms of timeliness, they fall short in terms of coverage. As a result the shortcomings in source data coverage, indirect estimation methods are used, some of which have remained unchanged for many years and are out of date. Source data on private sector foreign assets and liabilities are insufficient to compile an International Investment Position statement.</p>

**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.

A Data ROSC Assessment was published in February 2005.

## Zambia: Table of Common Indicators Required for Surveillance

As of April 30, 2012

	Date of Latest Observation	Date Received	Frequency of Data <sup>7</sup>	Frequency of Reporting <sup>7</sup>	Frequency of Publication <sup>7</sup>	Memo Items:	
						Data Quality – Methodological soundness <sup>8</sup>	Data Quality – Accuracy and Reliability <sup>9</sup>
Exchange rates	April 6, 2012	April 10, 2012	D	D	D		
International reserve assets and reserve liabilities of the monetary authorities <sup>1</sup>	April 6, 2012	April 10, 2012	W	W	M		
Reserve/base money	April 6, 2012	April 10, 2012	W	W	F	LO, LO, LO, LO	LO, O, O, O, O
Broad money	February 2012	April 16 2012	M	M	M		
Central bank balance sheet	February 2012	April 16 2012	M	M	M		
Consolidated balance sheet of the banking system	February 2012	April 16 2012	M	M	M		
Interest rates <sup>2</sup>	April 6, 2012	April 10, 2012	W	W	F		
Consumer Price Index	February. 2012	March 30, 2012	M	M	M	O, LO, O, LO	LNO, LO, LO, LNO, LO
Revenue, expenditure, balance and composition of financing <sup>3</sup> —general government <sup>4</sup>	NA					LO, LNO, LNO, LO	LNO, LO, O, O, LNO
Revenue, expenditure, balance and composition of financing <sup>3</sup> — central government	December. 2011	April 10 2012	M	M	M		
Stocks of central government and central government—guaranteed debt <sup>5</sup>	Dec. 31, 2011	April 10 2012	M	M	A		
External current account balance	Q4, 2010	May 9, 2011	Q	Q	A	LO, LNO, LNO, O	LNO, O, LNO, LO, LNO
Exports and imports of goods and services	Q4, 2010	May 9, 2011	Q	Q	A		
GDP/GNP	2010	Mar. 3, 2011	A	A	A	LO, LO, LO, LO	LNO, LO, LNO, LNO, LNO
Gross external debt	Dec. 31, 2010	Mar. 3, 2011	I	I	I		
International investment position <sup>6</sup>	NA	NA					

<sup>1</sup>Includes reserve assets pledged or otherwise encumbered as well as net derivative positions.

<sup>2</sup>Both market-based and officially determined, including discounts rates, money market rates, rates on treasury bills, notes and bonds.

<sup>3</sup>Foreign, domestic bank, and domestic nonbank financing.

<sup>4</sup>The general government consists of the central government (budgetary funds, extra budgetary funds, and social security funds) and state and local governments.

<sup>5</sup>Including currency and maturity composition.

<sup>6</sup>Includes external gross financial asset and liability positions vis-à-vis nonresidents.

<sup>7</sup>Daily (D), weekly (W), monthly (M), quarterly (Q), annually (A); irregular (I); or not available (NA).

<sup>8</sup>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).



INTERNATIONAL MONETARY FUND

*Public Information Notice*

EXTERNAL  
RELATIONS  
DEPARTMENT

Public Information Notice (PIN) No. 12/82  
FOR IMMEDIATE RELEASE  
July 19, 2012

International Monetary Fund  
700 19<sup>th</sup> Street, N.W.  
Washington, D.C. 20431  
USA

## **IMF Executive Board Concludes 2012 Article IV Consultation with Zambia**

On June 13, 2012, the Executive Board of the International Monetary Fund (IMF) concluded the Article IV consultation with Zambia.<sup>1</sup>

### **Background**

Zambia has achieved high and sustained growth and macroeconomic stability over the past decade, but poverty remains high. Real gross domestic product (GDP) growth averaged 5.2 percent in 2000–10 (or 3.1 percent per capita); inflation declined from 30 percent to single digits; debt declined sharply; and international reserves increased to comfortable levels.

Economic conditions remain favorable and there has been little impact to date from the European crisis. Real GDP growth is estimated to have been strong in 2011, driven by a record maize harvest and strong expansion in bank credit, which has surpassed pre-crisis (2008–09) levels. Inflation continued to decline, broadly in line with the authorities' target of 7 percent. Despite copper prices rising to record highs, the external current account surplus narrowed significantly, mainly reflecting a strong expansion in imports and a decline in grants. However, gross international reserves rose above \$2 billion for the first time, equivalent to 3 months of prospective imports. Preliminary

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<sup>1</sup> 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. 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 summing up can be found here: <http://www.imf.org/external/np/sec/misc/qualifiers.htm>.

data suggest that the fiscal deficit of the central government remained flat at around 3 percent of GDP in 2011, as a large expansion in election-related spending was offset by a one-off payment of mining tax arrears.

In 2012, real GDP is projected to rise by 7.7 percent, reflecting strong growth in copper production and non-maize agriculture, and an expansionary fiscal policy. The 2012 budget targets a deficit of 4.1 percent of GDP and a significant increase in investment. More than half of budget financing is expected to come from a US\$500 million sovereign bond issue, and net domestic financing is targeted to remain low at about 1 percent of GDP. Inflation is projected to remain close to its current level of around 6 percent in 2012. The Bank of Zambia (BOZ) recently changed its monetary policy framework from reserve money targeting to the use of a policy rate as the main monetary policy tool.

### **Executive Board Assessment**

Executive Directors commended the authorities for their sound macroeconomic management and welcomed Zambia's strong economic performance in recent years. Directors noted that while the outlook for the economy is favorable, it is subject to risks arising from volatility of copper prices and delays in implementing measures needed to meet the 2012 budget deficit target. To safeguard macroeconomic stability and to make growth more inclusive, they stressed the need for continued commitment to strong policies and implementation of structural reforms.

Directors agreed that fiscal policy should aim at prioritizing growth enhancing expenditures and mobilizing revenues to create the space needed to achieve the fiscal objectives. They emphasized the importance of implementing reforms to maize marketing and pricing, fertilizer subsidies, and public sector pension funds. These measures should help restore fiscal sustainability and correct market distortions that have created overdependence on maize production. Directors noted that revenue enhancing measures, including strengthening tax administration and reducing subsidies and incentives will also be critical for achieving the fiscal targets. In addition, the reinstatement of the automatic petroleum price adjustment mechanism and the implementation of the multi year electricity tariff framework are needed to minimize fiscal risks associated with the current pricing below cost recovery.

Directors underscored that public financial management reforms are essential to improve budgetary planning and execution and prioritizing spending. They welcomed the plan to complete the implementation of the Treasury Single Account and urged the authorities to continue to strengthen their investment and debt management capacity. These measures would support the planned scaling up of infrastructure spending and increased use of non-concessional financing.

Directors endorsed the plans to further enhance the monetary policy framework in support of a low inflation objective. They encouraged the authorities to remain vigilant to

inflationary pressures and tighten policy if needed. Directors agreed that the introduction of the monetary policy rate, combined with use of a broad set of economic indicators to assess the monetary policy stance, should make monetary policy more flexible and forward looking and enhance liquidity management. Directors noted that the flexible exchange rate regime has helped Zambia weather external shocks. They highlighted that increasing the reserve coverage would also provide an added buffer.

Directors welcomed the authorities' efforts to strengthen the financial sector and improve access to financial services. They urged the authorities, however, to work closely with key stakeholders to minimize any risks to the financial sector stemming from the implementation of the new minimum capital requirement for commercial banks and the redenomination of the local currency.

Directors emphasized that structural reforms will be critical to achieve economic diversification and make growth more inclusive, in order to tackle the high rate of poverty and unemployment. In this context, they encouraged the authorities to formulate a broad based reform strategy for the agriculture sector, and to strengthen formal sector development, in particular by improving the business climate.

**Public Information Notices (PINs)** form part of the IMF's efforts to promote transparency of the IMF's views and analysis of economic developments and policies. With the consent of the country (or countries) concerned, PINs are issued after Executive Board discussions of Article IV consultations with member countries, of its surveillance of developments at the regional level, of post-program monitoring, and of ex post assessments of member countries with longer-term program engagements. PINs are also issued after Executive Board discussions of general policy matters, unless otherwise decided by the Executive Board in a particular case.

**Zambia: Selected Economic Indicators, 2009–12**  
(Percent of GDP, unless otherwise indicated)

	2009	2010	2011	2012
			Act.	Proj.
Adjustment scenario				
National account and prices				
GDP growth at constant prices	6.4	7.6	6.6	7.7
Mining	20.3	15.2	-5.2	23.0
Non-mining	5.2	6.8	7.9	6.2
GDP deflator	10.7	11.7	12.8	4.8
GDP at market prices (Billions of kwacha)	64,616	77,667	93,354	105,383
GDP per capita (US\$)	990	1,221	1,414	1,457
Gross national income per capita (US\$)	958	1,118	1,299	1,347
Consumer prices				
Consumer prices (average)	13.4	8.5	8.7	5.6
Consumer prices (end of period)	9.9	7.9	7.2	6.0
External sector				
Terms of trade (deterioration -)	-16.6	35.2	4.1	-3.0
Average exchange rate (kwacha per US\$)	5,046	4,797	4,861	...
(percentage change; depreciation -)	-34.7	4.9	-1.3	...
Real effective exchange rate (depreciation -) <sup>1</sup>	-14.2	5.8	-0.4	...
Money and credit (end of period, unless otherwise specified)				
Domestic credit to the private sector	-5.7	15.4	27.9	17.5
Reserve money (end of period)	19.3	27.8	6.8	8.6
Broad Money (M3)	7.7	29.9	21.7	17.0
National accounts				
Gross investment	19.6	21.1	23.4	23.6
Government	3.4	3.2	5.4	7.4
Private	16.1	17.8	18.0	16.2
National savings	23.8	28.1	24.7	24.7
Net lending(+)/net borrowing(-)	4.2	7.1	1.2	1.2
Central government budget				
Revenue	18.9	19.6	22.5	20.9
Taxes	14.6	16.4	19.3	16.6
Social contributions	...	...	...	...
Grants	2.9	1.8	1.6	1.7
Other revenue	1.4	1.4	1.6	2.6
Expenditure	21.3	22.6	25.5	25.0
Expense	17.9	19.4	20.0	18.4
Of which: Wages and salaries	8.2	8.1	7.9	9.1
Of which: Arrears payments	0.4	0.3	0.4	0.3
Net acquisition of nonfinancial assets	3.4	3.2	5.4	7.4
Net lending/borrowing <sup>2</sup>	-2.4	-3.1	-3.0	-4.1
Excluding grants	-5.3	-4.8	-4.5	-5.8
Net acquisition of financial assets	1.9	-0.3	0.1	0.1
Domestic	1.9	-0.3	0.1	0.1
Foreign	0.0	0.0	0.0	0.0
Net incurrence of liabilities	4.4	2.8	3.1	4.2
Domestic	4.4	2.5	1.5	1.1
Foreign	-0.1	0.3	1.6	3.2
External sector				
Current account balance	4.2	7.1	1.2	1.2
(excluding grants)	1.8	5.6	0.5	0.5
Gross international reserves (months of prospective imports)	3.7	3.0	3.0	3.3
Public debt				
Total central government debt (end-period)	22.0	22.1	22.3	24.1
External	10.0	9.1	10.2	12.5
Stock of domestic debt, net	12.1	12.9	12.1	11.6

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

<sup>1</sup> Excludes Zimbabwe.

<sup>2</sup> Including discrepancy between the above-the-line balance and below-the-line financing.



**Statement by Moeketsi Majoro, Executive Director for Zambia  
June 13, 2012**

**Introduction**

**We note that the staff report is in support of the authorities' macroeconomic policy stance and structural reform agenda for which, the authorities should be commended.** This marks Zambia's first Article IV consultation without a formal program with the Fund since July 2011. While we are in broad agreement with the staff assessment we have a few areas of concern. We focus on the following for emphasis.

**Background**

**The authorities' economic policies and structural reforms are anchored on the Sixth National Development Plan (SNDP) that covers the period 2011-2015.** As we pointed out in our Buff statement of June 20, 2011, the SNDP focuses on two pillars—improving infrastructure and human development—in order to achieve the strategic objectives of accelerating diversified economic growth, attaining the Millennium Development Goals, lowering inflation and strengthening the resilience of the economy against external shocks. The attendant macroeconomic policy stance and structural reforms remain valid, notwithstanding ushering into office of a new administration on September 23, 2011 following elections won by the opposition party, the Patriotic Front.

**Economic performance**

**Economic growth performance was robust at 6.5 percent in 2011 as a result of a record maize harvest and expanding bank credit.** Inflation was recorded at 7.2 percent at end-2011. The fiscal deficit was low, at 3.5 percent of GDP. The external current account surplus narrowed and gross international reserves stood at 3 months of prospective imports. In 2012, growth is expected to be even higher, at 7.7 percent, on account of strong growth in the mining sector and **non-maize agriculture** as well as expansionary fiscal policy. Inflation is to be contained at around 6 percent. The budget deficit is targeted at 4.1 percent of GDP as a consequence of a ramp up in infrastructure capital spending. Net domestic financing is targeted at 1 percent of GDP. In the medium-term, growth is expected to remain strong, propelled by the mining and manufacturing sectors.

Key challenges include enhancing revenue performance in the medium term, containing spending, reducing unemployment and high rural poverty, and enhancing diversification. The authorities remain committed to ensuring sustainable and high growth in order to create employment and reduce poverty while maintaining macroeconomic stability; creating fiscal space for growth enhancing expenditures, targeting low inflation and gradual migration to inflation targeting; enhancing structural reforms aimed at deepening the financial sector, over-hauling maize marketing and pricing; and continuing public financial management reforms, including better budgetary planning and execution.

On investment climate, while one international rating agency—Fitch Ratings—revised Zambia’s long-term foreign and local currency issuer default rating from stable to negative on account of reversal of fraudulent/corrupt transactions and unauthorized statements, Standard & Poor’s on the other hand maintained the Country’s B+ rating. As has been explained by the authorities, the fight against corruption and indeed the unauthorized statements should not be interpreted as reflecting policy reversal. Moreover, evidence on the ground shows that mining companies are moving forward with ambitious plans to expand their operations, paragraph 5 on page 9. In light of this, we would have expected a balanced staff report on these issues.

## **Fiscal policy**

**The fiscal policy objective aims at fiscal consolidation while creating space for priority infrastructure and social spending.** This is based in the main, on improving collection of taxes including enhancement of mining tax through technical assistance from cooperating partners and the IMF which has stationed a Resident Advisor, aimed at improving the collection of mining taxes, which are currently under performing (Figure 6, page 15) compared to comparators and continued implementation of a comprehensive reform of tax policy. On the expenditure side, focus shall be on controlling the growth of the wage bill and enhancing domestically financed priority infrastructure and social spending. If revenues do not match projections, the authorities are ready to undertake expenditure re-prioritization particularly in current expenditure. Only slow moving capital expenditure will be reprioritized within the capital budget.

## **Monetary and financial policies**

**The monetary policy objective is to maintain low and stable inflation at single digits without constraining growth and private sector credit expansion.** Monetary policy was accommodative towards the end of 2011 with both the reserve requirements and liquid assets ratios reduced in an attempt to lower high lending ratios. As reported before, the authorities continue to monitor closely developments in the financial sector to ensure stability in the financial system and stand ready to tighten monetary policy should circumstances warrant. The current practice to base the monetary framework on reserve money targeting will continue while efforts to shift to interest rates as the main instrument to anchor inflation expectations are ongoing—as evidenced by the recent introduction of the policy rate. We note staff support in this direction.

## **Structural reforms**

**As earlier reported, progress in the implementation of the remaining structural reforms continues.** This includes rolling out the implementation of the treasury single account, the second phase of the Financial Sector Development Plan, lender of last resort, addressing inadequacies in maize marketing, ensuring cost recovery in energy pricing, and improving debt management capacity and project appraisal. The authorities’ intentions to improve project and debt management capacity at sectoral and central level aimed at enhancing project/debt selection, effective implementation and oversight should not be construed as a

shift in policy. Again, we note staff support in this direction but wish to caution that it cannot be achieved overnight.

On the background note, we do agree with the analysis that “keeping maize prices high disadvantaged the urban poor and many poor smallholders that are the net buyers of maize”, page 4. While agreeing with the staff, we would like to point out that the authorities are committed to reforming the program by refocusing the role of the Food Reserve Agency and attaining a more market based pricing system. The authorities are also addressing the problem of poor targeting of the Farmer Input Support Program (FISP) that has a bias towards maize production by introduction of the electronic voucher system that will better target beneficiaries and allow for a more diversified crop range. This measure will diversify the agriculture sector and allow for growing of cash crops that will better benefit the smallholder farmers. In this regard, the authorities are cautiously piloting the electronic voucher system in 10 districts in the 2012/13 agricultural season with the aim of up-scaling the program in the later years. This is expected to have a considerable impact on reducing the high poverty levels.

### **Inclusive growth**

We commend staff for the various informative annexes. However, on inclusive growth, we were expectant of the outcome of the recent tripartite conference on inclusive growth in Zambia organized by the authorities, the International Labor Organization and the IMF. Accordingly, we look forward to the findings of the conference in the near future.