

ECONOMIC POLICIES

FOR GROWTH, EMPLOYMENT AND POVERTY REDUCTION

CASE STUDY OF ZAMBIA



Centre for Development
Policy and Research



United Nations
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Case Study of Zambia

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Preface

The attainment of the Millennium Development Goals (MDGs) in Zambia, as in many developing countries, requires a radical departure from business as usual. The country needs faster economic growth coupled with redistribution as recent trends in poverty, social indicators, and employment imply that the MDGs cannot be achieved by growth alone even if the rate were much higher than in the recent past.

The MDGs call for a broader role for the public sector, with emphasis upon public investment. This is in line with the central objective of the Fifth National Development Plan, which is a sustainable and rapid growth rate that maximizes poverty reduction. It is our hope at the United Nations Development Programme (UNDP) that the Zambian government could use this independent report to facilitate the implementation of the plan.

So far, progress towards the attainment of the MDGs in Zambia has been mixed and prospects for their attainment in 2015 are slim with present levels of public expenditure. However, the prospects are relatively brighter now, with the fiscal space created by the debt relief from Highly Indebted Poor Countries Initiative and Multilateral Debt Relief Initiative, and with the bold aspirations in the Fifth National Development Plan.

With the fiscal gains from debt relief achieved, additional poverty reducing expenditure must come from increases in official development aid grants and a sustainable rise in the fiscal deficit to accommodate the properly-structured public investments needed in education, health and infrastructure.

This report suggests that, additionally, an internationally competitive manufacturing sector should be a central element in Zambia's growth and poverty reduction strategy. Agricultural development must be promoted as part of the poverty reduction strategy of the country, but an internationally competitive manufacturing sector should be an equally important element in the strategy.

Zambia has potential for a strong, competitive manufacturing sector as the country has an excellent natural resource base and skilled work force. Further, because urban poverty has increased dramatically over the last twenty years, growth of manufacturing would be poverty reducing by generating employment at decent wages.

A coherent and integrated industrial policy is necessary to achieve this. The policy should combine a macroeconomic framework favorable to manufacturing, a sectoral policy that fosters competitiveness (consistent with World Trade Organization obligations), and micro policies to raise the efficiency of enterprises. Cutting across all three levels would be public investment in infrastructure.

UNDP hopes that the report will be useful for the Government of the Republic of Zambia, as well as for all stakeholders in policy development in Zambia and other countries as they work towards achieving the noble objectives of the Millennium Declaration.



Aeneas C. Chuma
UNDP Resident Representative

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*Millennium Development Goals	

List of Acronyms

AAC	Anglo-American Corporation	SADC	Southern Africa Development Community
AIDS	Acquired Immune Deficiency Syndrome	SOEs	State-Owned Enterprises
BSAC	British South Africa Company	UDI	Unilateral Declaration of Independence
CDF	Cumulative Density Function	UFW	Unaccounted-for Water
CEC	Copperbelt Energy Corporation	UNDP	United Nations Development Programme
CSO	Central Statistical Office	WTO	World Trade Organisation
DBZ	Development Bank of Zambia	WB	World Bank
DHS	Demographic and Health Surveys	WSCs	Water and Sanitation Companies
DPD	Domestic Public Debt	ZCCM	Zambia Consolidated Copper Mines
DSA	Debt Sustainability Assessment	ZESCO	Zambia Electricity Supply Corporation
FSDP	Financial Sector Development Plan	ZIMCO	Zambia Industrial and Mining Corporation
GDI	Gross Domestic Income	ZNCB	Zambia National Commercial Bank
GDP	Gross Domestic Product	ZPA	Zambia Privatisation Agency
HIPC	Highly Indebted Poor Country	ZRA	Zambia Revenue Authority
HIV	Human Immunodeficiency Virus		
IBRD	International Bank for Reconstruction and Development		
IDA	International Development Association		
IFC	International Finance Corporation		
IFEM	Interbank Foreign Exchange Market		
IFI	International Finance Institution		
IMF	International Monetary Fund		
ITL	Inflation Targeting 'Lite'		
ITR	Inflation Targeting Regime		
KCM	Konkola Copper Mines		
LCMS	Living Conditions Monitoring Survey		
LuSE	Lusaka Stock Exchange		
MDG	Millennium Development Goals		
MoFNP	Ministry of Finance and National Planning		
NCCM	Nchanga Consolidated Copper Mines		
NSCB	National Savings and Credit Bank		
NPV	Net Present Value		
NWSSC	National Water Supply and Sanitation Council.		
ODA	Official Development Assistance		
OMOs	Open Market Operations		
PRSP	Poverty Reduction Strategy Paper		
PSBR	Public Sector Borrowing Requirement		
RBT	Rising Block Tariffs		
RCM	Roan Consolidated Copper Mines		



1 ~ Introduction

1.1 The UNDP Regional Programme

This case study of Zambia is the first in a regional project on Economic Policies for Poverty Reduction by the Bureau for Development Policy and the Regional Bureau for Africa of the UNDP that aims to reinforce, at the country level, programmes to strengthen the capacity for formulating and implementing macroeconomic, sectoral and structural policies that are more supportive of poverty reduction.

The project has the following major focus areas: 1) integrating poverty reduction objectives into policymaking and socio-economic development strategies; and 2) facilitating practical policy options and institutional mechanisms to foster more pro-poor macroeconomic stabilisation strategies, economic restructuring and sustainable growth.

The project complements other related regional and country programmes supporting preparation and implementation of Poverty Reduction Strategy Papers (PRSPs), Millennium Development Goals (MDGs) progress reports including ongoing work on governance.

During the 1990s the need for poverty reduction in most parts of the world progressively emerged as a major development challenge for the international com-

munity. At the 2000 Millennium Summit, poverty was designated as one of the main development challenges of the new century, which required a robust response both at the national and international levels. The heightened concern about poverty was prompted by the increasingly evident contrast between the rising incidence of poverty and growing inequality both within nations and among them; and, achievements in economic growth and significant advances on the technological front in many parts of the world.

It has also been prompted by the failure of macroeconomic stabilisation and structural adjustment programmes, which dominated economic policy during much of the last two decades, to produce poverty-reducing growth. This failure was contrary to expectations of both the adjusting countries and international financial institutions. With their foundations in neo-classical theory, the stabilisation and adjustment programmes assumed that poverty reduction would flow automatically from resumption of growth and higher levels of employment. The record on both counts has not matched expectations.

Analysis of the performance over the past decade of sub-Saharan countries as a group suggests that significant progress has

1
been made by most of them in stabilizing their macroeconomic environments.

However, growth performance continued to be well below levels required to impact substantially on poverty. Although there has been a reversal of the downward trend over the five-year period through to 1999, annual average growth rates since the turn of the century have been three percent.

This is well below the minimum rates of seven to eight percent required to meet the Millennium Development Goals target (MDGs) for poverty reduction. UNDP estimates that as of 2001, up to fifty percent of the region's population lived in absolute poverty, a level that projected to worsen over the following five years if these trends continued. Performance with respect to other areas of human poverty was as well not satisfactory.

Meeting the poverty reduction objectives established in the MDGs, halving the proportion of people living in extreme poverty, is a daunting challenge, but attainable in the sub-Saharan region if growth is combined with policies of redistribution of the growth increment. The initial poverty reduction strategies in the 1980s, to the extent they existed, and in the 1990s focused on 'social safety nets', programmes directed at what was considered to be transitory adverse effects of the adjustment programmes on the poor and other disadvantaged groups. These *ad hoc* measures accounted for what was called the 'social dimensions of adjustment' approach.

Partly as a result of UNDP's advocacy for a broader approach to the challenge of poverty, as set out in the global Human Development Reports and reinforced by the 1995 World Summit on Social Development, a new generation of poverty reduction programmes emerged by the mid-1990s. These took a more comprehensive and active approach to poverty, attempting to identify its root causes and integrating poverty reduction measures in national development programmes. The changes in approach stressed the importance of

designing macroeconomic policies to be pro-poor, an explicit rejection of the faith that growth would 'trickle down' to the poor sufficiently to have a major poverty reducing effect. The evolution of comprehensive Poverty Eradication Action Plans and later Poverty Reduction Strategy Papers (PRSPs) were outcomes of this process. The objective is to put in place a set of macroeconomic, structural and sector policies that make an impact on poverty reduction by combining sustainable growth and equity. The introduction of PRSPs also constitutes a response to the need for broadening participation in economic policy formulation and implementation processes.

The regional programme to which this case study contributes aims to promote greater consistency between participating countries' economic policies and poverty reduction strategies. It will foster understanding of potential trade-offs among strategic economic and sectoral policy objectives as a prelude to formulation of macroeconomic and sectoral policy options that facilitate generating growth along a sustainable and equitable path towards poverty reduction. This requires deeper and sustained analytical work on stabilisation policies, that they can be more flexible on inflation and fiscal deficits in relation to promoting output expansion and poverty-reducing growth through higher levels of investment. An important policy option in this connection is giving more scope under appropriate circumstances to fiscal expansion to allow for increased public investment that can stimulate growth.

It is also notable that the strategic principles that will underpin the proposed regional project are in line with those of UNDP Africa's Second Regional Cooperation Framework for the period 2002-2006. The key elements of that strategy include: advocacy, policy advice and support for mainstreaming human development initiatives in overall development programmes; reinforcement of knowledge networking for building on shared experi-

ences, knowledge and best practices in UNDP's focus areas; adding value to country programmes; and promotion of regional cooperation and integration.

Given that the overall objective of the regional project is to contribute to policy making, applied research and policy analysis, the mission drew on considerable Zambian expertise. The core mission included Zambians, and the Ministry of Finance and Economic Planning provided information and background papers essential to the report, as did the Bank of Zambia.

It would be pretentious and condescending to suggest that the role of the external consultants was 'capacity building', because the capacity of Zambian economists, both in the government and outside of it, to carry out all the tasks of policy design is considerable. The contribution of the external collaborators was to bring to the study experience from other countries, and recent analytical developments in the policy field.

1.2 Lessons from the Asia-Pacific Programme

The regional programme for Africa draws on previous work of a similar type in the UNDP Asia-Pacific Regional Programme on the Macroeconomics of Poverty Reduction. As for this programme, it focussed on macro policies to generate pro-poor growth. The Asian studies, complemented by several on transition countries in Eastern Europe and Central Asia, together comprise the Global Programme on the Macroeconomics of Poverty Reduction.

In its first stage, the programme produced policy-oriented research on the impact on poverty of macroeconomic policies (fiscal, monetary and exchange-rate policies) and adjustment policies (financial liberalisation, trade liberalisation, and privatisation/de-regulation). The conclusions from the nine case studies provide lessons for the African studies, which are distinctly different from the neo-liberal policy

matrix that has dominated economic prescriptions for the last two decades.

The conclusions include the necessity for an active fiscal stance, focused on public investment as the basis not only to foster more rapid growth but also as a mechanism to focus resources on poverty. Monetary policies should play a complementary accommodating role to expansionary fiscal policies and avoid restrictive inflation targeting, as is done in Zambia and will be discussed in detail.

In order to finance additional public investment, a more concerted effort is required to mobilise domestic public resources, which are too low in many countries to support a pro-poor growth strategy in many African countries, and especially in Zambia.

The Asian studies also included in the macroeconomic framework recommendations for stronger regulation of financial institutions and external short-term capital flows, and the use of state financial institutions to direct credit for both growth-promoting and poverty-reducing purposes.

The study is sceptical about the ability of trade liberalisation to foster exports. Alternatively, the study points towards backing a trade regime with active industrial policies, allowing medium-term protection of vital domestic sectors and focusing development on sectors, such as agriculture, where poor workers are concentrated and are likely to suffer from unbridled liberalisation. As presented later, there is wide agreement that trade liberalisation in Zambia had a negative impact on both manufacturing and agriculture, and was anti-poor.

In order to heighten the pro-poor impact of growth, the alternative policy framework arising from a synthesis of the Asian studies placed priority on sectoral measures, such as employment generation and agricultural and rural development, as critical complements to macroeconomic and adjustment policies. For job creation, the emphasis was on not only fostering a more employment-intensive pattern of growth, but also taking explicit public policy mea-

1
sures to boost the productivity of poor workers. For agricultural and rural development, the emphasis is on deploying public investment for critical public goods (such as rural roads and irrigation), improving agricultural terms of trade and providing equitable and sustainable access to productive resources, such as through secure use-rights to land.

In evaluating this impact, the research also identifies complementary policies that can enhance the impact on poverty of macroeconomic and adjustment policies. This paper reviews two complementary sectoral policies, namely, agricultural development and employment generation, which figured prominently in many of the studies. The research also investigates whether a country is able to mobilise the domestic resources (for example, through savings, taxation or borrowing) to finance a high rate of public and private investment for accelerated economic growth.

The Asian case studies addressed seven issues relevant to the sub-Saharan countries, and Zambia specifically: 1) investment-led fiscal policy 2) inflation targeting, 3) the revenue/GDP ratios, 4) agricultural and rural development, 5) financial liberalisation, 6) employment, and 7) pro-poor trade policies.

As for this report, the objective of the Asia-Pacific regional programme was to broaden the policy dialogue on the prerequisites for pro-poor growth and promote greater consistency between countries' Poverty Reduction Strategy Papers and their macroeconomic and adjustment policies. Whereas, for the rest of this section will focus on fiscal policy and employment, the major issues in Zambia.

UNDP's basic approach to pro-poor growth Strategies stemmed from its 2002 report (UNDP 2002), which concentrated on generating growth how to make it equitable. Its focus was on the economic opportunities of the poor, namely, their access to assets, resources and employment that enable them to secure a decent material standard of living and thereby significantly

widen their options for human development. The policy note took the position that if countries were to reach the target of halving extreme income poverty by 2015, rapid growth would be essential, more rapid than the average of the last three decades. However, if growth is more equitable, the incomes of the poor grow faster than the average, and countries have a much greater chance of reaching the MDG target.

Hence, a strategy of such 'equity-based' growth would need to be rapid enough to improve the absolute incomes of the poor, and equitable enough to improve their relative position, preferably by enhancing equity at the start of the growth process as through land reform or universalising basic education, or by decreasing high inequality over time through increasing wages by generating widespread employment among low-skilled workers. Equity-based growth can be achieved through a variety of strategies, which depend in part on each country's initial conditions.

In general, if growth is to immediately reduce poverty, it should have a pattern that directs resources disproportionately to sectors in which the poor work, such as small-scale agriculture, the areas in which they live, underdeveloped regions, and to the factors of production that the poor possess, such as unskilled labour or land.

The long term objective of all development is to move the workforce, and poor workers in particular, out of low productivity sectors, poorly resourced regions and low-skilled employment. In most cases, this would imply poor workers shifting from agriculture and into industry and a modern service sector.

In the past, import-substitution strategies have succeeded in achieving this effect in some countries. Strategies based on emphasizing the exports of manufactures have been successful. In the short run, inequality is not likely to be reduced, and may even rise.

If inequality is reduced, it is more likely to be due to initial prosperity in agriculture

or an initially equitable distribution of endowments, such as land or human capital.

In examining the impact of macroeconomic and adjustment policies, the UNDP-supported case studies were directly concerned with these vital issues of growth and inequality, and their interaction. The policy recommendations favoured more expansionary, investment-focused fiscal policies and more accommodating monetary policies than 'neo-liberal' orthodoxy allows.

The pro-poor growth strategies in the Asia-Pacific reports put a premium on boosting domestic savings and investment, instead of the orthodox focus on allocative efficiency and price stabilisation, and using public investment as a stimulus to private investment.

This implies a more activist policy role for the state and a larger revenue base, with which it can finance capital expenditures and direct them to poverty-reduction purposes. The case studies tended to be critical of the impact of conservative policies of financial liberalisation, both domestic and external, and favour capital controls, stronger regulation of the financial sector, and some scope for directed credit, especially for poverty-reduction purposes.

The case studies gave trade liberalisation mixed reviews. Compared to financial liberalisation, greater trade openness had, in some countries, a more positive impact on growth and poverty reduction. However, this has often been combined with import substitution policies. If trade liberalisation is not complemented with other active measures, especially poverty-focused interventions such as the building of rural infrastructure, financing of agricultural development and the provision of adequate credit to small and medium enterprises, then trade liberalisation can exacerbate inequality and bypass the poor, especially the rural poor. As we see in subsequent chapters, this tended to be the case in Zambia. To be most effective, liberalisation of trade should be designed carefully and go hand-in-hand with a pro-active industrial strategy. Despite

the widespread rhetorical commitment to pro-poor growth, employment is often a 'missing link' in the chain that connects growth to poverty reduction. This is *prima facie* evidence of a deep-seated inconsistency between the orthodox stabilisation-fixated growth strategies, on the one hand, and national poverty reduction strategies, on the other hand. In trying to link growth to poverty reduction, the UNDP-supported Asia-Pacific case studies had to address the importance of generating widespread employment; and, such employment has to be at decent wages to be poverty reducing. This implies that self-employment, micro-enterprises and the micro-finance services supporting them cannot serve as the foundation for a pro-poor employment strategy. Although such micro programmes can help raise incomes, secure and remunerative employment cannot be sustained by these alone. The emphasis needs to shift to small and medium enterprises, and large enterprises that are employment-intensive and skill-enhancing.

A major initial finding of the regional programme is the need to use fiscal policy more proactively to expand pro-growth and pro-poor public investment. The case found that public investment could, if growth-oriented, have a 'crowding-in' effect on private investment (Roy & Weeks 2004), as this study finds for Zambia. Boosting aggregate demand through public investment can have the advantage not only of sparking recovery in a stagnant economy, but also of loosening the supply constraints on long-term growth. However, 'crowding-in' cannot be automatically assumed. Public capital expenditures have to be carefully designed as part of a well conceived pro-growth as well as pro-poor strategy.

The multipliers for expenditures on public investment can be substantial if such investment helps boost the productivity of labour and capital. The higher marginal propensity to consume in developing countries, compared to industrial countries, is an additional factor that can increase these multipli-

1
ers (Hemming, Kell and Mahfouz 2002, 12). Also, the multiplier impact of public investment can be powerful if there is excess capacity in an economy and households are liquidity constrained, as is the case in many developing countries, including Zambia.

The common concern among Washington-Consensus economists has been that increasing public investment will enlarge public deficits and these, in turn, will lead to higher inflation, depreciation of the exchange rate and higher real interest rates. There is little evidence in the literature that public investment crowds out private investment through changes in the interest rate or exchange rate (Hemming, Kell and Mahfouz 2002, 36).

Moreover, multipliers remain large, and crowding out is minimised, when a moderate monetary expansion accompanies an increase in public investment. As long as deficits are used to finance public investment that expands aggregate supply, then the aggregate demand effects should not be unduly inflationary. Public investment can be a powerful instrument for the reallocation of public resources to poverty reduction.

The case studies concluded that fiscal policy should not be held captive to inflation targeting. The Neo-liberal recommendation to national policymakers is that they should insist on maintaining inflation rates of zero to five percent, even though there is little empirical evidence to suggest that inflation rates above that level, or even above ten percent, have an adverse effect on growth. The case studies suggest that some inflation must be expected in a rapidly growing economy, due to temporary sectoral bottlenecks. In an economy with strong growth, inflation may reflect the adjustment of relative prices to reallocate resources from less to more profitable sectors. If monetary policies are excessively restrictive and some prices are downwardly 'sticky'; then inflation targeting can nullify the required reallocation of resources, and cancel the growth stimulus of expansionary fiscal policies. Low inflation is more appro-

priate after a sustainable rate of economic growth has been achieved; trying to maintain low inflation before growth has a chance to take off is likely to throttle any economic expansion.

The Asia-Pacific studies indicate that a policy framework with an active fiscal policy at its core can generate pro-poor growth in which the income of the poor rises faster than average income. However, active fiscal policy must be accompanied by an accommodating monetary policy, and strong redistributive measures, some through fiscal instruments themselves.

This case study of Zambia finds the lessons from the Asia-Pacific region relevant, though they must be adapted to the regional and national context. The lessons from the Asia-Pacific Programme must be placed in the context of Zambia's structural characteristics, which differ notably from those of most of the Asian countries covered in the programme's case studies. The most important of these structural characteristics are:

- 1) A long-term decline in per capita income, dropping the country from middle-income status in the early 1970s, to low-income status in 1990s
- 2) Until the 2000s, almost total dependence on a single primary commodity export, copper;
- 3) An agricultural sector whose output is extremely weather-sensitive;
- 4) Inefficient domestic commodity markets, in part due to poor and deteriorating infrastructure;
- 5) Underdeveloped financial sectors;
- 6) Heavy dependence on concessional development assistance (especially from the World Bank), that is strongly conditional;
- 7) A large debt burden; and
- 8) A near-catastrophic incidence of HIV/AIDS.

Taken together, these characteristics produce in Zambia what is of central importance to the design of a pro-poor macro

policy, a high level of growth instability. From the 1960s through the end of the 1990s, the annual variation in the growth rate, of GDP and GDP per capita, was extremely high, with the absolute value of the year-to-year change almost four times the average annual growth. This instability resulted primarily from the dependence of the economy on a single export whose price was volatile, copper, and from the inability of underdeveloped and ineffective internal markets to generate supply adjustments to accommodate that volatility.

1.3 Country-driven & Nationally Owned Development

Three problems lie at the heart of the high levels of poverty in Zambia, and the stunted recovery after 2000: a heavy debt burden, lack of diversification of the economy, and the HIV/AIDS pandemic. The first derives directly from explicit decisions by outside agencies, and was characterised by the Operations Evaluations Department of the World Bank as 'not realistic'.¹ The second was exacerbated by stabilisation and structural adjustment programmes whose design was flawed.² To some degree these programmes, stressing balance of payments support, reflected the priorities of funders rather than the needs of the Zambian economy.³ And, the lack of attention by the major funders to the HIV/AIDS pandemic undermined the effectiveness of the large scale lending that occurred.⁴ Discussions with government officials and representatives of international agencies, and a review of documents including evaluations from those agencies, indicate that at least over two decades, programme assistance to Zambia was inappropriately designed and characterised by excessive conditionality.⁵

These deficiencies in programme lending resulted in what most external funders described as a 'lack of commitment to reform' by the various Zambian governments over more than two decades. Given the poor design and inappropriate priorities

in the programmes, a lack of government commitment should not come as a surprise.

Overall, the relationship between the Zambian governments and external agencies from the 1980s into the new century was one of 'donorship'. The relationship was one in which donors and lenders collectively acted as setters of policy priorities, designers of economic programmes, active participants in the implementation of policy, and assessors of the outcome of policy; in other words, a case of profound aid dependency that went beyond dependency on funding.⁶

It would appear that in Zambia, donors and lenders have not distinguished between actions required by the government in order that the funds be used effectively, and those policies that the donors and lenders have the bargaining power to impose, be they crucial to success or not. Further, donors and lenders have tended to exercise an external judgementalism, assuming the authority to pass judgement on the appropriateness of conditionalities, and whether the government has shown sufficient commitment to those conditionalities. There is an obvious inconsistency in this approach; donors and lenders played a primary role in setting conditionalities, and the government was expected to show full commitment to these externally defined conditionalities (take ownership of them). By contrast, in a national ownership regime, the recipient government assesses policies in consultation with the donor. National ownership does not require external development agencies to suspend all judgements; rather, implies that those judgements arise out of an interactive process with national stakeholders.

It is the view of this mission that while relations between the government and some donors and lenders have at times been strained, greater national ownership is essential for more effective economic policy. Putting the principle of national ownership into practice, an essential feature of the PRS process, involves the realisation that economic policies and reforms are not purely

1 technical matters, but involve trade-offs and political choices. If donors and lenders take national ownership seriously, it implies that in some cases they must adjust their views to those of recipient government. This adjustment by donors and lenders would be facilitated if they point out what they see as failings of the government, and recognise their own mistakes in their dealings with the government over the last twenty years, some of which they have documented in their in-house evaluations (WB 1996 & 2002).

There is truth to the allegation of observers that the governments of Zambia have made major policy mistakes regarding the economy at critical times. Similarly, the record of outside agencies suggests that a degree of modesty and self-doubt on their part would be appropriate when proposing policies to the government. Since 1990, the expectations of these agencies for positive outcomes from the major policy changes required by loan conditionality have consistently been unrealised. To take but one piece of evidence, growth forecasts by the World Bank for the 1990s proved excessively optimistic. As Table 1.1 shows, the growth forecast of almost four and one half percent for the first half of the decade was far above performance, and the forecast for the second half of the decade, while closer to the actual outcome, was still well off the mark. In part, the projection error arose from over optimistic assumptions about the response of private investment to the policy changes (see 1991-1995 in the table 1.1).

The purpose of pointing out the unreliability of projections is not to allege that they could have been better; but rather, to emphasise the impression of economic analysis, both in terms of its specification of appropriate policies and its ability to relate those policies to outcomes. The lesson to take is that external agencies and the government should treat the policy dialogue as one of cooperative interaction in which the parties learn from each other. The fact that external agencies have funding which the government desperately requires places a

particular responsibility on the former to be modest their assessment of their capability of designing appropriate policies.

1.4 Zambia's Transition: Adjusting from What

Over the thirty years, 1975-2005, Zambia underwent a profound economic transformation. The adaptations required by the transformation were made difficult due to a misunderstanding of the nature of the economy and society by Zambia's most important donors and lenders. The mainstream view appears to be that under the Kaunda regime (i.e., into the late 1980s) Zambia was a 'socialist' country, and the essential character of the transformation would be from a planned to a market economy.⁷ This presumption requires close inspection.

Until the early 1990s in the economics literature the term 'socialist economy' was synonymous with 'centrally planned economy', or, more simply, a 'planned economy'. The term has fallen from use since the end of the Soviet Union, to the extent that it no longer appears in many dictionaries of economic terms. However, the *Penguin Dictionary of Economics* of 1987 provides the following definition of a planned economy

An economy where state authorities rather than market forces directly determine prices, output and production. The most important features usually include: (a) production targets for different sectors that determine the supply of different commodities; (b) rationing of certain commodities, to determine demand for them; (c) price- and wage-fixing by state bodies; and (d) (sometimes), a conscripted labour market in which workers take the jobs assigned to them. (Bannock, Baxter & Davis 1987, p. 317)

From independence to the end of the 1980s, the state authorities did not set production targets across sectors; rationing was not important; state bodies did not set the prices of most commodities; and, labour was not allocated administratively. In the most important sector of the economy, mining, output and prices were determined in

international markets, notwithstanding that the sector was state owned. There were consumer subsidies, most notably for maize meal, but not rationing. And, workers found their jobs at the enterprise level through labour markets.

Zambia had a market economy with extensive and intensive state intervention, both in ownership of enterprises and regulation of markets.⁸ Defining the economy as 'socialist' reflects the tendency by some neoclassical economists after the fall of the Soviet Union to view centrally planned systems as essentially the extreme version of economies pursuing industrial policies (so-called import-substituting industrialisation). In part this was an extension of the ideological position of the Hayek-von-Mises school that judged all government interventions as socialist, and partly because the Western economists who played a prominent role in 'reform' programmes in the former Soviet Union had not worked on those countries during their central planning period.

The issue of definition has great practical importance. Having defined Zambia as socialist, the international financial organisations concluded that the central problem of the economy was state control, implying the need for rapid deregulation and privatisation. To this end, conditionalities placed great importance on trade liberalisation, divestiture of state assets and reduction of the role of government, including the elimination of economic planning institutions of the public sector. While similar conditionalities were applied to many African countries, in Zambia they were more intense.

1.5 The Political Context of Economic Decline

External agencies have tended to assign all economic ills of the economy to the government intervention they defined as socialist, and as a result placed little importance on the regional political factors that profoundly affected Zambia's economy. On the last day of 1963, the Central African

Federation collapsed when North Rhodesia gained independence as Zambia, and Nyasaland as Malawi.⁹ In response to the refusal of the government of the United Kingdom to grant independence to the minority regime in Southern Rhodesia, the white settler government declared independence unilaterally in 1965 (Unilateral Declaration of Independence, UDI).

Though 'Rhodesia' was not officially recognised by any government, it was maintained as a white minority dictatorship for fifteen years with de facto support from the apartheid regime in South Africa and Portugal, which maintained neighbouring Mozambique as a colony. The declaration of independence by the 'Rhodesian' regime caused Zambia to lose its two transport links for exporting its copper, through the white settler state and South Africa. This resulted in a dramatic increase in transport costs, such that despite productivity raising innovations in copper mining and concentrating, Zambia was rendered a high-cost producer on the world market. In 1976, construction was completed of a rail link to Dar es Salaam, but for ten years the Zambia economy suffered from the politically-motivated disruption of its export products.

The slow growth of the economy during 1965-1976 can to a great extent be explained by this disruption, which resulted in low investment in mining, a growing trade deficit and heavy indebtedness. While the principled political stance that Zambia took with regard to the white settler regime in so-called Rhodesia, and the anti-colonial struggle in Mozambique, was not the source of all of its ills, it should not be ignored when assessing economic performance. The implications of this history are developed in more detail in subsequent chapters.

1.6. The Key Constraints: Debt and HIV/AIDS Impact of HIV/AIDS

Since the mid 1980s the economic and social problems of Zambia have been com-

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pounded by one of the world's most devastating HIV/AIDS epidemics. Evidence suggests that by the mid-2000s one in every six adults was HIV positive, and eighty-nine thousand people died of AIDS in 2003 (UNAIDS & WHO 2004). As a result, the most pessimistic estimate was that life expectancy at birth fell below forty, and over six hundred thousand children were AIDS orphans (UNAIDS, UNICEF & USAID 2004). Unlike in North America or Western Europe, HIV in Zambia was not primarily a disease of the underprivileged. Infection rates were estimated to be higher among the non-poor and better educated. However, the poorest households were least able to protect themselves from HIV or to cope with its impact.

Whatever the severity of the pandemic, sickness and death and the consequent effect on families and communities has social and economic repercussions that could result in long term changes in social structures. The impact on households included permanent loss of income in the case of death, less labour available for family farms, funeral and mourning costs, and the removal of children from school in order to save on educational expenses and increase household labour.

The longer term effect of withdrawal from education would be loss of future earning potential. Further, a study found that HIV/AIDS results in malnourishment in children of effected households, and that this worsened when the child was orphaned and sent to a guardian (Baggaley & Needham 1997).

In the case of most maladies, households in distress would be supported by extended families; however, the toll of the epidemic reached such severity that family structures could not cope. Social stigma compounded the problem, as many of those affected by HIV/AIDS could suffer exclusion from communities. To make matters worse, when the male head of a household dies it is common for his entire property to be appropriated by relatives rather

than the immediate family, leaving the widow and children with little or nothing (AVERT 2005).

The HIV/AIDS pandemic has and will have a major impact on the age and sex composition and the rates of growth of the population and labour force of Sub-Saharan countries. The scale, scope and timing of the impact on the quantity and quality of labour supplied are extremely difficult to estimate, and varies across countries. The starting point for any analysis of the impact of HIV/AIDS should be recent data on prevalence and mortality rates and any cross-country comparison of the impact of HIV/AIDS must be based on a discussion of the manner in which incidence is estimated.

At a macro level HIV/AIDS has a direct impact on rates of economic growth. Using a Cobb-Douglas production function incorporating labour quantity, Haacker concludes,

While the evolution of HIV prevalence rates and hence HIV/AIDS-related mortality rates, differ across countries, this [model] suggests that the rate of per capita output growth will be between .3 and .7 percentage points lower than otherwise through 2000-2010. (Haacker 2002, 35-36).

However, few studies have been able to incorporate the impacts at the household and firm level in macroeconomic projections. There are several mechanisms by which AIDS affects macroeconomic performance.

- AIDS deaths lead directly to a reduction in the number of workers available.
- A shortage of workers could lead to higher wages, which leads to higher domestic production costs. Higher production costs lead to a loss of international competitiveness.
- Lower government revenues and reduced private savings (due to greater health care expenditures and loss of worker income) can cause a significant drop in savings and capital accumulation.

According to the forthcoming National Human Development Report 2005 the

infant mortality rate in Zambia will be sixty percent higher by 2010 due to the impact of AIDS, the child mortality rate will double, the crude death rate will triple, and life expectancy will decrease from 60.1 to 30.3 years. Overall, population growth would be reduced from 3.1 percent to 1.2, because of the effect of AIDS (Cohen 1997).

Additionally, according to the Zambia Business Coalition, eighty-two percent of known causes of employee deaths are HIV-related and seventeen percent of staff is recruited to replace people who have died or left because of HIV-related infections (Times of Zambia 2004).

Even more significant, AIDS kills people in the prime of life, so the workforce is stripped of valuable skills and experience. The situation becomes yet worse as there are fewer people to teach the next generation. All of this means that production costs rise, while at the same time consumer spending falls because people affected by HIV/AIDS have less disposable income.

The HIV/AIDS disproportionately affects women. It is estimated that 1.2 times as many women are afflicted with AIDS as are men. Women are thought to be 2 to 4 times as susceptible to infection during unprotected intercourse, and more vulnerable to other STDs. Furthermore, women are culturally relatively weaker to protect themselves (GRZ, 2002b, 109). Women are vulnerable to infection due to their lack of decision making power and autonomy within personal relationships and their lesser access to healthcare, social services and education. (Mwale and Burnard, 1992:10)

The disease has a well-recognised gender dimension. Women are affected by HIV/AIDS not only as sufferers, but also in their multiple roles in society and the family, as health care providers, educators, wives, mothers and income providers. Nursing the sick is generally seen as a feminine activity, particularly when unremunerated, as occurs for family members. The development of home based care programmes for chronically ill patients such as those with AIDS,

whilst saving hospital beds, will have an impact on women by increasing their domestic duties (Byrne, 1994, 35-36).

Zambia has been one of the world's poorest countries since the late 1970s, and HIV/AIDS has made a bad situation even worse. Negative trends in the economy and food production fuel the epidemic that helped to create them. As Zambia's Poverty Reduction Strategy Paper acknowledges, 'the epidemic is as much likely to affect economic growth as it is to be affected by it' (Government of Zambia 2002b).

The External Debt Burden

Poverty in Zambia is exacerbated and magnified by HIV/AIDS, and the government's capacity to deal with the problem is undermined by the country's debt burden.

Fundamentally a legacy of the 1970s and 1980s, the debt burden arises directly from the decline in revenue from copper that resulted from the combined effects of supporting liberation struggles in the region and the decline in the copper price. While the first cause arose from a Government decision, it is one that the international community should applaud. The second was beyond the control of any government. The obvious solution to price instability is the diversification of the economy. But, despite its efforts, the government was no more able to achieve this in the 1970s and 1980s than have subsequent governments that have enjoyed massive external support. Apparent export diversification in the 1990s and 2000s were the result of a catastrophic collapse in the mining sector rather than purposeful policy.

Zambia's crushing debt burden arose through a combination of unsound lending policies on the part of multilateral agencies, which had the active support of bilateral donors (this is discussed in detail in the next chapter), and declines in the terms of trade. Figure 1.1 shows the share of debt service in exports during 1975-2001 using a three-year moving average to reduce the effects of

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 year-to-year fluctuations. The series ends in 2001, before other countries, and eventually Zambia, began to benefit from debt relief, which is considered in a subsequent chapter. The chart also reports the number of countries that had a debt service ratio greater than Zambia's. The overall impression one might take from the chart is that while Zambia's debt service ratio has been consistently high (higher than the average for these countries except in the second half of the 1980s) it continuously declined after the early 1990s. This impression might be reinforced by Figure 1.2, which shows the debt stock per capita in current US dollars, which declined steadily after 1990, approaching the average for the other countries.

However, an external debt must be repaid, as opposed to merely refinanced, through foreign exchange earnings. Therefore, the capacity to pay will be affected by the price of exports, which determine the purchasing power of those exports, and import prices, which affect the cost of producing those exports. When per capita debt is adjusted by the net barter terms of trade, shown in Figure 1.3, the result is quite different from the previous charts. In 2000-2001, the terms of trade adjusted per capita debt stood fifty percent higher than it had been at the beginning of the 1980s, and well above the average for the other countries, with no tendency for the gap to narrow.

In anticipation of the chapters that follow, it can be concluded that in the mid-2000s Zambia remained on of the most heavily indebted countries in the Sub-Saharan region. This indebtedness combined with conditionality-related deficit limits has resulted in a severe fiscal constraint. The two predominant problems facing Zambia, HIV/AIDS and debt, are inseparable. Rarely has a trade off been so clear and so cruel; pay the debt or treat HIV/AIDS victims. This trade-off lies at the heart of the report that follows.

debt service], rather than debt forgiveness, was not realistic, as was eventually recognized by launching HIPC. This decision left the Bank with few and unattractive options, which led to large IDA transfers to off-set Zambia's repayments to IBRD and other creditors', and 'The result [of the debt strategy] was an unenvisioned "muddle through" scenario in which exceptional allocations of IDA helped to service the debt while net transfers for development were small' (WB 2002, p. 9).

2 'Outcomes of many Bank operations, and of the overall Bank programme, were unsatisfactory' (WB 2002, p. ii).

3 'Creditor pressure for balance of payments support weakened the design and supervision of successive adjustment operations' (WB 2002, p. ii).

4 'The emphasis on exceptional levels of adjustment lending to finance an unsustainable debt overhang along with the delayed response to the HIV/AIDS pandemic were significant weaknesses [in WB programmes]...' (WB 2002, p. ii)

5 This conclusion is epitomised in even stronger language in a WB evaluation of operations in Zambia:

The general conclusion of this evaluation is that, given the nature of Zambia's problems and the government's wavering commitment to the reform in the 1980s, there was too much emphasis on policy-based operations, and too much emphasis within policy-based operations on stabilisation rather than on long term structural adjustment. A more balanced approach, with a higher share...going to physical and social infrastructure would have been desirable. (WB 1996, p. 7)

6 For a detailed analysis of the relationship between the government and donors and lenders, and aid dependency in Zambia, see Chisala (2005).

7 For example, 'A change of regime in Zambia in 1991 initiated a transition from a socialist to a market-oriented economy' (WB 2002, p. I).

8 Zambia had a mixed economy: 'A market economy in which both private and public enterprise participate in economic activity, though not necessarily in all sectors, some of which may be reserved for public monopoly' (Bannock, Baxter & Davis 1987, p. 273).

9 The official name was the Federation of Rhodesia and Nyasaland, and was established as a semi-autonomous dominion of the United Kingdom in 1953.

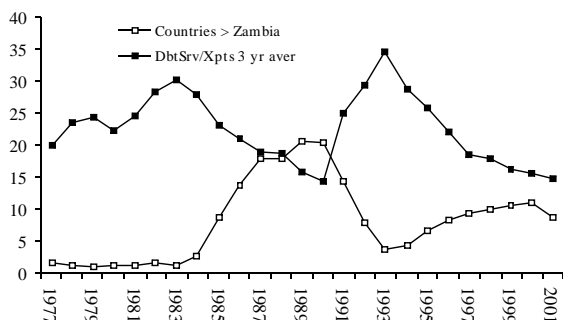
1 The decision by the international community to deal with Zambia's debt overhang through concessional lending [borrowing for

Table 1.1: Actual and World Bank forecasted growth rates, 1981-2000

Annual average	1981-1990	1991-2000		1991-1995		1995-2000	
Real GDP growth	Actual	Actual	Projected	Actual	Projected	Actual	Projected
Actual- projected	1	0.6	4.9	-1.6	4.4	1.4	5.4
Non-mining GDP growth	1.4	2.2	-4.3	-1.9	-6	3.2	-4
GDI/ GDP	15	16	19	13	21	17	17

Source: Forecasts from WB (2002, 21)

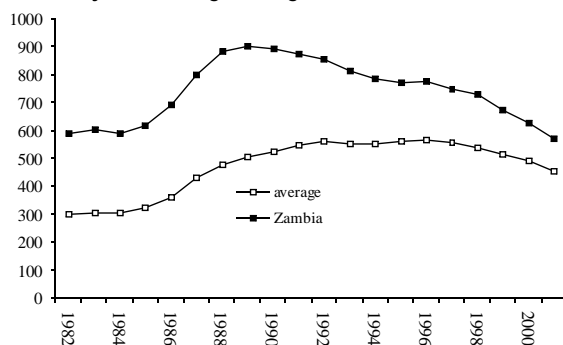
Figure 1.1: Zambia's debt service as a percentage of exports and number of sub-saharan countries with higher ratios, 1975-2001(3 year moving average)



Source: World Development Indicators.

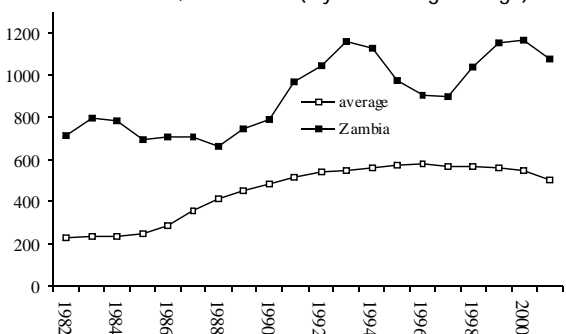
Note: Total number of countries other than Zambia is thirty-one (Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Democratic Republic of Congo, Republic of Congo, Cote d'Ivoire, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Madagascar, Malawi Mali, Mauritania, Mozambique, Niger, Nigeria, Rwanda, Senegal, Swaziland, Tanzania, Togo, Uganda and Zimbabwe).

Figure 1.2: Debt Per capita, Current US dollars, 1980-2001 (3 year moving average)



Source: See figure 1.3

Figure 1.3: Debt per capita, current US dollars adjusted for the terms of trade, 1980-2001 (3 year moving average)



Source: World Development Indicators.

Note: 'average' is for the thirty-one countries listed in notes to the previous chart.



2 ~ Decline and Structural Change

2.1 Introduction

This chapter reviews the performance of the Zambian economy over forty years, 1965-2005, as the basis for the subsequent analysis of poverty and the policies that would enable the country to meet the Millennium Development Goal target of reducing poverty by half in 2015 from its level in 1990. To understand the story behind the statistic of growth and structural change one must consider a much longer period, in order to place Zambia's decline in historical context.

From the initial occupation of the country by the British to independence, Northern Rhodesia was part of a regional division of labour. While this division derived from Zambia's mineral endowments, it was not the result of disembodied market forces, but rather an administrative process consciously designed by the colonial authorities.

The regional conflict manifested most violently in an insurrection in Southern Rhodesia, which undermined Zambia's post-independence development, as explained below. This conflict was also the outcome of the consciously designed division of labour, which created a powerful settler population in the state that became

'Rhodesia'. Had British colonial policy in Central Africa been different, for example, restricting the economic and political role of expatriates as in West Africa, there would have been no war in 'Rhodesia', no apartheid-type labour regime in the mines of Northern Rhodesia, and no breakdown in Zambia's international transport and communication links.

While exacerbated by external and internal management and economic factors, the decline and eventual collapse of Zambia's mining sector can be traced to the consequences of colonial rule. The privatisation of mining is a major part of the story, considered here rather than in the chapter on privatisation due to the dominant role of copper in the performance and structural change of the economy. Having reviewed the colonial period and the decline of copper, the chapter can consider economic performance during 1965-2005. This relatively brief discussion is elaborated rigorously in Chapters 4 and 5.

2.2 Colonial Division of Labour in British Central Africa

The British South Africa Company (BSAC) acquired Northern Rhodesia in the 1890s

mainly for the purposes of mineral prospecting. The company had obtained land rights over the territory by a series of treaties with local chiefs. In order to finance the territorial administration and to create a supply of wage labour, the BSAC introduced a tax on adult males, which could only be paid in cash. Failure to pay this 'head tax' resulted in forced labour to clear the debt to the BSAC. The establishment of Northern Rhodesia as a settler colony created the demand for cheap African labour for European farming and other enterprises. Although many Africans went voluntarily, working conditions, particularly in the mines, were quite bad, resulting in a high turnover of labour.¹⁰

In 1924, after almost three decades of company rule, the British Colonial Office assumed the administration of Northern Rhodesia, and allowed the BSAC to retain its mineral rights, which would prove extremely lucrative when large reserves of copper were found. World demand for copper increased dramatically with the growth of electrical and automobile industries in the United States and Europe, and by 1930 four large mines had been developed on the Copperbelt of Zambia: Nchanga and Nkana owned by the Anglo American Corporation, and Roan Antelope and Mufulira by the Rhodesian Selection Trust. Despite the Great Depression of the 1930s, copper mining industry grew rapidly (see Figure 2.1), with the value of exports increasing five-fold from 1930 to 1933.

Thus began the dominance of copper in the economy and society. A range of colonial government policies including taxation of Africans, forced labour, land and agricultural policy contributed to the deterioration of quality of life in the rural agricultural communities and reinforced this situation. For example, African farmers were restricted in the crops they could grow in order to limit the income earning alternatives to working in the copper mines. The mining companies invested in a railway across the country and other infrastructure to support

their activities, but this infrastructure left rural areas virtually untouched.

In 1953, the Colonial Office joined Northern Rhodesia, Southern Rhodesia and Nyasaland into the Federation of Rhodesia and Nyasaland. The motivation for the Federation was economic. According to the advocates of federation, a larger market would be created, basic infrastructure could be more effectively planned, and the economies of the three territories were designed by colonial policy to be complementary: Northern Rhodesia would specialise in mining; Southern Rhodesia, another settler colony, would focus on agriculture and manufacturing; and, Nyasaland, the most densely populated of the three, would be a source of labour. The effect of the Federation was to create an artificial specialisation.¹¹ Northern Rhodesia financed the development of the Federation, with almost £100 million extracted from the territory between 1953 and 1963, most of which was used for industrial development in Southern Rhodesia (Lanning and Mueller 1979).

Northern Rhodesia was developed as an integral part of the larger southern African economy and transport system. Imports of equipment, machinery and other supplies came through by the South African and Southern Rhodesian railway systems that linked to Cape Town, Durban and Beira. Copper exports used the same routes. Coal for the mines was supplied by Wankie Colliery in Southern Rhodesia. The Federation tightened this bond by building the Kariba Power Station in Southern Rhodesia near the border between the territories. These common services would prove a major obstacle to Zambia's development after unilateral declaration of independence by 'Rhodesia'.

The unbalanced development of the Northern Rhodesian economy was aggravated by colonial policy in the agricultural sector, which encouraged a small number of European settlers at the expense of African farmers. In order to foster European settlement, land along the 'line of rail' was rese-

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rved for European farming. So-called Native Reserves were established in 1928-1929 for those forcibly expelled from this land. Access to markets by African farmers in the Native Reserves was constrained by poor transport, though in Southern Province African farmers increased the production of maize for the market. This growth of commercial farming by Africans created concern among European farmers, who feared that it would drive down prices. In response, the colonial authorities created the Maize Control Board in 1936, which instituted producer price supports above the world level and reduced competition from African farmers through a system of quotas. The Board paid African farmers a lower price for their maize than Europeans received (Dodge, 1977).¹²

As early as 1946, there was call for diversification of the economy by encouraging, rather than discouraging, African farming. Although the colonial government stated its intention to increase expenditure on African agriculture and rural development, in practice expenditure remained low, particularly after the establishment of the Federation.¹³ As a consequence of colonial policy, the incomes in the rural agricultural sector remained low and stagnant, prompting migration to the mines and other urban areas.

Agricultural production was also negatively affected by the absence of able-bodied men in the villages because it was often stratified strictly along gender lines. This was particularly the case in the *Chitemene*¹⁴ system where men were responsible for cutting down trees for burning while the women did most of the planting and harvesting. Africans were considered temporary workers whose home, and therefore social support structure, remained in the village. The wages paid in the early colonial period were at 'single' rate and so what emerged was a situation in which wages were kept artificially low.

In keeping with the intention for Northern Rhodesia to be a settler colony, expenditure by the colonial administration

tended to be concentrated along the 'line of rail', with public investment supporting the copper mining industry and commercial farming. An analysis by Baldwin shows that forty-five percent of government expenditure in the 1950s was on power, water and communications along the 'line of rail', less than three percent for rural development, and only slightly more for agriculture, forestry and veterinary services combined (Baldwin 1966).

Consistent with the plan for Northern Rhodesia to be a settler colony, skilled work was reserved for Europeans, and Africans were restricted to unskilled labour formalised by different wage scales based on race. Although the mining companies paid better wages and provided better facilities than in other sectors, social policies governing African workers were based on the presumption that they were 'migrant labour' (Roberts 1976) with their primary residence in villages. This approach continued even after both employers and government accepted permanent African labour settlement in the mining areas. By 1964, the average European miner earned seven times what the average African miner earned (Lanning and Mueller 1979); not withstanding that many Africans had the skills to replace European workers. With apprenticeships restricted to Europeans and colonial policy toward African education extremely basic (only four years provided), formal skill development by Africans was extremely limited.

2.3. Copper in Zambia

The Decline of Copper

The collapse of copper mining in the 1990s represented the culmination of a trend that had begun long before. In the years immediately prior to independence the mining companies reduced their levels of investment in the mining industry in Zambia, perhaps because they feared the consequences of independence and majority rule; this continued after independence. The de facto disinvestment by the companies was indi-

cated by dividend payments from 1964 to 1969 consuming eighty percent of profits.

This mismanagement of the copper sector by the companies reinforced the post-colonial government's political commitment to assume the 'commanding heights' of the economy, though a series of partial nationalisations.

The intention to take ownership of fifty-one percent of the mines was announced by President Kaunda in his Matero Speech in August 1969. To this end, the government established the Zambia Industrial and Mining Corporation (ZIMCO) as a holding company with two subsidiaries. Mindeco Limited would hold the government's interest in the mining companies, Nchanga Consolidated Copper Mines (NCCM) jointly owned with the Anglo-American Corporation and Roan Consolidated Copper Mines (RCCM) with the Roan Selection Trust. Indeco Limited would hold investments in the other mining-related enterprises. NCCM and RCM were merged in April 1982, to form the Zambia Consolidated Copper Mines (ZCCM).

With controlling shares in the hands of mining companies, the government, in practice, assumed responsibility for the risks involved in this industry at the global and operational levels.¹⁵ When majority ownership passed to the public sector in 1969, the intention was to increase investment, which had been in decline previously.¹⁶

This intention would not be realised due to unforeseen events. As noted in Chapter 1, the Unilateral Declaration of Independence by Southern Rhodesia in 1965 dramatically increased transport and intermediate goods costs. Initially, Zambia used the railway which was jointly owned with the white regime. However, hostility between the two countries escalated, leading to the closure of the border in 1972. This made it necessary to find alternative transport routes and sources of inputs as quickly as possible. A road link through Tanzania partly resolved this problem, but was not efficient. Problems in transport resulted in

shortages of materials and improvisation in the production process, with the result that production costs increased substantially.

The high cost and turnover of skilled expatriate staff in the mines exacerbated the problems associated with 'Rhodesian' independence. Accustomed to an *apartheid* labour regime in the mines, many expatriates left the country, with a substantial number going to Rhodesia and South Africa. By necessity this replacement occurred rapidly (so-called Zambianisation), before sufficient skills had been developed.

As a result of low investment during the pre-independence years, the disruption of transport due to UDI, and the need to rapidly replace expatriate labour, Zambia was unable to take advantage of the years during which the price of copper increased. In 1969, Zambia was the largest producer of copper among developing countries, and the third largest producer after the United States and the former U.S.S.R., with production twelve percent of world production (Bostock and Harvey 1972). By 1990, Zambia produced only five percent of world production, compared to Chile and the United States each with eighteen percent; Canada eight percent, and the then-U.S.S.R. seven (USG 1998). Over the long term, exports declined from 622,900 metric tonnes in 1972 to 228,000 on the eve of privatisation in 1999 (See Figure 2.2).

The financial and operational problems affecting ZCCM had a detrimental effect on the production quality and costs, as well as level. As equipment and inputs became difficult to obtain the operations of the mines deteriorated, and Zambia passed from being a low cost to a high cost producer. According to Kangwa (2001), ZCCM produced at 83.1 cents per pound in March 1993, while Codelco of Chile was at 73.3 cents per pound.

In this context it must be stressed that ZCCM was a major provider of social services in the mining areas through provision of schools, hospitals and health centres, housing, water and sanitation facilities, elec-

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tricity, recreation clubs, even churches. The social services were provided at subsidised rates to employees and their families, and were superior to those of the local councils. The management of these services required an extensive administrative system. As discussed below, privatisation would have a devastating effect on social provision in the mining areas.

As well as its direct operations, ZCCM generated much of the public revenue. Following independence, the new government put in place an ambitious development programme, which would be funded by revenue from copper mining. Thus, the decline of copper had a direct and dramatic impact on the ability of the government to carry out public investment. A major goal of this investment was the diversification of the economy, to be realised through public sector participation and ownership in manufacturing and services. Therefore, the decline of copper not only implied a short term fiscal crisis, but a fundamental deterioration in the country's long term development.

Privatisation of Copper

The new government elected in 1991 embarked on a radical shift in economic policy within the framework of multilateral stabilisation and adjustment programmes, a key element of which was the proposed privatisation of the copper sector. The government came under heavy influence from donors and lenders who were convinced that ZCCM represented a drain on public resources, and which could not be reformed within the public sector. The sell-off of ZCCM became a condition for development assistance, and the more important international agencies viewed privatisation as a pre-condition to economic development itself. This view was justified by the expectation that privatisation would mobilise new capital that would revitalise the industry. This would stimulate growth after two decades of decline, rejuvenate exports, and generate revenue for development expenditure. Privatisation would also stimulate

the growth of other industries and services, and create opportunities for local suppliers and contractors. In the event, these expectations would go spectacularly unfulfilled.

The government initiated the divestiture process with the Privatisation Act of 1992. The act established the Zambia Privatisation Agency (ZPA) as an autonomous agency of the government to plan, implement and monitor the privatisation of state enterprises. The privatisation of state owned enterprises progressed quickly with the salient exception of the programme's keystone, the mining sector. In a decision that would subsequently provoke considerable criticism and cynicism, the government abruptly removed the entire mining sector from the ZPA's terms of reference. In a rather surprising development, the international agency most directly involved, the World Bank, endorsed an ad hoc process for mining privatisation.¹⁷

In 1993, as part of this process, and unlike the privatisation of other public sector companies, the government established a negotiating team for the mining industry separate from the ZCCM.¹⁸ After consideration of a number of options it was decided that ZCCM would be sold in parts. The sale began in 1997 with the Konkola and Kansanshi Mines, but negotiations over the Nchanga and Nkana parts of the sector, as well as the Chambeshi Acid and Cobalt plants, was much more protracted. These negotiations, with a group called the Kafue Consortium collapsed in 1998, leading to an offer by the Anglo-American Corporation that the government accepted in March 2000.

There is little controversy that privatisation of ZCCM took place under great pressure from international agencies whose leverage over the government was considerable due to its dependence on aid.¹⁹ The parties completed the privatisation with remarkable speed, which may explain the rather startling omission from the contract of any penalty clause should the buyer not fulfil its obligations. This omission would prove extremely costly, because the Anglo-

American Corporation (AAC) withdrew from the Konkola Copper Mines (KCM) in 2002, less than two years after purchasing majority ownership. The International Financial Corporation of the World Bank, which purchased a minority share as part of the agreement²⁰, also withdrew, threatening the loss of two-thirds of Zambia's copper production. Equally, if not more, controversial had been the award of the Luanshya mine to the Benani Group in June 1997.

Only later did it emerge that the company had little experience in mining and was unable to provide the capital necessary to finance the operations and development of the mine. After three years the company was in receivership. More generally, the terms of mining privatisation had an extremely high opportunity cost in terms of public revenue. Associated with the agreement were: a reduction in the corporate tax rate from thirty-five to twenty-five percent; exemption from customs duty on inputs up to US\$ 15 million; reduction of the mineral royalty from two percent to six-tenths of a percent; exoneration from excise duty on electricity; an increase in the period for which losses could be carried, from ten to twenty years; and, exemption from the withholding tax On interest, dividends, royalties and management fees.

The effect of these so-called incentives was that it would be decades before the government received substantial revenue from the new mining companies. Instead of providing a strong basis for future growth, the seriously flawed privatisation process represented yet another structural obstacle to overcome. The first half of the 2000s saw a recovery of the sector from a very low base. Should the recovery of copper be sustained, it will make the diversification of the economy all the more necessary. The dominance of copper over the economy in the past was part of the process that resulted in long term decline and massive indebtedness, both internal and external. Economic diversification would be the key to avoiding a return to decline and debt.

2.4 Economic Performance, 1965-2005

Introduction

Upon independence in October 1964, the new government of Zambia faced a daunting task. Popular expectations were high, fuelled by nationalist enthusiasm and the pledge by the Kaunda government to correct the glaring imbalances and inequities created by colonial rule. While a social democrat more than a socialist, Kaunda was strongly influenced by the ideology of state socialism. In great part this resulted from the support for independence provided by the Soviet Bloc countries. As a consequence, a semblance of central planning was introduced, more virtual than real. The official ideology of humanist socialism, aimed at attaining political and economic independence from western industrial countries, contrasted sharply with the reality of heavy dependence on expatriate technical skills and external financial assistance.

Zambia had one of the highest per capita incomes in Africa in 1964. However, the per capita income statistic hid dismally low human development. Colonial education policy in North Rhodesia had more in common with the Portuguese in Mozambique than the British approach in West Africa and Uganda, indicated by there being fewer than a hundred university graduates at independence. Due to this legacy of the colonial period and the under developed structure of the non-mining economy, implementing the new government's state-led development policy was a practical impossibility.

Copper dominated the economy at independence, and would do so for thirty years despite attempts through government planning and later 'market forces' to diversify. This dominance would come to an end through disaster not design, the unintended collapse of the copper sector. In the years immediately after independence, copper appeared as the vehicle to development and modernisation, and to these ends the government took fifty-one percent ownership of the sector and wholly nationalised a substantial part of the manufacturing sector, all

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public utilities, and key elements of transport and communications. Financial institutions were underdeveloped, catering to mining and the rest of the formal sector. Given the lack of skills and, essentially, translated planning institutions, it was not surprising that political interference, managerial inefficiency, and lack of accountability undermined the potential for diversification. These systemic problems reinforced an economic decline fundamentally caused by instability in the world copper market and the regional political tension described above.

During 1985-1991 the government, now holding power into its third decade, introduced market based policies in the framework of multilateral loan conditionality. Continued decline resulted in severe under-utilisation of capacity in the formal sector, which remained largely in public ownership. While the altered policy regime included incentives designed to attract investment, the decline of the economy and continued administrative ineffectiveness undermined whatever effect they might have had. Lack of growth and the obviously negative welfare and distribution effects of the conditionality-based policies led the government to abandon the policies. As a consequence, relationships with the multilaterals deteriorated to the point of hostility, the effects of which would persist for twenty years.

In 1991 the Kaunda period came to an end through elections, and from a position of extreme weakness the new government committed itself to a radical adjustment programme inspired by the World Bank and supported by almost all donors and lenders. With the exception of the countries in transition from central planning, it may be the case that no other country passed through economic liberalisation so radical and rapid as Zambia did during the first half of the 1990s. By definition, countries undergoing radical policy change, be it wise or reckless, lack a stable policy framework, and policy instability is rarely consistent with market-based growth. Zambia proved no exception to this rule; it would be almost ten years

before the long decline of the economy would be reversed.

The structural adjustment programme brought profound changes to a country ill structured to accommodate them. Trade liberalisation introduced competition, which the state enterprises were unprepared to meet. The liberalised economic environment, when combined with extremely high borrowing rates, proved in practice to be biased against Zambian producers.

The harsh environment was compounded by uncertainties in the business environment arising from unstable macro-economic conditions and unpredictable changes in implementation of the economic policy instruments. High prices for utilities such as electricity, water, telephones and fuel further worsened the difficulties faced by domestic industries.

This dismal forty years of decline and instability is presented in statistics in the following pages. Before entering into detail, the central message from those forty years should be stressed: neither strong public intervention and ownership, nor radically neo-liberal policy frameworks have achieved the economic diversification and equity required for sustainable growth in Zambia. The challenge for this report is to find an alternative to those policy extremes that would enable Zambia to prosper in the long term and achieve the MDGs in the medium term.

Economic performance & Structural Change

By any conceivable measure, the growth performance of Zambia has been dismal, a chronicle of decades of relentless economic decline. Table 2.1, per capita GDP growth divided by five year periods, and 2.2, growth of GDP for the full forty years, period a range of measures of the depth of this decline from 1961 to 2000 where the 2000s will be considered after reviewing these four decades.

Over the eight five year periods, Zambia ranked in the bottom half of the per capita growth 'league' in every case, ranging from a

'best' of twelfth from the bottom (1965-69) to a worst of third from the bottom (1975-79). In no five year period was the rate as high as one percent, and for the last five it was negative. Perhaps even more striking are measures in Table 2.2, which refer to growth of GDP. The second column shows the percentage of years in which each country's growth rate was above the regional average for years that the country had data. By this measure, Zambia comes third from the bottom, above only Madagascar and Sierra Leone. The consistently low growth rate is indicated by the standard deviation of the country's growth rate, which was also below the regional average.

The consequence of the low growth rate over four decades is shown in Figure 2.3, which provides an index of total GDP and per capita GDP at 1994 prices. The index of GDP per capita declined almost continually during 1965-1995, to fall from close to 150 to below 80, then stagnating for the rest of the 1990s before rising modestly in the 2000s. Figure 2.4 shows the growth rates graphically as a three year moving average, and between 1965 and 2000 for per capita income only seven data points are substantially above zero.

During these decades of economic decline, the production structure of the economy underwent considerable change, primarily as a result of the absolute and relative decline of mining in the 1990s rather than the growth of other sectors (see Figures 2.5 and 2.6). Up to the early 1990s, despite low growth rates, there was a tendency for the productive sectors to increase relatively, with a slight upward trend in mining, manufacturing and agriculture, though the regional drought in the early 1990s resulted in a brief, severe drop in the latter. After the early 1990s, mining began a rapid decline, from above twenty percent of aggregate value added in 1991 to well below ten percent at the end of the decade. Over the same years, the manufacturing share stagnated and agriculture declined, implying by definition an increase in the residual cate-

gory 'services'. Since the share of value added in the public sector declined or did not increase over these years, it follows that redundant workers fell into low-remuneration 'informal' activities. Thus, the structural change one observes is that of an economy in decline, with households increasingly struggling to subsist in activities of low productivity. This shift from gainful employment to poverty is discussed in the next chapter.

As the Zambian economy descended and foreign exchange from copper declined, pressure increased on the balance of payments. Figure 2.7 shows imports and exports as a share of GDP from the early 1990s to 2004. After an approximate balance between the two in the early 1990s, the trade gap widened sharply to reach ten percent of GDP in 2000, and remain at an unsustainable level. The trade gap was covered by growing indebtedness, primarily to multilateral lenders (see Figure 2.8). The unsustainable trade and current account deficit resulted in a loss of control of the nominal exchange rate. After relative exchange rate stability from independence to the mid-1980s, the exchange rate collapsed in the late 1980s, and collapsed even more in the early to mid 1990s (see Figure 2.9). This collapse generated rampant inflation, which approached hyper-inflation levels during 1990-1995. As the note to Figure 2.9 reports, the exchange rate explains almost three-quarters of the inflation rate from 1997 to 2004, when a fixed regime could no longer be sustained.

Thus, the instability of the Zambian economy followed a straightforward sequence of causality, the decline of foreign exchange earnings from copper, severe balance of payments pressure, and collapse of the exchange rate, resulting in uncontrollable inflation. Perhaps the most surprising aspect of this process was that the apparently large inflows of multilateral loans in the first half of the 1990s did not dampen the inflation, but were coincident with it approaching hyper level. This unexpected

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result can be explained by Figure 2.10, which shows total ODA grants and loans, and grants and loans net of external interest payments. During the high inflation of the 1990s, net grants and loans were a negative four to six percent of GDP. To put the matter simply, ODA funds entered the Central Bank, immediately to flow out to pay external debt to the lending agencies making those loans.

The instability provoked by the international copper market lends urgency to the diversification of Zambia's exports. Therefore, exchange rate movements in the mid-2000s must be viewed by the objective observer with considerable alarm. From the beginning of 1997 to the middle of 2003, the nominal exchange rate depreciated by half, approximately in line with inflation, such that the real exchange moved within a relatively narrow range (see Figure 2.11). However, in the second half of 2003 the real exchange rate began to rise, slowly for two years, then almost exponentially at the end of 2005 and into 2006. In seven months, from July 2005 through February 2006, it rose by almost fifty percent. Such a real appreciation of a currency is typically associated with catastrophic economic events, such as hyper-inflation aggravated by exchange controls, while in Zambia it has been associated moderate growth and an open capital account.

Whatever the cause of the appreciation, it is a disaster for export diversification. The Zambia National Farmers' Union has shown this in a study of the impact of the exchange rate on agricultural exports (ZNFU 2006). Far from a sign of economic strength, the appreciation of the exchange rate is a symptom of the limitations of a regime of tight monetary and restrictive fiscal policy, in the context of a boom in the exports of a volatile commodity. On a few issues there is little controversy among economists. One of the areas of agreement is that an appreciating real exchange rate discourages the production of traded commodities. It is unlikely that any-

one familiar with the Zambian economy would consider this a desirable or rational policy outcome. A real exchange rate at its early 2006 level is a ticket for the return journey to copper dependency.

The policy to check the nominal appreciation and reverse it is clear and simple to understand faster growth. Faster growth would draw in imports, which could be financed in excess of exports by the reduction in debt service (see Chapter 5) and official development assistance. The faster growth would be achieved through a more rational fiscal policy whose expenditure would be sufficient to achieve the MDGs (again, see Chapter 5). Direct expenditure of ODA funds by the government, without those funds passing through the Bank of Zambia, would be an important measure to check the rise of the nominal exchange rate, as the IMF has argued in a recent paper on 'scaling up' aid.²¹ Thus, 'sound macro policy' in Zambia would be expansionary, and 'unsound policy' would be a restrictive policy which accommodates a debilitating rise in the real exchange rate.

2.5 Summary and Conclusions

From soon after independence, Zambia entered into a long term economic decline, resulting from a combination of falling copper prices and regional conflicts afflicting its neighbours. This decline was exacerbated by a legacy that left the country ill-prepared for independence due to its de facto status as a settler state in the colonial period, with institutionalised racial divides. One consequence of the colonial legacy and fall of copper prices was a lack of diversification of the economy, which would prove disastrous in the 1990s.

The decline and then collapse of the copper sector left the country deeply in debt, with a severely constrained fiscal situation (pursued in detail in Chapter 6). The fiscal constraints would limit the extent that the government could respond to the most dangerous threat to development in the

country's history, the HIV/AIDS pandemic. In the chapters which follow, this report analyses the country's severe poverty, its link to HIV/AIDS, and proposes measures to create the fiscal space to both deal with that malady and generate the public investment necessary to foster poverty reducing, sustainable growth.

11 There has been some suggestion that the Northern Rhodesian economy had a better chance of diversification had the Federation not been created (Franklin, 1963).

12 This served to discourage Africans from increasing their acreage and was justified by the idea that the cost of production was lower for African farmers.

13 '...since Northern Rhodesia was considered [by the colonial authorities] to have the least agricultural potential of the three territories, it is fair to assume that a relatively small expenditure was planned for the development of agriculture-both European and African' (Dodge 1977, 21).

14 Chitemene System involves the cutting of tree branches in a field to be used for crop production. The cut branches are collected and heaped around the same field. Once dry, the branches are burnt; the remaining ash providing fertility for the field. This system is common in the Northern and Luapula Provinces from where most of the mine labour was drawn.

15 The mission team was told by a high official in the Ministry of Mines that:

After independence, the government took over a mining sector that was technologically backward, with equipment installed in the early part of the twentieth century. Under nationalisation, capital investment was low and modernisation was slow. However, important innovations occurred during nationalisation, when Zambia became the first country to introduce acid-soluble copper technology. (Interview at the Ministry of Mines, 1 November 2004)

16 To quote:

Investment and modernisation were constrained by the regional political circumstances after independence. With UDI in Zimbabwe [Rhodesia], copper could no longer be exported by the existent routes through South Africa and South Rhodesia. So severe was the problem that copper ore was taken by plane to Tanzania. (Interview at the Ministry of Mines, 1 November 2004)

17 'After ZPA had written the TOR for mining privatisation, the WB urged by the government to take mining out of ZPA hands, and implement it through an ad hoc process, which it agreed to. The negotiating team for mining privatisation included staff of the national mining corporation, which violated the Privatisation Act, which called for independent negotiators' (Interview at the Zambian Privatisation Agency, 1 November 2004).

18 This became controversial as the process was not considered transparent and problems that arose later were blamed on this decision by government. There are at least two views on the role of the ZCCM negotiating team. One holds that the ZCCM representatives pursued their narrow self-interests in the negotiations, while the other view holds that the advice of ZCCM experts was largely ignored by both the government and external agencies. A Ministry of Mines official stated, 'We [experts in ZCCM] knew what worked and what did not work, but the WB did not listen to us' (Interview at the Ministry of Mines, 1 November 2004).

19 'Public pressure from the donors to sell off ZCCM at a time of

falling world demand for copper made it a buyers' market' (Kangwa, 2001, 23). At the May 1998 Paris club meeting, the Zambian government promised to complete the privatisation of ZCCM by July of that year. The lengthy negotiations between the government and the Kafue consortium resulted in some donors delaying release of their contributions to the US\$530 million balance of payments they had pledged at the Paris meeting. The British government, in announcing their discontinuation of aid to Zambia, cited the failure by Government to complete the privatisation of ZCCM assets as the reason that prompted their action.

20 It is a common view among Zambian officials involved in the negotiations that the role of the IFC as a minority purchaser represented a conflict of interest: 'The WB was advising the government on privatisation, indeed, urging great speed, while the IFC was negotiating as one of the buyers' (interview with an official of the Task Force on Corruption, 2 November 2004)

21 The IMF 'manual' on scaling up aid flows states:

Absorption and spending are policy choices. If the government spends aid resources directly on imports... spending and absorption are equivalent, and there is no direct impact on... the exchange rate, the price level, or the interest rate. But if a country receives the foreign exchange resources and the government immediately sells them to the central bank... spending is likely to differ from absorption. (Gupta, Powell & Yang 2006, 11)

Table 2.1: Per capita growth rates in the Sub-Sahara, by five year periods, 1961-1990

Country	1961-64	1965-69	1970-74	1975-79	1980-84	1985-89	1990-94	1995-00
Angola	na	na	na	na	na	.1	-19.5	10.2
Benin	.2	.6	.4	-1.0	.8	-1.3	1.0	2.5
Botswana	3.6	5.0	17.5	5.7	9.2	6.7	2.5	2.3
Burkina Faso	.9	1.4	.8	.7	.2	2.2	-2	2.9
Burundi	-2	1.3	4.7	2.3	.4	2.4	-2.5	-4.2
Cameroon	1.2	-.7	1.5	5.4	6.8	-2.2	-7.0	2.2
CAR	-1.1	.7	.2	-.6	-1.9	-1.3	-3.1	1.5
Chad	-1.1	-.3	-2.4	-3.6	1.0	4.6	-1.8	.1
Congo DR	.7	1.0	.0	-5.2	-1.7	-2.4	-12.5	2.3
Congo, Rep...	.8	1.8	4.7	-.7	11.2	-5.0	-2.7	-3.4
Cote d'Ivoire	5.8	2.8	2.6	3.8	-6.7	-2.4	-2.4	3.2
Eq Guinea	na	na	na	na	na	-2.3	2.5	25.6
Eritrea	na	na	na	na	na	na	5.4	-.2
Ethiopia	na	na	na	na	-.7	-1.9	-.2	2.7
Gabon	6.4	5.7	12.5	.1	-.5	-2.8	-1.3	.4
Gambia	na	1.2	.7	2.3	2.2	-1.5	-.5	.7
Ghana	.3	-.9	2.1	-3.2	-4.3	1.4	1.3	1.9
Guinea	na	na	na	na	na	2.0	2.0	1.7
Guinea-Bissau	na	na	-1.3	-1.1	.5	.1	1.4	4.0
Kenya	.7	3.6	5.1	1.7	-.8	1.9	-1.7	1.4
Lesotho	7.1	3.1	11.6	6.6	2.7	.3	-.4	-.7
Madagascar	-.8	1.3	-.8	-.8	-5.0	-.9	-2.0	.8
Malawi	-.8	5.4	4.5	.7	-1.3	-1.0	-2.1	4.4
Mali	na	-.5	.0	6.0	-3.2	-.7	-1.4	2.5
Mauritania	7.1	3.6	2.8	-1.8	-1.3	.5	-.1	1.8
Mauritius	4.5	-1.5	5.0	5.5	-.5	7.2	4.2	3.7
Mozambique	na	na	na	na	-8.8	3.1	.8	6.5
Namibia	na	na	na	na	.0	.4	3.3	.3
Niger	2.1	-2.6	-3.5	1.7	-7.7	2.1	-3.8	.4
Nigeria	1.3	-1.6	8.1	.2	-7.2	1.6	1.3	.0
Rwanda	-6.6	4.5	-1.0	4.7	.4	-.2	-11.5	9.5
Senegal	na	-8.8	-.7	.6	-1.5	.5	-1.1	2.9
Seychelles	2.2	-.1	5.9	5.9	-1.5	5.0	4.2	.2
Sierra Leone	na	2.2	1.2	-.5	.4	-1.0	-5.8	-6.6
South Africa	3.7	3.8	3.9	-1.4	1.1	-1.3	-1.5	.3
Swaziland	11.3	6.4	12.1	4.4	2.4	3.4	1.6	1.6
Tanzania	na	na	na	na	na	.0	-.5	2.0
Togo	7.9	4.3	1.4	-.6	-1.9	1.1	-4.5	2.3
Uganda	na	na	na	na	1.0	.6	2.7	4.9
Zambia	.7	.8	.5	-4.0	-2.2	-.8	-2.7	-.2
Zimbabwe	na	3.1	6.4	-4.3	1.3	1.2	-.4	.9
Average	2.2	1.5	3.3	.9	-.5	.5	-1.4	2.0
Zambia's rank	16/26	20/30	22/32	30/32	29/36	26/40	32/41	34/41

Table 2.2: Indicators of growth & instability, the sub-sSahara, 1961-2000

Country	Data yrs	% > Aver	Grw rate	Stdev	Relative grw rate
Botswana	40	92	9.9	5.7	2.73
Uganda	14	83	4.2	1.0	1.38
Guinea	18	81	2.2	8.6	0.75
Gabon	40	68	5.5	11.1	1.52
Eq Guinea	16	64	5.2	5.0	1.73
Mauritius	40	63	5.2	6.5	1.43
Swaziland	40	61	5.4	4.5	1.61
Cote d'voire	40	61	4.7	5.8	1.29
Malawi	40	61	4.4	5.6	1.21
Lesotho	40	58	5.9	7.9	1.63
Mozambique	20	56	2.9	8.1	0.52
Kenya	40	55	4.9	5.3	1.35
Seychelles	40	55	4.7	6.5	1.29
Gambia	34	53	4.0	3.4	1.13
Ethopia	19	53	2.6	8.0	0.47
Togo	40	53	4.1	6.8	1.13
Rwanda	40	53	3.3	12.2	0.90
Congo, Rep...	40	53	4.5	6.4	1.24
Angola	20	50	1.8	8.0	0.31
Benin	40	50	3.2	3.4	0.89
Mauritania	40	50	3.6	6.6	1.01
Eritrea*	8	50	4.6	4.4	1.37
Zimbabwe	40	47	4.3	5.8	1.18
Nigeria	40	47	3.6	8.0	0.98
Guinea-Biasu	30	46	2.2	8.6	0.66
Ghana	40	45	2.5	4.6	0.68
Burkina Faso	40	45	3.4	3.4	0.95
Senegal	40	45	2.5	4.5	0.68
South Africa	40	42	3.3	3.9	0.90
Sudan	40	42	3.3	6.4	0.92
Cameroon	40	42	3.5	6.6	0.95
Burundi	40	42	2.7	6.6	0.75
Tanzania	12	40	3.3	5.2	1.14
Mali	33	39	2.9	5.1	0.81
Niger	40	39	1.7	6.5	0.48
Chad	40	34	2.0	7.8	0.55
CAR	40	32	1.5	4.1	0.41
Congo DR	40	32	.2	6.3	0.06
Namibia	20	28	2.1	3.4	0.37
Zambia	40	26	1.9	4.8	0.52
Madagascar	40	24	1.5	3.5	0.40
Sierra Leone	40	21	.9	5.5	0.56
Totals	1433		3.5	6.5	1.00

Notes:
 Countries ordered by percentage of years with a growth rate above the regional mean. Number of years refers to those with the GDP growth statistic. Grw rate is the average growth rate for the years covered. % > average is the number of years the country's growth rate was greater than the regional average for the years covered by its data (to one percentage point). Stdev is the standard deviation of the growth rate for the years covered. Relative growth rate is the country average divided by the cross-country mean for the years covered for that country.

Figure 2.1: World copper price & output in Zambia, 1939-1960

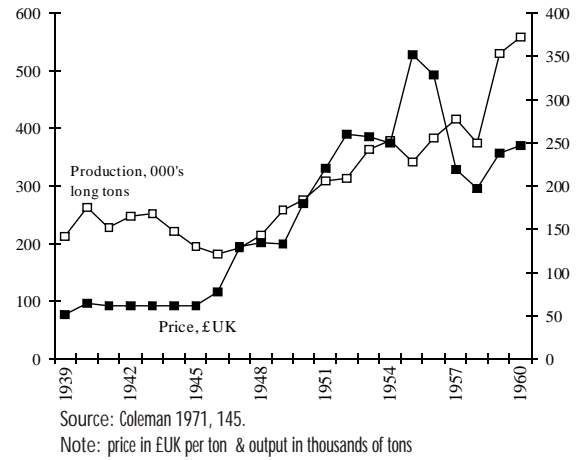


Figure 2.2: Copper production in thousands of metric tons, 1972-1998

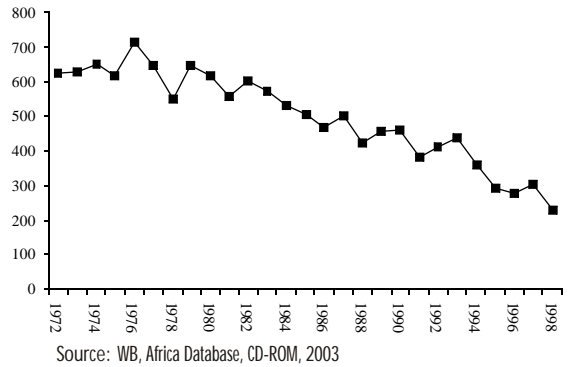
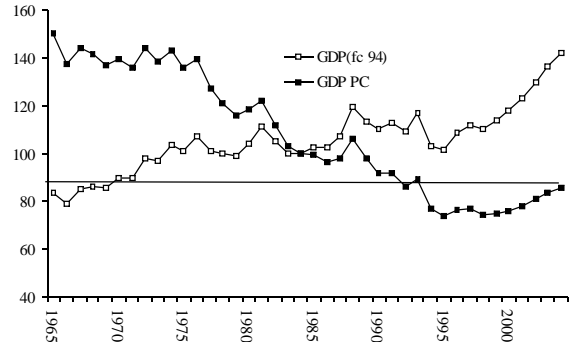


Figure 2.3: GDP and GDP per capita. factor cost. 1965-2004



Source: The source for this and subsequent tables unless otherwise noted is Ministry of Finance and National Planning, Macroeconomic Indicators, issues for 1997-2005.
 Note: 1984 = 100.

Figure 2.4: GDP and GDP per capita, growth rates, 1964-2004 (3 year moving average)

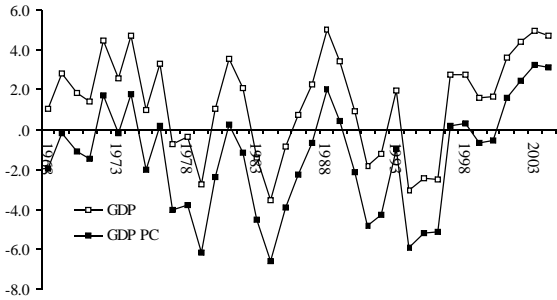


Figure 2.7: Exports and imports as percent of GDP, 1992-2004

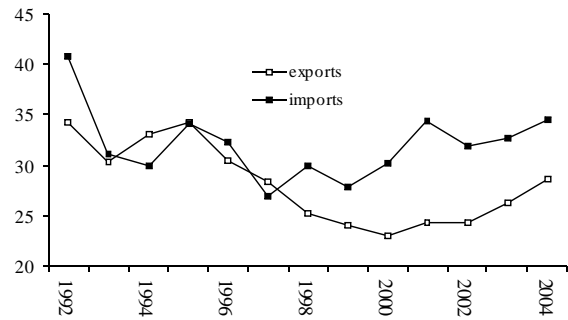


Figure 2.5: Sectoral shares in aggregate value added, 1965-2004

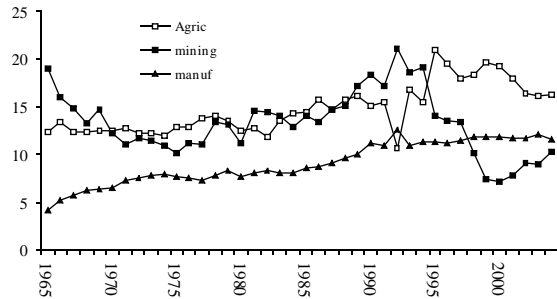


Figure 2.8: External balances as percent of GDP, 1992-2004

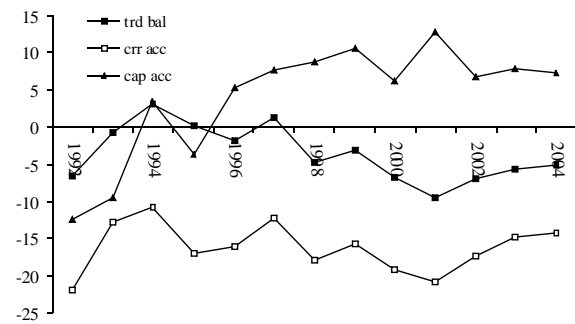


Figure 2.6: Growth rates by sector, 1965-2004, 3 year moving average

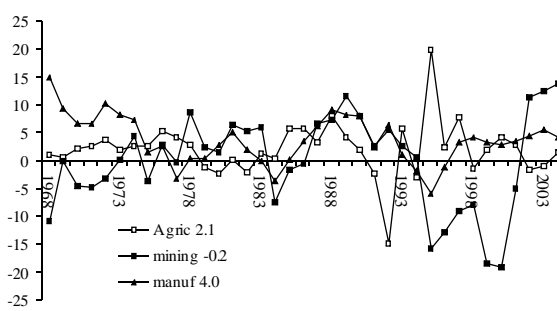
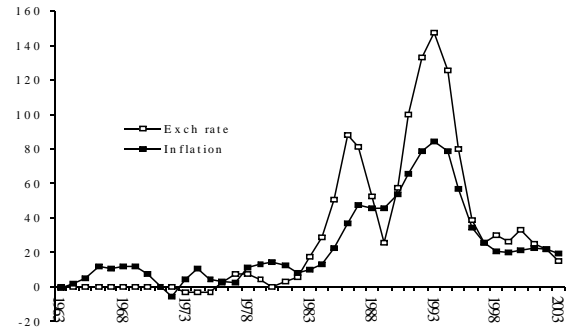


Figure 2.9: Zambia: Changes in the nominal US Dollar exchange rate & inflation, 1960-2004



Note: The exchange rate was fixed at .71 Kwachas to the US dollar during 1960-1972, and for 1973-75 at .64. From 1977 through 2004, the simple regression of the annual inflation rate and exchange rate was the following, where Xt and Pt are the logarithmic rates of change of the exchange rate and the GDP price deflator, respectively:

$$P_t = .108 + .696[X_t] \quad \text{Adj R-square} = .711, F = 74.22$$

(2.97) (8.61) Degrees of freedom = 25

Figure 2.10: ODA grants and loans, total and net of interest payments, shares of GDP, 1992-2004

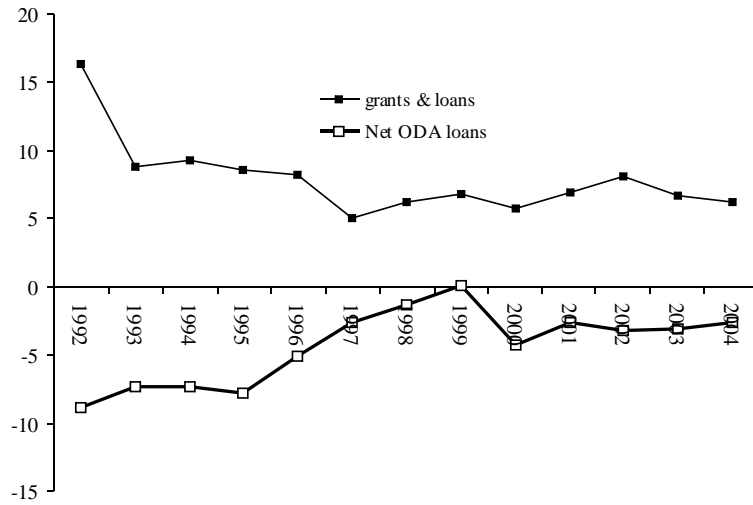
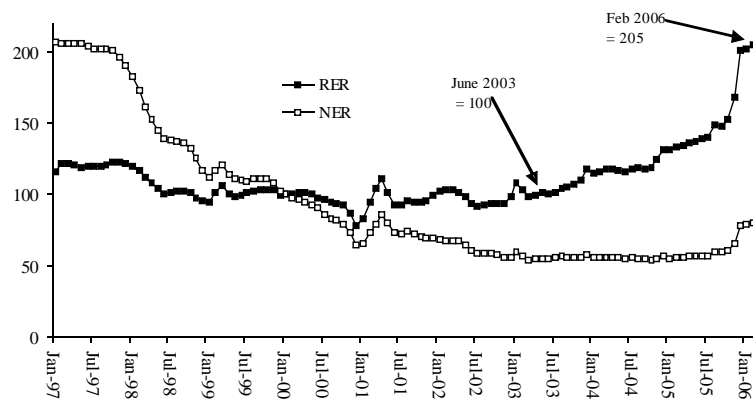


Figure 2.11: Nominal and inflation adjusted ('real') exchange rate, January 1997-February 2006 (Jan 2000 = 100)



NER nominal exchange rate (Kwacha to the US\$)
 RER real exchange rate (nominal exchange rate divided by the US GDP deflator, and multiplied by the Zambian GDP deflator).



3 ~ Poverty, Inequality and the Labour Market

3.1 Introduction

Reducing poverty, preventing excessive inequality, and generating adequate employment are the three most important goals of a macroeconomic strategy that seeks to improve the living standards of the population. Poverty, inequality and employment are each a complex phenomenon and difficult to capture with a single measure, particularly in a low-income economy undergoing change. In order to avoid misleading simplifications, this chapter considers different indicators for poverty, inequality and employment, which capture different aspects.

This chapter addresses the following issues on the characteristics of poverty in Zambia: its level and incidence, geographic distribution, its determinants, and trends. Zambia has a database on poverty from various household surveys organised since 1991. The quality of the data varies, though there has been a consistent improvement in survey design and coverage over time. The quality improvement invites caution when interpreting trends based on comparisons between different surveys. Discussion of the methodology of poverty measurement and data issues in Zambia can be found in

an annex to this chapter. In what follows, the chapter reviews the poverty situation based on the 2003 household survey; identifies the trends in poverty and inequality, focusing on the 1990s for which there is a systematic survey evidence; analyses the nature and features of inequality in Zambia; inspects the structure of labour markets and changes in main labour market indicators over the last two decades; and presents implications for poverty, inequality and employment for a poverty reduction strategy.

3.2 Characteristics of Poverty

The latest poverty profile of Zambia was published by the CSO in November 2004, based on the data collected in the LCMS III 2002/03 (GRZ 2004). The survey measured that sixty-seven percent of the population fell below an adult equivalent poverty line of K 92,185 per month. With respect to this consumption line, poverty in rural areas affected seventy-four percent of the population and fifty-two percent were below the extreme poverty line. Thus, in 2003, more than half the rural population of Zambia was living at levels below the food

subsistence norm. Moreover, fifty-two percent of the urban population fell below the poverty line, compared to forty-five to forty-six percent during 1993-96 (see Tables 3.1 and 3.2).

According to the 2004 poverty assessment, 'poverty was attributed to the inability to acquire enough food' (GRZ 2004, 159), which is consistent with the finding that the majority of poor still live in rural areas, and that their consumption basket includes own-consumption of food. In rural areas, food share in the consumption basket was seventy-five percent in 2002/03, and the percentage of household-produced food was fifty-five. In towns and cities the proportions were fifty-two and four, respectively (GRZ 2004, 151-55). It is not surprising to find a correlation between consumption of household production and poverty levels. This suggests that poverty in Zambia is 'absolute' in the sense that a large proportion of people falling below the poverty line find themselves at a point of destitution, so food intake is inadequate.

Poverty incidence varied across provinces from fifty-seven percent in Lusaka to eighty-one percent in Northern Province. The former, the lowest for any province, was even high for any sub-Saharan region (Table 3.3). The other poverty measures, namely the poverty gap and severity, which indicate with more precision how poor the poor are, also show important territorial disparities. In Northern, Northwestern and Western province there are more households below the poverty line, but also, the poor living there are more destitute in relative terms, i.e. their average consumption is more distant from the poverty line than in other provinces (Table 3.3). Overall, the poverty gap ratio in 2003 was high (27.9 percent), but lower than in 1990s, which means that PAE consumption levels of the 'poor' were on average seventy-three percent of the poverty line. Poverty severity, which is more sensitive to the expenditure distribution among the poor, is also highest in Northern (0.21) and Northwestern and

Central provinces (0.16) suggesting that the very poorest households of Zambia can be found there.

As to be expected, poverty varies across social categories. The categories normally used in poverty analysis in Zambia for rural areas are small, middle, large scale farmers and non-agricultural households.²² In urban areas the categories derive from the average cost of living: low, medium and high cost areas. This classification is imperfect, especially for rural areas, where disaggregation among small-scale farmers would provide important information on the characteristics of poverty.²³ Data on cultivated land per household and net crop value per capita indicate substantial differentiation among both smallholders and middle scale farmers (Zulu et al. 2000, 27-30).

Poverty was exceptionally high among the rural small scale households and households residing in urban 'low cost' areas (Table 3.4). Almost five million people classified as small scale farmers were poor, and over 3.5 million 'extremely poor'. Table 3.4 also shows the poorest and most vulnerable classes, for a wide range of indicators, were, in order of importance, small-scale farmers, middle scale farmers and urban residents in 'low cost' areas (GRZ 2004). Extreme poverty was concentrated among small-scale farmers in rural areas. This group included farming households displaying a variety of coping strategies, and off-farm income, particularly casual wage labour, was probably the only source of cash and food during the four or five months before harvests. According to the GRZ (2004), ninety-three percent of small scale farm households received an income of K 600,000 or less.²⁴ Seventy-five percent of the poorest households in urban areas received less than K 600,000. A third of what were defined as large-scale farmers (more than twenty hectares) still fell below the poverty line, implying that size of holding may not be the central differentiating factor or simply that farm size is not accurately measured for larger scales. Other

possible determinants would be availability of working and physical capital, the quality of land, crop choice and other non-agricultural activities.

Typically female-headed households are often mentioned as being particularly vulnerable to poverty traps. To an extent, this may be a feature in Zambia, especially in urban areas but some studies show that it is not female-headed households per se who are particularly disadvantaged, but more specifically female-headed households lacking male adult support or households where there is 'female dominance' and lack of available labour power, since these households are severely affected by labour shortages (Byrne 1994, 17).

According to the 1998 poverty data, people classified as self-employed, unpaid family workers and unemployed had higher poverty incidence (eighty, eighty-five and seventy-five percent, respectively). In the same year forty-six percent of employees in state enterprises fell below the poverty line, and fifty-eight percent of private sector, formal and informal, waged workers. Local government employees had a notably high poverty rate, seventy-three percent showing the extent to which lower rank civil servants have suffered from poverty. Thus there are significant differences between employment categories in terms of poverty levels. It is interesting to note that parastatal employees were relatively better off in 2003 than in previous years. This is not because their living conditions improved; but, partly reflects the effect of privatisation, which rendered redundant a substantial proportion of the lowest paid employees, dropping them into the informal sector and maintaining their poverty status in a different occupation category. Female workers were particularly affected since they occupied disproportionately the lower ranks of the public sector (Byrne 1994).

Poverty levels differ according to whether heads of households work in the formal or informal sector, as shown by Kapungwe (2004). Eighty-five percent of

informal agricultural workers fell below the poverty line, with formal non-agricultural employees at fifty-two percent. The poverty incidence among formal agricultural workers, i.e. those working with contracts for more than six months, was also high, and not significantly different from other agricultural workers and self-employed farmers (eighty-two percent). This finding indicates that formal sector farm workers were not 'privileged' in terms of the risk to fall into poverty. One can reasonably assume that farm workers who are not registered as formal, and therefore, who might not have contracts, may not receive the minimum wage, or enjoy fringe benefits, would be among the most poverty prone in absolute and relative terms.

Cross-tabulations between poverty incidence and education confirmed in 1998 that poverty levels were extremely high among the least educated, eighty-eight percent for those without schooling and eighty-five for those with less than Grade 4 (Kapungwe 2004). Education was one of several elements of poverty status that might differ from area to area. The profile of the poorest households in Zambia indicates that poverty in much of the country was related to remoteness from communications networks, and lack of income-generating opportunities. This combination has led many households to request to be eligible for resettlement schemes, since migration to better served areas seems to be the only escape from poverty (Leavy et al. 2003). Transitory activities generating occasional jobs for cash or food were also typical of the poorest rural and urban households (Milimo et al., 2002; Kapungwe 2004; Kanya 1994).

Food is the dominant element in the consumption of the poorest fifty percent of the population, and poverty is consequently affected by the level and variability of food prices. This might explain why in some of the poorest rural areas destitute workers often might be paid in maize (Leavy 2003), though this is a common practice across the

developing world, and might reflect the dominance of non-market employment relations associated with forms of employer coercion. Because of the unequal distribution of land and earnings from crops among small scale farmers, it is unlikely that the poorest households benefited from expansion of cash crop production in the 1990s. This is consistent with the perception among the poor and the evidence from agricultural surveys that these farmers were 'too poor to farm'; that is, they lacked the basic farm assets necessary to take advantage of new crops, technologies and markets, domestic or foreign (GRZ 2004, 174, Deininger and Olinto 1999). This may particularly affect groups of women (especially widows, separated or abandoned) living in households with little or no male presence and scarce active labour for income generating activities. The number of days of casual employment that the poorest farmers obtain and the remuneration they receive were probably the key determinants of their household welfare.

In urban areas, the massive decline of formal sector jobs and incomes drove urban poverty trends in the 1980s and the 1990s. Lowly paid and retrenched workers of state enterprises, as well as youth in urban areas, appear to have been the first victims of the adjustment era in recession-laden towns, particularly in the Copperbelt, and became new entrants in a saturated informal economy (Kamya 1994). Changes in food prices, in part driven by liberalisation of markets and removal of consumer subsidies on maize meal, as well as falls in employment and real wages, were all central to the rise in poverty. Also important were events beyond the control of policy makers, with drought and weather effects perhaps the most important.

In the 1990s in response to falling incomes, the most common household coping strategies were: reducing food consumption or altering diets (more tubers and less cereals); keeping children out of school to work; income support from family

and friendship networks; selling at harvest and receiving food aid in the 'hungry season'; sale of household assets, particularly agricultural assets; and most important, engaging in casual wage labour (for example, agricultural piecework and food for work programmes). Survey respondents also mentioned crop diversification as a strategy, although this was limited to those rural areas where more cash crops became available after liberalisation (e.g. cotton and tobacco). In urban areas, apart from the strategies mentioned above, people engaged in backyard farming (particularly women), micro enterprises financed by redundancy payments, and activities manifesting the unravelling of social cohesion, robbery, extortion and prostitution. Very few societies undergo decline without the manifestation of socially dysfunctional behaviour, and Zambia was no exception. Work instead of education for children, prostitution as the labour force entry point for girls and women, robbery instead of decent work for men are the unavoidable fellow passengers in a process in which average incomes fall by over half.

3.3 Trends in Poverty and Social Indicators

Poverty Incidence, Trends and HIV/AIDS

Central to the analysis that follows is the previous discussion of methodological issues (see also Annex 3.1). In order to assess poverty, one needs data over a sample of the same households through time ('panel data'). There are no nationally representative panel data for Zambia. As a result, a rigorous and definitive quantitative analysis of poverty dynamics is not possible (Litchfield et al. 2003).

However, less exacting standards can produce useful insights on the basis of surveys with similar properties, especially coverage, representativeness, and if data are collected in the same way, i.e. with very similar questionnaires. Estimates from cross sections of the data suggest that

poverty incidence fluctuated in the seventy to eighty percent range during 1991-1998, then fell to just below seventy percent in 2003. Therefore, whether it increased or decreased depends on the base year.

Perhaps the most accurate statement is that in the mid-2000s poverty incidence was below its highest level during the 1990s, but not significantly below its average value in the decade. Thurlow and Wobst (2004) argue that a relatively constant poverty incidence was associated with a declining poverty gap, reflecting an improvement in income distribution, especially after 1996. This argument would be consistent with the finding that urban poverty incidence increased, while rural poverty slightly fell, from a much higher level. To put it simply, many non-poor urban households fell below the poverty line, while many poor rural households rose towards it. If one could eliminate measurement errors and properly account for seasonal effects, one would probably find that during 1991 to 2003, poverty remained unchanged around the extremely high level of sixty-five to seventy-five percent.²⁵ Poverty in urban areas increased, most dramatically during 1996-1998, when the measured increase was ten percentage points. The processes of privatisation and formal sector retrenchment largely explain this increase.

A calculation of cumulative density functions (CDF) for expenditure during 1991-1998 suggest the following if one takes the entire database,²⁶ i.e., including households with extraordinarily low expenditure in 1991 distribution.²⁷ First, the distribution (density) functions of consumption of 1991 and 1998 cross at a point near the extreme poverty line, implying that trends of poverty were different for two sets of households whose consumption levels are below or above that point.²⁸

Poverty incidence in 1998 was slightly higher than in 1991, but the poverty gap and severity diminished significantly (McCulloch et al. 2001). The situation worsened for the households from the fifty-

fifth percentile upwards, with the original sample.²⁹ This can be interpreted as a reduction in living standards of the 'middle' class, which is consistent with the overall finding that urban poverty increased significantly over the 1990s. However, the notion of 'middle' class may be inappropriate except in the quantitative sense because income and consumption levels of these households were initially close to the 'absolutely poor', and barely sufficient to afford a basic food basket plus a few non-food items. The recession of 1991-98 can be considered pro-poor if one accepts that the bottom percentiles of the distribution saw their real expenditure increase in comparison with the rest of the population. In other words, relatively poorer households gained with respect to the 'poor middle class' and less poor households over 1991-98.

These trends should be viewed with much caution. As argued, the 1991 survey reports extremely low levels of consumption for the bottom three and four deciles of the population. It is not surprising, if these estimates were correct, that over the eight-year period poorest households managed to improve their situation somehow. Dropping implausible values at the low end of the distribution makes a very substantial difference in the trends.³⁰ The analysis of growth incidence curves suggests that a sub-group of households within the bottom twenty percent had consumption growth rates well above the average. This is more evident if one compares the growth incidence curve in rural areas with that of urban areas.³¹ In rural areas the growth pattern was relatively more pro-poor than in urban areas, because the bulk of low consumption outliers concentrate in the rural domain.

In summary, the evidence from density functions and growth incidence curves confirms that urban poverty and the consumption of households in the middle-to-top sixty percent of the distribution worsened significantly. It also shows that consumption growth rates were negative for

a majority of households, and did not lift the poorest out of poverty.³² In other words, while the period 1991-1998 was, strictly speaking pro-poor, it was fundamentally a period in which poverty worsened.³³

Social indicators confirm the negative poverty trends during the 1990s. Zambia was one of the few countries in the world whose ranking on the Human Development Index declined in every year of the decade. Almost across the board, health, after improvements in the 1970s, nutrition and education worsened.³⁴ Under-five mortality increased in the twenty-year period, striking evidence of social regression. By contrast, neighbouring countries like Mozambique and Malawi showed significant annual reductions in child mortality rates.³⁵ Child malnutrition levels deteriorated substantially from the mid-1980s to the early 2000s.³⁶ According to a government report, 'almost half (forty-nine percent) of children aged three to fifty-nine months were stunted (too short for their height), twenty-three percent were underweight (low weight for their age) and five percent were wasted (low weight for their height)' (GRZ 2004, 219).

The worsening of health conditions was associated with the spread of HIV/AIDS in the country, especially during the 1990s. Reported prevalence rates from antenatal sentinel posts reached twenty percent of adults.³⁷ Child and adult mortality, malnutrition, morbidity,³⁸ and HIV/AIDS prevalence are interdependent and mutually reinforcing.³⁹ As a result, Zambia has, today, one of the highest incidences of orphans in the sub-Saharan region, over twenty percent of the population under fifteen (Hunter and Williamson 2002; Bennell 2003).

The deterioration of the health of the Zambian population was also due to a crisis in public health services. A dramatic decline in per capita health expenditure occurred between 1970 and 1992, which negatively affected existing infrastructure, quality of personnel and availability of basic drugs and equipment.⁴⁰ The motivation of health

workers declined as their real incomes fell due to the reduction of funding and the consequent decline in real wages and work material (equipment, drugs, consumables, etc.). The fall in funding was exacerbated by the introduction of user fees in 1993, which substantially reduced the effective demand for health care (Milimo et al. 2002, 34-38).⁴¹ The decline in the quality and amount of health services also explain the drop in life expectancy, to a level among the lowest in the sub Saharan region.

In education, literacy rates increased, but gross and net school enrolment rates for both sexes fell during the 1990s partly as a result of the introduction of user fees (see Table 3.5). This was a clear symptom of household hardship in light of the importance Zambians place on formal schooling.⁴² As Table 3.5 suggests, in 1980, Zambia had education levels among the highest in the sub Saharan region; and, while in the early 2000s literacy and enrolment rates were and remained higher than many African countries, the trend after 1980 was unambiguously negative.

The impact of HIV/AIDS on the education sector was particularly severe. According to Kelly (2000), teacher mortality had increased over the 1990s, and was estimated at seventy percent higher than the population as a whole. In 1998 UNAIDS estimated that Zambia lost about 1300 teachers to HIV/AIDS, 'the equivalent of two-thirds of its training college output' (UNAIDS 2002). Subsequently, teacher mortality rates fell, due to teachers' awareness of the disease, rather than improved treatment.⁴³ After 1998 the shortage of teachers decreased, because of lower mortality and an increase in the number of new teachers trained, from below two thousand in the late 1990s, to close to six thousand five years later. On a less positive note, the supply shortage was also relieved by the decline in enrolments, discussed above.

The main factor limiting the supply of teachers in the 2000s was the central

3 government's expenditure ceilings set by loan conditionalities. This constraint on expenditure prevented the government from recruiting the teachers required to meet the goals of the Free Basic Education programme established in 2002. Almost nine thousand teachers, most specifically trained for rural schools, were unemployed in 2003 because the government could not use available funds to hire them. Indeed, the number of teachers employed fell from 2002 to 2003.⁴⁴ If expenditure limits continue, Zambia will not meet the MDGs for education. Moreover, the trends above are largely consistent with qualitative evidence collected in participatory poverty assessments and trends in the ownership of basic household assets, often used as a proxy of long-term wealth (see Annex 3.1).

This section can be concluded with a brief re-statement of the major points for which the evidence is sufficient. Poverty in Zambia fluctuated around very high levels, within a sixty-five to seventy-five percent range, for the headcount measure, increasing from 1991 to 1998 and decreasing afterwards. The small overall reduction recorded between 1991 and 2003 may not be statistically significant.⁴⁵ It is likely that it reflects differences in survey design and is within the margin of statistical error. It also masks differences between income groups and geographical areas.

Urban poverty incidence increased significantly during 1991-98, then slightly fell between 1998 and 2003. The substantial increase was probably the result of a relatively large portion of households being clustered just above the poverty line in 1991, which would be consistent with poverty incidence rising while poverty gaps and severity decreased. Rural poverty seems to have slightly increased between 1991 and 1996, and decreased thereafter, especially between 1998 and 2003. Nevertheless, rural poverty levels remain extremely high, and a substantial proportion of people live below the food poverty line. Since 1991, households in the bottom quintile appear to have

fared less badly than the average. However, this last finding could be due to an underestimation of the weight of household production in the consumption basket. Whichever the reason, this more positive trend fell short of bringing the poorest rural households sufficiently close to the poverty line.

The deterioration of most social indicators, at least until 2000 calls for substantially increasing the public investment that will be necessary to reverse the situation and now also avoid health and education workers' brain drain, which has been exacerbated by a combination of 'push' (low incentives, salaries, deterioration of work conditions, general reduction in living standards among civil servants, etc.) and 'pull' factors (increasing demand for health professionals in countries like the UK and the USA).

Inequality

Zambia is one of the most unequal societies in Sub-Saharan Africa as measured by income variation. The Gini coefficient falls into the .50 to .60 range, which places Zambia with South Africa, Namibia, and Botswana as the most unequal in the sub Saharan region, and also close to Brazil and Colombia.⁴⁶ The maximum-recorded measure for the Gini coefficient is derived from the 1991 expenditure survey, with a value of .57 if the very low observations are omitted (see discussion and chart in Annex 3A.2), and .61 in 1991 if they are included. Inequality estimates based on income data are even higher, but less reliable than consumption measures. Estimates prior to 1990 are based on income data, and not strictly comparable with consumption-based estimates.

From the few statistics there are available, and secondary evidence, several points can be inferred. First, conventional wisdom holds that at independence in 1964, Zambia was more unequal than two decades after. However, the data show increases in income inequality between 1959 and 1976, mainly due to a fall in the share of the bottom

quintile (see Table 3.6).⁴⁷ A number of hypotheses have been offered to explain the increase in inequality after independence: the rise of a public sector bourgeoisie within a state capitalist economy (Turok 1989, 219), and a widening rural-urban gap to name two.⁴⁸ The simple truth is that there are no reliable statistics to provide the basis upon which a trend could be asserted, so explanatory hypotheses are speculation about the unknowable.

According to Thurlow and Wobst (2004) evidence from the poverty profiles would indicate that income distribution has improved during the 1990s, specifically if we compare 1991 and 1998 survey data.⁴⁹ This finding is at odds with the published results of the other surveys after 1991; i.e. 1993-1998, where it seems that both the Gini coefficient and the Kuznets ratio of inequality increased (the latter being the ratio of income shares between the first and the fifth quintiles (GRZ 1997 and Table 3.6). Thurlow and Wobst (2004) conclude that despite overall increases in poverty incidence, the poorest fared better than the middle income groups, and, in this sense, growth during 1991-98 was relatively pro-poor. As argued in the previous section these results depend heavily on the possibly problematic lower consumption levels of the poorest in 1991. Thurlow and Wobst (2004), following McCulloch et al. (2001) drop some extremely low values, but not all. Income-based inequality estimates suggest an overall drop in inequality, from extremely high levels in 1991, to slightly lower in 1998 (see Figure 3A.4) and then lower still in 2002/03, mainly due to declines in the income held by the top twenty percent.

For reasons discussed above, reliance on consumption expenditure and income estimates does not yield reliable results in Zambia, because of inconsistencies across surveys. However, there exist complementary indicators of inequality. Surveys provide information for a range of education and health indicators cross-tabulated with wealth quintiles based on asset indices.

The evidence shows considerable inequality in education and health outcomes in rural and urban areas. While differences between urban and rural areas are substantial, even more striking are the differences within rural areas (Sahn and Stifel 2004). Tables 3.7 through 3.10 show the evidence of social inequality for both education and health indicators. It is worth noting that these differences on the basis of socio-economic status are far more important than gender disparities for the main education and health indicators. Households in the upper quintiles, as measured by assets, have higher immunisation rates and delivery attendance rates in public or private health centres, lower fertility rates, lower child mortality rates, and lower levels of malnutrition among children and pregnant women, than households in poorer quintiles. The negative trends for social indicators presented previously affected the lower quintiles more than the higher ones, and subsequent improvements were unevenly distributed in favour of the latter. This is shown when one compares malnutrition rates across wealth quintiles and infant mortality rates with education in 1992 and 2001 (see Tables 3.10 and 3.11, which shows that the rates dropped for both, though at a much faster pace for the higher wealth quintiles and better educated).

High inequality in the levels prevailing in Zambia means that pro-poor growth rates must be very high. This poses a significant challenge. It also means that there is significant scope for income redistribution through fiscal policies, social insurance, free health and education for the poor and direct employment creation.

3.4 Labour Markets

Demographics of Labour Markets

There is limited information on labour markets in Zambia, and what is available is not strictly comparable over time. Most of the information is derived from the LCMS surveys, which were designed for poverty

3 analysis. The employment sections in household questionnaires did not intend to address labour market issues specifically. At the time of this mission, the last labour force survey was for 1986.⁵⁰ The lack of such surveys for twenty years makes it impossible, for example, to judge the employment effects of the structural adjustment programmes since 1990 with any degree of precision and disaggregation. Existing evidence, however, indicates a growing 'informalisation' of the economy, resulting in part from the privatisations and liberalisation measures that were part of the structural adjustment process.

With its mid-2000s population of about eleven million, Zambia was one of the most urbanised countries in the sub-Saharan region. Urbanisation approached its peak in the decade after independence, when mining and manufacturing sectors prompted rural-urban migration. From the early 1990s this tendency reversed itself as mining declined and the rest of the urban economy followed it down. As a result, urban population has decreased from forty percent in 1980 to thirty-five in 2000. This decline in urbanisation was virtually unprecedented since the middle of the twentieth century in the developed or underdeveloped world. Perhaps more than any other simple measure, it indicates the extent to which Zambian society and economy underwent a traumatic collapse.

Quantitative evidence shows that formal sector employment fell during the 1990s, when reform packages, especially privatisation and trade liberalisation were accelerated (see Figure 3.2). Unemployment rates, as measured in household surveys, have gone up since 1986 (from thirteen to sixteen percent), mainly because recorded urban unemployment has almost doubled (Table 3.12). Census data show that between 1990 and 2000 overall unemployment decreased, however, this is only because a large drop in rural unemployment more than compensated for the significant rise in urban unemployment. One must be cautious about

recorded unemployment rates in general, but particularly in rural areas.

Given the levels of poverty in rural areas and the kind of predominant activities (small-scale farming, casual wage labour, etc.) being unemployed is not an option. In 1991 the evidence of youth unemployment was alarming and became one of the hot topics of debate on employment issues (GRZ 1991).

Since then, several surveys have shown compelling evidence of increasing youth unemployment rates, particularly for those between twenty and twenty-nine. Youth urban unemployment was already significantly high by 1986, namely 47, 33 and 16 percent respectively for the 15-19, 20-24 and 25-29 age cohorts. In the latest survey (2002/03) the figures were up to 49, 47 and 30 percent for 15-19 (GRZ 2004, 94).

Growing youth unemployment is partly a result of dwindling job opportunities and the socio-economic crisis of the past two decades; but, also a consequence of continuous increases in the youth labour force (due to population growth and higher labour force participation), in spite of the expected effects of HIV/AIDS spread among the youth.⁵¹ A report on youth unemployment (Mayaka and Moyo 1999) confirms these findings and suggests that the unemployed youth cannot be treated as a homogeneous category. The unskilled youth appear more affected by the lack of job opportunities in towns. But, more importantly, the lack of specific training and demand for previous work experience have barred a large proportion of youth from job opportunities, mostly in the regulated 'formal' sector but also in the informal economy (Mayaka and Moyo 1999, 129). Those who manage to find employment, especially in unregulated activities, often concentrate in petty services for irregular durations and pay (repairs, trading, hair-dressing, welding, etc.). Others who have alternative aspirations (mechanics, drivers, nursing, teaching, typing), and can afford to wait, prefer to remain unemployed and look

for formal sector, or better, remunerated opportunities (Kamya 1994, 30). Moreover Kamya (1994, 33) shows that many informal activities present significant barriers to entry, given the high average age of manufacturing operators (thirty-seven years)

In any case, we should not forget that data on unemployment should be taken with caution. Frequently those who declare themselves unemployed belong to less poor households. They either tend to live in middle- and high-cost urban areas or be concentrated among the most educated urban labour market entrants. Thus it is not surprising that unemployment is heavily concentrated among the more educated youth living in urban areas.

Labour supply: Education and Health

Labour supply in Zambia has suffered during the 1990s and 2004 for several reasons. Health indicators are clearly worse and the HIV/AIDS pandemic took a great toll among people of working age. The rise in undernutrition and micro-nutrient deficiency in children implies a less healthy labour force for the future, as suggested by empirical evidence in the rest of Africa (Sender et al. 2005, 26). Education attainment, after impressive progress up to 1980, regressed, in literacy indicators, enrolment rates and participation in vocational training. These trends affected formal sector competitiveness through growing high-skill shortages in various sectors (Chiwele and Chinganya 1997; Colclough 1989).

There is evidence that the long term economic crisis had particularly negative effects on public sector workers.

Recruitment fell, salaries declined and working conditions deteriorated, which prompted skilled workers, especially from health and education, to leave the country, with serious implications for an economy already suffering from skill shortages.⁵²

The deterioration in health and education obviously affected the productivity of the labour force, and exacerbated the demand factors constraining employment

growth. This creates the potential for a vicious circle as labour quality declines at the same time as skill-shortages create labour demand constraints, resulting in fewer and lower-quality employment opportunities. HIV/AIDS severely exacerbates this vicious circle. Losses in productivity of workers through sickness-related absenteeism and death of relatives may explain some of the decline in productivity. According to UNAIDS (2002), in Malawi and Zambia there has been a massive increase in illness and death rates among health workers in particular, though there is no reliable information on this (Bennell 2003).

Formal Sector Employment Trends

Official statistics indicate that formal sector employment declined slightly after 1986, when it reached its peak of 556,000, to 546,000 in 1992. Subsequently the decline was considerably more rapid, to 416,000 in 2002 (see Figure 3.2 and Table 3.17). The dramatic drop in formal sector employment cannot simply be attributed to redundancies directly related to the privatisation process alone. According to data from the ZPA, privatisation-related redundancies between 1992 and 2003 for 253 listed companies affected just over seven thousand employees, which is 5.4 percent of the total formal job losses recorded in the same period by the CSO.⁵³

Much of the decline in formal employment followed from the demand-constraints on, and trade liberalisation of, the economy in the 1990s, especially in manufacturing and mining sectors. The only exceptions to employment decline were in tourism-related activities, and large-scale farming in horticulture and tobacco, particularly after the arrival of a few hundred Zimbabwean commercial farmers. These sectors generated far too little employment to offset the fall of employment in manufacturing, in which employment had increased threefold from independence to the mid 1970s, then fluctuated with no trend in the 1980s (Figure 3.2). From the late 1980s on manu-

3
facturing employment entered into a systematic decline. Agricultural formal wage employment followed a similar pattern, though apparently increasing more rapidly than manufacturing during the 1980s (see Figure 3.2). However, the extraordinary increase in the second half of the 1980s may be merely the result of different reporting systems and sources. In other sectors formal employment in 2003 was ten percent below its 1990s level in construction, fifty percent lower in manufacturing, and seventy-five percent in mining.⁵⁴

Copper prices partly explains the employment performance throughout the economy during the 1970s and first half of the 1990s, but less so during 1987-2000 (Figures 3.1 and 3.2). In the latter period copper prices fluctuated, even rising briefly, but the stimulating effect on the economy did not match the previous negative effect.

Another aspect of the formal employment market has been discrimination against women. Women were and are concentrated in the lower ranks of the public sector, in both government agencies and parastatals. As a result, the effects of retrenchments and redundancies resulting from the Public Sector Reform Programme and privatisation of publicly owned enterprises had a particularly negative impact on women, forcing many into the informal sector. As a result of the reduction of employment opportunities in the formal sector, women in increasing numbers have sought livelihoods in the informal sector (the informal sector is discussed in the following section).

It would appear that about fifty-five percent of women are working in the informal sector. As in formal sector employment, women are concentrated in the service and lower income areas of the informal sector, often adapting their domestic activities, such as food production, to the cash economy. Women also are in a large majority (70.6 percent) of unpaid family workers. (World Bank, 1993b: xi)

*Informal Labour Market*⁵⁵

The trends in formal wage employment are consistent with other evidence of growing informalisation of the labour market. However, precise information on the 'casualisation' of labour does not exist to document this. Sporadic official data, indirect evidence from the LCMS, interviews with government experts and other informants in Lusaka, plus some qualitative evidence (see Milimo et al. 2002) offer indications of a tendency towards informalisation.⁵⁵

We noted above that women have been pushed from the formal to the informal sector, and concentrated in the service trades. It also appears that their activities are ones in which the income elasticity of demand is low, serving poor populations in a saturated market. These are trades characterised by ease of entry and requiring little initial capital outlay. As a result, incomes are under continuous threat from competition as new entrants, frequently redundant from the formal sector, crowd into the easy-entry activities. These activities, such as vending and brewing, are characterised by low productivity, such that the operators have little prospect for development and expansion (Touwen, 1990:12). The informal sector is also subject to official harassment as activities may be illegal, such as unlicensed home brewing and trading. Women are subject to arrest, confiscation of goods and fines, which further reduces their profit levels and increases the risks of economic activity (Bardouille, 1991:131).

Casualisation and informalisation were reflected in the increase of reported self-employment, unpaid family labour, and shifts in the sector composition of employment towards services, particularly transport, trade, finance and construction.⁵⁷ The fall in the share of the category 'employees' from twenty-five percent in 1986 to seventeen in 1998, sixty-one to fifty-two in urban areas, corresponds to the decrease in wage employment discussed above. This shift appears more dramatic if one looks at

Census data, whose comparisons are less vulnerable to the sampling peculiarities of surveys. Between 1990 and 2000 the proportion of 'employees' in censuses fell from nearly thirty-one percent to eighteen, a decline occurring both in urban and rural areas (Table 3.14). In Zambia, as in South Africa (Theron 2005), there was a shift away from the standard employment relationship typical of the mining and manufacturing sectors. Part of this change resulted from retrenchment, especially in public enterprises. An analysis of poverty data from the various surveys during 1991-2003 indicates that the poverty headcount of government and public enterprise employees significantly decreased, especially for 1991-96.

It would appear that in the privatisation process job losses were concentrated among unskilled, lowly paid workers. Thus, the 'losers' in the retrenchment process were the poorest workers, who fell into activities with even lower remuneration, such as subsistence farming, petty trade, charcoal burning and casual piece work. Women were over-represented in this category of 'losers' due to their concentration in the service and lower income areas of the informal sector (Byrne 1994, 23). In other words, the retrenchment process was anti-poor and gender-biased, first because of its demand effect through a lower wage bill, and second through retrenching lower paid workers from public enterprises.

In the household survey of 2003, the proportion of the working age population employed in the 'informal sector' was eighty-three percent for the country as a whole, ninety-three percent in rural areas and fifty-six in urban areas. These can be compared to the 1986 percentages, seventy-seven, eighty-nine and forty-three, respectively. Even though these percentages must be viewed as approximations because of definitional ambiguity, the evidence is clear that in Zambia an extremely high and perhaps growing proportion of employed people lack employment rights and receive very low (often below-poverty level) wages.

Recent surveys show that a higher incidence of informal employment is associated with higher poverty levels, for small and medium-scale farmers, households in low-cost urban areas, and provinces other than Lusaka and Copperbelt (see Table 8.10 in GRZ 2004, 100; and Kamyá 1994).

The informalisation involved a retreat into low-return subsistence farming associated with an increase in the proportion of unpaid family workers. In urban areas, the dramatic fall in mining, manufacturing and construction in relative terms was matched by an increase in services (again, see Table 3.17). If similar to other countries of the region, these categories include a wide range of casual and low remunerated occupations such as street vending, hawking, bar services, domestic service, repairs, and petty transport (Milimo et al. 2002). Women are particularly confined to very low-return activities, especially serving poor populations in saturated markets. Moreover, women involved in trading and brewing activities are also victims of official harassment to prevent these activities, i.e. arrests, confiscation of goods, etc. (Byrne 1994, 25).

Some of these trends indicate a failure of labour markets to adjust to the new policy environment and structure of incentives fostered by structural adjustment policies. Despite the intention of structural adjustment to favour tradable sectors, this did not happen (Chiwele and Chinganya 1997). However, a dichotomy between tradables and non-tradables may be too crude, especially since all agricultural outputs are treated as tradable while in reality the sector is heterogeneous and much of its production is non-tradable due, for example, to transport costs. Information used for employment patterns is not sufficiently disaggregated to provide an accurate picture of tradable and non-tradable trends and changes between more relevant sub-categories of activity. The labour market rigidities alleged by the structural adjustment analysis were not necessarily dictated by interventionism or

3 anti-poor bias of labour policies. The absence of a social security system, technical difficulties in switching skilled labour across different sectors, the time lags and scarcity of skilled labour for different occupations represented 'rigidities' more important than labour regulation, whose enforcement was sporadic. In practice it is not clear how important organised labour was across sectors. It may be that unions in Zambia had an impact on the slow employment adjustment to the stagnation and reforms, but there is no direct evidence of this. The role of unions has been exaggerated, and much of the collective bargaining took place at the firm or industry level where adjustments were less easily blocked (Chiwele and Chinganya 1997).

In summary, evidence for state or trade union created 'rigidities' is far from conclusive. Certainly by the mid-2000s such rigidities were of little importance. A 2004 World Bank assessment of constraints on businesses in Zambia shows that labour regulations rank low in the order of importance, sixteenth out of seventeen constraints.⁵⁸ Only seventeen percent of enterprises reported that labour regulations were a major constraint. Retrenchment rules changed shortly after the Privatisation Act, prior to which the World Bank alleged, 'retrenchment was never really an issue in Zambia' (WB 2003a, 28). The changes increased retrenchment benefits significantly at the same time as privatisation-related layoffs became irreversible, although the retrenchment formulae only referred to basic pay, which was often below forty percent of salary plus benefits (WB 2003a, 28). In many cases retrenchment packages were not paid, 'leaving employees in limbo' (WB 2003a, 28). The retrenchment costs of privatisation were uneven, because schemes and implementation have varied among companies. This variation makes general conclusions about the effects of labour unions on the labour market rather unconvincing and, in the absence of concrete evidence, motivated in part by ideology.

Overall, it is hard to interpret the trend towards informalisation and greater reliance on irregular and low remunerated self-employment as other than a major symptom of Zambia's decline.⁵⁹

Rural labour markets

Available information on rural labour markets is inadequate for a rigorous analysis. What evidence exists suggests that rural labour markets are quite fragmented. It would appear that the incidence of casual wage work is particularly high in rural areas, but largely unmeasured due to the difficulties in collecting reliable data through large-scale national household surveys. There are different forms of labour transactions and exchange, which vary between provinces and types of farmers/employers. The territorial distribution of large and medium scale farmers, and their concentration along the 'line of rail' biases the distribution of enumerated and unrecorded agricultural wage labour in Zambia. Micro-level research shows that small scale farming generates casual wage employment under precarious conditions (Leavy 2003).

Seasonal and casual wage work is available both in plantations (coffee, sugar) and in neighbours' farms. Employment in larger-scale plantations tends to be better paid compared to when poor farmers work for their richer neighbours, though wage levels were in any case very low in the early 2000s (Leavy 2003). Wages paid by neighbours may be in cash or kind and determined with a high degree of discretion depending on the personal arrangements and the bargaining power of casual labourers.⁶⁰ This kind of work usually involves the 'most dirty and physically demanding tasks, such as clearing an area for cultivation, planting, weeding, harvesting or shelling and pounding grain' (Milimo et al., 2002, 28).

For extremely poor households casual wage work is a coping strategy that derives from their inability to grow enough food on their holdings. For the less poor it is an income source for accumulating cash for

marriage, migration, and working capital. The number of days available for work and the levels of remuneration may be important determinants of levels of poverty in rural areas. Therefore, systematic information on rural labour markets is essential in order to create programmes for sustainable poverty reduction.

In summary, little is known about the operation of rural labour markets other than that remuneration is low and working conditions precarious. This is a particularly serious information gap, because, as shown at the beginning of this chapter, the majority of the poor live in rural areas. As a consequence, ignorance of the conditions under which the poorest gain their livelihoods makes designing effective poverty programmes difficult. If there is one thing that is known about rural poverty, it is that the simple 'trickle down' resulting from agricultural growth is not an effective strategy for poverty reduction; indeed, it is not a poverty reduction strategy at all.

Wage Levels and Tendencies

There is little disaggregated information on wage structure, let alone wage trends. Moreover, in Zambia, as in most sub-Saharan countries, few resources have been allocated to collect time-series data on the wages of workers outside the formal sector (see Annex 3A.1). The lack of information is a major impediment for a serious analysis of the impact of policies on the poorest people in the country. It also represents a constraint to investigating the interaction between poverty and employment, which would be the focus of this report were the information available. However, it is probably the case that the nature of informal employment largely precludes the collection of such information.

Soon after independence, the 1966 Brown Commission formally ended racial discrimination in wages and salaries, which resulted in substantial wage increases for black workers up to 1973 (Mkandawire 1993, 461). The increase in mining and

urban wages for black workers in this period also resulted in a growing gap between rural and urban earnings in the 1970s, though the gap has been exaggerated (Jamal and Weeks 1993). Real average earnings started to fall in the early 1970s for recorded wage employees during the first copper crisis.

Reductions in real wages occurred in all sectors and more markedly in mining, where wage levels in 1983 were just fifty-four percent of their 1970 level in real terms (Colclough 1989, 24). Agricultural average earnings did not fall as steeply, but their levels in 1983 were a third of those in mining, half of the manufacturing wage, and forty percent of transport earnings.

The fall in real earnings had its greatest impact on public sector workers, particularly those on the higher scales. In 1986 white-collar workers received a salary sixteen percent below the 1967 level, while salaries for the lowest paid workers fell by roughly forty percent (Colclough 1989, 26-29). This wage policy on the part of the government would lay the groundwork for the abysmally low salaries in the upper levels of the civil service that undermined morale and fostered corruption during liberalisation in the 1990s and into the 2000s (see Nielsen and Rosholm 2001). Also pro-poor were the government food subsidies, particularly on maize-meal (Bigsten and Ass. 2000; Colclough 1989), which would be an early casualty of the IMF stabilisation package of 1985 (Colclough 1989, 30). To a large extent, the episodes of more drastic real wage cuts were associated with devaluations of the Kwacha. The wage and salary declines at the end of the 1970s and into the 1980s would be but the beginning of a long descent. In 1996 real wages in the public sector had dropped to approximately forty-five percent of their 1984 value (Seshamani and Kaunga 1996).⁶¹

Use of household survey data indicates the magnitude of the fall in formal sector real wages. In 1991, nominal wages ranged from 5700 Kwachas per month for agricultural workers to 16,145 for finance and

3 insurance workers. Two years later in 1993 nominal wages for recorded employees ranged between 12,671 for agricultural workers, and 41,000 in mining and quarrying. Taking inflation into account between the two surveys, real wages for the lowest paid workers (agriculture) dropped by sixty percent, and by fifty-four percent for the highest salaries in finance and mining. (GRZ 1999, 116). In sum, the rather unsystematic evidence shows that, the decline in real wages for recorded formal sector workers was devastating during the 1980s and 1990s.

A major element in the rise in poverty was the fall in recorded wage employment. As we have seen before, surveys at a sector level and censuses record a process of informalisation of the labour market, compounded by a marked deterioration in working conditions in formal employment, both public and private. With the sharp rise in the price of copper after 2004, investment and employment increased in mining, and to some extent this spread to other sectors, most notably construction. Evidence is limited, but newspaper accounts, government investigations and discussions with employers and unions suggest that wages in some of the new mines are below poverty level. In addition, working conditions, especially safety conditions, in practice failed to meet government standards.

The rejuvenation of formal employment should not be on the basis of poverty wages and the ill-health of workers. To prevent this, the relevant agencies should receive increased funding to monitor working conditions, and the government should foster a simultaneous recuperation of employment and trade union effectiveness.

3.5 Conclusion

This chapter has presented and discussed evidence concerning poverty, social indicators and employment in Zambia.

Throughout the chapter and especially in the annexes it has been emphasised that, despite a significant number of household

surveys having been organised since 1991, available statistical information presents a series of problems that cannot be ignored, which have an effect on the interpretations about poverty and employment trends in the past decades. In spite of these statistical gaps, it has been possible to draw a consistent picture of the situation, taking into account policy changes in the last fifteen years. Four main messages arise from the analysis in this chapter:

- Poverty incidence is still very high and probably stagnating but many urban people have been falling into poverty over the last decade. However, the chapter has warned about serious problems with survey comparisons to analyse poverty trends.
- Rural poverty seemed to slightly improve from extremely high levels (destitution) in 1991. Given the importance of agriculture (own account and through wage employment), which affects the lives of millions of rural poor, agricultural development is critical in the medium term but not only answer, as we shall see in chapter 4.
- Inequality is a very important issue even with high poverty incidence: there is urgent need for redressing various dimensions of inequality particularly through employment creation and enhanced pro-poor redistributive fiscal expenditures and reformed social services.
- Employment there is no accurate data for any detailed assessment but growing informalisation and crisis in regulated wage employment are corroborated by a number of available indicators. This calls for a renewed focus on employment creation (directly and through better incentives to private sector) and a decent work agenda with pro-active state intervention.

As shown in this chapter, poverty incidence is very high according to the latest (2003) household survey, reaching sixty-seven

percent of the population and three quarters of rural households. The analysis of poverty trends is problematic as a result of various methodological challenges. However, we have concluded that there is no clear statistical tendency between 1991 and 2003 in terms of overall poverty, rather a fluctuation around very high levels (sixty-five to seventy-five percent), with a slight improvement after 1998 following a considerable deterioration which particularly affected urban areas. A more disaggregated analysis has shown that while the bottom poorest people did relatively better, the top sixty percent of the population, many living below the poverty line, suffered from an absolute decline in their real incomes particularly between 1991 and 1998. The relative improvement of the poorest rural people arose from initial conditions of pure destitution and, probably, from previously worsening living standards during the 1980s. The deterioration of living standards in urban areas has been significant and its relationship with processes of economic reform, privatisation and the crisis of the Organised (formal) non-agricultural sectors seems more than a coincidence.

Other social indicators corroborate the poverty trends. From 1980 a marked deterioration of health, nutrition and education standards has been noted, slightly attenuated only recently. The unfolding of the HIV/AIDS crisis, which bears close association with generally worsening health conditions, has compounded these negative trends. Apart from the natural spread of the pandemic, policy variables and their effects on health services have been emphasised. These processes must be coupled with many other symptoms of social and economic crisis as stressed in this chapter. Overall, Zambia lost much of the ground gained in the first two decades after independence in terms of education and health standards in the context of a relatively urbanised society.

High levels of poverty, high average indices of social deprivation (health and education) and low average incomes mask

significant differences among social strata. In this chapter we have presented compelling evidence about the high, and probably growing, degree of inequality in terms of income and social indicators. Evidence on unequal prospects for different social groups, stratified by income sources, livelihoods, geographical location and gender suggest that pro-poor policies should place inequality at the forefront of the agenda.

Evolution of employment indicators is consistent with trends in poverty and social indicators. Most surveys, sector-level data and censuses suggest that there has been a process of informalisation of the labour market compounded by a marked deterioration in working conditions (wages, security, job opportunities) in the formal (organised) labour markets. Recorded unemployment increased since the mid-1980s,⁶² while formal sector (enumerated) employment has declined until recently to levels recorded in the mid 1970s despite a significant growth in the labour force over the last thirty years. The crisis in the mining and manufacturing sectors, protracted since the late 1970s, lies behind this poor labour market performance. The 'informal' unorganised sector has become the pool where a growing mass of youth in search of first jobs and adults affected by retrenchment and deteriorating conditions flock in a typical 'survivalist strategy'. Micro-level evidence suggests that the growing informal sector is characterised by lack of dynamism, precarious work conditions, insecurity and saturation, particularly in the most common occupations that present few barriers to entry. Demand restraint, associated with the crisis in the formal sector, and declining incomes in urban areas, partly explains the bleak prospects of the informal unorganised labour market.

The deterioration of labour markets and the falls in formal wage employment and wage levels call for a much more pro-active set of employment policies. First, employment can be created and/or promoted in different sectors, especially:

1. Agribusiness: substantial scope especially in labour-intensive crops like tobacco, horticulture and cotton
2. Vertical integration of smallholders in non-traditional export value chains (vegetables, cut flowers, tobacco), which may induce increasing demand for casual and seasonal wage labour in the locations where outgrowing schemes flourish.
3. Manufacturing (initially sub-sectors linked to agriculture), which needs a substantial recovery and more imaginative trade and industrial policies through enhanced policy and autonomy;
4. Infrastructure construction, especially roads linking more remote areas and rural roads, and road maintenance. This can be implemented through judiciously planned public work schemes targeted at poorer areas and households thereby creating employment and injecting cash in much needed local economies.
5. Tourism is often mentioned as having a substantial employment potential, especially to absorb part of the semi-skilled labour force that is currently precariously employed in informal economic activities of little dynamism and prospect.

Employment creation will require substantial public investments and different macro-economic policies, especially to spread (cheaper) credit access to sectors with greatest employment potential. Secondly, these incentives for the private sector to promote employment creation should be accompanied with unambiguous measures for a 'decent work agenda' that focus on employment conditions of the poorest, especially daily wages, other benefits (transport and meal allowances, nurseries, social responsibility programmes, etc.) and health and safety standards.

Enforcement of decent work standards can be used as a central element of a list of performance criteria to selectively promote industries and employers through a range of

fiscal, financial and technological incentives.

In general, the links among poverty, social indicators, and employment and inequality suggests that any pro-poor economic policy should be designed while taking into account the nexus between these various dimensions. These trends and profiles present clear symptoms of a socioeconomic crisis that calls for a more innovative and less restrictive approach to the linkage between macroeconomic policies and social outcomes through a more clearly defined employment nexus. This means that poverty reduction cannot be tackled in isolation from more pro-active and ambitious measures to address the high levels of inequality and the deterioration of employment prospects in the last two decades. A 'decent work' agenda both in urban and rural areas with pro-active state intervention is essential at this stage. The challenges ahead imply that a significant boost in the productive economy, social infrastructures and the real incomes of both rural and urban people is necessary if these trends are to be reversed on a more sustainable basis.

22 The definition of rural strata can only be found in the 1993 survey report. Farmers are stratified according to scale, defined in terms of cultivated land, with cut-off points at five and twenty hectares. If households are mainly engaged in animal husbandry more criteria apply (numbers of cows, beef cattle, pigs, poultry, etc.). See GRZ (1993).

23 Note that 'small-scale rural households' account for 61 percent of the total population (over 6 million people) and 93 percent of the rural population. Therefore, as a social category, it cannot be very homogenous.

24 Income data should be treated with even more caution than consumption expenditure data.

25 According to the official indicators, overall incidence just went down from 69.7 percent to 66.5 of the population (1991-2003), which is not a statistically significant change, whereas more successful countries like Mozambique have seen poverty levels drop from 69.4 to 54 percent between 1997 and 2003. Extreme poverty incidence and rural poverty fell more significantly, especially between 1998 and 2003. Urban poverty increases from 48.6 to 56 percent during 1991-1998, and then dropped to 52.2 percent in 2003. Bear in mind that surveys differed in the periods covered and that a seasonality pattern of consumption could be demonstrated in the 2003 survey (see Annex 3.1 and Tables 3A.1 and 3A.2).

26 See Annex 3.2 on the technical aspects and illustration of CDF applied to 1991 and 1998 survey data.

27 At the time of this report the mission did not have access to the 'cleaned' database for LCMS III 2003, so it was not possible to extend the density function analysis into 2003.

28 In statistical terms, neither of these distributions is stochastically dominant.

29 If one leaves out the implausible lower bound values (see below), the situation worsens in absolute terms from the twenty-eighth percentile approximately, i.e. the top seventy-two percent of the population had negative rates of real PAE expenditure growth. See Figures 3A.1 and 3A.2. 30 See Annex 3.2 and Figures 3A.1 and 3A.2 on the consequences of dropping very low consumption outliers or not.

31 See chart 2.1 in Thurlow and Wobst (200, 26). See Figure 3A.3 in Annex 3.2.

32 When reaching this conclusion, it must be stressed that a panel series does not exist to assess poverty dynamics. If consumption of the poorest rural percentiles greatly depends on food the households produce, the differences between 1991 and 1998 in terms of harvest and the seasonality of the survey will have a major impact on the pattern of growth incidence curves.

33 One could label it a 'pro-poor recession'.

34 See GRZ (2002), GRZ-DHS (1997) for evidence of health and nutrition worsening. The latest DHS (2003) has finally shown some signs of improvement for a range of health indicators. See table 3.5 for evidence on education.

35 Today Zambia is one of the worst places in the sub-Saharan region for a range of health indicators. Apart from very high child mortality rates, Zambia is among the countries in Africa with the highest malaria-related maternal mortality and a very high incidence of HIV/AIDS and AIDS related morbidity.

36 In a relatively short period of time, like 1991-1996, stunting had increased from forty to forty-two percent (GRZ 1997, 3). See also Haddad and Garrett (1999).

37 The scale of HIV/AIDS epidemic in Zambia may well be exaggerated, given the discrepancies existing between antenatal clinic estimates and population estimates. Bennell (2004, 2) quotes evidence from the latest DHS survey, in which HIV prevalence was 17.8 percent for women and 12.9 for men (15.6 percent overall) in 2001, whereas the official UNAIDS estimates stayed at twenty-one percent (from ANC posts). Whether HIV prevalence in Zambia (like elsewhere in Africa) has been overestimated or not, the existing high levels leave absolutely no room for complacency.

38 The PRSP (GRZ 2002b, 84) also reports increasing chronic illness incidence.

39 It is worth noting that U-5 mortality is severely affected by the HIV/AIDS pandemic. According to estimates by UNAIDS (2002) Zambia's U5 mortality rate would be thirty-eight percent lower in a 'without-AIDS' scenario during the 1995-2000 period.

40 Milimo et al. (2002, 34) quote negative trends of forty-six percent in 1970-81 and a further decline of forty-four percent from 1980 to 1992. Simms et al. (1998) argue that the deterioration of basic health services was one of the root causes of increasing child mortality over the 1980s. The Zambian PRSP also points to the long distances from health centres and the lack of transport as key determinants of health seeking behaviour (GRZ 2002, 85).

41 The impact of user fees is controversial but most evidence suggests a significant decrease in utilisation of health services, even acknowledged by the Government in the 2002 PRSP: antenatal and family planning attendance dropped; STDs treatment dropped by seventy-six percent; 'although government policy calls for free referrals from the first level care, the resource gap resulted in hospitals charging even those who have been referred' (GRZ 2002, 85).

42 Only since primary school tuition fees were removed in 2002 the trend was reversed and demand for free education increased significantly.

43 'Life-prolonging anti-retroviral drugs have not been available at all' (Bennell 2003).

44 See IMF (2004b, 8) and WB (2004b, 23). The WB (2004b, 23) confirms that 'teachers are underpaid, too few in number, and frequently absent' and 'teacher distribution has remained skewed in

favour of urban areas'. See also GCE (2004) report on the teachers' crisis in Zambia.

45 This is especially the case if we take seasonal consumption patterns and survey design differences into account. See Annex 3.1. 46 See Figure 3A.4 in Annex 3.2 for a graphical illustration of the high degree of inequality.

47 Note that comparisons between pre- and post 1990 income-based inequality measures should be taken with a lot of caution because there were significant differences in coverage.

48 For a critique of the rural urban gap hypothesis, see Jamal and Weeks (1993).

49 See Lorenz curve in figure 3A.4, which shows less inequality for all strata between 1991 and 1998, even though levels remain very high by any standards. See also Table 3.6.

50 The 1986 survey was published with considerable delay, and provided relatively little disaggregated data. Staff at the CSO presented proposals to organise another labour force survey, drawing on lessons from South Africa. The government did not take action, and there seemed little interest by donors and lenders in providing funds for such surveys.

51 See Sender et al. (2005) on similar trends in various SSA countries.

52 These trends are also consistent with evidence of 'ruralisation' and rural-rural migration commented above. See also Padarath et al. (2003) on health brain drain in the SADC region.

53 An official in the Ministry of Labour confirmed that the privatisation process had only worsened already negative trends in formal sector employment.

54 This is based on authors' calculations from CSO sources.

55 Defined as "employment where the employed persons were not entitled to paid leave, pension, gratuity and social security and worked in an establishment employing 5 persons or less", which obviously includes small-scale farming (GRZ 2004, 98).

56 All our informants with knowledge of Zambia's labour markets (including officials at the Ministry of Labour) confirmed the tendency towards casualisation of employment, particularly in urban areas. This is also facilitated by the law, which allows temporary contracts (without usual protection measures) for up to 6 months, and by weak enforceability, which, according to Labour officials allows many employers to find loopholes and maintain large proportions of workers in a precarious contractual situation. This is especially true in rural areas and out of Lusaka. The Ministry of Labour has twenty-one offices in the field but none of them had a vehicle, according to a Labour Ministry official.

57 See all Tables from 3.13 to 3.17. Note that there are some anomalies in comparisons between surveys especially in the distinction between self-employment (SE) and unpaid family labour (UFL), which does not seem consistent across surveys. Thus, for the purposes of this argument, SE and UFL can be lumped together.

58 See WB (2004a, 21-22).

59 Qualitative assessments showed how urban focus groups made certain activities (growing in most urban areas of Zambia in the 1990s) like street vending, piece-working, charcoal burning, prostitution and others as equivalent to being 'unemployed' (Milimo et al. 2002, 22).

60 The daily wage paid in these large-scale farms was above the average daily per capita expenditure of small-scale farmers (the poorest rural stratum) as estimated in the 2003 LCMS survey (2,800 Kwachas approximately). Wages paid by local small-scale farmers are well below these levels.

61 In 2000, the real wages of various categories of civil servants was less than twenty percent of their 1975 level' (WB 2004b, 26).

62 Note, however, that the unemployment rate may be a misleading indicator of labour market performance in a developing country context as argued in this chapter. See also Oya and Weeks (2004).

Table 3.1: Poverty trends 1991-2003 from various sources

		1991	1993	1996	1998	2003 ^a
Official sources	Extreme poverty incidence	58.2	60.6	53.2	57.9	46.0
	Poverty incidence (PO)	69.2	73.8	69.2	72.9	66.5
	Poverty gap(depth-P1)	62.2	58.3	51.3	40.1	27.1
	Poverty severity (P2)	46.6	40.5	32.3	26.7	13.9
Alternative calculations ^b	Extreme poverty incidence	56.5	-	65.8	59.8	-
	Poverty incidence (PO)	68.5	-	79.4	75.4	-
	Poverty gap(depth-P1)	41.7	-	45.4	40.0	-
	Poverty severity (P2)	30.6	-	30.7	25.6	-
Alternative calculations ^c	Extreme poverty incidence	57.0	-	68.6	55.8	-
	Poverty incidence (PO)	69.5	-	81.3	71.9	-
	Poverty gap(depth-P1)	42.1	-	47.4	36.9	-
	Poverty severity (P2)	30.9	-	32.3	23.1	-

Notes and Sources:

a The 2002/03 LCMSIII results are not strictly comparable with previous surveys because the design was different.

b Thurlow and Wobst (2004).

c McCulloch et al. (2001).

Includes mission calculations from GRZ (CSO 1991, 1993, 1997, 1998, 2004), Thurlow and Wobst (2004), and McCulloch et al. (2001).

Table 3.2: Rural and urban poverty: official statistics, 1991-2003

Survey year	1991		1993		1996		1998		2003 ^a	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Extreme poverty incidence	80.6	32.3	83.5	24.4	68.4	27.3	70.9	36.2	52.0	32.0
Total poverty incidence (PO)	88.0	48.6	92.2	44.9	82.8	46.0	83.1	56.0	74.3	52.2
Poverty gap (depth-P1)	69.7	46.4	65.3	35.4	55.6	37.9	49.3	23.7	31.3	19.2
Poverty severity (P2)	54.6	29.9	47.6	17.4	36.5	19.4	34.2	13.2	16.5	9.3

Notes:

a The 2002/03 LCMSIII results are not strictly comparable with previous surveys because the design was significantly different and measurement errors cannot be distributed.

Sources:

LSMS surveys and mission's calculations for poverty gap and severity in 1998.

Table 3.3: Poverty Ratios: incidence, depth and severity by province, 2003 (ratios in percentages)

Province	Head count PO	Poverty gap P1	Severity P2	% of population
All Zambia	67	27	14	10,757,192
Rural	74	31	17	65.1
Urban	52	19	9	34.9
Province				
Central	69	30	16	10.2
Copperbelt	59	23	12	15.9
Eastern	71	28	14	13.4
Luapula	70	29	15	7.9
Lusaka	56	22	11	13.9
Northern	81	38	21	12.7
North Western	72	30	16	5.9
Southern	63	24	12	12.4
Western	65	24	12	7.6

Notes:

Head count The percentage of people below the income line designation as poverty level.

Poverty gap The mean distance below the poverty line as a proportion of the poverty line where the mean is taken over the whole population, counting the non-poor as having zero poverty gap. That is the mean shortfall from the poverty line (counting the non-poor as having zero shortfall), expressed as a percentage of the poverty line. From the UN Statistics Division:

(http://unstats.un.org/unsd/mi/mi_dict_xrxx.asp?def_code=438).

Severity Measure of inequality among the poor. For explanation, see

<http://www.fao.org/Wairdocs/TAC/X5784E/x5784e0m.htm>.

Source: GRZ, CSO (2004).

Table 3.4: Poverty Incidence by economic group, 2003 (percent)

	Extremely poor	Moderately poor	Total poor	Population shares
All Zambia	46	21	67	
Rural stratum	52	22	74	65.1
Small scale farmers	54	22	76	60.7
Medium scale farmers	35	29	64	1.1
Large scale farmers	-	33	33	.0
Non- agricultural households	35	20	55	3.2
Urban stratum	32	20	52	34.9
Low cost areas	39	23	62	27.2
Medium cost areas	13	17	30	3.6
High cost areas	4	4	8	4.0

Source: GRZ [CSO] (2004).

Table 3.5: Education Indicators, 1970-2002

Item	1970	1980	1990	2000	2002
School enrolment:					
Total gross	-	-	94	79	82
Female, gross	-	-	89	76	79
School enrolment:					
Total (net)	-	-	79	66	68
Female	-	-	78	65	68
Literacy rate	49	59	68	78	80
Female	32	47	59	72	74
Youth*	64	73	81	88	89
Female youth	50	65	76	86	87

Note: *Defined as persons 15-24 years old.

Source: WDI 2005, WB and UNESCO.

Table 3.6: Coefficients and income shares, 1959-2003

Basis of calculation	Year	Gini	Quintiles					Ratio Q5 to Q1
			Q1	Q2	Q3	Q4	Q5	
Consumption	1991	59.3	0.9	5.2	11.7	21.4	60.8	67.0
	1993	51.1	3.2	7.6	13.0	21.2	55.1	17.5
	1996	54.8	3.5	7.0	11.3	18.5	59.7	17.2
	1998	57.4	2.8	6.4	11.0	18.3	61.6	22.4
Gross income	1959	48.1	6.3				57.1	9.1
	1972	57.0	na				na	na
	1976	55.6	3.7				56.6	15.3
	1991	77.3	0.5	2.6	5.5	10.6	8.08	147.3
	1993	66.0	1.9	4.9	8.8	15.8	68.6	36.8
	1996	61.4	1.9	4.7	8.6	15.6	69.1	36.4
	1998	64.7	1.6	4.6	8.4	15.2	70.2	43.9
	2002/03	57.0	3.6	7.1	10.6	16.8	62.0	17.5

Source: latest version of WIID database (WIDER 2005) and own calculations from CSO (various reports). All values, except for ratio in last column, are in percent terms.

Table 3.7: Health indicators by asset quintiles, 2003

Wealth quintiles	Q1	Q2	Q3	Q4	Q5	All
Health indicators						
IMR x1000	124	132	105	104	70	108
U5MR x 1000	212	226	191	191	136	192
Immunisations coverage	71	77	80	80	86	78
Age-specific fertility rate (15-19 yrs) per 1000	210	172	179	161	86	158
Births:						
Delivery in public hospital/ clinic	14	16	28	64	63	36
Delivery in private hospital/ clinic	6	8	8	4	28	10

Source: Gwatkin et al. (2000).

Table 3.8: Literacy by Wealth Quintiles, 2003

Wealth quintiles	Illiterate	Literate	Cannot sum numbers
Poorest	97	3	74
Second	96	4	68
Third	91	9	56
Fourth	78	22	36
Fifth	54	46	15

Source: CSO and ORC Macro (2003).

Table 3.9: Schooling by wealth quintile, 2003

Wealth quintiles	Never attended	Dropped out	Primary	Secondary or higher
Poorest	38	26	33	2
Second	34	25	37	3
Third	29	27	39	4
Fourth	21	29	40	9
Fifth	11	23	45	19

Source: CSO and ORC Macro (2003).

Table 3.10: Malnutrition by wealth quintiles, 1996 and 2001

Wealth quintiles	Stunting		Underweight	
	1996	2001	1996	2001
Poorest	53	42	32	26
Second	48	40	28	23
Third	46	40	24	23
Fourth	37	26	18	9
Fifth	25	12	13	6
Q1/ Q5	2.12	3.50	2.46	4.33

Source: CSO and ORC Macro (2003)) and Gwatkin et al (2000).

Table 3.11: Child mortality rates by strata, 1992 and 2001-2002

	Infant and child mortality		Under-five mortality		
	ZDHS 1992	ZDHS 2001-02	ZDHS 1992	ZDHS 2001-02	Percent change
Urban	78	77	150.8	140	-7.2
Rural	115.8	103.0	201.2	182	-9.5
Education level					
No education	115	108	204	198	-2.9
Primary	99	99	182	177	-2.7
More than primary	79	70	135	121	-10.4

Source: CSO and ORC Macro (2003).

Table 3.12: Unemployment rates, 1986-2003 (percent of labour force)

Year	Zambia	Rural	Urban
1986	13	11	19
1991	22	14	34
1993	20	14	33
1996	15	9	29

Note: Relevant age starts at seven for 1991 and 1993 and twelve for 1986 and for 1996 onwards.
Source: Mission calculations from GRZ [CSO] 1986, 1993, 1996, 1998 and 2004.

Table 3.13: Changes in employment status, household survey data: 1986-2003 (percent of labour force)

	Self-employed				Unpaid family workers			
	1986	1996	1998	2003	1986	1996	1998	2003
Zambia national	69	51	55	60	5	27	27	20
Urban	81	55	59	67	5	36	35	26
Rural	33	40	42	40	4	4	4	3
	Employees				Employers			
	1986	1996	1998	2003	1986	1996	1998	2003
Zambia national	25	21	17	20	1	1	0	0
Urban	13	9	5	7	0	0	0	0
Rural	61	54	52	56	1	1	1	0

Note: Figures for population twelve and older.
Sources: Mission calculations from GRZ [CSO] various years 1986, 1997, 1998 and 2004.

Table 3.14: Changes in employment status from household survey data: 1991-1993 (percent of labour force)

	Self-employed		Employees		Employer		Unpaid family worker	
	1991	1993	1991	1993	1991	1993	1991	1993
Zambia national	41	43	25	18	0	0	30	37
Urban	49	48	6	4	1	0	41	48
Rural	23	29	63	62	0	1	3	6

Note: The remnant to 100 is accounted for 'other' and 'not stated'; figures for population of seven and older.
Source: Mission calculations from GRZ (CSO) 1991 and 1993.

Table 3.15: Changes in employment status from census data: 1990-2000 (percent of labour force)

	Self-employed		Employees		Employer		Unpaid family worker	
	1990	2000	1990	2000	1990	2000	1990	2000
Zambia national	27.3	39.7	30.6	18.3	1.8	0.4	37.4	41.6
Urban	31.2	42.1	11.3	6.3	1.0	0.2	54.3	51.4
Rural	20.2	32.5	66.2	54.5	3.2	0.9	6.4	12.0

Source: Census 2000.

Table 3.16: Percentage distribution of employed persons 12 years and older by employment status, rural/urban and sex. Zambia, 2002-2003

Employment status	Total			Rural				Urban		%Distribution of employment
	All	Male	Female	All	Male	Female	All	Male	Female	
All Zambia, % and 000's	100	100	100	100	100	100	100	100	100	3,517
Self-employed	60	63	57	67	77	57	40	32	54	59.7
Employed by: Public sector										
Central govt	5	6	4	2	3	1	14	14	14	4.9
Local govt	0	1	0	0	0	0	1	2	1	.5
Parastatals	1	2	0	0	0	0	4	6	2	1.3
Private sector	10	15	4	3	5	1	27	35	15	9.8
NGOs	0	0	0	0	0	0	1	1	1	.3
Embassies	0	0	0	0	0	0	0	0	0	.1
Household	2	2	2	1	1	0	5	4	6	1.8
Employer	0	0	0	0	0	0	0	0	0	.0
Unpaid family worker	20	8	32	26	12	39	3	1	5	19.6
Piece worker	2	3	1	1	2	0	4	5	1	1.7
Other	0	0	0	0	0	0	0	0	0	.2

Source: LCMS III 2002-2003 (GRZ CSO 2004).

Table 3.17: Employment by sector of principal occupation, 1986 and 2003 (percentages)

	Total		Rural		Urban	
	1986	2003	1986	2003	1986	2003
Agriculture, Forestry and Fisheries	66	72	15	15	84	93
Mining and Quarrying	3	1	9	5	0	0
Manufacturing	5	3	12	10	2	1
Electricity, Gas and Water	0	0	1	1	0	0
Construction	2	1	5	4	1	0
Commerce, Hotels and Restaurants	10	10	23	28	5	4
Transport and Communications	2	2	6	5	0	0
Finance and Insurance	1	1	3	5	0	0
Communications and Social services	9	9	22	27	4	2
Not stated	3	0	4	0	3	0

Note: In order to keep consistency between both sources we have used the 1986 sector definitions and adjustments were made on the 2002/03 data. Thus, trade accounts for a single sector in the 2003 original source, but here it is added to Transport and Communications. Percentages less than 0.5 entered as zero.

Source: Own elaboration from GRZ (1986) and GRZ (2004).

Table 3.18: Distribution of the population 12 years and above by main economic activity, and various categories, 2002-2003

Categories	Economic status (in percent)					Population 12 & older
	Labour force		Inactive population			
	Employed	Unemployed	Full time student	Retired	Other	
Total (000's)	59	11	27	2	1	5,814
Sex						
Male	59	11	29	1	1	52
Female	60	12	26	2	1	48
Demography						
Rural	69	4	25	1	1	63
Urban	42	24	32	2	1	37
Categories						60
Farmers						
Small	70	3	25	1	1	59
Medium	62	2	34	1	1	1
Large	65	1	34	0	0	0
Non-agric urban cost Areas	66	10	20	2	2	3
Low	42	25	30	2	2	37
Medium	38	20	39	2	1	28
High	42	18	37	2	1	4
Province						5
Central	63	8	26	1	1	11
Copperbelt	43	24	30	2	1	17
Eastern	75	3	20	1	1	14
Luapula	67	5	25	2	1	8
Lusaka	44	23	31	2	1	14
Northern	67	4	28	1	1	12
North Western	61	7	30	2	1	6
Southern	58	7	34	1	1	11
Western	69	5	24	1	1	7

Figure 3.1: GDP and the International Copper Price, 1955-2000

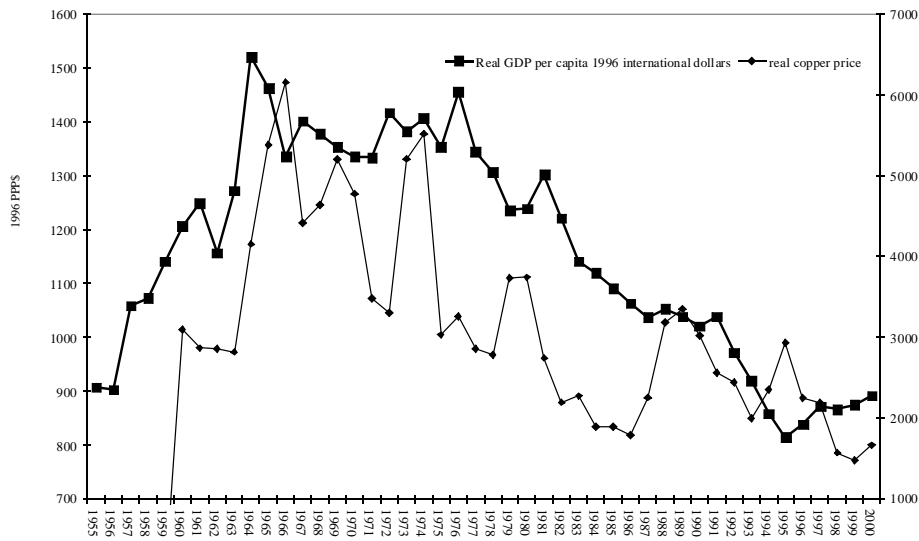
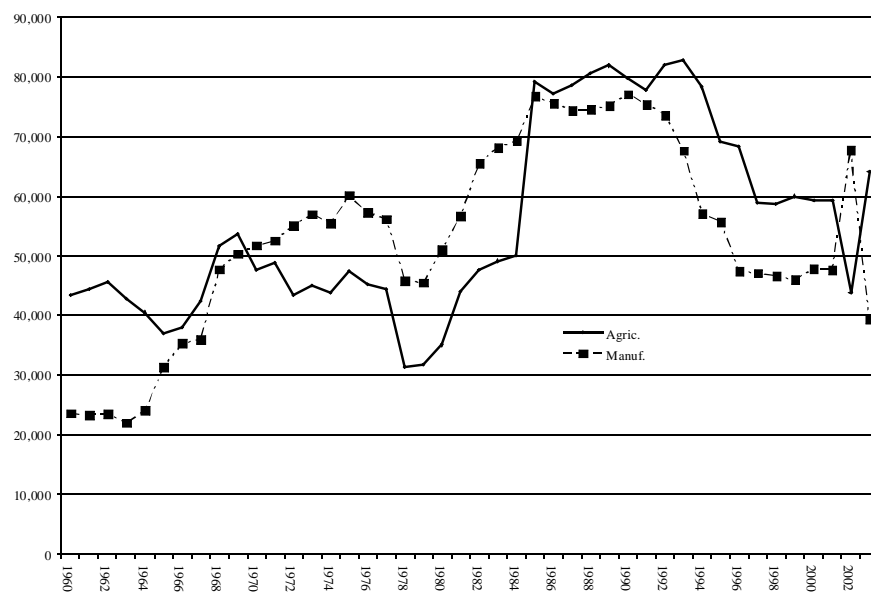


Figure 3.2: Formal sector employment in agriculture and manufacturing, 1960-2000



Annex

3A.1 Methodology and Data

Consumption-based poverty estimates

The household surveys since 1991 resulted in a number of reports and publications with quantitative and qualitative analysis (GRZ 1997; GRZ 1999, GRZ 2004, McCulloch et al. 2001, Thurlow and Wobst 2004, Miti et al. 1997, Kapungwe 2004; Milimo et al. 2002).⁶³ There are problems in using evidence from different surveys in order to assess differences in profiles and incidence trends, which raise the question whether the data and statistics based on them should be considered reliable information. Strictly speaking only the surveys 1991-1996-1998 are statistically comparable for trends. The 1993 survey was carried out immediately after the major annual harvest, while the other three surveys were undertaken during the so-called 'hungry season', well before the major harvest. Since expenditure estimates derive from one-month and two-week recalls by informants, and expenditures are strongly seasonal, comparing the hungry season with the post-harvest is likely to generate systematic errors. The 2003 survey collected representative information for three of the quarters, and the poverty head-count ratios that result differ significantly among quarters, as Table 3A.1 shows (see also Table 3A.2). The implication is that surveys organized in different periods may well yield different poverty estimates that merely reflect seasonality of consumption rather than real trends.

Most poverty indicators used by the government and by others are based on reported consumption expenditure and income. There is a vast literature on the relative merits of these welfare indicators, which will not be discussed here. It is sufficient to note that consumption expenditure, while it varies less over time than income, is affected by seasonal fluctuations that may not be randomly distributed across households. Qualitative evidence shows that one of the most important coping

strategies of poorer households is to reduce and change the pattern of food consumption. Thus, in some seasons, particular groups of households will display significantly lower consumption levels than the annual average. One of the most important problems with consumption estimates is that they normally rely on the memory of respondents for items that are very difficult to recall. Extrapolations can yield significant measurement errors, the magnitude and bias of which are difficult if not impossible to calculate. As a result, poverty analysis increasingly uses asset-based indices to rank wealth, which seem consistent and often more reliable than current consumption information, because information on asset ownership (radio, TV, bicycle, farm implements, housing conditions) are easier to collect and verify. For example, demographic and health surveys (DHS) have used this method in recent years, permitting a disaggregated analysis of health and other social indicators by wealth quintiles.⁶⁴

Data from DHS thus provided a consistent and reliable disaggregation of information for Zambia in 1996 and 2002. Conversely, there have been some significant anomalies in consumption estimates in a number of household surveys, particularly the base survey of 1991, in which estimates for the bottom of the distribution seem biased and unreliable.

Another problem in the calculation of poverty measures is the choice of the time period and spatial price indices. Despite household surveys collecting information on local prices through parallel surveys in local markets for average prices of items, unit prices may vary considerably. Especially in a liberalised context in which local prices, particularly for food, fluctuate; assumptions about relevant prices for each household are frequently arbitrary. The construction of price indices then becomes an imprecise and biased exercise. In any case, the poverty survey and LCMS surveys in the 1990s did

3 not collect the price information required to adjust for differences in the cost of living across regions (GRZ 2004, 153). Whether one adjusts consumption estimates by spatial or temporal price fluctuations makes a considerable difference. Miti et al. (1997) re-calculated poverty measures for the 1993 and 1996 surveys with the use of alternative price indices. Although trends did not change dramatically, overall levels of poverty incidence, depth and severity were substantially reduced. Moreover, the ranking of provinces by poverty indicators was affected, and estimates for two provinces changed remarkably (Northern and Central).

A further problem, particularly for the comparison of surveys, lies in sampling procedures. Surveys during the 1990s used the Census 1990 as the sampling frame. However, the surveys six and eight years later almost certainly contained errors due to the out-of-date sampling base. Given that the 1990s was a period of recession and upheavals, one would expect that people became more mobile. This is confirmed by the high incidence of migration found in the various survey reports (GRZ 1994a); In this context of rural-rural and urban-urban movements, the 1990 Census may have been inadequate as a sampling frame, particularly for 1998. Thus the reliability of sampling weights used in later surveys (1996 and 1998) may also be questioned.

Moreover, the surveys mentioned varied in coverage, so the representativeness of the samples also varied. There were significant improvements in sample coverage both in 1998 and 2003 compared to previous surveys, in particular the availability of sampling frames at district levels (Kapungwe 2004, 484 and Table 3A.2).

As mentioned above, the seasonality of consumption was not captured in the same way across the five surveys (Table 3A.2). The LCMS III report states the problem clearly (GRZ 2004, 4):

Since 1991, the country has been utilizing cross-sectional sample data to monitor the well-being of the Zambian population, as was the case with

the 1996 and 1998 LCMS surveys. However, these surveys have had limitations in that the survey design does not capture changes in welfare due to seasonal variations. The LCMS surveys were conducted during the last 2 months of the fourth quarter of the year when the majority of households become food insecure. Furthermore, the previous LCMS surveys captured household expenditure data using the recall method, which is prone to omissions resulting from memory lapses.

The shortcomings of surveys of the 1990s prompted the CSO and the World Bank (WB) to undertake an Integrated LCMSIII Survey, conducted over twelve months between November 2002 and October 2003 (GRZ 2004, 156). The resulting LCMS 2003 was thus designed to take seasonality into account. The apparent drop in poverty by five percentage points could be due to the survey improvements and the effect of seasonal patterns inadequately treated in previous surveys. It is worth comparing the results in LCMS III with those of LCMS II for the same season. In 2003 poverty incidence for the last quarter was seventy-one percent, while the annualised estimate was sixty-seven percent, showing a drop in poverty from 1998. However, if one only considers the estimate for the last quarter there is virtually no fall in poverty incidence in the same period, seventy-three compared to seventy-one percent.

Tables 3A.1 and 3A.2 are illustrative of the problems encountered when comparing surveys of different design and period of implementation. Most researchers using poverty data completely ignore this crucial aspect. The percentage for the 'extremely poor' grew in the last quarter, which coincides with the 'hungry season', or plating period, during which food stocks are depleted and cash income low. Different households were sampled in each period implying that these seasonal patterns may also carry errors of sample specificity; i.e. there may be statistically significant differences between household groups other than for consumption seasonality if, for example, richer farmers were interviewed in the first

quarter compared to other quarters. Other problems that make comparisons difficult between expenditure results in 1991 and 2003 are the following: 1) questions were not asked in the same way; 2) there was a difference in the items included in different expenditure groups in 1991 and 1998 (Thurlow and Wobst 2004; and GRZ 2004, 162); 3) the 1991 survey results contained a substantial number of urban and rural households with implausibly low food consumption levels, which would lead to an overestimation of improvements between both surveys (McCulloch et al. 2001, 16); 4) the sample coverage was different and the survey period not exactly the same for the same areas across surveys; 5) comparisons among surveys in the 1990s were based on a common food basket established in 1991, and other evidence suggests that consumption patterns changed during this decade. The 2002/03 report points out that the 1991 basket was biased towards consumption patterns in urban areas, which may explain some of the extreme values obtained from rural areas (GRZ 2004, 161).

In summary, the effects of altering parameters in the databases, excluding extreme cases, using different consumption equivalence scales, and the application or omission of regional price indices can have significant effects on poverty measures making comparisons very problematic.⁶⁵ Estimating the quantitative effect of different sampling and questionnaire designs on the various poverty measures is beyond the scope of this report. Some of this work has been done elsewhere for 1991 and 1998 surveys (McCulloch et al., 2001). The vast literature on poverty has drawn attention to these methodological issues and the care one needs to take when deducing poverty trends from different surveys (see Howes and Lanjow 1997; Lanjow and Ravallion 1996).

Alternative measures of poverty trends

Another useful indicator of long-term material welfare is ownership of some basic and luxury assets, usually consumer durables

(TV, radio, bicycle, motor vehicle) or means of production (plough, canoes, carts, tractor). In a situation of deep recession one could expect divestiture in some cases, i.e. a decreasing proportion of households owning particular assets. Otherwise, over time one expects ownership of basic assets usually to increase especially when initial levels are low or when availability of these goods was limited in the past. A glance at the data for 1993, 1996, 1998, and 2003 shows a mixed picture. Overall, there is some improvement between 1993 and 1998 and a deterioration, or reduction, in asset ownership between 1998 and 2003, which seems to counter consumption-based evidence. For rural areas it appears that ownership of most assets increases until 1998, notably for bicycles, but then it decreases. This is true for different population strata, including the 'ultra-poor', whose ownership of bicycles increased from twenty-three to thirty-three percent between 1993 and 1998 (and that of radios too from twenty-three to thirty percent). However, ownership of a basic and important farm implement such as a plough has reduced consistently between 1993 and 2003, which is a sign of crisis among a large number of rural households. Moreover, there is no systematic evidence on the availability of oxen in rural areas, a basic asset for agricultural activities; but, other sources point to an alarming and growing scarcity since the late 1980s, partly because of the drought, and partly because of the role of animal sales as a coping strategy for the poor (Milimo et al. 2002; Deininger and Olinto 2000).

Reductions also apply to canoe ownership, another item that is more typical of poorer rural households in certain areas of the country. Data on assets from the various household surveys also confirm the high levels of inequality discussed in this chapter, both between urban and rural areas and within rural areas.

Finally, qualitative and participatory research has overwhelmingly shown that households, both in urban and rural areas

generally perceive a marked deterioration of their living conditions (GRZ 2004; Milimo et al. 2002; Larmer 2005). Only medium-scale rural farmers seem to acknowledge a recent improvement in their living conditions (Table 13.10 in GRZ 2004, 174). Thus, perceptions on poverty status and its causes vary between rural and urban areas in 2003. In the former, households are particularly concerned about the lack of farm implements and cattle/draught animals. In the latter, low wages and pensions and lack of employment opportunities are often cited as reasons for poverty. If we compare between different surveys (1991, 1996, 1998 and 2003), there is evidence that the proportion of households reporting having resorted to 'coping strategies' in situation of distress increased in the same period. For example, the reporting of 'reducing food intake or number of meals' increased from fifty-nine percent in 1996 to seventy-five in 2003 as well as the reporting of 'piecework on farms' and 'other piecework' from twenty-eight and twenty-two percent respectively in 1996 to thirty-seven in both cases in 2003. Between 1991 and 1996 similar increases had been reported. These trends were also consistent with systematic increases in the proportion of expenditure on food, especially among the poorest strata of the population, as reported in successive poverty profiles (GRZ 1997 and 1999).

Formal employment statistics

Employment modules in LSMS surveys are constrained by methodological choices that do not allow a more disaggregated and context-specific picture of labour market patterns and changes. In fact, the reliance on 7-day recall questions for employment status and occupation, and on the dubious notion of 'main' and 'secondary' activity in a highly heterogeneous context, characterised by multiplicity of occupations, irregularity and seasonality of most non-formal regulated activities, and by variable levels of remuneration, is unconvincing if one is seriously interested in analysing labour mar-

ket trends.⁶⁶ Moreover, information about recorded 'formal sector' employment derived from quarterly registered firm-level surveys and LCMS also presents inconsistencies as discrepancies exist among different sources of employment data (CSO Quarterly Digest and LCMS). In fact, not all the nearly 600,000 people who are reported as 'formal sector' employed in the latest 2002 /03 LCMS appear in the labour statistics. The latest figure available (2003) from Quarterly Employment and Earnings Inquiry is 416,000 people. Part of the discrepancy may come from the fact that LCMS III classifies 144,000 small-scale farmers and 6500 medium-scale farmers as pertaining to the 'formal sector', while the other source only accounts for 64,000 agricultural employees, surely wage workers in large- and medium-scale commercial farms. Besides, the Quarterly Inquiry collects data from registered companies included in the CSO list, which may exclude some that are captured by the latest household surveys, which is not designed to discriminate between establishments, if not in terms of size, for the purposes of the formal/informal dichotomy. These discrepancies may be unsurprising, given the problems and differences in employment reporting systems and the resulting inconsistencies, but the margin of error is still quite large.

The 'informal' economy

In line with much of the work on the informal economy we argue that its heterogeneity prevents any generalisation about trends and any stark contrast between organised (and regulated) and unorganised (unregulated) economies in Zambia as in any other developing country.

A growing literature on the heterogeneity of the informal sector as a source of employment is available (Bremner 1980, Maloney 2004).⁶⁷ Notwithstanding this heterogeneity, Milimo et al (2002, 23) among other authors (Kamya 1994, for example), argue that the informal employment in Zambia, especially in urban areas,

can be considered rather a second-best or last resort survival strategy than a true accumulation-driven choice for the majority of households and individuals involved.⁶⁸

Some patterns of participation in informal activities are shaped by age and gender. Women are more likely to engage in beer brewing, knitting, hairdressing and pottery whereas adult men often get casual jobs in brick laying and thatching (Milimo et al 2002, 23). Given the size and significance of the informal (unorganised) sector, more micro-level information is needed to distinguish between those pockets that show signs of dynamic accumulation and profitability with positive employment implications and those pockets most typically associated with deprivation and marginalisation. According to some sources, individuals with previous wage employment in formal establishments or beneficiaries of retrenchment packages have managed to succeed in sustaining petty businesses more than others (Kamya 1994; Milimo et al. 2002; PAG 1999).

3A.2 Technical Aspects of Poverty And Inequality

Density functions and growth incidence curves

As suggested in this chapter, the literature on poverty trends in Zambia relies much on comparisons between cumulative density functions (CDF) of consumption expenditure. A CDF represents (definition) the cumulative distribution of ranked expenditure values from poorest to richest. The vertical axis displays the proportion of the population with PAE expenditure below the value given on the horizontal axis. In this graph poverty lines can be plotted as vertical lines from the expenditure-equivalent of the poverty line.

The analysis of poverty trends with CDF by McCulloch et al. (2001) took out 552 households of about 9800 households, or slightly less than five percent of the original sample. Thurlow and Wobst (2004) use the McCulloch database, also excluding

these low values on the grounds that their implied food consumption levels were implausibly low. When the latter estimate growth incidence, curves drop a further 7.7 percent from the McCulloch sample by eliminating households whose PAE expenditure was ten percent below the lower poverty line. Given that the lower poverty line states the minimum food basket, ten percent was a low figure and one could plausibly assume that people at lower consumption levels were effectively starving to death.

On the basis of the original 1991 sample (not the McCulloch clean version) we applied the same rule (below ten percent of the extreme poverty line) and as a result 941 households would be dropped, i.e. 9.6 percent of the original sample (see Figure 3A.1 and 3A.2). We do the same for the 1998 PAE expenditure distribution but the number of households dropped is far smaller than in 1991 (only two percent of the original sample). After dropping these bottom end outliers, the CDF curves look somewhat different and they cross each other at a much lower level of PAE expenditure, around the thirty percent of population cumulative distribution. In fact, the initially observed effect of an improvement for the bottom third of the population becomes an improvement for a much smaller proportion, around one fifth.

Growth incidence curves become flatter, suggesting a less markedly pro-poor growth/recession. For the rest of the distribution, real PAE expenditure levels were lower than in 1991, so households suffered from an absolute recession in consumption levels. With the 'clean' samples, poverty more unambiguously increases between 1991 and 1998 and inequality is only reduced from 0.57 to 0.55 (instead of from 0.61 to 0.55 with the original samples). In other words, by dropping these very implausible outliers the overall situation seems relatively worse in 1998, even if a small proportion of the very poorest manage to improve their living standards, albeit from an extremely low base (i.e. PAE expenditure levels that are a frac-

tion of the extreme poverty line). If the CDF for one year (1998) lie above the CDF for the other year (1991) this shows a deterioration of conditions (lower mean expenditure levels) for the part of the population concerned. If a CDF for one year is always above or to the left of the CDF for another year this means that poverty will be higher for that year independently from the poverty measure chosen (in monetary terms). If the two CDFs cross one another, this means that mean expenditures have gone in opposite directions for different groups of people.

Another way of viewing poverty trends is with growth incidence curves. These graphically pair average growth rates of per capita (PAE) consumption (from two or more data points) with ranked percentiles of the population (from poorest to richest) thereby showing the pattern of growth associated with poverty levels. In Figure 3A.3 below, the impact of low outliers is very dramatic. Dropping outliers makes the curve flatter and less relatively pro-poor. Note that from this curve we can also observe that from the third decile of ranked population average growth is negative indicating that at least seventy percent of the population suffered from absolute real consumption expenditure reductions in the 1991-98 period.

Lorenz curve

The Lorenz curve illustrates the shape of income or consumption distribution by plotting the ranked cumulative population with consumption/income values. It shows the proportion of the total expenditure on the vertical axis spent by the proportion of the population on the horizontal axis. The graph displays a 45° line that represents perfect equality (all individuals have the same expenditure). The more distant the Lorenz curve is from this line the greater the level of inequality. Two Lorenz curves can be compared by plotting and superposing them on the same graph, so that changes in distribution can be observed

independently from the mean expenditure. If they do not cross each other and one (1998) lies everywhere above the other (1991), it may be concluded that 1998 distribution is less unequal (more equal) than 1991 distribution. When lines cross, this means that distribution has improved for one part of the population while it has worsened for the other. The chart below shows a very slight improvement in consumption distribution between 1991 and 1998 although levels of inequality remain quite high.

63 There is also a series of studies supported by the Zambia Social Investment Fund based on analysis of official household survey data or on other micro-level topic-specific surveys such as Miti et al. (1997) and Milimo et al. (2002).

64 On the advantages of asset-based poverty measures and the problems with consumption expenditure data collection and analysis see, for example, Sahn and Stifel (2004), Filmer and Pritchett (1998), Gwatkin et al. (2000), and Sender (2003).

65 See Table 3.1 for different poverty estimates from the same databases and Miti et al. (1997).

66 See Standing et al. (1996) on some of the methodological problems in data collection for employment/labour market information in low income, especially SSA countries.

67 On the heterogeneity of the urban informal sector in Zambia and formal-informal employment linkages, see Kanya (1994).

68 The most frequent activities reported (street vending, hawking, backyard farming, and some 'illegal' occupations like prostitution or petty crime) and the generally bad perceptions that respondents attach to them suggest they are not real choices. The most frequent activities reported (street vending, hawking, backyard farming, and some 'illegal' occupations like prostitution or petty crime) and the generally bad perceptions that respondents attach to them suggest they are not real choices.

Table 3A.1: Incidence of poverty by survey quarters and poverty status, Zambia, 2002/2003

Categories	Categories (figures in % total population)			
	Extremely poor	Moderately poor	Total poor	Non poor
Annual average quarters	46	21	67	33
First	40	22	62	38
Second	41	24	65	35
Third	46	22	68	32
Fourth	52	19	71	29

Source: GRZ, CSO (2004)

Table 3A.2. Living Conditions Monitoring Survey, periods covered

Survey	Period	Sample size	District coverage	Poverty incidence
SDA priority survey I 1991	October-November	9950 (9886)	57	69.7
SDA priority survey II 1993	April-June	10200 (10212)	57	73.8
LCMS I 1996	September-November	11800 (11752)	57	69.2
LCMS II 1998	November-December	16800	72	72.9
LCMS III 2002/03	Year round		72	67

Source: Author's elaboration from GRZ [CSO] 2004, 1998, 1997 and 1993

Figure 3A.1: CDF consumption 1991 and 1998, original sample

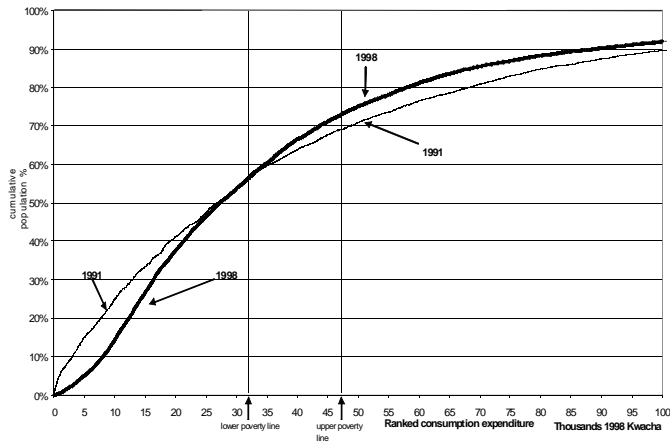


Figure 3A.2: CDF consumption 1991 and 1998, 'clean' sample

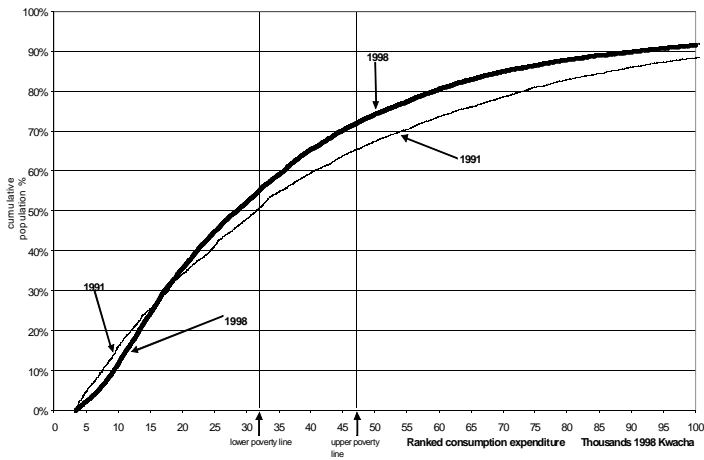


Figure 3A.3: Growth incidence curves 1991-98, with and without low outliers

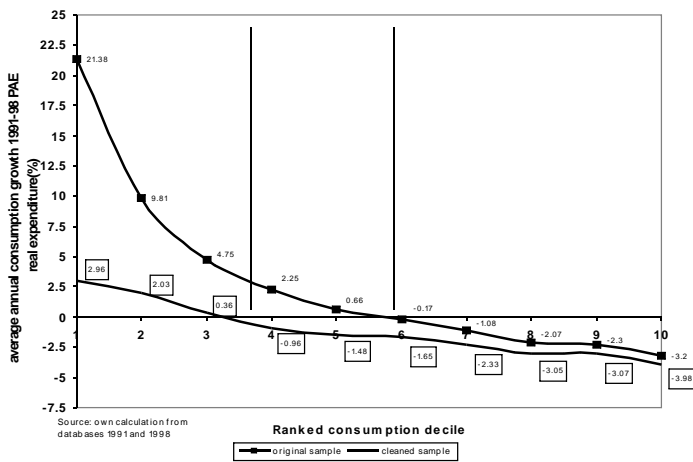
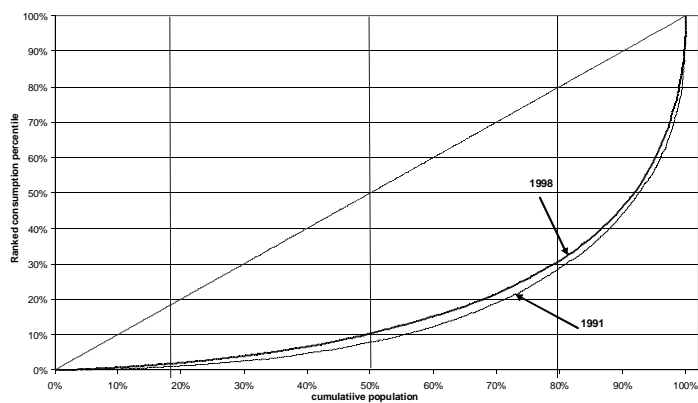


Figure 3A.4. Inequality compared: Lorenz curves 1991-98: clean sample (low outliers dropped)





4 ~ A Development Strategy for Zambia

4.1 Introduction

Zambia is a small open economy, and dependent on the export of a primary commodity, copper, whose price has been unstable and in decline until recently. In the 1980s this made the country dependent on external borrowing to alleviate its balance of payments difficulties, and subsequently even more dependent to service that debt. The burden of debt service was and remains the most important contributor to macroeconomic instability, sustained growth and poverty reduction.

The immediate post independence years, 1964-1968, were characterised by excess of foreign exchange. During this period growth was constrained by lack of skilled workers, so that Zambia was unable to productively absorb its export earnings (see also Mkandawire 1994). This is followed by the foreign exchange constrained period, 1969-1984, when increased government investment, intended to diversify the economy, resulted in an import dependent manufacturing sector.

This import dependence and a decline in copper prices led to a chronic shortage of foreign exchange, and hence growth was

constrained. The binding foreign exchange constraint persisted in to the 2000s.

The primary cause of the persistent constraint was the collapse of the copper prices, and an inappropriate policy framework in the 1990s that made the constraint stronger. The adjustment measures to address these problems aggravated them. These pressures were based on the view that Zambia's foreign exchange constraint arose from policy-induced distortions, when the causes were of a structural nature that created obstacles to the effective operation of product and factor markets. The fundamental constraints included: (a) the dominant role of copper and the collapse of its price internationally; (b) a weak skill base at independence; (c) excessive optimism that led to the anticipation of a reversal in copper prices, and the mounting indebtedness that resulted from that unrealised reversal; (d) and an uncontrollable fiscal deficit also resulting from the fall in the copper price (Mkandawire 1994).

With copper no longer dominating the economic to the extent it did in the past and the skill shortage reduced by the disastrous fall in employment in mining and manufac-

4 turing, the fiscal deficit asserted its primacy as the binding constraint in the 2000s. In other words, if the foreign exchange constraint were somehow relieved, perhaps by rapid rejuvenation of the copper price as the government hopes, the fiscal constraint would have been binding. Both the foreign exchange and the fiscal constraint arose from the same source, the fall in the copper price. The need to diversify the economy remains as great in the 2000s as it had twenty and thirty years earlier. Indeed, were the predictions of a rapid recovery in mining to be realised, Zambia would come full circle in its decline: from a middle income country excessively dependent on copper to a low income country excessively dependent on copper.

This section suggests an approach for a pro-poor growth and development strategy. The chapter does not intend to provide a detailed sectoral policy analysis and recommendations. Instead, we do so with reference to the agricultural sector, which has recently been singled out as a key driver of growth and development in Zambia. A more detailed analysis of the manufacturing and services sector is called for, given its future strategic importance, as argued here, but it is beyond the scope of this study.

4.2 A Growth and Development Strategy for Zambia

The discussion of a growth strategy for Zambia, and for any country, must be based on the principle that the full participation of both women and men in the development process is essential. Emphasis must be given to policies that enhance women's access to the means of production, especially land, and their participation in employment and income generating activities (GRZ, 2002b). For this reason, a gender-differentiated assessment of programmes is important for the success of a development strategy for Zambia. We regret that the information to make such an assessment is largely absent. Therefore, a high priority for

the government should be to collect systematically the information that would show the gender-differentiated gains and losses in the development process.

To the extent there was a formulation of development policy in the 1990s, agriculture was been singled out as a key sector, coinciding with the deepening of the crisis of the adjustment years. Few would deny that policies to foster an internationally competitive agricultural sector would be one part of a strategy for sustainable growth and poverty reduction in Zambia, but not the keystone of that strategy. Similarly, the rejuvenation of the mining sector during the 2000s indicated that mining could play a major contributing role to a sustainable growth strategy; however, as with agriculture, mining would not be the central element of that strategy. In this the section, the basis of these judgements are explained, and an integrated strategy proposed.

The objective of the government is a sustainable and rapid growth rate that maximises poverty reduction; that is, sustainable growth for which the elasticity of poverty reduction with respect to growth is high. Sustainability can be considered as the necessary condition for both, rapid growth rates over time and similarly rapid poverty reduction. Over more than forty years the growth of the Zambian economy was neither rapid nor sustained. As demonstrated in previous chapters the non-sustainable nature of growth derived directly from the instability of the international copper market. Copper was not unique in this regard, and the experience of other sub-Saharan countries shows that the diversification of mineral exports, anticipated with the emergence of precious gem production, would not generate stable and sustained growth. On the contrary, should Zambia return to an economic structure in which mineral production is the driver of growth, the result would be a return to the similar structural imbalances that generated the imbalances of the 1960-1990 period that fostered a crushing debt burden. Therefore,

if the mineral sector exhibits the boom some predicted for the future, it should be welcomed as a source of foreign exchange and public revenue. However, it should be integrated into a growth strategy in which it plays a supporting, not a leading role.

Assessing the future role of agriculture requires clarity on the fundamental characteristics of the economy and society of Zambia. As a result of the long decline of the economy during 1970-1999, the per capita income of Zambia dropped into the World Bank's low income category. However, at the beginning of the twenty-first century, Zambia's economic and social structure differed substantially from that of the representative low income country. In the 1990s and early 2000s, Zambia retained many of the labour force characteristics of its earlier middle income status.⁶⁹

While there are countries with middle income labour force characteristics that have large agricultural exports, for example Argentina, there are no such countries with successful growth strategies based on agriculture. There are simple and straightforward reasons for this. First, middle income countries export agricultural products through high productivity, with production usually organised on the basis of wage labour and larger scale enterprises, not smallholders. As argued below, agribusiness would be Zambia's route to successful competition with South African agriculture.

Second, middle income countries tend to have an educated labour force, and their competitive advantage lies in skilled and semi-skilled workers. This, in turn, implies that employment expansion occurs in non-agricultural sectors, while productivity increases in agribusiness reduce agricultural employment. Therefore, for Zambia to pursue a strategy of agriculture-led growth would imply either rising unemployment as productivity grew or wasting the skills of its labour force.

Such a strategy would be contrary to all historical experience of successful development. This analysis suggests that an appro-

priate strategy for sustained growth and poverty reduction in Zambia should include the rejuvenation of the manufacturing sector, to avoid the instability of mineral dependence and the poverty trap of leaving most of the rural population in smallholder agriculture. The rejuvenation of manufacturing will be a major policy challenge, given the openness of the economy and the structural factors that affect Zambian manufacturing competitiveness, notably high energy and transport costs and excessive import dependence. There can be little doubt that the radical and rapid reduction of tariffs and non-tariff barriers, along with the abandonment of all aspects of industrial policy in the 1990s dealt a devastating blow to the manufacturing sector. Had a degree of protection been maintained on a selective basis, and effective elements of industrial policy continued, the sweeping privatisation could have been consistent with strengthening the country's manufacturing base.⁷⁰

Using tariffs to foster manufacturing would be precluded by the provisions of the government's regional trade agreement, as would a number of non-tariff instruments. However, as Amsden (2006) showed for a number of Asian countries, policy imagination and negotiating skills can counteract the limitations posed by regional and multilateral trade agreements. Thus this limitation on industrial policy requires an imaginative approach to reconstructing the country's manufacturing base, in which policy would aim to reduce domestic production costs relatively to the price of competing imports. Measures to achieve this could be within a strategy of linking manufacturing to the country's primary sectors, agriculture and manufacturing.

The tactics to implement the strategy would include public investment in infrastructure to reduce costs of transport, electricity and water; credit directed to priority sectors (agribusiness and resource-linked manufacturing); long term government procurement contracts for the priority sectors; and government supported on the job

training. These did not discriminate between foreign and domestic owners, and would be acceptable under WTO rules and regional trade agreements.⁷¹

The non-interventionist approach to strategy would at best result in growth based on minerals and commercial agriculture. This would leave the economic future of the country hostage to the shocks of mineral and agricultural prices and the uncertainties of the climate. If poverty would be reduced within the time frame of the MDGs, indeed, if poverty would be more than marginally reduced over that time frame, a purposeful, integrated growth strategy is required that fosters an efficient manufacturing sector. Such a growth strategy requires well-designed interventions derivative from clear sectoral priorities. Public investment, with its significant crowding-in and linkage effects is the key instrument in that strategy.

4.3 Prospects for Agricultural Development *Agrarian Structures*

With the collapse of mining, the agricultural sector became, by default, the hope for growth and poverty reduction strategy in Zambia. The collapse of manufacturing reinforced this role for agriculture, as reflected in the PRSP for 2002-2004 stating that:

The PRSP sees the [agricultural] sector as one of the driving engines for the anticipated economic growth that is required to reduce poverty. In view of the potential multiplier effects that the agricultural sector has on the economy, the PRSP sees the restoration of its high and sustained growth as constituting a critical step for reducing poverty in Zambia. (GRZ 2002b, 53)

According to the PRSP, the rationales were that a majority of households depended on agricultural production for direct consumption and income generation; that Zambia had great agricultural potential; that GDP growth was correlated with fluctuations in agricultural output; that food security

depended on the performance of the sector; and, that farm productivity and commercialisation of production were low, so measures to enhance yields and facilitate access to domestic and foreign markets would have a substantial impact on rural incomes and livelihoods. These rationales can be found in other PRSPs in sub-Saharan Africa. On first inspection these seem appealing; however, they are oversimplifications in the absence of a thorough analysis of the sector. This section inspects the nature of agrarian structures in Zambia and its implications, and reviews evidence on effects of successive liberalisation packages applied since the early 1980s. Finally, it assesses evidence of the potential and competitiveness of the agricultural sector and the sectoral policies that might enhance poverty reduction.

Despite the heterogeneity of agricultural producers, there is no systematic comparable evidence for different types of farmers, which could be used to assess changes in the agrarian structure, and the relationship between those changes and policy measures. Data on large scale farming is not systematically available, especially on input use, and nor is data on employment, allegedly because response rates are low (Zulu et al. 2000, 3). The existence of a class of middle scale 'emergent' farmers cannot be systematically analysed over time due to the lack of a consistent classification of farmers and data gaps.

In great part as a result of colonial policy, agrarian structures in Southern and Central Africa were characterised by a marked dualism, whereby a rather competitive and technologically advanced commercial sector coexisted with a largely uncompetitive and vulnerable smallholder sector, and Zambia was no exception (Table 4.1).⁷² Smallholders can be found almost everywhere in the country, and the commercial farming sector is concentrated along the main communication networks (along the 'line of rail' and around Lusaka and Copperbelt areas). Recent comparative analysis shows an advantage of large

commercial farmers over smallholder farming in profit per hectare, using different sets of assumptions with regards to input intensity and shadow prices for labour and land when there is no explicit market value. Large commercial farmers were more efficient for a range of crops, especially tobacco, cotton and horticulture, which are input demanding and employment intensive (ACF 2001). It could be argued that large commercial farming was more competitive in marketing, especially after the liberalisation of agricultural markets during the 90s.

Thus, it is analytically useful to dichotomise between middle and large-scale commercial farms and smallholders, the latter themselves being quite heterogeneous. According to the Census 2000, the majority of agricultural households engaged in a combination of activities, crop growing complemented by poultry and livestock. Most were classified in the agricultural census and household surveys as 'small scale farmers'. Often it is presumed that there is no hiring of labour by these households and that production is for on farm consumption.⁷³ However, micro level evidence suggests that scale differentiation within the sector was substantial and might explain the varying fortunes of producers in different parts of the country.

Heterogeneity among smallholder farmers is often explained by access to land, quality and quantity, proximity to markets and road networks, availability of capital and cash income, hiring of labour and diverse income generating strategies. The differences may vary across geographical locations, thus more marked patterns of differentiation may be found in certain ecological and social contexts than others.

Pressures on land were also significant in Zambia, making areas along the line of rail more prone to smallholder differentiation. Access to export markets, through public sector marketing boards or private companies with outgrowing schemes offered more opportunities to small scale commercial producers, thereby exacerbating dif-

ferentiation processes (Milimo et al 2002). There is strong evidence of a concentration of the value of crop production among the approximately eight-hundred-thousand smallholders (category 1 in Table 1, Zulu et al. 2000). The top twenty percent of this group of farmers generated sixty percent of total crop value.⁷⁴ For many 'high value' crops, horticulture, tobacco, sugar, wheat, soya beans, cut flowers and coffee, almost ninety percent of marketed production came from large scale commercial farmers who increased in number after they dropped to an all time low in the late 1960s.⁷⁵ Thus, increases in agricultural production might not have been evenly distributed across classes of farmers. Evidence seems to suggest that the level of concentration may have increased with the reform process (Gibbon et al. 1993; Zulu et al. 2000), a plausible hypothesis given the unequal and increasingly difficult access to assets, inputs, labour and credit over the 1980s and 1990s. There is evidence of existence of a growing class of so-called emergent commercial farmers (again, see Table 4.1) usually within the five to twenty hectare bracket, based on hiring labour from poorer households.

Territorial differentiation was also related to farmers' size differentiation. Eastern and Northern provinces contained one third of all agricultural households in Zambia, mostly small scale, resource poor farmers (Census 2000). These were provinces characterised by climatic vulnerability, and for many crops they displayed below average performances. At the national level, the most popular crops in Zambia were maize, grown by eighty-five percent of agricultural households, groundnuts by sixty-three percent, and sweet potatoes by sixty-one percent (Census 2000). The largest concentration of maize producers was found in Eastern province, which had twenty of all agricultural households growing maize, followed by the Copperbelt with thirteen percent of such farms. Cash crop production was more unevenly distributed by province, though cotton was con-

centrated in the Eastern province.⁷⁶ Tobacco, primarily a large scale crop, was dispersed, but more common in Eastern, Southern and Northern provinces, with some significant presence in Western province as well.

The fastest growth of agricultural households was in Lusaka and Copperbelt provinces, which contain the major urban areas between the Censuses in 1990 and 2000 (Census 2000 Agricultural Report). These were the provinces with the most dynamic agriculture, with non-traditional exports including fresh produce, cut flowers and to a lesser extent tobacco.

This finding is consistent with the pattern of social change that took place during the 1990s. This trend signals a process of '*agrarianisation*', which has to do with initial social structures and high rates of urbanisation, compared to other African countries up to 1990, coupled with the changes during the liberalisation period and the stagnation in urban wage employment.

Constraints on production differ among classes of producers and regions. At a national level, land was not a binding constraint, because of the amount of idle land available in large parts of the country.⁷⁷ However, the value of land varied, due to availability of infrastructure, distance from markets and economies of scale. Thus, in some areas land pressure might be an issue, and access to land constrained. The general rule observed in many countries, that land may be absolutely abundant but scarce for the poor, applies to Zambia. In this context, it should be noted that land titling was an issue largely limited to commercial farmers (Milimo et al 2002 and Skjonsberg 2003). Family labour constrained how much land a poor household could farm, given technology and input constraints; i.e. that many smallholders were too poor to expand their cultivated areas (WB 2004a). Moreover, the land lease system was convoluted and cumbersome (Jaffee 1999).

Labour shortages constituted a major constraint on agricultural production,

particularly for small and medium scale farmers (WB 2004a, 46). Smallholders also suffered from being resource poor and distant from markets, which made access to inputs and market outlets very difficult, if not impossible. Their bargaining power vis-à-vis traders or companies managing outgrowing schemes (i.e. cotton) was low, which put them in a vulnerable position in an environment in which the liberalised markets tended to have barriers to entry (ACF 2001; Scott 2002). Access to finance was a constraint often mentioned by commercial farmers, perhaps because they had easier access than small farmers to markets requiring 'lumpy' expenditures.

In summary, the key features of the Zambian agrarian structures were, first, a competitive large scale commercial sector. This sector was controlled by white settlers before Independence, and then gradually included African and Asian Zambian farmers after the 1970s. After 2001 white farmers expelled from Zimbabwe also had a significant presence. The commercial sector dominated production of tobacco, coffee, sugar, wheat, vegetables, soya beans and flowers. In addition, it accounted for a third or more of marketed maize and cotton. These farms could be highly mechanised and generated demand for substantial seasonal and casual wage labour.⁷⁸

A commercially oriented small and medium scale farm sector emerged, concentrated near urban areas and along main transport networks, in the Eastern, Central and part of Southern provinces. Many of these middle scale farmers, and some small scale ones, were integrated into agribusiness through outgrowing schemes. A lower productivity commercial small farm sector, with an increasing share of cash crops since the 1990s, was concentrated in zones with high agricultural potential. Finally, a semi-subsistence small farm sector located in remote areas away from national markets and vulnerable to production and marketing constraints grew food crops.

Agricultural trends and Policies

The objective of government agricultural policies before the 1990s was to ensure food security, with the emphasis on maize. With growing urbanisation in the 1960s and 1970s agricultural policies sought to maintain low and stable consumer prices for key commodities, like maize-meal (Gibbon et al. 1993; Mkandawire 1993). Maize subsidies, guaranteed government market outlets through marketing boards (the NAM-BOARD), cooperatives and state input distribution schemes, were the main mechanisms to do so during the interventionist period of 1969-1983 (Chiwele et al. 1996). Notwithstanding interpretations of these policies as reflecting an 'urban bias' in favour of a 'labour aristocracy' (Dodge 1977; McPherson 2004, 308)⁷⁹, the Kaunda government invested substantial amounts in the agricultural sector and applied a developmental rather than an extractive approach to agriculture and rural areas (Gibbon et al. 1993; Kydd 1988; Mkandawire 1993, 461).

Nation-wide pricing and subsidies to farmers, both small and large producers, were mechanisms that also favoured more vulnerable and less viable farmers in remote areas of the country. Subsidies on inputs, transport, producer prices and consumer prices accounted for one-fourth of government revenues and 6.7 percent of GDP in 1980 (Gibbon et al. 1993, 86; McPherson 2004, 307). While it is difficult to measure the output effects of subsidies, the resulting increase in maize production probably led to more abundant supplies of maize in deficit periods, benefiting the poorest net maize buying households as found in Malawi which implemented similar policies (Peters 2006). Since one effect of the subsidies was to maintain marginal producers, they did not foster the international competitiveness of agriculture. This conclusion would apply more to commercial producers than to small farmers, since the costs of major inputs of the latter, notably labour, were not market determined.

There can be little doubt that subsidies

and the introduction of high yielding crop varieties had a positive effect on maize production and productivity, particularly in areas of higher rainfall. The objection of the World Bank, the main to the subsidies, was that they represented an excessive burden in the public budget, and once foreign exchange constraints became binding, spending on subsidies would not be sustainable.⁸⁰ In addition, some argued that the subsidies resulted in maize production in areas where this was not a comparative advantage (McPherson 2004, 307; Seshamani 1998), though verifying this hypothesis is elusive. More serious and empirically sound is the hypothesis that support for maize reduced the capacity of the agricultural sector to generate exports. Agriculture in Zambia in the pre-adjustment years was highly import dependent, a drain on, rather than a source of, foreign exchange. Imported inputs, machinery, energy and seed underpinned much of the production by large and medium scale farmers.

The government undertook World Bank and IMF reforms in marketing, pricing, subsidies and the exchange rate in 1982. These came to a halt in 1986 and 1987 after increases in maize prices provoked urban demonstrations that turned violent (Gibbon et al. 1993, 94)⁸¹. Under a government-designed programme unsupported by external agencies, subsidies briefly resumed. This programme quickly collapsed, forcing the Kaunda government to turn again to external agencies, this time to face conditionalities much more severe. Agricultural output and food production trends were positive from 1983 until 1989 (Table 4.2 and see Figures 4.1 through 4.3).

This was partly due to a recovery in maize production after a collapse in the early 1980s and to gradual increases in other crops, cassava, tobacco and groundnuts (Figure 4.2). Reforms in this period were patchy and often inconsistent, responding to the short term trends and the status of negotiations between the government and the international financial agencies.

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Between 1989 and 1995 agricultural value added, food production and maize declined, displaying considerable volatility. This period was one of rapid liberalisation combined with large devaluations, with fiscal austerity and tight monetary policies compounded by the effects of the 1992 drought. By 1993 the Zambian agricultural sector was one of the most liberalised in the continent. Trends appear rather ambiguous if one focuses on the 1990s and early 2000s. Production in general was volatile, especially for maize, but at the same time there occurred a growth of non-traditional crop production. Evidence suggests that the rise in exports was mainly accounted for by large commercial farmers and out grower schemes involving groups of smallholders, particularly in the case of cotton. These exports included tobacco, horticultural products, cut flowers and sugar, which are highly concentrated among large and medium scale commercial farmers in the Central, Southern and Eastern provinces. Horticultural exports grew but not impressively (WB 2004a). The availability of finance, through an export credit scheme funded by the European Union and the World Bank and the arrival of Zimbabwean farmers gave an impetus to large scale commercial farmers, who were concentrated near Lusaka airport (WB 2004b, 19).

Associated with the increase in cash cropping, a change in crop choice among farmers occurred after 1991, especially for smallholders. With the removal of supports, maize production decreased in importance (WB 2004b, 36). In fact, part of the reason for the reduction in maize production in the post-reform period was that 'the artificial comparative for maize was destroyed by price liberalisation' (Seshamani 1998, 545). In areas where cash crops did not expand, other low value food crops replaced maize, notably cassava, groundnuts and other roots in the Northern and Northwestern provinces.⁸² This trend was similar to that in Malawi, where cash cropping expanded at the expense of maize

cultivation and undermined the livelihoods of poor households in the context of harvest failures and increases in local maize prices (Harrigan 2003; Peters 2006).

The reduction in the adoption of fertilisers was perhaps the single most significant effect of agricultural liberalisation (WB 2004a; Deininger and Olinto 2000; Chiwele et al. 1996). As the World Bank commented, part of the collapse in crop production in the first half of the 1990s 'resulted from the government's withdrawal from the highly subsidised marketing of maize and farm inputs' (WB 2004a, 36). This effect had two aspects: fewer farmers used fertiliser, and those using fertilisers applied smaller doses or spread it across different crops. Both effects had a negative impact on the total crop output and productivity.

The fertiliser constraint largely explains the weak supply response of Zambian farmers to the introduction and acceleration of marketing reforms (WB 1993; Deininger and Olinto 2000). This was not due to lack of profitability in the application of fertilisers, which a study for 1993-1995 showed to yield a return of almost twenty percent (Deininger and Olinto 2000). This implies the conclusion that reduced fertiliser use resulted from poor farmers lacking the funds to purchase the input. If fertiliser adoption is profitable at the margin only farmers who can afford to buy a bag will adopt it. Thus, empirical evidence corroborates the obvious: poor farmers benefited little from trade liberalisation and agricultural reforms, as only relatively rich farmers were able to compete in a liberalised environment.

The World Bank concluded that at least a third of smallholders, the poorest people in Zambia, did not benefit from the agricultural reforms since 1991, because of market failure or market absence (WB 2004a, 36). In a report in 2004, one reads,

When the [new] government came to power in 1991, it accelerated the pace of economic reforms. This was done uncritically, and without

studying the implications of the reforms and or making adequate preparations for them. (WB 2004b, 4).

To this it can be added that marketing reforms, rather than stimulating production, tended to marginalise most farmers living in remote areas (Chiwele et al. 1996). These marginalised farmers faced a vicious cycle: the lack of storage facilities and the need for cash to meet increasing expenditures (school fees, blankets for early winter period) forced many farmers to sell at very low prices to the first bidder, given the scarcity of traders in these areas; further lower incomes and increasing prices for inputs meant lower capacity to produce the following season and so on (Seshamani 1998, 550). As a result, the perception of the reforms by small farmers was overwhelmingly negative, especially for those more distant from national and regional markets, with the most negative effects felt by the poor farmers with few farm assets (Milimo et al., 2002).

The gains from liberalisation went to farmers in areas with access to transport. Some small farmers benefited from the expansion of agribusiness through out grower schemes in cotton and tobacco. However, the problem of obtaining credit also affected commercial farmers, a potential source of increased investment and new technologies. The collapse of credit delivery systems left a vacuum partially covered by informal lenders (*kaloba lending system*), who charged interest rates as high as one-hundred percent per month (Chigunta 1998, 254).

The effect of liberalisation of agricultural markets was not entirely negative (Seshamani 1998). There was more competition from small-scale hammer maize millers and a wider range of meal products available to consumers, as well as decreasing marketing costs, once the privileges granted to large-scale urban millers benefiting from subsidized maize prices disappeared. This was especially the case in areas where private traders and millers were more abundant,

i.e. closer to urban centres and infrastructural corridors. Some cash crops and non-traditional agricultural exports expanded from the late 1990s. The main state cotton company was privatised in 1995 and split in two parts. The effect on the cotton market was to convert a state monopsony to a private oligopsony, with three buyers controlling ninety percent of trade in 2002. However, the out grower schemes mentioned above brought benefits to small and medium producers. Thus, the benefits from the changes in the cotton sector arose not from competitive markets, but from a continuation of market concentration under private ownership.

Large scale commercial farmers and corporate agribusiness began adopting out grower schemes as a result of pressure from donors through the government, the experience of transnational distributors in the region (cotton and tobacco for example) and problems in the implementation of the New Land Act, which made access to land a cumbersome process in some areas, especially where land pressure is more severe. Out growing schemes may allow larger commercial farmers to spread the risk and uncertainty involved in seasonal hiring, while they still control a good deal of the production process indirectly, deciding on use of inputs, techniques, crop area and quality of product. A potential problem with these schemes is that payments to farmers follow strict quality standards, and the greater market power of the corporations creates the potential for abuse (ACF 2001).

More generally, the positive performance in a range of cash crops in Zambia under liberalisation is endangered by regional integration and competition from South Africa. In the course of interviews with different stakeholders of the agricultural sector, it became clear that in the 2000s competition from South Africa threatened to bankrupt several agricultural businesses in Zambia. It appears that large retailers, such as supermarkets, do not consider Zambian products sufficiently competitive

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even allowing for the extra transport costs incurred by South African products. For example, orange plantations in the Zambezi valley suffered from the competitive pressure of SA operators and were forced to close down (Milimo et al, 2002, 11). The problems of competition from South Africa have preoccupied the Agricultural Consultative Forum, an organisation representing the interests of commercial farmers, but no policy recommendations have emerged on this strategically important issue for Zambia.

The threat of regional competition was pointed out by the World Bank with reference to the reforms in the 1990s; 'the quick and hasty openness of the economy against the backdrop of state ownership of key producing units, created an "unequal" competition for domestic businesses, which saw many businesses exit the market' (WB 2004b, 5). There was no consensus among commercial farmers on how to deal with the problem, on the one hand favouring product market liberalisation and, and on the other, resisting liberalisation of input and credit markets.⁸³ For example, the somewhat erratic government interventions in maize marketing, input subsidies, fertiliser distribution and other measures in the 1990s, resulted from pressures by powerful farming constituencies coming through the National Farmers' Union (Pletcher 2000).

In summary, the experience of the 1990s carries several lessons for agricultural policy making. First, adequate and generally available credit linked to agricultural investment, especially for large scale commercial agriculture and outgrowing schemes, would be essential for future agricultural growth. Second, diversifying into high value crops can reduce vulnerability and increase employment either directly in large estates or indirectly through small scale commercial growers. Third, with respect to agriculture, the liberalisation and macroeconomic stabilisation policies of the 1990s were badly sequenced structural reforms, creating a shortage of affordable credit.

In addition, the large devaluations

negatively affected import dependent agriculture, allowing little time for producers to adjust. Fourth, the lack of investment in infrastructure, market facilities, credit institutions, and insurance mechanisms made market liberalisation result in limited benefits to small producers. Fifth, a more appropriate policy approach would be to design crop and farm specific policies rather than general 'reform' packages that are difficult to link to concrete outcomes.

Points similar to those above can be found in the PRSP, which was critical of the design of the liberalisation programme, especially during 1989-1994. During that period of 'irrational exuberance' for liberalisation, neither external nor internal policy makers gave much thought to the possibility of market failures (GRZ 2002, 59).

In the mid-2000s, the government faced the issue of how to correct the mistakes of that period. One approach would be to treat liberalisation as irreversible in general and in detail, and just design policies to help those excluded from its benefit; a 'safety net', as it were. Such an approach would have little likelihood of success for several reasons. First, evidence suggests that the non-beneficiaries far outnumbered the beneficiaries, implying that such a programme must be quite large. Second, effective targeting would be administratively impossible because of the intractability of measuring the smallholder incomes.

Considerably more promising would be selective market interventions that in principle would benefit all producers, but are designed for the different circumstances of smallholders and larger scale commercial growers. These are discussed at the end of this chapter. Such interventions would address the structural constraints affecting different types of farmers. The cases of successful adjustment to liberalisation by farmers suggest that agricultural policy must be innovative, flexible and adapted to the particular circumstances of a variety of classes of farmers, processors, traders and regions. Moreover, agricultural policies

should be treated within an integrated strategy that considers the impact of macro-economic measures on different aspects of agricultural development in Zambia. This approach would be consistent with the observation in the 2004 government document on agricultural priorities, that 'it is recognised that it will take time for markets to be fully liberalised and to function efficiently' (GRZ 2004, 11).

Gender Aspects of Agriculture

Shifts in cropping patterns induced by adjustment policies altered the division of labour, and the control over produce and incomes within the household. Small-scale producers tended to rely heavily on family labour, such that the intensification of production increased the workload of women, while they simultaneously had a reduced ability to control the income from sales. In addition, women's independent production remains constrained by lack of access to land, credit, technology and information and, crucially, labour.

The income possibilities for women are further disadvantaged by their lack of access to improved agricultural techniques and inputs such as fertilisers, pesticides, and hybrid seeds, which are crucial to improving productivity. Gender-differentiated access to farm equipment, particularly modern implements, contributes to the differentiation in resources available to female and male-headed households. Women often spend long hours doing arduous agricultural tasks which could be relieved by access to farm implements (ZARD 1985:91). A recent assessment of poverty in Zambia indicated that it was not female-headed households per se who were disadvantaged, but specifically female-headed households lacking male adult support (IDS, 1994:17).

In general, female headed households tend to produce less than other households because of labour constraints, especially for tasks considered men's jobs such as clearing land. Women in general also have difficulty gaining access to credit, training progra-

mmes and extension services. Thus, households headed by women tend to be over-represented among the rural as well as urban poor (Loxley, 1990:75).⁸⁴ Shifts in cultivation have gender implications in terms of control of the crop and income, which vary according to the region and patterns of production.

If a new cash crop is adopted as a direct substitute for maize grown on former maize fields, there is likely to be little change in the control of resources as the crop and the land will be automatically embedded in male-dominated marketing and extension structures and the husband will control the income. This is the case with the adoption of soya beans in Northern Province.

Where land formerly used to produce crops for household consumption is taken over by cash crops, or where a traditional consumption crop gains importance in the cash sector, there is a tendency for men to take control of the income derived from the crop. This is even more likely when, as is the case now, men's incomes from some established cash crops are declining and the costs of meeting their private consumption needs are increasing. This is the case of mixed beans in Northern Province and for cotton and soya beans in Eastern Province. In Eastern Province, cotton and soya beans are increasingly replacing maize, which was an important food crop. As men hold ultimate control over cotton and soya beans, wives have encountered greater difficulties in protecting scarce resources from male demands. The fall in maize production severely threatens the food security of a large number of farming households leading to increasing problems of seasonal hunger (Geisler, 1992:129).

Household food security tends to be dependent on the control exerted by women over land, labour and produce as women are generally held to be responsible for producing for household consumption. As more of these resources are channelled into the cash economy, there is a tendency for men to divert the profits away from the house-

hold and thus for the nutritional standards of the household to diminish.

4.4 Agriculture-driven Growth

According to the World Bank (WB 2004b, 19) 'Zambia is a sleeping agricultural giant, with one of the best land and water endowments in Africa and an above average human resource base, even in the smallholder sector'. In keeping with this enthusiastic assessment, the World Bank concludes Zambia would be internationally competitive on a different number of crops, and that agriculture could be the basis of poverty reducing growth.

This section first considers Zambia's agricultural potential, and the broader question of whether the agricultural sector could be an engine of growth. To begin, it should be noted that agricultural production is a human activity realised in a social context, not merely a natural one derivative from the combination of soil and water.

Appropriate social conditions can render soil of marginal natural endowment highly productive, and the absence of appropriate social conditions renders fertile soil socially useless. Zambia, can potentially be internationally competitive on a number of crops provided a host of conditions are met, but this does not mean all types of farmers in all locations of the country can be part of an internationally competitive agriculture.

As discussed above, it is unlikely that the large number of dispersed smallholder farmers can constitute the basis for an internationally competitive agriculture. Their rain fed agriculture is plagued by high variations in yields, which are exacerbated by inadequate infrastructure, excessive import dependence and lack of insurance mechanisms. These severely limit the potential for the successful development of smallholder agriculture on a nationwide scale. Thus, Zambia, as for Mozambique and Angola, may have considerable agricultural potential, perhaps equivalent to South Africa's in terms of resource base, but the

non-price constraints restrict the emergence of competitive agribusiness, which could generate economies of scale in marketing and foster innovation (Jaffee 1999, 2). The establishment of production and marketing support structures for all or the majority of smallholders would require substantial investment which is itself constrained by the fiscal policies of the 2000s.

The Zambian government, in the PRSP and the most recent Agricultural Policy Vision, has stressed some potentially successful routes: 1) enhancing business linkages between large scale farmers and small scale commercial producers; 2) promoting out-growing schemes; 3) promoting non-traditional agricultural exports to enhance export diversification; 4) lowering production costs and constraints, especially on energy and transport. The sub-sectors and crops for which Zambia's potential has been demonstrated in practice were tobacco, facilitated by the crisis in Zimbabwe and relocation of regional production; horticulture, including cut flowers, concentrated around Lusaka and produced by commercial farmers; and meat and dairy production, whose export potential remains untapped. As noted above, it is not clear that fiscal space at the time of this report was consistent with such ambitious goals.

The agricultural competitiveness reports of 2001 and 2002 show there were major differences in competitiveness across producer types and regions, suggesting that directing investment towards more successful areas and farmers would be the policy most likely to generate an agricultural sector that could be competitive with South Africa. However, the poverty reduction impact of such a strategy could be considerably less than one that included smallholder development. Further, a corporate agribusiness strategy, for all its advantages, is not without problems. Such businesses can easily move operations to other countries, as happened in Zimbabwe, a lesson that the Zambian government should consider seriously. A credible and sustained incentive system to

keep agribusiness investments in the country is essential.

This includes both micro and macroeconomic policies. If a policy of investing in infrastructure in areas of greatest potential were chosen, the Zambian government could take a lesson from South Africa on the important role to be played by public and semi-public regulatory bodies in maintaining quality and penetrating markets.

Overall, a pro-poor agribusiness strategy should consider several components and policy options that may be tried depending on the circumstances. The most important are:

1. Avoiding dysfunctional sequencing between macro reforms (trade and financial liberalisation, fiscal squeeze, credit squeeze) and agricultural liberalisation cum subsidy removal typical of the 1990s.
2. Better integration in global value chains (i.e. vegetable and tobacco exports) through proactive state intervention in negotiating for better markets through international marketing, and bilateral intergovernmental agreements to ensure Zambian agribusinesses are well placed in more dynamic global value chains, like those buyer-driven chains associated with very large distributors/retailers (Tesco and others). Encourage agro-processing and upgrading within value chains with a focus on product quality through technological upgrading and foreign direct investment promotion. The development of agro-processing both for exports and consumer goods in the national market should be a priority in the medium term in order to better integrate agricultural and manufacturing labour-intensive development.
3. Protection from South Africa. Notwithstanding the SADC protocol, the Zambian government could explore ways of managing the influx of competitive South African imports and foreign direct investments from South Africa, like those affecting the agricultural and manufacturing sectors, without breaking the rules of current trade agreements. Enhancing negotiating skills in this respect may be necessary in the short term.
4. Reinforcement of poles of development around good infrastructure. Although there is a case for expanding infrastructural development in areas so far isolated from more dynamic regions, especially if linked to public employment schemes as argued in chapter 3, there is a case for investing in the renewal and maintenance of existing infrastructure to make sure existing poles of development do not lose their dynamism.
5. Address access to credit and crop insurance for commercial farmers, since this is one of the most important supply constraints on production and especially non-traditional exports. Attracting foreign finance through foreign agribusiness in outgrowing schemes can be a route, albeit not without risks. There is need for financial institutions designed and publicly supported (with the contribution of international partners) to address the financial needs of the most dynamic and efficient agricultural producers with an export vocation. Any financial incentive should be linked to clearly established performance criteria for beneficiaries around two main aspects: (a) net foreign exchange generation and (b) employment creation and work conditions (especially for female workers)
6. Monitoring work conditions (average wages, work days, health and safety, etc.) in agribusiness, especially of the seasonal and casual workers (especially female labourers) who often are not covered by government regulation, will be necessary to make an agribusiness-centred strategy more pro-poor. Most large and middle-scale commercial farmers can afford to offer decent

conditions to their workers, more than smallholder employers who lack the means and where unit labour costs can be higher due to low productivity.

If successful, an agribusiness strategy like the one proposed above requires a complementary programme directed toward less viable smallholders and remote areas. The government of Vietnam pursued such a dual approach with some success (Weeks, et. al. 2004). The smallholder component of the strategy would include policies for food security, to prevent seasonal hunger. Maize still constitutes the main crop for a high proportion of small farmers, who are considered the bulk of the poor in rural areas. Until alternative (more efficient and viable) maize producers emerge and markets expand to remote areas to make maize cheaper and available throughout the country, the reintroduction of maize subsidies might be considered, with a limit on size of payments to farmers. Such a policy would require a well-organised and monitored farm gate purchasing system. This system should be territorially selective and an attempt should be made to differentiate 'smallholders' into more meaningful social and farming categories, so that the real needs of better defined groups can be established, otherwise selectivity and targeting will be impossible.

Apart from these selective support interventions other concrete measures may be necessary to protect poorer small farmers. First, selective investments in water management to reduce crop risk in drier areas of the country. Second, public work schemes designed to foster infrastructure in more remote areas and inject cash in poorer local economies, which may provide means to improve farming or finance migration to more lucrative areas. Third, facilitating resettlement schemes to more productive and profitable areas or existing outgrowing schemes, so more vulnerable groups can participate in poles of development. Fourth, in a selective manner, the government could consider the possibility of becoming buyer

of last resort with public finance, in areas or years in which a failure of existing marketing systems may provoke socioeconomic crisis among small farmers trying to sell their crops. This is a guarantee that should be used only selectively and in circumstances where no other alternative appears in the short term.

In summary, a pro-poor growth strategy in agriculture must have two components, fostering agribusiness for export competitiveness (and national markets as they develop through higher purchasing power and agro-processing development), and selectively supporting smallholder development to reduce poverty among those not directly benefiting from the former. Both components require considerable public investment, albeit of different types and in different areas. Poverty reduction within the agribusiness sector would be further enhanced by incentives to employ labour more intensively (through credit and fiscal incentives conditional on employment creation), by an effectively enforced minimum wage policy and by supporting employees' organisations to foster improved working conditions.

69 When a cross country regression was calculated for thirty-five sub-Saharan countries, excluding Zambia, for 1990, 1992, 1995, 1997, 2000 and 2001, the following results were obtained:

$$\ln(PCY) = 8.52 - .645[\ln(Agric/GDP)] - .156[\ln(Illtrcy)] + .276[Doil]$$

(.000) (.000) (.046) (.018)

$F = 45.42$, $Adj\ R\text{-square} = .425$, $Degrees\ of\ Freedom = 177$

Ln = natural logarithm

PCY = per capita income in 1995 US dollars

$Agric/GDP$ = percentage share of agricultural value added in GDP

$Illtrcy$ = percentage of population over 15 illiterate, so literacy rate is

$(100 - Illtrcy)$

$Doil$ = binary variable taking the value of unity for petroleum exporters

Zambia's actual per capita income across these years was US\$ 418, while the regression predicts an average of slightly over 1200.

70 This judgement is based on interviews with officials at the Zambia Privatisation Authority, the Ministry of Finance and a former WB official.

71 See the annex to this chapter for a discussion of industrial policy and trade agreements.

72 Smallholders normally cultivate two-thirds of all arable land, with the rest in the hands of medium and large scale commercial farmers (Jaffee 1999, 43).

73 There is evidence pointing to the contrary. Gibbon et al. (1993,

92) cite a study carried out in Northern Province, where the incidence of agricultural wage employment is often ignored, which shows that different classes of smallholders, depending on their scale of production, do hire wage labour up to twenty percent of total labour inputs. For a small commercial farmer producing between two and thirteen tons and planting less than five hectares, this means over six hundred hours of hired labour per hectare per season, a significant amount.

74 Note that the top twenty-five percent in terms of farm-size cultivate a bit less than three hectares (national average), which is almost eight times more than the average cultivated area of the bottom quartile of smallholders (Zulu et al. 2000, 26), but far less than many medium scale 'emergent' farmers typically cultivating between five and twenty hectares.

75 Information provided by a representative of the National Farmers Union in Lusaka, November 2004. See also Gibbon et al. (1993, 93).

76 Conventional cash crops were cotton, tobacco, soya beans, sugar, wheat, sunflower, and paprika among others. Maize can be regarded as a food crop or a cash crop depending on the extent of its marketing

77 It is estimated that only sixteen percent of arable land is actually cultivated.

78 For example, in the highly intensive Lusaka-based horticultural and cut flower export farms it is estimated that more than ten thousand farm workers are engaged (information from National Farmers Union).

78 An analysis of relative incomes in rural and urban areas reveals that the so-called urban-rural gap in incomes was relatively small (Jamal and Weeks 1989).

80 Good maize years usually implied increased costs for the government, which often resulted in growing indebtedness.

81 See Gibbon et al. (1993) and Saasa (1996) for details on specific policy reform measures undertaken in the period 1980-1992. See also WB (2004a), Deininger and Olinto (2000) and Poulton et al. (2003) for details concerning the post 1991 agricultural reform process. See Situmbeko and Zulu (2004) for a chronology of IMF and WB sponsored-policy measures.

82 This food-crop choice may have also been driven by the HIV pandemic to compensate for the decrease in labour time available for agriculture, especially for food production (UNCTAD 2004, 37)

83 These seeming 'contradictions' were obvious in interviews at the National Farmers Union and the Agriculture Consultative Forum, November 2004.

A study measuring net per capita income in female and male-headed households found little difference between them. (Geisler, 1993)

Table 4.1: Types of Agricultural Producers in Zambia

Type produced	Number of producers	Average farm size	Technology, Cultivation practice	Market orientation	Location	Major consumers
Small-scale producers	800,000 household	Less than 5 hectares (With majority cultivating 2 hectares or less)	Hand hoe, minimal inputs, household labour	Staple foods, primarily home consumption	Entire country	Remoteness, seasonal labour constraints, lack of input and output markets
Emergent farmers	50,000 household	5 - 20 hectares	Oxen, hybrid seed, fertilizer, few with irrigation, mostly household labour	Staple foods and cash crops, primarily market orientation	Mostly along rail lines (Central, Lusaka, Southern provinces), some Eastern, Western provinces	Seasonal labour constraints, lack of credit, weak market information
Large scale commercial farmers	700 farms	50 - 150 hectares	Tractor, hybrid seed, fertilizer, some irrigation, modern management hired labour	Maize and crops	Mostly Central, Lusaka, Southern provinces	High cost of credit, indebtedness
Large corporate operations	10 farms	1,000 + hectares	High mechanisation, irrigation, modern management, hired labour	Maize, cash crops, vertical integration	Mostly Central, Lusaka, Southern provinces	Uncertain policy environment

Source: adopted from World Bank 2003a

Table 4.2: Area under Cultivation for Selected Crops and Percentage Changes, 1989-2003 (hectares)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Maize	763,258	639,390	661,305	623,340	679,914	520,165	675,565	649,069	510,374	598,181	605,648	583,850	696,619	699,276	631,080
Groundnuts	80,443	80,470	68,724	71,415	105,737	100,431	89,488	126,573	154,682	119,945	69,532	135,108	139,562	150,460	116,978
Sunflower seeds	44,289	36,490	32,302	39,450	31,079	32,433	47,621	20,745	15,692	14,280	12,982	37,666	22,600	22,521	30,689
Cotton	64,036	74,020	59,614	76,492	50,067	35,200	66,217	89,879	80,254	70,629	36,947	56,939	87,026	86,431	121,593
Soya beans	29,815	29,200	22,786	19,864	25,447	21,612	25,489	17,273	11,681	11,716	11,721	16,754	17,963	17,402	33,186
Wheat	11,595	11,849	10,964	13,656	11,566	7,806	10,327	10,693	11,251	12,682	14,113	14,380	22,600	26,277	-
Tobacco, burley	1,483	1,898	2,313	9,388	4,450	1,720	2,059	2,762	3,464	3,157	3,337	4,247	3,855	3,944	8,052
Tobacco, Virginia	3,588	1,262	2,951	3,558	1,900	1,353	1,594	3,497	5,400	4,730	4,060	3,715	3,010	-	5,464
Paddy rice	9,627	13,450	14,369	13,802	7,177	9,746	9,888	12,412	9,065	13,364	10,532	14,321	13,050	10,305	12,379
Sorghum	48,466	31,790	40,323	46,563	55,245	40,365	47,839	40,237	35,864	36,405	37,388	43,354	33,955	37,054	45,350
Millet	58,869	45,270	66,598	52,654	82,302	73,809	76,930	78,639	90,047	77,292	61,277	69,738	61,347	56,751	59,081
Mixed beans	26,436	28,940	38,508	38,489	48,599	41,462	43,240	41,541	35,379	30,780	39,853	51,025	40,043	44,002	45,270

Table 4.2 continued

Percentages	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Maize		-16.2	3.4	-5.7	9.1	-23.5	29.9	-3.9	-21.4	17.2	1.2	-3.6	19	0	-10
Groundnuts		0.0	14.6	3.9	48.1	-5.0	-10.9	41.1	22.2	-22.5	-42.0	97.2	2	8	-22
Sunflower seeds		-17.6	-11.5	22.1	-21.2	4.4	46.8	-56.4	-24.4	-9.0	-9.1	190.1	-40	-0	36
Cotton		15.6	-19.5	28.3	-34.5	-29.7	88.1	35.7	-	-	-47.7	54.1	53	-1	41
Soya beans		-2.1	-22.0	-12.8	28.1	-15.1	17.9	-32.2	-32.4	0.3	0.0	42.9	7	-3	91
Wheat		2.2	-7.5	24.6	-15.3	-32.5	32.3	3.5	5.2	12.7	11.3	1.9	57	16	-100
Tobacco, burley		28.0	21.9	305.9	-52.6	-61.3	19.7	34.1	25.4	-8.9	5.7	27.3	-9	2	104
Tobacco, Virginia		-64.8	133.8	20.6	-46.6	-28.8	17.8	-	-	-	-	-8.5	-19	-100	-
Paddy rice		39.7	6.8	-3.9	-48.0	35.8	1.5	25.5	-27.0	47.2	-21.1	36.0	-9	-21	20
Sorghum		-34.4	26.8	15.5	18.6	-26.9	18.5	-15.9	-10.9	1.5	2.7	16.0	-22	9	22
Millet		-23.1	47.1	-20.9	56.3	-10.3	4.2	2.2	14.5	-14.2	-20.7	13.8	-12	-7	4
Mixed beans		9.5	33.1	-0.0	26.3	-14.7	4.3	-3.9	-14.8	-13.0	29.5	28.0	-22	10	3

Table 4.2 continued

Indices	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Maize	100	84	87	82	89	68	89	85	67	78	79	76	91	92	83
Groundnuts	100	100	85	89	131	125	111	157	192	149	86	170	173	187	145
Sunflower seeds	100	82	73	89	70	73	108	47	35	32	29	85	51	51	69
Cotton	100	116	93	119	78	55	103	140	125	110	58	89	136	135	190
Soya beans	100	98	76	67	85	72	85	58	39	39	39	56	60	58	111
Wheat	100	102	95	118	100	67	89	92	97	109	122	124	195	227	-
Tobacco, burley	100	128	156	633	300	116	139	186	234	213	225	286	260	266	543
Tobacco, Virginia	100	35	82	99	53	38	44	97	151	132	113	104	84	-	152
Paddy rice	100	140	149	143	75	101	103	129	94	139	109	149	136	107	129
Sorghum	100	66	83	96	114	83	99	83	74	75	77	89	70	76	94
Millet	100	77	113	89	140	125	131	134	153	131	104	118	104	96	100
Mixed beans	100	109	146	146	184	157	164	157	134	116	151	193	151	166	171

Source: Central Statistical Office, Agriculture Branch.

Figure 4.1: Production Trends for Selected Products, 1989-2003 (index 1989 = 100)

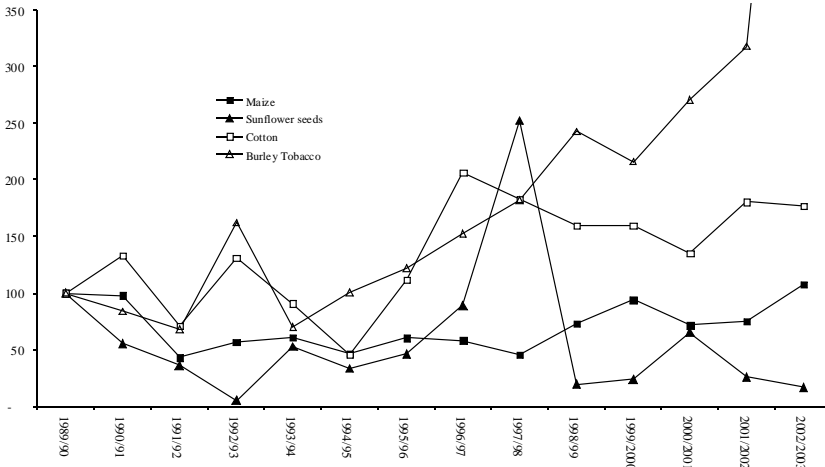


Figure 4.2: Acreage in Food Crops, 1990-2000 (index 1989 = 100)

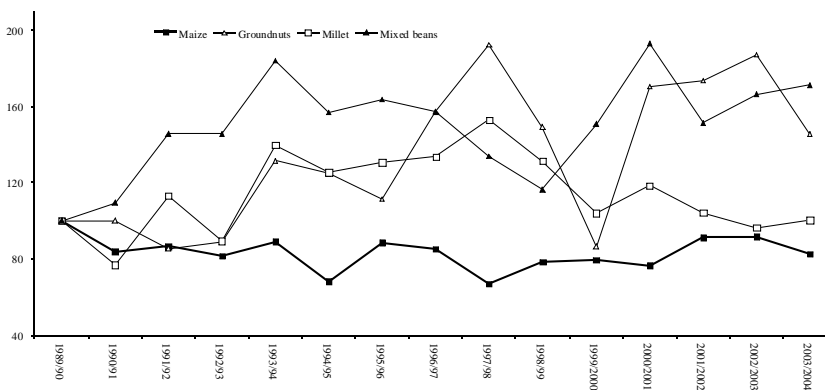
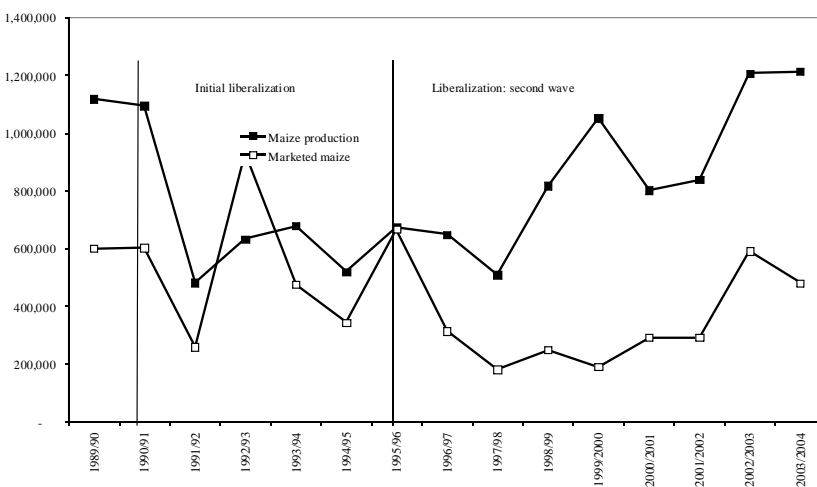


Figure 4.3: Maize Production and Marketed Maize, 1989-2004 (metric tons)



Annex

4A.1 Industrial Policy and Trade Agreements

Introduction

Zambia joined the World Trade Organisation in the 1990s during a period of rushed across-the-board liberalisation. That period of liberalisation was associated with a catastrophic collapse of domestic manufacturing, and a poor performance of the agricultural sector. Thus, revisiting the accession agreement to the WTO and regional trading agreements could be fruitful.

The WTO was formed in 1994 by the 'The Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations'. Its purpose was to institutionalise the negotiating process of the General Agreement on Tariffs and Trade (GATT), and extend that process into non-commodity issues. Until the Tokyo round of GATT (begun 1973) governments of developing countries had little role in trade negotiations, as Table 4A.1 indicates.

Out of the Uruguay Round came a series of agreements, including the Agreement on Agriculture. Despite promises by the governments of the developed countries that developing countries would gain from freer trade in agricultural commodities, it was explicitly recognised that some or many countries might suffer losses. In light of this, the Uruguay agreements were supplemented by a document with the rather title, 'The Decision on Measures Concerning the Possible Negative Effects of the Reform Programme on Least-Developed and Net Food-Importing Countries'. The negotiation of entry tariffs should be carried out in the context of this document and the 'Special and Differential Treatment' provisions for developing countries.

Policy Flexibility

Over half a century ago a famous trade economist pointed out that negotiations over liberalising trade, the stated purpose of

the WTO, involve a fundamental contradiction: if, as economists argue, free trade benefits all trading partners, there should be no need for negotiations to achieve free trade; each government should liberalise trade unilaterally. The resolution of this apparent contradiction is 1) all countries do not benefit equally and some not at all under actual trading conditions; 2) the WTO as an institution does not seek free trade, but the regulation of trade under rules that benefit some countries more than others; and 3) unlike its predecessor the GATT, the WTO has expanded into non-trade issues such as copyrights, investment rules, and public sector procurement.

The goal for Zambia in its membership of the WTO is to achieve the best outcome for the development of the country, which includes maintaining as much policy flexibility for the future as is possible. While the specific agreements that were made at accession remain important, equally important is for the government to have the flexibility to change policies when circumstances change. The WTO allows for this. Some critics of the WTO argue that the organisation severely restricts the policy options of a member. It is specifically argued that WTO rules leave a government unable to pursue an effective industrial policy. This argument is true only if the government of the joining country concedes its flexibility. Under WTO rules there is considerable flexibility for industrial policy if a government wishes to pursue it.

Least Developed Country Status

The WTO makes no distinction between developed and developing countries. However, there is a category, 'Least Developed Countries' (LstDCs), and a country that falls into this category, which Zambia does, achieves considerable policy flexibility.

The Decision on Measures in favour of Least-Developed Countries establishes, among other

things, that these countries will not be required to undertake any commitments and concessions which are inconsistent with their individual development, financial and trade needs. [http://www.wto.org/English/docs_e/legal_e/Ursum_e.htm#Agreement, p. 3, emphasis added]

One aspect of the favourable treatment of LstDCs is that they are allowed an extended period for implementing the policy changes to which they agree in their accession negotiations. Perhaps the most important concession to LstDCs is their exemption from the prohibition on export subsidies. The WTO rules identify three categories of subsidies, those that are prohibited, those that are 'actionable', and those that are not actionable. The second type, 'actionable', can be defended on grounds that they do not harm trading partners. In practice the seriously binding category is the first, 'prohibited' subsidies. The two major types of prohibited subsidies are those linked to export performance, and those that encourage use of domestic inputs rather than imported ones. LstDSCs are exempt from the rule on prohibited subsidies:

The agreement recognizes that subsidies may play an important role in economic development programmes of developing countries, and in the transformation of centrally-planned economies to market economies. Least-developed countries and developing countries that have less than \$1,000 per capita GNP are thus exempted from disciplines on prohibited export subsidies, and have a time-bound exemption from other prohibited subsidies. For other developing countries, the export subsidy prohibition would take effect 8 years after the entry into force of the agreement establishing the WTO, and they have a time-bound (though fewer years than for poorer developing countries) exemption from the other prohibited subsidies. [http://www.wto.org/English/docs_e/legal_e/ursum_e.htm#Agreement, p. 10, emphasis added]

It would appear that this exemption applies to subsidies in place at the time of accession; that is, new subsidies cannot be added once a country is a member. However, WTO rules allow for policy changes in the interest of national development, and in response to changed conditions. The

government of Zambia could give consideration to reviewing its WTO accession agreement in the context of introducing a purposeful industrial policy consistent with the flexibility allowed for Least Developed Countries.

Regional Trading Agreements

In practice regional trading agreements are more likely to bestow benefits across members the more similar the members are in levels of development. The enormous gap between the levels of development of Zambia and South Africa is and will remain a major source of tension between the two countries in their trade. Changing the trade agreement with South Africa would be considerably easier than doing the same within the WTO. A fundamental principle of all commercial relations between countries is that all governments pursue their national interests. Given that the government of Zambia seeks to develop an internationally competitive agricultural sector, it could consider reviewing the trade agreement with South Africa. Treaties, including trade treaties, should be honoured. However, honouring such treaties need not preclude altering aspects of them in a country's national interest.

Table 4A.1: GATT negotiating rounds:

Round	Date	Countries
Geneva	1947	23
Annecy	1949	33
Torquay	1950	34
Geneva	1956	22
Dillon	1960-61	45
Kennedy	1962-67	48
Tokyo	1973-79	99
Uruguay	1986-93	118



5 ~ Fiscal Policy for the MDGs

5.1 Fiscal Cost of the MDGs

The chapter considers fiscal policy in Zambia, and how expenditure and taxation could be used to reduce poverty. As suggested by the discussion of the country's external debt in Chapter 1, since 1990 fiscal policy in Zambia has been closely linked to debt servicing and constrained by external loan conditionalities. It would be accurate to say that throughout the 1990s and 2000s, government expenditure was derivative from the servicing of external debts.

This inversion of social priorities had a debilitating effect on growth, poverty reduction and combating the HIV-AIDS pandemic, which has been as severe as it was avoidable. In mid-2006 it appeared that the debt burden had been reduced to less than US\$ one billion.⁸⁵

If policy conditionalities set by external agencies were made flexible, there is the potential that Zambia could fully achieve all of the MDGs by 2015. However, doing so would represent a major challenge, requiring a substantial increase in government expenditure supported by donors and lenders, and a radical change in the approach to conditionality by those donors and lenders. In its MDG progress report for 2005, the UNDP categorised achieving the MDGs as 'likely'

for five, 'potentially' for three, and 'unlikely' for two. While this represented a substantial improvement from the prospects in 2003 (zero, eight and two, respectively), implied that half the MDGs might not be achieved.

A careful and thorough study of the resource cost of achieving the MDGs provides a reliable estimate of the fiscal effort that the government faces (Mphuka 2005). On the basis of this report and an analysis of the potential for fiscal space over the years 2006-2015, this chapter proposes a financing package that could realise the MDGs. If anything, the proposal underestimates the fiscal effort required, implying that a more modest effort would ensure that the MDGs are not achieved. To lay the basis for the discussion of financing, the chapter first considers debt issues, the constraints created by external conditionalities.

5.2 Debt and the Balance of Payments

It is no mystery why Zambia accumulated a massive external debt during the last thirty years of the twentieth century. While many sub-Saharan countries suffer from debilitating debt burdens, for few would the problem be as severe as for Zambia. Further,

few countries waited as long as Zambia to achieve debt reduction under the HIPC initiative. In December 2000, Zambia reached the so-called decision point, formally qualifying for HIPC relief. The 'completion point' would come over four years later in April 2005, when the outstanding external debt was slightly larger than at the decision point.

Figure 5.1 shows external debt service as a share of export earnings during 1975-2004 for Zambia and the average of other sub-Saharan countries.⁸⁶ Only during the second half of the 1980s did Zambia's share fall below that of the cross-country average. The chart highlights the startling situation of the 1990s, when the adjustment programmes of the IMF and the World Bank were associated with four years of debt service ratios in excess of twenty-five percent. Even more striking is Figure 5.2, showing debt service as a share of GDP, which averaged almost nine percent of GDP for Zambia over thirty years, double the ratio for the other countries. The adjustment programmes did little to change this; the average for Zambia after 1990 was only marginally less than for the years before. To put such a debt service to GDP ratio in perspective, during the Latin American debt crisis of the 1980s, only three of eighteen countries had ratios for a decade above what Zambia averaged for three decades.

Measured per capita the debt burden appeared even more onerous. Figure 5.3 again compares Zambia to the other sub-Saharan countries, over a slightly shorter period, 1980-2004, using three year moving averages to reduce the effect of the extreme values of the 1990s. In current US dollars, the difference between Zambia and the other countries strikes the eye, a twenty-five year average of US\$ 720 for Zambia and US\$ 466 for the other countries. However, these numbers understate the difference between Zambia and other African countries, because of terms of trade changes. Since debts must ultimately be repaid with

exports, a decline in export prices raises the real value of debt. When per capita debt is adjusted for the terms of trade, the average for the other sub-Saharan countries declines slightly, to US\$ 450, while that for Zambia increases to over US\$ 900. Instead of being slightly lower after 1990 than before as is the case in current prices, the terms of trade adjusted per capita debt increases, from US\$ 730 to 1030.

It should be clear from this discussion that debt was not only one of the problems constraining growth and poverty reduction for Zambia, it was the central problem. Full debt cancellation would increase the potential fiscal space for growth-enhancing pro-poor expenditure by as much as five percentage points of GDP. First we consider the relief realised by reaching the HIPC completion point. The amount of debt relief under the HIPC derives from what is called a 'sustainability analysis'.⁸⁷ This analysis involves a projection of future estimation of key debt indicators, the most important being the debt-to-export ratio. Thus, central to the amount of debt relief granted is the projection of export growth.

When Zambia reached its decision point in December 2000 (i.e., it qualified for relief), the IMF made a preliminary sustainability analysis, and in 2005 concluded, 'export growth [during 1999-2003] was considerably slower than projected' (IMF 2005a, 23). Notwithstanding this unrealised optimism, in 2005 the decisive debt sustainability analysis presumed 'strong [export] growth over the medium term, reflecting major investments in mining and agriculture' (IMF 2005a, 25).⁸⁸ Perhaps this prediction was made on the basis of high prices for copper. Before inspecting the details of the sustainability exercise, it can be noted that it seemed to have a basic inconsistency. Macroeconomic equilibrium requires that the sum of all net demand equal zero; that investment minus saving, plus government expenditure minus government revenue, plus exports minus imports, be zero (familiar condition that $[IS]+-[G-$

5

T]+[X-M] = 0). However, the sum appears to be a plus 1.8.⁸⁹ This inconsistency may be a numerical error, because the assumptions about grant inflows and foreign direct investment imply that a trade deficit of eight percent of GDP could be sustained, which would eliminate the discrepancy. Proceeding on the assumption that macro consistency could be resolved, there were several reasons to think that the sustainability analysis was too optimistic. Several of the projections seem dubious compared to the economic record prior to the completion point. The long term growth rate was predicted to be steady at five percent per year. The average for 2001-2004 was slightly less than this at 4.7, which could be viewed as unusually high compared to the previous decade. The projected growth rate appeared all the more optimistic given that the investment share in GDP was predicted 'to hold steady at 22.5 percent of GDP, down over 2-3 percentage points from present levels', and foreign investment 'is projected to fall off from its current high'. When combined with the falling investment share, the policy prescription that the public budget not be expansionary placed the entire burden of demand generation on the optimistic export projection. Further, inflation, below ten percent in only three of the forty years 1965-2004, is 'expected to fall to 5 percent...by 2007' (IMF 2005a, 25). The exercise does not explain how inflation would be so drastically reduced without contractionary policies that would also reduce growth.

The most important variables for the sustainability exercise are presented in Table 5.1, which provides the assumed, or projected, values made in 2000 when Zambia reached the HIPC decision point. These are accompanied by the actual outcomes, as presented by the IMF (IMF 2005a, Tables 11 and 12). It can be noted that the assumed growth rate for 2000-2004 was not far off the actual outcome. However, the growth rate during those five years was well in excess of any previous five-year period

for two decades. Projecting this for the next nineteen years, 2005-2023, implies growth conditions would be considerably more favourable than in the past, notwithstanding the inflation reduction policy which would have a contractionary impact.

The most serious shortcoming of the sustainability analysis assumptions was the underestimation of copper price instability, an instability which implies that caution is required about the continuation the high prices of the mid-2000s. The sustainability exercise includes a 'sensitivity analysis' that includes the 'shock' of a twenty percent fall in the copper price. It is not clear that such a fall would shock anyone familiar with the international copper market, because the coefficient of variation of the copper price during 1995-2004 was .21. This implies that a price fall in excess of twenty percent can be expected in approximately one year out of five. This high degree of instability in the copper price points to the serious danger to debt sustainability and, more fundamentally, to the sustainability of Zambian development: dependence on copper. Past dependence on copper drove Zambia's unsustainable debt accumulation; a return to that dependence is unlikely to be the escape. In the absence of a purposeful plan for export diversification, strongly supported by public investment, copper could again dominate the economy.

Public investment for sustainable development requires fiscal space. Therefore, it must have disappointed the government to discover how little fiscal space debt relief from HIPC would create. The IMF completion point document reports that 'HIPC Initiative interim debt relief' amounted annually to a reduction of debt service of 5.7 percent of GDP for 2001-2005.⁹⁰ However, reduction of the debt service item in the public budget was less than half this, 2.6 percentage points of GDP, and what were named 'Priority poverty reducing programme expenditures' only 1.5 percentage points. The 3.1 percentage point difference between 'HIPC debt relief' and

budget payments represented debt service in another accounting category. To quote from the IMF,

Given that the Bank of Zambia faced large debt service obligation, whose non-payment could have resulted in a curtailment of non-HIPC donor assistance, HIPC interim debt relief accruing to the Bank of Zambia was designated for debt service payments. The remainder has mostly been allocated to priority poverty reducing programmes, which focused on investments in infrastructure, support for small-scale farmers and food security, and increased expenditures in the social sectors, in particular, education. (IMF 2005a, 19).

In other words, over half of HIPC interim debt relief, fifty-five percent, was an accounting entry. Further, to write that the 'remainder was mostly allocated' to poverty reduction programmes involves broad usage of the word 'mostly', since less than sixty percent of the 2.6 percentage points of actual debt service reduction went to this item. Whether the promise by the 'G-8' heads of state in July 2005 to completely cancel all IMF and WB debts to HIPC completion point countries would bring effective debt relief to Zambia is considered below.⁹¹

In the following section it will be shown that far from increasing fiscal space, the overall effect of the HIPC process would slightly reduce it, primarily as a result of macroeconomic conditionalities. Full implementation of the G-8 debt cancellation would increase fiscal space, but within the binding policy conditionalities by less than one percentage point. Thus, the constraining role of these conditionalities on poverty expenditure and achieving the MDGS requires brief consideration of their appropriateness in the context of the poverty reduction strategy process.

5.3 Government Expenditure and Revenue

*Persistence of Donorship*⁹²

The constraining burden of Zambia's debt

for three decades was closely related to a second constraint, conditionalities placed upon lending from external agencies that severely limited the policy space in which successive governments could make decisions. Indeed, so numerous and specific have the conditionalities been, that once the conditionalities were accepted by the governments, very little discretion remained for the important decisions affecting economic management. A review of Tables 5.2 and 5.3 indicate the extent to which the multilateral agencies have affected policy in Zambia, the former listing the major interventions and the latter some of the more important conditionalities. The tables demonstrate clearly that from the late 1980s, policy making in Zambia was characterised by conditionalities that directly constrained the government's actions in almost every important area of economic policy, and in some cases social policy. Table 5.2 also indicates the extremely troubled interaction between the multilateral agencies and Zambian governments, with cancellation or suspension of programmes shaded.

The major role played by policy conditionalities in Zambia implies that a consideration of their appropriateness, both technically and in the lender-borrower relationship, cannot be avoided. Such external constraints played a major role in other countries included by the Global Programme on the Macroeconomics of Poverty Reduction described in the Introduction. A cornerstone of the PRSP process, stressed by the World Bank as a fundamental change in its lending approach, is the principle of recipient ownership of policy making (Klugman 2002).

It is useful to review the discussion in the reports on those countries (see Weeks et al, 2005, Chapter 1). In the conditions they set, donors and lenders must distinguish between actions required by the recipient government in order that the funds be used effectively, and those policies that the donors and lenders have the bargaining power to impose, be they crucial to success

or not. An essential characteristic of the 'donorship regime' was an omniscient external judgementalism. The donor or lender reserved the right to pass unilateral judgement on the appropriateness of and commitment to loan and grant conditionalities. In a national ownership regime, assessment of policies passes to the recipient government, with consultation with the donor. National ownership does not require external development agencies to suspend all judgements; it implies that those judgements arise out of an interactive process with national stakeholders.

A central characteristic of donorship was the presumption that if development assistance failed in its goals, the blame lay with the recipient government, typically explained by a 'lack of political will'.

This approach by donors made several presumptions:

1. That there exist a set of sound policies which the donors know and recipient governments do not (the recipient is ignorant);
2. that recipient governments must not only be informed of the sound policies of which they are ignorant, but they require convincing of the need to implement these (in the absence of donor advocacy, the recipient lacks the judgement to distinguish good policies from bad ones); and,
3. in the past, development failures arose from the mistakes of omission or commission of recipient governments, not in whole or part the result of unsound policies of the donors (development failures are recipient government failures).

While not a characteristic of the years immediately following independence, these presumptions tended to guide donors and lenders in their relations with Zambia from the late 1980s onwards. A variation on the sound policy criticism of recipient governments is that they may be aware of the

policies, and aware of the need for them, but fail to implement them because of special interests within or outside of the government. In such circumstances, the argument goes, donors are justified in their criticism of policy choices, and the criticism may strengthen domestic supporters of sound policies. This argument is also in the tradition of donorship, for it implicitly suggests that institutional, political, and economic interests do not motivate donors. This approach is increasingly unacceptable in the twenty-first century. Following PRSP guidelines, the development strategy of every country should be established through the democratic process, which has functioned relatively well in Zambia since the 1980s.

It is the view of this mission that relations between the Zambian government and donors and lenders continues to be one of donorship, and considerably more so than in almost any other African country. As a result, for at least two decades Zambia suffered from a profound 'aid dependency', which included but went well beyond dependency on external funding. In practice, the capacity for national policy making was seriously undermined by the frequent interventions of external Agencies, in decisions both large and small. This tendency was quite clear in the budgetary process, where the scope for independent national policy decisions was extremely limited.

The HIPC debt reduction process was very much a part of the donorship approach. Qualification for relief reaching the 'decision point' explicitly required faithful adherence, over several years, to IMF and World Bank programmes characterised by detailed conditionalities (see Table 5.2). The considerable delay in obtaining debt relief, 'completion point', resulted from the government making insufficient progress on a specific conditionality, privatisation of the Zambian National Commercial Bank (see discussion in Situmbeko & Zulu 2004, 42ff). In no areas of policy were the constraints of conditionalities more restrictive

than for fiscal policy. After 1990, direct fiscal conditionalities included 1) deficit limits, 2) a cap on the share of public sector wages in GDP, and 3) 'cash budgeting'. The last, which limited expenditure to each ministry's own current cash balance, was particularly distorting for policy implementation. The cash limit was particularly dysfunctional and irrational for capital projects, whose expenditure requirements were often 'front-loaded', leading to interruptions in the construction process. These interruptions resulted in abandoning projects in process.⁹³

Debt Reduction and Fiscal Space

The fundamental purpose of the HIPC process and the G-8 debt cancellation is to create fiscal space for poverty reducing expenditures. Poverty Reduction Strategy Papers were created as part of this process, and later became more general in purpose, to serve as the basis for donor and lender support and to link growth to the MDGs. Thus, if debt relief fails to create space for increased expenditure for poverty reduction, the process was both futile and pointless. A close inspection of the official IMF projection of revenue and expenditure in the five years immediately following Zambia reaching the decision point yields the conclusion that as a portion of GDP, HIPC debt relief slightly reduced the amount of expenditure available for poverty programmes, and the G-8 cancellation increased only marginally.

During 2000-2004 the Zambian government paid seven percent of GDP as debt service, and the debt sustainability exercise described earlier in this chapter projected that this would fall to 1.7 percent during 2006-2010 (see Table 5.4, data columns 2 and 3).⁹⁴ Someone unfamiliar with the HIPC process might conclude that the fall from seven to 1.7 percent would release the difference between the two, 5.3 percent of GDP, for expenditure at the discretion of the government. Were this the case, the prospects for sustainable growth with poverty reduction would be dramatically

improved in Zambia. The IMF projection that tax and other revenue sources would generate a slightly larger share of GDP, from 18.8 to nineteen, would be further cause for optimism.

Such optimism would be misplaced. First, the IMF exercise anticipated that grants and the grant component of loans, over six percent of GDP during 2000-2004, would fall to three percent (see notes to Table 5.4),⁹⁵ though such a decline would seem to contradict a fundamental commitment associated with HIPC relief.⁹⁶ The decline in grants of 3.5 percentage points reduces relief on budgeted debt service from 5.3 to 1.8 percentage points. For practical purposes, total expenditure less external grants for 2006-2010 is mandated by the conditions that it not exceed, by more than one percent, total revenue. With the added condition that domestic borrowing be limited to .6 percent of GDP (implying that .4 percentage points would be covered by external grants), the net reduction in the fiscal deficit must be 3.3 percent of GDP.

This rather tedious tracking of percentages and fractions thereof yields the conclusion that in the first five years after the HIPC decision point, assuming other public expenditure obligations are not reduced, the change in fiscal space for poverty expenditure would be minus .8 percent of GDP. We can summarise the calculations as follows: 1) other things unchanged, HIPC debt relief would increase fiscal space by 5.3 percentage points of GDP; 2) the expected increase in government revenue would increase this by a further .2 percentage points; 3) a reduction in grants by 3.5 percentage points reduces this to two percentage points of GDP; and 4) a lower deficit limit reduces it to minus .8 percentage points.

If the G-8 cancellation of IMF and World Bank debts were realised, the result improves, but only marginally. The further reduction of debt service, from 1.7 to 0.1 percent of GDP creates a small

positive change in fiscal space of 0.8 percentage points. Even without a detailed analysis of the cost of achieving the MDGs, it should be obvious that this change would be inadequate.

5.4 Creating Fiscal Space for the MDGs⁹⁷

If Zambia would achieve sustained growth with poverty reduction, and approach the MDGs, the fiscal space HIPC and the G-8 fail to provide must be created through other means. Though it brought an extremely small poverty expenditure 'dividend', HIPC and the G-8 processes were not pointless, for they dramatically reduced Zambia's external debt and the servicing associated with that debt. In the long run this could only assist the achievement of sustained growth; though the cost, in terms of distorted policy priorities and government human resource inputs, well exceeds what was achieved. Higher levels of non-debt ODA assistance might be realised, but at the time of this report there was no commitment on the part of donors and lenders. The long, protracted HIPC process carries an important lesson: the present and future governments of Zambia must seek domestically the resources for generating growth and poverty reduction. To consider the scale of the task to fund the achievement of the MDGs, one can begin with the fiscal allocations for 2005, shown in the first data column of Table 5.5, with the second column giving each item as a percentage of the domestic budget, and column three percentage of GDP. The fourth column reports the estimated expenditure share in GDP necessary to achieve the MDGs (Mphuka 2005, and see notes to Table 5.5). This fourth column sums to almost a quarter of GDP, considerably larger than domestic budget. If an assumption is made that the expenditures in budget categories that correspond to the MDG categories are fully used to achieve the MDGs, then the net increase in expenditure sums to

17.1 percent of GDP (sum of the 'MDG gaps', last cell of the last column).

Having quantified the fiscal effort required, one can move to Table 5.6, which provides proposal for funding the 'MDG gap'. The first two sources of funding come from government interest payments. External interest payments were 0.4 percent of GDP in 2005, and would fall to 0.1 after realisation of the G-8 debt cancellation. Item 2 presumes a restructuring of the domestic debt, by issuing new bonds to credits at a fifty percent discount. This policy is discussed in Annexes 6A.3 and 6A.4.

Third, the proposal calls for an increase in tax revenue of three percentage points in GDP. Figure 5.4 shows that taxes accounted for the overwhelming proportion of revenue, with fees and other sources making a minor contribution. Increasing non-tax revenue would in most cases be regressive, as the discussion of 'user fees' in Chapter 7 demonstrates. Four major types of taxes account for almost all of tax revenue, as shown in Figure 5.5. Unlike almost every other sub-Saharan country, personal income taxes brought the largest share of revenue in Zambia. Increasing the rates for the highest income earners would bring a small increase in revenue; though this might be better used to reduce rates on the poorest income tax payers, some of whom were below the poverty line (see Chapter 3). Given the tariff reductions during the 1990s, trade taxes held remarkably steady in their contribution, suggesting there to be limited scope for increased revenue from this source. The VAT levy, despite claims about its effectiveness, generated relatively little revenue, and its expansion, were that cost effective in terms of collection, would be aggressive and anti-poor.

There would be considerable scope for increasing the company tax, which in 1990 brought over six percent of total tax income. Trade liberalisation and the decline of copper reduced its contribution dramatically. However, the rejuvenation of the

copper sector and the growth of agribusiness provide scope for expanding the tax base, especially if various forms of tax exemptions were removed. Priority could be given to a study of the potential for expanding the base and increasing the rates of the company tax.

Fourth, the proposal assumes that one-third of 'other expenditures' (9.9 percent of GDP, see Table 5.5) be shifted to MDG expenditure. Some of this shift may involve no more than re-labelling, because the cost of implementing MDG expenditure would fall under general government operations. However, the majority of the shift would require re-assigning civil servants to new activities, which would have a training cost.

Item five calls for an increase in domestic borrowing, which would be viable if the domestic debt were restructured as suggested above. The domestic borrowing level for 2006-2010 to which the government agreed as part of the HIPC process, less than one percent of GDP, has little practical justification in economics. Once the domestic debt is made sustainable, such a small deficit would be far below the optimum level. Accumulating domestic debt at the rate implied by .6 percent of GDP would imply a rapidly declining debt to GDP ratio if the economy grows at the anticipated five percent per annum. With regard to inflation, the Quantity Theory of Money suggests for a typical value for the velocity of money that the inflationary impact would be small even if the deficit were monetised. If covered by domestic borrowing, a deficit has no direct inflationary effect because the net impact on the money supply is zero.

The other possible impact of a higher deficit would be upward pressure on commercial interest rates, which is shown to be unlikely in the next chapter. If this 'crowding out' effect were operative, it would be demand reducing for the private sector through its impact on investment, but not inflationary. However, since the increase in the deficit could be used for

public investment, the net effect on aggregate investment, private and public, would be positive, and growth-enhancing. Finally, the capital expenditure required for the achievement of the MDGs would bring public investment well above three percent of GDP. It is contrary to economic theory and common sense to fund investment out of current income, since the investments generate a future flow of income to fund themselves (that is why there are capital markets). The reason for the government not to fully fund investment by borrowing is the possible inflationary effect, which was discussed above. Thus, there would be no compelling economic argument against expanding fiscal space through domestic borrowing in excess of the extremely low 'cap' of .6 percent of GDP, to three percent.

Item 6, 'foreign financed capital expenditure', is not part of the domestic budget, and was 3.4 percent of GDP in 2005. The calculations assume that all of this would contribute to achieving the MDGs during 2006-2015. Finally, an increase in ODA grants serves as the residual item to fill the MDG gap.

The percentages for MDG expenditures in Tables 5.5 and 5.6 were calculated on the assumption of a growth in per capita income of 2.2 percent per annum (Mphuka 2005). According to World Bank data, population growth was 1.4 percent in 2004. On the assumption that population will expand at the slightly higher rate of 1.5 percent during 2006-2015, a per capita growth rate of 2.2 percent implies GDP growth of 3.7 percent. At this rate of growth, the seven financing items would need to cover an increase in government expenditure of 8.8 percentage points, with the share of expenditure in GDP rising from 27.1 to 35.9 percent. However, if the economy were to grow at the IMF projected rate of five percent per annum, the increase in government expenditure would decline to 8.3 percentage points, for a share of 35.4 percent of GDP. However, a five percent rate of growth would not achieve the first

MDG, reduction of extreme income poverty by half. Assuming distribution neutral growth and a continuous distribution function for household income, reducing the number of the extreme poor by fifty percent implies a doubling of per capita income.⁹⁸ This would require a ten year growth rate of seven percent per annum. In this case, the increase in government expenditure falls to 7.5 percent of GDP, and the share of government expenditure to 34.5 percent.

It is the view of the mission that a ten year growth rate of seven percent is possible for Zambia under the full-funding of MDGs scenario. The increased government expenditure, partly financed through domestic borrowing, would provide the necessary demand stimulus even if export growth slowed. Supply constraints would be progressively relieved by the MDG public investment. However, there would be little prospect for five percent growth, much less seven percent, if the deficit target of 0.6 of GDP were maintained, and monetary policy pursued an inflation rate of five percent.

5.5 A Macro Framework for the MDGs

For the MDG commitment to be more than a slogan in Zambia, it is necessary 1) to estimate the spending levels required to achieve them, 2) programme those spending levels into the fiscal budget, and 3) foster a macro framework that fosters the growth rates that sustain those spending levels. The Mphuka study accomplished the first task. The second step would require bold, innovative and possibly controversial measures, such as domestic debt restructuring, larger fiscal deficits, and increases in rates, coverage and types of taxation.

The third step requires one to address the potential that the funding measures would have negative effects on the economy. The most important of these would be 1) inflationary pressures created by the increased spending; 2) the 'Dutch Disease' effects of a higher level of ODA (McKinley

2005); 3) crowding out effects of an increased fiscal deficit, 4) the probability of private sector disincentives of higher taxation; and 5) public sector capacity to expand anti-poverty programmes.

Taking the MDGs seriously requires that none of these potential difficulties be treated in a reductionist manner in which they serve as 'trump cards' for limiting public expenditure. For example, the possibility of inflationary effects arising from a larger fiscal deficit is not an argument against increasing deficits, but an issue for empirical investigation. Further, empirical evidence that deficits above a certain level reduce growth should not be viewed as precluding deficits above the 'trigger' level.⁹⁹ Rather, the size of the negative growth effect should be assessed, and compared to policies to compensate for the effect. The same point holds for inflation effects. Even if moderate inflation can be shown to have a negative growth effect, the policy issue is the size of the effect in Zambia, and the possibility of policies to counter it without reducing MDG expenditure.¹⁰⁰

In this approach, poverty reduction is the goal, and a social cost-benefit analysis should be made of the potentially negative effects of inflation, Dutch disease, crowding out, disincentives and administrative capacity. This analysis would include consideration of policies consistent with poverty reduction targets to counter these effects. This approach would place the MDGs in the 'driver's seat' of fiscal policy in Zambia.

85 In early 2006, the Ministry of Finance and National Planning estimated that on the assumption of full implementation of G-8 debt cancellation, the total debt stock would fall to US\$ 747 million, of which Paris Club bilateral debt would be US\$ 110 million, bilateral non-Paris Club 280 million, and multilateral 356 million. The only two creditors that Zambia would owe over fifty million would be the European Investment Bank (twenty-five percent of the US\$ 747 million), China (twenty percent), Russia (fifteen percent), and International Fund for Agricultural Development (eleven percent). IMF and World Bank debts would be completely cancelled. The source for these numbers is information provided by the ministry. 86 The chart does not include 2005 and 2006 when debts were reduced dramatically, first by reaching the HIPC completion point in 2005, and further bilateral relief, and the promise of G-8 relief in 2006.

87 A WB web page describes the debt sustainability analysis as follows:

Reducing the threshold for a poor country's external debt to be considered unsustainable was an important area of consensus of the HIPC review, and a major element of the enhancement endorsed in September 1999. As with the original framework, external debt sustainability will continue to be determined by a Debt Sustainability Analysis (DSA) prepared by the debtor country, World Bank and the IMF, to determine whether a country is facing an unsustainable debt situation after the full application of traditional debt relief mechanisms. The new framework also allows for two related set of criteria to be considered. The first, which will continue to apply to most HIPCs, is the ratio of a country's debt to its exports. Under the enhanced framework, sustainable debt-to-export levels are defined at a fixed ratio of 150 percent (on a net present value basis, or NPV). The second, for those HIPCs with very open economies where exclusive reliance on external indicators may not adequately reflect the fiscal burden of external debt, an NPV debt-to-export target below 150 can be recommended if the country concerned meets two criteria at the decision point: an export-to-GDP ratio of at least 30 percent and a minimum threshold of fiscal revenue in relation to GDP of 15 percent. For these countries, the NPV debt-to-export target will be set at a level which achieves a 250 percent of the NPV debt-to-revenue ratio at the decision point. Côte d'Ivoire and Guyana qualified under this criteria [sic] under the initial framework. (<http://www.worldbank.org/hipc/faq/faq.html>)

88 Though the numbers for other variables are given, the precise rate at which exports would grow does not appear in the text of the IMF document, or in the box entitled 'Macroeconomic Assumptions Underlying the Debt Sustainability Analysis over the Period 2004-2023'. In the box, the full statement that refers to exports reads as follows:

Export volume is projected to show strong growth over the medium term, reflecting major investments in mining and agriculture, before slowing down to 4 percent annual growth over the long term, when mining exports are assume to expand at about 7 percent a year, while other (non-traditional) exports growth a about 7 percent a year. (IMF 2005a, 25).

In the text of the document virtually the same statement is found:

Following a strong export performance over the medium term mainly reflecting recent and ongoing investments in mining, agriculture, and tourism, export volumes are expected to growth at a more moderate pace of 4 percent over the long term. (IMF 2005a, 26)

However, the export growth rates can be calculated from a table in the IMF document, and this is done in Table 6.1.

89 In text Box 3 the investment ratio is specified as 'about 22.5 percent of GDP, down 2-3 percentage points from present levels'. For saving, the box states '[gross national savings (after official transfers and debt relief) is projected to remain in the range of 18-19 percent of GDP]' (IMF 2005a, 25, Box 3). The export and import shares can be calculated from Table 12, lines 4, 10 and 11.

Government revenue excluding grants is given in line 6 of the same table. Box 3 specifies the deficit as .6 percent of GDP above revenue plus grants. A grant level of three percent of GDP is also given in the table. These numbers imply: $[22.5 - 18.5] + [22.6 - 18.5] + [29.2 - 35.4] = 1.8$.

90 The percentages by year are given as 7.3, 7.1, 5.5, 2.9 and 5.9, respectively, with the penultimate 'estimated' and the last 'projected' (IMF 2005a, Table 2).

91 A WB web page on developing country debt states the following: The bulk of the debt relief envisaged by the [G-8] proposal would be provided by IDA. A number of issues need to be resolved before the proposal can be implemented, including key issues related to donor financing and additionality of donor resources. Bank staff have presented options for resolving key issues, which are

actively being considered by the Bank's Executive Directors as well as IDA donors. This proposal was discussed by the Development Committee during the 2005 Annual Meetings. It was also endorsed by our shareholders. Bank staff are working to resolve remaining implementation issues so that the proposal can be presented to its Board. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTDEBTDEPT/0,,contentMDK:20634753~menuPK:64166739~pagePK:64166689~piPK:64166646~theSitePK:469043,00.html>

92 For a comprehensive discussion, see Weeks (2006).

93 Officials at the Ministry of Finance and National Planning cited examples of cost increases and abandonment of projects directly resulting from cash budgeting requirements (interviews conducted in November 2004).

94 The IMF extends its projections to 2023 (see Table 6.1). Such a long time period involves too high a degree of uncertainty of estimation for the purposes of this report. The five-year period 2006-2010 is compared to 2000-2004, rather than 2001-2005, because relevant data for 2005 were not available when this report was written.

95 On page 35 (Table 12) of the IMF's Selected Issues document (IMF 2004a), the following numbers are given for 2000-2003, for the category 'revenue and grants' as a proportion of GDP, 25.1, 24.8, 26.2 and 25.0. The percentages category 'revenue' alone are 19.4, 19.1, 17.9 and 18.1. 6.7 is the average difference over the four years. The Ministry of Finance and Economic Planning reported 24.2 and 18.5, respectively, for 2004. The 'decision point' document provides figures only for the category 'revenue excluding grants'. The only mention of grant levels is in Box 2 (see quotation in Table 6.4).

96 On its HIPC web site (in 2005), the WB presents several 'frequently asked questions' (FAQ). In reply to the question, does debt relief replace development assistance, the following answer is given:

No. HIPC debt relief can be fully beneficial to a country only if it is provided in addition to previous rates of development assistance. A comparison of current debt service payments and concessional assistance illustrates how important continued aid programmes are to these countries. The ratio of gross inflows (from long-term debt and grants) to debt service paid averaged about two-to-one for the HIPCs as a group during the 1990s, and ranged upwards four-to-one in half of these countries. Annual net transfers to the HIPCs on medium- and long-term resource flows (including grants) averaged about 10 percent of GNP over the 1990-96 period.

Debt reduction must be additional to development assistance. (Emphasis added, www.worldbank.org/hipc)

97 This section draws on the draft Chapter 52 of the forthcoming National Development Plan.

98 The relationship between poverty and per capita income depends on the distribution of income. For example, if all households in extreme poverty were clustered just below the extreme poverty income line, a relatively small increase in per capita income would be needed to cut poverty by half. The assumption that doubling per capita income cuts poverty by half is a useful first approximation. While it is an over-estimate if households are clustered just under the poverty line, this may be offset by increased inequality in the distribution of the growth increment.

99 In a 2005 paper Adam and Bevan report a negative 'threshold effect [on growth] at a level of the deficit around 1.5% of GDP' based on cross-country regressions. Their conclusion is highly qualified:

While there appears to be a growth payoff to reducing deficits to this level, this effect disappears or reverses itself for further fiscal contraction. The magnitude of this payoff, but not its general character, necessarily depends on how changes in the deficit

are financed... and on how the change in the deficit is accommodated elsewhere in the Budget. (Adam and Bevan 2005), p. 571)

100 In a 2001 IMF Staff Paper, Khan and Senhadji report that '[t]he threshold level of inflation above which inflation significantly slows growth is estimated at...11-12 percent for developing countries' (Khan and Senhadji 2001, 1). However, the effect is quite small. For example, consider the IMF projected growth rate for Zambia of five percent, and assume that increasing the deficit increases in inflation. According to the Khan and Senhadji statistics, an increase in the rate of inflation from 11 percent (the threshold and about Zambia's inflation rate in 2006) to twenty per cent would reduce the growth rate by .47 percentage points. This implies an arc elasticity of -.11. Ceteris paribus, from the threshold level, a doubling of the inflation rate reduces the growth rate from an initial five percent to 4.4 percent (see Khan and Senhadji 2001, Table 3). With a velocity of money of four, a nine percent increase inflation requires an increase in the fiscal deficit of 2.25 percentage points of GDP. For any realistic capital-output ratio, this decline in the growth rate would easily be overcome by using the increased funds from the increased deficit for public investment.

Table 5.1: HIPC Debt Sustainability Analysis: assumptions and outcomes for GDP and exports, 2000 onwards

Item	2000	2001	2002	2003	2004	2000-04	2005-13	2014-23
GDP Growth								
assumed	4.0	5.0	5.0	5.0	5.0	4.8	5.0	5.0
actual	3.0	4.6	5.3	5.0	3.9	4.5		
Exports G7S US\$ mn								
assumed	1036	1241	1413	1506	1604	1360	2297	3977
actual	861	1028	1052	1217	1820	1196	7.8	5.7
Export volume (growth rate)								
assumed	22.9	18.1	13.0	6.4	6.3	13.3		
actual	-5.7	26.2	11.2	1.8	5.6	7.8	-5.5	
Indices (1995-99 = 100)								
Terms of trade								
assumed	113	114	117	117	117	115		
actual	96	94	88	92	110	96	-19.5	
Export Earnings								
assumed	96	105	116	130	145	118		
actual	80	101	112	120	131	109	-9.7	
Copper volume								
assumed	84	97	102	106	109	99		
actual	92	87	79	88	130	95	-4.4	
Price								
assumed	80	102	118	135	158	119		
actual	73	87	88	105	170	105	-14.2	
Earnings								
assumed	113	114	117	117	117	115		
actual	96	94	88	92	110	96	-19.5	

Note: Shaded Cells for Exports G&S are annual growth rates. The other shaded cells give the percentage point difference between assumed values and outcomes.

Source: IMF (2005a, Tables 11 and 12).

Table 5.2: IMF and World Bank operations in Zambia, 1973-2005

Date	IMF	World Bank
1973	one year standby agreement	Programme loan for 1973 oil price shock
1976	one year standby agreement	Programme loan in response to fall in copper prices
1978	two year standby agreement	First IDA credit (previously Zambia was a middle-income country by WB measure)
1981	three year Extended Fund Facility	
1982	Extended Fund Facility cancelled	
1983	one year standby at end of year	WB suspends disbursements due to government non-payment of external debts, negotiations resume at end of year
1984	21 month standby agreement	Project loan for copper sector
1985	Standby suspended	Policy package agreed with the WB, resulting in first Structural Adjustment loan
1987	Government cancels IMF programme	Government cancels WB programme
1989-90	Preliminary agreement for new lending	
1991	Lending agreement suspended by IMF	Lending agreement suspended by WB
1992	agreement reached allowing access to IMF loans despite arrears	arrears to WB cleared
1995	three year Enhanced Structural Adjustment Facility (ESAF), one year Adjustment Facility (SAF), total of US\$1,300 million	Recovery & Investment Project (ERIP) Structural agreed, with sectoral programmes resulting
1999	3 year ESAF (US\$ 350 million)	Sectoral & Project loans
2000	IPRSP positively reviewed by joint IMF/WB board; in December HIPC decision point reached	Sectoral & Project loans
2002	PRSP positively reviewed by joint IMF/WB board, but HIPC process delayed over bank privatisation	Sectoral & Project loans
2004	Poverty Reduction & Growth Facility loan (PRGF) of US\$ 320 million	Sectoral & Project loans
2005	HIPC completion point reached in April, after over four years	Sectoral & Project loans

Source: World Development Movement (2004), up-dated from WB and IMF websites.

Table 5.3: Some IMF & World Bank conditionalities for Zambia, 1991-2005

Date	IFI	Details
1991	World Bank	Economic Reform Credit deregulate maize markets, limit bank credits, Remove tariff bans, reduce civil service employment, initiate privatisation
1992	World Bank	Privatisation and Industrial Reform Credit (PIRC I) harmonise sales taxes, broaden tax base, reduce tariffs, reduce public employment by ten thousand, pass privatisation law, restructure state mining company
1992	IMF	Rights Accumulation Programme pay arrears to international creditors
1993	World Bank	PIRC II reduce tariffs, develop land market, change investment act, privatise 60 companies including state copper corporation
1994	World Bank	Economic & Structural Adjustment Credit (ESAC I) redirect budget funds to social sectors, eliminate export ban on maize, create legal framework for land leasehold, sell public owned farms, financial plan for Zambia Airways
1995	World Bank	Economic Recovery & Investment Project (ERIP) introduce value added tax, minimum budget and spending targets for social services, change social security system, privatise state copper corporation
1995	IMF	Enhanced Structural Adjustment Facility (ESAF) quantitative benchmarks including increase domestic assets of BOZ, increase foreign reserves, reduce government domestic debt arrears; restructure civil service, publish banking regulations, privatise state copper corporation
1996	World Bank	ESAC II social sector funding at least 35% of total public budget, implement 1995 land act, amend employment & industrial labour relations act, formulate policy for NGOs to delivery social services
1999	World Bank	Structural Adjustment Fund reform civil service, publish banking regulations, privatise state copper corporation
1999	IMF	ESAF privatise state enterprises including ZCCM, telecommunications, electricity, post office; no intervention in exchange rate market; deregulate strategic grain reserve; end public distribution of fertiliser; restrictive monetary & fiscal policy
2000	IMF & World Bank	HIPC decision point complete privatisation of public enterprises
2001	IMF	PRGF privatisation of ZNCB & ZESCO, deregulate & privatise energy sector and ZNOC; no intervention in exchange rate market; limit government expenditure

Source: World Development Movement (2004), up-dated from WB and IMF websites.

Table 5.4: The public budget, actual (2000-04) and IMF projections (2006-10)

Fiscal categories	Actual 2000-04	HIPC 2006-10	HIPC & G8 2006-10	Change: HIPC	HIPC & G8
Total income	25.3	22.5	22.5	-3.3	-2.8
Revenue	18.8	19.0	19.0	0.2	0.2
Grants	6.5	3.5	3.5	-3.5	-3.0
Total expenditure	29.2	23.1	23.1	-6.6	-6.1
Non-external debt	22.2	21.4	23.0	0.8	0.8
External debt	7.0	1.7	0.1	-5.3	-6.9
Overall deficit	-3.9	-0.6	-0.6	-3.3	-3.3
Fiscal space				-0.8	0.8

Notes and Sources:

The averages for 2000-04 are from the Ministry of Finance and are the same as given in IMF reports. For 2006-10 revenue and grants are from IMF (2005a) Table 12, and debt service from Table 15. Eight percent for wages and salaries was the upper limit conditionality set by the IMF. The 2006-10 overall deficit is set out in Box 3 under the heading 'fiscal policy'. 'Net change in fiscal space' is defined as the change in the level of government expenditure net of debt service, funded by revenue, grants and domestic borrowing. The increase in revenue and decline in debt service increased fiscal space, while the fall in grants and the deficit decreased fiscal space.

The IMF source explains the parameters of the 2006-10 budget as follows:

The 3-year PRGF-supported programme is anchored on reducing government's domestic borrowing to 0.6 percent of GDP in 2007, before falling to near zero over the long term. Government revenues are projected to rise gradually to 19 percent of GDP by 2011 and continue growing to 20 percent of GDP by 2016, before holding steady at that level.

Government spending, excluding externally financed projects, is expected to gradually fall to about 1 percentage point of GDP above government revenues, with the balance financed by budget support grants and loans. Externally financed projects are projected to decline gradually to 34 percent of GDP over the long term, with grants making up an increasing share of the total. (IMF 2005a, Box 3)

The G-8 differs from the HIPC one by debt service falling to one tenth of one percent of GDP (estimate by the Ministry of Finance and National Planning, based on the assumption that total debt will fall to below US\$ 500 million).

Table 5.5: Government expenditures in 2005 and the MDG 'Gap'

Expenditure items	2005 Actual	Percent domestic budget	GDP	Percent of GDP	
				MDG cost	MDG gap
Econ sectors	1023.6	17.0	3.1		
Agriculture	346	5.8	1.1		
Mining	16.4	0.3	0.1		
Tourism	40.8	0.7	0.1		
Communication & Transport	437.4	7.3	1.3	3.0	-1.7
Energy	22.3	0.4	0.1	2.0	-1.9
Construction	82.4	1.4	0.3	3.0	-2.7
Commerce	42.0	0.7	0.1		
Environment	20.2	0.3	0.1		
Other	15.7	0.3	0.0		
Social sectors	1763.9	29.3	5.4		
Education	1062.8	17.6	3.3	3.0	0.3
Health	480.0	8.0	1.5	7.0	-5.5
Water & Sanitation	32.4	0.5	0.1	2.0	-1.9
Social safety nets	89.7	1.5	0.3	3.0	-2.7
Disaster relief	52.3	0.9	0.2		
Other	46.7	0.8	0.1	1.0	-0.9
				<u>Totals:</u>	
Other expenditure	3235.1	53.7	9.9	24.0	17.1
Total domestic budget	6022.6		18.4		
Total discretionary	4697.7		14.4		
Total expenditure	6621.3		20.3		
Capital expenditure	2224.5		6.8		
Foreign financed					

Notes:

*Billions of Kwacha.

The MDG 'gap' is the difference between the 2005 budget allocation and the cost estimate of the achieving the MDG (both as percent of GDP). This makes the strong assumption that all 2005 expenditures in the relevant categories contributed to achieving the MDGs. The MDG costing categories are hunger, education, gender equality, health, water & sanitation, improving lives of slum dwellers, energy, roads and 'other' (Mphuka 2005, 35). The total estimate is 24 percent of GDP (25 percent in the source, presumably due to rounding). The percentage estimates in the source are allocated as follows: hunger to social safety nets; improving lives of slum dwellers to social safety nets; roads equally divided between construction and transport; and education, health, water & sanitation and energy to the same budget categories. The allocation is for presentation and does not affect the calculation.

Table 5.6: Proposal for the financing to achieve the MDGs in 2015*

Per capita growth=	3.7% %GDP Change		5.0% %GDP Change		7.0% %GDP Change	
MDG deficit	-17.1		-16.1		-14.6	
1. Reduction ext debt service	0.4	0.0	0.4	0.0	0.3	0.0
2. Restructure domestic debt	1.2	0.0	1.1	0.0	1.0	0.0
3. Increase tax revenue	3.0	3.0	2.8	2.8	2.6	2.6
4. Shift 'other' expenditures	3.3	0.0	3.1	0.0	2.8	0.0
5. Increase fiscal deficit	2.4	2.4	2.3	2.3	2.1	2.1
6. Foreign financial cap exp	3.4	0.0	3.2	0.0	2.9	0.0
7. Increase in ODA grants	3.4	3.4	3.2	3.2	2.9	2.9
Sum	17.1	8.8	16.1	8.3	14.6	7.5
Total expenditure 2005		27.1		27.1		27.1
Total expenditure, MDGs met*		35.9		35.4		34.6

Notes:

*All estimates are averages for 2006-2015.

**The income poverty target is only met in the 7 percent growth scenario (assuming distribution neutral growth).

1. Reduction of external debt service: assuming full G8 cancellation and bilateral cancellation.

2. Restructure domestic debt: new government bonds replace domestic debt at a 50 percent discount.

3. Increased corporate tax, with most revenue coming from mining.

4. Reallocation of one-third of total from 'General public Services, Defence and Public Safety'.

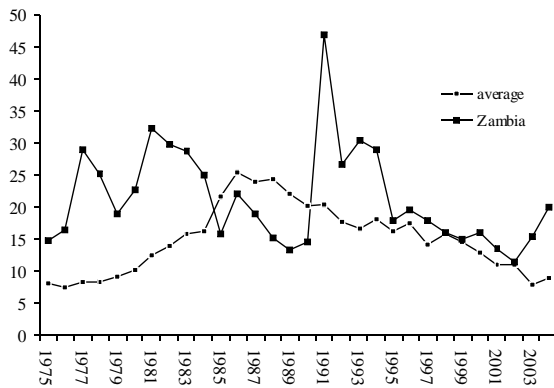
5. Fiscal deficit (public borrowing) rises to three percent of GDP.

6. Increase in external grants (residual item to fully cover the MDG gap).

7. Budget item 'Foreign financed' capital expenditures, which is not included in Table 5.4.

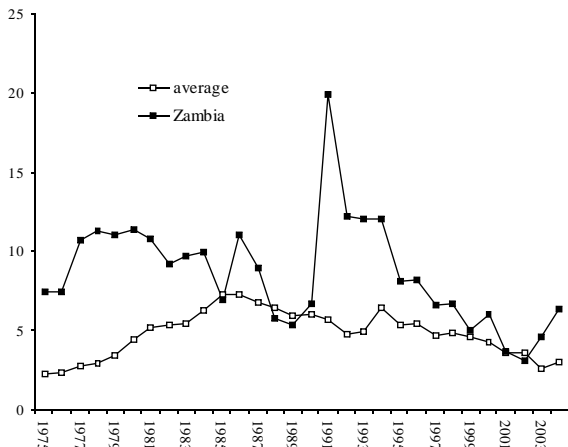
All three per capita growth rates assume population increase of 1.5 percent per annum (see www.worldbank.org, Zambia page).

Figure 5.1: External debt service as percentage of exports, Zambia and other sub-saharan countries, 1975-2004



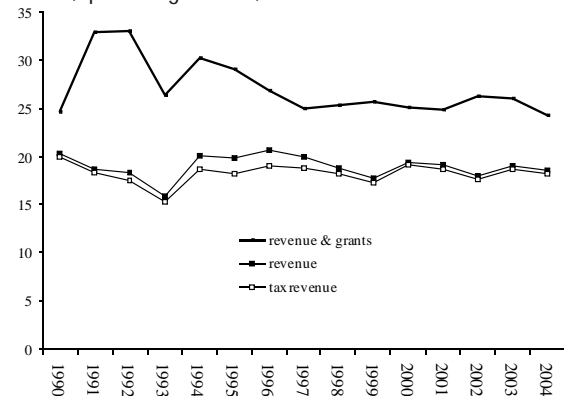
Sources: Ministry of Finance and National Planning, Macroeconomic Indicators (1997-2005), IMF (2004b, 2004f, 2005a & 2005b), World Bank World Development Indicators (web site).

Figure 5.2 External debt service as percentage of GDP, Zambia and other sub-saharan countries, 1975-2004



Sources: See Figure 5.1.

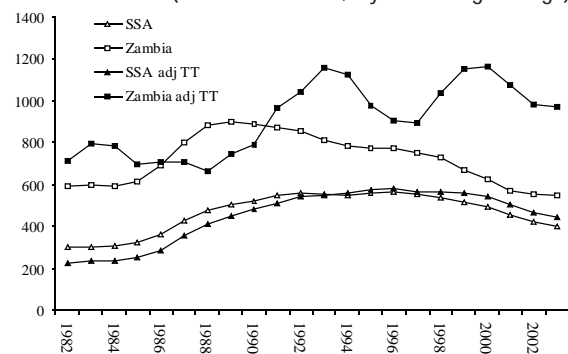
Figure 5.4: External grants, revenue and taxes as percentage of GDP, 1990-2004



Sources: Ministry of Finance and National Planning, Macroeconomic Indicators (1997-2005).

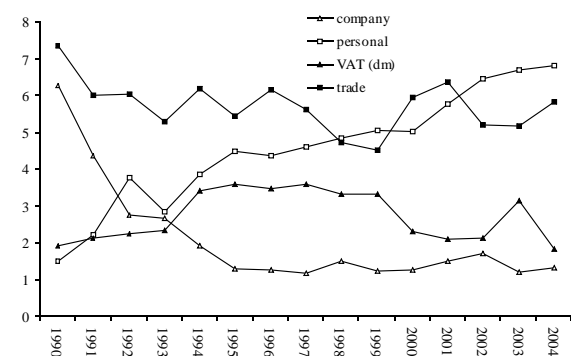
Note: Difference between taxes and revenue in 2000 was almost all proceeds from the privatisation of ZESCO.

Figure 5.3 External debt per capita, Zambia and other sub-saharan countries, observed and adjusted for the terms of trade 1975-2004 (current US dollars, 3 year moving average)



Sources: See Figure 5.1.

Figure 5.5: Types of taxes as a percentage of GDP, 1990-2004





6 ~ Monetary and Exchange Rate Policy

6.1 Introduction

Monetary, financial and exchange rate policies in Zambia went through two phases after independence. The first phase, until the late 1980s, was characterised by extensive intervention in the economy, the financial sector included, in order to support the government's growth policies. However, regulation and state intervention were not supported by a solid taxation system, the institutional strengthening of the state or the diversification of the country's economic base. During this period, the Zambian state was interventionist, but not strong. It was institutionally weak, and unable to impose a consistent set of economic priorities upon conflicting social interests.

The most important feature of the second phase, since the late 1980s, was the implementation of an orthodox programme of economic reforms guided by the IMF and World Bank. The financial sector, the exchange rate and the foreign currency flows were liberalised, and inflation control has become the main objective of monetary policy. These policies were associated with successes, including the reduction of inflation from 160 percent per annum to twenty

percent, substantial expansion of the financial system, and stabilisation of the nominal exchange rate. For the future, the international financial institutions (IFIs) and the government of Zambia aim to consolidate these reforms. Their main objectives are to increase confidence in the economy, reduce inflation to single digit levels, and raise savings and investment in order to achieve annual GDP growth rates of five percent per annum. For the long term, the policy would create the institutions needed to support economic development in Zambia, including, for example, a bank-based financial system, stock markets and venture capital funds, and monetary policies based on floating exchange rates, inflation targeting and central bank independence.

This chapter shows that the outcome of the reforms has been partial and uneven. Although institutional development and the elimination of high inflation have strengthened important areas of the Zambian economy, certain aspects of the adjustment and stabilisation programmes may have reached their limits; both in terms of their capacity to deliver their stated goals, and to contribute to the achievement of pro-poor objec-

tives. These limitations help to explain the feeble and unstable growth rates of the Zambian economy over the last fifteen years, and the concentration of income and wealth that has accompanied the reforms. They also help to explain the partial dollarisation of the economy and the financial fragility of the public sector, especially the domestic debt overhang.

The country continues to have severe balance of payments problems, and it remains heavily dependent on international aid. Financial system development has been skewed towards the wealthier regions, and the supply of financial services still bypasses the agricultural sector and the poor. Finally, the internal market remains unable to generate the supply responses required to address these structural weaknesses. The mission concludes that the so-called reform process has been insufficient, partly because of poor design. In practice, reform implementation and the pursuit of business confidence have occasionally become ends in themselves.¹⁰¹ This is undesirable, because the economic policy-making process should include checks and balances facilitating policy evaluation and the fine-tuning of underperforming policies. The government of Zambia has often been left with no alternative but to implement limited or failing policies with increasing determination, despite their disappointing outcomes.

There is scope to deploy a new, pro-poor economic strategy, using alternative policy tools to pursue socially desirable objectives. The policy changes of the past have failed to induce the rates of economic growth. These changes have also not been conducive to the improvement of Zambia's human development; or, even to sustain life expectancy in the country, which is the minimum requirement for the improvement of human welfare.¹⁰² Given economic policies and the prevailing distribution of income and wealth, Zambia will fail to achieve the MDG. This failure raises two important questions: were the reforms appropriate in the first place, and, if so, why

did they fail to achieve the expected outcomes. This chapter addresses these questions through assessment of the government of Zambia's monetary, financial and exchange rate policies.

This chapter assumes, first, that the state, civil society organisations, trade unions and other stakeholders should contribute to decisions regarding the allocation and use of social resources. This is especially necessary when there may be coordination failures or when the private sector systematically fails to target resource use towards socially desirable goals. This does not suggest that negotiations or state intervention through dialogue, regulation, intervention or public-private partnerships must lead to superior outcomes. However, it is evident that the state is the only social institution potentially accountable to the population through the democratic process. Institutions accountable to other stakeholders can also give an important contribution to the selection of economic policy priorities in Zambia.

In order to implement pro-poor policies, co-ordinate private sector activity and increase the democratic accountability of the state, the government of Zambia needs to have additional political space to select its own priorities and identify the most suitable tools in each case. Zambian state institutions have both the expertise and the sensitivity to local realities and popular demands that are needed to drive endogenously generated pro-poor policies. In this sense, policy ownership must come from within.

Ownership and good governance cannot be limited to, or measured, by the incorporation of goals and methods selected by the IFIs and the donor agencies. Ownership and good governance require effective control over projects, budgets and modes of delivery, and the ability to select the most desirable policies in the light of Zambian national interests. International organisations such as UNDP should support the pro-poor policies and choices of the Zambian government, and assist the

achievement of these desirable outcomes, without seeking to control either the choice of priorities or the selection of policy tools by the government of Zambia.

The second assumption is that there is gross underutilisation of resources in Zambia. There is also ample scope for the collaboration between the government of Zambia and the private sector in order to mobilise these resources to achieve pro-poor goals. Given the level of poverty in Zambia, the urgent needs of the population and the enormous potential of the country, it is important to identify forms of collaboration between private enterprise and the state with a view to achieving socially desirable goals. Collaboration is not only feasible; it is also imperative.

On the one hand, untrammelled private sector activity in Zambia has often not been conducive to, or even fully compatible with, pro-poor outcomes. On the other hand, a pro-poor development strategy cannot be implemented by the state in isolation from the private sector. A strategic partnership between state institutions and private enterprise is essential for effective resource mobilisation and the achievement of pro-poor objectives. In other words, a strong private sector is possible only when the state is strong, and the strength of both depends, to a large extent, on the adequacy of the macroeconomic policies.

For monetary, financial and exchange rate policy, this chapter claims that government of Zambia objectives have been constrained at two closely related, but analytically distinct, levels. First, they are limited by the country's poverty and institutional underdevelopment and, second, by the variance between policies and their stated goals. This chapter reviews both sources of weakness, and outlines an alternative monetary, financial and exchange rate policy framework supporting a pro-poor development strategy for Zambia. These suggestions are offered in the form of a menu of policy choices for consideration by the authorities. These policies can contribute in two ways to the

achievement of pro-poor goals. First, they will expand the government of Zambia's fiscal space, which is essential in order to channel resources to pro-poor development projects. Second, they will create incentives for the targeting of private sector resources in support of the country's pro-poor development strategy.

The third assumption underpinning this chapter is that fiscal, financial, monetary and exchange rate policies should be nested in a consistent and pro-poor enabling macroeconomic environment. This environment needs to include the country's industrial policy strategy, focusing on the development of complementary sectors, the achievement of balance of payments stability and the development of non-traditional competitive advantages supporting the reduction of poverty. These objectives cannot be easily achieved in Zambia at the moment, because the social demands upon the state are too large, the international environment is frequently too hostile, the available resources are too meagre, and the institutional framework is not always conducive to the achievement of socially desirable goals. The policy suggestions offered in this chapter aim to consolidate internal and external balance (low inflation, domestic debt sustainability, exchange rate stability, balance of payments equilibrium and the reversal dollarisation), protect Zambia from adverse external shocks, transfer policy levers to the domestic authorities, increase the degree of intersectoral policy co-ordination, and link macroeconomic stability with the achievement of pro-poor goals, in order to deliver economic prosperity and higher living standards for the majority of the population.

6.2 Changes in the Policy Regime ('Reforms')

The Zambian Financial System

The liberalisation of the Zambian financial sector had two main objectives; first, to increase the scope for market mechanisms to determine the allocation of resources

and, second, to facilitate the adoption of market-based monetary policy instruments, reducing the scope for the monetisation of fiscal deficits and curtailing their inflationary impact.¹⁰³ The first stage of the reforms was the liberalisation of interest rates and the introduction of government securities auctions, in 1993. These securities included T-bills of 28, 91, 182 and 273 days and government of Zambia bonds of 12, 18 and 24 months. The Bank of Zambia uses securities auctions both for liquidity management purposes and to influence market interest rates, since the T-bill rate is commonly used by the commercial banks as the benchmark for the price of loans. The Bank of Zambia started open market operations in 1995, and repurchase (repo) operations in 2002.¹⁰⁴ In 1998, the Bank of Zambia listed government bonds on the Lusaka Stock Exchange for secondary trading, in order to promote the development of the secondary market and increase the responsiveness of the money market to monetary policy. This initiative was largely unsuccessful, and secondary market activity remains extremely low.¹⁰⁵

In mid-2003, the Zambian banking system included the Bank of Zambia¹⁰⁶ and fourteen commercial banks with a branch network of 140, and holding ninety-one percent of the financial system's assets. Only one bank was state-owned (the Zambia National Commercial Bank, ZNCB, which was being privatised). Six were private foreign banks, two were foreign state-owned banks, and the others were locally owned. The subsidiaries of transnational banks accounted for three-quarters of the capitalisation of the banking system, and controlled sixty-five percent of assets, eighty-five percent of loans, sixty-four percent of deposits and seventy-three percent of the industry's earnings (see Tables 6.1-6.3). The Zambian financial sector also included the state-owned National Savings and Credit Bank (NSCB) and the Development Bank of Zambia (DBZ), three building societies,

several Microfinance institutions, bureaux de change, leasing and insurance companies, pension funds and the Lusaka Stock Exchange.¹⁰⁷

The financial sector reforms led to the opening of several banks, many with poorly qualified staff and insufficient capital. The number of banks increased from six, before the reforms, to twenty-five in December 1994, with 188 branches.¹⁰⁸ In the same period, the Bank of Zambia reduced the statutory reserve ratio from thirty percent to three percent. The ensuing liquidity surge, and insider lending, imprudent foreign exchange operations and high levels of non-performing loans created difficulties in several institutions. There were thirteen bank failures in the late nineties, costing the government in excess of K90 billion. Several failures remain unresolved. In response, the Bank of Zambia tightened up the regulations on capital requirements and foreign exchange trading, and increased the statutory reserve ratio to eleven percent in 2000, and to 17.5 percent in 2002. This ratio was cut to fourteen percent in October 2003, in order to foster the reduction of the lending rates. This move was consistent with the Bank of Zambia policy of increasing its reliance on indirect (market-based) monetary policy instruments, rather than direct regulation of the financial sector.¹⁰⁹

The real interest rates on government securities have normally been positive, and the commercial lending rates are consistently high. However, the real deposit rates tend to be negative (see Figures 6.1 through 6.3). They may have discouraged savings in the banking system and created incentives for other forms of saving, especially foreign currency deposits. Partly for this reason the financial system is highly dollarised, with approximately half of bank deposits and one third of loans in foreign currency (see Figures 6.4 and 6.5).¹¹⁰

The government of Zambia Financial Sector Development Plan (FSDP) admits that the Zambian financial sector has developed unevenly, and that it plays only a

limited role in the economy. Symptoms of these limitations are the lack of financial intermediation, low market liquidity, high interest rates, high bank costs, absence of long-term lending, underdevelopment of the secondary markets and low public confidence. There is also limited access to financial services in the rural areas, and for the low and middle income earners. The ratio of M2 to GDP in Zambia has been around fifteen to twenty percent, which is in the middle range for the sub-Saharan African region (in the early eighties, M2 reached thirty-five percent of GDP).

However, private sector credit was only six percent of GDP in 2001, one of the lowest ratios in the region. In contrast, public sector credit, at fourteen percent of GDP, was relatively high by sub-Saharan African standards. Moreover, Zambian banks hold more foreign assets than banks elsewhere in Africa. Bank earnings depend heavily on fees, the margin between the loans and savings rates, loans to blue chip companies and foreign exchange and government securities trading.¹¹¹

The FSDP attributes these imbalances to high inflation, crowding out of the private sector by the government, the lasting impact of the failure of several institutions and the regulatory shortcomings of the Bank of Zambia, the Securities and Exchange Commission, the Pensions and Insurance Authority, the Zambia Competition Commission and the Patents and Companies Registration Office. Zambian financial institutions are exposed to high risks due to the economy's dependence on copper, the accumulation of public sector arrears and the potential volatility of the interest rates and exchange rates (see section 6.3).¹¹²

In order to address these limitations, the FSDP proposes, first, the development of a financial safety net including the Bank of Zambia as lender of last resort, the introduction of a deposit insurance scheme and the reform of the regulatory and supervisory system, including revisions of the Bank of Zambia Act, the Banking and Financial

Services Act, the Building Societies Act, the Companies Act, the Securities Act, the Pension Scheme Regulations Act, the Insurance Act and related legislation. It also proposes the creation of a credit reference bureau and improvement of bank capacity to assess credit and loan performance.¹¹³

Second, improvements are necessary in cash management by the government and the private sector, and better co-ordination between fiscal and monetary policy. Problematic cash management by the Ministry of Finance and National Planning (MoFNP), the Zambia Revenue Authority (ZRA) and the Bank of Zambia cause large swings in the money market and volatility in the interbank interest rate. It also forces the commercial banks to hold large balances in their settlement accounts.¹¹⁴ Moreover, the lack of a developed secondary market leads to liquidity surges at the maturity of the government securities,¹¹⁵ and weaknesses in the payments system cause delays in the remittance of tax revenues to the Bank of Zambia, creating a fiscally costly float in the financial system.

Third, it is necessary to develop the capital market, which will require the involvement of the state at several levels.¹¹⁶ Government bonds with longer maturities should be introduced, because there was no pricing benchmark for long-term financial instruments. Regulation will be needed to permit trading in financial instruments such as bills of exchange and acceptances, and large corporations should be offered incentives to fund long-term projects through bond sales. Incentives will also be needed for the development of the stock markets and venture capital funds. The capitalisation of the Lusaka Stock Exchange was limited to US\$ 220m in March 2002 (eight percent of GDP). This is among the lowest in Africa, in spite of government support and donor technical assistance. Between its creation, in 1994, and December 2003, the number of companies listed on the Lusaka Stock Exchange grew only from seven to eleven, and four companies had their shares

quoted. Only a small number of companies made more than ten percent of shares available for trading.¹¹⁷ As to the venture capital funds, it is hoped that they will provide long-term capital to small and medium sized businesses in Zambia.¹¹⁸

Fourth, the FSDP recommends the revision of the Bank of Zambia Act in order to grant independence to the Bank of Zambia.¹¹⁹ Finally, the fiscal deficit should be reduced to 1.6 percent of GDP by 2006, in order to reduce the inflationary pressures in the economy (if they are financed through borrowing from the Bank of Zambia) or crowding out (if they are financed through domestic borrowing). As part of the effort to curtail the fiscal deficit, the remaining state-owned enterprises (SOEs) should be privatised, the government arrears (estimated at K600 billion) should be eliminated, the government's credit facility at the Bank of Zambia (fifteen percent of the previous year's revenue collection) should be curtailed, and the maturity of the Bank of Zambia bridge loans to the government should be reduced to less than one month.

Balance of Payments and Exchange Rate Management

The economic reforms included the complete liberalisation of imports and the capital account of the balance of payments and the abolition of exchange controls in order to improve resource allocation and attract foreign savings. Zambia adopted a managed floating exchange rate system in 1994, and the public is allowed to hold foreign currency accounts with the commercial banks. It was expected that these arrangements would provide incentives for the internalisation of the foreign exchange holdings.¹²⁰

The Interbank Foreign Exchange Market (IFEM) system was introduced in July 2003. Under this system, the exporters deal directly with the banks (primary dealers), and the banks are obliged to quote two-way prices. This should allow information to flow more symmetrically, encourage competition and reduce market distortions.

The exchange rate was relatively stable after the introduction of the IFEM, and the bid-offer spread narrowed from four percent to approximately three-quarters percent (look back to Figure 2.11 for exchange rate movements). The Bank of Zambia intervenes in the spot market only to smooth out fluctuations of the kwacha and to accumulate foreign exchange reserves, but it does not aim to influence the underlying market trends (which would be impossible, because the Bank of Zambia reserves are sufficient only for 1.5 months of imports).¹²¹

In spite of these achievements, there are three serious problems in the foreign exchange market. First, foreign currency supply is heavily concentrated in a small number of exporters and foreign donors.¹²² Second, the absence of a developed forward and swap market impedes the expansion of hedging by the private sector,¹²³ and, third, it is necessary to contain the process of dollarisation which took root during the late nineties. Under high inflation, domestic transactions were increasingly denominated in dollars, for example, in the real estate and cellular telephone sectors.

Dollarisation is undesirable because it compromises the effectiveness of monetary policy and creates liability mismatches that can be conducive to large capital losses to the private sector or to state institutions, or both. Although it is now illegal for Zambian citizens to make payments using foreign currency, the FSDP does not offer a clear programme of de-dollarisation.¹²⁴

Inflation Policy

As the country's balance of payments problems worsened during the seventies and eighties, the Zambian government increased its domestic and external borrowing in order to sustain the level of economic activity and finance the rising SOE deficits. Unfortunately, the copper prices and domestic demand failed to react. The combined pressures of the balance of payments problems, fiscal deficits, adverse climatic conditions and the costs of being a frontline state

fuelled a severe inflationary process in Zambia in the late eighties. Other problems followed. In order to finance the elections, the government monetised a large deficit in 1990-91. The simultaneous liberalisation of several markets created an inflation bubble, which was fed by the drought and the financial crisis. Monetary control helped to reduce inflation, which dropped to around twenty percent (see Figures 6.6 and 6.7).¹²⁵

With the reforms, price stability, rather than output growth, became the main monetary policy objective. This shift was formalised by the Bank of Zambia Act (Bank of Zambia 1996), which states that the Bank of Zambia 'shall formulate and implement monetary and supervisory policies that will ensure the maintenance of price and financial systems stability so to promote balanced macro-economic development'. The government and the Bank of Zambia set an annual inflation target, and the Bank of Zambia manages monetary policy with a view to achieving that target with IFI support. Essentially, the Bank of Zambia imposes quarterly targets for monetary base (reserve money) growth, which are enforced through fiscal austerity (a cash budget system has been in place since 1993) and direct and indirect monetary policy instruments, including auctions of T-bills and government of Zambia bonds, repos, changes in statutory reserve and core liquid asset ratios as well as foreign exchange operations (see Annex 6A.1).¹²⁶

In spite of the Bank of Zambia efforts, the inflation targets have been missed every year for several reasons, including inflation inertia, unfavourable expectations, poor fiscal performance, dollarisation, currency depreciation and adverse terms of trade and supply shocks.¹²⁷ In spite of this, increasing efforts have been made to reduce inflation to single digit levels in the near future and to consolidate the monetary policy framework through Bank of Zambia independence and its increasing reliance on indirect instruments of monetary policy. This should eventually permit the adoption of a fullyfl-

edged inflation targeting regime (ITR), where the manipulation of interest rates is sufficient to control the rate of inflation.

Pro-Poor Policy Alternatives

Before the economic reforms, long-term development projects and the expansion of productive capacity, agriculture and non-traditional exports were financed, with significant insufficiencies, by the state-owned banks, foreign debt, and inflation. This financing model had important fragilities, and it was disassembled in the nineties by a combination of privatisations, the closure of several state-owned institutions and institutional changes.

Unfortunately, the Zambian financial system remains small, inefficient, high cost, shallow, short-sighted and speculative. It is also highly concentrated and dominated by foreign banks. The financial institutions tend to offer short-term loans backed up by readily available collateral for trading and working capital, and personal credit for formal sector workers, who do not exceed ten percent of the active population.¹²⁸ The banks also finance the public deficit and participate actively in the foreign exchange market, but they do not tend to fund the expansion of priority economic areas. The 'commercialisation' (i.e., privatisation) of ZNCB is unlikely to address these shortcomings, as it will inevitably be denationalised, and the long-term survival of its branch network cannot be guaranteed.

In spite of these limitations, the financial sector reforms achieved three important goals. First, they transferred part of the state capacity to co-ordinate economic activity and allocate resources inter-sectorally and inter-temporally (the balance between investment and consumption and the composition of investment) to the private sector. Second, they embedded private sector interests in the policy-making process, through the decisive role of the commercial banks in the pricing of government securities, the determination of interest rates and the financing of the public

sector expenditures. Third, they enhanced the role of the private financial institutions in the foreign exchange market and, therefore, in the country's relations with the rest of the world.

Financial sector control of the key sources of capital has increased this sector's influence over state policies above and beyond its limited resources and the ambiguous outcome of its activities from the point of view of the poor. In spite of its disproportionate leverage over economic policies and outcomes, the financial sector remains structurally dependent upon the state. This is not only because of the institutional and regulatory framework in which it operates, rather because its main sources of revenue depend heavily upon the state: the provision of finance for the public sector and the remaining SOEs, government securities trading, personal loans to civil servants, currency trading backed up by the Bank of Zambia, and so on. In short, the financial system drains public funds and social resources, and systematically fails to channel them to priority and welfare-enhancing economic sectors.

These structural and policy shortcomings make it difficult for the government of Zambia to implement a pro-poor economic development strategy. The shift to indirect monetary policy instruments will increase further the degree of financial system control of social resources, and there is no guarantee that higher liquidity (e.g., through the cumulative reduction of compulsory reserves) will lead to an increase in the supply of loans to priority sectors.¹²⁹

In this sense, the Zambian financial system is only partially fulfilling its essential function of making resources available for production and funding socially desirable investment projects.

A pro-poor development strategy will require incentives for investment in priority sectors, especially agriculture, non-traditional exports, housing and infrastructure. The theory underpinning the reforms implies that bank lending is a rational

decision based on collateral and expert assessment of specific projects. This is insufficient, because it ignores the environment in which investment takes place. Investment, especially in large or infrastructural projects, can have a significant impact on the composition of growth and the direction of the development process. By the same token, economic growth can support investment projects that may not be viable otherwise. This does not imply that all projects can be equally profitable, but that investment co-ordination can improve loan performance and contribute to the achievement of socially desirable goals.

It follows that the MoFNP should select the sectors that might benefit from additional loans.¹³⁰ Credit flows to these sectors can be fostered through tax rebates, the reduction of compulsory reserve requirements (possibly in excess of the value of the loans, up to a certain limit), adjustments in the calculation of risk-weighted capital in order to favour long-term investment in socially desirable sectors, and loan protection to deflect part of the cost of loan defaults in priority sectors away from the banks. The government could also fund, through bond sales, a specialist agency to trade priority loan packages, in order to help dilute the banks' credit risks.¹³¹ In addition to targeting priority areas, incentives should also be available for microcredit, especially in rural areas, due to its potential contribution to nutrition and other basic needs. In this case, commercial banks could be offered tax and other incentives to make microcredit loans available, or be given the alternative of using part of their compulsory reserves in Microcredit operations.

One important limitation to the achievement of these socially desirable goals is the concentration and internationalisation of the Zambian banking system.¹³² Large and competitive state-owned banks can help to address these limitations. These banks can introduce competitive pricing practices into the financial market, and limit the bias of the transnational banks towards high value

transactions that bring little benefit to the poor. They can also satisfy the needs of markets that tend to be ignored by the private institutions, for example housing and small-scale farming. State institutions dedicated to these markets can be either founded or capitalised (where they already exist), for example through bond sales, possibly on the international market. Additional resources to support the achievement of pro-poor goals could be generated through a small tax (between 0.1 and 0.5 percent) on all financial transactions, including payments by cheque, transfers of funds and purchases of financial assets. These funds could be dedicated to specific projects, for example the capitalisation of microcredit institutions, the treatment of HIV/AIDS or infrastructure provision.

The cost of these regulatory changes for the banks can be reduced by the institutionalisation of the Bank of Zambia's lender of last resort function, the institution of a deposit safety net and the development of the secondary market, which will allow the banks to exit undesirable positions more easily. One step towards the consolidation of the secondary market is for the Bank of Zambia to include government of Zambia bonds in the core liquid assets of the banks, and to start rediscounting these bonds. In contrast, the LuSE has not been able to deliver its promised benefits, and the support it has received from the government of Zambia may need to be reassessed.¹³³ It would also probably be wasteful for the state to invest in the creation of venture capital funds, since there is little realistic prospect that they will bear fruit. It may be more rewarding for Zambia to invest the state resources consumed by LuSE in agriculture research units to develop seeds, fertilisers and pesticides suitable for the climate and soil of different regions of Zambia.

In addition to addressing the insufficiencies of the Zambian financial system, a pro-poor economic strategy needs to be supported by suitable monetary and fiscal

policies. Zambian monetary policy was heavily constrained by the domestic public debt (DPD) overhang, including more than K4 trillion in outstanding securities and K2 trillion in other liabilities, including arrears, unpaid pensions contributions and contingent liabilities (see Table 6.4). The DPD has been rising rapidly and, although its level remains sustainable, its rapid growth indicates that this may not always be the case. DPD interest payments alone consume ten percent of the budget and three percent of GDP. These figures are highly sensitive to the level of the interest rates, because the average maturity of the DPD is very short. At this stage, the DPD is a potential threat to macroeconomic stability. The debt is also distributionally regressive, because the interest payments tend to benefit the financial sector and the financial asset-holders, which do not include the poor. There is currently no strategy in place to manage the growth of the DPD or to address the accumulation of arrears, other than to seek fiscal restraint.¹³⁴ These problems need to be addressed urgently, in order to secure macroeconomic stability in the medium and long-run, and expand the fiscal space required for the success of the government's pro-poor programmes.

To begin, the domestic arrears include a wide range of liabilities of various state institutions.¹³⁵ Some were contracted legally but remain unpaid because of technical difficulties; others may have been contracted without the consent or even the knowledge of the authorities in charge of the budget. Certain expenditures were justified by the needs of the ongoing programmes, whereas others need to be explained more fully before payment. From the point of view of the private sector creditors, the arrears are partly a promise to pay for services delivered, and partly a speculative claim on public resources.

Attempts to address the accumulation of arrears should include legislation abolishing the cash budget system, which has been partly responsible for the diffusion of

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unsound and occasionally dysfunctional fiscal practices.¹³⁶ In addition to this, it is necessary to enforce a stricter commitment to the budget approved by parliament. On this basis, legislation can be introduced to penalise more severely the misuse of public funds, including unauthorised expenditures. The existing arrears should be considered on a case by case basis. This can be done by a specialist agency at the national level, or by specialist divisions within the key expenditure units. In each case, the provenance of the debts needs to be assessed. Discounts may be negotiated and payment could be made in cash, T-bills or long-term bonds, or the claims could be taken to court for adjudication. A special judicial channel could be created to assess these cases rapidly, fairly and consistently.

The pensions system also needs a large injection of resources, which may be funded by a combination of long-term bond sales and tax or social security contributions payable primarily by the prospective beneficiaries: formal sector workers and the state sector employees. Higher VAT on superfluous goods and services could supplement these sources of funds, for example, on luxury autos, air travel, electronic products and gourmet foods.

Improvements are also needed in the government's cash management, in order to reduce resource waste and the disequilibria in the interbank market. Currently, the banks can wait four days before transferring tax payments to the ZRA. At the same time, different government agencies maintain a large number of separate accounts in the commercial banks. These difficulties can be resolved relatively easily. All funds belonging to central government institutions should be transferred to the Bank of Zambia, to be held at a single Treasury account. Payments drawing on this account need proper authorisation, which can help to limit the misuse of public funds.

Finally, the commercial banks should transfer ZRA funds to the Treasury account daily (if necessary, on the basis of estimated

values), or as rapidly as the Bank of Zambia considers operationally feasible.

The expansion of the fiscal space in order to finance pro-poor and other priority economic programmes will also require the removal of other constraints on the public sector expenditures, among them the fiscal deficit. Deficits in Zambia have been modest by international standards. However, their inflationary impact depends not only on the size of the deficit, but also on its origin. For example, deficits due to current expenditures tend to be more inflationary than those due to capital programmes, because the latter expand productive capacity while the former only expand demand. Unfortunately, in Zambia public investment programmes have been cut drastically, and the fiscal budget is heavily tied up with current expenditures (most capital expenditures are aid-financed). Half of the tax revenues are used to pay the public sector employees; while state administration, DPD service and the constitutional reform consume another thirty percent of the budget. Only twenty percent is available for pro-poor programmes and investment.

It would be misguided to address these difficulties primarily through additional public expenditure cuts (see Annex 6.2). In Zambia, the fiscal budget can play an important role in the generation of demand, the expansion of capacity and the financing of pro-poor programmes. The fiscal deficit is also essential for the profitability of the financial system and the development of the capital markets. The expansion of the fiscal space needed to carry out pro-poor activities requires policies at two levels. On the one hand, it is necessary to expand public expenditures in priority areas, even if the fiscal deficit increases in the short-term. There is no reason to believe that this will crowd out private sector expenditures, because the Zambian economy is operating far from its production possibilities frontier due to the existence of several significant supply constraints. Moreover, there is abundant liquidity available in the financial

system, as is demonstrated by the large balances held in foreign currency accounts and the banks' insatiable demand for government securities (especially as the secondary market develops). What Zambia currently lacks is profitable investment opportunities. Public expenditures can help to create such opportunities, both directly and through the removal of the supply constraints, opening new frontiers for private accumulation and economic growth.

On the other hand, the government needs a strategy to stabilise the DPD and to manage its consolidated debt (after the incorporation of the arrears and pensions liabilities), in order to secure monetary and financial system stability.¹³⁷ This strategy may include four types of policy measures. First, the government should support the development of the securities markets and make more intensive use of repos for monetary policy.¹³⁸ Second, the reduction of the interest rates on the government securities, in order to cut the cost of the DPD service. This will be facilitated by the introduction of controls on capital flows and on foreign currency accounts (see below). In the absence of competition from quality private sector financial assets, there is no reason why the state should pay high rates for its securities. Third, the introduction of long-term (ten to twenty year) bonds to finance pensions, infrastructure and social programmes. Fourth, the automatic transfer to the Treasury account of all Bank of Zambia revenues in government securities.

If these measures are insufficient to stem the growth of the domestic public debt, the government may be forced to choose between expanding its capacity to service the debt (through higher taxation or cuts in social spending and public investment) or reviewing the size and liquidity of the debt to make it compatible with the government's capacity to pay, given its pro-poor policy commitments (see Annex 6A.3). This adjustment could be achieved in different ways. It could include, for example, negotiations to convert short-term T-bills

and bonds into index-linked instruments bearing lower interest rates and longer maturity. This can be made simpler if these securities are included into the compulsory bank reserves or the banks' risk-adjusted capital requirements. In extreme circumstances, the government may suspend temporarily the domestic public debt service (as well as payments on other financial contracts involving the Bank of Zambia and the government of Zambia) until a sensible solution can be found for the DPD overhang and its service costs. In this case, it may be necessary to restrict trading in public sector securities in the Lusaka Stock Exchange to protect traders against further capital losses, and as the prelude for restructuring the domestic public debt and reducing its cost (see Annex 6A.4). Alternatively, the government might impose a substantial one-off tax on financial assets to finance its social programmes, which would help to stabilise the domestic public debt and to direct resources to pro-poor priorities simultaneously. None of these measures cancels property rights, but they make the exercise of these rights compatible with domestic production capacity and macro-economic stability, including the long-term viability of the Zambian financial markets.¹³⁹

It is also necessary to address the long-term sustainability of the balance of payments and the management of the exchange rate. Let us consider each of them in turn. A sustainable balance of payments is essential for any development strategy, but this is especially important for pro-poor strategies because they require high and sustained growth rates and the expansion of the scope for autonomous policy decisions.

Zambia's balance of payments constraint is binding at three levels: trade, capital flows and the foreign debt overhang. Trade policies are reviewed elsewhere in this report. Here, it suffices to say that a more diversified trading pattern is essential to permit the capture of gains from trade and to distribute them more equally across

society. The backward and forward linkages of copper mining in Zambia are feeble, and it is important to internalise the chains of economic activity around copper, and distribute more widely the productivity gains obtained in this industry. This will require investment in related activities, including not only mineral processing and enriching, but also fuel, spare parts, maintenance, housing, transport, communications and consumables.

These investments will support productivity growth in copper mining, and help to transfer some of these gains to the rest of the economy. In the long-run, they will also increase the economy's resilience against fluctuations in the copper prices. These investments can be funded in different ways, including portfolio diversification by the exporters, transfers through the financial system, and state investment funded by foreign aid or in the manner described below. Given the limited fiscal space available to the state, capital investment in export-related sectors and economic diversification may require an extraordinary levy on copper mining. This levy could be imposed in different ways.

One alternative is to impose a substantial one-off tax on extraordinary profits. This has the advantage of being non-distortionary, but it may be inappropriate not only for legal reasons (depending on the interpretation of the contracts with the concessionary companies), but also because the buoyancy of the international copper market may last, in which case the concept of 'extraordinary profits' becomes inapplicable. In this case, it may be more desirable to create a Copper Stabilisation and Development Trust, financed by a permanent export levy and a small contribution from the government of Zambia. In order to distinguish this levy from a regular tax, the Trust could be managed by an independent board appointed by parliament. Its remit would include the long-term stabilisation of the industry, the promotion of regional poor development, and economic diversifi-

cation. This can be interpreted broadly, to include not only the Copperbelt but also the construction of supporting infrastructure in other parts of Zambia. For example, the Trust could take responsibility for the development of transport links in the mining areas, cheapening the copper exports and increasing the profitability of the sector. It could also develop transport links elsewhere, if this would support indirectly the expansion of copper mining.

Moving to the capital account of the balance of payments, its liberalisation has changed the form of the balance of payments constraint in Zambia. Previously, it appeared through the absolute scarcity of foreign exchange; in contrast, it now appears through the potential volatility of the exchange rate and, increasingly, the need to maintain attractive interest rates to entice foreign capital and retain domestic capital in Zambia. It is necessary to stabilise the capital account in order to reduce the country's vulnerability to changes in the circumstances in the financial markets in the developed countries, as well as in South Africa. Zambia's vulnerability is significant because of the denationalisation of the banking system and the extent of dollarisation.

Three measures can help to address these weaknesses. First, capital flows need to be controlled. In order to preserve the incentives for foreign investment in Zambia, the Chilean model of capital controls is probably the most appropriate. This model does not involve restrictions on outflows. However, all foreign capital inflows should be deposited in the Bank of Zambia at zero interest for a fixed period of time (for example, two or three months).¹⁴⁰ This should ensure that committed investors still find it profitable to invest in Zambia, while uncommitted speculators will find their profit margins severely eroded. This type of capital control would also help to reinforce, on a sustainable basis, the reserves of the Bank of Zambia. Alternatively, restrictions may be imposed on capital outflows, for example through a compulsory interest-free

deposit before repatriation, or through a small tax on capital exports or on foreign currency transactions, for example, those taking place in Zambia, involving Zambian nationals, firms based in Zambia or Zambian banks.

Second, a foreign currency transactions register should be created, in order to minimise tax evasion and the scope for exchange rate volatility and capital flight. This register should be accompanied by the introduction of a criminal offence of filing misleading declarations, which should be supervised by the Bank of Zambia. Along the same lines, it would also be important to introduce a small tax on all foreign currency remittances (except debt service), and to require MoFNP or parliamentary authorisation for all foreign currency borrowing and bond sales. The current stability of the kwacha offers an opportunity for the introduction of these stabilising measures, since it would be much harder to impose them when the exchange rate is unstable.

Third, it is essential to reduce Zambia's foreign debt stock further, as is argued elsewhere in this report. This can be achieved partly through international negotiations and greater aid flows and, partly, through a careful audit of the debt by expert consultants hired by the Zambian government. Other countries have been able to achieve significant reductions in their debt in this manner, indicating that this may be one of the most profitable undertakings available to the government of Zambia.

In addition to improving the current account and stabilising the capital account of the balance of payments, it is also important to implement an exchange rate regime compatible with the government's long-term anti-inflation policy and its pro-poor objectives. In terms of the former, the managed floating system has been very successful, as a result of buoyant copper prices and the relative prosperity of the non-traditional exports. However, this system has also led to a significant valorisation of the kwacha, and it may lead to

economic instability in the future. In addition to this, the potential contribution of this policy regime to pro-poor policies and outcomes is intrinsically limited. A policy choice is needed, and the priority attributed to achieving very low rates of inflation may be sub-optimal. Exchange rate stability is essential for inflation control in a small open economy, especially if it is highly dollarised. This implies that inflation targeting may not be adequate for Zambia, because this policy regime requires a floating exchange rate. However, it does not follow that nominal exchange rate targeting would be the appropriate alternative, because of Zambia's diversified trading pattern and heavy import dependence. It is likely that the most appropriate exchange rate regime for Zambia would aim to stabilise the real effective exchange rate at a slightly undervalued level.¹⁴¹ This can be achieved either through the shift to an active crawling peg, or through a policy of 'talking down' the kwacha and, simultaneously, relaxing the fiscal and monetary policy stance in order to restore the incentives to the non-traditional export sector. This is especially important because the latter is likely to be more sensitive than copper mining to the level of the exchange rate.

The foreign exchange market could also benefit from small regulatory changes, in order to assist the stabilisation of the kwacha at the desired level. These changes include, especially, recognition of the fact that the value of the kwacha is heavily influenced by the aid flows, which are anything but driven by economic fundamentals. Hence, although the value of the kwacha is currently determined by market processes, it is in no way determined by market variables. In order to stabilise the exchange rate within the desired range, it might be useful to split the foreign exchange market into three channels: (a) a commercial channel for private current account transactions, (b) a financial channel for capital and financial account flows (subject to the controls indicated above), and (c) a non-

commercial channel for official and non-government organisation currency flows. These channels, possibly operating under different exchange rates, would reflect the specific features of each type of currency flow. Transactions in the first two channels may be undertaken in the commercial banking system and the bureaux de change; but the third, including non-market flows only, that tend to be spasmodic, unpredictable and conditional, should be centralised in the Bank of Zambia. This will help to stabilise the foreign exchange market, reduce the fiscal and monetary policy impact of fluctuations in aid delivery, and facilitate the accumulation of reserves by the Zambian government.

Dollarisation is the last potential source of instability to be considered in this section. The foreign currency account overhang in Zambia is very large (see Figures 6.4 and 6.5), and sudden portfolio shifts by the account-holders could severely destabilise the kwacha. In extreme circumstances, these shifts may lead to hyperinflation. In this sense, the recent attempts by the Zambian authorities to limit the circulation of dollars are commendable, because they have helped to increase the potency of the monetary policy instruments, support exchange rate stability and expand the fiscal space of the public sector. However, the overhang of foreign currency deposits has not been addressed yet.

In order to absorb the foreign currency deposits in a controlled manner, it may be appropriate to increase the risk imputed to bank deposits denominated in foreign currency, and raise the compulsory deposit ratio on foreign exchange deposits from 14.5 percent (the same ratio as the kwacha deposits) to one hundred percent. These administrative measures will create disincentives to the banks holding foreign currency deposits, possibly leading to restrictions in their availability to the public. It may also be useful to tax Zambian citizens holding assets denominated in foreign currency. In contrast, incentives should be offered to

facilitate the conversion of the foreign currency deposits into kwacha, for example, a limited tax amnesty. If these measures are judged to be impractical, or if there is a prospect of capital flight or hyperinflation because of the misuse of the foreign currency accounts, the government should secure their compulsory conversion into long-term (ten to twenty year) domestic bonds. These bonds may be index-linked (in order to protect holders from domestic inflation), or linked to the exchange rate (to protect them from any devaluation of the kwacha). These concessions will increase the cost of conversion, but they may help to build consensus around these policy measures. The foreign currency resources made available to the state can be placed into a trust fund in charge of the bond payments, and tasked to invest these resources in pro-poor projects selected in consultation with the MoFNP.

Alternatively, instead of being converted into bonds the foreign currency account balances could be converted into shares in a holding company with a remit similar to the trust fund outlined above. In this case, the shares would be non-redeemable, rather be traded at the LuSE, and the fund would make regular dividend payments depending on the rate of return on its investments.

6.3 Inflation Policy

The Zambian macroeconomic policy mix has been eclectic, aiming to stabilise inflation, the financial system and the exchange rate, and to facilitate the accumulation of foreign reserves by the Bank of Zambia. Significant successes have been achieved in all areas; however, the reduction of inflation to single-digit levels has been elusive. Low inflation is perceived to be desirable not only because of the supposed costs of inflation, but also because Zambia has become an outlier, with the inflation rates in most neighbouring countries being lower than those in Zambia. Inflation has tended to become rigid, despite the Bank of

Zambia efforts to reduce it further and the recent revaluation of the real exchange rate. This may indicate that the scope for the use of demand control measures is nearly exhausted. They helped to eliminate high inflation, but the moderate inflation rates in Zambia may be due primarily to supply factors.¹⁴² These factors include the climate and infrastructure bottlenecks affecting food supply, changes in imported goods prices, indexation, and adverse expectations leading to speculative behaviour. None of these causes of inflation responds directly to the money supply controls being imposed by the Bank of Zambia. It is increasingly clear that the ambitious inflation targets of the government of Zambia are unachievable except at a very high cost for the economy and for social welfare. It may be more desirable to implement a medium-term anti-inflation strategy, aiming to stabilise the rate of inflation while the supply constraints are relaxed, in order to reduce the economic and social costs of inflation control. It is also likely that the financial programming model of the Bank of Zambia, which is being used to control the monetary aggregates, may be inadequate. The monetarist money supply targeting experiences in West Germany, Switzerland, the UK and the US did not vindicate the claims that money supply targeting was either feasible or conducive to rapid inflation stabilisation (Arestis and Sawyer 1998). In addition to these practical difficulties, the theory underpinning money supply targeting was fatally damaged by the criticisms inflicted by the new classical, Keynesian and radical political economists in the eighties (Levacic and Rebmann 1982 and Sawyer 1989).

Furthermore, it is unclear why the Bank of Zambia should spend so much effort, at such a high cost to the economy, seeking to reduce inflation to single digit levels. The literature shows that moderate inflation, in the ten to forty percent range, generates few if any economic costs, while attempts to impose very low inflation can be costly

(Chowdhury 2004 and Rao 2002). Moderate inflation is not associated with slower growth, lower investment, higher unemployment, less foreign direct investment or the deterioration of any important real variable.¹⁴³ It is even possible that moderate inflation may help to sustain economic growth, especially when there is excess capacity and significant unemployment or underemployment. The literature does seem to indicate that, first, the relationship between inflation and growth is non-linear. Second, the optimal rate of inflation can change in space and over time, and it may even be positively correlated with the rate of economic growth.¹⁴⁴ Third, even though high inflation can harm the poor, excessively low inflation and conventional stabilisation policies can have the same result. Therefore, there seems to be no ground to claim that inflation should always be maintained in the single digit range (McKinley 2003).

The government of Zambia's anti-inflation strategy should be reconsidered for other reasons too. Zambia's inflation targeting 'lite' does not constitute a full-fledged inflation targeting regime (ITR), because ITR involves much more than having a desired inflation rate and assigning one policy tool (in Zambia, the broad money supply) to achieve this goal. ITR also requires a range of supporting institutions and an elaborate institutional framework contributing to the achievement of the central bank's main policy objective.¹⁴⁵ Zambia is far from having the institutional capacity to adopt ITR, even though the country has been moving towards it for several years.¹⁴⁶ At the moment, the Bank of Zambia lacks a model of inflation and a fuller understanding of the monetary policy transmission process in the country. Its inflation and money supply targets are determined through a simple set of identities, explained in Annex 6A.1, and the outcomes of this strategy have been limited (Munacinga 2004, 27, 32-35). In other words, the Bank of Zambia has been largely

following rules of thumb while it attempts to build its reputation (Stone 2003, 14). However, the outcomes of this strategy are bound to be limited, because sustained gains in confidence must be based on policy achievements, rather than merely upon intentions. At the moment it is hoped that these achievements will derive largely from the confidence expected to flow from the good intentions of the monetary authority. This is unlikely to offer the basis for sustainable economic policy.

There are other reasons why ITR may be inappropriate for Zambia.¹⁴⁷ First, the economy is small and volatile and the inflation outturns are, correspondingly, variable, depending on imponderables (such as the climate) to a much greater extent than in larger economies. The variance of the outturns implies that, in order to increase the probability of achieving an inflation target, the Bank of Zambia must adopt tighter monetary policies than would be required otherwise. These policies are costly and they will tend to depress the economy, which may be incompatible with poverty reduction and the alleviation of existing supply constraints.¹⁴⁸

Second, the Bank of Zambia cannot count on the interest rate mechanism to steer the economy towards the inflation target, because the Zambian financial system is too shallow. At this stage, a combination of policy mechanisms is being used, including money supply targets backed up by fiscal austerity and OMOs. This has been inefficient, and it has increased the economic costs of achieving low inflation in Zambia.

Third, ITR is incompatible with fiscal dominance, which is evidently present in Zambia. Moreover, economic volatility destabilises both the state expenditures and monetary policy, because tax revenues fluctuate and unexpected expenditures often cannot be deferred or even financed by recourse to the financial markets. These fluctuations are exacerbated by the volatility of the aid flows.

Fourth, ITR is incompatible with financial or money market instability. It could be extremely costly to assert the priority of the inflation target in the face of an impending financial crisis, and conflicts of this type are more likely to happen where the financial system is relatively shallow and undeveloped than in countries with developed financial systems. Furthermore, it can be difficult to control inflation when money supply and demand are unstable. Fluctuations in the supply of money were examined above, but money demand in Zambia is volatile. This is partly because of the recent financial sector reforms, the introduction of financial market innovations and the changes in portfolio associated with the reform process (Munacinga 2004, pp.85-6). As a result, the Bank of Zambia has been unable to estimate with confidence the demand for money, which makes it difficult to pursue the inflation target.

Fifth, ITR is not suitable for countries with a tight balance of payments constraint, or where the exchange rate is volatile.¹⁴⁹ Although the latter has been relatively stable in Zambia recently, the balance of payments constraint remains binding. Moreover, the exchange rate channel seems to be more important than the monetary channel to explain variations in the rate of inflation.¹⁵⁰

These limitations indicate that an alternative strategy of inflation control may be desirable. This strategy should address primarily the causes of inflation, and it should be compatible with the achievement of pro-poor outcomes. In other words, it should include a medium-term programme to address key supply constraints (roads, bridges, agricultural development, food storage and marketing, exports, and so on), while avoiding a superfluous obsession with single digit rates of inflation. As long as inflation remains stable, its current level is low enough not to make it especially costly to the poor. The current rate of inflation is probably less costly than a harsh and potentially misguided disinflation programme would be, even if it were successful.

A more desirable medium-term anti-inflation strategy should avoid overly restrictive constraints on the supply of money, or the domination of the interest rates by inflation objectives. It should rely extensively on targeted fiscal policies, while suspending the drift towards Bank of Zambia independence, though literature has not demonstrated that central bank independence brings benefits in terms of inflation performance, growth, volatility or the sacrifice ratio (the output cost of reducing inflation). Moreover, the central bank, like all other social institutions, needs to accommodate many different social interests, rather than merely sectoral ambitions to achieve very low inflation and protection of the financial sector. In this context, inflation control should be pursued as part of a medium-term pro-poor development strategy, including other objectives such as price, exchange rate and financial stability, export diversification, and economic growth and distribution.

6.4. Conclusion

The development of pro-poor monetary, financial and exchange rate policies in Zambia requires careful policy co-ordination, and the subordination of these policies to an industrial policy strategy. This strategy should aim to relieve the supply constraints that prevent the achievement of the welfare improvements pursued by government, and rightly expected by the population. A macroeconomic reform strategy focusing on the adjustment of relative prices and the construction of the institutional edifice into which a thriving market economy would be expected to grow is risky, because it may put into place inappropriate structures given the state of development of Zambia, the aspirations of its people, and the policy objectives of the government. The ensuing conflicts and economic underperformance could be wasteful and potentially destabilising. It is impossible to wish into existence an institu-

tionally developed economy, and it is undesirable to attempt to mould economic structures in advance, and from the outside. Economic policies and institutional development must correspond to the peculiarities and the state of development of the country while, at the same time, attempting to steer the economy towards the fulfilment of socially desirable goals.

The reform programme was successful on several counts, explained above, but it has been unable to distribute these gains among the majority of the population. This chapter has addressed some of the shortcomings of this policy strategy, while acknowledging its successes and offering concrete suggestions for the expansion and consolidation of the pro-poor policies and programmes of the government of Zambia.

The proposed measures vary in scope and intensity, depending on the circumstances, and they may be adopted in different combinations depending on the government's priorities. Their main objectives are 1) to increase the degree of co-ordination across different policy areas, including industrial, trade, monetary, financial and exchange rate policy; 2) to restrict the openness of the capital account of the balance of payments in order to expand the policy space of the government of Zambia; 3) to expand the government's fiscal space in order to facilitate the use of public resources for the achievement of socially desirable goals; and 4) to harmonise the use of financial system resources with the pro-poor priorities of the government, raise the productivity of these resources, and limit the ability of financial system to control domestic credit, the financing of the state and the balance of payments. These policies can contribute to the achievement of pro-poor development objectives and, as such, they can claim the attention of the authorities.

101 '[T]he government and the donors have made fiscal austerity an end in itself and a measure of reform commitment' (Rakner, van de Walle and Mulaisho 1999, p.2).

102 'Despite much policy reform in the 1990s, despite the heavy injection of what became palliative external assistance and despite modest external debt relief, the ... Zambian economy contracted in

absolute terms over the past two decades, a period in which the country's population rose by 80 percent to over 10 million people today, while per capita income was halved. Zambia became the only developing country for which the UNDP's Human Development Index showed a negative trend in the 1990s. Whilst at Independence in 1964, Zambia was the second richest country in Africa, today it ranks amongst the continent's poorest nations...Summing up development in Zambia, the WB noted that with a decline in per capita GNP in excess of 30 percent in the 1980s, the country held "one of the worst records of economic decline of any country not engaged in internal or external warfare" (van der Heijden 2001, p.1). Alternatively, 'human development indicators [suggest] that the human condition in Zambia worsened since the mid nineteen seventies up until the advent of the new millennium. The deterioration was especially notable during the period of the structural adjustment programmes' (Seshamani 2005, p.2).

103 'The development of the government bond market in any economy is very important in that it is the sure way the government deficits can be covered in a less inflationary way. It is therefore imperative that the Zambian government is encouraged to finance its budget deficits through borrowing from the market' (FSDP 2004, paragraph 294). For a critical assessment of Zambian financial liberalisation, see Adam (1995).

104 Currently, blue-chip corporations can borrow at two to five percent above the T-bill rates, but smaller firms and personal loans are charged significantly higher rates. See Figures 7.1-7.3, IMF (2004a, p.93), Munacinga (2004, pp.18, 80) and FSDP (2004, paragraphs 271-2, 282-3).

105 See FSDP (2004, paragraphs 65, 101 and section 7.2.4.i), IMF (2004a, p.96) and www.luse.co.zm.

106 The reform of the Bank of Zambia is described by Hesselmark (1998).

107 See FSDP (2004, paragraphs 92-8, 219, 221-2, 224) and IMF (2004a, p.94).

108 See Maimbo and Mavrotas (2003, p.7).

109 See FSDP (2004, paragraphs 20, 153 and section 7.2.5), Maimbo and Mavrotas (2003, pp.6, 11-12) and Munacinga (2004, pp.8, 19-20).

110 See FSDP (2004, paragraphs 8-9, 47-8, 93, 272-3 and section 7.2.5) and Munacinga (2004, pp.17, 64-66).

111 'Without income on foreign currency operations, most banks would have been unprofitable over the last four years' (FSDP 2004, paragraph 230). See also paragraphs 2, 4, 18-19, 28, 49, 65, 89, 93, 228-9, 231, 234, 237 and section 5.3, IMF (2004a, p.94).

112 See FSDP (2004, paragraphs 7, 18, 20, 56-7, 65, 101, 140, 284).

113 See FSDP (2004, paragraphs 16, 21, 65, 105-7, 140-3, 154-61, 232 and section 3.8.2-3).

114 See FSDP (2004, paragraphs 50, 65, 101 and section 7.2.4 iii) and IMF (2004a, p.95).

115 See FSDP (2004, paragraphs 6, 49, 55, 84, 87-8) and Munacinga (2004, p.18).

116 'The importance of a well functioning capital market cannot be overemphasized as it improves financial market efficiency and is the missing link in Zambia's long quest and search for economic development, sustainable economic growth and poverty reduction' (FSDP 2004, paragraph 284). See also FSDP (2004, paragraphs 16 and 309 vi).

117 See also FSDP (2004, paragraphs 103, 299) and Munacinga (2004, p.21). The prospects for the Lusaka Stock Exchange have improved lately: 'market capitalisation [has] increased ... to US\$1.650 million. This positive development was helped not only by the stable exchange rate but equally by investor confidence in the market. With the listing of the Zambia Metal Fabricators Plc (ZAMEFA), the number of companies listed on the Lusaka Stock

Exchange increased to 12 [in 2004]' (MoFNP 2005, p.6).

118 FSDP (2004, paragraphs 58-9 and section 7.3.8 xix).

119 The Bank of Zambia is currently subordinated to the executive. For example, section 5, part II of the Bank of Zambia Act (1996) states that 'The Minister [of Finance and National Planning] may convey to the Governor [of the Bank of Zambia] such general or particular government policies as may affect the conduct of the affairs of the Bank and the Bank shall implement or give effect to such policies'. See also parts III and VII of the Bank of Zambia Act, FSDP (2004, paragraphs 165, 208 and sections 3.8.2.i and 4.4.1) and Munacinga (2004, p.20).

120 See FSDP (2004, paragraph 270).

121 See FSDP (2004, paragraphs 102, 310-11, 313-15), MoFNP (2005, p.5) and Munacinga (2004, pp.12-17, 53, 132-4).

122 See FSDP (2004, paragraph 316).

123 See FSDP (2004, paragraph 102) and Munacinga (2004, p.135).

124 See FSDP (2004, paragraphs 54, 317) and Munacinga (2004, p.113).

125 See Munacinga (2004, pp.13, 47-9, 81).

126 'Inflation has remained stubborn at around 17 percent over the past two years. This is the single most important factor in determining the level of interest rates. High inflation rates have contributed to the high interest rates in the country, making the cost of doing business prohibitive. In our quest to see the economy grow, inflation must be brought to single digit over the next two years. In this regard, monetary policy in 2005 will be geared towards reaching the end-year annual inflation of not more than 15 percent by restricting the growth of money supply to 16 percent' MoFNP (2005, p.9). The perceptive reader will have noticed that this quote fails to distinguish between real and nominal interest rates (see section 8.3).

127 See Munacinga (2004, pp.21, 81-2). The weight of food prices in the CPI is currently fifty-seven percent, of which maize prices correspond to eighty-five percent. Obviously, any variation in maize prices, for example, because of crop failures or speculation, will have severe implications for inflation.

128 This is not a problem that can be resolved easily or simply through efficiency gains. A financial system can be highly competitive (and, in this narrow sense, efficient) and, at the same time, dysfunctional if it does not contribute to the country's development objectives.

129 There is evidence that lending in Zambia is largely demand-driven. The influence of monetary policy is marginal, as price seems to explain only seven percent of the movements in total loans even after two years (Munacinga 2004, p.64).

130 'Thought should be put on new and creative institutional mechanisms to support credit to the poor and to job-generating activities. Both public and private mechanisms (such as public guarantees) should be considered for that purpose. Unfortunately, among the PRSPs under analysis, the evidence is that few identify how new financing mechanisms in support of the poor can be provided' (Gottschalk 2004, pp.36).

131 Previous experiences in Zambia indicate that the banks do not always find it profitable to lend to priority sectors, even if they are offered discounts on their compulsory reserve requirements. This is because their additional interest income from the loans is insufficient to compensate the additional risk of the loans. These disappointing outcomes do not imply that directed credit is unfeasible, only that it needs to be supported by an appropriate incentive structure.

132 See Gottschalk (2004, p.31).

133 'The creation of such [small] exchanges may be a premature project as they might lack an actual economic rationale ... [F]or instance, ... the Lusaka Stock Exchange (LuSE) has little effect on the larger Zambian economy ... [The] LuSE consists of "forced

trading" (a SEC-licensed dealer must necessarily direct all trading in public companies through the LuSE) associated with corporate restructurings. For instance, the remarkable increase in the number of shares traded, number of trades, and turnover ratio in 2001 was mostly the result of changes in ownership and mandatory offers in Zambia Sugar and in Chilanga Cement. Of the number of total shares traded in the LuSE in 2001, 97.9 percent were shares of Zambia Sugar; another 1.4 percent were shares of Chilanga Cement ... The LuSE appears to be making little if any contribution to the Zambian economy ... [T]he LuSE's failure to foster economic development in Zambia is mainly a function of the overall weak economic environment and less a function of the legal and technical constraints on the exchange ... There are little or no savings to be allocated to the few existing firms. Savings are low because earnings are low and because Zambians can expect to live for only 38 years. Those who can afford to save will search for better returns and a safer portfolio of investments. Excess returns of holding stocks (over a 12-month period) have been negative during the 1998-2001 period' (Marone 2003, pp.1, 11, 25).

134 See FSDP (2004, paragraph 65 xviii).

135 'Domestic arrears are defined as: (i) any bill that has been received by a spending Ministry from a supplier for goods and services delivered (and verified) and for which payment has not been made within 30 days after the due date of payments; (ii) Wage, salary and any payment to government employees, including any direct or indirect scheme of housing assistance, that were due to be paid in a given month but remained unpaid on the fifteenth of the following month; and (iii) interest or principal obligations which remain unpaid thirty days after the due date of payment. This definition of domestic arrears excludes changes in the stock on account of interest, penalties and valuation changes' (IMF 2004d, p.57).

136 For heavily critical assessments of Zambia's cash budget, see Dinh, Adugna and Myers (2002) and Stasavage and Moyo (2002); see also Fagernas and Roberts (2004, pp.viii, 24), Seshamani (2005, p.16) and WB (2003b, p.xv).

137 There is 'urgent need for fiscal adjustment to break the unsustainable cycle of rising domestic debt and interest payments in recent years. To illustrate the risks, the staff team presented alternative scenarios. Under an adjustment scenario consistent with higher external support and the move in 2004 to a PRGF arrangement with the HIPC completion point reached soon after, it would be possible to achieve a gradual phasing out of domestic financing, which would be eliminated in 2008. This should result in a gradual decline in the domestic debt from 21.9 percent of GDP in 2003 to below fourteen percent of GDP in 2008 ... In a scenario without fiscal adjustment, domestic financing would double from 4.9 percent of GDP in 2004 to ten percent of GDP in 2008, entailing an unsustainable rise of domestic debt and interest payments and a sharp reduction in all components of primary spending (IMF 2004d, pp.13-14). Alternatively, 'fiscal consolidation is envisaged to prevent a further escalation of domestic debt and interest payments that would jeopardise macroeconomic stability and sharply constrain spending on poverty reduction' (Bank of Zambia 2004, p.21).

138 See FSDP (2004, paragraph 7.2.6.ii).

139 'There is a respectable and influential body of opinion which ... fulminates alike against devaluations and [capital] levies, on the ground that they infringe the untouchable sacredness of contract ... Yet such persons, by overlooking one of the greatest of all social principles, namely the fundamental distinction between the right of the individual to repudiate contract and the right of the State to control vested interest, are the worst enemies of what they seek to preserve. For nothing can preserve the integrity of contract between individuals, except a discretionary authority in the State to revise what has become intolerable. The powers of uninterrupted usury are too great. If the accretions of vested interest were to grow without mitigation for many

generations, half the population would be no better than slaves to the other half' (Keynes, Tract on Monetary Reform, CW 4, pp.56-7, cited in Skidelsky 1992, p.160).

140 See Epstein, Grabel and Jomo (2003).

141 There is a compelling argument in the industrial policy literature that exchange rate stability and a slight undervaluation of the domestic currency offer the most conducive environment for long-term economic growth. See, for example, Agosin and Tussie (1993), Chang (1993) and Gereffi and Wyman (1990). See also Guillaume and Stasavage (1999, p.33).

142 It is clearly misguided to address cost inflation through demand measures; for example: 'the expected increase in the price of petroleum products was likely to add to production and transport costs, and hence adversely affect inflation outcome. Therefore, monetary policy actions were directed at containing the growth of reserve money within the projected path. To achieve this, the Bank of Zambia was to employ indirect instruments, such as the sale of Government securities' (Bank of Zambia 2004, p.3, emphasis added).

143 See, for example, Bruno (1995), Bruno and Easterly (1996), Chang and Grabel (2004, ch.11), Dornbusch and Fischer (1991), Epstein and Yeldan (2004) and Rao (2002).

144 'While some will interpret this as a licence for big spending, huge deficits and hyperinflation, we simply point out that there is no strong evidence in support of the argument that very low inflation is either pro-growth or pro-poor. Actually, too low an inflation rate can be as harmful to the poor as too high a rate of inflation' (Vandemoortele 2004, p.13).

145 Inflation targeting 'lite' (ITL) is a widely practiced monetary regime in weak economies, see Stone (2003).

146 See Stone (2003, pp.20-21). For the case study of Nigeria, see Batini (2004); see also Ball and Reyes (n.d.), Carare and Stone (2003) and Stone and Bhundia (2004).

147 For a detailed study of the preconditions for ITR, see Carare et al (2002).

148 'The reason why emerging market economies explicitly concerned with price stability usually perform less well than developed economies in terms of price and/or inflation stabilisation can be attributed to the fact that stabilizing prices is harder for emerging market economies. This is because emerging market economies face a more volatile macroeconomic environment and, typically, have weaker institutions that enjoy less credibility than their developed economies' counterparties. Importantly, the volatility of macrovariables and the authorities' credibility are related, in the sense that emerging market economies find it more difficult to acquire credibility in an unstable environment. In turn, this leads to unstable outcomes, which undermine the credentials of the monetary authorities' (Batini 2004, p.9). Similarly, 'it seems important that inflation targeting, if adopted, does not have an excessively low target, nor too a narrow band, for inflation. Also, too a low inflation target may not be appropriate for these countries as they may be subject to higher price variability when compared to developed countries, given the price shocks they are subject to, and their relatively weaker production and distribution systems' (Gottschalk 2004, pp.33).

149 'It is not possible for a country open to international capital flows ... to have both a stable exchange rate and monetary policy directed at domestic goals like price stability the so called "impossible trinity" ... Sooner or later conflicts between the two goals arise, jeopardizing the attainment of one or even both objectives. One particular aspect of the debate is that trying too hard to keep exchange rates stable when the economy is open and subject to short-term capital flows can be risky. International evidence confirms this notion' (Batini 2004, p.7).

150 See Munacinga (2004, pp.67, 79). For IMF (2004a, p.94), 'quite often ... the central bank [of Zambia] focuses excessively on

exchange rate stability (as reflected in frequent foreign exchange auctions and interventions), concentrating less on conventional monetary policy. This attachment to multiple policy goals has at times generated some inconsistencies between the stated objective of 'price stability and exchange rate stability'. See also Gottschalk (2004).

Table 6.1: Zambian banks: assets, capitalisation and profitability, 2003 (K million and %)

	Total Assets (TA)	Share of TA	Total Capital	Pre-tax profit	Capitalisation (%)	Return on assets (%)	Branches
BBZ	1,017,991	21.8	107,308	80,655	10.5	7.9	27
ZNCB	931,475	19.9	59,372	15,230	60.4	1.8	43
SCB	787,330	16.8	92,222	61,765	11.7	9.0	15
STAN	544,837	11.7	53,784	43,504	9.9	8.7	8
CITI	487,878	10.4	109,728	43,080	22.5	10.0	2
INDO	272,082	5.8	47,678	16,008	17.5	7.1	7
FBZ	284,162	6.1	31,013	18,011	10.9	6.4	32
BOC	62,992	1.3	5,801	109	9.2	0.2	1
FAB	65,621	1.4	21,543	10,520	32.8	17.3	3
ABC	101,386	2.2	12,188	4,987	12.0	59.7	1
INVEST	45,865	1.0	7,292	1,253	15.9	3.2	2
CAV	26,830	0.6	5,055	2,784	18.8	12.9	1
IDH	26,645	0.6	7,927	3,553	29.8	13.2	1
N/CAP	21,217	0.5	4,959	1,151	23.4	6.0	8
TOTAL	4,676,311			565,870	302,610		140

Table 6.2: Distribution of banking sector assets, loans and deposits (K billion and %)

	Dec 01						Dec 02						Jun 03					
	Assets	%	Loans	%	Deposits	%	Assets	%	Loans	%	Deposits	%	Assets	%	Loans	%	Deposits	%
Foreign banks	2,284	66	783	73	1,546	64	3,029	64	798	82	2,142	66	3,274	65	925	85	2,274	64
Government banks	857	25	251	23	673	28	1,251	26	94	10	913	28	1,321	26	75	7	1,005	28
Local banks	319	9	45	4	187	8	444	9	83	8	202	6	449	9	86	8	254	8
Total	3,460	100	1,079	100	2,406	100	4,724	99	975	100	3,257	100	5,044	100	1,086	100	3,533	100

Sources: Source: FSDP (2004, p.61).

Table 6.3: Banking sector's earnings by type of ownership (K million and %)

	Dec 01		Dec 02		Jun 03	
	Pre-tax profit	%	Pre-tax profit	%	Pre-tax profit	%
Foreign banks	184,516	125	237,653	68	99,158	73
Government banks	-54,963	-37	78,926	22	16,550	12
Local banks	18,963	12	337,719	10	19,725	15
Total	147,907	100	350,298	100	135,433	100

Sources: Source: FSDP (2004, p.61).

Table 6.4: Domestic public debt and interest payments (% GDP)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Central government expenditure	3.2	40.2	37.2	35.8	38.1	32.8	27.5	26.1	30.6	29.3	31.0	32.1	31.9	32.6	26.8
T-bills and bonds outstanding	na	na	na	na	na	7.9	6.5	5.9	4.0	4.4	5.4	8.3	19.0	21.1	na
Interest (% expenditure)	4.3	4.2	7.4	13.5	12.0	7.8	11.2	8.6	4.3	4.8	4.5	4.9	8.7	8.9	10.8
Interest (% GDP)	1.4	1.7	2.7	4.8	4.6	2.6	3.1	2.2	1.3	1.4	1.4	1.6	2.8	2.9	2.9

Sources: IMF and Bank of Zambia.

Figure 6.1: Bank of Zambia Interest Rate and Inflation, 1998-2005 (percentages)

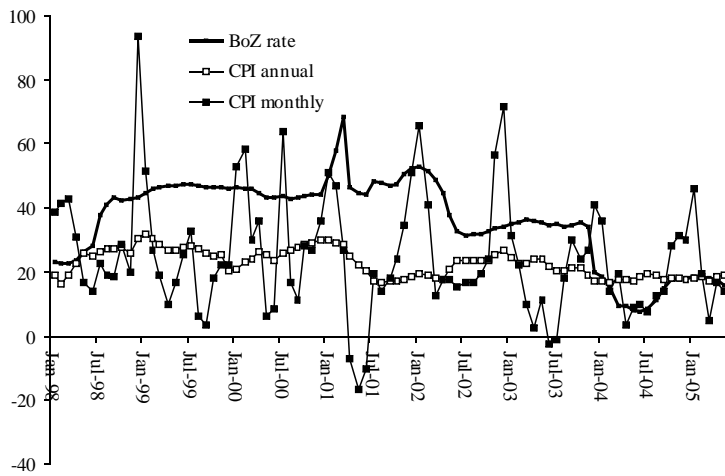
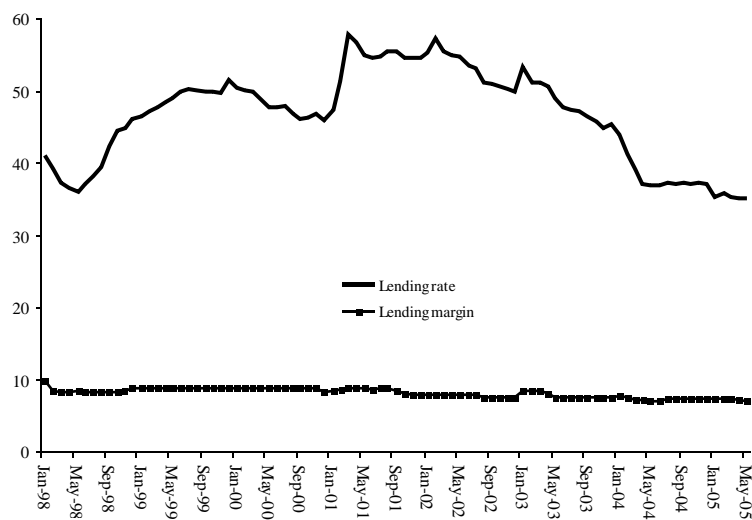
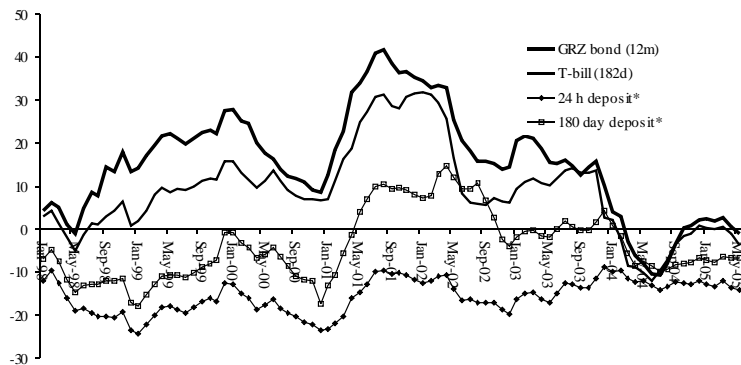


Figure 6.2: Lending Rate and Lending Margins, 1998-2005 (percentages)



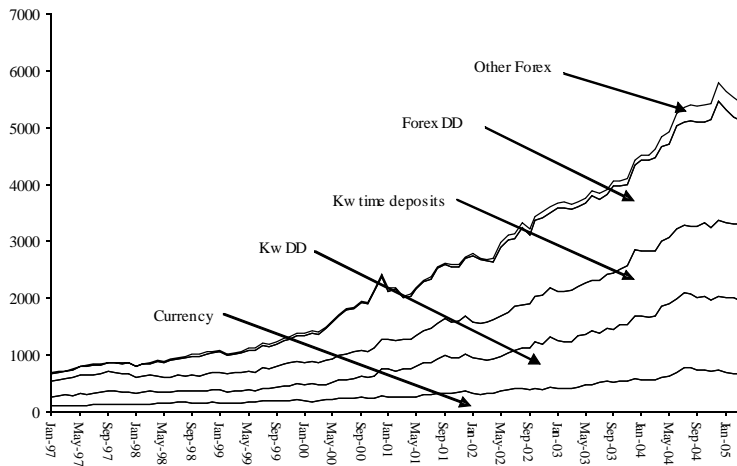
Sources: Bank of Zambia.

Figure 6.3: Real annual rates of return to saving instruments, 1998-2005



*Deposits over K20million
Sources: Bank of Zambia.

Figure 6.4: Composition of the money supply, 1997-2005 (M3, billions of Kwacha)



DD- demand deposits
Sources: Bank of Zambia.

Figure 6.5: Composition of the money supply, 1997-2005 (M3, percentages)

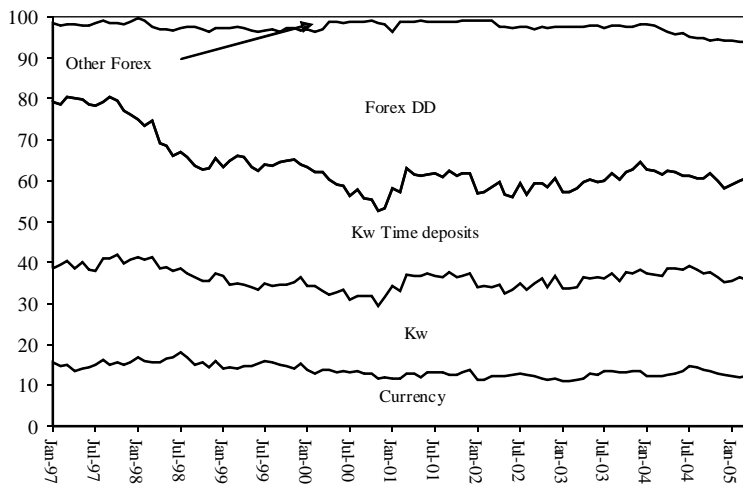
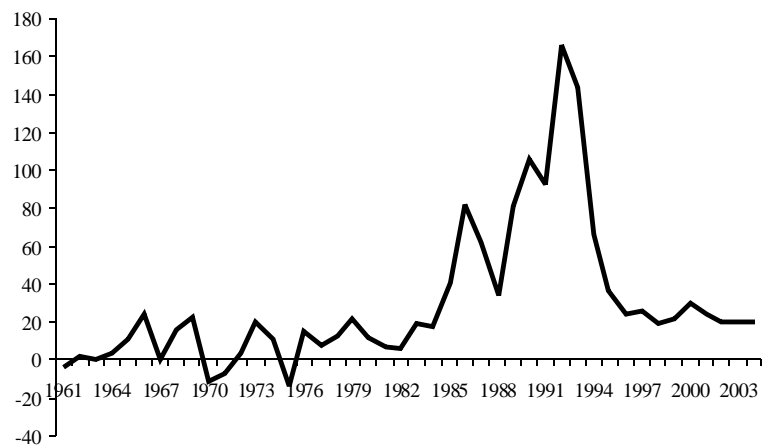
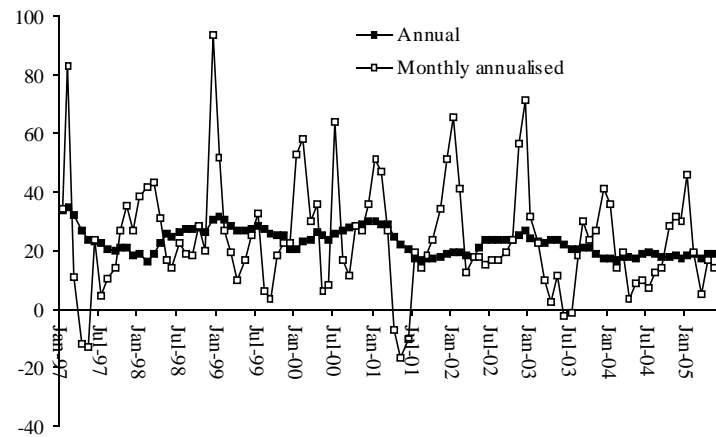


Figure 6.6: Annual inflation rate, 1961-2004 (GDP deflator, percentages)



Sources: IMF(2005) and Bank of Zambia(2003).

Figure 6.7: Inflation rate, 1997-2005 (CPI, percentages)



Annex

6A.1: Money Supply Targeting in Zambia

Monetary policy implementation in Zambia is based on the IMF financial programming framework. There is no model of inflation or of the monetary policy transmission mechanism in Zambia, and monetary policy departs from three identities (Munacinga (2004, pp.21, 36-9, 79-81, 128). First, the equation of exchange:

$$MV = Py \quad (1)$$

where M is the supply of broad money (M2), V is the velocity of circulation, P is the price level and y is the real output.

Second, the consolidated balance sheet of the central bank:

$$Mh = NDA + NFA \quad (2)$$

where Mh is base (reserve) money, NDA is net domestic assets and NFA is net foreign assets. NDA can be decomposed into credit to the government (Dcg), credit to non-government (Dcp) and other net items (ONI):

$$Mh = Dcg + Dcp + ONI + NFA \quad (3)$$

Therefore,

$$dMh = dDcg + dDcp + dONI + dNFA \quad (4)$$

Alternatively, base money includes currency in circulation and bank reserves:

$$Mh = C + RR + ER + VC \quad (5)$$

where C is currency in circulation, RR and ER are required and excess reserves, and VC is vault cash in the banking system. The Bank of Zambia can reduce (increase) the reserve ratio through regulation, OMOs or the discount window. The outcome of the

adjustment process is captured by the money multiplier, m:

$$M = mMh \quad (6)$$

where $m = (cd+1)/(cd+rr)$, cd is the currency-deposit ratio and rr is the required reserve ratio.

The third identity refers to the balance of payments:

$$CA = dMh - KA \quad (7)$$

where CA is the current account and KA is the capital account .

In consultation with the government, the Bank of Zambia and IMF and World Bank representatives set the annual targets for GDP growth and inflation, assuming a constant velocity of circulation. Then the growth rate for broad money is set, which allows the calculation of the desired growth rate of reserve money. Subsequently, the individual components of reserve money are determined.

Finally, the operational target (the growth rate of reserve money) is set. Discretionary monetary policy is estimated by subtracting NDA from the estimated operating target levels for reserve money. The projected paths for these variables are the benchmark for monetary policy operations. Policy implementation takes the form of minimising deviations of their actual paths from the target levels, using open market operations, changes in the statutory ratios, foreign exchange market intervention, commercial bank loan restrictions and moral suasion, in addition to fiscal austerity.

6A.2 Definitions of the Public Sector Deficit

Public sector deficits can be measured in different ways depending on the revenues

and expenditures included in the calculation (i.e., the concept of 'public sector'), and the form of calculation of each flow. This annex focuses on three common measures of the public sector deficit, the nominal deficit (or public sector borrowing requirement, PSBR), and the primary and operational deficits.

Nominal Deficit (PSBR)

The PSBR was formalised by the IMF in the eighties (IMF 1986). It measures the difference between the expenditures of the central government and its revenues in a given period (in what follows, one year) or, alternatively, the change of the net debt of the non-financial public sector. The central government comprises all public sector agencies; among them national and local state units and semi-autonomous agencies, including social security and state-owned enterprises (SOEs).

Their budget constraint can be represented by:

$$G = T + \Delta M_h + \Delta B + E \Delta R^* + \Delta C$$

where G is expenditures, T is tax revenues, ΔM_h and ΔB are the changes of the monetary base (seigniorage) and the domestic debt with the non-government sector (i.e., excluding government securities held by the central bank), E is the average nominal exchange rate, R^* is the international reserves, and C is the debt of the SOEs.¹⁵¹ For simplicity, arrears and other non-conventional forms of public expenditure financing are excluded. The nominal deficit of the central government (PSBR) is:

$$N = \text{PSBR} = G - T = \Delta M_h + \Delta B + E \Delta R^* + \Delta C$$

The PSBR can also be measured through the variation of the net debt of the public sector (NDPS), where

$$\text{NDPS} = \Delta M_h + \Delta B + E \Delta R^* + \Delta C.$$

Primary Deficit

The primary deficit (P) excludes interest payments on the public sector debt:

$$P = N - iB$$

where i is the nominal interest rate, $i = (1+p)(1+r) - 1$, p is the rate of inflation, and r is the real interest rate.

The primary deficit is an indicator of the sustainability of the domestic debt and, for this reason, it is often used as a proxy for the risk of default of the public sector. If the primary deficit is positive the government's debt has increased for non-financial reasons and, in this sense, it may be unsustainable. Conversely, a primary surplus (even if it is insufficient to eliminate the nominal deficit) indicates that the public sector is paying at least part of the interest on its debt. In principle, this implies that the public sector debt is sustainable.

Operational Deficit

The operational deficit (O) is the nominal deficit minus that part of the interest paid by the government that corresponds to inflation:

$$O = N - pB$$

The rationale for the operational deficit is the following. If there is inflation, part of the nominal variation of the DPD is merely due to the increase in the general price index, compensating the holders of securities for the devaluation of their capital. This does not correspond to any fiscal imbalance. For illustration, see the example in Table 6A.1.

Suppose that the country's GDP is 100, that economic growth is nil, The rate of inflation is zero, and that the nominal and real interest rates are ten percent. The government's debt on 1 January is 9.1. Suppose also that the tax revenues cover the government's non-financial expenditures.¹⁵²

On 31 December, when interest is due on the public sector bonds, 0.91 monetary

units must be financed. Since there are no tax revenues available (and monetisation is ruled out by assumption), the government must sell additional bonds to pay interest. Therefore, the primary deficit is nil, the nominal deficit is 0.91, and the DPD rises to 10.01:

In the following year there is one hundred percent inflation. Therefore, GDP rises to two hundred and, if the real interest rate is to remain at ten percent, the nominal interest rate must rise to 120 percent ($i = (1+p)(1+r) - 1 = (1+1)(1+0.1) - 1 = 1.2$). If the government's tax revenues remain equal to its non-financial expenditures ($P = 0$), the DPD will grow by the amount of the interest due. In this case, this interest will be:

$$iB = [(1 + p) (1 + r) - 1] B = [(1 + 1) (1 + 0.1) - 1] (9.1) = 10.92$$

which is also the nominal deficit. The DPD therefore increases to $9.1 + 10.92 = 20.02$ during this year.

If we exclude the impact of inflation on the DPD, we can determine the Operational deficit:

$$O = N - pB = 10.92 - (0.2) 9.1 = 0.91$$

which is equal to the nominal deficit, purged of the impact of inflation (this is the same as the nominal deficit for the zero inflation case, illustrated in Table 6A.2): The significance of the operational deficit becomes clear in the following scenario. Suppose that, in the case as in Table 6A.3, the government decides to eliminate its nominal deficit, perhaps in order to reduce inflation. This would imply a fiscal effort of eleven percent of GDP, which is bound to generate severe political tensions.

Yet, the nominal deficit is almost entirely due to inflation. What the economy needs, in this case, is not a lower nominal deficit (i.e., the public sector finances are not 'out of control') what it needs is lower inflation. Once this has been achieved, the deficit will

vanish almost entirely without any fiscal effort. In this sense, excessive focus on

The reduction of the PSBR, allegedly in order to reduce inflationary pressures, can be profoundly misguided. It can generate unemployment, poverty and other social costs for no economic reason. What the reduction of the deficit will be doing, in reality, is to accelerate the repayment of the DPD (its real value declines), which may or may not be warranted this objective should be considered on its merits, rather than in the guise of inflation control.

For an example closer to Zambia, suppose that, initially, GDP is one hundred, its growth rate is five percent, inflation is twenty percent, and the initial public debt is twenty (or twenty percent of GDP). If the real interest rate is ten percent and the nominal interest rate is thirty-two percent (ten percent plus inflation), the nominal deficit will be 6.4 percent of GDP, (when the primary deficit is zero). If the real interest rate is zero, the nominal deficit will be four. In contrast, the operational deficit in both cases is only 2.4 (percent of GDP).

6A.3 Sustainability of the Domestic Public Debt

Domestic debt sustainability can be defined in different ways and, consequently, different values can be found for the fiscal deficit compatible with a 'sustainable' DPD. The simplest way to approach this problem is to aim for the stabilisation of the DPD at whatever level it is, and calculate the primary fiscal deficit that is compatible with this outcome (the debt stabilising primary deficit). Other scenarios can be derived easily from this baseline. The debt stabilising primary deficit can be calculated as follows. Let Y be the GDP, M the money supply, B the domestic public debt stock, N the nominal fiscal deficit, P the primary deficit, i the nominal interest rate, r the real interest rate, y the real GDP growth rate and π the rate of inflation. The nominal deficit at the end of period t includes the

primary deficit and the interest on the accumulated debt. This deficit can be financed either by monetisation (seigniorage) or bond sales (for simplicity, we ignore arrears and other non-conventional financing strategies, SOEs and the foreign sector):

$$N_t = P_t + iB_{t-1} = (M_t - M_{t-1}) + (B_t - B_{t-1})$$

Since $i = (1 + r) - 1$,
 $P_t + [(1 + r) - 1]B_{t-1} = (M_t - M_{t-1}) + (B_t - B_{t-1})$

Simplifying and rearranging:

$$B_t = P_t + (1 + r)B_{t-1} - (M_t - M_{t-1})$$

If we define $b_t = B_t/Y_t$, $b_{t-1} = B_{t-1}/Y_{t-1}$, $p_t = P_t/Y_t$, $m_t = M_t/Y_t$ and $m_{t-1} = M_{t-1}/Y_{t-1}$, note that $Y_t = (1 + y)Y_{t-1}$, and subtract b_{t-1} from both sides, we have:

$$b_t - b_{t-1} = p_t + \frac{(1+r)}{(1+y)} b_{t-1} - m_t + \frac{1}{(1+y)} m_{t-1}$$

This equation implies that the growth of the domestic debt as a proportion of GDP depends on the size of the debt, the primary deficit, the GDP growth rate, the real interest rate, the rate of inflation and the degree of monetisation (which determines the scope for seigniorage).

Suppose, for example, that we are interested in the debt stabilising primary deficit (the value of p_t needed to ensure that $b_t - b_{t-1} = 0$), assuming that the real interest rate is ten percent per annum, the growth rate of real GDP is five percent, the initial debt stock is 20 percent of GDP, the ratio of money to GDP rises from seven to eight percent during the year, and that inflation is twenty percent (these were approximately the parameters for Zambia in 2004). In this case,

$$p_t = 0.08 - \frac{1}{(1+0.2)(1+0.05)} \times 0.07 - \frac{(1+0.1)}{(1+0.05)} \times 0.2$$

and $p_t = 1.5$ percent of GDP.

If the economic growth rate is only two percent, the maximum primary deficit compatible with the stabilisation of the

domestic public debt declines to 0.7 percent of GDP (in other words, if the primary deficit exceeds 0.7 percent of GDP, the DPD will increase). Alternatively, if the GDP growth rate is five percent but the real interest rate is zero, the maximum primary deficit is as high as 3.4 percent of GDP.

The policy implication is that low interest rates and rapid GDP growth can make a substantial difference for debt sustainability. It should also be noted that, as the DPD rises as a share of GDP, stabilisation becomes a more demanding exercise, requiring lower fiscal deficits. Reciprocally, the difference between the current primary deficit and its debt stabilising level indicates the size of the required adjustment to stabilise the DPD, which may take the form of expenditure cuts, tax increases, or reductions in the interest rates. Faster growth or the reduction of the debt stock through a debt adjustment programme (see Annex 6A.4) could also lead to the same result.

6A.4 Restructuring the Domestic Debt

The state can restructure its liabilities mainly through changes in the supply of money or in the stock of government securities. In what follows, these alternatives will be briefly considered in turn.

The state can reduce the value of the money supply if it deliberately creates inflation, but this is trivial. Monetary reforms offer more interesting examples of the reduction of the real value of the monetary base. They cannot be reviewed here in detail. These experiences generally involve the announcement by the government that the existing notes and coins (or that some notes, for example, the high value ones) will cease to be legal tender after a certain date. The population is invited to deposit those assets in the banking system, where they may be discounted or frozen temporarily, or exchange their holdings for a new currency, possibly at a discount. Those failing to exchange their holdings after a

given deadline lose everything. Examples include the monetary reforms in Tunisia and Corsica (1943), Belgium (1944), Finland (1945), Japan (1946), West Germany and China (1948), and Czechoslovakia (1953). Other monetary reforms followed the collapse of the Austro-Hungarian Empire at the end of World War 1, and the dissolution of the Soviet bloc in the early nineties.

Monetary reforms can have several objectives, among them the elimination of hyperinflation, the demonetisation of currency held abroad, or the capitalisation of the public sector. For example, in 1922 the Greek government imposed a monetary reform in order to control inflation, in which the notes were literally cut in half. One part was returned to their owners (worth fifty percent of their previous value), while the other part became a compulsory loan to the government. In 1926 the government imposed another reform on similar lines, but the currency-holders were allowed to retain three-quarters of the value of their monetary holdings (bank deposits were left untouched in both episodes).

The restructuring of the government securities is different. The process basically involves the restriction of the liquidity of the securities held by the public, normally in order to stabilise inflation or public sector finances. IMF (2003, p.140) reviews twenty-six episodes of debt reduction in the emerging market economies. This study concludes that, in most cases, the restructuring contributed to the reduction of the debt-GDP ratio and the reduction of the public sector deficit (because of the reduction of the debt servicing costs). It is instructive to briefly review two such experiences, taking place in Argentina (1989-90) and Brazil (1990).

The Argentine economy was under severe stress in 1989 (Carvalho 1999). Inflation had reached two hundred percent in the month of July, M1 had declined to 2.2 percent of GDP, and there was very little demand for government securities. The public sector finances had essentially

collapsed. In late December the government imposed the 'Bonex plan'. The plan included the conversion of all fixed-term bank deposits, government securities and bank reserves into bonos externos (Bonex), ten-year dollar-linked government bonds, with returns determined by the *libor*. The currency in circulation, current accounts and savings accounts were left untouched, and the asset-holders were allowed to withdraw only 1m australes (approximately US\$600) from their frozen funds. There was a severe reduction in liquidity in the economy (M3 declined by sixty percent in real terms) in the wake of the plan. This contraction of liquidity had severe economic implications, and the government gradually released additional funds during the next few months in order to stimulate the level of activity. The Bonex plan was unsuccessful in eliminating hyperinflation, but it helped to improve the public sector finances significantly; for example, interest payments on the domestic public debt (DPD) declined by 4.8 percent of GDP. In order to tackle inflation, the government introduced in the following months a succession of stabilisation measures, culminating in the well known 'convertibility plan'.

The Brazilian economy was also under severe stress in early 1990, with inflation peaking at eighty percent in one month. The incoming Collor de Mello administration imposed a stabilisation programme in March known as the 'Collor plan' (Carvalho 2000 and Faro 1990). The lynchpin of the plan was the temporary freeze of most financial assets held in the banking system, including current and savings accounts, financial investments and government security holdings. For example, all balances in current and savings accounts in excess of fifty thousand cruzados novos (approximately US\$1,000) were frozen, and so were eighty percent of the balances on term deposits, seventy-five percent of DPD holdings, and so on. The frozen funds were held by the central bank, and they were returned in eighteen monthly instalments, at

six percent interest plus inflation indexation. During the first two months of the plan, some of the frozen funds could also be transferred between accounts in order to pay outstanding bills.

The Collor plan had three main objectives: reducing demand and inflation, limiting DPD growth (which was rising exponentially at that time, mainly through the sale of highly liquid securities that were used as reserve value), and controlling the speed of remonetisation (in the wake of a sudden elimination of hyperinflation the demand for money tends to rise rapidly, and temporary mismatches between money supply and demand can disrupt the real sector). Although the Collor plan stopped the drift towards hyperinflation, it did not eliminate high inflation. Its limited success was partly due to the need to expand liquidity more rapidly than the government had anticipated, in order to stem the contraction of the economy (real GDP declined by 4.5 percent in 1990). In spite of this, the plan reduced the DPD held by the public from fifteen to five percent of GDP in 1990 and, further, to two percent in 1992. This was achieved largely because the six percent real return on the frozen securities was less than the interest rates paid previously, and because the plan was supplemented by a temporary tax on financial transactions, which was used to repurchase the outstanding securities.

Table 6A.1

Variable	1 Jan (t)
GDP	100
GDP growth	0
Inflation($\dot{\theta}$)	0
Nominal interest rate (i,%)	10
Real interest rate (r,%)	10
Domestic public debt (B)	9.1

Table 6A.2

Variable	31 Dec (t)
GDP	100
GDP growth	0
Inflation($\dot{\theta}$)	0
Nominal interest rate (i,%)	10
Real interest rate (r,%)	10
Domestic public debt (B)	10.01
Primary deficit (P)	0
Nominal deficit (N)	0.91

Table 6A.3

Variable	1 Jan t + 1	31 Dec t + 1
GDP	100	200
GDP growth	0	0
Inflation($\dot{\theta}$,%)	0	100
Nominal interest rate (i,%)	10	120
Real interest rate (r,%)	10	10
Domestic public debt (B)	9.1	20.02
Primary deficit (P)		0
Nominal deficit (N)		10.92
Operational deficit (O)		0.91

151 The foreign public debt does not need to be considered separately because it is included the other terms in this identity.

152 This example draws on Bresser-Pereira (1983).



7 ~ Commersalisation of the Public Service in Zambia

7.1 Introduction

In Africa governments have been advised by multilateral financial institutions to privatise their public services, with this advice linked to policy conditionalities in many cases. While privatisation has proceeded apace in many other regions, in Africa it has progressed slowly. The performance of privatised public services has been mixed, at best. There have been some successes in increasing efficiency, but little evidence of a positive impact on improving equity and reducing poverty. With regard to poverty impact, it appears likely that the access of poor households to public services has worsened. The principal problem in much of Africa, however, is not so much inequitable access but lack of access (a more extreme form of inequity). This is often the case in rural areas, where a majority of the population is likely to live, and most frequently where most of the poor live.

While, privatisation of public services is designed to promote social objectives, they are geared to commercial objectives. A compromise approach followed by many governments in Africa has been to 'commercialise' public services instead of

privatise them. This has taken many forms, including the introduction of user fees (such as for health services), linking the delivery of public services to cost recovery criteria (such as raising tariffs to full cost-reflective levels) or setting up independent commercially-run utilities. Sometimes, decentralisation of services has been part of a commercialisation reform package.

Even though tariffs have often been raised, cost recovery is usually only partial. Expecting cost recovery to finance rehabilitation or expansion of infrastructure has proved to be notably unrealistic. Even covering recurrent expenditures, including maintenance, has proved to be difficult. Rarely has commercialisation succeeded in expanding coverage of services. Rural areas remain largely without service. Poorer peri-urban areas or slums also see little improvement in access. Especially for services that rely on grids, such as electricity, new beneficiaries are likely to be urban and non-poor.

Efforts to make tariffs more progressive only affect the households that are connected to services. Such tariffs usually rely on some kind of metering. Most of the

poor are not connected nor metered. Identifying income-poor households is also problematic, especially if poverty is defined by 'inability to pay'. Sometimes the quality of housing is taken as a proxy for income level, and this approach has some practical advantages. But, a household's inability to pay implies that it should be subsidised by the higher tariffs paid by richer households, or by general public revenue.

For some services, such as the supply of water or health services, governments have a basic public responsibility to ensure access. Some consider that access to such services is a human right. For other compelling reasons, if not human rights, governments should guarantee a minimum level of service without cost. Assuming that difficulties in implementing a vertically equitable system of access and cost recovery could be resolved, there is still the fundamental problem of a lack of public financial resources. This is one of major justifications for instituting tariffs and raising them to cost-recovery levels. Not surprisingly, such cost-recovery objectives can run counter to equity objectives. Assuming that poor households do have access to a public service, they could be forced to shoulder a disproportionate burden of tariffs. But, this concern does not address the larger problem, namely, that many, if not most, poor households might have no access at all.

Public investment is necessary to expand infrastructure to provide service to these households, who often live in urban slums, small towns or rural areas. The fixed costs involved in expanding a grid-based service, such as electricity, can be quite high. Perhaps providing alternative forms of energy (such as improving the efficiency in the use of biomass) might be cost-effective for government, though not commercially viable. Decentralisation of services is often advocated by proponents of commercialisation as a means to hold down costs and/or more effectively raise revenue. But the record of such decentralisation has been

poor. Due to lack of capacities at the local level, especially in local governments, decentralisation might be more expensive than centrally based provision of services. Supposedly, decentralisation of services should also give consumers greater voice and empower local communities. But, this usually depends on the social groups that control local government. Local elites might have an even stronger hold over local government than national elites do over central government.

Underlying the form of governance is the bedrock problem of the woeful lack of public resources to provide essential public services. This is likely to be a more severe problem at the local level. But it is also indeed a paramount problem at the national level. Methods of cost recovery can contribute to solving this problem but cannot be, by themselves, the full solution. In order to achieve broad and equitable coverage of services, mobilizing general public revenue is necessary. This would enhance the ability of government to provide subsidies to poorer households on the services that they receive and expand the coverage of services to which they have no access.

Official Development Assistance can play an important role, either through grants or concessional lending. In many low-income countries, dramatically up-scaling ODA will be necessary if they are to have a reasonable chance of reaching the internationally agreed MDG targets. Within the context of these general concerns, this chapter examines commercialisation in the water, energy and health sectors in Zambia.

7.2 Water and Sanitation¹⁵³

Introduction

In the late 1980s, Zambia's public provision of water faced mounting problems: accounting and billing systems were inefficient and collection rates were low; late payments and non-payments were widespread; and, maintenance of water supply systems was poor and water quality low.

These issues jeopardised the financial sustainability of public water provision and failed to provide the excess returns with which to fortify and expand services, especially in rural areas, leading the government to consider commercialisation. The danger was that if commercialisation raised tariffs to achieve greater financial sustainability, water and sanitation would become unaffordable for many low-income households. Yet, the central government, strapped for tax revenue because of falling household incomes, thought that it had few other options, and initiated commercialisation in 1989.

The first step was the formation of the Water and Sewerage Company in Lusaka, an independent commercial utility owned by the municipality. The second such utility was formed in Chipata in 1992 and several other municipalities have adopted, since then, the same model. While leasing arrangements and partnerships with private providers were investigated, publicly owned, but commercially run, municipal utilities emerged as the preferred choice.

These municipal commercial utilities were later consolidated into ten regional utilities, called Water and Sanitation Companies (WSCs). These ten utilities nominally covered ninety percent of the population. Local non-commercial utilities covered the remaining ten percent. Previously, the central government had supplied the municipalities with water and sanitation, which they had distributed at subsidised rates. In the Copperbelt, the Zambia Consolidated Copper Mines (ZCCM) was responsible for water supply to the mines and households. Overall, rural areas had negligible access to piped water, so households relied mainly on wells and bore holes.

Efforts at Cost Recovery

After commercialisation, full cost recovery on the supply of water and sanitation became the governing principle. In the first stage, the aim was recovery of the costs for current operations and maintenance and in the second stage recovery of capital costs as

well. However, available evidence from the late 1980s (before commercialisation) suggests that the provision of water and sanitation to urban areas could have become financially sustainable, at least on current operations, had the government made progress on billing, collection and water losses. Table 7.1 shows that operation and maintenance costs exceeded revenue ('actual collection') by only about twenty-two percent. However, the financial situation in rural areas, where coverage was very low, was far worse: operation and maintenance costs exceeded revenue by over three hundred percent.

Before commercialisation, the government had not aimed to cover all costs with revenue. All households were provided with water and sanitation at subsidised rates. The system also strove to be equitable: low-cost housing (a proxy for low-income households) received the highest subsidies. As a result of commercialisation, most of the Water and Sanitation Companies raised their tariffs and were able to cover their operational costs. But most have remained far from covering both operational and maintenance costs (OC&M). For example, Lusaka Water and Sewerage Company, which has existed the longest, still could cover only about three-quarters of its OC&M costs in 2002 (Table 7.2).

Several factors caused the financial losses of the Water and Sanitation Companies. A significant factor was water losses. 'Unaccounted-for Water' (UFW) represents about half of available supply, for example. Part of the problem was leakages, due to old infrastructure, missing taps or vandalism. Another part arose from lack of metering, the cost of which was too high for most customers to shoulder. Table 7.3 provides information on factors relevant to financial losses.

Table 7.3 also indicates that a second problem plagued WSCs, lack of revenue collection. This has been partly due to lack of administrative capacity with regard to creating customer databases and instituting

effective payment systems. There were no effective mechanisms to deal with non-payment, particularly by big users, for example, government institutions and privatised mines. But, non-payment by residential customers also occurred. This was most likely due to the rise in tariffs on water usage along with declining income levels. The Living Conditions Monitoring Survey of 1998 reported, for example, that eighty-six percent of low-cost housing residents, forty-one percent of medium-cost housing residents and twenty-five percent of high-cost housing residents were in arrears on water bills. In response, some of the commercial utilities resorted to disconnecting households, a drastic measure that gravely threatens access.

In order to achieve financial sustainability, the commercial utilities backed by government, donors and lenders concentrated on raising tariffs. However, they gave less attention to correcting water losses or improving administrative efficiency. Orthodox microeconomic theory suggests that cost recovery should be based on calculating the long-term marginal cost of providing a service, such as supplying water. In practice, however, this is difficult, particularly in an environment, such as Zambia's, where there is widespread lack of metering. So, the practical alternative is to calculate average cost.

But having to address issues of poverty and equity cannot be avoided. Since water is a necessity, low-income and poor households must be provided with affordable access. One approach is to institute a progressive system of 'rising block tariffs' (RBT), based on raising tariffs as water usage increases. The higher rates on households with high usage of water are used to cross-subsidise the lower rates on low-usage households. A variation on this approach is to provide a minimum block of free consumption of water. But the RBT approach is not practical in Zambia because many households do not have water meters. Hence, as a proxy for this approach, the

government has used the cost of housing for determining progressive rates.

Differential flat rates were applied to three grades of housing: low-cost, medium-cost and high-cost. Table 7.4 provides the tariff rates for 1990 (before commercialisation) and 1994 (after) for various categories of water users. Table 7.5 shows similar data for selected WSCs in 2002. Table 7.5 also includes data on three different rates of water consumption: fifteen, twenty-five and fifty cubic meters per month per household. The government regulatory agency for the water sector considered twenty-five cubic meters to be minimally adequate for households. The data in the table show that the Lusaka WSC had the most progressive rate structure for households. A close examination of the data in Table 7.5 compared to that in Table 7.4 also underscores that the flat rates for low-cost housing have increased the most since 1990.

Access to Water and Sanitation

One of the most important barometers of the success of commercialisation is the affordability of access to water. A critical issue is whether low-income households can have continued access. A general rule is that water bills should not constitute more than five to six percent of monthly household income. Based on a six percent benchmark, Table 7.6 demonstrates that fifty-nine percent of households in Lusaka in 1998 would have had problems paying their water bills had they been charged the rates for low-cost housing. If a five percent benchmark were used, seventy-two percent of households could not afford their bills. Alternatively, if we calculate based on the cost of a threshold of twenty-five cubic meters of water consumption per household per month, then forty-one percent of all households would have had difficulty in paying their bills.

Access to water and sanitation was much less prevalent in rural areas than in urban, though rural access improved from 1992 to 1996. For example, the proportion of the

rural population with access to safe drinking water rose from thirty-one percent to forty-two, and the proportion with access to sanitation from forty-six to fifty-seven (Table 7.7). Between 1996 and 2001/2, there was no progress on either water or sanitation. Urban-rural differentials were notable. In urban areas in 2001/2, about ninety percent of the population had access to 'safe drinking water', whereas only slightly over forty percent of the rural population did. Similarly, while ninety-five percent of the urban population had access to sanitation in 2001/2, this was the case for only fifty-seven percent of the rural population. While there have been increases in access in rural areas, access decreased in some urban areas. In 1992, over fifty-five percent of urban households had water piped into their residence, but by 2001-2002 only about forty percent did, a reduction of almost one quarter. These households switched to public taps or wells and boreholes.

Service coverage provided to the urban population by the ten commercial Water and Sanitation Companies remained inadequate. While the WSCs in the Copperbelt provided acceptable levels of provision of water, the others performed decidedly worse. Two of the WSCs provided only thirty percent service coverage for water (Table 7.8). The coverage for sanitation was lower: on average, the WSCs had only thirty-two percent coverage. The Western WSC provided only one percent coverage for sanitation, and the AHC-MMS was the only provider close to three-quarters coverage.

These coverage statistics overstate provision, because services were not provided on a twenty-four hour basis, with the exception of the Chipata WSC. The national average was sixteen hours per day in 2002, with two WSCs operating the service for roughly twelve (Table 7.8). One of the major challenges for the provision of water and sanitation to low-income households is to cover peri-urban areas. In Zambia, about sixty percent of the population lived in shantytowns. Communal taps and

boreholes, financed by external donors and NGOs, provided most water in these areas. For sanitation, households relied on septic tanks, pit latrines and similar methods.

Conclusions and Recommendations

The record of commercialisation of the water sector in Zambia has been mixed. There have been some gains in efficiency. But, increases in tariffs had an adverse impact on access, especially in urban areas. Where access increased, as in rural areas, this was due more to financing by donors or government than by commercial utilities. Government regulation of the sector, though improving, remains weak. The government's regulatory body could encourage commercial utilities to expand their coverage in peri-urban areas, but has no enforcement powers to oblige them to do so.

The effects of commercialisation on the workforce were deplorable. Many workers were retrenched, and the number of casual workers rose. In most cases of retrenchment, the government did not pay severance packages, which by law it was obligated to do. In general, the impact of commercialisation on public workers was adverse. This problem received little attention, as primary focus was on consumers.

There has been excessive emphasis on 'tariff rationalisation', with less attention to reducing inefficiencies, such as 'unaccounted-for water' and lack of tariff collection. In addition, the tariff structure was not very progressive. After 1992, flat rate tariffs for households in low-cost housing increased most. Given widespread poverty, the government could consider providing a minimum amount of water without charge. Such a service is critical for basic human development and should be an obligation of any government. Above this minimum level, the government could strengthen the progressive structure of tariffs.

Commercialisation did not lead to greater capital investment, but rather a significant decline. As a result, in some municipalities, including Lusaka, infrastruc-

ture badly needed rehabilitation. While commercial utilities could improve revenue collection, more financing for investment will have to come from government and external agencies. Many of the commercial utilities began with liabilities and did not receive new infusions of public capital in order to rehabilitate their infrastructure. The Chipata WSC, which performed well, was an exception. It carried over no debt from previous operations, enjoyed an injection of new public capital, and had all its connections metered.

This example illustrates that if a government chooses commercialisation of service provision, it still has an obligation to provide financing for capital investment. Also, it will still have an obligation to regulate commercial utilities in order to ensure that lower-income households are not deprived of vital services. Government incentives, such as loan guarantees, will still have to be provided to induce commercial utilities to expand coverage to under-served areas and social groups. Given the limits on government capacities in many poor developing countries, it is wiser to maintain government ownership of utilities and oblige them to make their operations more cost-effective by applying commercial criteria of assessment.

7.3 Energy Sector¹⁵⁴

Zambia's National Energy Policy

In 1994, Zambia developed its first National Energy Policy. The immediate objectives of this policy were to commercialise the public provider, Zambia Electricity Supply Corporation (ZESCO), privatise the distribution function of ZESCO and allow the entry of private providers into the sector. The main emphasis was on instituting energy pricing that would promote an efficient allocation of resources. This involved allocating costs among consumers according to the burden that their use of energy imposed on the delivery system. The guiding principle was to base prices on long-term marginal costs.

At the same time, this drive towards commercialisation was mitigated by a stated policy of providing a minimum level of service to persons who were unable to afford the full cost. The contradiction between the two objectives of affordability of tariffs and expansion of service remains an issue today.

Zambia has considerable potential in hydro-electric power. While it has an installed capacity of 1,700 MW, its potential is six thousand. Thus, if financing were available, it could substantially expand its capacity and export electricity to the Southern African Development Community, where electricity shortfalls are projected for 2007 onwards. But, the most pressing needs for electrification are in rural areas. In 2003, legislation was enacted to set up the Rural Electrification Authority in order to develop plans to extend the rural electricity network. Rural electrification projects were already supposed to be funded from a seven percent levy charged on consumer bills but the revenue raised so far has been woefully inadequate. The Poverty Reduction Strategy Paper, adopted in 2002, re-emphasised the importance of rural electrification. In general, it recognised the need to rehabilitate the existing capacity of the energy grid, substantially expand its capacity and implement targeted interventions to improve access.

Despite the adoption of these policy documents, access to electricity in rural areas remains abysmally low. In rural areas in 1998, only one to two percent of the population had access to electricity for cooking or lighting (Table 7.9). By contrast, thirty-nine to forty-eight percent of the urban population had such access. Moreover, while access to electricity had expanded in urban areas from 1991 to 1998, it expanded hardly at all in rural areas.

Statistics for total household electricity consumption confirm the overall increase in access during the 1990s. This has been limited, however, to urban areas. Calculations, based on statistics for aggre-

gate household consumption and average household size, suggest that there were 57,000 new household connections between 1990 and 1995. This translates into a yearly average increase of 11,400. However, this slowed to 3,800 new household connections per year between 1996 and 2000. So, commercialisation of the power sector in Zambia has not led to a more rapid expansion of the electricity network. The lack of progress is most pronounced, however, in rural areas.

Performance of the Energy Sector

In 2004, the Zambia Electricity Supply Corporation had exclusive rights to electricity generation, transmission and distribution, with one exception, the Copperbelt Energy Corporation, which provides electricity to the Zambia Consolidated Copper Mines. ZESCO accounts for over ninety percent of total generating capacity, i.e., 1,638 MW in 2004. However, data on two of its largest hydro plants, at Kafue Gorge and Victoria Falls, illustrate that they typically operate below full capacity (Table 7.10). 'Plant Availability', the period in a year during which full energy capacity is useable, averaged eighty-six percent for Kafue Gorge between 1999 and 2003 while it averaged only about seventy-one percent for Victoria Falls. The industry norms are over ninety percent availability.

Transmission and distribution losses are significant problems in the energy sector in Zambia. For example, distribution losses between 1999 and 2003 were about one fifth higher than in the previous five years despite the efforts at commercialisation and a focus on minimizing such losses. An aging infrastructure is part of the problem. Often, commercial and industrial users have to resort to stand-by diesel generators, which are more expensive, in order to ensure continuous power. Illegal connections and vandalism are also problems that contribute to energy losses.

Lack of operational efficiency was highlighted as ZESCO needed to generate

financial surpluses in order to cover maintenance and support the expansion of its network. Either it must improve its level of efficiency, increase tariffs or be subsidised. The broader problem was that many low-income households, particularly in rural areas, do not have access to electricity. Large-scale investment in network expansion is critical. ZESCO has incurred high and rising operating costs. Together with depreciation expenses, this led to negative net operating income. Thus, ZESCO's core activity did not perform well. In 2004, for example, net operating income was a negative 7.5 percent (Table 7.11).

Some point to the share of labour costs in total operating expenses, about sixty percent in 2004, as evidence of ZESCO's inefficiency. But, its labour productivity appears to be relatively high by African standards. One measure of such productivity is energy production per employee and, with the exception of a dip in 2003, this measure rose after 1999. Zambia's performance on this measure was exceeded only by South Africa and Namibia among the countries of the Southern Africa Development Community (SADC).¹⁵⁵ A second measure of labour productivity, the number of customers per employee, exhibited a similar rising trend, increasing steadily from fifty in 2000 to eighty in 2003.

The Tariff Structure

One of the objectives of commercialisation of the power sector in Zambia was to introduce cost-reflective tariffs, as a means to eventually induce private investment in the sector and expand coverage. This cost would have to incorporate the investment necessary to expand the sector's capacity. However, cost reflective tariffs were not likely to be affordable for a significant proportion of the Zambian population. Hence, there was an inherent contradiction between the two objectives, that is, Cost-reflective and affordable tariffs. Resolving this contradiction would involve devising a transparent system of subsidies to ensure

broad access to electricity. It would involve identifying how to mobilise additional public resources, domestically or externally, to finance expanded capacity.

There were two broad categories of consumers, mining and non-mining, for which electricity needed to be provided in Zambia. The copper mining industry consumed over half of the total electricity in the country, but its tariffs were not subject to regulatory oversight. For non-mining consumers, although tariffs rose, they remained below the level necessary for cost recovery. ZESCO regarded this level to be four to five US cents per kWh. Table 7.12 shows the tariff structure for unmetered and metered residential consumers. The average Zambian residential consumer used over 700 kWh and thus would pay three US cents per kWh. Those consumers that used less than this threshold benefited from the tariff structure, paying either 1.3 US cents or 1.8. Unmetered consumers, which were subject to monthly charges, benefit even more.

Outside of the mining sector, commercial consumers of electricity essentially subsidised residential consumers whose average tariff for 2003/2004 was 1.01 US cents per kWh while that for commercial consumers 2.6 US cents. In 2003, while residential customers used sixty-eight percent of total energy (not including energy for mining), they contributed thirty-eight percent of total revenue. Those residential customers in rural areas that received ZESCO electricity benefited from subsidies, but they account for a very small share of total energy consumption, two tenths of a percent. Because they relied on more expensive off-grid diesel generators, these customers paid only fifteen percent of the total cost of supplying them with electricity.

For the mining sector, ZESCO generated electricity for the Copperbelt Energy Corporation (CEC), a private company that then transmitted and distributed it to the mining areas. A fifteen year agreement

between ZESCO and CEC, established when the mines were privatised, determined the tariff structure for the latter. While CEC paid ZESCO 2.1 US cents per kWh for the electricity that the latter generated, CEC charged its customers 3.0 US cents. In accordance with the agreement, if ZESCO invested in expanding its generating capacity, none of this expense could be passed on to CEC. The bulk of CEC's business was with the mines. It avoided providing electricity to residential customers because this would be less profitable. Thus, compared to ZESCO's provision of electricity to non-mining customers, the CEC was profitable. For 2002, its net operating income was eighty-four percent, and for 2003 it was seventy-seven percent. By contrast, ZESCO's net operating income was negative 4.6 percent in 2002 and negative 3.6 percent in 2003. In 2003 the total operating income of ZESCO was US\$135 million while for CEC it was almost as high, at US\$115 million.

Conclusions and Recommendations

The energy sector in Zambia is plagued by several problems. Electricity supplies only about eleven percent of the total energy consumption in the country. The rural population is virtually without access to electricity: only two percent of rural households have access. Yet there were no plans to expand electricity in rural areas, with the Rural Electrification Authority formed only in 2004.

Half of the transmission and distribution of electricity in Zambia was privatised, namely, taken over by the privately owned Copperbelt Energy Corporation. While this privatisation and the associated agreement between CEC and ZESCO guaranteed the supply of electricity to the mines at relatively low and stable tariffs, non-mining customers received little direct benefit. While CEC was a profitable company, ZESCO was not. Moreover, ZESCO was constrained in raising revenue because it could not raise tariffs for half of the energy

consumed in the country. Thus, it had limited ability to use pricing to cover the capital costs of expanding its grid.

Another constraint on raising tariffs is that many of ZESCO's residential customers could not afford higher tariffs. Superficial evidence suggests that commercial customers subsidised residential customers and higher-income residential customers (proxied by their greater electricity consumption) subsidised lower-income ones. It remains that less than half of urban households had access to electricity. While existing tariffs should be made more progressive, expansion of access should take priority over cross-subsidisation of existing customers.

Higher tariffs, however, was not the primary problem facing many potential customers who lived in informal urban settlements or rural areas; it was access. Expanding the grid and providing other cheaper forms of energy are the only solutions to this problem. Over two-thirds of the energy needs of households in Zambia were met by firewood. So, expanding the consumption of renewable energy sources is an option that should command greater attention.

For expansion of the grid, financing for extensive public investment in generation, transmission and distribution is necessary. ZESCO was forced to borrow from international banks in order to rehabilitate its existing capacity. Expanding this capacity would involve even more borrowing. The immediate answer is to seek greater international concessional lending and supportive grant financing for expanding the provision of energy. Such an objective should be incorporated, as an essential component, into Zambia's MDG-based Poverty Reduction Strategy. Energy services are critical to achievement of many of the MDG targets. For the longer term, the public sector will have to raise additional domestic resources to finance public investment in the energy sector. The government will need to use general reve-

nues to cover a significant proportion of energy-related public investment, instead of relying on raising tariffs to levels that can cover both recurrent and capital costs. Such cost-reflective tariffs would run counter to the equity objectives of providing broad-based affordable service.

7.4 Health Sector¹⁵⁶

Introduction

The government of Zambia initiated significant reforms in the health sector in 1992. It created a new, more decentralised system of health institutions, including a Central Board of Health, District Health Boards and Neighbourhood Health Committees. It also mandated that each health facility, particularly in rural areas, deliver an Essential Health Service Package. It introduced a new financial management system based, in part, on the introduction of 'user fees' (usually designated as 'cost sharing').

Decentralisation of the health system was supposed to increase community participation and make it more effective in delivering services. The Essential Health Service Package was designed to ensure a minimum level of service for the whole population, i.e., primary health care services for sexually transmitted diseases, child health, waterborne diseases, malaria, TB and reproductive health.

User fees have been the most controversial of the changes. They have been designed to raise more revenue within a health care system in which government revenues have been in sharp decline. A portion of these revenues has been earmarked for performance bonuses in order to enhance the motivation and accountability of health workers. Payment for services is also supposed to strengthen the demands of patients for better service.

In order to make the application of user fees more equitable, certain groups of the population have been exempted from them. Criteria have been based on age (e.g.,

children under five years of age and adults over sixty-five years of age), type of disease (e.g., diabetes, tuberculosis, STDs and epidemics, such as cholera) and ability to pay. Usually, fees have to be paid in cash although in-kind payments have sometimes been accepted.

Health Trends and Resources

The health sector changes were introduced in 1992 in order to counteract the deterioration in the population's health that was evident in the 1980s. However, although deterioration in health conditions slowed after 1992, reversing this negative trend has not been common. Where progress has occurred, it has been marginal. The under-five mortality rate has continued to rise, primarily as a result of a rise in mortality among children in rural areas (Table 7.13). Life expectancy has improved marginally in the last ten years but still stands below the level achieved in 1980. Between 1996 and 2000/2001, maternal mortality rose from 649 per one hundred thousand live births to 729. The rate of incidence of malaria increased from twenty-six percent of the population in 1990 to thirty-eight percent in 2000. And the incidence of HIV rose to sixteen percent in 2000/2001, one of the highest in Africa.

While the main provider of health in Zambia is the government, its facilities are disproportionately located in urban areas. The chief providers of health care in rural areas are church-related hospitals and health centres. The private sector has a limited role in health provision in the country; its activities confined to basic or primary health care. Part of the reason for the limited private role is the expenses involved in starting a private facility and their low profits. Thus, these facilities are heavily concentrated in the richer urban areas of the country, e.g., the Copperbelt and Lusaka.

Related to the health sector changes, expenditures on health rose appreciably during the 1990s. As a percentage of GDP, they rose from 3.3 percent in 1990 to 6.9

percent in 1998 (Table 7.14). In per capita terms, they rose from US\$ 15.9 to US\$ 23.3. But government health expenditures per capita dropped during this period from US\$ 5.9 to US\$ 2.2 (constant 1995 prices). From 1990 to 2002, government's share of total health spending declined from 45 percent to about 23 percent (Table 7.15). At the same time, the importance of donor funding rose dramatically, from only 6 percent in 1990 to almost 42 percent in 2002.

The share borne by households also rose, from twenty-one percent to 31.5 percent a sharp fifty percent increase (Table 7.15). This was mainly due to rising drug expenditures and greater resort to private health facilities. As a share of total household health expenditures, drugs rose from fifty to over seventy percent during this period. In public health institutions, patients are supposed to receive prescribed drugs free but often they are in short supply. Consequently, the patients have to buy the drugs from private pharmacies. In health facilities in richer urban areas, such as Lusaka and Livingstone, user fees have accounted for a higher share of total revenue. In rural areas and poorer areas, there has been a greater reliance on government grants and donor funds.

Access and Community Participation

One effect of the system of user fees is to motivate health clinics to refer patients to hospitals after they have collected their own fees. In this way, they can pass on the cost of treatment to the hospitals. This is one of the reasons that the health care system has not become more efficient. Hospitals are still involved in primary health care, especially in urban areas and richer areas. A major reason is that they are perceived to provide better quality service. As a result, when patients now skip a primary health care centre and go directly to hospitals for treatment, they are charged a 'bypass fee'. Hence, hospitals have come to rely more heavily on user fees than primary health facilities. Patients are willing to pay such

fees because they avoid the waiting involved in referrals from primary health facilities. So, decentralisation of health care has not appreciably improved the System's effectiveness.

Decentralisation of the health care system in Zambia was also supposed to enhance community participation in decision-making with regard to local health facilities. However, such participation remains weak. For example, in 2000/2001, only five percent of women reported ever having attended a meeting of a Neighbourhood Health Committee (Table 7.16) and less than one percent of men had attended a meeting. Interviews of community members indicate that they remain mistrustful or wary of such initiatives. Not infrequently, their main participation involves providing free labour to health projects.

Attendance at health facilities has dropped after the new health policy, declining by thirty-five percent for health centres and twenty-five for hospitals. Part of the reason was that the burden of the total costs of access to health care, including transport costs and user fees, was regressive. Residents in rural areas and low-income urban areas paid a higher share of their income. One estimate in 2002 suggested that residents in rural areas spent fifteen percent of their monthly income on health care, while residents in low-cost housing in urban areas paid nine percent, and residents of high-cost housing in urban areas only four percent.

Methods for providing exemptions for user fees were problematic. Exemptions based on age worked well as did exemptions based on disease. But exemptions based on inability to pay did not function effectively. Such decisions are left up to the discretion of community health centres. Not only were some people denied access because of their inability to pay, others declined to visit a health centre because they lacked the money to pay for care. A 2001 survey found that about one fifth of all prospective patients, both in rural and urban areas, were denied access to health care (Table 7.17). In

urban areas, one third of the population stated that they could not pay for medicines. Accessing health care was a significant problem for women, particularly in rural areas. About seventy-two percent of women in rural areas reported lack of money for treatment or transport to a health facility. Almost sixty percent cited the distance from a facility as a problem in securing access to health care.

Human Resource Problems

Lack of staff in the health care system in Zambia is a formidable problem. Retaining medical staff, especially doctors and nurses, has been difficult, and assigning them to rural areas was even more problematic. Most clinical staff was concentrated in Lusaka and the Copperbelt, the richer areas of the country. In addition, the policy measure to 'de-link' medical staff from the civil service severely aggravated an already difficult staff situation.

The de-linking, which began in 1997, was intended to give greater powers to health districts in bargaining with staff and enforcing discipline. It was also intended to introduce greater labour flexibility; i.e., more flexibility in hiring and firing of staff. When staff was assigned to locally managed employment systems, entitlements to pensions and other Benefits were jeopardised. Related to this problem, the union for medical staff lobbied for severance pay, but the government was unable or unwilling to bear this a financial responsibility.

As a result, the government abandoned the change in labour policy in 2004. But one third of medical staff had been assigned to local health systems. Consequently, the public health care system in 2005 had a dual employment system, with significant disparities in pay and benefits. A voluntary redundancy programme for medical staff, supported by external donors, made matters worse. This resulted in a loss of 1,400 professional health workers. An additional problem undercutting retention of staff was low salaries. Doctors and nurses emigrated

to Botswana, Namibia and South Africa, where salaries were higher. As a consequence, out of the 836 Zambian doctors who graduated between 1992 and 1997, only 239, or less than thirty percent, remained in public service at the end of the period. Expatriate doctors from China and Cuba have been recruited to fill the vacancies. Even though this has not overcome the decline in the number of doctors per one hundred thousand people. While this ratio had been fourteen in 1985, it dropped to seven by 1999.

Conclusions and Recommendations

Decentralisation of the health care system in Zambia, and its accompanying quasi-commercial reliance on cost recovery, has had a mixed record of success. According to many basic indicators, health has continued to decline despite the reforms. The lack of financial and human resources has been a major obstacle to improving the country's health care system. An overriding problem has been the cutback in government resources for healthcare. This has forced health facilities to rely more on donor funding or cost recovery.

De-linking health care workers from the civil service, in the name of promoting greater labour flexibility, compounded the problem of a decline in financing. Clearly, if Zambia is to retain qualified personnel, it needs to provide adequate incentives, such as better salaries and conditions of service. De-linking personnel from the civil service appears to have been a major mistake and has weakened the whole system. Retaining health workers in rural areas is a particularly serious problem. One option is to issue medical licenses to new graduates after they have served for a specified period of time in rural areas. Those regular personnel that serve in rural areas should be provided with assurances that they will be subsequently re-assigned to more attractive locations.

In addition to the deterioration of health care's availability, user fees and distance to facilities adversely affected

demand. The policy of charging fees for basic health care should be re-considered. Much of the impact on household incomes appears regressive. The available evidence suggests that the utilisation of health facilities has declined because of user fees. Moreover, the system of granting exemptions from fees because of inability to pay for services has not proved to be effective. Government should re-assume responsibility for providing, free of charge, a minimum level of primary health care for the whole population. Financing this basic level of service must come from general revenue.

The problem that many patients had in traversing long distances to reach a health facility can be addressed only through substantially increasing public investment in more facilities. This would rely on public resources, either through mobilizing more government revenue or accessing more external resources.

Most public health facilities were located in urban areas, and rural areas were served mainly by church-related facilities. Sector reforms had little impact on health conditions in rural areas. The methods used for decentralizing health care should be re-examined, for they do not appear successful in empowering patients or eliciting more community participation. Further, after commercialisation more of the costs of health care fell into administrative expenditures. By some measures, decentralizing the system led to greater inefficiencies.

153 This section is based on the background paper, "Commercialisation of Water Supply in Zambia" by Hulya Dagdeviren, which was written for the UNDP global project "Privatisation and Poverty Reduction".

154 This section is based on the paper "Impact of Power Sector Reforms in Zambia on Performance and Delivery", written by Jorry M. Mwenechanya for the UNDP global project "Privatisation and Poverty Reduction".

155 See Mwenechanya (2005), who used data from Southern African Power Pool Annual Report 2004.

156 This section is based on the paper "An Assessment of the Health Sector Reforms in Zambia", written by Hulya Dagdeviren for the UNDP global project "Privatisation and Poverty Reduction".

Table 7.1. Cost recovery in water and sanitation schemes, 1987

Recovery measures	National	Urban	Rural
Actual billing (% of billable)	71.2	71.0	75.5
Actual collection (% of actual billing)	68.7	68.7	68.9
O + M payment (% of actual collection)	130.7	121.6	327.3

Source: Dagdeviren 2005b, based on Coopers & Lybrand (1988)

Note: O + M is Operation plus maintenance costs

Table 7.2. Cost recovery before and after commercialisation in water and sanitation

Name of commercial utility	Collection as % of OC*	2002 Collection as % of OC**	Collection/ (OC & M)
Lusaka WSC	265.4	138.7	76
Southern ESC	259.1	124.7	68
Western WSC	356.6	155.5	81
Northwestern WSC	189.7	79.5	49
Chipata WSC	372.8	113.6	53
Copperbelt			
AHC-MMS	140.0	100.9	55
Nkana	132.0	94.1	56
Kafubu	125.7	76.1	45
Mulonga	132.9	94.4	50

Source: Dagdeviren 2005b. 1992 numbers are from Department of Water Affairs, Ministry of Energy and Water Development. 2002 figures are estimated by using data from NWASCO (2003).

* excludes salaries, including power, chemicals, transport and others

** includes wages and salaries

Table 7.3. Selected performance indicators on cost recovery, 2002

Water & Sanitation authority	UFW (%)	Revenue collection as (%) of billing	Metering ratio (%)
Lusaka	58	66	32
AHC-MMS	43	75	1
Nkana	50	52	55
Kafubu	59	30	6
Mulonga	52	39	20
Southern	50	48	12
Western	51	73	28
Northwestern	49	108	1
Chipata	27	47	100

Source: Dagdeviren 2005b based on NWASCO, 2003.

UFW: Unaccounted-for water.

Table 7.4. National water tariffs in the 1990s (monthly flat rates)

	Tariffs (Kw)		Tariffs (US\$)	
	1990	1994	1990	1994
High cost housing	60	6300	3-1.5	15.4
Medium cost housing	60	3500	3-1.5	8.8
Low cost housing	20	2000	1-0.5	5
Public taps	6	500	0.3-0.1	1.3
Parastatals, industrial, & commercial consumers	400	20000	20-10	50
Reconnection charge	1000	3000	50-100	60
Exchange rate (\$/Kw)	-	-	20-40	400

Source: Dagdeviren 2005b, based on Department of Water Affairs, Ministry of Energy and Water Development

Table 7.5. Tariffs of selected water and sanitation authorities, 2002

Amount in Kwacha	Lusaka	Mulonga	Western	AHC-MMS	Southern	Nkana	Chipata
First rate							
Public taps	2500	12000	3000	-	3500	3500	-
Low cost	16960	18000	20500	20900	8000	12000	32000
Medium cost	27160	23000	35500	33600	12000	20000	66600
High cost	95520	35000	35500	44980	21000	36000	66000
Charge for 15M ³	7200	6000	8500	10200	10500	7200	20125
Charge for 25M ³	13920	10000	16900	16730	18000	21600	37375
Charge for 50M ³	29920	26000	14200	22250	27500	43350	89700
Sewerage (% of water bill)		No charge	5000fix	40%		40%	50%
Tariffs in US\$ (exchange rate K4500 in 2002)							
Public taps	0.6	2.7	0.7	-	0.8	0.8	-
Low cost	3.8	4.0	4.6	4.6	1.8	2.7	7.1
Medium cost	6.0	5.1	7.9	7.5	2.7	4.4	14.8
High cost	21.2	7.8	7.9	10.0	4.7	8.0	14.7
Charge for 15M ³	1.6	1.3	1.9	2.3	2.3	1.6	4.5
Charge for 25M ³	3.1	2.2	3.8	3.7	4.0	4.8	8.3
Charge for 50M ³	6.6	5.8	3.2	4.9	6.1	9.6	19.9

Source: Dagdeviren 2005b, based on NWASCO

Table 7.6. Approximate rates of affordability of water charges in Lusaka 1998*

Monthly household income	% of HH in each income category	Ratio of low cost water charges to maximum income	Cost of 25M ³ to income (%)
less than 15000	3	103.7	70
15001 - 30000	2	51.9	35
30001 - 750000	9	20.7	14
75001 - 150000	27	10.4	7
150001 - 225000	18	6.9	5
225001 - 300000	12	5.2	4
300000+	28	-	-
Mean income: 417280	na	3.7	2.5

Source: Dagdeviren 2005b, based on estimates using LWSC tariffs for 1998 which were obtained from NWASCO, distribution for 1998, from NWASCO, and distribution of household income from the Living conditions Monitoring Survey 1998.

*Note that these estimates are valid only for water charges. The bill of households connected to the main sewerage network of the town includes a separate sanitation charge that varies from one utility to another. The most common practice is to charge a fixed proportion of the water bill (varying between thirty-five and fifty percent) over and above the charge for water.

Table 7.7. Sources of drinking water and access to sanitation (Percent of population)

	Urban			Rural			Zambia
	1992	1996	2001-2	1992	1996	2001-2	2001-2
Access to safe drinking water*	93	88	90.2	31	42	41.4	51.4
Piped into residence	55.5	46.7	42.1	3.3	1.7	2.4	15.9
Public tap	33.6	33.9	37.2	7.2	5.3	4.2	15.8
Wells & b. Holes	9	15.2	15.8	40.6	66.9	64.2	47.7
River, ponds, lakes etc	1.7	1.3	1.6	48.4	25.5	28.8	19.6
Other	0	2.4	2.3	0.2	0.4	0.4	0.5
Access to Sanitation	96	95	95	46	57	57	65

Source: Dagdeviren 2005b based on Zambia Demographic and Health Surveys, 1992, 1996, 2001-2

*Excludes water from unprotected wells, river, spring and stream, ponds and lakes.

Table 7.8. Service coverage by WSCs in 2002 (percentage of the population in the service area)

	Water	Sanitation	Hours of supply
Lusaka WSC	70	33	15
Copperbelt			
AHC-MMS	96	74	17.4
Nkana	92	54	16.5
Kafubu	84	50	15.3
Mulonga	91	8	16
Southern WSC	54	50	12.1
Western WSC	30	1	19.3
Northwestern WSC	31	2	12
Chipata WSC	71	12	24
Average	73w	32w	16.4s

Source: Dagdeviren 2005b, based on NWASCO

Table 7.9. Households access to electricity (%)

	1991		1996		1998	
	Cooking	Lighting	Cooking	Lighting	Cooking	Lighting
All Zambia	11	18	13	17	15	19
Rural	0	2	1	2	1	2
Urban	26	39	36	45	39	48
Province						
Central	10	17	12	18	16	20
Copperbelt	20	35	29	35	33	14
Eastern	3	5	2	4	1	2
Luapula	2	8	3	5	2	6
Lusaka	33	40	37	44	36	42
Northern	4	10	1	3	4	16
N/Wstern	6	16	3	5	1	3
Southern	6	13	5	8	12	16
Western	4	8	2	4	2	3

Source: Mwenechanya 2005 based on CSO Priority and Living Conditions Survey 1991-1998

Table 7.10. Plant availability

	Kafue Gorge	Victoria Falls
2003	82.1	60.0
2002	91.1	62.5
2001	89.1	76.1
2000	83.5	80.5
1999	84.4	78.0

Source: Mwenechanya (2005), from ZESCO annual Reports.

Table 7.11. ZESCO expenses and net operating income

Income and expenses	2001	2002	2003	2004
1. Operating expenses (% of operating income)	77.8	89.1	88.1	94.1
2. Depreciation (% of operating income)	16.4	15.5	15.4	13.4
Net operating income (100%-[1+2])	5.8	-4.6	-3.6	-7.5

Source: Mwenechanya (2005), based on ZESCO annual reports.

Table 7.12: Residential Tariffs for 2003

	Charge period	Tariff (US\$)
1. Unmetered		
1.1 Consumption up to 2Amps	Month	0.903
1.2 Consumption between 2 - 15 Amps	Month	3.267
2. Metered (Capacity 15 kVA)		
R1 - Consumption up to 300 kWh	kWh	0.013
R2 - Consumption from 301 - 700 kWh	kWh	0.018
R3 - Consumption above 700 kWh	kWh	0.030
	Fixed monthly	1.075

Source: Mwenechanya 2005 based on Energy Regulation Board

Table 7.13. Child mortality and life expectancy

	Under-five mortality rate (per 100)			Life expectancy at birth (years)		
	1980	1990	2000	1980	1990	2000
Zambia	121	151	162	52	47	50
Rural	132	164	180	50	45	48
Urban	108	128	126	54	51	54

Source: Dagdeviren 2005a based on the 2000 Census.

Table 7.14 Selected indicators of health expenditure

	Total health expenditure (% of GDP)*	Government Health Budget**			Total Per capita health expenditure (US\$)*
		Health budget (Million Kw)	Per capita health expenditure (Kw)	Per capita health expenditure (US\$)	
1980	-	95,9897	16,936	18.8	-
1985	-	80,599	12,114	13.5	-
1990	3.3	41,755	5,341	5.9	15.9
1991	3.4	61,729	7,643	8.5	14.2
1992	4.2	38,378	4,589	5.1	16.7
1993	4.1	39,931	4,615	5.1	15.7
1994	4.5	57,127	8,293	9.2	17.2
1995	5.2	55,658	5,989	6.7	20.1
1996	5.9	39,068	4,060	3.7	20.8
1997	6.1	36,414	3,654	2.8	25.1
1998	6.9	39,750	3,897	2.2	23.3
1999	-	33,730	3,186	1.5	-

* Figures are from World Development Indicators (WDI) in 1995 constant prices and in US\$.

They are consistent with the data of the Ministry of Health in the middle three columns.

** Includes both Recurrent and Development Expenditures

Source: Dagdeviren 2005a based on MoH (2003), MoH (2004), WDI (1999)

Table 7.15. Contribution to total health spending (%)

	1990	2002
Government	45	26.9
Parastatals*	26	-
Donors	6	41.6
Households	21	31.5

Source: Dagdeviren 2005a, based on 2002 data from MoH (2004) and 1990 data from Berman (1995).

* ZCCM accounted for over ninety-five percent of this contribution.

Table 7.16. Awareness of and participation in NHCs

	Percentage of not aware of NHC in their community		Percentage of who ever attended an NHC meeting	
	Women	Men	Women	Men
Rural	51.6	53.4	13	21
Urban	67.4	97.4	5	0.8

Source: Dagdeviren 2005a based on ZDHS, 2001

Table 7.17. Lack of access due to inability to pay for medical care (percent)

	Denied access to a health facility	Did not access because could not afford	Problems for women in accessing health care	
			Lack of money for treatment or transport	Long distance to health facility
Rural	20	17.2	71.6	59.1
Urban	22.1	32.5	58.5	25.2

Source: Dagdeviren 2005a based on ZDHS, 2001

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MDG 1: Eradicate extreme poverty and hunger

- Target 1* Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day
- Target 2* Halve, between 1990 and 2015, the proportion of people who suffer from hunger

MDG 2: Achieve universal primary education

- Target 3* Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

MDG 3: Promote gender equality

- Target 4* Eliminate gender disparity in primary and secondary education preferably by 2005 and to all levels of education no later than 2015

MDG 4: Reduce child mortality

- Target 5* Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

MDG 5: Improve maternal health

- Target 6* Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

MDG 6: Combat HIV/AIDS, malaria and other diseases

- Target 7* Have halted by 2015, and begun to reverse, the spread of HIV/AIDS
- Target 8* Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases

MDG 7: Ensure environmental sustainability

- Target 9* Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources
- Target 10* Halve, by 2015, the proportion of people without sustainable access to safe drinking water
- Target 11* By 2020, to have achieved a significant improvement in the lives of at least 100 million slum dwellers

MDG 8: Develop a global partnership for development

- Target 12* Develop further an open, rule-based, predictable, non-discriminatory trading and financial system. Includes a commitment to good governance, development, and poverty reduction both nationally and internationally
 - Target 13* Address the Special Needs of the Least Developed Countries. Includes: tariff and quota free access for LDC exports; enhanced programme of debt relief for HIPC and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction
 - Target 14* Address the Special Needs of landlocked countries and small island developing states
 - Target 15* Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term
 - Target 16* In co-operation with developing countries, develop and implement strategies for decent and productive work for youth
 - Target 17* In co-operation with pharmaceutical companies, provide access to affordable, essential drugs in developing countries
 - Target 18* In co-operation with the private sector, make available the benefits of new technologies, especially information and communications
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