

## GLOBALISATION, POVERTY AND INEQUALITY IN ZAMBIA DURING THE 1990s

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### Abstract

Zambia has undergone a dramatic transformation of economic policy during the 1990s. The election in 1991 of the Movement for Multi-party Democracy government saw the introduction of a series of major economic reforms designed to transform the Zambian economy from a relatively inward looking and state dominated economy to a outward oriented economy based upon private enterprise. A sharp stabilisation early in the decade was followed by reforms to open the economy to the rest of the world including exchange rate liberalisation, trade liberalisation and capital account liberalisation. In addition a set of structural and institutional reforms were initiated including reform of agricultural marketing, a large privatisation programme and reforms to the public sector.

These policies were intended to stimulate growth. However the combination of major structural reforms with falling copper prices and recurrent drought has resulted in disappointing macroeconomic performance - only two years between 1990 and 1998 showed positive per capita GDP growth. Mining and manufacturing output and employment have declined dramatically and, although external liberalisation has helped to boost non-traditional exports, this has not compensated for the loss of employment in other sectors. Furthermore, earnings data suggest that it is less skilled urban workers who have borne the brunt of unemployment in the formal sector, with better off workers relatively protected. However, stabilisation policies have reduced inflation and the effective rescheduling of the governments debt obligations substantially reduced external debt service over the decade. Furthermore, capital account liberalisation appears to have facilitated the resumption of private capital inflows.

An analysis of household survey data from 1991, 1996 and 1998 shows a dramatic increase in poverty and inequality in urban areas between 1991 and 1996 due to stabilisation, the removal of maize meal subsidies, and job losses resulting from trade liberalisation and the privatisation programme. Between 1996 and 1998, despite economic recovery at the national level, the reduction in urban poverty and inequality has been small. In rural areas, drought devastated rural livelihoods in the early 1990s, while maize marketing reforms principally benefited those near the major urban centres, and hurt more remote rural farmers. Consequently there was little change in the overall poverty headcount for rural areas between 1991 and 1996 although there was a substantial reduction in rural inequality during this period. The rural sector experienced strong growth between 1996 and 1998 and this translated into a substantial reduction in poverty in rural areas between the two years. However, differential access to inputs, transport and marketing services has led to an increase in rural inequality.

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# **Globalisation, Poverty and Inequality in Zambia during the 1990s<sup>2</sup>**

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## **Introduction**

Since the election of the Movement for Multi-party Democracy (MMD) government in 1991, the Zambian authorities have implemented sweeping economic reforms. In addition to undertaking a sharp stabilisation programme early in the decade, the government have implemented reforms in agricultural marketing, a large privatisation programme, sweeping trade policy reforms and, more recently, public sector reform. The implementation of stabilisation and structural reforms in any country can have a major impact upon poverty and inequality. In order to obtain an accurate view of these effects, it is necessary to have nationally representative household survey data from both before and after the reform episode. Fortunately, there were four such surveys in Zambia during the 1990s – the first in 1991 coincided with the election of the new government, and further surveys were conducted in 1993, 1996 and 1998. This paper reanalyses the household survey data from three of these surveys in order to chart the evolution of poverty and inequality during the 1990s. In addition, the economic policies pursued during the 1990s are described in detail, enabling linkages to be drawn between the policies implemented and the observed changes in poverty and inequality.

The next section briefly describes Zambia's economic performance since independence. This is followed by a detailed description of the economic policy reforms of the 1990s focusing upon stabilisation, external liberalisation (including exchange rate, trade and capital account liberalisation), internal liberalisation in the form of agricultural marketing reform, and the structural and institutional reforms embodied in the privatisation and parastatal restructuring programme. The following section describes the impact of these reforms upon overall macroeconomic performance and the composition of output. The changes in capital flows and debt service payments are also described. In addition the impact of reform upon the composition of the labour force is described along with changes in employment and earnings in different sectors and the movements in the cost of key commodities affecting the poor. The paper then reanalyses household survey data from nationally representative household surveys in 1991, 1996 and 1998 and presents the changes in

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<sup>2</sup> The paper is based upon a paper on "Poverty, Inequality and Growth in Zambia during the 1990s" by the same authors which was produced as part of a series of studies on Poverty Dynamics in Africa supported by the World Bank. The authors would like to thank Lionel Demery for his excellent technical management, the Zambian CSO for access to the data and Miss Efrida Chulu and Mr. Solomon Tembo for clarification of the survey methods, and Howard White for numerous valuable comments and suggestions. Michele Calandrino provided research assistance and Jenny Edwards provided secretarial support. All errors remain the responsibility of the authors.

poverty and inequality for both rural and urban areas over the decade. Finally, some tentative linkages are drawn between the policies implemented and the observed changes in poverty and inequality.

### **Economic Performance 1964-1991<sup>3</sup>**

At independence in 1964 Zambia was one of the most prosperous countries in sub-Saharan Africa. With substantial agricultural and mineral natural resources the prospects for growth and human development seemed bright. However, poverty was extremely high and the new government faced a major challenge to redress the large inequalities which existed in the distribution of income.<sup>4</sup> Initially Zambia followed fairly liberal political and economic policies with policies focussed on the provision of infrastructure and services for the bulk of the population. However, the Mulungushi Declaration in 1968 and its implementation in 1972 marked a change towards a more restrictive policy environment with a heavy role for the state in national development. These policies included a much more inward looking approach to development with manufacturing protected by high tariffs whilst an overvalued exchange rate encouraged inefficient capital-intensive development for the domestic market. Price controls for major commodities were introduced and credit was directed by the National Commercial Bank. In addition the government directly took control over many parts of the manufacturing sector, agricultural marketing and the mining sector.

During the first ten years after independence rising copper prices and high levels of investment resulted in economic growth averaging 2.4 per cent a year. However, this was still below the rate of population growth resulting in falling per capita incomes. Although rural and urban inequality were individually lower than national inequality (with Gini coefficients of 0.48 each in 1974-75), the large gap between average urban and rural incomes resulted in an overall Gini of 0.59 in 1974 suggesting that inequality increased during the first ten years.

After 1975 Zambia faced a collapsing copper price, conflict in neighbouring countries and the severe repercussions of the first oil shock. Initially the collapse in the copper price was seen by the government (and the international community) as temporary. The government therefore borrowed to maintain levels of consumption. However, by the early 1980s it was apparent that the somewhat half hearted attempts at reform during the 1970s had not been effective. A more serious IMF/World Bank Structural Adjustment Program (SAP) was attempted between 1983-85 with strong conditions attached. The government abandoned this agreement and re-imposed numerous controls in May 1987 after political discontent resulted in food riots in the Copperbelt at the end of 1986.

However, as the economy continued to decline the government had little option but to enter into fresh negotiations with the IMF. In June 1989 it decontrolled all consumer goods prices except maize and in early 1990 the government and the IMF drew up a new Policy Framework Paper outlining the economic policies to be pursued between 1990 and 1993. As part of this framework, the government increased the prices of high grade maize meal by over 100 percent in June 1990. This led to widespread rioting in Lusaka and the major Copperbelt towns (Simutanyi 1996). Normal relations with the World Bank were resumed in March 1991 and the IMF's Rights Accumulation Programme commenced the following month effectively enabling Zambia to reschedule its debts to the IMF.<sup>5</sup> However, the government's agreement to hold elections in 1991 undermined its commitment to implement painful reforms and in June 1991 it requested the IMF to postpone a scheduled round of reduction of maize meal subsidies. The IMF refused and suspended all financial disbursements to Zambia. Inflation rose sharply as the government printed money to fund civil service pay increases and to fund the election campaign (Simutanyi 1996).

The result of delayed and partial adjustment to Zambia's changed economic circumstances over the 1970s and 1980s was harsh. By the early 1990s real consumption per person had fallen by two-thirds over 15 years. More worrying still was the decline in certain social indicators. Zambia's performance in the 1960s and 1970s on social indicators such as school enrollment, infant and under-5 mortality and the number of

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<sup>3</sup> This section draws heavily on (World Bank 1994a).

<sup>4</sup> Data for 1959 show an overall Gini coefficient of 0.48. Figures for 1964 are not available.

<sup>5</sup> White, H. and T. Edstrand (1998) provide a detailed account of the operation of the Rights Accumulation Programme.

malnourished children was good. However, economic decline saw improvements falter. Gross enrollment rates in primary schools showed a downturn after 1985; infant mortality which had fallen from 147 in 1969 to 79 per 1000 live births in 1977-78, actually rose to 107 during 1987-91; a higher percentage of children under 5 years of age were stunted or wasted in 1990/91 than in 1970/71. Against this background, there were strong hopes for economic recovery and growth in the 1990s.

## **Economic Policy Reform since 1991**

By 1991 reform had become politically and economically unavoidable. In October of that year the Movement for Multi-Party Democracy (MMD) government was elected on a platform of major reforms designed to release the economy from controls and facilitate market-based growth. Upon their election the Zambia authorities were faced with a particularly poor macroeconomic environment. The first two years of the new government was therefore preoccupied with implementing *stabilisation* measures to control accelerating inflation. In addition the government attempted to implement far-reaching *structural* changes to the economy. Many of these structural reforms were intended to open up the economy to the outside world, such as exchange rate liberalisation, trade liberalisation and capital account liberalisation. Others were directed at “internal trade liberalisation” through the removal of many subsidies including the maize meal and fertiliser subsidies and the decontrol of agricultural prices. A third set of reforms were focused upon institutional restructuring notably the commercialisation and privatisation of many parastatals. In many cases this was linked to fiscal reform, such as tax reform and expenditure restructuring and the introduction of user fees in health and education due to a desire to reduce subsidies (White 1997). We explore each of these types of reforms in some detail below since they help to explain both Zambia’s macroeconomic performance and the trends in poverty and inequality described in the following sections. In particular we look at reforms undertaken in four areas: stabilisation; globalisation; internal liberalisation; and institutional reform.

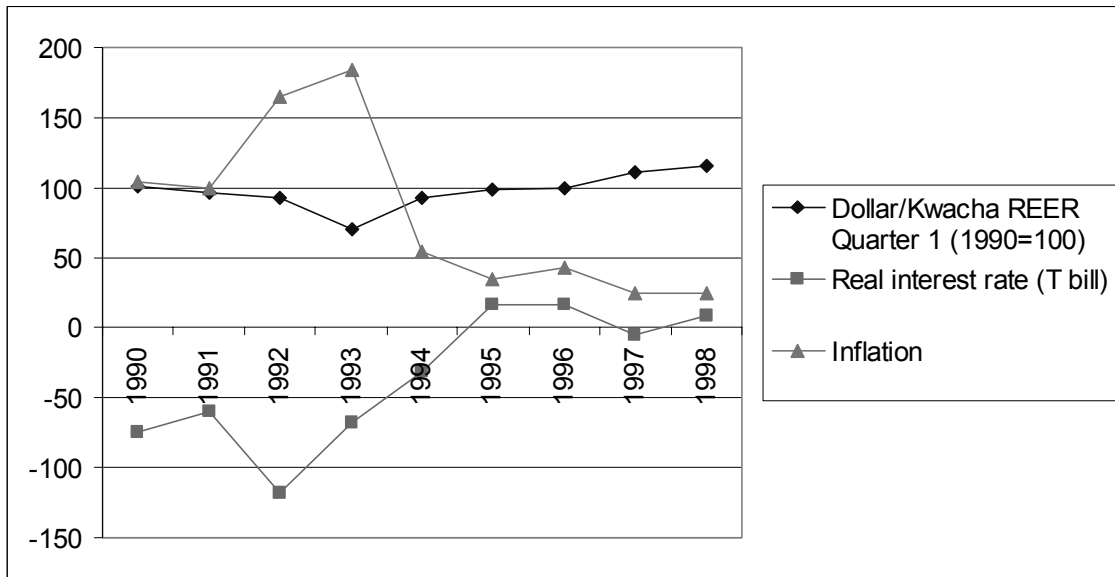
### **Macroeconomic Stabilisation**

When the MMD government took power the economy faced numerous problems. GDP was around two-thirds of the level of the late 1960s after two decades of erratic and often unsuccessful attempts at reform (White and Edstrand 1998). Inflation was over 90 percent (Republic of Zambia 1993a) and the government budget deficit was 7.3 percent of GDP. External debt stood at US\$ 6.8 billion and scheduled debt service was 61 percent of export earnings (International Monetary Fund 1999). The conditionality attached to the IMF’s Rights Accumulation Programme specified (i) ceilings on reserve money and domestic credit creation; (ii) various financial indicators, including reduction in debt arrears; and (iii) policy changes to liberalise the foreign exchange and credit markets (White and Edstrand 1998). Zambia made large strides towards achieving these objectives, particularly in the liberalisation of foreign exchange (see under Globalisation reforms below). However, compliance with the IMF conditions slipped, principally because of exceeding monetary targets. High wage settlements for public servants and large unbudgeted transfers to Zambia Airways resulted in the government’s excessive use of the banking system to finance its growing deficit. This was compounded by the effect of a severe drought in 1992. In an effort to counter the inflationary implications of high domestic credit expansion, borrowing and lending rates were decontrolled in October 1992 and the Treasury Bill was introduced as a less inflationary form of deficit financing. (Republic of Zambia 1993a).

Despite this, by the end of 1992 inflation stood at 191 percent. Therefore, in January 1993 the government introduced a “cash-budgeting system” in which government payments could only be made if cash was available. This, combined with the liberalisation of commercial banking loan rates, an increase in the reserve ratio and the active issue of Treasury bills was successful in reducing inflation to 55 percent in 1994. Real interest rates rose dramatically, from largely negative rates at the end of 1992 to substantial positive rates by the end of 1993, with the annualised yield on 91 day Treasury bills reaching almost 200 percent in July 1993. As inflation fell from 1994 onwards, so did interest rates but moderate positive real

interest rates prevailed in most years.<sup>6</sup> Continued tight monetary policy over the latter half of the 1990s reduced inflation to around 25 percent in 1998. Figure 1 shows inflation, the real exchange rate and the real interest rate for Treasury Bills over the 1990s.

Figure 1: Inflation, Real Exchange Rate and Real Interest Rates over the 1990s



This drastic stabilisation was not without its costs: the high returns obtainable from government debt caused formal sector finance to switch to the purchase of Treasury bills, severely curtailing the availability of credit to the private sector while the high real interest rates hurt investment (World Bank 1994b). Furthermore, the sequencing and timing of the stabilisation measures and the continuation of the cash budget have been heavily criticised.<sup>7</sup>

## Globalisation

Closely linked to the macroeconomic stabilisation were a set of measures designed to increase Zambia's openness to the rest of the world. Three measures were of particular importance: exchange rate liberalisation; trade liberalisation; and capital account liberalisation.

### Exchange Rate Liberalisation

Prior to 1991 Zambia's exchange rate had been primarily determined by the government. However, one of the conditions attached to the IMF's support was the liberalisation of the exchange rate. Consequently, the exchange rate and the allocation of foreign exchange were permitted to be market determined, initially through the introduction of a "bureau de change" market to determine the market exchange rate. The 1992 budget presented a policy of rapid depreciation (Andersson 1995) which, when combined with negative real interest rates resulted in a depreciation of the Real Effective Exchange Rate (REER). By March 1993 most foreign exchange controls on current transactions had been removed. However, the introduction of

<sup>6</sup> The exception was 1997 where retirement of government debt to the Bank of Zambia resulted in much lower nominal interest rates and therefore negative real rates.

<sup>7</sup> White, H. (1998) discusses several different perspectives on the design and implementation of reforms in the 1990s.

positive real interest rates in mid-1993 (due to the credit market liberalisation and the issue of Treasury bills described above) resulted in a substantial short-run appreciation of the Kwacha as investors switched their money out of foreign currency back into Kwacha to exploit the high real interest rates. Furthermore, the maintenance of relative tight monetary policy since then has resulted in a steady appreciation of the REER.

The liberalisation of the exchange rate was undertaken primarily because of concerns about the government's balance of payments situation. In 1990, interest and principal payments on official debt heavily outweighed the other items in the current and capital accounts (including a large positive trade balance) resulting in an overall balance of payments deficit of US\$ 354 million. There was a large increase in private transfers and official disbursements in 1991. However, drought in 1992 led to a surge in imports and another large balance of payments deficit. The depreciation of the exchange rate in 1992 gave rise to an improvement in the trade and current account balances in 1993 and 1994. However, the trend was reversed between 1995 and 1998 as the value of copper exports collapsed leaving a trade deficit of US\$ 148 million in 1998. Similarly after a surge in net transfers early in the decade, net transfers steadily declined and, although interest on official debt also declined substantially, the end result was a current account deficit of US\$ 269 million by 1998. Table 1 shows the key components of the balance of payments over the 1990s.

*Table 1: Balance of Payments over the 1990s (US\$ millions)*

	1990	1991	1992	1993	1994	1995	1996	1997	1998
<b>Exports (f.o.b.)</b>	1262.9	1085	1132.8	994.2	1066.4	1185.9	993.4	1190.8	873.6
of which Copper	1055	895.1	880	717.2	729.2	851	567.7	649.4	430.9
<b>Imports c.i.f.</b>	-1084	-952	-1351	-1019	-1003	-1194	-1056.3	-1218	-1022
<b>Trade balance</b>	179	133	-218	-24	64	-8	-62.9	-27	-148
<b>Current Account balance</b>	-93	8	-135	-29	47	-166	-122.9	-239	-269
<b>Capital account</b>	-261	-99	-141	-37	-12	-77	49	166	-5
<b>Overall balance</b>	-354	-91	-258	-182	-70	-236	-80	-127	-249

## Trade Liberalisation

During the 1970s and 1980s capital intensive manufacturing had been encouraged through the use of high tariff barriers and an overvalued exchange rate while credit was directed by the government which took direct control over large sections of the manufacturing sector. The resulting stagnation in employment in the formal sector was accompanied by falling real earnings, with earnings in 1989 only one third of those in 1983 (World Bank 1994a). The consequence was that in 1990 there were only 62,000 workers in manufacturing out of 484,000 formal sector workers.

The MMD government embarked upon a radical programme of trade and industrial policy reform in 1992. Over a five year period all licensing and quantitative restrictions on imports and exports were eliminated. Tariffs were reduced and the tariff structure was simplified: in 1991 customs duties ranged between 0 and 100 percent with 11 tariff band; by 1996 duties ranged from 0 to 25 percent with only four bands (Rakner, van de Walle et al. 1999). The tariff preference for goods from the Common Market for Eastern and Southern Africa (COMESA) was progressively increased – COMESA partners now pay only 60 percent of the general duty rate. The 20 percent uplift factor applied to import values was abolished in July 1995 and most export controls were lifted in 1991 (including lifting the ban on the export of maize in 1993) (World Bank 1996).

The reforms were introduced with the aim of improving the efficiency and competitiveness of the manufacturing sector in order to provide a platform for sustainable growth of exports and employment. It was expected that these reforms would give rise to considerable short-term adjustment costs forcing more

families into poverty (World Bank 1994a). However the collapse of the manufacturing sector has been dramatic. Companies operating behind high levels of protection have been unable to withstand the simultaneous shocks of trade liberalisation and the removal of subsidised credit. Employment in formal manufacturing fell over 40 percent from 75,400 in 1991 to 43,320 in 1998 (Republic of Zambia 1994a; Republic of Zambia 1999). The impact has been particularly pronounced in the textile industry which has almost collapsed. By December 1993, 8,500 workers had lost their jobs in the textile industry alone – 47 clothing manufacturing firms in Livingstone closed down due to competition from imported textile products and second-hand clothing (Simutanyi 1996).

The slow adjustment of manufacturing to liberalisation has been attributed to a number of causes. The cost of raw materials rose dramatically as a result of the large devaluations early in the reform process since the manufacturing sector was extremely import dependent; the tight monetary policy pursued by the government created high interest rates discouraging investment in the rehabilitation of capital stock – several companies experienced liquidity problems for the same reason; and uncertainty over the restructuring of the parastatal sector and the privatisation process has led many investors to adopt a “wait and see” approach to investment (World Bank 1994b).

Trade theory suggests that trade liberalisation will give rise to hardship for those in import substituting industries particularly where industries are relatively inflexible and therefore unable to adjust quickly to new circumstances. However, theory also suggests that trade liberalisation should also boost exports by increasing the relative price of exportables relative to importables. Unfortunately, export performance in the 1990s has been mixed. Total exports (f.o.b.) fell by over 30 percent between 1990 and 1998 although this was caused principally by a collapse of metal exports by almost half over this period. As Table 1 shows, copper, which has always been Zambia’s largest and most important export, collapsed in value from over US\$ 1 billion in 1990 to US\$ 431 million in 1998. The volume of copper exports fell by 42 percent in the face of a continuing downward trend in copper prices – prices in 1998 were more than 30 percent below those at the start of the decade.<sup>8</sup> By contrast cobalt prices more than trebled between 1990 and 1997, doubling the value of cobalt exports between 1990 and 1998. Also, encouragingly, the value of non-metal exports has more than trebled since 1991. Thus the decline of some heavy industrial activities appears to be complemented by growth of more competitive exports better reflecting Zambia’s comparative advantage (International Monetary Fund 1999).

Trade liberalisation also had an important impact upon government revenues. Import duties fell dramatically from K 428 million (in 1994 prices) in 1993 to K 290 million in 1994 and continued on a downward trend thereafter. Overall trade taxation fell from 37 percent of tax revenues in 1990 to 26 percent in 1998 – the fall in the absolute value of trade taxation was more than 50 percent in real terms over the decade. However, as trade taxes fell from 7.3 percent of GDP in 1990 to 5.6 percent in 1997, so sales and value-added tax grew from 1.9 to 3.6 percent over the same period. Had GDP remained constant over the decade, these changes would have compensated for the declining trade revenue. Unfortunately, the shock caused by stabilisation caused a sharp contraction in GDP after 1993 which was only partially compensated by growth in 1996 and 1997. Consequently, overall revenue declined by more than 30 percent in real terms between 1990 and 1998. A temporary surge in grants after 1991 helped to compensate for the reduction in revenue, but by 1998 grants were back to the same level in real terms as they had been in 1990.

In order to maintain (and reduce) fiscal deficits, real government expenditure in the domestic budget<sup>9</sup> declined by almost half over the decade. The brunt of the reduction fell upon general public services and defence which both saw large reductions in their share of total expenditure, as well as on transport and communications expenditure which collapsed after 1992. By contrast education and health expenditures were, relatively, protected with the former falling by 17 percent and the latter remaining at around the same level in real terms between 1991 and 1998. This may reflect the introduction of user fees and charges which became an increasingly important source of non-tax revenue from 1994 onwards, although with

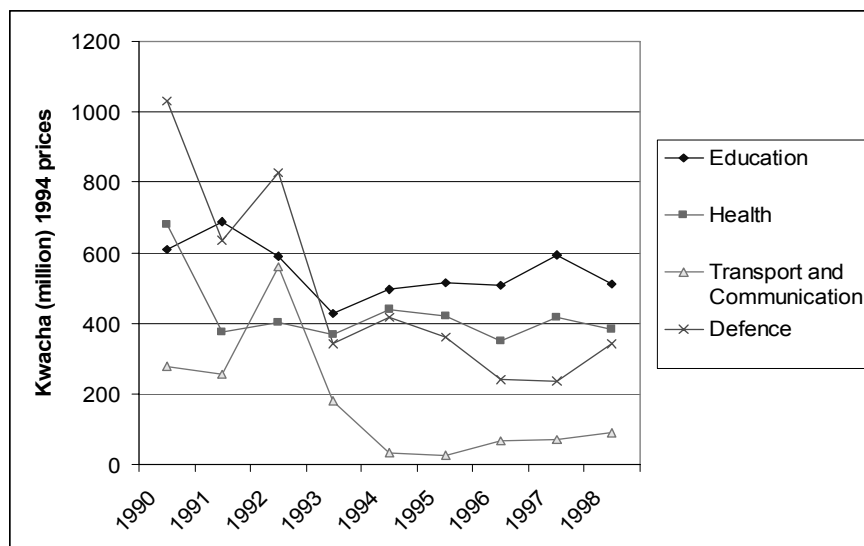
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<sup>8</sup> For an in depth analysis of the Zambia’s management of copper price shocks in the earlier period between 1964 and 1980 see Aron, J. (1999).

<sup>9</sup> That is, excluding interest on foreign debt and foreign financed capital expenditure.

strong negative implications for access, particularly by the poorest. Figure 2 shows real expenditure on selected items of the domestic budget.

Figure 2: Government Expenditure on Selected Items



### Capital Account Liberalisation

In addition to undertaking radical trade liberalisation, in February 1994 the Government of Zambia also liberalised the capital account of the foreign payments systems (Andersson 1995). Given the small size of the Zambian economy, and the vulnerability of its economy to international capital flows, this represented a bold move by the authorities. However, evidence from the balance of payments suggests that this liberalisation has been relatively successful. From 1990 until 1993 net private capital outflows from the economy averaged over US\$150 million per year. After the liberalisation net private capital flows reversed with an inflow of US\$ 85 million in 1994. This reversal may have resulted from the government's tight monetary policy and the very high yields available on Treasury Bonds. However, net private inflows continued to average US\$ 81 million between 1994 and 1998 reflecting the maintenance of positive real interest rates throughout this period.

By far the largest two items on the capital account have traditionally been official disbursements of aid and official amortization of debt. Consequently, the effective management of debt flows has long been central to macroeconomic management in Zambia and a necessary condition for the success of external liberalisation. Table 2 shows scheduled external debt service payments over the 1990s.

Table 2: Scheduled External Debt Service Payments during the 1990s (US\$ millions)

	1990	1991	1992	1993	1994	1995	1996	1997	1998
Scheduled debt service	647	718	678	522	541	590	453	376	315
Interest	329	381	320	216	233	252	198	195	179
of which: fund charges/interest	117	112	89	64	42	57	10	9	9
Amortization	318	337	358	306	309	338	255	181	136
of which: fund repurchases	122	59	6	3	18	0	0	0	0

As Table 2 shows, there has been considerable improvement in Zambia's external debt position over the 1990s, with scheduled debt service dropping by more than half. Scheduled interest payments have fallen



from US\$ 329 million in 1990 to US\$ 179 million in 1998, whilst amortization payments have fallen even faster. The principal reason for this dramatic change has been the normalisation of relations with the IMF and the steady reduction and virtual elimination of interest and amortization payments to the Fund. Nonetheless, official disbursements have not generally covered amortization payments. Thus the positive net private capital inflows in the latter half of the 1990s have played an important role in maintaining capital account balance.

## Internal Liberalisation

External liberalisation can dramatically reduce the costs of international trade and capital flows by reducing taxes and transaction costs at the border. However, in the early 1990s Zambia was also characterised by extreme inflexibility and rigidities in its domestic economy. These constraints distorted resource allocation and substantially raised the costs of production and distribution between points within the country to the border. Nowhere were these distortions and constraints more visible than in the area of agricultural marketing. After independence, the government had committed itself to a policy of self-sufficiency in maize production. It attempted to achieve this through official price controls and the centralised delivery of credit, input supply, extension and marketing through NAMBOARD. A policy of pan-territorial and pan-seasonal pricing was adopted along with subsidies for fertiliser and transport which encouraged maize production in remoter regions away from the line of rail. In order to maintain low prices for urban consumers, the government provided extensive subsidies (13.7 percent of the government budget in 1990). This institutional and policy framework resulted in an extremely inefficient and costly production and distribution system. Policies distorted the allocation of resources away from crops in which Zambia has a comparative advantage and created a growing and unsustainable burden upon the government budget. In addition, these policy distortions ensured that maize was Zambia's principal crop<sup>10</sup> and heavily biased rural production in favour of maize despite its poorer drought resistance than other staple crops with important implications for long-term food security

Reforms to the agricultural marketing system began in 1989 with the abolition of NAMBOARD and the de-monopolisation in 1990 of agricultural marketing so that, in principal, private agents were allowed to purchase and market maize and fertiliser. The MMD government accelerated the programme of agricultural marketing reform and subsidy removal with the removal of the mealie meal and fertiliser subsidies in 1992. Reforms were delayed by the severe drought of 1992 which reduced yields dramatically forcing the government to import large quantities of maize to maintain food security. However, further reforms were implemented in 1993 with the decontrol of maize producer prices and the elimination of maize transport subsidies (World Bank 1996). In 1993, the government also attempted to reform the maize marketing system by engaging government supported lending institutions (Zambia Cooperatives Federation – Financial Services ZCF-FS, Lima bank and the Credit Union and Savings Association CUSA) in maize marketing. However, by announcing a “floor” price for maize purchases the government created the impression that centralised marketing arrangements would continue as before. The floor price along with the government's arrangements with the credit institutions discouraged private traders from entering the market. In addition, the government's simultaneous attempts to control inflation meant that the private sector preferred to invest in high yielding Treasury Bills rather than risky agricultural marketing. The resulting lack of credit for maize purchases combined with the inexperience of the credit institutions in marketing resulted in farmers still being owed K22 billion for their crops by the end of October 1993 and most were not paid until after February 1994 (World Bank 1994a).

In an attempt to learn from the disastrous implementation of marketing reforms in 1993, and in keeping with its official policy of phasing out agricultural credit subsidies, the government launched the Agricultural Credit Management Programme (ACMP) in November 1994. This was designed as a transitory arrangement for the provision of credit for fertiliser and seed as well as a way of strengthening the capacity of private traders to act as financial intermediaries (Copestake 1998). The ACMP started extremely late – the first fertiliser withdrawals were made only after 15 December, long after the

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<sup>10</sup> In 1991/92, 65 percent of agricultural land planted was used for maize production.

recommended date for fertiliser application. Furthermore, despite improvements in 1995, the programme's overall effect on agri-business and financial development was probably negative serving principally to enable the government to be seen to be providing assistance to emergent farmers and consumers in the run up to the 1996 general election (Copestake 1998).

More importantly, 1995 was the first year in which the government refrained from setting a floor price. In addition it leased more than half of its storage warehouses to private traders. The result was that, for the first time, the private sector played a dominant role in the provision of inputs and commodity marketing. Furthermore, the milling industry was privatised resulting in the growth of small-scale labour intensive hammermills which can provide milling services at substantially lower cost than large-scale mills.<sup>11</sup> This together with the removal of the subsidy and the monopolistic protection of large mills has helped to lower the consumer price of mealie meal and lowered marketing and processing margins (World Bank 1994a; Jayne, Mukumbu et al. 1996).

The removal of input, credit and mealie meal subsidies has shifted agricultural production away from maize and towards other more high value and drought resistant crops. The area under cultivation for maize fell by 23 percent between 1990/91 and 1996/97 (International Monetary Fund 1999). However, the area of groundnuts cultivated more than doubled over the same period and the area of land devoted to cotton production increased by 50 percent. Thus the removal of subsidies and the liberalisation of agricultural marketing appears to have shifted crop choice to better reflect Zambia's comparative advantage (Keyser 1996) and has led to strong (although sometimes short-lived) growth in some sectors. However, rural small-holders, particularly those in remoter areas, report increasing difficulty in obtaining access to credit and inputs and in transporting their goods to market (Drinkwater, Rogaly et al. 1996; Francis, Milimo et al. 1997; Oxfam and Institute of Development Studies 1999). Furthermore, the failure of the private sector to fill the gaps left by public sector provision of credit and marketing services has resulted in the government's continuing involvement in the provision of inputs, particularly fertiliser (Republic of Zambia 1999). Finding a solution to this market failure will be important since recent work suggests that fertiliser application is profitable despite high prices, but that use appears to have declined due to constraints upon supplies (Deininger and Olinto 2000).

## **Institutional Reform**

The final component of the governments reform programme was institutional. Between 1968 and 1976 the Zambian government created a large number of parastatal enterprises. The Zambia Industrial and Mining Corporation (ZIMCO) became a holding company for Zambia Consolidated Copper Mines (ZCCM) and the Industrial Development Corporation (INDECO) which accumulated a large number of subsidiaries in mining, telecommunications, energy, finance and agri-business. Together they produced more than three-quarters of Zambia's GDP in 1991 (Chanthunya and Murinde 1998).

The privatisation of the parastatal sector was one of the MMD government's key policy objectives. This was motivated partially by concerns that the sector had become extremely inefficient and uncompetitive due to many years of development behind high protective barriers, as well as a desire to eliminate the substantial fiscal cost of the losses of the sector.

A Privatisation Act was passed in June 1993 and the Zambia Privatisation Agency was formed to implement the privatisation process (Chiwele and Chinganya 1997). Progress was initially slow, with only 15 parastatals sold by mid-1995. However, the process accelerated with the dissolution of ZIMCO in March 1995 and by 1997, 224 companies of a total of 275 laid out for sale had been sold (Rakner, van de Walle et al. 1999). However, political opposition to privatisation of the mines delayed the sale of ZCCM. As a consequence donors withheld balance-of-payments for three years running. In 2000, the Zambian government finally accepted a bid by Anglo-American Co-operation. Table A1 in the Appendix shows a

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<sup>11</sup> The number of hammermills increased from 4,156 in 1992 to around 6,000 in 1994. See Jayne, T. S., L. Rubey, et al. (1996) for a detailed analysis of the benefits of lower processing costs upon low income households.

summary of the key policy reforms introduced over the 1990s along with the external shocks which affected the economy.

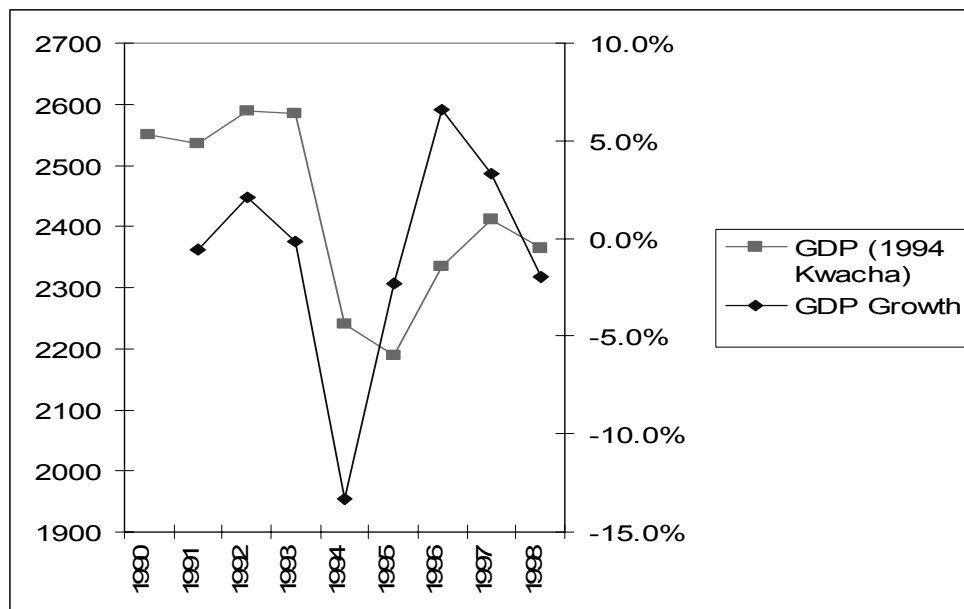
## The Impact of Reform

The reforms described above had a large impact upon the Zambian economy. The next section examines the impact of reform upon overall economic performance during the 1990s and its effects on the composition of the labour force and earnings and employment in both the formal and informal sectors. The following section explores the trends in poverty and inequality over the decade.

## Growth, Employment and Earnings

Despite sweeping economic reforms designed to stimulate growth and investment, Zambian economic performance in the 1990s has been disappointing. The economy has been extremely vulnerable to external events, notably, poor weather and the continued decline in the international price of copper. Both 1990 and 1991 saw declines in GDP driven by substantial declines in the mining and quarrying sector. A severe drought in 1992 resulted in a collapse of agricultural value-added by one third, although increases in mining and manufacturing output resulted in an overall GDP growth of 2.1 percent. Uncertainty over the privatisation of ZCCM combined with the implementation of the trade reforms outlined above, resulted in declines in mining and manufacturing output in 1993, 1994 and 1995 resulted in negative GDP growth in each of those years; mining and quarrying output and manufacturing production both declined by almost one third between 1992 and 1996. Similarly, construction value-added fell in every year from 1990 to 1996 and value-added in the wholesale and retail trade fell in five of the six years between 1990 and 1995. In 1996 there was a slight recovery in mining and manufacturing complemented by substantial growth in wholesale and retail activities and real estate and business services. This resulted in an overall GDP growth of 6.6 percent in 1996 and 3.3 percent in 1997 (which was principally caused by an increase of one third in construction activities). These are the only two years in the 1990s registering positive per capita growth. Estimated figures for 1998 show a return to negative GDP growth of around -2 percent. Figure 3 shows GDP and GDP growth over the 1990s. (International Monetary Fund 1999).

Figure 3: GDP and GDP growth over the 1990s



Employment data for the 1990s are only readily available for formal sector activities. Zambia's labour force is estimated to have grown from around 3.2 million in 1991 to over 4.7 million in 1998. The formal sector only employed 17 percent of the labour force in 1991 and, despite the 46 percent increase in the labour force, formal sector employment has declined by 15 percent, now constituting less than 10 percent of employment. Table 3 shows the composition of the labour force in 1991 and 1996.

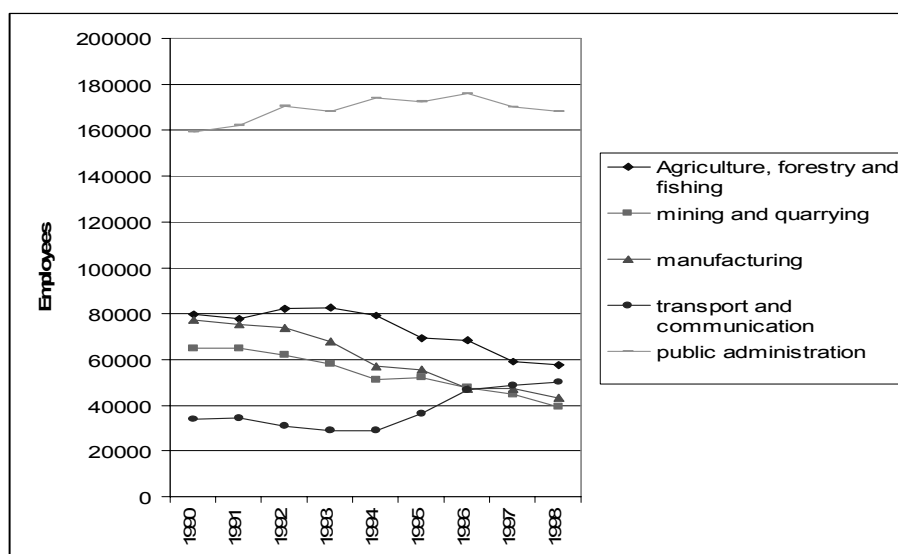
Table 3: Composition of the Labour Force in 1991 and 1996

	1991	Shares	1996	Shares
<b>Labour Force ('000)</b>	3215		3993	
Male	1738	54%	2098	53%
Female	1477	46%	1895	47%
<b>Employed Labour Force</b>	2519		3377	
Male	1410	56%	1790	53%
Female	1109	44%	1587	47%
<b>Unemployed</b>	696		615	
Male	328	47%	307	50%
Female	368	53%	308	50%
<b>Formal Sector</b>	544	17%	479	12%

Table 3 confirms the rapid rise in the labour force between these two years. The data suggest that there has been a fall in unemployment from 22 percent in 1991 to 16 percent in 1996. However, the dramatic drop in formal sector employment suggests that this reduction in unemployment is more likely to be an indicator of hardship rather than the reverse, as more members of the labour force are compelled to undertake some form of employment in order to make ends meet. Table 3 also shows that there has been a shift in the gender composition of the labour force with a rise in female and a fall in male participation. This shift is particularly pronounced in the employment figures, suggesting that males have lost jobs disproportionately more than women.

The gender bias in job losses may be related to the sectoral composition of job losses. Most of the decline in formal sector employment has resulted from major restructuring in the mining and manufacturing sectors which commenced in 1992. Mining and quarrying employed 64,800 workers in 1991 – by 1998 employment had fallen to 39,434. Formal manufacturing has also suffered severe decline with employment falling over 40 percent from 75,400 in 1991 to 43,320 in 1998 (Republic of Zambia 1994a; Republic of Zambia 1999). Employment in agriculture, forestry and fishing remained constant until 1994, but declined thereafter. Conversely, employment in construction collapsed between 1990 and 1995 to less than one third of its 1990 level, but has since seen strong growth. Similarly employment in transport and communications and in distribution and trade saw small reductions between 1992 and 1995, but have been growing since the mid-1990s. Figure 4 shows employment by sector for selected sectors.

Figure 4: Employment by Sector for Selected Sectors

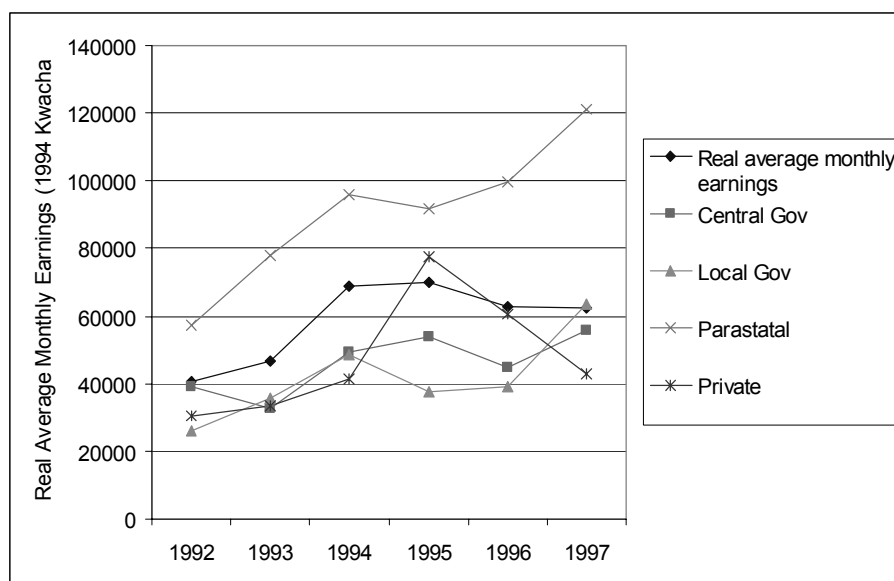


Despite the introduction of a Public Sector Reform Programme, Figure 4 shows that employment in public administration appear to rise until 1996 although it has reduced slightly since (Seshamani and Kaunga 1999). Looking at formal employment in central government and local government separately shows a reduction of around 10,000 in employment in central government between 1992 and 1993 and a similar reduction between 1997 and 1998, with only a modest decline in local government employment. However, there have been heavy job losses in the parastatal sector. Furthermore, until 1996 job losses in the parastatal sector were not compensated by corresponding increases in private sector employment. As the privatisation programme gathered momentum in 1996 and 1997, official data show private sector employment increasing, although much of this increase may be due to a reclassification of workers formally in the parastatal sector. Total formal sector employment continued to decline.

Declining employment in the formal sector displaced a large number of workers into the informal sector. Data on informal sector employment is poor. The CSO estimate that total informal sector employment was around 2.3 million in 1993 of whom around 59 percent were self-employed or owner-operators, whilst the others were employed in small enterprises or were unpaid family workers (Republic of Zambia 1997b). Informal sector employment has grown substantially in recent years with a 35 percent increase in informal agricultural employment and a 15 percent increase in informal non-agricultural employment between 1995 and 1998 (Republic of Zambia 1999). However, since the definition of informal sector employment includes unpaid work it is not clear the extent to which this increase reflects a genuine increase in opportunities rather than a reclassification of workers displaced from formal sector activities.

It is also instructive to look at the impact of reform upon wages. Figure 5 shows average real monthly earnings between 1992 and 1997 for employees in central and local government, parastatals and the private sector. Average monthly real earnings in the formal sector rose steadily from 1992 until 1995. The large rise in real earnings between 1993 and 1994 resulted from the sudden reduction in inflation between those years. However, real earnings declined by over 10 percent between 1995 and 1996 as real earnings fell in both central government and the private sector. The data suggest that the increase in overall real average earnings is driven by the high and rising real earnings in the parastatal sector which have more than doubled in real terms over the period. Real earnings in local government have also increased by 143 percent between 1992 and 1997, whilst central government earnings have risen by 43 percent and private sector earnings by 42 percent. Unlike the parastatals and local government, private sector earnings have sharply declined since 1995.

Figure 5: Average Real Monthly Earnings 1992-1997 by Employer



However, Figure 5 should be interpreted with some caution. The observed movements in average monthly earnings are very unlikely to reflect movements in wage rates. Rather they provide further evidence of the likely movements in employment over the period. The general rise in average earnings in central government, the parastatal sector and the private sector between 1992 and 1995 suggests that lay-offs in these sectors focussed upon the least skilled and therefore lowest paid workers. Subsequent to 1995 large rise in parastatal sector earnings combined with the collapse of private sector earnings may result reclassification of low paid workers from the parastatal sector to the private sector.

It is also instructive to examine the changes in the prices of goods purchased by poorer households. An examination of the Consumer Price Index for metropolitan and non-metropolitan low income groups shows relatively small differences between the two.<sup>12</sup> However, three sets of goods had markedly different inflation rates in metropolitan and non-metropolitan areas: medical care; transport and communication; and recreation and education. Figure 6 shows the ratio of the non-metropolitan low income consumer price index to the metropolitan low income consumer price index for each of these sets of goods.

Figure 6: Ratio of the non-metropolitan low income CPI to the metropolitan low income CPI for selected goods

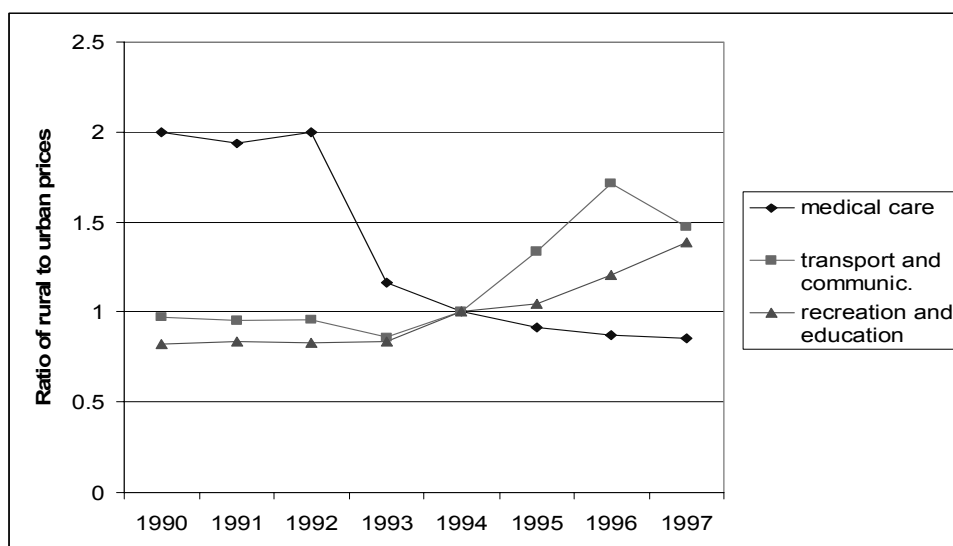


Figure 6 shows that the relative cost of medical care in rural areas compared to that in urban areas has more than halved over the decade.<sup>13</sup> This is likely to be the consequence of the introduction of user charges for the provision of health services. User charges tend to be more effectively implemented in urban health facilities than in rural ones raising the cost of medical care more quickly in urban areas than in rural ones.<sup>14</sup> Conversely, the relative cost of recreation and education in rural areas has increased sharply since 1993, suggesting that the implementation of user fees in education has raised prices proportionately more in rural areas than urban ones. Similarly, relative transport and communication costs appear to have risen sharply with the implementation of agricultural marketing reforms and the collapse in government expenditure in this area.

<sup>12</sup> This does not mean that prices were same in metropolitan and non-metropolitan areas – merely than the rate of inflation was similar.

<sup>13</sup> Note we are referring here to changes in the ratio of two indices. Thus the relative cost for all items is 1 in 1994 by construction, since this is the base year of each CPIs, but this does not mean that costs were the same in rural and urban areas in this year. A value of 2 for the ratio for medical care in 1990 indicates that the relative cost of medical care between rural and urban areas in 1990 was twice that prevailing in 1994.

<sup>14</sup> Note however that no account is taken here of the large differences in the quality of urban and rural health services Simms, C., J. T. Milimo, et al. (1998). Furthermore, the poverty impact of price rises in rural areas may be greater than that in urban areas, even if the rate of inflation was smaller.

## Changes in Poverty and Inequality during the 1990s

In order to understand how the reforms have affected poverty and inequality in Zambia, three nationally representative household surveys from 1991, 1996 and 1998 were examined to determine the changes in poverty and inequality during the decade.<sup>15</sup> Each of these surveys was nationally representative covering all nine provinces and both urban and rural areas.<sup>16</sup> The questionnaires generally covered demographic characteristics, health care, education, economic activities, housing facilities and amenities, access to facilities, migration, agriculture, non-farm enterprises, household income, household cash expenditure, household assets and anthropometry. Unfortunately there were significant changes in the format and content of the income questions over the surveys but the expenditure questions remained relatively unchanged. For both these and theoretic reasons, consumption expenditure was chosen as the welfare measure.<sup>17</sup> In order to compare aggregate consumption expenditures across different years it is important that the measure reflects expenditure on the same items in each year. We therefore reconstructed a total expenditure variable for 1991, 1996 and 1998 including the following components: food, education, health, clothing, housing and transport.<sup>18</sup>

In order to compare welfare across households with different compositions we employ the equivalence scale used by (Latham 1965).<sup>19</sup> To calculate poverty measures we have used the poverty line defined by the Zambian Central Statistical Office which is based upon a cost of basic needs approach. A study carried out by the National Food and Nutrition Commission constructed a basic food basket necessary to maintain the nutritional requirements of an average Zambian family.<sup>20</sup> The cost of this food basket translates into a lower poverty line of K961 per adult person per month in 1991 prices. A further 30 per cent was added to this amount to account for basic non-food needs, giving an upper poverty line of K1,380 per month. These values were upgraded to 1998 prices using the ratio of the composite national consumer price index in December 1998 to that in October 1991 (Republic of Zambia 2000; and then adjusted to give per adult equivalent lower and upper poverty lines of K32,232.85 and K46,286.50.<sup>21</sup>

For purposes of international comparison a US\$1 per day poverty line was also calculated using the PPP exchange rates in the Penn World Tables (Summers and Heston 1999) and the Zambian Consumer Prices Index (Republic of Zambia 1997a). This resulted in a per capita “poverty” line of K140,642.04 per month in 1998 prices. This is exceptionally high in a Zambian context being in the top decile of the 1998 consumption expenditure distribution. It was therefore decided not to use this poverty line in our analysis.

Table 4 shows the mean per adult equivalent consumption expenditure for 1991, 1996 and 1998 – all figures are in 1998 Kwacha. Population standard errors are reported which take into account the stratification and clustering of the surveys.

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<sup>15</sup> A further survey was undertaken in 1993. However, it was conducted at a different time of year than the 1991, 1996 and 1998 surveys and so it is impossible to know whether the differences found between 1993 and the other years are the result of seasonal factors or longer term trends. Work by other researchers has shown that such time of survey biases can be severe Dercon, S. (1998). Consequently, we focus our analysis upon the 1991, 1996 and 1998 surveys.

<sup>16</sup> For details of the surveys used see Republic of Zambia (1993); Republic of Zambia (1997); Central Statistics Office (1999).

<sup>17</sup> See Ravallion, M. (1992) for some of the arguments over the relative merits of income and consumption as welfare measures.

<sup>18</sup> The inclusion (and exclusion) of items within any consumption aggregate is not uncontroversial since it can affect the conclusions drawn about whether aggregate consumption has increased or decreased among different segments of the population. Indeed our results are different from those obtained by Central Statistics Office (1999) as a result of the choices which we have made. Whilst we believe that our consumption aggregate benefits from being constructed to maximise comparability across years, this has necessitated the omission of items not included in all three surveys. Work is currently underway to identify the robustness of our results to these omissions. A detailed description of the construction of our consumption aggregate is provided in McCulloch, N., B. Baulch, et al. (2000).

<sup>19</sup> This scale is slightly different from the one used by the Zambian CSO – consequently per adult equivalent consumption expenditure was recalculated using the Latham scale.

<sup>20</sup> The food basket comes from ILO/JASPA (1981).

<sup>21</sup> Cherele-Robson, M. and N. McCulloch (2000) gives the details of this adjustment.

Table 4: Mean per adult equivalent real consumption expenditure: 1991, 1996 and 1998

**Mean Per-adult equivalent Consumption expenditure  
(Kwacha 1998)  
National, Rural, Urban: 1991, 1996 and 1998**

	1991	1996	1998	Percentage Change 1991-1996	Percentage Change 1996-1998	Percentage Change 1991-1998
<b>National</b>						
Mean	43,870	34,780	46,515	-20.7	33.7	6.0
Standard error	(4,984.6)	(2,486.8)	(1,941.3)		**	
Sample size	9,297	11,700	16,279			
<b>Rural</b>						
Mean	22,311	25,218	40,885	13.0	62.1	83.2
Standard error	(950.0)	(1,306.1)	(1,221.4)		**	**
Sample size		5,199	8,192			
<b>Urban</b>						
Mean	69,713	53,898	55,847	-22.7	3.6	-19.9
Standard error	(4,527.9)	(2,606.1)	(3,188.6)	**		*
Sample size		6,501	8,087			

\* indicates a change which is significant at 5% level

\*\* indicates a change which is significant at 1% level

Note: 152 rural households and 400 urban households with implausibly low food expenditure in 1991 have been dropped along with 43 households with highly inconsistent data at the top of the 1991 distribution; 8 outlier households at the top of the 1998 distribution were also dropped.

The table shows a decline of over 20 percent in the population real mean expenditure between 1991 and 1996.<sup>22</sup> Although urban residents are substantially better off than rural residents, Table 4 shows that most of this fall comes from a sharp, and statistically significant, fall of over a fifth in the mean expenditure of households in urban areas. The mean expenditure of rural residents actually increases by 13 percent between 1991 and 1996, although this is from a much lower base and the change is not statistically significant.

By contrast, between 1996 and 1998 the national mean per adult equivalent consumption expenditure increased by over a third.<sup>23</sup> Most of this increase resulted from a large and statistically significant increase of 62 percent in rural mean expenditure. The mean consumption expenditure of urban residents also rose slightly between 1996 and 1998, although the change was not statistically significant. Because of these increases, the mean expenditure of rural residents was over 80 percent higher in 1998 than in 1991. However, urban residents were on average a fifth worse off in 1998 than in 1991.

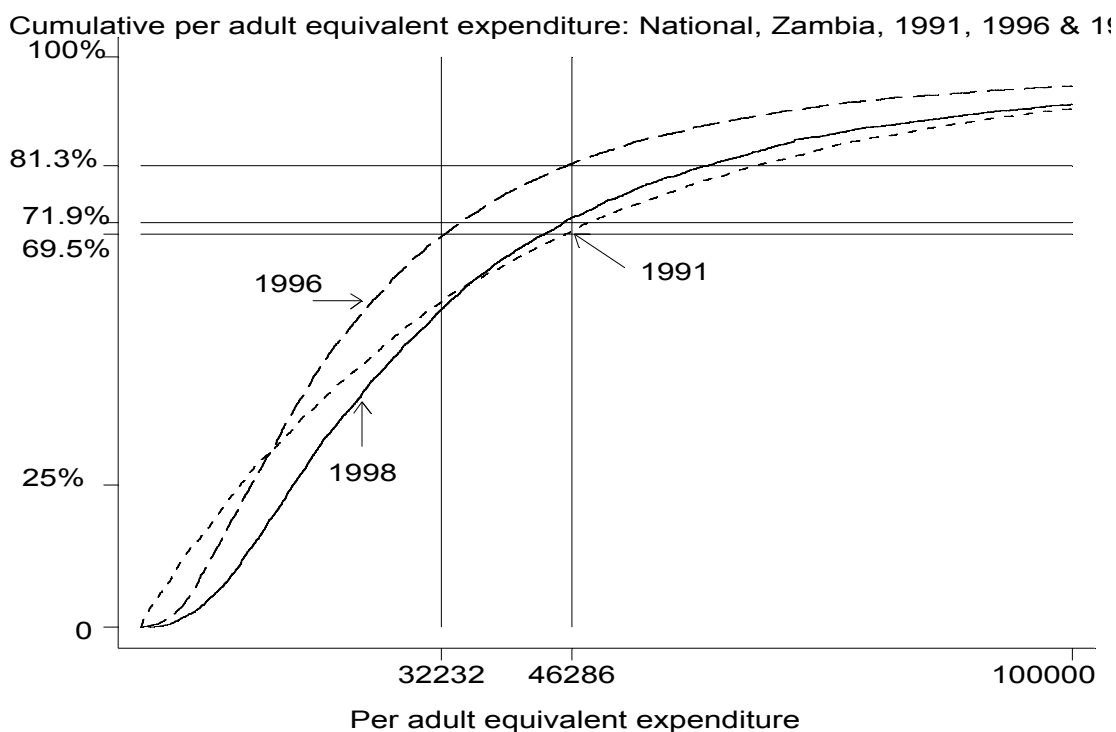
<sup>22</sup> National Accounts figures also show a real decline of around 20 percent in personal consumption.

<sup>23</sup> This is surprising since 1998 was not a good year agriculturally due to excessive rains in some provinces. National accounts show an increase in real GDP of only 1 percent between 1996 and 1998, although they show a rise of 20 percent in real private consumption between 1996 and 1997.



Whilst Table 4 shows the means of the expenditure distributions for each year, it is more informative to examine the entire distribution. This can be done by plotting the Cumulative Distribution Function (CDF) of consumption expenditure for each year. Figure 7a shows the CDFs for 1991, 1996 and 1998 plotted together with the lower and upper poverty lines (K32,232.85 and K46,286.50 per adult equivalent per month respectively). The vertical axis shows the proportion of the population with per adult equivalent expenditure below the value given on the horizontal axis. Thus the intersection of the CDF with the vertical line drawn at the value of per adult equivalent expenditure equal to the poverty line, gives the percentage of the population with per adult equivalent expenditure less than the poverty line – that is – the poverty headcount.

Figure 7a: Cumulative Distribution Function of per adult equivalent expenditure: Zambia 1991, 1996 and 1998



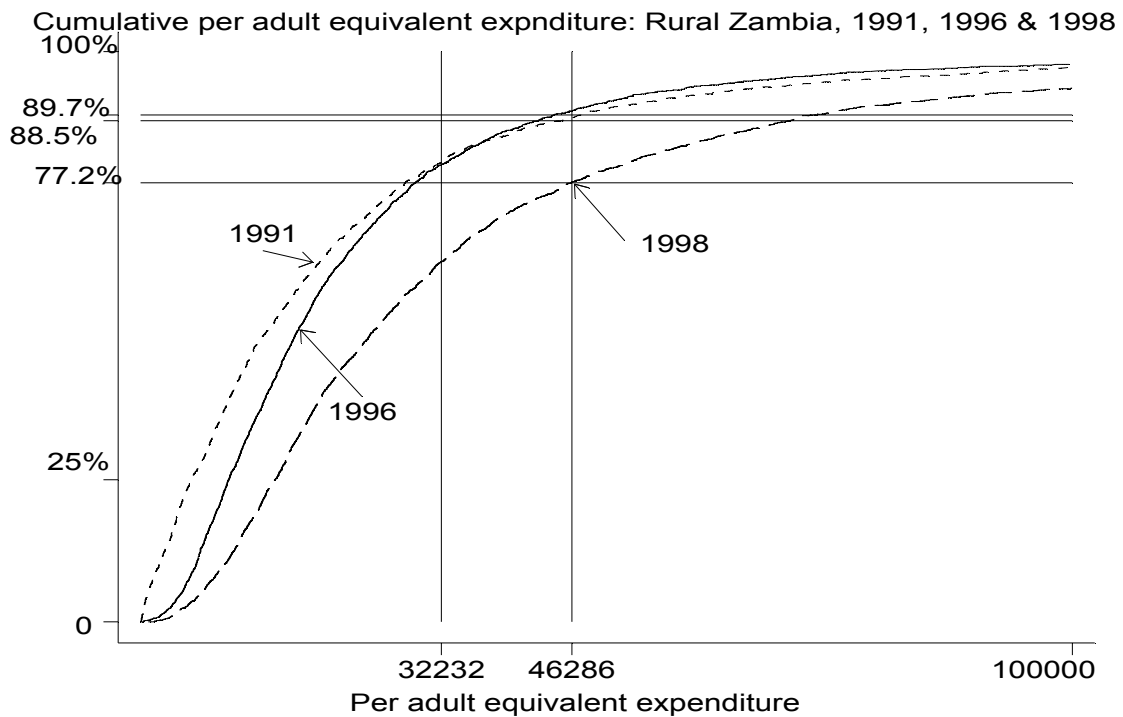
The CDF for 1996 lies above that of 1991 at both poverty lines indicating a rise in the poverty headcount between these two years. The poverty headcount using the upper poverty line was 69.5 percent in 1991 – this had risen to over 80 percent by 1996. However, Figure 7a also shows the CDF for 1998 lying some distance below that for 1996. This shows a reduction in poverty between these two years with the headcount falling from 81 percent to 72 percent.

If a CDF for one year is always above or to the left of the CDF for another then this means that poverty will be higher for that year than for the other year using any well-behaved poverty measure, a property known as first-order stochastic dominance (Ravallion 1992). If however, the CDFs cross then it is possible for poverty in one year to be higher than in the other year when using one poverty measure, but lower if another poverty measure is chosen. The CDF of 1991 crosses the CDF of 1996 at a value of per adult equivalent expenditure per month of around one half of the lower poverty line. This suggests that, despite the large increase in the poverty headcount, the proportion of the population in extreme poverty declined between 1991 and 1996. However we treat this result with some caution due to problems with the unreliability of the recorded values for consumption at the bottom of the expenditure distribution in 1991.

The CDF for 1991 crosses the CDF for 1998 above the lower poverty line. Thus although the poverty headcount increases slightly between the two years using the upper poverty line, it decreases slightly using the lower poverty line. Furthermore, we would expect the poverty gap and squared poverty gap measures to show a substantial decline between 1991 and 1998, although again some caution may be needed in accepting these results. However, the 1998 CDF lies below that of 1996 throughout the entire distribution – thus any poverty measure or poverty line would find a reduction in poverty between these two years.

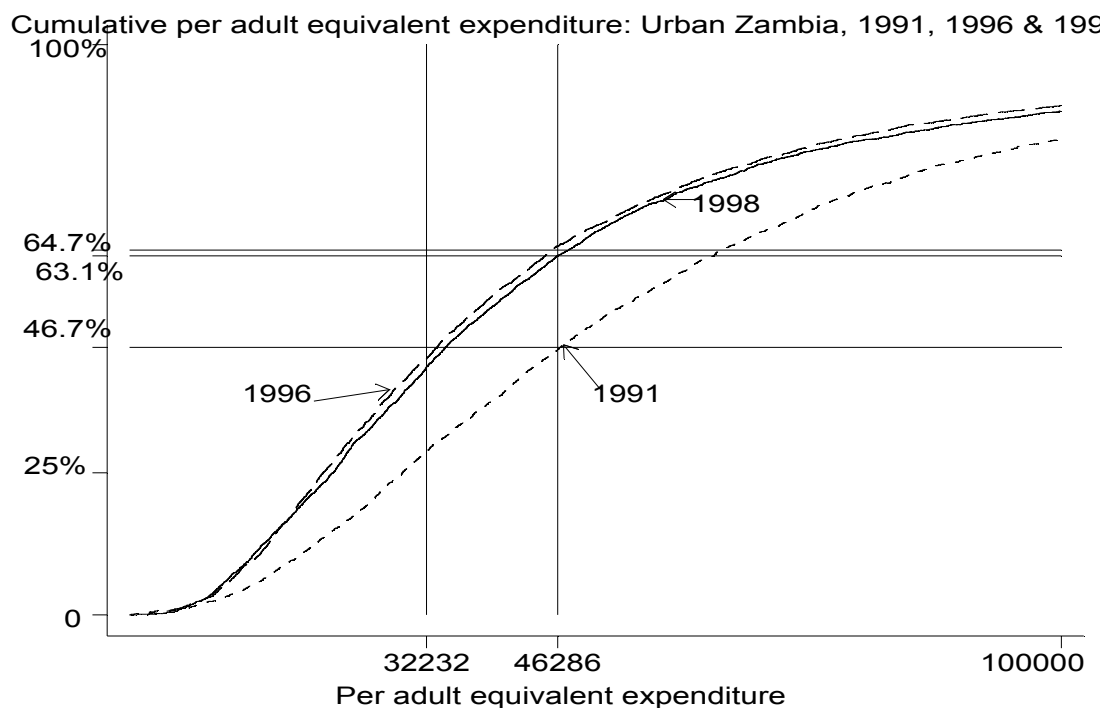
It is also instructive to look at the rural and urban expenditure distributions separately. Figure 7b shows the CDFs for the rural expenditure distributions between 1991, 1996 and 1998, whilst Figure 7c shows the CDFs for the urban expenditure distribution between the same years.

Figure 7b: Cumulative Distribution Function of per adult equivalent expenditure: Rural Zambia 1991, 1996 and 1998



Around the two poverty lines, the CDF for the rural distribution in 1996 lies almost on top of that for 1991, indicating that the poverty headcount changed very little over this period (lower down the distribution there appears to be a fall in poverty between 1991 and 1996 but for the reasons mentioned above we do not attach great confidence to this result). However, the rural CDF for 1998 lies well below that of 1996 and 1991 for all values of poverty line. Consequently the observed improvement in rural poverty between 1996 and 1998 is robust to the choice of poverty line.

Figure 7c: Cumulative Distribution Function of per adult equivalent expenditure: Urban Zambia 1991, 1996 and 1998



The CDFs for the urban expenditure distributions shown in Figure 7c are much “shallower” than those for rural areas since the percentage of the population below both poverty lines is much lower in urban areas than in rural areas. Nonetheless, Figure 7c shows a substantial increase in poverty between 1991 and 1996 with the poverty headcount rising from 47 percent to 65 percent. The CDF for 1998 lies fractionally below that for 1996 indicating a small improvement between these two years in urban areas.

Population estimates of poverty were calculated using the Foster, Greer, Thorbecke poverty measures (Foster, Greer et al. 1984) with  $\alpha = 0, 1$  and  $2$  – these correspond to the poverty headcount, the poverty gap and the squared poverty gap. The two national poverty lines<sup>24</sup> of K32,232.85 and of K46,286.50 per adult equivalent per month in 1998 prices were used.

Table 5a shows the population estimates of poverty for 1991, 1996 and 1998. As predicted by the CDFs the poverty headcount using the upper poverty line rose between 1991 and 1996 from 69 percent to 81 percent, but then fell to 72 percent in 1998; the same pattern was observed using the lower poverty line. The poverty gap and the squared poverty gap followed a similar pattern, increasing between 1991 and 1996 and decreasing between 1996 and 1998 (although the squared poverty gap using the lower poverty line fell slightly between 1991 and 1996).

<sup>24</sup> Adjusted for differences in equivalence scale as mentioned above.

Table 5a: Poverty Measures for National, Rural and Urban areas using per adult equivalent expenditure: 1991, 1996 & 1998

Poverty measures: National	1991	1996	1998
<b>Upper Poverty line K46,286</b>			
Headcount (%)	69.5 (0.0048)	81.3 (0.0036)**	71.9 (0.0035)**++
Poverty gap (%)	42.1 (0.0038)	47.4 (0.0029)**	36.9 (0.0024)**++
Squared Poverty Gap (%)	30.9 (0.0034)	32.3 (0.0026)**	23.1 (0.0019)**++
<b>Lower Poverty line K32,232</b>			
Headcount (%)	57.0 (0.0051)	68.6 (0.0043)**	55.8 (0.0039)**
Poverty gap (%)	32.7 (0.0037)	35.0 (0.0029)**	24.8 (0.0022)**++
Squared Poverty Gap (%)	23.5 (0.0032)	22.0 (0.0023)**	14.2 (0.0016)**++

Standard errors for each poverty measure are given in parentheses below each value.

\* indicates a change in poverty between 1991-1996 (1996 column), or between 1996-1998 (1998 column) which is significant at 5% level

\*\* indicates a change in poverty between 1991-1996 (1996 column), or between 1996-1998 (1998 column) which is significant at 1% level

+ indicates a change in poverty between 1991-1998 (1998 column) which is significant at 5% level

++ indicates a change in poverty between 1991-1998 (1998 column) which is significant at 1% level

Although Zambia is, by sub-Saharan African standards, a very urbanised society, 63 per cent of the population live in rural areas. It is therefore useful to breakdown the analysis of poverty in rural and urban strata. Table 5b shows the poverty headcount, poverty gap and squared poverty gap in each year for rural and urban areas separately. There has been a substantial change in the geographical prevalence of poverty in Zambia over the 1990s. In 1991 poverty was far more prevalent in rural areas than in urban areas; the poverty headcount in rural areas for the upper poverty line was almost 90 percent while in urban areas it was 47 percent. However, the increase in urban poverty over the decade combined with the improvement in the rural standard of living between 1996 and 1998 has resulted in a rural poverty headcount of 77 percent compared with an urban poverty headcount of 63 percent in 1998. Urban areas are still better off than rural ones – but the difference has been narrowed.

In rural areas, the poverty headcount remained at around 89 percent between 1991 and 1996, but then fell to 77 percent in 1998 – mirroring the national trend. However, the poverty gap and the squared poverty gap fell significantly throughout the 1990s, as predicted from the rural CDFs. By contrast, in urban areas there was a dramatic increase in all three poverty measures between 1991 and 1996. Subsequently there has been a slight reduction in the poverty headcount between 1996 and 1998, but little significant change in either the poverty gap or the squared poverty gap.

Table 5b: Poverty Measures Rural and Urban areas using per adult equivalent expenditure: 1991, 1996 & 1998

<b>Poverty measures: Rural</b>	<b>1991</b>	<b>1996</b>	<b>1998</b>
<b>Upper Poverty line K46,286</b>			
Headcount (%)	88.5 (0.0054)	89.7 (0.0042)	77.2 (0.0046)**++
Poverty gap (%)	61.8 (0.0054)	56.6 (0.0040)**	42.2 (0.0034)**++
Squared Poverty Gap (%)	48.4 (0.0055)	40.2 (0.0038)**	27.4 (0.0028)**++
<b>Lower Poverty line K32,232</b>			
Headcount (%)	80.7 (0.0066)	80.3 (0.0055)	63.2 (0.0053)**++
Poverty gap (%)	51.6 (0.0059)	43.9 (0.0042)**	29.7 (0.0033)**++
Squared Poverty Gap (%)	38.8 (0.0056)	28.6 (0.0042)**	17.5 (0.0024)**++
<b>Poverty measures: Urban</b>			
<b>Upper Poverty line K46,286</b>			
Headcount (%)	46.7 (0.0066)	64.7 (0.0059)**	63.1 (0.0054)*++
Poverty gap (%)	18.5 (0.0034)	29.0 (0.0035)**	28.0 (0.0032)*++
Squared Poverty Gap (%)	10.0 (0.0024)	16.5 (0.0026)**	15.9 (0.0023)++
<b>Lower Poverty line K32,232</b>			
Headcount (%)	28.7 (0.0060)	45.2 (0.0062)**	43.5 (0.0055)*++
Poverty gap (%)	10.1 (0.0027)	17.3 (0.0030)**	16.7 (0.0027)++
Squared Poverty Gap (%)	5.1 (0.0018)	8.9 (0.0020)**	8.7 (0.0018)++

Standard errors for each poverty measure are given in parentheses below each value.

\* indicates a change in poverty between 1991-1996 (1996 column), or between 1996-1998 (1998 column) which is significant at 5% level

\*\* indicates a change in poverty between 1991-1996 (1996 column), or between 1996-1998 (1998 column) which is significant at 1% level

+ indicates a change in poverty between 1991-1998 (1998 column) which is significant at 5% level

++ indicates a change in poverty between 1991-1998 (1998 column) which is significant at 1% level

It is also instructive to examine the incidence of poverty across different regions and socio-economic groups. Figure 8a shows the poverty headcount for each of the nine provinces for 1991, 1996 and 1998 using the upper poverty line of K46,286 per adult equivalent. The proportion of the population below the poverty line increased in every province between 1991 and 1996. The largest increases in the poverty headcount between 1991 and 1996 occurred in the most urbanised provinces - Lusaka, Central and Copperbelt – consistent with the picture of rising urban poverty shown in Table 5b. Further, these provinces saw little or no reduction in their poverty headcount between 1996 and 1998 with the result that poverty headcounts in these provinces were much higher in 1998 than in 1991. In Lusaka in particular the poverty headcount has almost doubled since 1991. Nonetheless, all provinces except Lusaka saw a decrease in the poverty headcount between 1996 and 1998 with the result that the poverty headcount was lower in 1998 than in 1991 in five provinces – all predominantly rural – and higher in four (all predominantly urban except for Western province).

Figure 8a: Poverty Headcount by Province

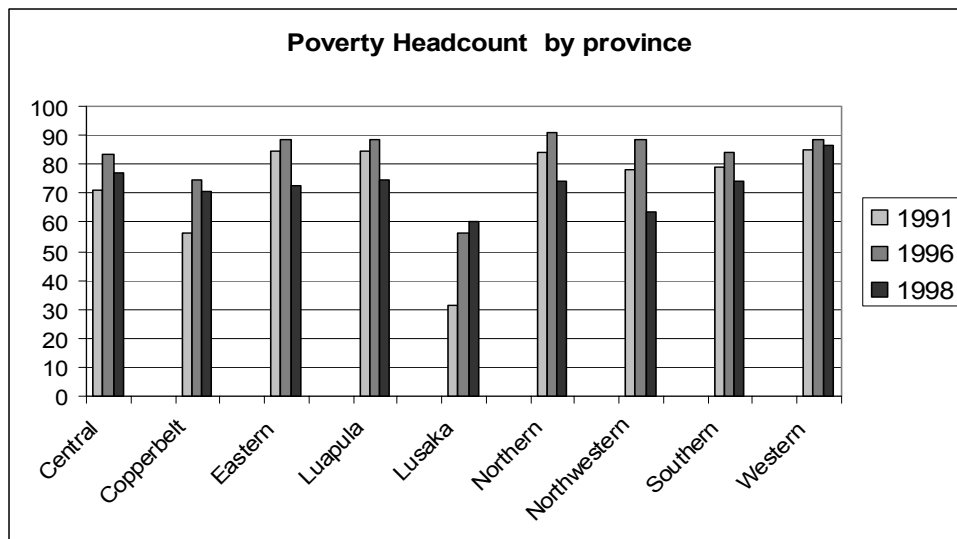
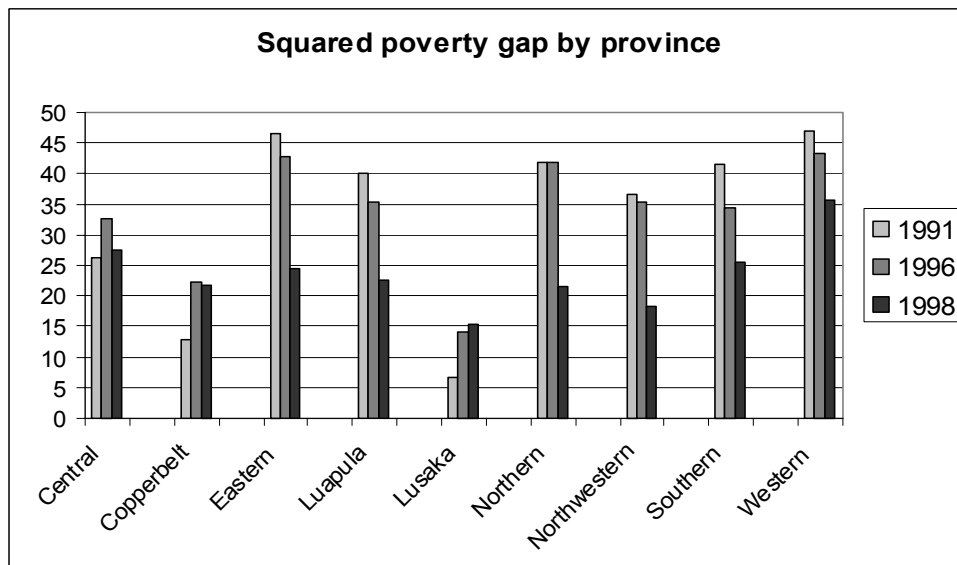


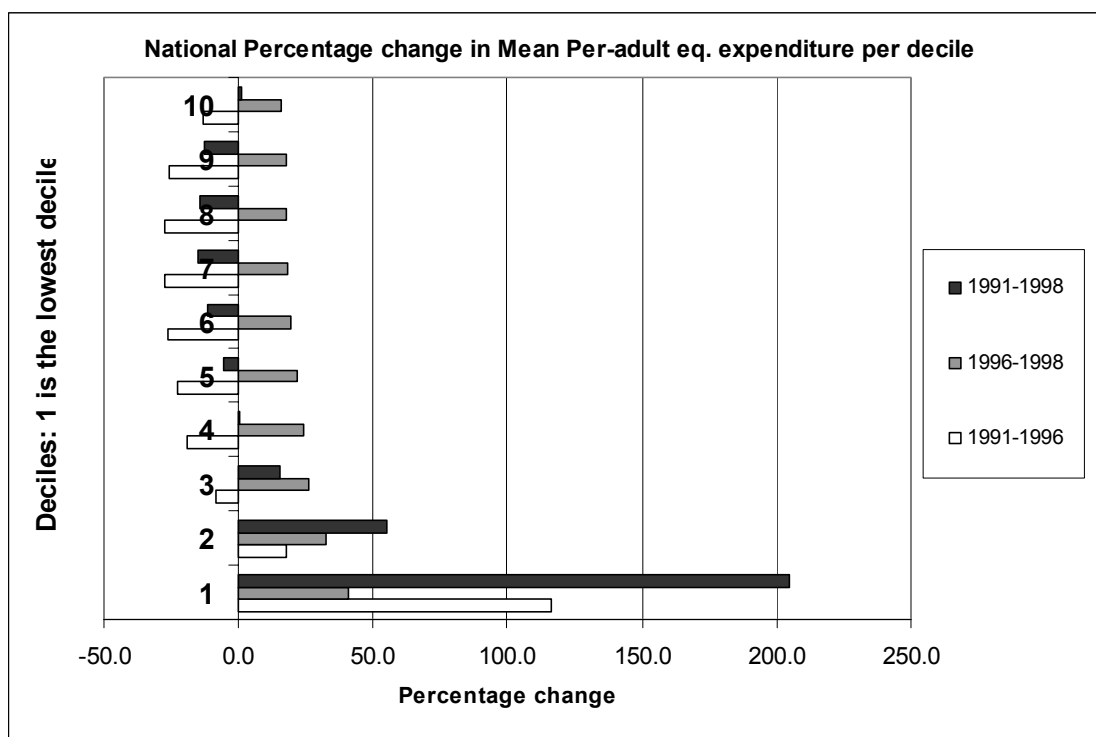
Figure 8b: Squared Poverty Gap by Province



The improvement in poverty in rural provinces is also reflected in Figure 8b which shows the squared poverty gap for each province and year. The severity of poverty in 1991 is highest in Eastern, Luapula, Northern, North-Western, Southern and Western provinces. However, all of these provinces saw consistent and substantial falls in their squared poverty gap between 1991 and 1998. However, in Lusaka and the Copperbelt the squared poverty gap doubled over the same period.

The large reductions in the squared poverty gap for most provinces suggest that the changes experienced have been relatively pro-poor. To explore this further we examined the growth in per adult equivalent consumption expenditure for each decile of the expenditure distribution – these are shown in Figure 9. Between 1991 and 1996 the bottom four deciles of the distribution show positive consumption growth, with the bottom three deciles growing very strongly. By contrast, the next five deciles experience a contraction in their consumption expenditure, with larger reductions being experienced by households with higher expenditure, although the very richest manage to avoid a fall in their mean consumption expenditure. A similarly pro-poor pattern of growth emerges for the changes from 1996 to 1998, with all deciles experiencing an increase in mean expenditure and poorer deciles having larger percentage increases than richer ones.

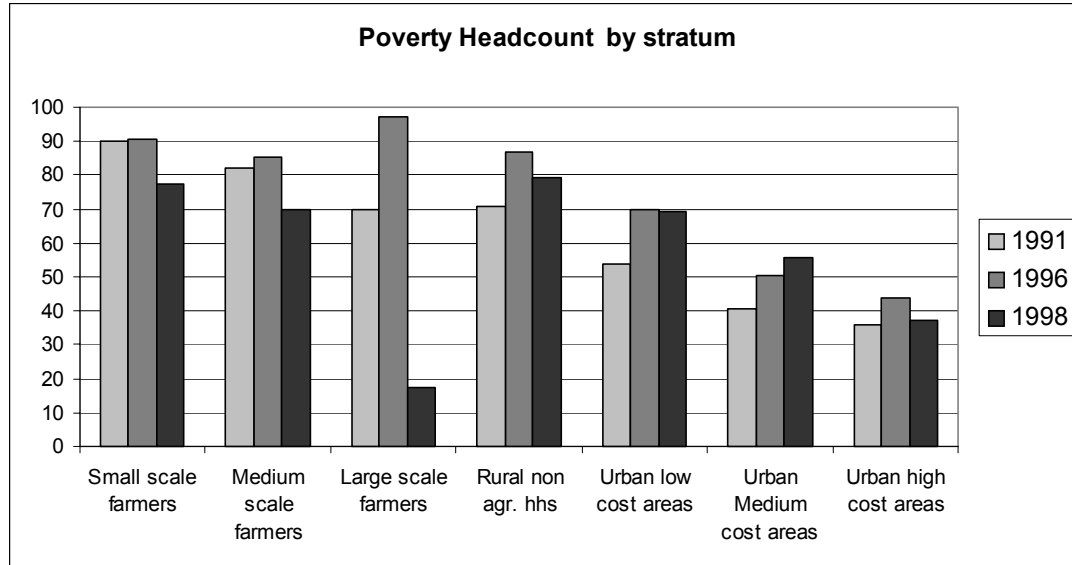
Figure 9: National Percentage Change in Per Adult Equivalent Expenditure 1991-96 by Decile



Whilst examining changes in poverty by decile reveals much about the pattern of growth, deciles themselves often do not constitute a useful grouping for policy analysis. It is therefore helpful to examine the changes in poverty by socio-economic group. None of the surveys constructed a detailed classification of households by socio-economic group, but the surveys were stratified by four household types in rural areas (small, medium and large-scale agricultural, and non-agricultural) and by the quality of residential area (low, medium and high cost) in urban areas. Figure 10 presents the poverty headcount by these strata. The incidence of poverty in 1991 was highest amongst small and medium scale agricultural households and remained high in 1996. However there was a substantial fall in the poverty headcount for these strata

between 1996 and 1998.<sup>25</sup> The poverty headcount for rural non-agricultural households increased substantially between 1991 and 1996, but then fell between 1996-1998 in keeping with all the other rural strata.

Figure 10: Poverty Headcount by Stratum



The situation for the urban strata was quite different. Poverty rose in all three urban strata between 1991 and 1996. Between 1996 and 1998 poverty in low cost areas remained roughly constant, whilst in medium cost areas it continued to rise. By contrast in high cost areas poverty fell, perhaps reflecting the ability of relatively wealthy households to protect themselves from declines in consumption.

## Changes in Inequality

In order to assess the extent to which the distribution of consumption expenditure changed over the 1990s, a number of inequality measures were calculated for all three years. To check the robustness of the results to the choice of measure, five different measures were used: the coefficient of variation; standard deviation of logs; Gini coefficient; Theil's Entropy measure; and Theil's mean log deviation. Each of these measures emphasises different parts of the distribution (see (Cowell 1995) for an exposition of their properties).

Table 6 shows that there was a drop in inequality between 1991 and 1996 with the Gini coefficient falling from 0.559 to 0.518. This drop occurs regardless of the inequality measure used, although the fall is much larger for the coefficient of variation than for the other inequality measures suggesting that movements in the tails of the expenditure distribution were responsible for much of the change. A further, smaller drop in inequality was experienced between 1996 and 1998, with the Gini falling to 0.509.

Table 6 also shows inequality measures for the rural and urban consumption expenditure distributions separately. Rural inequality declined between 1991 and 1996 for all inequality measures except the coefficient of variation. However, between 1996 and 1998, rural inequality increased by all measures except the coefficient of variation. Thus, notwithstanding changes in the tails of the distribution to which

<sup>25</sup> The large rise and then decline in the poverty headcount for large scale agricultural households may not be representative given that there are very few such households in the sample. All of the other strata contain large samples.



the coefficient of variation is particularly sensitive, an initial fall in inequality between 1991 and 1996 has been counteracted by a subsequent rise as growth picked up in rural areas.

*Table 6: Inequality Measures: National, Rural and Urban using per adult equivalent expenditure: 1991, 1996 & 1998*

	1991	1996	1998
<b>National</b>			
Coefficient of variation	1.932	1.992	1.572
Standard deviation of logs	1.406	0.935	0.893
Gini coefficient	0.559	0.518	0.509
Theil entropy measure	0.612	0.587	0.537
Theil mean log deviation measure	0.718	0.485	0.456
<b>Rural</b>			
Coefficient of variation	1.378	2.353	1.751
Standard deviation of logs	1.420	0.870	0.895
Gini coefficient	0.563	0.488	0.519
Theil entropy measure	0.585	0.566	0.582
Theil mean log deviation measure	0.727	0.430	0.474
<b>Urban</b>			
Coefficient of variation	1.663	1.531	1.337
Standard deviation of logs	0.831	0.827	0.836
Gini coefficient	0.448	0.475	0.479
Theil entropy measure	0.419	0.470	0.455
Theil mean log deviation measure	0.361	0.392	0.396

The evolution of urban inequality over the 1990s is more complex. Inequality rose between 1991 and 1996 according to the Gini coefficient, the Theil entropy measure and the mean log deviation; but it fell according to the coefficient of variation and the standard deviation of logs. Similarly, between 1996 and 1998 three measures report an increase in inequality whilst two report a decrease. Overall the changes in the urban expenditure distribution were small and of ambiguous sign. However, despite most inequality measures showing an increase in inequality within both rural and urban areas between 1996 and 1998, national inequality fell over this period. This is because inequality between the rural and urban areas declined as expenditure in rural areas grew much faster than in urban areas.

Table 7 calculates the inequality measures for each province and shows a number of variations from the national picture. Most provinces show strong declines in inequality between 1991 and 1996. However, Luapula, Lusaka and the Copperbelt have large increases in inequality over the period. Similarly, Central, Copperbelt, Southern, and North-western provinces all show an increase in inequality between 1996 and 1998, while all other provinces show declines.

Table 7: Inequality measures by province using per adult equivalent expenditure: 1991, 1996 & 1998.

	1991	1996	1998	Percentage change 1991-1996	Percentage change 1996-1998	Percentage change 1991-1998
<b>Central</b>						
Coefficient of variation	0.989	1.090	1.900	10.2	74.3	92.1
Gini coefficient	0.466	0.447	0.533	-4.2	19.4	14.4
Theil entropy measure	0.375	0.365	0.639	-2.8	75.2	70.2
Theil mean log deviation measure	0.446	0.353	0.508	-20.7	43.7	14.0
<b>Copperbelt</b>						
Coefficient of variation	1.123	1.268	1.234	12.9	-2.7	9.9
Gini coefficient	0.411	0.457	0.482	11.1	5.7	17.4
Theil entropy measure	0.334	0.413	0.441	23.9	6.8	32.3
Theil mean log deviation measure	0.322	0.363	0.406	12.5	11.9	25.9
<b>Eastern</b>						
Coefficient of variation	1.498	2.161	1.448	44.3	-33.0	-3.3
Gini coefficient	0.599	0.518	0.503	-13.6	-2.9	-16.1
Theil entropy measure	0.670	0.611	0.505	-8.8	-17.3	-24.6
Theil mean log deviation measure	0.796	0.473	0.437	-40.6	-7.7	-45.1
<b>Luapula</b>						
Coefficient of variation	1.154	3.988	1.280	245.5	-67.9	11.0
Gini coefficient	0.519	0.561	0.450	8.1	-19.8	-13.2
Theil entropy measure	0.475	1.044	0.406	119.9	-61.1	-14.4
Theil mean log deviation measure	0.570	0.599	0.349	5.0	-41.6	-38.7
<b>Lusaka</b>						
Coefficient of variation	1.208	1.652	1.408	36.7	-14.8	16.6
Gini coefficient	0.444	0.501	0.505	12.9	0.7	13.6
Theil entropy measure	0.384	0.528	0.506	37.6	-4.2	31.8
Theil mean log deviation measure	0.368	0.446	0.442	21.4	-0.9	20.2
<b>Northern</b>						
Coefficient of variation	1.547	1.327	1.174	-14.2	-11.5	-24.1
Gini coefficient	0.556	0.459	0.440	-17.4	-4.1	-20.8
Theil entropy measure	0.593	0.415	0.371	-30.1	-10.5	-37.4
Theil mean log deviation measure	0.614	0.372	0.336	-39.4	-9.6	-45.2
<b>Northwestern</b>						
Coefficient of variation	3.774	1.203	1.715	-68.1	42.6	-54.6
Gini coefficient	0.586	0.446	0.523	-24.0	17.4	-10.8
Theil entropy measure	0.866	0.385	0.586	-55.6	52.3	-32.4
Theil mean log deviation measure	0.767	0.353	0.475	-53.9	34.3	-38.1
<b>Southern</b>						
Coefficient of variation	4.274	1.392	2.046	-67.4	46.9	-52.1
Gini coefficient	0.602	0.492	0.566	-18.3	15.2	-5.9
Theil entropy measure	0.829	0.481	0.732	-41.9	52.0	-11.7
Theil mean log deviation measure	1.057	0.431	0.579	-59.2	34.3	-45.2
<b>Western</b>						
Coefficient of variation	1.929	1.607	1.445	-16.7	-10.1	-25.1
Gini coefficient	0.590	0.512	0.474	-13.2	-7.5	-19.7
Theil entropy measure	0.705	0.529	0.457	-25.0	-13.7	-35.2
Theil mean log deviation measure	0.782	0.491	0.401	-37.3	-18.2	-48.7

A fuller picture of the changes in the expenditure distribution can be obtained by looking at the Lorenz curves for 1991, 1996 and 1998. The Lorenz curve shows the proportion of the total expenditure on the vertical axis spent by the proportion of the population on the horizontal axis. Thus if all individuals had the same expenditure the curve would be a straight line from the origin to the top right hand corner of the graph. Alternatively the situation in which one person spent the entire national expenditure with all others spending nothing would be indicated by a line running along the horizontal axis jumping up to one only for the last (very rich) person. Thus by plotting Lorenz curves for the different years it is possible to see how the distribution of expenditure has changed independently from the mean expenditure.

If a Lorenz curve for one year lies everywhere above the Lorenz curve for another year then it is possible to say that inequality has been reduced (that is, all conventional inequality measures will show a reduction). However, if the Lorenz curves for two years cross then this indicates that one part of the distribution may have improved (e.g. the distribution of expenditure of the poor) whilst another may have worsened. Figure 11a shows the Lorenz curves for 1991, 1996 and 1998 together. These show that the 1996 expenditure distribution was more equal at almost all points than the 1991 distribution consistent with the substantial drop in most measures of inequality between these two years. However, the Lorenz curve for 1991 crosses that for 1996 at the very top of the distribution indicating that inequality increased at the top of the distribution; this may explain the movement of the coefficient of variation which places emphasis upon changes in the tails of the distribution. The Lorenz curve for 1998 lies slightly inside that for 1996 explaining the small declines in national inequality shown by all measures.

Figures 11b and 11c show the Lorenz curves for rural and urban areas respectively for all three years. The rural Lorenz curve confirms the impression gained from Table 6 of a decline in inequality between 1991 and 1996 except at the very top of the distribution. However the rural Lorenz curve for 1998 lies clearly outside that for 1996 explaining the increase in inequality between these two years. The Lorenz curves for urban areas show almost the reverse position, with an increase in inequality between 1991 and 1996, but no corresponding decline during the subsequent two years.

Figure 11a: Lorenz Curve of per adult equivalent expenditure: National 1991, 1996 & 1998

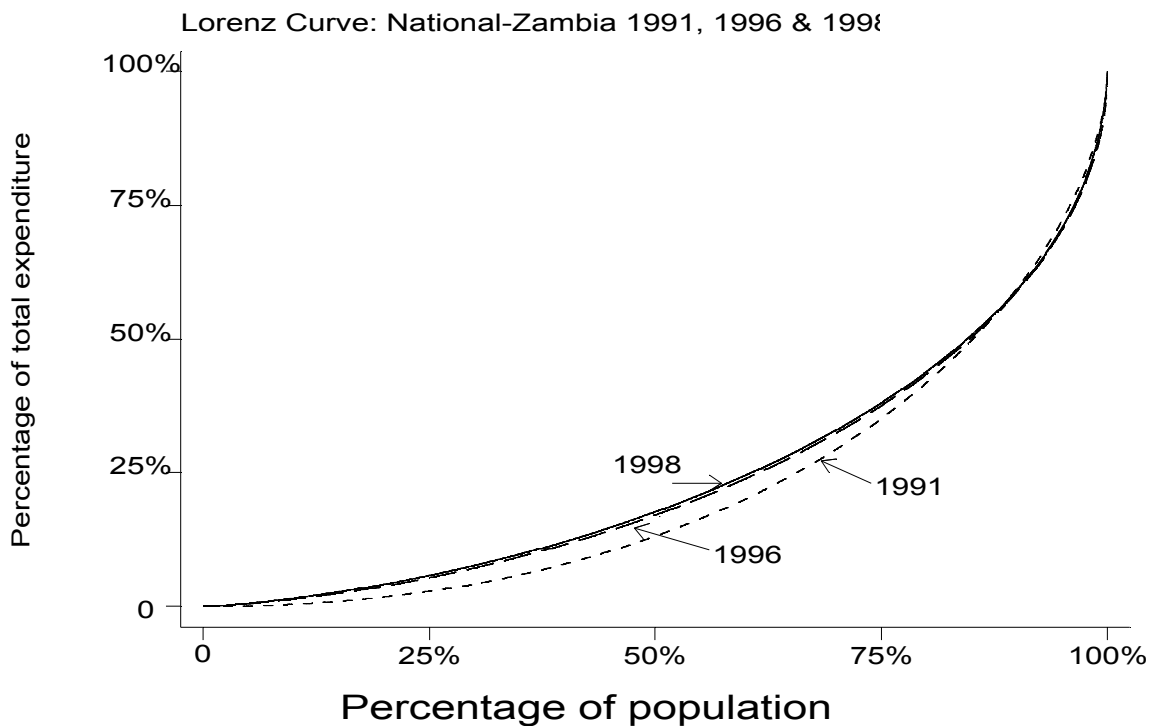


Figure 11b: Lorenz Curve of per adult equivalent expenditure: Rural 1991, 1996 & 1998

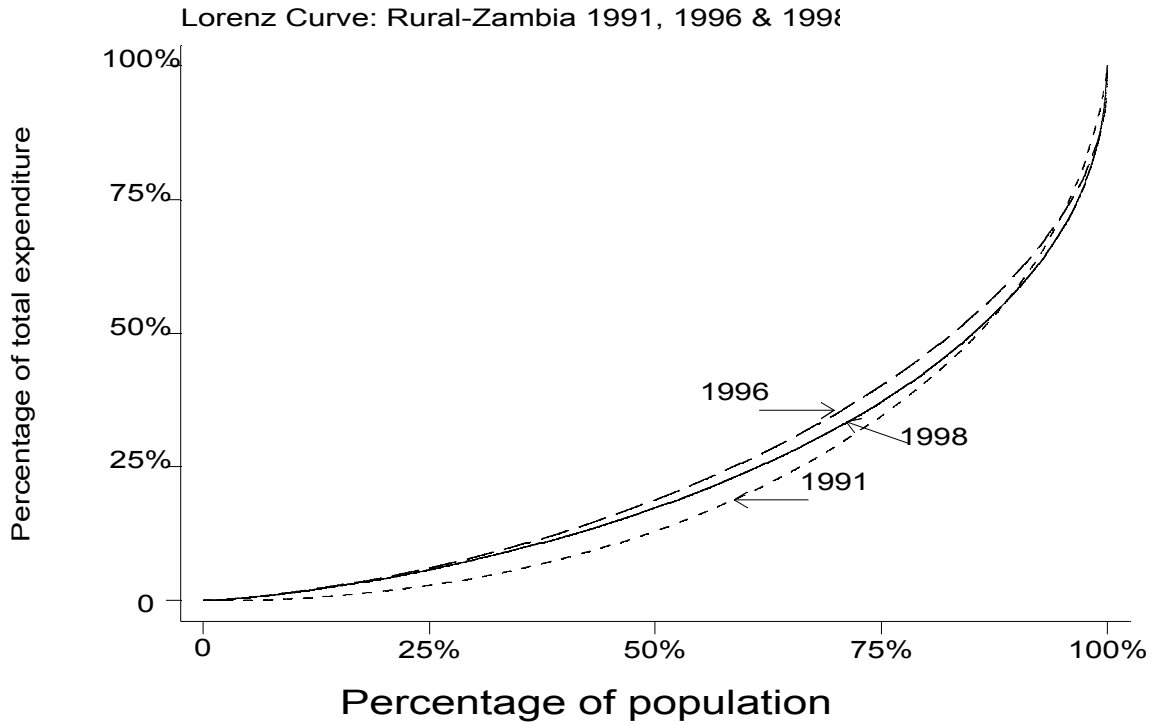
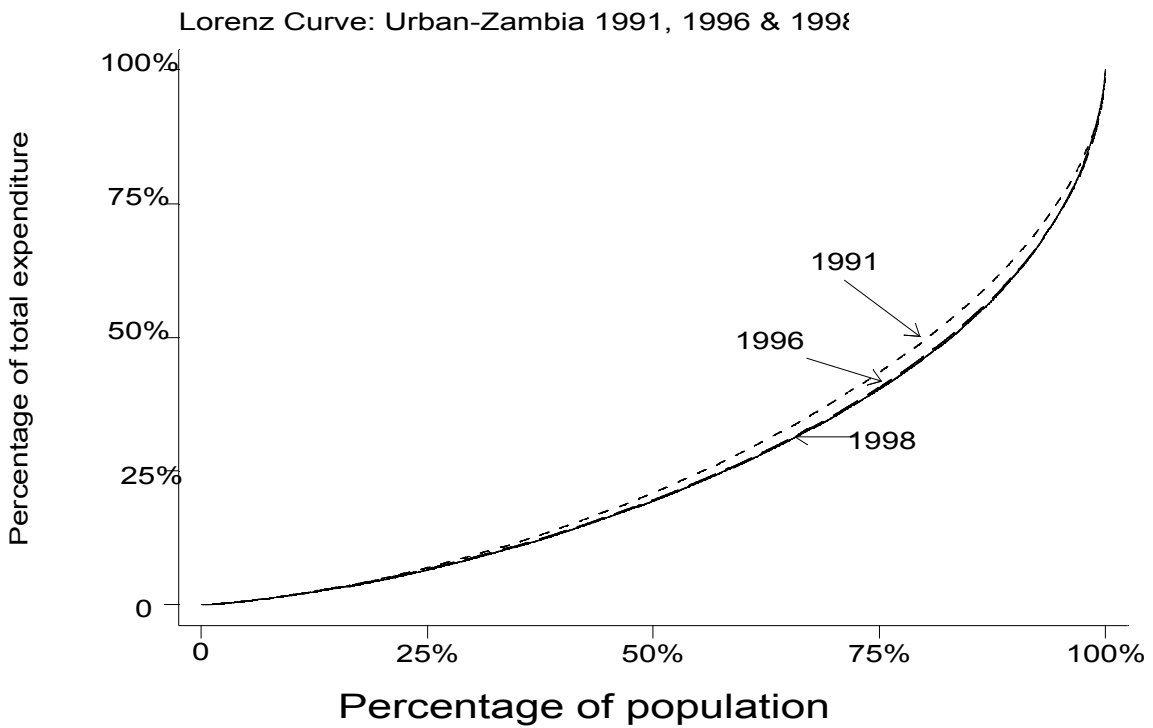


Figure 11c: Lorenz Curve of per adult equivalent expenditure: Urban 1991, 1996 & 1998



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## Linking Globalisation and Changes in Poverty and Inequality

The changes in poverty and inequality described above reflect the interaction of the economic policies pursued with external economic and weather related shocks. It is, of course, extremely difficult to determine clear causal links between the implementation of particular policies and changes in poverty and inequality. Furthermore, it is hard to disentangle the impact of one policy from another as well as the relative importance of policy and external shocks.<sup>26</sup> Nonetheless, we attempt to infer the likely impact of different policies by examining the nature and timing of the reforms undertaken. We consider first rural areas and then urban ones.

Several factors are likely to have had a strong impact upon the standard of living in rural areas during the 1990s. The most important of these were weather related shocks, notably the devastating droughts of 1992 and 1994, which had a strong negative impact upon poverty. Policy also played an important role. However, it is likely to be the policies of *internal* rather than *external* liberalisation which had the greatest impact upon poverty in rural areas. The removal of pan-territorial and pan-seasonal maize pricing may have encouraged a more economically rational allocation of resources in rural areas. However, evidence from participatory research suggests that it has had a negative impact upon farmers in more remote areas who benefited from the implicit subsidy which it entailed (Sally-Anne Way, Milimo, Participation book). Conversely, farmers near the line-of-rail or major roads are likely to have benefited from this change particularly after the removal of maize-meal subsidies in urban areas. It is notable that the poverty headcounts shown in Figure 10 rose less for small and medium scale farmers between 1991 and 1996 than for non-agricultural households, who will not have benefited directly from the higher prices farmers obtained for their maize.

The initial difficulties encountered in liberalising the maize marketing system resulted in the near collapse of maize marketing and fertiliser and credit provision to some rural areas between 1993 and 1995. This is likely to have had a strong negative impact upon poverty in rural areas. However, this impact is likely to have been greatest for households who are large net producers of maize. Such households, although poor, tend to be among the better off in rural areas. This may explain the substantial equalisation of the rural expenditure distribution between 1991 and 1996. The combined effect of these policies will have benefited some and hurt others in rural areas which may explain why our study shows little change in the poverty headcount in rural areas between 1991 and 1996.

The reduction in subsidies to urban consumers raised the prices of maize meal, whilst the deregulation of maize milling has led to the widespread emergence of hammer mills offering lower milling costs for producers. Consequently, the price received by maize producers has risen. At the same time the private sector is beginning to fill the gaps in the provision of inputs and marketing services after the withdrawal of most public provision. Consequently there was strong growth in rural areas between 1996 and 1998 leading to a substantial reduction in all poverty measures. However, the beneficiaries of this growth have principally been those with access to inputs, transport and marketing services. Consequently, the observed growth has been accompanied by an increase in inequality between the two years.

Interestingly, the disequalising growth in rural areas may be the result not only of maize market liberalisation, but also of the reduction in government expenditure on transport and communications infrastructure driven in part by the fiscal changes associated with trade liberalisation. Exchange rate and capital market liberalisation may also have enabled better off farmers to obtain funds for investment in more profitable crops (for example groundnuts and export horticulture), but only the better off will be in a position to exploit such opportunities. Many commercial farmers are still recovering from the huge increase in interest rates resulting from the stabilisation policies of the early 1990s. Thus while internal liberalisation has resulted in a more economically rational allocation of resources and external liberalisation has made the exploitation of new opportunities profitable, the poorest households have seen an implicit subsidy removed and the collapse of the marketing system for their principal output. Had policy been more aware of the combined impact on the poor of the institutional changes introduced and the reduction in

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<sup>26</sup> Although see Bourguignon, F., J. de Melo, et al. (1991) for an attempt to do precisely this using stylised CGE models of Latin American and African economies.

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expenditure on the maintenance of transport infrastructure, it would have been possible to ensure that the rural poor gained more from globalisation.

In urban areas, the poor suffered substantial losses resulting from the escalating inflation between 1991 and 1993. Although the subsequent stabilisation was successful in reducing inflation, the severe recession which resulted hit urban areas hard. The negative effect of stabilisation was re-inforced by the almost simultaneous removal of subsidies on mealie meal. Furthermore, although structural reform in the parastatal sector was slow in the early 1990s, employment in the sector fell by one third between 1992 and 1996 with no commensurate increase in any other part of the formal sector. Much, but by no means all of this fall came from continued decline in the mining sector resulting from the decline in the international price of copper as well as policy uncertainty surrounding the privatisation of ZCCM. The combined effect of stabilisation, subsidy removal and parastatal restructuring gave rise to the dramatic increase in poverty between 1991 and 1996. This also explains why the only three provinces to experience a rising squared poverty gap between these years were Central, Copperbelt and Lusaka – the three most urbanised provinces.

However, recession has not affected all urban households equally. The relative protection of employment and earnings in central and local government between 1991 and 1996, meant that these comparatively well-off households were shielded from the real falls in standard of living experienced by those with no access to formal sector income. Consequently inequality increased in urban areas according to most measures and rose substantially in Lusaka and the Copperbelt. Between 1996 and 1998 there was a slight recovery in urban areas. However, the acceleration of the privatisation process in 1996 along with strong pressure from donors to reduce the size of the public sector meant that formal sector employment continued to decline. Simultaneously average earnings in the private sector fell which may reflect increased international competition due to the reduction in tariff barriers.<sup>27</sup> The combination of recovery at the national level with continued structural adjustment meant that changes in urban poverty and inequality between 1996 and 1998 have been small.

## Policy Conclusions

During the 1990s, the Zambian government implemented one of the most radical programmes of globalisation and structural adjustment in Sub-Saharan Africa. The intention of this programme was to restructure the economy in order to boost long-term growth and poverty reduction. However growth has generally been poor and poverty increased dramatically in urban areas between 1991 and 1996 largely because of the recession induced by stabilisation and structural reform. Only between 1996 and 1998 was there a reduction in poverty concentrated in rural areas.

What policy lessons can be learnt from the 1990s? We outline four. Firstly, reforms should be adjusted to account for external shocks. The large increase in poverty between 1991 and 1996 resulted in part from the devastating droughts of 1992 and 1994. However, the effect of the drought was made worse by the implementation of strict stabilisation measures. In addition, the government pressed ahead with the reform of the maize marketing system. While stabilisation measures were clearly necessary to control inflation, they undermined the success of the measures to reform the marketing system and resulted in unnecessary additional hardship for poor rural households. Conversely, the continued decline in the copper price made the sale and restructuring of ZCCM more rather than less urgent. The government's delay in effecting the sale probably resulted in a poorer final sale price and potentially a larger number of redundancies. Thus external shocks do not necessarily imply that reforms should be delayed. Rather, it is important that governments consider how the implementation of reform will be affected by the shock and whether any amendment in the reform might yield a better outcome in the changed circumstances.

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<sup>27</sup> Although the interpretation of the change in average earnings in the private sector is ambiguous as mentioned above.

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Secondly, internal liberalisation can have as large a poverty impact as external liberalisation. Policymakers concerned with globalisation often focus attention on external aspects of liberalisation such as exchange rate, trade and capital account liberalisation. These are important and can have a role to play in enabling sustainable pro-poor growth. However, there are often large constraints and costs associated with domestic policies and these can far outweigh the effect of border measures. This is particularly the case where institutional reforms are being undertaken. In Zambia the impact of the liberalisation of maize marketing and the failure to anticipate the collapse of markets for credit and inputs probably had a much greater impact upon the poor than the external liberalisation.

Thirdly, in addition to protecting social expenditures during stabilisation and adjustment, (which appeared to happen to some extent), it is important to maintain expenditures which enable the poor to exploit new economic opportunities. The collapse of expenditure on transport and communications during Zambia's reforms appears to have compounded the difficulties faced by rural households, by discouraging the private sector from stepping in quickly to provide credit and input services after the withdrawal of state provision. In general policymakers need to be conscious of the complementary expenditures which may be necessary to ensure that structural reforms are successful and cautious about simultaneously implementing reforms which may jeopardise their ability to undertake such expenditures.

Finally, the largest negative shock was experienced by urban households who were hit both by rising prices and widespread redundancies. This points to the essential role of social safety nets during periods of adjustment. With few assets to sell, weak or non-existent markets for credit and few alternative means of generating income, the urban poor had little choice but to drastically reduce consumption in the early 1990s. The existence of a well-targeted social safety net at that time could have substantially reduced the burden which the reforms imposed upon the poor.

In the long-run, globalisation alongside internal liberalisation and structural reforms should help to achieve sustainable pro-poor growth. Zambia's comparative advantage lies clearly in agriculture and this is also the principal income source for most of the poor. For rural areas, the agricultural and trade reforms of the 1990s have helped to ensure that prices for different crops reflect the costs of production. However, the failure to learn the above lessons has left many poor farmers unable to exploit their agricultural potential due to poor rural infrastructure and thin or non-existent markets for key agricultural inputs and services, notably fertiliser, credit and transport. Pro-poor growth in Zambia will require investment in key public goods including improvements in rural marketing, extension services and infrastructure.<sup>28</sup> In urban areas, the need to maintain fiscal stability is likely to continue to place strong pressure upon employment in the parastatal and public sector, while trade liberalisation may force further restructuring in traditional manufacturing industries. The future is likely to lie in the development of labour-intensive export oriented agro-processing industries to add value to agricultural sector production. The government can help to reduce urban poverty by providing a conducive environment for such investment. However, given the large and sustained increase in urban poverty during the 1990s it will also be important to develop more effective safety-nets for the urban poor.

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<sup>28</sup> This conclusion is in keeping with those of Alwang, J., P. B. Siegel, et al. (1996) who suggest that microeconomic investments in labour-saving technology and credit facilitation have an important role to play in poverty reduction.





Appendix A: Table A1: Major Policy Reforms and External Events 1989-1998

Year	Stabilisation Policy and Key Events	Agricultural Price and Marketing Reforms	Trade Reform	Parastatal reform and Privatisation
1989	Decontrol of all consumer prices (except maize)	Abolition of NAMBOARD		
1990	Policy Framework Paper agreed with IMF	De-monopolisation of agricultural marketing Maize meal subsidy withdrawn leading to food riots.		
1991	Normal relations resumed with the IMF. Rights Accumulation Programme started. IMF suspend disbursements in June – inflation soars. Election of MMD government in October on a platform of major reform		Removal of most export controls Removal of the ban on maize exports	
1992	Introduction of Treasury Bill financing Decontrol of borrowing and lending rates Introduction of “bureau de change” for exchange rate determination Introduction of cash budgeting	Severe drought Removal of mealie meal subsidy Removal of fertiliser subsidy	Simplification and compression of tariff rates Increase in the tariff preference for goods from COMESA	
1993		Failed attempt to reform agricultural marketing Launch of the Agricultural Credit Management Programme		Privatisation Act passed Zambia Privatisation Agency formed
1994	Liberalisation of the capital account			
1995		Privatisation of the milling industry Launch of World Bank Agricultural Sector Investment Programme	Removal of 20 percent uplift factor applied to import values.	Dissolution of ZIMCO
1996	MMD win elections; but UNIP boycott elections			Acceleration of privatisation programme
1997	Donors withdraw balance-of-payments support			
1998	Donors withdraw balance-of-payments support Copper price adversely affected by East Asian crisis	Drought in South and excessive rain in the North caused by El Nino.		Negotiations on ZCCM sale fall through. (The sale to Anglo-American was finally agreed in 2000)

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