

## **Zambia: Selected Issues and Statistical Appendix**

This Selected Issues and Statistical Appendix paper for **Zambia** was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on **March 25, 2004**. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of **Zambia** or the Executive Board of the IMF.

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

**To assist the IMF in evaluating the publication policy, reader comments are invited and may be sent by e-mail to [publicationpolicy@imf.org](mailto:publicationpolicy@imf.org).**

Copies of this report are available to the public from

International Monetary Fund • Publication Services  
700 19th Street, N.W. • Washington, D.C. 20431  
Telephone: (202) 623 7430 • Telefax: (202) 623 7201  
E-mail: [publications@imf.org](mailto:publications@imf.org) • Internet: <http://www.imf.org>

Price: \$15.00 a copy

**International Monetary Fund  
Washington, D.C.**



INTERNATIONAL MONETARY FUND

ZAMBIA

**Selected Issues and Statistical Appendix**

Prepared by Stefano Fassina, Nicholas Staines, and Gustavo Bagattini

Approved by the African Department

March 25, 2004

Contents	Page
I. Sources of Growth in Zambia.....	3
A. Background.....	3
B. Growth Accounting.....	4
C. Sectoral Growth and Prospects .....	6
D. Conclusion .....	8
II. Government Debt and Expenditure Composition .....	10
A. Summary .....	10
B. Recent Fiscal Developments .....	10
C. Debt Dynamics: An Extended Equation .....	12
D. Outlook Under Different Scenarios .....	13
III. The External Value of the Kwacha.....	18
A. The Real Effective Exchange Rate .....	18
B. Bilateral Real Exchange Rates and Real Rates of Return.....	18
C. The External Trade Sector.....	19
D. External Assistance .....	21
E. Conclusion.....	22
Figures	
I.1. Real GDP Growth, 1964-2003.....	3
II.1. Baseline Scenario: Debt Service.....	15
II.2. Baseline Scenario: Expenditure Composition .....	15
II.3. Alternative Scenario: Debt Service.....	15
II.4. Alternative Scenario: Expenditure Composition .....	15
Tables	
I.1. Growth Accounting, 1990–2009.....	5
I.2. TFP Contribution to Real GDP Growth .....	6
I.3. Composition of Output, 1990 and 2003.....	6

I.4	Sectoral Growth, 1991–2009 .....	7
II.1.	Selected Fiscal and Macroeconomic Indicators, 2000-03 .....	11
II.2	Main Results, 2003-08 .....	14
II.3.	Baseline Scenario-Main Assumptions and Results, 2003-08.....	16
II.4.	Alternative Scenario-Main Assumptions and Results 2003-08 .....	17
III.1	Summary Table: External Value of the Kwacha, 1980-200 .....	23

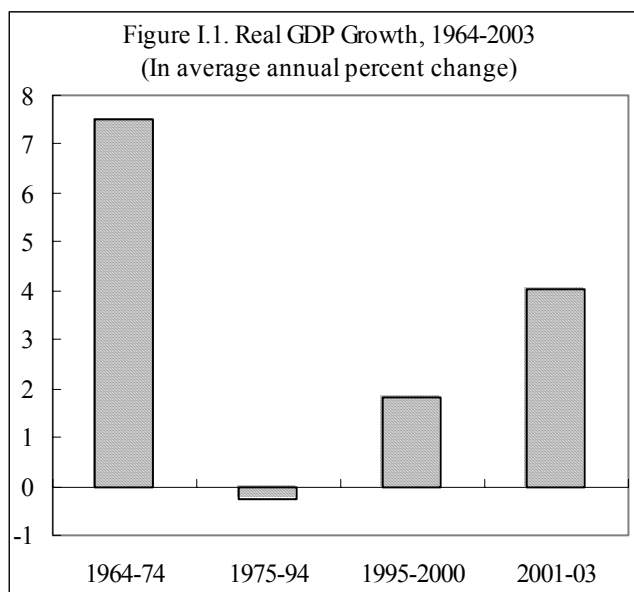
#### Statistical Appendix Tables

1.	Gross Domestic Product by Sector of Origin at Constant Prices, 1995-2003 .....	24
2.	Gross Domestic Product by Sector of Origin at Current Prices, 1995-2003 .....	25
3.	Gross Domestic Product by Type of Expenditure, 1995-2003 1/ .....	26
4.	Index of Industrial Production, 1995-2003 .....	27
5.	Volume of Mineral Production, 1995-2003 .....	28
6.	Marketed Production of Selected Agricultural Crops, 1995/96-2002/03 1/ .....	29
7.	Area Under Cultivation for Selected Crops, 1995/96-2002/03 .....	30
8.	Paid Employment by Economic Sector, 1995-2003 .....	31
9.	Annual Composite Index of Retail Prices, 1995-2003 .....	32
10.	Monthly Composite Index of Retail Prices, 2002-2003 .....	33
11.	Summary of Central Government Operations, 1995-2003 .....	34
12.	Summary of Central Government Operations, 1995-2003 .....	35
13.	Summary of Central Government Revenues and Grants, 1995-2003.....	36
14.	Summary of Central Government Expenditures, 1995-2003 .....	37
15.	Government Securities, 1995-2003 .....	38
16.	Monetary Survey, 1995-2003 .....	39
17.	Accounts of Commercial Banks, 1995-2003 .....	40
18.	Net Foreign Assets of the Banking System, 1995-2003 .....	41
19.	Structure of Interest Rates, 1995-2003 .....	42
20.	Balance of Payments, 1995-2003 .....	43
21.	Foreign Trade Volume and Unit Value, 1995-2003 .....	44
22.	Merchandise Exports, 1995-2003 .....	45
23.	Nontraditional Export Earnings by Sub-Sector, 1995-2003 .....	46
24.	Scheduled External Debt-Service Payments, 1995-2003 .....	47
25.	External Debt, 1995-2003 .....	48
26.	Nominal, Nominal Effective, and Real Effective Exchange Rates, 1994:Q1-2003:Q4 ..	49
27.	Summary of Consolidated Foreign Exchange Market, 2002-03 .....	50

## I. SOURCES OF GROWTH IN ZAMBIA<sup>1</sup>

### A. Background

1. **Zambia has had a mixed long-term record of growth since 1964.** In the first decade after independence, growth averaged 7½ percent a year, as a strategy of import-substituting industrialization and state ownership was supported by a strong copper sector. Since then, real GDP has grown annually by less than 1 percent (Figure I.1). After the oil price shocks of the 1970s, which coincided with the beginning of a long-term decline in copper prices, Zambia resorted to exchange and trade controls rather than restructure the economy. During the 1980s, attempts to reform the economy to support diversification away from the failed policy of state-led industrialization were subject to frequent reversals. Extensive market-oriented reforms began with a return to a multiparty political system in the early 1990s, and, by 1994, virtually all exchange controls on current and capital transactions had been removed.



2. **The main structural change in the economy has been the reduced reliance on the copper sector.** Copper revenues provided almost all export earnings and about half of GDP in Zambia's first decade following independence. A collapse in copper prices and inefficiencies in the state-owned Zambia Consolidated Copper Mines (ZCCM) removed the sector's former predominance in the economy. In 2000, copper production, which had peaked at 748,000 tons in 1969, reached a low of 234,000 tons, while the share of mining exports in total exports, which was over 90 percent as late as 1990, dropped to two-thirds.

3. **Zambia's recent revival in growth is partly the result of the reforms of the early 1990s, the privatization of the ZCCM, and the diversification away from the copper sector.** Since 1995, real GDP has grown by more than 2½ percent a year, a marked improvement over the previous two decades of negative growth. Following the privatization of the ZCCM in 2000, copper production has risen sharply, as a result of both new investments and higher prices. Improved economic policy implementation since 2000 has contributed to real GDP growth of 4 percent a year, driven by agriculture, manufacturing, and trade. This improvement in economic performance is largely attributable to investment and increased efficiency in the economy, as discussed in the next subsection.

---

<sup>1</sup> Prepared by Gustavo Bagattini.

## B. Growth Accounting

4. **A growth-accounting exercise was used to model Zambia's output from 1990 to 2003 and assess growth projections for 2004 to 2009 in terms of factors of production (capital and labor) and total factor productivity (TFP).** Growth-accounting exercises are based on the relationship between output, inputs, and technology, derived from a simple Cobb-Douglas production function:

$$\Delta Y/Y = \alpha (\Delta K/K - \delta) + (1 - \alpha)(\Delta L/L) + TFP,$$

where  $\Delta Y$ ,  $\Delta K$ , and  $\Delta L$  denote, respectively, the change in output, capital, and labor, while  $\alpha$  and  $(1-\alpha)$  are the shares of output that accrue to capital and labor. An annual depreciation of capital ( $\delta$ ) of 5 percent was assumed, an assumption shared by similar studies of countries in the region. The capital share of output ( $\alpha$ ) was time-variable, and was estimated drawing upon a sectoral method for estimating factor shares.<sup>2</sup> It was calculated using the sum of each sector's weighted contribution to output, and averaged 0.35 over the period.

5. **The availability and quality of national accounts data were constraints on this model.** World Bank data on labor force was used in lieu of employment, while real gross fixed capital formation proxied for the rate of growth of capital stock, on which a series is not available. To widen the scope of the exercise, one would need a breakdown of output by productive sectors prior to 1990 and data on real gross fixed capital formation prior to 1980. A more detailed study of the contributions of the factors of production to each of the sectors of the economy, would require labor and capital stock data by sector.

6. **The projections used for 2004 to 2009 are based on the discussions held with the Zambian authorities during the 2003 Article IV consultation.**<sup>3</sup> GDP growth is expected to slow to 3½ percent in 2004 and increase to 5 percent over the medium-term, as envisaged in the Poverty Reduction Strategy Paper (PRSP). Labor force projections from the World Bank were used to estimate the contribution of labor. However, this projection may be an upper boundary, as it may underestimate the impact of HIV/AIDS, and thus a slight downward adjustment was used to capture this effect. Real gross fixed capital formation was projected with a slightly upward trend from around 23 percent of GDP in 2003, which is in line with the recent trend of strong investment.

---

<sup>2</sup> See Sarel (1997), pp. 12-17, for background on the sectoral capital shares of output.

<sup>3</sup> See Staff Report for the 2003 Article IV consultation.

Table I.1. Growth Accounting, 1990-2009  
(Contributions to real GDP growth, in percentage points)

	1990-94	1995-2000	2001-03	2004-09
Real GDP growth (percent)	-2.7	1.8	4.0	4.6
Labor	1.9	1.9	1.6	1.5
Capital	-0.7	1.3	1.9	1.9
TFP	-4.0	-1.3	0.6	1.2

Sources: Zambian authorities; World Bank; and staff estimates and projections.

7. **The increase in real GDP growth since 1995, and especially since 2000, reflects increased investment and a turnaround in TFP growth, which has more than offset the slight decline in the contribution of labor.** The stronger TFP performance may be attributed to policy and institutional changes, particularly due to improved macroeconomic management and an enhanced private sector participation in the economy with the privatization of the ZCCM. This is a significant development, as growth can generally be sustained over longer periods of time when it is based on improvements in technology and efficiency—embodied in TFP—rather than on factor accumulation, which is subject to inherent limits based on demographics and diminishing returns.

8. **Several risks to the long-term outlook could prevent Zambia from meeting its growth targets.** A key risk is that labor force growth may turn out to be slower than currently projected due to the impact of HIV/AIDS. A downturn in copper prices could affect investment in the mining sector. Growth could also be lower if policy reversals were to weaken the institutional framework that has supported the stronger rates of TFP growth in recent years. The projections included here suggest that attaining growth of 4.6 percent per annum from 2004 to 2009 will require a slight increase in the contribution of TFP. However, higher growth (and thus higher rates of employment, investment, and TFP growth) is necessary to decrease the levels of poverty by 2015, in line with the Millennium Development Goals (MDGs).

9. **Experience from other countries (Table I.2) suggests that significant gains in TFP, which would be required to bring Zambia closer to meeting the MDGs, are attainable with the support of sustained reforms.** To support stronger TFP, it is important to increase the execution of poverty-reducing spending and accelerate the implementation of structural reforms in public expenditure management, financial sector reform, governance, and private sector development.

Table I.2. TFP Contribution to Real GDP Growth  
(In percentage points)

South Africa	1980-1993	0.0
	1994-2001	3.1
Mozambique	1981-1984	-5.1
	1985-1992	1.1
	1993-2001	4.0
Gabon	1980-1993	-4.5
	1994-2001	-0.4
Tanzania	1981-1985	-1.5
	1986-1990	0.5
	1990-2002	1.8

Sources: Local authorities; and staff estimates.

### C. Sectoral Growth and Prospects

10. **The composition of Zambia's economy has changed dramatically over the past decade, as mining has dropped from being the largest sector in the economy to the fifth largest.** Mining's share of output has dropped from 50 percent after independence, to around 20 percent in the early 1990s and to about 8 percent today. The largest sectors in 2003 were agriculture, manufacturing, and trade, which together accounted for almost half of the country's GDP (Table I.3).

Table I.3. Composition of Output, 1990-2003  
(In percent of GDP)

	1990	2003
Agriculture	12.3	15.3
Mining	18.8	7.8
Manufacturing	9.1	10.7
Utilities	2.5	3.0
Construction	7.3	6.5
Trade	15.0	18.6
Real estate/business	4.1	9.5
Other services	30.8	28.5

Source: Zambian authorities.

11. **Although mining lost its leading position in the Zambian economy during the 1990s, it has reestablished itself as one of the main sectors driving growth since 2001 (Table 1.4).**

The mining sector has recovered some of its prominence in the economy, following the privatization of the ZCCM, which has facilitated an increase in production of copper and cobalt, and with the benefit of higher world prices of these commodities. However, many linkages with local industries were lost, as the new mining companies drew upon lower-cost suppliers in the region. Furthermore, the overburdening of local smelters has led to some copper ores being sent to South Africa for processing, thus reducing the domestic value added in copper exports.



Table I.4. Sectoral Growth, 1991-2009  
(Contributions to real GDP growth, in percentage points)

	1991-94	1995-2000	2001-03	2004-09
Real GDP growth (percent)	-3.0	1.8	4.0	4.6
Agriculture	-0.1	0.9	0.0	0.6
Mining	-1.0	-1.5	0.8	0.7
Manufacturing	-0.1	0.3	0.5	0.6
Construction	-0.7	0.1	0.8	0.8
Trade	-0.5	0.9	0.9	0.9
Other	-0.6	1.1	1.0	1.0

Source: Zambian authorities.

12. **The mining sector's recent strong contribution to growth should continue over the medium term.** Improvements in technology have expanded the life span of many mines and their potential copper and cobalt output. Two new mines in Kansanshi and Lumwana are expected to start operating in the next three years. These developments, as well as firmer copper prices, could allow total production to approach 600,000 tons per year in the medium term, provided that there is an appropriate extension and maintenance of infrastructure and inputs (roads, water, fuel, electricity, and acid). Increased output and investment in these mines will have some positive spillover effects in the economy. The manufacturing, utilities, and construction sectors should receive a boost from higher copper production.

13. **Agriculture is one of the main drivers of growth in the economy, although its contribution is often affected by droughts.** Small-scale farms produce the bulk of output, but productivity is higher on large-scale farms, which are involved in the production of maize and of cash crops for export, such as tobacco, groundnuts, and cotton. From 1995 to 2002, agricultural and horticultural exports' share in nontraditional exports increased from 19 percent to 29 percent.

14. **Better access to inputs and decreased vulnerability to drought are two of the main factors underlying improved medium-term prospects for agricultural growth.** Zambia's abundant and largely underutilized arable land resources (55 percent of total area of 75 million hectares) suggest strong potential for agricultural growth. Increased access to inputs (such as irrigation, seed, and fertilizer) and greater access to financing could improve yields on small-scale farms. The continued inflow of experienced farmers from Zimbabwe could also bring in valuable skills and expertise for the production of cash crops, such as tobacco, cotton, and horticulture. A World Bank paper<sup>4</sup> suggests that the sector's potential can be augmented through increased availability of fertilizer, ownership of cattle and draught animals, and access to credit. The government intends to keep prioritizing the availability of inputs for small-scale farmers and outgrower schemes, as well as follow a consultative process to convert more traditional lands to state lands, which would increase the availability of land for large-scale farms. Decreasing the country's susceptibility to drought, by improving irrigation and the growth of more resistant crops, should reduce volatility in the sector and strengthen its contribution to long-term growth.

<sup>4</sup> Deininger and Olinto (2000).

15. **Manufacturing has regained prominence as an important source of growth since the mid-1990s.** Although industrial production has decreased since 1991, the sector has benefited from growth in agriculture and mining, as well as increased private sector activity, due to the liberalization of the economy and including the trade and exchange regimes.

16. **The manufacturing sector is projected to continue to benefit from spillover effects from growth in the mining and agricultural sectors.** There is potential for growth in several subsectors of manufacturing, including agro-processing (agro-related industries account for 84 percent of manufacturing value added), textiles, leather, and furniture. The government aims to boost the sector through investment promotion, institutional support, skills training, and increased access to concessional financing for equipment procurement for small-scale manufacturers. The Industrial and Labor Relations Act may also be revised to streamline bargaining mechanisms. The sector should also continue to profit from Zambia's regional trade agreements—the Common Market of Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC)—as well as from the U.S. African Growth and Opportunity Act (AGOA).

17. **Other sectors that have recently driven growth include trade, construction, and tourism.** The structural reforms of the early 1990s have allowed wholesale and retail trade to become one of the main sectors in the Zambian economy—it has contributed almost 1 percent of GDP growth per year since 1995. Meanwhile, the construction sector has boomed since 2001, due to increased investments and the revival of the mining sector. In tourism, infrastructure improvements and the upgrading of Livingstone airport should attract more arrivals.

#### **D. Conclusion**

18. **Zambia has a large potential for growth across several sectors of its economy.** Mining has regained a prominent role in the economy, which it should maintain due to new investments expected over the medium term. Agricultural growth should come from increased access to inputs, the influx of new skills, and better resistance to the effects of drought.

19. **In the long run, growth prospects depend importantly on policies and institutions that support reforms to tap the potential for growth in the productive sectors of the Zambian economy.** These reforms will help to maintain strong TFP growth, reduce unemployment (by increasing labor market flexibility and lowering the costs of labor relative to capital), and improve the investment environment and private sector participation across all sectors. Key elements of this strategy for more rapid growth and poverty reduction include the consolidation of macroeconomic stability, improved public expenditure management, a removal of obstacles to investment and private sector growth, and financial sector development.

20. **The growth projections presented here should therefore be viewed as a middling scenario, with downside risks and upside potential.** The main risks include the effect of HIV/AIDS, lower copper prices, and possible policy reversals weakening the institutional framework that has supported the stronger rates of TFP growth in recent years. Higher growth could come from increased human capital investment, the implementation of more structural reforms, and higher growth of TFP.

## **References**

Deininger, Klaus, and Pedro Olinto, 2000, "Why Liberalization Alone Has Not Improved Agricultural Productivity in Zambia: The Role of Asset Ownership and Working Capital Constraints," Working Paper 2302 (Washington: World Bank).

Sarel, Michael, 1997, "Growth and Productivity in ASEAN Countries," IMF Working Paper 97/97 (Washington: International Monetary Fund).

## II. GOVERNMENT DEBT AND EXPENDITURE COMPOSITION<sup>5</sup>

### A. Summary

21. **Recent fiscal developments in Zambia have been characterized by spending on nonpriority items in excess of budget allocations, which has led to increased domestic debt, higher real interest rates, and higher interest payments.** Poverty-reducing spending has remained low, despite debt relief received at the decision point under the Heavily Indebted Poor Countries (HIPC) Initiative.

22. **Against this background, this section assesses domestic debt dynamics and expenditure composition under two scenarios: (1) the execution of the fiscal adjustment envisaged in the 2004 budget and in the medium-term framework (“baseline scenario”), and (2) the continuation of recent trends (“alternative scenario”).** Under the baseline scenario, structural reforms allow the authorities to phase out domestic financing, reduce interest payments, and significantly increase poverty-reducing spending. Under the alternative scenario, real interest rates remain constant at the 2003 average level, and all components of primary spending are crowded out by higher interest payments.

23. **The analysis is conducted focusing not only on the usual indicators of debt sustainability (debt stock, debt service, and primary surplus as a share of GDP), but also on the main components of the primary balance: domestic revenues, primary non-poverty-reducing spending (mandatory and discretionary shares), and poverty-reducing spending.** These additional indicators allow a consideration of the political economy of fiscal adjustment and a better assessment of the implications of a targeted primary surplus.

### B. Recent Fiscal Developments

24. **Before reaching the HIPC Initiative decision point in 2000, Zambia’s central government budget spent about 4 percent of GDP on external debt-service payments.**<sup>6</sup> Debt relief provided since 2001 has helped to reduce the burden on the budget. Projections factoring in the relief expected at the HIPC Initiative completion point indicate external payments declining from 2.3 percent of GDP in 2004 to 1.5 percent of GDP in 2008.

25. **In contrast to the decline in external debt service, central government domestic interest payments rose from 1.4 percent to 2.8 percent of GDP over 2000–03 (Table II.1).** Domestic debt increased from 7.7 percent to 21 percent of GDP over the same period.<sup>7</sup> Recourse

---

<sup>5</sup> Prepared by Stefano Fassina.

<sup>6</sup> External debt-service payments covered by budgetary resources exclude payments to the IMF, which are a liability of the Bank of Zambia.

<sup>7</sup> The figures include the special bonds issued in 2001 in favor of the Bank of Zambia (K 1,647 billion or 12.6 percent of 2001 GDP), the bonds issued in 2002 in favor of the Zambia National Commercial Bank (K 248 billion or 1.5 percent of GDP), and the net balances of the Bridge Loan accounts in the Bank of Zambia.

to domestic financing typically exceeded budget targets, as a result of expenditure overruns and shortfalls in donor assistance.

26. **The wage bill repeatedly exceeded budget allocations:** From 2000 to 2003, it increased from 5.3 percent to 8.5 percent of GDP, as a result of both an increased head count (from 109,000 to 120,000, excluding military and security personnel) and large average wage awards (the average wage increased from 3.8 to 6.2 times per capita GDP). In response to these and other expenditure overruns, net program external aid (i.e., program grants and loans minus external debt service) declined.<sup>8</sup> Lower-than-budgeted external aid could have been offset by some mix of increased domestic financing, higher revenues, or expenditure restraint. However, the authorities' reliance on additional domestic credit exacerbated the debt dynamics and put pressure on interest rates.

Table II.1. Selected Fiscal and Macroeconomic Indicators, 2000-03  
(As share of GDP, unless otherwise indicated)

	2000	2001	2002	2003
External debt service 1/	4.1	1.9	1.8	3.0
Domestic interest payments	1.4	1.6	2.8	2.8
Domestic debt 2/	7.7	22.1	21.0	21.0
Domestic balance 3/	-3.4	-4.6	-4.1	-3.5
Gross external aid 4/	13.3	10.3	13.1	10.3
Net program external aid 5/	1.7	0.1	2.0	-1.5
Domestic financing	1.8	4.5	2.1	5.1
CPI (annual average percent change)	26.1	22.6	22.2	21.5
Average real interest rate (percent) 6/	12.4	27.8	18.6	15.3

Sources: Zambian authorities; and staff estimates.

1/ Debt service actually paid. Excludes debt service to IMF.

2/ At cost value. Includes bonds issued in 2001 in favor of the Bank of Zambia (K 1,646 billion) and in 2002 in favor of the Zambia National Commercial Bank (K 248 billion).

3/ Balance of central government operations excluding external resources and external payments.

4/ Includes all grants and loans flowing in to the central government budget.

5/ Program grants and loans minus external debt-service payments.

6/ Simple average of real interest rates (annual average) on treasury bills and bonds.

27. **The reliance on increased domestic financing, however, was not targeted to protect poverty-reducing programs.** Execution of spending on those programs has been no more than

<sup>8</sup> Program grants and program loans are untied resources funding budgetary expenditure. Consequently, given a level of total expenditure, their volatility fully affects domestic financing. At the opposite end, project grants and project loans are resources tied to fund specific investments, and their amounts are fully reflected in expenditure. Consequently, their volatility does not affect domestic financing.

25 percent of the budgeted allocations since 2000. Moreover, spending on a subset of priority poverty-reducing programs remained, on average, below 1 percent of GDP, or 40 percent of the average annual HIPC Initiative assistance received since the HIPC Initiative decision point.<sup>9</sup>

### C. Debt Dynamics: An Extended Equation

28. **The starting point is the standard equation used to analyze debt dynamics.**

$$d_t = \frac{d_{t-1}}{1 + g_t} (1 + i_t) - p_t \quad (1)$$

where, in the year  $t$ ,  $d_t$  and  $p_t$  are the domestic debt and the primary balance both expressed as a share of GDP,  $g_t$  is the real GDP growth rate, and  $i_t$  is the average real interest rate applied to domestic debt.

This equation is expanded to identify a range of possible paths consistent with debt sustainability. The primary balances are looked at from “below the line” with domestic financing described as the difference between all the other budgetary inflows (domestic revenues and external grants and loans) and outflows (primary expenditure and external debt service):

$$d_t = \frac{d_{t-1}}{1 + g_t} (1 + i_t) - [adr_t + \Delta_t + nes_t - dpre_t - (1 - \alpha_t) \cdot dnpre_t - \alpha_t \cdot dnpre_t] \quad (2)$$

where, as a share of GDP,  $adr_t$  is the average of domestic revenue in the region (or in the countries at a similar level of development);  $\Delta_t$  is the difference between the country’s domestic revenue and the regional average;  $nes_t$  is net external budgetary support (program grants and loans minus external debt service),<sup>10</sup>  $dpre_t$  is domestic poverty-reducing spending;  $\alpha_t$  is the mandatory share of domestic primary non-poverty-reducing spending (i.e., wages, pensions, payments of arrears, and some counterpart fund for foreign-financed capital spending); and  $dnpre_t$  domestic primary non-poverty-reducing spending.<sup>11</sup>

29. **The extended formula adds information to that provided by the usual macroeconomic indicators of sustainability (average primary surplus, debt stock and debt service as a share of GDP, revenues, or exports, in the case of external liabilities).**<sup>12</sup> In

<sup>9</sup> The set of poverty-reducing programs considered for the projections fully reflects the programs identified in the PRSP of Zambia. Consistently with this classification, expenditure on poverty-reducing programs excludes wages for education and health sector employees.

<sup>10</sup> Project grants and loans net of foreign-financed capital expenditure.

<sup>11</sup> The analysis also measures primary non-poverty-reducing spending in real U.S. dollars per capita.

<sup>12</sup> The need to have additional indicators to assess debt sustainability in low-income countries (LICs) has been underlined in recent research and in an IMF board paper, where attention is focused on the primary surplus needed

(continued)

particular, the difference between the revenues collected and the average level collected in the region,  $\Delta_t$ , as well as the scale or mandatory primary non-poverty-reducing spending,  $\alpha \cdot dnpre$ , allows us to assess the rigidity of budgetary revenues and expenditure. In this way, these indicators shed light on the feasibility of adjustment.

30. **In Zambia, central government domestic revenues (19 percent of GDP in 2004) are in line with the average of the Common Market for Eastern and Southern Africa (COMESA) (excluding Seychelles), i.e.,  $\Delta_t = 0$ .** This suggests relatively limited scope for adjustment on the revenue side. Primary non-poverty-reducing spending is estimated at 18 percent of GDP in 2003 (US\$70 in per capita terms). The mandatory share of the primary non-poverty-reducing spending,  $\alpha$ , is very high, at about 70 percent (12.5 percent of GDP). The discretionary spending is the residual 30 percent (5.5 percent of GDP). This suggests that expenditure policy reforms are key to moving the fiscal stance to a sustainable track while freeing up resources for rising poverty-reducing spending. Only modest savings can be generated by improving efficiency or tightening control on commitments.

#### D. Outlook Under Different Scenarios

##### The baseline scenario

31. **The “baseline scenario” assumes, in line with the 2004 budget, that domestic financing is contained at 2 percent of GDP in 2004 and eliminated by 2008.** The decline in domestic financing and domestic debt is accompanied by a fall in inflation and real interest rates (from 21.5 percent to 5 percent, and from 15.3 percent to 6 percent over 2003-08, respectively). Economic growth rates average almost 5 percent over the period.

32. **The baseline scenario also envisages domestic revenues of 19 percent of GDP from 2004 onward, as well as savings on primary non-poverty-reducing spending due to policy and management reforms.** Specifically, spending on primary non-poverty-reducing items (excluding items financed by project support from donors) is assumed to decline gradually—but significantly considering the large initial mandatory component—from 18 percent to 13 percent of GDP (or, in real per capita terms, from US\$70 to US\$52 per year).<sup>13</sup> As a consequence of

---

to reach a given target of debt-to-GDP ratio or debt-to-revenues or debt-to-export ratios. See A. Fedelino and A. Kudina, “Fiscal Sustainability in African HIPC Countries: A Policy Dilemma?” IMF Working Paper 03/187 (Washington: International Monetary Fund, 2003) and “Debt Sustainability in Low-Income Countries—Toward a Forward-Looking Strategy”.

<sup>13</sup> Non-poverty-reducing spending (net of spending financed by project support from donors) is classified in the following economic categories (data refer to the 2003 estimated outturn): (i) wages (8.5 percent of GDP); (ii) retrenchment of civil service employees (0.1 percent of GDP); (iii) recurrent departmental charges (2.8 percent of GDP, excluding payments of domestic arrears); (iv) payments of domestic arrears (0.3 percent of GDP); (v) transfers to public sector institutions (constitutional bodies, universities, pension funds, the Board of Health, the Zambia Revenue Authority, etc.) and state-owned enterprises (4 percent of GDP in total); and (vi) domestically financed investments (1.4 percent of GDP, excluding counterpart funds for poverty-reducing investments).

improved macroeconomic and structural performance, donors' project and budgetary financial support—net of external debt service—remains above 7 percent of GDP over the period. Net external budgetary support increases by about 1 percentage point of GDP but remains slightly negative.

33. **As a result of the fiscal adjustment, domestic debt would decline from 21 percent to 14 percent of GDP over 2003-08 (Tables II.2 and II.3).** Domestic interest payments remain above 3.5 percent of GDP in 2004 and 2005 but decrease significantly in the following years to 1.8 percent of GDP in 2008 (Figure II.1). Declining domestic borrowing underpins the credibility of the fiscal adjustment and accelerates the drop in real interest rates. A virtuous cycle operates, leading to rapid debt stabilization. Resources freed by structural reforms and declining domestic interest payments feed poverty-reducing spending, which rises by 3 percent of GDP to 5.4 percent of GDP, or from US\$10 to US\$22 per person each year.

Table II.2. Main Results, 2003-08 (As share of GDP)

	Domestic debt		Interest payments		Poverty-reducing spending	
	2003	2008	2003	2008	2003	2008
Baseline Scenario	21.0	13.8	2.8	1.8	2.4	5.4
Alternative Scenario	21.0	27.9	2.8	12.4	2.4	1.6

Source: Staff calculations.

34. **However, the increased spending on poverty-reducing programs in the baseline scenario may not be adequate to provide the additional resources required for progress toward the Millennium Development Goals (MDGs).** Indeed, limiting the focus on health, the World Health Organization's Commission on Macroeconomics and Health found that, on average, in the less-developed countries, the set of essential health interventions costs around US\$34 per person per year. The commission also estimated that, by 2007, the less-developed countries should mobilize additional domestic resources of US\$15 per person per year to supplement donors' financial aid and adequately fund the programs in order to reach the MDGs on health.<sup>14</sup> As indicated, total poverty-reducing spending in Zambia is projected to increase by US\$12 over the same period. The projections under the baseline scenario therefore suggest that additional donor financial support may be necessary for Zambia to reach the MDGs.

<sup>14</sup> World Health Organization—Commission on Macroeconomics and Health, *Macroeconomic and Health: Investing in Health for Economic Development* (2001). Currently, central government spending on health is about US\$5 per person per year, including wages for health sector's workers.



Figure II.1. Baseline Scenario: Debt Service  
(As share of GDP)

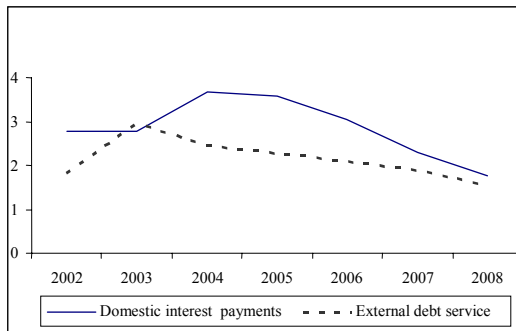
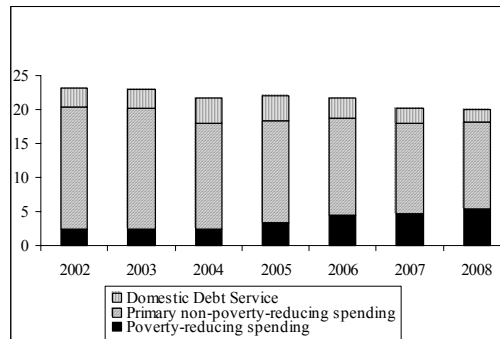


Figure II.2. Baseline Scenario: Expenditure  
Composition (As share of GDP)



### The alternative scenario

35. **Under the alternative scenario, no significant fiscal adjustment is undertaken.** Consequently, in 2004, domestic financing remains close to 5 percent of GDP. Inflation accelerates to more than 40 percent in 2008, and real interest rates are assumed to remain constant at the 2003 levels (15.3 percentage points). Real GDP growth would fall back below population growth by the end of the period (from 3.5 percent in 2003 to 1.5 percent in 2008). Donors' support of the budget would also decline. Despite declining primary expenditure, domestic financing reaches 10 percent of GDP, mainly to provide resources for rising domestic interest payments (Table II.4).

36. **The alternative scenario results in mounting domestic financing and shift in expenditure composition required to meet the escalating domestic interest payments.** Those payments rise to more than 12 percent of GDP in 2008 (Figures II.3 and II.4). The stock of domestic debt grows rapidly and climbs to 28 percent of GDP in 2008 (Table II.2). Increasing domestic borrowing and declining primary non-poverty-reducing spending do not protect primary poverty-reducing expenditure. The latter falls to 1.6 percent of GDP in 2008 or to US\$6 per capita per annum.

Figure II.3. Alternative Scenario: Debt Service  
(As share of GDP)

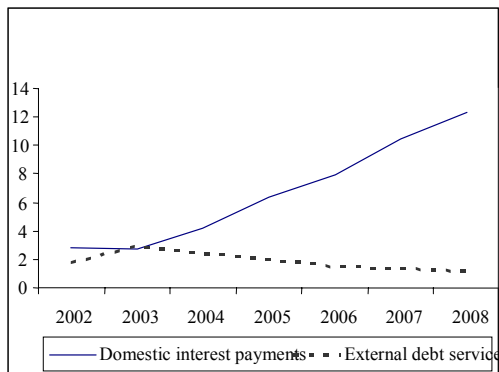


Figure II.4. Alternative Scenario: Expenditure Composition  
(As share of GDP)

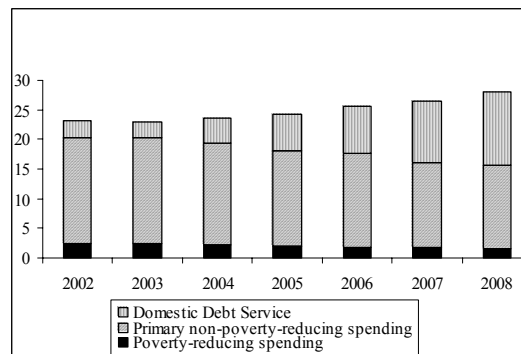


Table II.3. Baseline Scenario-Main Assumptions and Results, 2003-08

	2003	2004	2005	2006	2007	2008
<b>Macroeconomic assumptions</b>						
CPI (annual average, percent change)	21.5	18.5	17.5	12.5	7.5	5.0
Real GDP (percent change)	4.2	3.5	4.5	4.9	5.0	5.0
GDP deflator (percent change)	20.1	19.6	14.4	10.1	7.5	5.0
Partner-country GDP deflator (annual average, percent change)	1.5	1.2	1.7	2.1	2.1	2.1
Nominal exchange rate (average, kwacha per U.S. dollar)	4,798.0	5,664.0	6,790.0	7,433.0	7,826.2	8,048.5
Real exchange rate (average, values > 1 => depreciation)	1.00	1.00	1.07	1.02	1.00	1.00
Nominal interest rates on paper issued during the year (percent)	36.8	35.0	33.1	24.1	15.1	10.6
Treasury bills	33.5	34.0	32.1	23.1	14.1	9.6
Treasury bonds	40.0	36.0	34.1	25.1	16.1	11.6
Real interest rates on paper issued during the year (percent)	15.3	16.5	15.6	11.6	7.6	5.6
<b>Fiscal assumptions (percent of GDP)</b>						
Revenues	18.1	19.0	19.0	19.0	19.0	19.0
Domestic financing	5.1	2.0	1.5	1.0	0.5	0.0
Domestic balance	-3.5	-1.3	-1.6	-1.3	0.2	0.4
Primary non-poverty-reducing spending 1/	17.9	15.6	15.1	14.3	13.3	12.8
<b>External sector assumptions (percent of GDP)</b>						
Balance of payments loans	0.2	1.0	1.3	0.8	0.8	0.7
Balance of payments grants	1.1	0.6	1.1	1.6	0.5	0.4
External debt	-3.0	-2.5	-2.3	-2.1	-1.9	-1.5
Amortization	-1.8	-1.6	-1.4	-1.3	-1.2	-1.0
Interest	-1.1	-0.9	-0.9	-0.8	-0.7	-0.6
Project loans	3.1	2.6	1.1	0.9	0.8	0.8
Project grants	5.9	5.4	6.8	6.6	7.9	8.1
<b>Results (percent of GDP or otherwise indicated)</b>						
NPV of total debt	60.2	59.8	58.5	53.0	49.3	46.4
Domestic debt	21.0	19.8	18.0	16.6	15.2	13.8
Domestic debt (percent of revenues)	115.8	104.0	95.0	87.5	80.2	72.7
Domestic interest payments	2.8	3.7	3.6	3.0	2.3	1.8
Poverty-reducing spending	2.4	2.4	3.3	4.4	4.6	5.4
Real per-capita poverty-reducing spending (U.S. dollars)	9.4	9.5	12.6	17.0	18.2	21.9
<b>Memorandum items:</b>						
Real percapita primary non-poverty-reducing spending (U.S. dollars) 1/	70.1	62.1	57.8	55.2	53.0	52.2
Overall balance (percent of GDP)	-6.6	-4.0	-2.5	-1.4	-0.9	-0.5
Real per-capita GDP (U.S. dollars)	392.7	398.6	382.5	386.9	397.1	407.3
Nominal GDP (billions of kwacha)	20,338	25,178	30,072	34,716	39,186	43,202

Source: Staff calculation.

1/ Excludes expenditure financed by project support from donors.

Table II.4. Alternative Scenario-Main Assumptions and Results 2003-08

	2003	2004	2005	2006	2007	2008
<b>Macroeconomic assumptions</b>						
CPI (annual average, percent change)	21.5	25.1	29.5	34.5	39.5	43.5
Real GDP (percent change)	4.2	3.5	3.5	3.5	2.5	1.5
GDP deflator (percent change)	20.1	25.1	29.5	34.5	39.5	43.5
Partner-country GDP deflator (annual average, percent change)	1.5	1.2	1.7	2.1	2.1	2.1
Nominal exchange rate (average, kwacha per U.S. dollar)	4,798.0	5,928.6	7,550.0	9,950.1	13,595.0	19,107.7
Real exchange rate (average, values > 1 => depreciation)	1.00	1.00	1.00	1.00	1.00	1.00
Nominal interest rates on paper issued during the year (percent)	36.8	40.3	44.8	49.8	54.8	58.8
Treasury bills	33.5	37.1	41.5	46.5	51.5	55.5
Treasury bonds	40.0	43.6	48.0	53.0	58.0	62.0
Real interest rates on paper issued during the year (percent)	15.3	15.3	15.3	15.3	15.3	15.3
<b>Fiscal assumptions (percent of GDP)</b>						
Revenues	18.1	18.1	18.1	18.1	18.1	18.1
Domestic financing	5.1	4.9	7.0	8.0	8.8	10.0
Domestic balance	-3.5	-4.2	-4.8	-6.0	-7.0	-8.4
Primary non-poverty-reducing spending 1/	17.9	17.3	16.0	15.8	14.3	14.0
<b>External sector assumptions (percent of GDP)</b>						
Balance of payments loans	0.2	1.0	0.0	0.0	0.0	0.0
Balance of payments grants	1.1	0.5	0.0	0.0	0.0	0.0
External debt	-3.0	-2.4	-2.2	-2.0	-1.8	-1.6
Amortization	-1.8	-1.5	-1.3	-1.2	-1.2	-1.0
Interest	-1.1	-0.8	-0.8	-0.7	-0.6	-0.6
Project loans	3.1	2.5	1.1	0.7	0.6	0.4
Project grants	5.9	5.2	6.4	3.1	3.8	4.0
<b>Results (percent of GDP or otherwise indicated)</b>						
NPV of total debt	60.2	63.4	65.8	64.5	73.6	79.4
Domestic debt	21.0	21.9	23.3	24.8	26.1	27.9
Domestic debt (percent of revenues)	115.8	120.9	128.9	136.8	144.3	154.3
Domestic interest payments	2.8	4.2	6.3	8.0	10.4	12.4
Poverty-reducing spending	2.4	2.2	2.0	1.8	1.7	1.6
Real per-capita poverty-reducing spending (U.S. dollars)	9.4	8.7	8.0	7.3	6.9	6.4
<b>Memorandum items:</b>						
Real percapita primary non-poverty-reducing spending (U.S. dollars) 1/	70.1	68.8	64.7	64.5	58.8	56.8
Overall balance (percent of GDP)	-6.6	-6.8	-6.7	-7.5	-8.2	-9.4
Real per-capita GDP (U.S. dollars)	392.7	398.3	403.8	409.0	409.9	406.4
Nominal GDP (billions of kwacha)	20,338.0	26,334.5	35,296.8	49,135.8	70,258.0	102,332.6

Source: Staff calculation.

1/ Excludes expenditure financed by project support from donors.

### III. THE EXTERNAL VALUE OF THE KWACHA<sup>15</sup>

37. **This section assesses movements in the external value of the kwacha, using a number of different approaches.** First, the section looks at developments in the real exchange rate and in differentials in rates of return on financial assets in Zambia and key financial centers. The section then considers developments in the external trade sector and the implications of Zambia's reliance on external assistance.

#### A. The Real Effective Exchange Rate

38. **The real effective exchange rate (REER) provides a trade-weighted index of the official value of the kwacha against the currencies of Zambia's trading partners, adjusted for movements in prices in Zambia and its trading partners.** To capture relative movements in production costs, the REER should ideally be calculated using, for example, data on unit labor costs. However, the only economy-wide price series available for Zambia is the consumer price index (CPI). This has the disadvantage that its movements may reflect short-term shifts in demand and supply, rather than trends in costs. Moreover, because of the significant component of imported goods in the index, movements in the CPI may not be independent of the exchange rate.

39. **The choice of the base year (when the index of the REER takes the value 100—in this case, 1990) is essentially arbitrary.** Hence, a value above 100 does not necessarily indicate that the real value of the kwacha is too high. However, this base period provides a convenient benchmark against which to evaluate subsequent developments in the REER because the exchange regime was liberalized and unified in the early 1990s.<sup>16</sup> Before liberalization, the value of the REER—calculated at the more appreciated official exchange rate—is likely to have been biased upward; the sharp fall in the REER in the late 1980s reflected the impact of unification.

40. **Since the early 1990s, the REER has generally remained within a band of 15 percent.** However, there was a modest tendency of appreciation of about 1 percent per year through the 1990s. Zambia's high inflation, compared to its trading partners, has been only partially offset by a depreciation of the kwacha against the U.S. dollar; while U.S. inflation has averaged 3 percent, the U.S. dollar value of the Zambian CPI has increased by about 4 percent per year since 1990. The appreciation of the REER continued into the early 2000s and was particularly pronounced in 2001 when it peaked at 15 percent above its level of 1990. The REER has since declined and, in 2003, it fell to only 6 percent above its level of 1990.

---

<sup>15</sup> Prepared by Nicholas Staines.

<sup>16</sup> The exchange rate system was highly regulated until early 1989, when a process of gradual liberalization was introduced. The exchange rate was substantially liberalized by 1991, but the process was not complete until 1994.

## **B. Bilateral Real Exchange Rates and Real Rates of Return**

41. **An alternative approach assesses the value of the kwacha using the interest rate parity condition.** After allowing for a risk premium for investing in Zambian assets, the real rate of return on a financial asset in Zambia, adjusted for exchange rate movements, would be expected, on average, to equal the return available elsewhere. This risk premium is, however, not directly observable and may be significantly volatile over time. The exchange rate-adjusted net rate of return is here calculated ex post using the three-month treasury-bill rate, the CPI inflation rate, and the actual real exchange rate (as an imperfect proxy for the expected rate).

42. **For all three financial markets covered here (the United States, the United Kingdom, and South Africa), the evolution of adjusted returns has closely paralleled the evolution of inflation in Zambia, though differentials were also distorted until the early 1990s by exchange rate controls and the use of the official exchange rate.** As inflation accelerated through the 1980s and early 1990s, differentials were increasingly negative for all three markets, and the average (negative) differential peaked at over 20 percent in the early 1990s, as inflation reached its peak of 183 percent in 1993.

43. **Following the liberalization of the exchange rate and with the decline in inflation, differentials in all three markets turned marginally positive, averaging 1 percent from 1994 to 1999.** Efforts to contain and further reduce inflation in 2001 were accompanied by a sharp increase in nominal as well as real interest rates. As a result, differentials in all three markets also increased sharply in 2001 to average almost 30 percent—an increase that was consistent with the increase in the REER that year. The subsequent moderation in nominal and real interest rates (especially at the end of 2003), as well as in the REER, was also reflected in a moderation of differentials, which fell to an average of 3 percent in 2003.

44. **Aside from the upward spike in adjusted net returns in 2001 (and to a lesser extent in 2002), differentials have averaged about 4 percent since exchange rate liberalization and the start of disinflation in 1994.** This would seem to be reasonable, given the higher risk associated with investing in Zambian financial assets, and does not suggest a significant persistent misalignment in the exchange rate. The evolution of interest rate differentials has been consistent with the evolution of the real exchange rate, and there is little systematic evidence from these differentials that the external value of the kwacha is currently misaligned.

## **C. The External Trade Sector**

45. **There was a steady deterioration in the trade balance on goods and services, from a small surplus in the late 1980s to a deficit of over 16 percent of GDP in 2001.** Exports declined as a percent of GDP, while import penetration increased. Although these trends began to be reversed in 2001, the sustained widening in the trade deficit through 2001 raises concerns of a secular deterioration in Zambia's external competitiveness, possibly stemming from the steady appreciation in the real exchange rate noted above. However, there are other factors that need to be taken into account.

**46. There have been significant changes in the structure of trade. Metal exports (mostly copper) declined from 90 percent of merchandise exports in 1990s to 61 percent in 2002.**

This was in part due to lower copper prices, which fell almost 30 percent between 1995 and 2002, but also reflected declines in output. The sector started to recover in 2000 following privatization, and this recovery was strengthened in 2003 by the recovery of copper prices. Despite the appreciation of the REER, nonmetal exports increased threefold in real terms since the early 1990s. This expansion has been prompted by improved access to industrial markets, as well as the greater regional integration with COMESA and SADC.<sup>17</sup> These two developments have also resulted in a marked shift away from trade with industrial countries, especially the European Union, toward trade with other developing countries, especially in Africa.

**47. Regional conflicts this past decade have also taken their toll, especially because of Zambia's reliance on neighboring countries for access to the sea.** The conflict in Mozambique ended in the early 1990s, but conflict broke out in the Democratic Republic of the Congo later in the decade, and the conflict in Angola has only recently ended. Zambia's trade flows have also been affected by the recent disturbances in Zimbabwe.<sup>18</sup> It is difficult to estimate the impact of these conflicts on Zambia's external trade, but a study of the spillover effects from conflict has concluded that, for sub-Saharan Africa, a conflict in a neighboring country reduces real per capita growth by up to 0.5 percentage point.<sup>19</sup>

**48. This picture of the trade sector needs to be further qualified by taking into account the large amount of imports related to external aid.** The import content of project aid is difficult to estimate. Assuming an import content of 85 percent,<sup>20</sup> excluding these aid-related imports significantly reduces the level of the trade deficit but not the deterioration of the trade balance. The adjusted trade deficit was near balance through most of the 1990s, but rose to about 8 percent of GDP in 2001 before falling back to about 5 percent of GDP in 2003.<sup>21</sup> A larger part of this increase in the adjusted trade deficit can be attributed to the increase in capital imports, especially in the mining sector, following privatization. To a lesser extent, the temporary

---

<sup>17</sup> In 2000, Zambia joined eight other countries in a COMESA free-trade area. COMESA is expected to create a common external tariff in 2004. SADC members have also been following a strategy of increased regional trade integration through reduced tariffs.

<sup>18</sup> The hyperinflation in Zimbabwe and the accompanying depreciation of its currency led to a surge of exports into Zambia in 2002 that was only partially stemmed by the imposition of trade bans by Zambia against selected Zimbabwean imports. In May 2003, these bans were replaced by tariffs imposed on imports at an assessed exchange rate.

<sup>19</sup> James C. Murdoch and Todd Sandler, "Civil Wars and Economic Growth: A Regional Comparison" (Unpublished; World Bank: Washington, 2001). See also James C. Murdoch and Todd Sandler, "Economic Growth, Civil Wars, and Spatial Spillovers" (Unpublished; World Bank: Washington, 2001).

<sup>20</sup> Aid-related imports include merchandise as well as service imports. Although Zambia has ample low-cost labor resources, the relatively high import content is justified by a limited local capacity to supply material inputs and the high transportation cost of imports.

<sup>21</sup> With a lower assumed aid-related import content, the adjusted trade deficit would be even larger.

increase in imports relating to the recent drought and to the depreciation of the Zimbabwean currency also played a part.

#### **D. External Assistance**

49. **Zambia's reliance on high levels of external assistance might be expected to exert an upward pressure on the exchange rate, leading to some measure of "dutch disease."** For example, it has been estimated that a doubling of Overseas Development Assistance (ODA) flows causes a real appreciation of up to 4 percent at impact, increasing to about 18 percent after five years, and that sterilization policy can be quite effective in preventing this real appreciation.<sup>22</sup> A corollary is that high levels of external support can also introduce a risk of exchange rate depreciation, should this level of support be reduced.

50. **In gross terms, the level of external assistance to Zambia has averaged about 17 percent of GDP over the past two decades, with a standard deviation almost as large.** However, apart from a period of low support in the early 1980s and a period of high support in the late 1990s (mostly due to a large PRGF disbursement following the clearing of arrears to the IMF) there is no evident trend. Net of debt service, official resource inflows have also been very volatile and have also increased since the late 1980s in both absolute dollar terms and relative to GDP. Thus, net official resource inflows over 2000-03 averaged 10 percent of GDP, double the level in the early 1990s, with a large part of this increase due to debt relief under the HIPC Initiative.

51. **Although measured net resource inflows have been large, their impact on the balance of payments and the exchange rate has been moderated by two factors.** First, a portion of these inflows has been used to accumulate international reserves. Second, a large part of the aid has financed imports. Subtracting these two components yields a measure of the net balance of payments support that could directly influence the exchange rate. Using this estimate, net balance of payments support has increased steadily since the mid-1980s but was generally **negative** until the late 1990s. It turned positive in the 2000s (averaging 1.1 percent of GDP), reaching a peak of about 2 percent of GDP in 2001, but has declined to almost zero in 2003 in the absence of a new PRGF arrangement. Although net balance of payments support has only recently turned positive, the direction of change is consistent with the steady appreciation of the REER over the 1990s and its reversal since 2001. The magnitude of support in recent years would appear to have been too modest to have a direct impact on the exchange rate.

---

<sup>22</sup>Alessandro Prati, Ratna Sahay, and Thierry Tressel, "Is There a Case for Sterilizing Foreign Aid Flows?" Paper presented at IMF workshop on Macroeconomic Challenges in Low-Income Countries, Washington, October 2003.

## E. Conclusion

52. **This section has looked at the external value of the kwacha from four different perspectives. There was a small but persistent tendency for the real exchange rate to appreciate throughout the 1990s.** The real exchange rate spiked upward in 2001, but this has since been largely reversed. This evolution of the real exchange rate was consistent with the evolution of interest rate differentials in key financing markets, the trade balance, and external assistance. Overall, the data provide little indication that the external value of the kwacha is currently misaligned.



Table III.1. Zambia: Summary Table: External Value of the Kwacha, 1980-2003

	Annual Average					Period Averages				
	1999	2000	2001	2002	2003 1/	1980-84	1985-89	1990-94	1995-99	2000-03
Nominal exchange rate, kwacha per U.S. dollar	2,387.6	3,110.8	3,607.9	4,306.8	4,797.8	1.1	8.2	278.5	1,527.5	3,955.8
REER index, 1990=100	104.8	106.1	115.2	107.2	106.4	138.4	91.6	96.5	104.2	108.7
Percent change	-2.2	1.2	8.7	-6.9	-0.8	-1.8	6.7	-3.9	1.9	1.0
Zambia CPI, percent change	26.8	26.0	21.7	22.6	18.4	15.6	64.2	121.7	30.7	22.2
Treasury-bill rate	36.2	31.4	44.3	34.5	31.4	6.3	17.5	74.7	36.6	35.4
Real treasury-bill rate	7.4	4.2	18.5	9.8	11.0	-8.0	-26.6	-15.8	4.5	10.9
Exchange rate adjusted net rate of return with respect to U.S.	0.2	-3.4	20.9	7.6	18.4	-19.6	-18.1	-23.5	1.2	10.9
Exchange rate adjusted net rate of return with respect to U.K.	2.1	3.1	25.1	1.4	8.4	-11.4	-25.2	-23.6	-0.9	9.5
Exchange rate adjusted net rate of return with respect to S. Africa	2.3	5.2	39.0	19.2	-18.5	-10.0	-10.1	-23.7	3.2	11.2
Average exchange rate adjusted net rate of return	1.5	1.6	28.3	9.4	2.8	-13.7	-17.8	-23.6	1.2	10.5
Trade in goods and services (percent of GDP)	64.2	67.3	72.9	69.9	72.6	64.5	74.0	76.0	71.9	70.7
Exports	26.9	26.6	28.2	27.9	30.3	30.2	38.3	35.2	31.5	28.3
Imports	37.3	40.7	44.6	42.0	42.3	34.3	35.6	40.8	40.4	42.4
Share of total merchandise exports										
Industrial countries	26.9	47.7	32.0	26.1	...	74.9	65.3	51.6	38.3	35.3
Developing countries	72.1	52.3	67.9	73.8	...	24.2	34.5	48.3	61.5	64.7
<i>Of which:</i> Africa	35.6	41.8	26.1	28.7	...	4.9	6.8	9.3	21.1	32.2
Share of total merchandise imports										
Industrial countries	29.3	23.4	16.7	17.5	...	49.9	57.1	44.9	32.7	19.2
Developing countries	66.4	75.9	82.4	81.6	...	50.0	42.9	55.0	66.4	80.0
Africa	55.8	69.0	71.6	71.5	...	22.2	26.3	40.7	51.9	70.7
Merchandise exports (percent of GDP)	26.9	26.6	28.2	27.9	30.3	30.2	38.3	35.2	31.5	28.3
Metal exports, constant U.S. dollar (1995=100)	83.9	80.5	103.0	110.9	123.9	119.0	125.7	115.9	94.7	104.6
Metal exports (percent of merchandise exports)	61.9	66.6	66.7	61.1	63.6	94.7	92.7	89.5	71.3	64.5
Nonmetal exports, constant U.S. dollar (1995=100)	161.3	146.1	178.2	214.3	217.2	32.9	46.0	58.5	138.5	188.9
Nonmetal exports (percent of merchandise exports)	38.1	33.4	33.3	38.9	36.4	5.6	7.3	10.5	28.7	35.5
Terms of trade goods (index 1995=100)	72.5	69.3	67.9	63.1	67.5	123.5	97.6	98.4	84.2	66.9
Copper price (index 1995=100)	68.7	83.1	80.6	72.4	93.5	72.4	95.4	92.7	79.8	82.4
Trade balance, goods and services (percent GDP)	-10.4	-14.1	-16.4	-14.1	-11.9	-4.1	2.7	-5.7	-8.9	-14.1
Trade balance, goods and services, excl. aid (percent GDP)	-1.3	-7.2	-7.7	-6.1	-4.7	1.2	8.1	-0.1	-0.8	-6.4
Trade balance (contribution to real GDP growth)	1.9	-5.0	-3.7	1.5	0.0	0.4	-0.4	0.1	-0.5	-1.8
Gross disbursements (percent GDP) 2/	16.3	14.1	14.5	17.4	9.6	14.6	12.3	17.1	26.1	13.9
Debt service (percent GDP) 3/	4.0	4.3	3.9	3.3	4.7	8.3	8.9	11.2	19.4	4.0
Net resource inflows (percent GDP) 4/	12.3	9.8	10.6	14.2	4.9	6.2	3.4	5.9	6.7	9.9
Net Balance of Payments support (percent GDP) 5/	3.1	0.9	1.9	1.6	0.1	1.0	-2.0	-0.4	-0.1	1.1

Sources: WEO, and staff estimates.

1/ Financial data for 2003 show the average through October, while trade data for 2003 shows projections for the calendar year.

2/ Includes gross disbursements from the IMF under the successor arrangement following the clearance of arrears in 1995.

3/ Includes the clearance of arrears to the IMF in 1995.

4/ Gross disbursements less debt service.

5/ Net resource inflows less reserve accumulation and aid-related imports.

Table 1. Zambia: Gross Domestic Product by Sector of Origin at Constant Prices, 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003 <sup>1/</sup>
(In billions of kwacha)									
Agriculture, forestry, and fishing	403	400	380	385	423	430	419	412	432
Mining and quarrying	271	279	284	213	160	160	183	213	220
Manufacturing	218	231	242	247	254	263	274	289	308
Electricity, gas, and water	71	67	70	70	72	73	82	78	78
Construction	108	96	124	112	116	124	138	162	184
Wholesale and retail trade	297	395	413	427	446	457	481	505	530
Transport and communications	125	135	134	146	154	158	162	165	174
Community, social, and personal services 2/	177	182	183	179	194	193	204	207	212
Financial institutions and insurance	218	200	201	202	207	205	206	213	220
Real estate and business services	115	141	159	179	204	238	247	257	268
Restaurants and hotels	38	41	44	46	43	48	60	63	67
Other	136	161	171	155	140	151	167	144	132
Plus: import duties	262	276	286	271	259	272	291	272	263
Less: imputed banking service charges	125	115	115	116	119	122	125	128	131
Total GDP	2,177	2,328	2,405	2,360	2,413	2,499	2,621	2,708	2,825
Memorandum items:									
Nonagricultural GDP	1,774	1,928	2,025	1,976	1,989	2,069	2,202	2,296	2,392
Nonmining GDP	1,906	2,050	2,120	2,147	2,252	2,339	2,438	2,495	2,605
(Percentage change)									
Agriculture, forestry, and fishing	33.4	-0.6	-5.1	1.2	10.1	1.6	-2.6	-1.7	5.0
Mining and quarrying	-27.6	2.8	2.2	-25.1	-24.8	0.1	14.0	16.4	3.3
Manufacturing	-0.4	5.6	5.1	1.9	2.8	3.6	4.2	5.7	6.3
Electricity, gas, and water	-1.6	-5.6	4.2	0.6	2.5	1.2	12.6	-5.2	0.6
Construction	-3.4	-11.0	29.0	-9.1	3.2	6.5	11.5	17.4	13.9
Wholesale and retail trade	-10.6	33.1	4.5	3.5	4.5	2.3	5.4	5.0	4.9
Transport and communications	-6.6	7.6	-0.2	8.5	5.7	2.4	2.8	1.8	5.1
Community, social, and personal services 2/	-1.2	3.3	0.4	-2.3	8.4	-0.5	5.8	1.6	2.4
Financial institutions and insurance	19.3	-8.3	0.3	0.4	2.5	-0.6	0.1	3.5	3.5
Real estate and business services	2.0	22.5	12.6	12.7	13.8	17.0	3.5	4.4	4.0
Restaurants and hotels	5.2	8.4	7.2	3.8	-6.2	12.3	24.4	4.9	5.9
Other	-26.2	18.4	6.0	-9.2	-9.7	7.5	10.6	-13.8	-8.0
Plus: import duties	-9.7	5.6	3.6	-5.4	-4.5	5.2	7.0	-6.8	-3.0
Less: imputed banking service charges	-19.3	8.3	-0.3	-0.4	-2.5	-2.5	-2.5	-2.5	-2.5
Total GDP	-2.8	6.9	3.3	-1.9	2.2	3.6	4.9	3.3	4.3
Memorandum items:									
Nonagricultural GDP	-8.5	8.7	5.1	-2.4	0.7	4.0	6.4	4.3	4.2
Nonmining GDP	2.1	7.5	3.5	1.3	4.9	3.8	4.3	2.3	4.4

Source: Central Statistical Office.

1/ Based on the first two quarters of 2003; likely to undergo revision.

2/ Includes public administration, defense, sanitary services, education, health, recreation, and personal services.

Table 2. Zambia: Gross Domestic Product by Sector of Origin at Current Prices, 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003 1/
(In billions of kwacha)									
Agriculture, forestry, and fishing	487	612	845	1,128	1,614	2,002	2,582	3,247	4,245
Mining and quarrying	433	477	511	378	281	416	519	575	564
Manufacturing	297	465	597	692	807	1,025	1,293	1,694	2,213
Electricity, gas, and water	94	129	214	220	246	328	445	488	597
Construction	123	139	226	268	320	500	729	1,068	1,524
Wholesale and retail trade	438	691	854	1,049	1,380	1,880	2,341	3,004	3,856
Transport and communications	179	232	272	342	430	636	853	1,056	1,073
Community, social, and personal services 2/	251	281	412	511	667	902	1,236	1,414	1,757
Financial institutions and insurance	309	348	451	547	677	982	1,239	1,493	1,848
Real estate and business services	162	220	294	382	496	661	833	1,041	1,340
Restaurants and hotels	52	87	111	133	146	207	316	407	523
Other	181	269	353	378	413	533	748	773	838
Plus: import duties	359	469	612	692	802	1,098	1,460	1,631	1,900
Less: imputed banking service charges	178	200	259	314	389	564	712	858	1,062
Total GDP	3,005	3,950	5,140	6,028	7,478	10,072	13,133	16,260	20,377
(In percent of GDP)									
Agriculture, forestry, and fishing	16.2	15.5	16.4	18.7	21.6	19.9	19.7	20.0	20.8
Mining and quarrying	14.4	12.1	9.9	6.3	3.8	4.1	4.0	3.5	2.8
Manufacturing	9.9	11.8	11.6	11.5	10.8	10.2	9.8	10.4	10.9
Electricity, gas, and water	3.1	3.3	4.2	3.7	3.3	3.3	3.4	3.0	2.9
Construction	4.1	3.5	4.4	4.4	4.3	5.0	5.5	6.6	7.5
Wholesale and retail trade	14.6	17.5	16.6	17.4	18.5	18.7	17.8	18.5	18.9
Transport and communications	5.9	5.9	5.3	5.7	5.7	6.3	6.5	6.5	5.3
Community, social, and personal services 2/	8.3	7.1	8.0	8.5	8.9	9.0	9.4	8.7	8.6
Financial institutions and insurance	10.3	8.8	8.8	9.1	9.0	9.8	9.4	9.2	9.1
Real estate and business services	5.4	5.6	5.7	6.3	6.6	6.6	6.3	6.4	6.6
Restaurants and hotels	1.7	2.2	2.2	2.2	1.9	2.1	2.4	2.5	2.6
Other	6.0	6.8	6.9	6.3	5.5	5.3	5.7	4.8	4.1
Plus: import duties	12.0	11.9	11.9	11.5	10.7	10.9	11.1	10.0	9.3
Less: imputed banking service charges	5.9	5.1	5.0	5.2	5.2	5.6	5.4	5.3	5.2
Total GDP	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Central Statistical Office.

1/ Based on the first two quarters of 2003; likely to undergo revision.

2/ Includes public administration, defense, sanitary services, education, health, recreation, and personal services.

Table 3. Zambia: Gross Domestic Product by Type of Expenditure, 1995-2003 1/

	1995	1996	1997	1998	1999	2000	2001	2002	2003 2/
(At current prices, in billions of kwacha)									
Total consumption	2,640	3,741	4,658	5,792	7,563	9,236	10,864	13,389	16,557
Government consumption	464	722	898	951	966	960	1,687	2,109	2,981
Private consumption	2,175	3,019	3,760	4,840	6,597	8,276	9,177	11,280	13,576
Total investment	478	507	749	988	1,313	1,881	2,632	3,736	5,325
Gross fixed capital formation	373	444	672	893	1,196	1,736	2,455	3,517	5,055
Public	198	239	278	482	532	794	...	...	...
Private	175	206	394	412	664	992	...	...	...
Changes in stocks	105	63	77	95	117	144	178	219	270
Net exports of goods and services	-113	-298	-267	-752	-1,399	-1,045	-363	-865	-1,506
Exports of goods and services	1,082	1,237	1,548	1,610	1,674	2,121	3,537	3,850	4,190
<i>Of which</i> : exports of goods	1,027	1,200	1,565	1,626	1,803	1,875	...	...	...
Imports of goods and services	-1,195	-1,536	-1,815	-2,362	-3,073	-3,166	-3,901	-4,715	-5,696
<i>Of which</i> : imports of goods	-1,034	-1,275	-1,601	-1,907	-2,312	-3,008	...	...	...
Total GDP	3,005	3,950	5,140	6,028	7,478	10,072	13,133	16,260	20,377
(In percent of GDP)									
Total consumption	87.8	94.7	90.6	96.1	101.1	91.7	82.7	82.3	81.3
Government consumption	15.4	18.3	17.5	15.8	12.9	9.5	12.8	13.0	14.6
Private consumption	72.4	76.4	73.2	80.3	88.2	82.2	69.9	69.4	66.6
Total investment	15.9	12.8	14.6	16.4	17.6	18.7	20.0	23.0	26.1
Gross fixed capital formation	12.4	11.2	13.1	14.8	16.0	17.2	18.7	21.6	24.8
Public	6.6	6.0	5.4	8.0	7.1	7.9	...	...	...
Private	5.8	5.2	7.7	6.8	8.9	9.8	...	...	...
Changes in stocks	3.5	1.6	1.5	1.6	1.6	1.4	1.4	1.3	1.3
Net exports of goods and services	-3.7	-7.5	-5.2	-12.5	-18.7	-10.4	-2.8	-5.3	-7.4
Exports of goods and services	36.0	31.3	30.1	26.7	22.4	21.1	26.9	23.7	20.6
<i>Of which</i> : exports of goods	34.2	30.4	30.5	27.0	24.1	18.6	...	...	...
Imports of goods and services	-39.8	-38.9	-35.3	-39.2	-41.1	-31.4	-29.7	-29.0	-28.0
<i>Of which</i> : imports of goods	-34.4	-32.3	-31.1	-31.6	-30.9	-29.9	...	...	...
Gross domestic savings	12.2	5.3	9.4	3.9	-1.1	8.3	17.3	17.7	18.7
Public 3/	3.6	2.6	3.2	2.4	2.4	...	...	...	...
Private	8.6	2.7	6.2	1.5	-3.5	...	...	...	...
Gross national savings 4/	11.7	9.1	10.5	4.9	7.1	4.0	9.2	16.4	0.3
Balance on current account	-4.2	-3.7	-4.0	-11.5	-10.5	-14.7	-10.8	-6.5	0.1

Source: Central Statistical Office.

1/ The methodology for estimating saving and investment is different from that used by Fund staff.

2/ Based on the first two quarters of 2003; likely to undergo revision.

3/ Total revenue (excluding grants) minus government consumption.

4/ Gross domestic savings plus net factor income and net current transfers from abroad.

Table 4. Zambia: Index of Industrial Production, 1995-2003  
(2000 = 100)

	Weight (2000=100)	1995	1996	1997	1998	1999	2000	2001	2002	2003
Mining and quarrying	46.9	54.5	62.3	62.4	70.6	52.8	100.0	109.3	121.7	125.6
Coal	0.3	26.2	22.1	28.4	33.5	26.1	100.0	66.3	54.8	59.7
Nonferrous ore	46.5	55.1	63.2	63.1	71.5	53.4	100.0	104.3	122.1	126.0
Stone quarrying	0.1	94.5	70.5	121.9	98.3	105.2	100.0	100.2	117.6	128.1
Manufacturing	46.3	98.5	90.2	93.4	83.2	86.2	100.0	103.9	108.0	112.2
Food, beverages, and tobacco	22.1	161.4	120.1	84.0	85.1	87.9	100.0	105.3	109.9	115.2
Textiles and clothing	2.9	79.9	102.4	174.3	131.8	146.4	100.0	102.3	108.6	113.0
Wood and wood products	0.5	83.4	36.9	24.7	22.1	23.8	100.0	105.7	113.6	119.0
Paper and paper products	15.0	94.7	80.1	66.7	75.6	79.4	100.0	103.8	106.1	108.5
Chemicals, rubber, and plastics	2.2	67.6	93.9	98.0	81.2	91.1	100.0	104.3	114.7	120.1
Nonmetallic mineral products	2.3	75.6	80.7	77.3	77.7	82.9	100.0	103.5	105.3	110.1
Basic metal industries	0.9	54.0	41.1	33.7	39.9	41.6	100.0	82.0	85.5	89.1
Metal products and other	0.4	65.8	44.7	43.0	46.1	38.3	100.0	92.0	88.3	89.6
Electricity	6.8	89.7	77.5	89.8	82.5	76.2	100.0	115.2	111.5	119.9
Total industrial production	100.0	73.1	73.5	75.5	75.9	66.5	100.0	107.1	114.7	119.0

Source: Central Statistical Office.

Table 5. Zambia: Volume of Mineral Production, 1995-2003  
(In thousands of metric tons)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Coal	151.9	128.1	164.4	192.2	130.8	162.2	104.6	71.7	71.8
Cobalt	2.9	4.7	4.6	7.5	3.7	3.4	4.4	3.9	3.2
Copper	307.9	313.9	321.6	298.5	286.7	259.8	298.7	337.7	349.8

Sources: Central Statistical Office; and Bank of Zambia.

Table 6. Zambia: Marketed Production of Selected Agricultural Crops, 1995/96-2002/03 1/

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 2/
	(In metric tons)							
Maize	668,123	314,608	182,384	250,003	191,592	292,401	112,382	591,300
Tobacco (Virginia)	1,950	3,504	3,892	...	5,726	5,956	915	562,031
Tobacco (burley)	1,892	939	5,099	3,706	3,328	4,568	4,920	27,278
Mixed beans	13,006	6,930	7,467	8,768	4,061	10,979	7,541	10,921
Groundnuts	14,669	17,559	24,151	20,854	11,825	18,778	19,878	598,916
Sunflower seeds	37,962	7,983	5,888	8,934	5,420	14,358	4,722	1,227
Seed cotton	40,834	74,647	100,000	140,024	27,377	49,282	64,659	389,591
Wheat	49,402	...	...	...	79,493	93,877	4,722	135,287
Paddy rice	7,475	8,216	1,568	8,277	3,194	7,494	6,189	5,716
Soya beans	37,580	23,073	13,098	25,848	...	26,904	1,756	41,410
Sorghum	7,017	5,129	3,917	4,027	1,553	3,361	1,385	2,625
	(1990/91 = 100)							
Maize	110.8	52.2	30.3	41.5	31.8	48.5	18.6	98.1
Tobacco (Virginia)	225.7	405.6	450.5	...	662.7	689.4	105.9	65,049.9
Tobacco (burley)	233.6	115.9	629.5	...	410.9	564.0	607.4	3,367.7
Mixed beans	216.1	115.2	124.1	145.7	67.5	182.4	125.3	181.5
Groundnuts	165.8	198.4	272.9	235.6	133.6	212.2	224.6	6,767.4
Sunflower seeds	249.5	52.5	38.7	58.7	35.6	94.4	31.0	8.1
Seed cotton	83.8	153.2	205.3	287.5	56.2	101.2	132.7	799.8
Wheat	96.4	...	...	...	155.2	183.2	9.2	264.1
Paddy rice	83.9	92.3	17.6	92.9	35.9	84.1	69.5	64.2
Soya beans	154.1	94.6	53.7	106.0	...	110.3	7.2	169.8
Sorghum	696.8	509.3	389.0	399.9	154.2	333.7	137.5	260.6

Source: Central Statistical Office.

1/ Crop years run from May 1 to April 30.

2/ Provisional—likely to undergo revision.

Table 7. Zambia: Area Under Cultivation for Selected Crops, 1995/96-2002/03 1/

	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03 2/
(In hectares)								
Maize	675,665	649,069	510,374	598,181	618,162	583,856	646,450	699,276
Groundnuts	89,488	126,573	154,682	141,320	141,319	137,108	139,015	150,460
Sunflower seeds	47,621	20,745	15,692	13,356	12,983	37,388	22,139	22,521
Cotton	66,217	89,879	...	105,539	36,680	56,933	87,026	86,431
Soya beans	25,489	17,273	11,681	11,716	11,721	16,754	6,820	17,402
Wheat	7,821	10,327	11,251	12,682	14,113	...	11,495	22,549
Virginia tobacco	1,594	2,456	5,400	7,851	5,280	4,247	3,855	11,204
Paddy rice	9,888	12,412	9,065	16,120	10,531	14,321	13,050	10,305
Sorghum	47,839	40,237	35,864	36,405	37,387	43,353	33,955	37,054
Millet	76,930	78,639	90,047	95,520	61,279	70,129	61,347	56,751
Mixed beans	43,240	41,541	35,444	39,854	39,853	51,025	40,043	44,002
(Percentage change)								
Maize	29.9	-3.9	-21.4	17.2	3.3	-5.5	10.7	8.2
Groundnuts	-10.9	41.4	22.2	-8.6	0.0	-3.0	1.4	8.2
Sunflower seeds	46.8	-56.4	-24.4	-14.9	-2.8	188.0	-40.8	1.7
Cotton	105.6	35.7	...	...	-65.2	55.2	52.9	-0.7
Soya beans	17.9	-32.2	-32.4	0.3	0.0	42.9	-59.3	155.2
Wheat	-32.4	32.0	8.9	12.7	11.3	...	...	96.2
Virginia tobacco	17.8	54.1	119.9	45.4	-32.7	-19.6	-9.2	190.6
Paddy rice	1.5	25.5	-27.0	77.8	-34.7	36.0	-8.9	-21.0
Sorghum	18.5	-15.9	-10.9	1.5	2.7	16.0	-21.7	9.1
Millet	4.2	2.2	14.5	6.1	-35.8	14.4	-12.5	-7.5
Mixed beans	4.3	-3.9	-14.7	12.4	0.0	28.0	-21.5	9.9

Sources: Ministry of Agriculture and Co-operatives; and Central Statistical Office.

1/ Crop years run from May 1 to April 30. Data are based on Post Harvest Survey results.

2/ 2003 data based on the Final Crop Forecasting Survey for 2003.



Table 8. Zambia: Paid Employment by Economic Sector, 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003 1/
	(In number of employees)								
Agriculture, forestry, and fishing	69,079	68,300	58,898	58,630	60,000	59,377	59,248	44,572	26,961
Mining and quarrying	52,215	47,700	42,498	39,160	38,521	35,042	34,966	39,914	53,868
Manufacturing	55,654	47,400	47,118	46,685	46,000	47,782	47,679	49,538	54,006
Electricity and water	5,067	4,400	5,009	5,237	5,300	5,049	5,038	7,883	7,024
Construction	10,518	13,100	17,106	13,459	12,895	13,828	13,798	13,270	3,576
Transport and communications	36,542	38,300	45,963	45,840	45,000	46,719	46,618	46,515	36,774
Distribution and trade (wholesale and retail)	41,398	46,800	48,893	48,964	51,097	52,336	52,223	47,498	17,628
Finance and insurance	41,890	37,600	37,862	35,276	34,682	31,483	31,415	31,352	39,932
Public administration	172,604	175,800	169,814	173,674	184,008	184,731	184,331	143,436	145,684
All sectors	484,967	479,400	473,161	466,925	477,503	476,347	475,316	423,978	385,453

Source: Central Statistical Office.

1/ Based on first two quarters of 2003; likely to undergo revision.

Table 9. Zambia: Annual Composite Index of Retail Prices, 1995-2003

	Weights	1995	1996	1997	1998	1999	2000	2001	2002	2003
(1994 = 100, annual averages)										
Composite indices										
Food and beverages index	571	135.2	192.7	234.0	291.5	357.3	438.0	520.7	661.6	808.0
Nonfood composite index	429	134.5	193.4	248.3	308.7	407.7	530.2	658.4	771.3	930.1
Clothing and footwear	68	129.1	193.0	255.8	313.5	409.3	519.1	630.4	753.4	916.3
Rent, fuel, and lighting	85	141.9	200.5	272.3	353.1	456.0	591.6	712.7	824.6	999.8
Furniture and household goods	82	123.9	161.9	197.6	248.2	345.8	457.1	606.6	744.0	940.4
Medical care	8	158.2	189.6	248.2	309.1	393.1	522.3	650.8	770.9	889.1
Transport and communication	96	143.8	215.6	260.1	315.1	399.3	562.1	689.9	747.4	874.7
Recreation and education	49	133.6	213.3	294.9	367.0	530.8	639.4	800.9	1,000.3	1,172.0
All other goods and services	41	124.1	167.4	203.9	245.1	303.9	363.9	452.6	527.3	636.1
Composite index 1/	1,000	134.9	193.0	240.2	298.9	379.0	477.7	579.9	708.8	860.5
(Average annual percentage change)										
Composite indices										
Food, beverages and tobacco		35.2	42.5	21.4	24.6	22.6	22.6	18.9	27.1	22.1
Nonfood composite index		34.5	43.8	28.4	24.3	32.1	30.0	24.2	17.1	20.6
Clothing and footwear		29.1	49.5	32.5	22.6	30.6	26.8	21.4	19.5	21.6
Rent, fuel, and lighting		41.9	41.3	35.8	29.7	29.1	29.7	20.5	15.7	21.2
Furniture and household goods		23.9	30.7	22.1	25.6	39.3	32.2	32.7	22.6	26.4
Medical care		58.2	19.8	30.9	24.5	27.2	32.9	24.6	18.4	15.3
Transport and communication		43.8	49.9	20.6	21.1	26.7	40.8	22.7	8.3	17.0
Recreation and education		33.6	59.7	38.3	24.4	44.6	20.5	25.3	24.9	17.2
All other goods and services		24.1	34.9	21.8	20.2	24.0	19.7	24.4	16.5	20.6
Composite index		34.9	43.1	24.5	24.4	26.8	26.0	21.4	22.2	21.4

Source: Central Statistical Office.

1/ Composite index consists of food and nonfood indices; alternatively, it consists of metropolitan high and low incomes, and nonmetropolitan indices.

Table 10. Zambia: Monthly Composite Index of Retail Prices, 2002-2003

	Composite Index 1/	Food and Beverages	Nonfood Composite	Clothing and Footwear	Rent, Fuel, and Lighting	Furniture and Household Goods	Medical Care	Transport and Communication	Recreation and Education	All other Goods and Services
Weights	1000	571	429	68	85	82	8	96	49	41
(1994 = 100)										
2002										
January	657.3	609.6	720.6	697.4	764.1	687.6	729.0	719.1	925.0	492.9
February	676.4	631.9	735.4	714.5	781.1	700.5	739.1	732.0	946.1	499.9
March	683.1	634.4	747.7	717.2	796.1	708.8	740.6	738.6	990.0	509.1
April	677.4	624.0	748.2	724.3	802.7	713.2	744.9	722.5	991.8	514.0
May	684.5	631.5	754.6	726.8	810.4	726.5	748.8	725.8	995.9	521.7
June	692.9	638.1	765.5	739.6	818.0	736.5	758.4	744.2	1,003.7	523.7
July	702.3	648.6	773.4	752.8	825.4	746.9	771.0	749.9	1,008.4	527.9
August	711.7	659.0	781.5	766.8	837.7	755.3	780.9	750.1	1,014.9	536.1
September	722.6	671.6	790.1	783.4	849.9	769.3	790.8	747.7	1,022.4	540.8
October	735.6	688.7	797.9	790.1	857.0	778.8	808.5	755.1	1,030.1	547.3
November	763.3	728.1	809.9	799.2	869.5	793.3	815.9	772.9	1,036.3	552.1
December	798.3	774.0	830.5	828.5	883.2	810.8	822.3	810.6	1,039.2	562.4
2003										
January	816.9	799.1	839.8	835.9	909.9	832.0	836.2	775.2	1,085.3	575.1
February	830.9	803.1	867.7	851.7	931.1	857.6	848.5	825.4	1,119.9	584.7
March	837.2	797.2	890.1	857.0	965.0	878.9	863.2	849.0	1,146.4	607.6
April	839.0	791.8	901.6	865.7	979.0	901.2	871.0	854.5	1,150.1	620.6
May	846.8	788.9	923.7	886.3	987.8	918.9	881.8	906.6	1,160.7	627.5
June	844.8	778.8	932.4	901.3	1,001.4	927.1	886.1	910.0	1,163.0	637.5
July	843.9	774.0	936.7	904.3	1,005.5	938.1	881.6	903.7	1,181.8	640.1
August	856.1	788.6	945.8	918.2	1,032.6	951.1	887.5	893.7	1,190.2	642.0
September	874.9	813.8	956.1	939.2	1,028.0	980.5	898.3	892.2	1,199.6	656.0
October	891.0	833.2	967.6	969.4	1,033.0	988.8	901.5	898.9	1,208.7	672.1
November	908.9	849.0	988.5	1,014.8	1,049.7	1,037.4	934.9	892.2	1,219.4	680.4
December	935.3	878.4	1,010.7	1,052.3	1,074.4	1,073.6	979.0	894.9	1,238.6	689.3
(12-month percentage change)										
2002										
January	19.6	22.6	16.4	22.6	12.4	30.2	22.7	-0.6	31.4	18.6
February	19.2	20.1	18.2	22.8	13.6	27.0	23.5	7.6	29.9	14.9
March	18.1	17.6	18.6	20.7	14.2	23.6	20.8	9.8	35.2	13.6
April	17.8	17.1	18.6	18.4	15.3	22.5	20.3	10.8	33.7	15.0
May	20.9	23.8	17.9	18.4	16.2	23.8	20.6	9.6	26.1	16.8
June	23.6	28.9	18.1	19.4	17.0	24.6	21.0	9.1	26.0	16.6
July	23.4	30.3	16.6	16.4	17.2	21.6	17.2	8.1	23.9	16.6
August	23.7	30.8	16.7	18.2	15.7	20.8	14.8	8.6	23.8	18.2
September	23.9	31.6	16.1	18.6	15.7	21.4	15.1	8.0	19.3	18.4
October	23.8	31.7	15.8	18.6	16.5	19.9	16.0	7.4	19.3	18.2
November	25.3	34.4	15.9	19.4	17.0	19.3	15.8	8.8	18.0	15.2
December	26.7	35.5	17.2	20.8	17.0	19.6	15.6	13.3	17.2	16.1
2003										
January	24.3	31.1	16.5	19.9	19.1	21.0	14.7	7.8	17.3	16.7
February	22.8	27.1	18.0	19.2	19.2	22.4	14.8	12.8	18.4	17.0
March	22.6	25.7	19.0	19.5	21.2	24.0	16.6	14.9	15.8	19.3
April	23.9	26.9	20.5	19.5	22.0	26.4	16.9	18.3	16.0	20.7
May	23.7	24.9	22.4	21.9	21.9	26.5	17.8	24.9	16.5	20.3
June	21.9	22.0	21.8	21.9	22.4	25.9	16.8	22.3	15.9	21.7
July	20.2	19.3	21.1	20.1	21.8	25.6	14.3	20.5	17.2	21.3
August	20.3	19.7	21.0	19.7	23.3	25.9	13.7	19.1	17.3	19.8
September	21.1	21.2	21.0	19.9	21.0	27.5	13.6	19.3	17.3	21.3
October	21.1	21.0	21.3	22.7	20.5	27.0	11.5	19.0	17.3	22.8
November	19.1	16.6	22.1	27.0	20.7	30.8	14.6	15.4	17.7	23.2
December	17.2	13.5	21.7	27.0	21.6	32.4	19.1	10.4	19.2	22.6

Source: Central Statistical Office.

1/ Composite index consists of food and nonfood indices; alternatively, it consists of metropolitan high and low incomes, and nonmetropolitan indices.

Table 11. Zambia: Summary of Central Government Operations, 1995-2003  
(In billions of kwacha)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Revenue and grants	871	1,058	1,283	1,529	1,921	2,528	3,262	4,259	5,104
Revenue	596	817	1,023	1,131	1,324	1,953	2,509	2,909	3,680
Tax revenue	546	751	967	1,094	1,289	1,931	2,449	2,849	3,548
Company income tax	38	49	60	90	483	634	953	276	246
Personal income tax	134	173	236	291	222	278	366	965	1,364
Excise taxes	85	127	168	211	429	575	821	423	482
Sales tax/value-added tax (VAT)	108	137	184	200	248	230	278	342	393
Trade taxes 1/	163	243	288	285	181	345	544	828	1,051
Extraction royalty	18	23	31	17	156	252	285	3	10
Clearance of ZESCO tax arrears	0	0	0	0	0	191	23	0	0
Nontax revenue	50	65	56	38	34	22	60	60	132
Grants	275	242	260	398	597	575	754	1,350	1,424
Total expenditures and net lending	983	1,088	1,341	1,842	2,195	3,122	4,212	5,172	6,338
Current expenditure	710	743	951	1,162	1,254	1,701	2,578	3,161	4,003
Wages and salaries	178	229	324	327	402	538	888	1,301	1,728
Public service retrenchment	1	0	2	77	51	74	19	80	10
Recurrent departmental charges	99	120	184	278	313	392	801	584	648
Transfers and pensions	107	96	127	149	181	219	353	412	361
Domestic interest 2/	244	188	213	203	212	307	331	660	793
Other current expenditure	56	79	98	112	78	78	178	95	456
Agricultural expenditure	26	30	3	15	17	10	0	0	131
Contingency	0	0	0	0	0	82	8	29	6
Capital expenditure	273	345	390	680	789	1,009	1,557	1,925	2,335
Net lending 3/	0	0	0	0	152	413	77	86	0
Change in balances and other	-1	-183	-155	-172	-24	-114	-106	-117	-116
Overall balance (cash)	-114	-212	-213	-485	-298	-708	-1,056	-1,031	-1,349
Financing	114	212	213	485	298	708	1,056	1,031	1,349
Domestic	-8	14	-4	220	72	177	589	337	1,041
Nonbanks	-4	1	-14	-3	37	38	106	247	62
Banking system	-4	12	10	224	35	139	483	90	979
Foreign 4/	122	199	217	265	226	531	467	693	308
Memorandum item									
Domestic balance 5/ 6/	...	...	...	25	31	-335	-607	-662	-716

Sources: Zambian authorities; and staff estimates.

1/ Including sales tax/VAT on imported goods.

2/ Amount paid.

3/ Figure for 1999 was foreign financed and thus was not counted toward the domestic balance.

4/ Including interest arrears and debt relief.

5/ Fiscal balance excluding grants, interest payments on foreign debt, and foreign-financed capital expenditures.

6/ To approximate a cash-based presentation, an adjustment is made for line ministries' payments of arrears and changes in balances.

Table 12. Zambia: Summary of Central Government Operations, 1995-2003  
(In percent of GDP)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Revenue and grants	29.0	26.8	25.0	25.4	25.7	25.1	24.8	26.2	25.0
Revenue	19.8	20.7	19.9	18.8	17.7	19.4	19.1	17.9	18.1
Tax revenue	18.2	19.0	18.8	18.1	17.2	19.2	18.6	17.5	17.4
Company income tax	1.3	1.2	1.2	1.5	6.5	6.3	7.3	1.7	1.2
Personal income tax	4.5	4.4	4.6	4.8	3.0	2.8	2.8	5.9	6.7
Excise taxes	2.8	3.2	3.3	3.5	5.7	5.7	6.3	2.6	2.4
Sales tax/value-added tax (VAT)	3.6	3.5	3.6	3.3	3.3	2.3	2.1	2.1	1.9
Trade taxes 1/	5.4	6.1	5.6	4.7	2.4	3.4	4.1	5.1	5.2
Extraction royalty	0.6	0.6	0.6	0.3	2.1	2.5	2.2	0.0	0.0
Clearance of ZESCO tax arrears	0.0	0.0	0.0	0.0	0.0	1.9	0.2	0.0	0.0
Nontax revenue	1.7	1.6	1.1	0.6	0.5	0.2	0.5	0.4	0.6
Grants	9.1	6.1	5.1	6.6	8.0	5.7	5.7	8.3	7.0
Total expenditures and net lending	32.7	27.5	26.1	30.6	29.4	31.0	32.1	31.8	31.1
Current expenditure	23.6	18.8	18.5	19.3	16.8	16.9	19.6	19.4	19.6
Wages and salaries	5.9	5.8	6.3	5.4	5.4	5.3	6.8	8.0	8.5
Public service retrenchment	0.0	0.0	0.0	1.3	0.7	0.7	0.1	0.5	0.0
Recurrent departmental charges	3.3	3.0	3.6	4.6	4.2	3.9	6.1	3.6	3.2
Transfers and pensions	3.6	2.4	2.5	2.5	2.4	2.2	2.7	2.5	1.8
Interest due 2/	8.1	4.8	4.1	3.4	2.8	3.0	2.5	4.1	3.9
Other current expenditure	1.9	2.0	1.9	1.9	1.0	0.8	1.4	0.6	2.2
Agricultural expenditure	0.9	0.8	0.1	0.3	0.2	0.1	0.0	0.0	0.6
Contingency	0.0	0.0	0.0	0.0	0.0	0.8	0.1	0.2	0.0
Capital expenditure	9.1	8.7	7.6	11.3	10.6	10.0	11.9	11.8	11.5
Net lending 3/	0.0	0.0	0.0	0.0	2.0	4.1	0.6	0.5	0.0
Change in balances and other	0.0	-4.6	-3.0	-2.9	-0.3	-1.1	-0.8	-0.7	-0.6
Overall balance (accrual)	-3.8	-5.4	-4.1	-8.0	-4.0	-7.0	-8.0	-6.3	-6.6
Financing	3.8	5.4	4.1	8.0	4.0	7.0	8.0	6.3	6.6
Domestic	-0.3	0.3	-0.1	3.7	1.0	1.8	4.5	2.1	5.1
Nonbanks	-0.1	0.0	-0.3	-0.1	0.5	0.4	0.8	1.5	0.3
Banking system	-0.1	0.3	0.2	3.7	0.5	1.4	3.7	0.6	4.8
Foreign 4/	4.1	5.0	4.2	4.4	3.0	5.3	3.6	4.3	1.5
Memorandum item									
Domestic balance (cash) 5/ 6/	...	...	...	0.4	0.4	-3.3	-4.6	-4.1	-3.5

Sources: Zambian authorities; and staff estimates.

1/ Including sales tax/VAT on imported goods.

2/ Amount paid.

3/ Figure for 1999 was foreign financed and thus was not counted toward the domestic balance.

4/ Including interest arrears and debt relief.

5/ Fiscal balance excluding grants, interest payments on foreign debt, and foreign-financed capital expenditures.

6/ To approximate a cash-based presentation, an adjustment is made for line ministries' payments of arrears and changes in balances.

Table 13. Zambia: Summary of Central Government Revenues and Grants, 1995-2003  
(In billions of kwacha)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Revenue and grants	871	1,058	1,283	1,529	1,921	2,528	3,262	4,259	5,104
Revenue	596	817	1,023	1,131	1,324	1,953	2,509	2,909	3,680
Tax revenue	546	751	967	1,094	1,289	1,931	2,449	2,849	3,548
Company income tax	38	49	60	90	483	634	953	276	246
Personal income tax	134	173	236	291	222	278	366	965	1,364
PAYE 1/	105	129	180	249	...	...	...	829	1,176
Withholding tax and other	29	44	56	42	...	...	...	136	189
Excise taxes	85	127	168	211	429	575	821	423	482
Sales tax/value-added tax (VAT)	108	137	184	200	248	230	278	342	393
Trade taxes 2/	163	243	288	285	181	345	544	828	1,051
Extraction royalty	18	23	31	17	156	252	285	3	10
Clearance of ZESCO arrears	0	0	0	0	0	191	23	0	0
Nontax revenue	50	65	56	38	34	22	60	60	132
User fees and charges	17	12	39	17	18	28	...	60	88
Privatization receipts 3/	12	27	2	1	7	-7	...	0	0
Other exceptional receipts	20	26	15	20	10	1	...	0	45
Grants	275	242	260	398	597	575	754	1,350	1,424

Sources: Zambian authorities; and staff estimates.

1/ Pay-as-you-earn.

2/ Including sales tax/VAT on imported goods.

3/ Net of direct privatization costs.

Table 14. Zambia: Summary of Central Government Expenditures, 1995-2003  
(In billions of kwacha)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total expenditures and net lending	983	1,088	1,341	1,842	2,195	3,122	4,212	5,172	6,338
Current expenditure	710	743	951	1,162	1,254	1,701	2,578	3,161	4,003
Wages and salaries	178	229	324	327	402	538	888	1,301	1,728
Personal emoluments	151	201	270	262	344	...	411	...	...
Nondefense	124	170	226	209	265	...	311	...	...
Defense	27	32	45	54	79	...	100	...	...
Wage adjustment	27	20	54	65	58	...	...	...	...
Public service retrenchment	1	0	2	77	51	74	19	80	10
Recurrent departmental charges 1/	99	120	184	278	313	392	801	584	648
Nondefense	91	112	127	135	138	...	...	...	...
Defense	9	7	9	27	54	...	...	...	...
Transfers and pensions	107	96	127	149	181	219	353	412	361
Grants and payments 2/	94	83	105	130	162	...	...	333	355
Pensions	13	13	22	19	19	...	...	79	7
Interest due 3/	244	188	213	203	212	307	331	660	793
Domestic debt	77	122	115	80	105	140	207	450	563
Foreign debt 3/	182	200	211	123	107	167	124	210	229
Other current expenditure	56	79	98	112	78	78	178	95	456
Defense	8	5	0	0	0	...	...	...	...
Awards and compensation	0	23	14	6	8	...	...	14	15
Contingency	0	15	21	22	12	...	53	-	39
Zambia Revenue Authority funding	0	24	33	49	54	...	...	95	104
Bank of Zambia capitalization	0	4	0	0	0	...	...	...	...
Other	48	9	30	35	4	...	...	...	221
Agricultural expenditure	26	30	3	15	17	10	0	0	131
Drought relief	7	1	0	4	4	...	...	...	...
Strategic food reserve	3	15	3	11	14	...	...	...	78
Input financing	9	3	0	0	0	...	...	...	54
Other	7	12	0	0	0	...	...	...	...
Contingency	0	0	0	0	0	82	8	29	6
Capital expenditure	273	345	390	680	789	1,009	1,557	1,925	2,335
Financed by the government of Zambia	58	41	70	113	124	228	494	417	507
Non defense	54	39	69	109	123	...	...	...	...
Defense	4	2	1	4	1	...	...	...	...
Foreign financed	215	304	320	567	666	781	1,063	1,508	1,828
Net lending	0	0	0	0	152	413	77	86	0

Sources: Zambian authorities; and staff estimates.

1/ Including arrears repayments.

2/ Including K16 billion of grants to the Ministry of Defence in 1998.

3/ Figure for 2000 gives interest paid, after all forms of debt relief.

Table 15. Zambia: Government Securities, 1995-2003  
(In millions of Kwacha, end-of-period stock)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Treasury bills	221,547	225,318	248,033	217,360	263,413	344,654	684,461	817,613	1,325,561
Commercial banks	141,876	164,057	195,342	154,859	176,356	218,889	510,124	516,252	1,091,252
Bank of Zambia	15,189	12,850	6,863	17,248	23,672	47,695	34,350	52,539	5,181
Nonbank holdings	44,865	58,410	45,825	45,252	63,381	78,069	129,522	248,823	229,128
GRZ bonds	16,569	30,436	55,129	25,294	63,925	203,925	402,585	2,268,351	2,780,850
Total bonds and treasury bills	238,116	255,754	303,162	242,654	327,338	548,579	1,087,046	3,085,963	4,106,411

Sources: Bank of Zambia; and staff estimates.



Table 16. Zambia: Monetary Survey, 1995-2003

	1995 1/	1996	1997	1998	1999	2000	2001	2002	2003
(In billions of kwacha; end of period)									
Net foreign assets	-985	-1,217	-1,129	-2,261	-2,424	-1,512	-2,843	-3,144	-2,483
Monetary authorities	-1,092	-1,394	-1,335	-2,677	-2,893	-2,440	-3,705	-4,303	-3,413
Commercial banks	107	176	206	415	469	927	863	1,159	930
Net domestic assets	1,526	1,944	2,031	3,367	3,852	3,998	5,596	6,662	6,779
Net domestic credit	398	542	579	1,132	1,505	1,772	2,614	2,741	4,092
Net claims on government 2/	92	113	122	581	693	952	1,848	1,716	2,565
Monetary authorities	-58	-46	-37	508	597	637	1,165	930	930
Commercial banks	150	159	159	73	96	315	683	786	1,635
HIPC account (IMF)	0	0	0	0	0	-401	-622	-88	21
Claims on nongovernment	306	429	457	551	812	1,221	1,388	1,113	1,506
Private sector	...	378	415	427	555	862	946	1,019	1,390
Public enterprises	...	51	42	124	257	359	442	94	116
Other items (net)	1,128	1,402	1,451	2,235	2,346	2,226	2,982	3,921	2,687
Broad money	541	727	901	1,105	1,428	2,486	2,753	5,302	4,420
Narrow money	228	270	355	398	504	761	1,013	3,019	1,696
Currency outside banks	79	106	137	170	212	288	374	422	592
Demand deposits	140	163	217	226	290	457	611	897	1,101
Bank of Zambia deposits	9	1	1	1	2	16	31	4	2
Quasi money	312	457	546	708	924	1,725	1,739	2,283	2,724
Savings deposits	74	114	141	146	190	289	344	471	679
Time deposits	151	182	197	167	201	266	350	396	474
Foreign currency deposits	88	161	207	394	534	1,171	1,045	1,415	1,571
(Twelve-month percentage change)									
Net foreign assets	-2.1	-23.6	7.2	-100.2	-7.2	37.6	-88.0	-10.6	21.0
Net domestic assets	32.5	27.4	4.4	65.8	14.4	3.8	40.0	19.1	1.8
Net domestic credit	...	36.3	6.9	95.4	33.0	17.7	47.5	4.9	49.3
Net claims on government	7.5	22.7	8.5	374.8	19.4	37.3	94.1	-7.2	49.5
Claims on nongovernment	...	40.4	6.5	20.6	47.4	50.3	13.7	-19.8	35.3
Other items (net)	5.9	24.3	3.5	54.0	5.0	-5.1	34.0	31.5	-31.5
Broad money	55.3	34.4	24.0	22.6	29.2	74.1	10.7	92.6	-16.6
Narrow money	58.1	18.3	31.5	11.9	26.7	50.9	33.2	197.9	-43.8
Quasi money	53.2	46.3	19.5	29.6	30.6	86.7	0.8	31.3	19.3
(Twelve-month change as percentage of beginning-of-period broad money)									
Net foreign assets	-5.7	-43.0	12.1	-125.6	-14.7	63.8	-53.5	-10.9	12.5
Net domestic assets	...	77.4	11.9	148.2	43.9	10.2	64.3	38.8	2.2
Net domestic credit	...	26.7	5.1	61.3	33.8	18.7	33.9	4.6	25.5
Net claims on government	1.8	3.9	1.3	50.9	10.2	18.1	36.0	-4.8	16.0
Claims on nongovernment	...	22.8	3.8	10.4	23.6	28.6	6.7	-10.0	7.4
Other items (net)	17.9	50.7	6.7	86.9	10.1	-8.4	30.4	34.1	-23.3
Broad money	55.3	34.4	24.0	22.6	29.2	74.1	10.7	92.6	-16.6
Narrow money	24.1	7.7	11.7	4.7	9.6	18.0	10.2	72.9	-25.0
Quasi money	31.2	26.7	12.3	17.9	19.6	56.1	0.5	19.8	8.3
Memorandum items:									
Velocity (GDP/average M2)	6.4	6.0	6.3	6.4	6.2	6.2	5.4	5.4	5.4
Money multiplier 2/	5.1	4.3	4.2	3.8	4.2	4.2	3.4	3.4	4.0

Sources: Bank of Zambia; and staff estimates.

1/ Since January 1995, balance sheet of the Bank of Zambia has been compiled on the basis of the new chart of accounts. Complete historical data go back to December 1994 only.

2/ Ratio of broad money to reserve money. The increase in the multiplier in 1995 resulted from the reduction in the required reserve ratio from 30 to 3 percent.

Table 17. Zambia: Accounts of Commercial Banks, 1995-2003

(In billions of kwacha)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Net foreign assets	107	176	206	415	469	927	806	1,173	978
Gross assets	117	191	225	457	530	996	894	1,272	1,093
Liabilities	-9	-14	-19	-42	-61	-68	-87	-99	-115
Net domestic assets	344	441	557	518	743	1,252	1,540	1,995	2,841
Net position with the Bank of Zambia	-26	-23	5	113	97	283	473	565	600
Currency	14	20	21	26	39	43	58	57	78
Current accounts at the Bank of Zambia	20	3	17	46	55	90	126	120	199
Statutory reserves (kwacha)	9	29	33	36	48	88	182	264	286
Statutory reserves (foreign exchange)	0	11	16	27	34	101	137	148	71
Credit from Bank of Zambia	69	87	82	21	79	39	30	23	33
Net Domestic credit	441	563	589	583	869	1,331	1,722	1,818	3,040
Net claims on government	150	159	159	68	96	297	649	786	1,635
Claims	194	216	223	156	232	357	777	916	1,858
Treasury bills	142	164	189	142	187	228	510	516	1,091
Other assets	53	52	34	13	45	129	267	400	767
Deposits	-45	-58	-64	-88	-136	-60	-128	-130	-223
Claims on nongovernment	291	404	430	515	773	1,034	1,073	1,032	1,405
Other items (net)	-71	-98	-37	-178	-223	-361	-655	-388	-799
Private sector liabilities	451	618	763	933	1,212	2,180	2,346	3,168	3,820
Demand deposits	203	344	443	595	783	1,573	1,627	2,221	2,593
Savings and time deposits	248	274	320	338	430	606	719	947	1,227

Source: Bank of Zambia.

Table 18. Zambia: Net Foreign Assets of the Banking System, 1995-2003  
(In millions of U.S. dollars)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Net foreign assets of the Bank of Zambia	-1,146	-1,087	-943	-1,153	-1,099	-587	-968	-855	-798
Assets	211	211	238	70	101	186	154	136	127
Gold	0	0	0	0	0	0	0	0	0
Other	211	211	238	69	101	186	154	154	154
Liabilities	-1,357	-1,298	-1,181	-1,223	-1,200	-772	-1,121	-991	-924
IMF	-1,240	-1,210	-1,139	-1,188	-1,172	-1,135	-1,016	-940	-748
Other	-117	-88	-43	-35	-29	363	-105	-50	-176
Net foreign assets of commercial banks	114	137	146	181	178	223	225	271	211
Assets	123	149	159	199	201	240	250	293	235
Liabilities	-9	-11	-13	-18	-23	-16	-25	-23	-25
Net foreign assets of the banking system	-1,032	-949	-797	-972	-921	-364	-743	-584	-587
Assets	334	360	397	268	302	425	403	429	362
Liabilities	-1,366	-1,309	-1,194	-1,241	-1,223	-789	-1,146	-1,014	-949

Sources: Bank of Zambia; and staff estimates.

Table 19. Zambia: Structure of Interest Rates, 1995-2003

(In percent; end of period)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Bank rate	51.5	69.8	23.3	42.1	46.0	44.1	52.5	34.5	15.8
Treasury bill rate 1/ 2/	51.3	59.6	18.8	32.5	36.1	33.8	48.2	31.7	19.7
91 days treasury bill rate (end of period)	41.5	60.0	20.3	33.4	36.2	34.1	50.5	32.5	13.8
One-year government bond	43.6	37.0	23.3	43.9	48.6	38.7	54.1	42.7	22.0
18-month government bond	...	...	...	43.0	49.3	43.3	54.9	43.3	25.2
24-month government bond 3/	...	...	...	...	...	45.8	55.4	43.5	26.1
<b>Kwacha deposit rates 4/</b>									
Savings	30.6	30.2	16.5	7.4	9.4	11.5	8.7	8.3	7.6
Short-term deposits	40.9	47.0	27.2	15.0	19.5	17.9	19.8	18.3	17.3
3 months	36.7	44.6	25.4	16.5	21.0	20.0	24.3	22.5	21.1
6 months	33.1	32.0	24.3	13.4	19.8	12.7	26.8	22.3	20.4
24-hour call rate	31.1	30.5	14.6	7.3	7.9	6.5	7.0	7.9	8.1
Notice (7-90 days)	36.7	44.6	25.4	9.8	18.1	19.3	24.3	22.5	21.1
Fixed deposit (30-365 days)	33.1	32.0	24.3	...	...	...	...	...	...
<b>Lending rates 4/</b>									
Bank overdraft (minimum)	66.7	69.0	37.2	37.9	44.8	54.9	54.6	51.5	44.4

Source: Bank of Zambia.

1/ Annualized (weighted by maturity).

2/ Treasury bill rates became market determined in 1993.

3/ 24-month bond introduced in October 2000.

4/ Commercial bank rates were liberalized in 1992.

Table 20. Zambia: Balance of Payments, 1995-2003  
(In millions of U.S. dollars, unless otherwise indicated)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Current account balance	-463	-525	-471	-579	-429	-590	-727	-583	-593
Merchandise trade balance	4	-60	54	-153	-99	-221	-342	-259	-242
Exports, f.o.b.	1,198	995	1,110	816	755	746	884	916	1,117
Metal sector	984	760	807	520	467	497	590	560	710
Nonmetal	214	235	304	296	288	249	295	357	407
Imports, f.o.b.	-1,194	-1,055	-1,056	-971	-870	-978	-1,253	-1,204	-1,388
Services, nonfactor (net)	-324	-250	-264	-179	-211	-225	-228	-245	-235
Income (net)	-276	-210	-251	-223	-164	-158	-168	-155	-148
<i>Of which</i> : official interest payments	-252	-198	-219	-192	-156	-155	-144	-137	-131
Current transfers (net)	132	-4	-10	-24	45	14	11	76	32
Capital and financial accounts	43	296	412	285	452	355	510	324	355
Project grants	166	269	189	203	153	153	222	236	240
Official loan disbursement (net)	-104	-49	9	-45	121	14	-52	-53	-108
Disbursement	234	206	190	91	284	247	180	181	134
Amortization (-)	-338	-255	-181	-136	-162	-233	-233	-234	-242
Change in net foreign assets of commercial banks (- increase)	-46	-22	-7	-35	2	-89	40	-5	70
Private capital (net)	27	98	221	162	176	278	301	147	153
Errors and omissions, short-term capital	167	126	-137	-159	-180	4	-107	14	-28
Overall balance	-254	-103	-195	-453	-156	-231	-324	-245	-266
Financing	254	103	195	453	156	231	324	245	266
Change in net int. reserves of BoZ (-increase)	40	-31	-49	246	-35	-49	-124	-225	-148
Gross official reserves of BoZ (-increase)	65	-3	-52	194	-2	-68	0	-169	100
BoZ liabilities	-21	-27	-11	52	-47	-7	-5	-6	-6
IMF (net)	-4	0	14	0	14	26	-119	-50	-242
Disbursements	2,253	0	14	0	14	26	94	173	0
Repayments	-2,257	0	0	0	0	0	-213	-222	-242
Other foreign assets of the BoZ	...	...	...	...	...	30	...	...	...
Debt relief	37	310	159	122	443	259	417	458	379
Non-HIPC Initiative	37	310	159	122	443	217	170	171	154
HIPC Initiative, including IMF	...	...	...	...	...	...	266	266	236
Net change in arrears (+ increase)	176	-176	85	85	-251	-10	31	12	35
Memorandum items:									
Current account balance including grants (millions of U.S. dollars)	-297	-234	-282	-376	-276	-369	-394	-246	-262
Current account balance including grants (percent of GDP) 7/	-8.5	-7.2	-7.2	-11.6	-8.8	-11.4	-10.8	-6.5	-6.2
Copper volume (thousands of metric tons)	344	327	302	256	240	234	297	330	349
Copper price (U.S. dollars per pound)	1.19	0.86	1.00	0.72	0.70	0.82	0.77	0.70	0.78

Source: Bank of Zambia (BOZ).

Table 21. Zambia: Foreign Trade Volume and Unit Value, 1995-2003  
(Percentage change from the preceding year, unless otherwise indicated)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Volume									
Exports	-7.5	3.5	6.8	-8.2	-3.4	-5.7	26.2	11.2	8.6
Imports	8.6	-12.2	8.4	0.1	-13.6	2.4	33.8	-4.3	9.9
Unit value 1/									
Exports	17.0	-19.8	4.5	-20.0	-4.3	4.8	-6.2	-6.8	12.2
Imports	9.7	0.6	-7.7	-8.2	3.8	9.7	-4.2	0.4	4.9
Terms of trade	6.6	-20.2	13.2	-12.9	-7.8	-4.4	-2.0	-7.1	7.0
Terms of trade index (1990=100)	106	84	96	83	77	73	72	67	71

Source: Staff estimates.

1/ In U.S. dollar terms.

Table 22. Zambia: Merchandise Exports, 1995-2003  
(In millions of U.S. dollars, unless otherwise indicated)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total exports, f.o.b.	1,198	995	1,110	816	755	746	884	916	1,117
Metal exports, f.o.b.	984	760	807	520	467	497	590	560	710
Copper									
Value	851	569	621	365	372	425	507	510	601
Volume (thousands of metric tons)	344	327	302	256	240	234	297	330	349
Price (U.S. dollars per pound) 1/	1.12	0.79	0.93	0.65	0.70	0.82	0.77	0.70	0.78
Cobalt									
Value	134	193	187	157	95	72	83	50	109
Volume (thousands metric tons)	2.5	3.9	4.6	4.9	3.7	3.4	4.7	4.2	6.6
Price (U.S. dollars per pound) 1/	24.5	22.6	18.3	14.4	11.6	9.6	8.0	5.4	7.5
Nonmetal exports, f.o.b.	214	235	304	296	288	249	295	357	407

Sources: Bank of Zambia; and staff estimates.

1/ Net of freight and insurance.

Table 23. Zambia: Nontraditional Export Earnings by Sub-Sector, 1995-2003  
(As percentage of total)

	1995	1996	1997	1998	1999	2000	2001	2002	2003
Animal products	0.7	0.7	1.0	1.3	1.4	1.3	1.0	1.4	1.1
Building materials	2.6	3.3	3.6	2.7	3.3	3.3	2.3	1.7	3.1
Chemical products	1.2	1.3	2.4	2.2	2.0	2.7	1.9	3.9	2.3
Engineering products	19.8	15.1	12.9	10.1	7.6	7.8	6.8	6.0	7.8
Floricultural products	6.8	7.5	6.4	10.5	14.0	12.8	10.9	8.2	5.2
Garments	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Gemstones	3.8	4.5	4.4	3.7	4.5	5.9	6.5	10.1	7.0
Handicrafts/curios	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
Horticultural products	2.0	3.7	4.8	6.6	7.8	10.4	11.7	12.2	8.1
Leather	1.0	0.9	0.7	1.0	0.7	1.6	1.3	1.1	0.5
Nonmetallic	0.4	0.3	0.2	0.2	0.3	0.4	0.3	0.4	0.5
Other manufacture	0.3	0.6	0.9	1.0	2.1	1.7	2.9	2.7	2.9
Petroleum oils	5.7	2.3	0.5	2.2	2.1	0.2	0.5	0.4	4.5
Primary agriculture commodity	12.1	15.6	27.6	19.9	23.8	14.1	16.5	20.8	17.1
Processed foods	12.6	13.9	9.4	15.8	10.8	13.5	13.8	11.9	10.6
Textiles	19.6	16.7	15.4	13.5	12.2	13.7	11.0	7.0	5.7
Wood products	0.7	0.8	1.0	1.0	1.0	1.5	1.2	0.9	0.9
Sub-total	89.4	87.2	91.4	91.8	94.0	91.0	88.7	88.7	77.4
Reexports	...	1.7	1.2	1.2	0.9	1.5	1.4	1.5	6.0
Scrap metal	...	4.4	1.8	1.3	2.0	1.9	1.3	0.9	12.9
Mining	...	...	1.1	3.9	1.1	2.8	5.7	6.9	3.7
Total visible nontraditional exports	89.4	93.3	95.5	98.2	98.0	97.2	97.0	98.0	100.0
Electricity	10.6	6.7	4.5	1.8	2.0	2.8	3.0	2.0	...
Total nontraditional exports	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sources: Export Board of Zambia; and Bank of Zambia.



Table 24. Zambia: Scheduled External Debt-Service Payments, 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003
(In millions of U.S. dollars)									
Scheduled debt service	590	453	399	328	318	388	590	593	609
Interest	252	198	219	192	156	155	144	137	191
<i>Of which</i> : Fund charges/interest	39	10	7	7	7	7	6	5	2
Amortization	338	255	181	136	162	233	446	456	418
<i>Of which</i> : Fund repurchases	0	0	0	0	0	0	167	168	236
(In percent of exports of goods and services, unless otherwise indicated)									
Scheduled debt service	44.9	41.6	32.7	35.7	37.8	45.1	57.4	56.3	47.5
Interest	19.1	18.2	17.9	20.9	18.5	18.0	14.0	13.0	14.9
<i>Of which</i> : Fund charges/interest	3.0	0.9	0.5	0.7	0.8	0.8	0.6	0.5	0.2
Amortization	25.7	23.4	14.8	14.8	19.3	27.1	43.4	43.3	32.6
<i>Of which</i> : Fund repurchases	0.0	0.0	0.0	0.0	0.0	0.0	16.2	15.9	18.4
Memorandum item:									
Exports of goods and services									
(in millions of U.S. dollars)	1,315	1,089	1,223	918	842	861	1,028	1,052	1,284

Sources: Bank of Zambia; and staff estimates.

Table 25. Zambia: External Debt, 1995-2003

	1995	1996	1997	1998	1999	2000	2001	2002	2003
(In millions of U.S. dollars)									
Total external debt	7,041	7,085	6,971	6,613	6,407	6,252	7,270	6,488	6,468
Medium- and long-term debt 1/	6,817	6,880	6,924	6,613	6,126	6,068	7,095	6,488	6,299
Multilateral	3,325	3,381	3,397	3,412	3,328	3,404	3,346	3,241	3,693
IMF	1,239	1,198	1,138	1,132	1,172	1,128	992	742	1,065
Other	2,086	2,182	2,259	2,280	2,156	2,276	2,354	2,499	2,628
Bilateral official	3,272	3,345	3,431	3,141	2,676	2,438	3,092	2,615	2,229
Paris Club	2,863	2,936	3,022	2,732	2,405	2,179	2,714	2,343	1,996
Other	409	409	409	409	271	259	378	272	233
Suppliers and other 2/	220	155	95	60	122	226	657	632	377
Short-term debt	224	205	47	0	281	184	175	0	169
(In percent of exports of goods and services)									
Total external debt	550	620	534	673	761	726	717	617	504
Medium- and long-term debt 1/	532	602	531	673	728	705	700	617	491
Multilateral	260	296	260	347	395	395	330	308	288
IMF	97	105	87	115	139	131	98	71	83
Other	163	191	173	232	256	264	232	237	205
Bilateral official	255	293	263	319	318	283	305	248	174
Paris Club	223	257	232	278	286	253	268	223	155
Other	32	36	31	42	32	30	37	26	18
Suppliers and other 2/	17	14	7	6	14	26	65	60	29
Short-term debt	17	18	4	0	33	21	17	0	13
Memorandum item:									
Exports of goods and services (in millions of U.S. dollars)	1,281	1,143	1,305	983	842	861	1,014	1,052	1,284

Sources: Bank of Zambia; and staff estimates.

1/ Including arrears.

2/ Excludes "dormant" commercial debt not tendered in 1994 buyback, which the authorities estimate to amount to US\$85 million.

Table 26. Zambia: Nominal, Nominal Effective, and Real Effective  
Exchange Rates, 1994: Q1-2003: Q4  
(Index, 1995=100, unless otherwise indicated)

	Official Kwacha-U.S. Dollar Exchange Rate	Official U.S. Dollar-Kwacha Exchange Rate	Nominal Effective Exchange Rate	Real Effective Exchange Rate
1994 Q1	661.9	0.001511	144.0	99.6
Q2	687.3	0.001455	135.6	102.7
Q3	677.1	0.001477	132.9	106.0
Q4	677.9	0.001475	131.2	109.5
1995 Q1	759.3	0.001317	116.5	105.5
Q2	849.8	0.001177	99.8	93.4
Q3	940.3	0.001063	91.4	92.4
Q4	943.7	0.001060	92.3	108.7
1996 Q1	1,053.2	0.000949	84.7	106.4
Q2	1,238.3	0.000808	73.1	99.7
Q3	1,264.6	0.000791	70.9	103.1
Q4	1,273.8	0.000785	71.0	109.4
1997 Q1	1,289.5	0.000775	73.4	119.8
Q2	1,295.9	0.000772	73.9	122.5
Q3	1,315.5	0.000760	74.8	128.2
Q4	1,357.4	0.000737	72.7	131.0
1998 Q1	1,544.2	0.000648	66.5	124.6
Q2	1,825.9	0.000548	56.4	113.4
Q3	1,941.2	0.000515	53.6	114.2
Q4	2,136.0	0.000468	47.2	106.1
1999 Q1	2,288.1	0.000437	44.9	106.9
Q2	2,377.9	0.000421	44.5	111.0
Q3	2,403.6	0.000416	43.9	115.6
Q4	2,482.5	0.000403	42.3	114.3
2000 Q1	2,714.4	0.000368	39.6	111.7
Q2	2,866.4	0.000349	38.8	117.0
Q3	3,177.6	0.000315	36.0	116.0
Q4	3,685.1	0.000271	32.3	108.6
2001 Q1	3,658.9	0.000273	34.4	120.9
Q2	3,344.0	0.000299	36.4	129.4
Q2	3,652.6	0.000274	32.8	119.9
Q2	3,788.3	0.000264	31.7	121.4
2002 Q1	3,894.5	0.000257	31.5	126.4
Q2	4,130.4	0.000242	28.7	118.8
Q3	4,503.7	0.000222	25.1	108.8
Q4	4,699.0	0.000213	23.9	109.1
2003 Q1	4,652.7	0.000215	23.8	110.9
Q2	4,845.0	0.000206	23.3	111.8
Q3	4,740.4	0.000211	23.9	116.8
Q4	4,697.9	0.000213	22.8	115.5

Source: IMF, Information Notice System.

Table 27. Zambia: Summary of Consolidated Foreign Exchange Market, 2002-03

	2002				2003				Total	
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter		
	(In millions of U.S. dollars)									
Interbank purchases	19.1	17.8	16.7	50.5	104.1	49.9	43.8	78.3	157.4	329.3
Interbank sales	19.1	17.8	16.7	50.5	104.1	66.8	43.8	76.8	130.8	318.2
Bureau purchases	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4
Bureau sales	2.8	2.7	6.1	4.0	15.5	2.8	1.7	1.5	3.0	9.0
Commercial purchases	279.4	357.7	381.5	433.6	1,452.3	260.9	630.5	511.6	660.2	2,063.2
Commercial sales	331.0	399.2	430.7	512.0	1,672.9	303.9	667.5	549.2	797.8	2,318.4
Forward purchases	4.0	3.7	0.9	0.7	9.3	3.7	3.0			6.7
Forward sales	3.6	13.9	15.0	10.7	43.3	3.7	0.9			4.6
Net commercial demand	-53.7	-50.6	-70.3	-92.4	-267.0	-54.3	-35.4			-89.8
BoZ net dealing window sales 1/	55.1	60.3	59.6	90.2	265.2	59.5	33.7	-10.9	-3.0	79.2
	(In kwacha per U.S. dollar)									
Memorandum items: 2/										
Interbank market rate (k/US\$) 3/	4,367.9	4,599.2	4,622.0	4,548.3	4,534.4	5,053.4	4,998.3	4,823.9	4,661.6	4,742.8
Bureau market rate (k/US\$) 3/	4,312.7	4,518.9	4,555.1	4,390.7	4,444.4	4,925.4	4,855.0	4,810.7	4,730.6	4,921.7
Retail sell rate (k/US\$) 3/	3,967.4	4,516.1	4,593.3	4,368.8	4,361.4	4,912.4	4,866.6	4,833.3	4,603.0	4,798.5
BoZ dealing rate (k/US\$) 3/ 4/										4,854.0

Sources: Bank of Zambia (BoZ); and staff estimates.

1/ Financed by balance of payments assistance and foreign exchange purchases by the ZCCM.

2/ All exchange rates are end of period.

3/ Weighted-average sell rate.

4/ BoZ dealing window opened on December 23, 1993.