
9-8

Development Strategies, Macroeconomic Policies, and the Agricultural Sector in Zambia

By:

**Danielle Resnick and James
Thurlow**

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Edited by:

Per Pinstrup-Andersen (globalfoodsystem@cornell.edu) and Fuzhi Cheng
Cornell University

In collaboration with:

Søren E. Frandsen, FOI, University of Copenhagen

Arie Kuyvenhoven, Wageningen University

Joachim von Braun, International Food Policy Research Institute

Executive Summary

At its independence in 1964, Zambia, a landlocked country in Southern Africa, was perceived to have a bright future. The country was endowed with vast natural resources, including favorable agroecological conditions and large copper deposits. Within two decades, however, the country descended into a macroeconomic crisis. Agriculture and rural incomes stagnated and industry was collapsing, leading to severe poverty and malnutrition. This case study examines how Zambia's different development strategies led first to a macroeconomic crisis in the 1980s and then to economic recovery in the late 1990s. More specifically, it focuses on the interplay between macroeconomic and sectoral policies and draws attention to how policies and stakeholder interests at different levels of an economy must work synergistically if a development strategy is to be sustainable and achieve its objectives.

Zambia's government first adopted a strategy of state-directed industrialization. Bolstered by copper revenues and the political influence of urban dwellers, this strategy favored urban industry over agriculture and rural development. When world copper prices collapsed, however, the country plunged into macroeconomic crisis and the sectoral policies underlying state-directed industrialization became unsustainable. Driven by pressures from domestic political constituents and international donors, Zambia became a multiparty democracy in 1991 and elected a government that favored a strategy of market-driven development. The country eventually achieved macroeconomic stability by curtailing sectoral investments and subsidies, but with mixed consequences for national welfare and agricultural producers.

Zambia has recently experienced a period of renewed growth and poverty reduction. Yet just as falling copper prices forced Zambia to undergo market-oriented reforms, the recent boom in world copper prices could provide incentives to return to a more interventionist development strategy. To implement such a strategy, however, the government would have to raise taxes on foreign mining companies, which now own Zambia's previously state-owned mines. This case study focuses on trade-offs from raising mining taxes and possible implications for agriculture and the food system.

Given the current political environment and taking into account the mechanisms through which a change in world copper prices affects the agricultural sector, your assignment is to advise Zambia's government on how it might use the revenues gained from increasing mining taxes to improve economic growth and reduce poverty.

Background

In 1981 Zambia, a landlocked country in Southern Africa, was reclassified by the World Bank from middle- to low-income status. The country had accumulated US\$1.8 billion in external debt, and per capita incomes had collapsed from US\$527 in the late 1960s to US\$395 in the early 1980s (World Bank 2007). By the early 1990s the country's long descent into macroeconomic crisis compelled a change in government and widespread economic reforms. Nonetheless, contemporary Zambia remains a low-income country with per capita income of around US\$300 and with 68 percent of the population living below the poverty line. As in many parts of Africa, poverty and malnutrition are particularly severe in rural areas, where 60 percent of the population resides, virtually all of whom depend on agriculture for their livelihoods.

Yet based on its natural resources, Zambia had the potential to achieve a very different outcome. The country is blessed with a variety of agroecological conditions providing opportunities to pursue a diverse array of agricultural activities. Maize is the dominant food crop in the country, although sorghum and millet are important in the drier southern provinces and cassava dominates in the north. Together, food crops and livestock make up most of the agricultural sector, although export crops, such as cotton and tobacco, are increasingly important. Owing to low population densities and poor road infrastructure, most smallholder farmers live in remote areas many miles from markets. Even farmers with better access to input markets tend to have low crop yields, partly owing to inadequate research and extension services. Irrigation is rare, and Zambia's rainfed agriculture suffers from repeated droughts, which result in chronic food insecurity.

Zambia's underinvestment in agriculture continues, and today less than 5 percent of public resources

are spent on the sector each year. As one of the world's largest exporters of copper, however, Zambia at one point possessed the resources to make long-term investments in the agricultural sector and the food system more broadly. How did a country with such agricultural potential find itself with a failing agricultural sector and a periodic dependence on food imports? Why did a country with considerable copper revenues become overwhelmed by macroeconomic instability and burgeoning foreign debt? The answers to these questions lie in the development strategies adopted by Zambia at different times in its history and specifically in the interplay between macroeconomic and sectoral policies.

Policy Issues and Challenges

What Is a Development Strategy?

Development strategies are the bundle of policies adopted by governments to achieve prioritized objectives, such as economic growth or poverty reduction. A strategy reflects a particular concept of the development process and is thus influenced by prevailing policy and theoretical beliefs. For example, "state-directed industrialization" and "market-driven development" are strategies motivated by different development models. As seen in Figure 1, a country's strategy and how it is implemented also depend on exogenous factors, such as natural resource endowments and the political interests and power relations of different stakeholders. The capacity of the state to design and implement policies also influences its choice of strategy.

The policies constituting a development strategy operate at different levels of the economy. At the macro-level are monetary and tax policies, which, among other things, help manage a country's money supply and revenues and are the main levers for influencing the level of inflation and public deficits. At the meso-level are sectoral and trade policies, which rely on policy instruments like tariff protection, price subsidies, and public investments to encourage specific sectors, such as agriculture, industry, health, and education. More micro-level policies, like food aid, are often directly targeted at specific population groups, such as rural and urban households. There is a symbiotic relationship among all three levels. Indeed, macroeconomic policies play a pivotal role in a development strategy because they determine the viability of

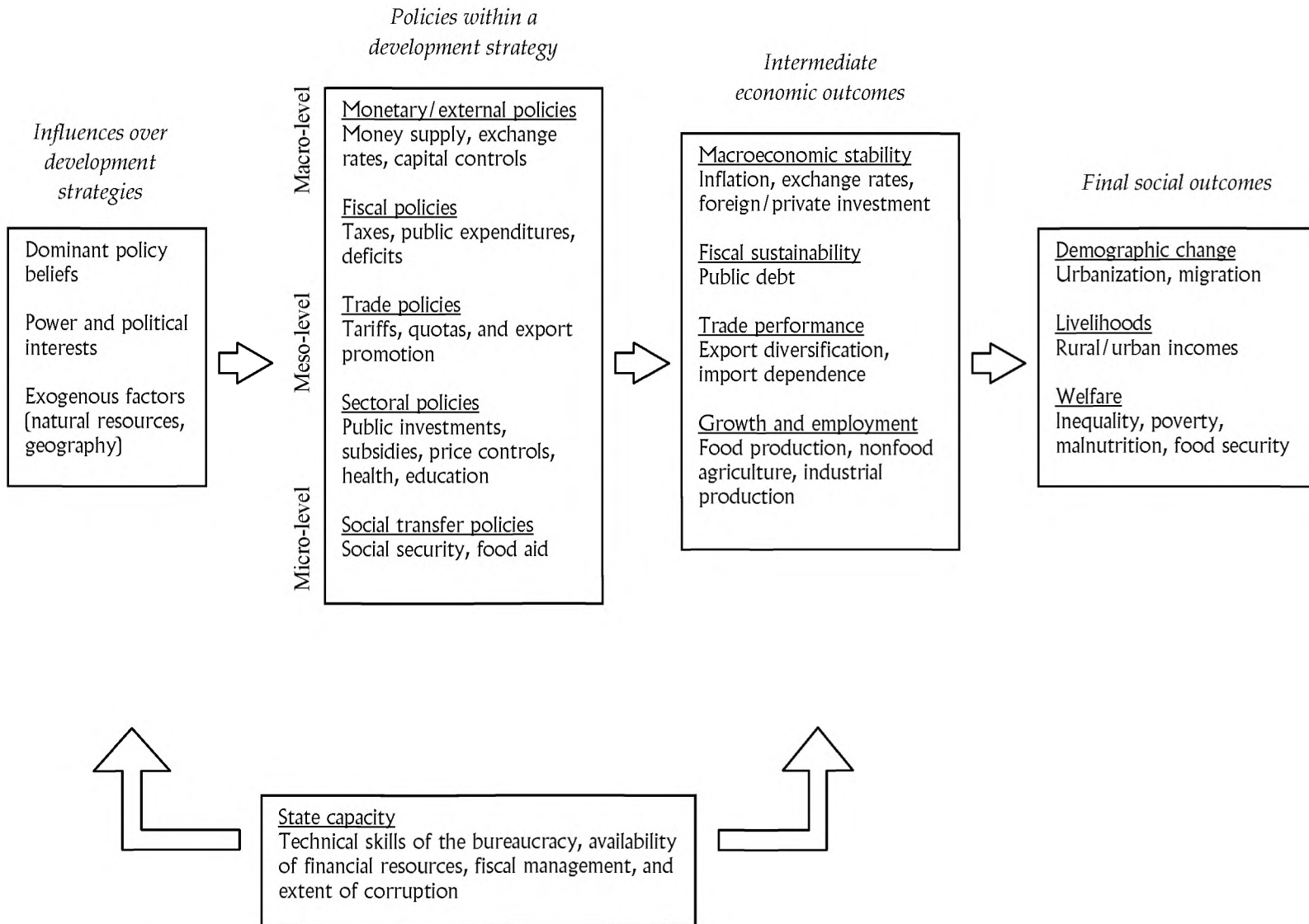
lower-level policies. At the same time, the financing of meso- and micro-level policies has implications for fiscal deficits and macroeconomic stability. As such, the policies at each level of the economy must work synergistically for a development strategy to be sustainable and its objectives realized.

Although the interaction of policies makes it difficult to attribute outcomes to specific policies, macroeconomic policies usually determine macroeconomic stability and fiscal sustainability, whereas sectoral policies determine trade performance, production, and employment. It is also important to distinguish between economic and social outcomes. Macroeconomic policies are often designed to achieve economic outcomes, such as controlling foreign exchange, whereas sectoral policies may target economic *and* social outcomes, such as improving rural incomes through agricultural growth. Above all, the capacity of the state to implement policies will determine all of these outcomes.

State-directed Industrialization and Macroeconomic Crisis, 1964–1990

Like many African countries during the 1960s and 1970s, Zambia pursued a development strategy driven by large-scale urban-based industrialization and a vast degree of state intervention in the economy. For Africa as a whole, the impetus for this strategy, termed "urban bias," was threefold. First, there was a genuine belief among African governments that state-directed industrialization was the most effective means of achieving modernization. Indeed, this was the prevailing development paradigm of that period, widely espoused by both development economists and international institutions (Helleiner 1986; Lofchie 1997). Second, in the quintessential political economy work on the subject, Bates (1981) observed that well-organized consumers and trade unions located in African cities posed greater threats to African leaders and the prevailing one-party political systems than more dispersed and remote smallholder agricultural producers. As such, African governments invested more heavily in urban areas, often leading to the decline and neglect of the agricultural sector. Third, many African countries are endowed with considerable mining resources that provided the revenues for financing investments in state industries at the expense of agriculture. For instance, copper revenues constituted 53 percent of Zambia's government budget in the decade after the country achieved independence in 1964 (Bratton 1994).

Figure 1: Strategies, Policies, and Outcomes



Copper revenue, political concerns, and prevailing policy beliefs all contributed to the industrialization strategy pursued by the ruling United National Independence Party (UNIP). A major prong of this strategy was import-substitution-industrialization (ISI), which sheltered state-owned industries from international competition through protectionist trade policies. By limiting competition from foreign imports, ISI was expected to provide Zambia's "infant" industries with an opportunity to achieve global competitiveness. High tariff barriers were erected against foreign imports, and Zambian industries relied on cheap raw materials to produce manufactured goods intended for export. Anticipated advantages of this approach included improved manufacturing capacity and increased employment opportunities in urban areas. Indeed, ISI contributed to the tremendous growth of state-owned industries, which accounted for three-quarters of the Zambian economy by 1990 (McCulloch et al. 2000). The concentration of investment in roads and railroads in the middle of the country, where most of the copper mines and manufacturing industry were located, further bolstered the objectives of ISI.

Nevertheless, such trade and investment policies were detrimental to agriculture. In particular, ISI led to a disadvantageous shift in the terms-of-trade against agriculture, in which Zambia possessed a comparative advantage. Moreover, urban-biased public investment deprived rural regions of the infrastructure needed to transport agricultural goods to domestic and foreign markets. In fact, the share of the public budget allocated to agriculture declined from 7 percent in 1966–1970 to 3 percent in 1975–1980 (Bratton 1994).

At the same time, the rapid expansion of the copper sector led to changes in the exchange rate that also hurt agriculture. The large revenues received by Zambia thanks to high copper prices raised the value of the country's currency, the kwacha. Although this overvaluation made foreign imports cheaper, it also undermined the export competitiveness of Zambia's non-mining sectors, especially agriculture. This phenomenon is generally referred to as "Dutch disease" and usually occurs when the exploitation of a natural resource leads to the overvaluation of a nation's currency and results in adverse terms of trade.

Other aspects of the government's industrialization strategy involved more direct interventions in the agricultural sector. Because agriculture was viewed as a food security sector rather than a growth sector, the government offered smallholders subsidized inputs for maize production, the country's main food staple. As a result, maize was grown throughout the country, even in agroecological regions where it was poorly suited, and this approach thus stifled agricultural diversity. Furthermore, the compensation that smallholder farmers received for their output was rarely commensurate with domestic market prices. Farmers were implicitly taxed through panterritorial prices administered by the National Agricultural Marketing Board (NamBoard), which bought producers' maize output at a constant price despite local disparities in supply and demand. These policies enabled the government to keep food prices low, thereby subsidizing the consumption of urban residents (Bratton 1994; Pletcher 2000).

The policies that made up Zambia's industrialization strategy proved disastrous for agriculture and food production. Smallholders' purchasing power declined, and they faced an incentive to either reduce output or smuggle it to neighboring countries where they could receive higher prices. Jansen (1991) estimated that agricultural output was approximately 30 percent lower on average per year as the result of such policies. Consequently, the country could meet only 79 percent of its food needs by 1980 (Bratton 1994), and there was large-scale migration out of rural areas, with the share of the rural population falling from 74 to 60 percent during 1965–1980 (see Table I).

When world copper prices collapsed in the mid-1970s, the whole edifice upon which Zambia's industrialization strategy was built began to crumble. Without export revenues from copper, the government could not realistically afford to subsidize inefficient state enterprises or maintain subsidies on food and agricultural inputs. The government initially attempted to maintain its sectoral policies by adjusting its macroeconomic policies. For instance, the government devalued the kwacha in an attempt to curb import demand and reduce the country's widening trade deficit. To overcome what it believed to be a temporary terms-of-trade shock, the government borrowed

heavily on international capital markets, and foreign debt mounted rapidly. By 1983 debt per capita exceeded gross domestic product (GDP) per capita, and by 1991 the country was more than US\$4 billion in debt. The government's eventual decision to counter the growing budget deficit by printing more money only exacerbated the situation, and by 1990 the inflation rate had risen to more than 100 percent. Zambia's attempted industrialization strategy had failed, and the country entered a severe macroeconomic crisis.

The combination of high inflation, rapid devaluation, and burgeoning foreign debt hurt rural and urban populations alike. Devaluation meant that the currency declined in worth just as inflation was increasing the price of domestic goods, thus driving up the cost of living, especially for urban households whose consumption patterns are typically more import-intensive. At the same time, the labor market contracted and employers imposed wage freezes, so they were not adjusting their workers' incomes to meet the rising living costs. By the mid-1980s, these processes cumulatively resulted in a two-thirds decline in the purchasing power of urban consumers and caused around 80 percent of rural households to struggle to meet their basic consumption needs (Bratton 1994). Child mortality also increased dramatically, and the number of malnourished children ranged from one-third in the Eastern Province to two-thirds in the Northern Province (Bratton 1994). Moreover, a higher percentage of children under five years old were wasted or stunted than in 1970 (McCulloch et al. 2000), and the proportion of the total population considered undernourished had risen by 21 percent since the country had achieved independence (FAO 2007).

Because of the pronounced deterioration in key social indicators, the ballooning budget deficit, and rising external debt, Zambia negotiated a series of structural adjustment programs (SAPs) with the International Monetary Fund (IMF). SAPs usually require governments to adopt a package of interconnected reforms, such as macroeconomic stabilization, trade liberalization, and privatization. Stabilization involves both correcting exchange rate distortions and reducing public spending to curtail inflation and reduce budget deficits. Stabilization can also reverse adverse terms of trade by ensuring that the exchange rate is not overvalued. Likewise, a

liberal trade policy reduces tariffs against foreign imports and halts government funding of non-competitive industries. Simultaneously, privatization requires that the government diminish its support of poorly performing state-owned enterprises and reduce the number of public sector employees.

The UNIP government's resistance to fully implementing these economic policies, however, highlights their politically contentious nature. The clearest example occurred in 1986 when the government attempted to rescind subsidies on maize meal, which is Zambia's main staple, in order to pursue fiscal austerity. At the time, the subsidy was more than 70 percent of the retail price of maize (Jansen 1991). Urban consumers, who resented facing higher prices for a food staple when their incomes were already being eroded by inflation, responded with riots (Grindle 1996). Afraid to alienate its urban constituents, the UNIP government under President Kenneth Kaunda backed away from the subsidy removals.

UNIP's halting reforms not only undermined the confidence of international donors but also emboldened the country's trade unions. Well-organized and aggrieved by the loss of their purchasing power, these unions, along with civil society and the private sector, formed a coalition and gave birth to a cohesive opposition party, known as the Movement for Multi-party Democracy (MMD) led by Frederick Chiluba. The MMD's political opportunity came in 1990, when mass civil unrest broke out after maize meal prices doubled. Urban rioters blamed the one-party system for the country's economic problems, and Kaunda was forced to allow for the legal recognition of other political parties. Disillusionment with UNIP was evident in the country's first multiparty elections the following year, as Chiluba and the MMD garnered more than 70 percent of the vote in almost all of the country's provinces, urban and rural alike (Bratton 1994).

Table 1: Zambia's Economic and Social Outcomes, 1965–2005

Indicator	1965–69	1970–74	1975–79	1980–84	1985–89	1990–94	1995–99	2000–05
GDP per capita (US\$)	526.6	505.9	453.6	395.3	349.5	306.4	266.9	292.0
Share of GDP (%)								
Agriculture	13.5	12.8	16.5	16.1	15.8	22.3	20.0	21.5
Manufacturing	9.0	13.4	18.8	21.0	29.3	29.8	12.6	11.6
Mining and construction	52.6	42.7	25.5	21.7	19.0	16.8	19.2	14.4
Exports	52.3	47.9	39.6	33.1	35.6	35.3	29.3	21.4
Investment	—	29.7	26.0	16.1	8.8	11.6	13.5	21.9
Agriculture share of exports (%)	2.5	1.2	1.2	—	—	4.9	10.3	16.4
Rural population share (%)	73.8	67.8	63.1	60.2	60.4	61.5	63.8	65.1
External debt per capita (US\$)	—	159.0	280.9	365.4	509.6	527.9	517.6	475.3
Copper price (US\$1,000 per ton)	5.8	4.2	2.9	2.5	2.4	2.6	1.9	2.6
Exchange rate (US\$ per kwacha)	0.7	0.7	0.7	1.1	8.5	277.9	1,527.3	4,182.7
Money supply growth rate (%)	—	10.1	14.4	15.8	59.5	68.1	33.8	28.3
Annual inflation rate (%)	14.7	3.1	8.8	12.4	60.1	114.7	25.6	22.2
						1991	1998	2004
National poverty headcount (%)						70.0	72.9	68.0
Rural households						88.0	83.1	78.0
Urban households						49.0	56.0	53.0

Source: World Bank 2007; FAO 2007.

Note: Dashes indicate “not available.”

Market-driven Development Strategy and Structural Adjustment, 1991

Onward

Despite having been a vocal critic of SAPs, Chiluba adopted a market-driven strategy after winning the 1991 elections (Larmer 2005). Given the dire economic circumstances in the country and the MMD's campaign promises to restore economic growth, such reforms were essential if the MMD was to acquire legitimacy and distinguish its economic policies from the previous UNIP government. In addition to internal pressures for change, the shift to economic liberalization also mirrored a broader shift in the dominant development policy paradigm to the "Washington Consensus," which now emphasized the primacy of free markets and condemned government intervention.

The elimination of consumer subsidies on maize meal in 1991 was one of the first important reforms under the new MMD government. To maintain macroeconomic stability and fiscal austerity, the government could no longer afford to subsidize urban consumers. Although the loss of maize meal subsidies provoked the same level of protest witnessed in 1986, the MMD government refused to capitulate (Simutanyi 1996), partly because a widening rift within the labor movement over economic policy reduced the unions' collective effort at organizing on behalf of their own interests. Moreover, given the origins of the MMD, the labor unions were effectively co-opted by the new ruling party, which thereby eliminated their autonomous influence over political decisionmaking (Pletcher 2000; Simutanyi 1996). The rescinding of the maize meal subsidies contributed to a substantial decline in the budget deficit from 7.4 to 2.2 percent of GDP within the MMD's first year in office (Rakner et al. 2001).

At the macro-level, the new government adopted a high real interest rate, and the Bank of Zambia implemented a cash budget system to prevent the government from printing money to cover expenses (Rakner et al. 2001). These efforts helped reduce inflation from over 100 percent in 1991 to around 22 percent by 1998 (see Table I). To further reduce public spending, the MMD established the Zambia Privatization Agency in 1993 to dismantle unprofitable state-owned businesses (McCulloch et al. 2000). The manufacturing sector proved the main target of this privatization effort, although

the copper mines were eventually privatized after 2000. Without government support, manufacturers could no longer improve competitiveness behind tariff protection. As such, the rationale for ISI gradually disappeared, and Zambia lowered its import tariff rates from 100 percent to 25 percent over the course of the 1990s (Rakner et al. 2001). The reversal of ISI provided a more conducive environment for agricultural exports, thereby helping correct terms-of-trade imbalances. Likewise, the correction of the overvalued exchange rate gradually reduced the price distortions against export agriculture, even though a more devalued currency made foreign imports more expensive for urban consumers (Thurlow and Wobst 2006).

Within the agricultural sector, NamBoard was dismantled as a result of the termination of consumer food subsidies. Moreover, the government ended its bias toward maize production by terminating panterritorial pricing and uneven input support for maize. Nevertheless, the government could not afford to invest scarce resources in the infrastructure necessary for farmers to transport their output and purchase inputs. In fact, as of 1998, only 18 percent of rural households lived within five kilometers of input markets (Thurlow and Wobst 2006).

By the end of the 1990s, the structural adjustment program had at least three major effects on social welfare outcomes. First, urban dwellers experienced a severe contraction in purchasing power and jobs. Privatization and the end of ISI required manufacturing companies to either close down or decrease production costs by reducing the size of the labor force. As such, between 1991 and 1998 more than 32,000 employees in the formal manufacturing sector lost their jobs (McCulloch et al. 2000). Moreover, the collapse in copper prices caused more than 25,000 workers in the mining sector to lose their jobs over the decade (McCulloch et al. 2000). The cumulative impact of the loss of jobs and consumer subsidies resulted in an approximately 6 percent increase in urban poverty between 1991 and 1998 (Table I). This shift led to a dramatic reversal of earlier migration patterns, with Zambians now moving from urban to rural areas (Potts 2005).

Second, the agricultural sector experienced increased diversification and disparities. On the one hand, liberalization encouraged a number of foreign private companies to establish outgrower schemes

for cotton and horticultural products. Outgrower schemes are a form of agribusiness that provides farmers with the necessary inputs and training for the production of high-quality goods in exchange for a guaranteed portion of the farmer's agricultural output. Taking advantage of Zambia's more open trade environment, most of these goods were geared toward export markets. Farmers involved in these industries require close proximity to established transport infrastructure, and therefore production of these crops occurs mainly in the east of the country. The share of agriculture in exports rose from 5 percent in 1990 to 16 percent a decade later (Table 1).

On the other hand, there were mixed effects in the food crop sector. A number of farmers began producing crops better suited to their agroecological zones. For instance, the area of land devoted to maize fell by 23 percent between 1990 and 1997 (McCulloch et al. 2000), while cassava production expanded in the north of the country and producers in the south switched to sorghum and millet (Haggblade and Zulu 2003). Yet constraints on public spending ensured that more remote food crop producers rarely possessed adequate credit to purchase high-yielding seeds and fertilizer. Unlike high-value export crop production, food staples production failed to attract much private investment and support (Saasa 2003). As a result, rural areas experienced a slight decrease in poverty over the 1990s (see Table 1), but a majority of this reduction occurred among smallholders involved in cotton and horticulture. For instance, some of the largest poverty declines occurred in the Eastern Province where outgrower cotton schemes are concentrated.

Third, the expansion of agriculture and the slight reduction in rural poverty were accompanied by the stabilization of certain malnutrition indicators. Having risen rapidly since independence, the proportion of Zambians who were undernourished remained constant at 47 percent throughout the 1990s. Malnutrition did not decline during the structural adjustment period, but it did not worsen either.

Despite the hardships incurred during the structural adjustment of the 1990s, the MMD's more prudent macroeconomic policies now appear to have laid the foundations for renewed growth. Per capita GDP since 2000 has risen for the first time since independence, and poverty fell in both rural and urban areas between 1998 and 2004 (see Table

1). Agriculture's share of GDP has expanded, albeit as a result of a sluggish manufacturing sector, and export diversification has continued, with agriculture becoming an important source of export revenues and foreign exchange. Finally, the macroeconomic stability and development outcomes achieved since 1991 helped Zambia qualify for substantial debt relief under the World Bank/IMF Heavily Indebted Poor Countries Initiative (HIPC). Thus, the past five decades of development in Zambia demonstrate the need for consistency between macroeconomic and sectoral policies in a country's strategy and the importance of stakeholder interests in influencing policy choices.

Stakeholders

The interests and roles of key stakeholders changed dramatically between the period of UNIP rule and the ascendancy of the MMD after 1991. As seen in Table 2, in the pre-1991 period, smallholder farmers desired a market value for their agricultural production and improved rural infrastructure. Yet these preferences were difficult for the UNIP government to satisfy given the party's concern with maintaining the support of urban constituents, who were more interested in low food prices and greater employment opportunities in the cities. At the same time, UNIP faced pressure from the World Bank and IMF to embark on market-driven reforms under a structural adjustment program. Ultimately, UNIP's credibility with all of these other stakeholders collapsed, benefitting the MMD in the country's first multiparty elections.

In the post-1991 period, the MMD adopted many of the policy prescriptions for market reform advocated by international donors, and the country benefitted from debt relief under the HIPC. These reforms removed input subsidies for farmers and thereby increased the desire of this stakeholder group for seed and fertilizer credit. For urbanites and the Zambian Confederation of Trade Unions (ZCTU), which were previously the support base for the MMD, employment and inflation remained major concerns. Indeed, the decline in living standards of urban constituents during most of the 1990s under the MMD's market-driven policies has led to a rise in opposition parties, such as Michael Sata's Patriotic Front (PF), which increasingly appeal to the urban poor. Thus, after enjoying more than a decade of relatively unchallenged rule, the MMD is for the first time forced to deal with a credible opposition party.

Table 2: Stakeholder Interests in Zambia's Reform Process

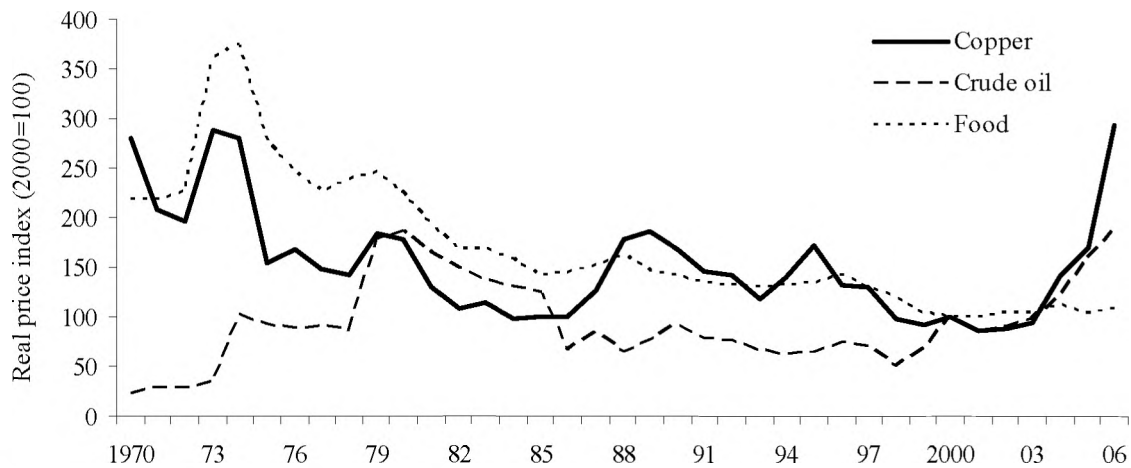
Stakeholders	Interests/ roles	
	Pre-1991	Post-1991
Smallholder farmers and commercial agriculture	Rural infrastructure, removal of food price controls	Rural infrastructure, export competitiveness, seed and fertilizer credit
Urban consumers and the Zambian Confederation of Trade Unions (ZCTU)	Low food prices, low inflation, more public sector and industrial jobs, multiparty democracy	Low inflation, more jobs, increased support for urban-based political parties opposing the MMD
United National Independence Party (UNIP)	State-directed industrialization, mining revenues, maintenance of urban electoral support, one-party democracy	
Movement for Multi-Party Democracy (MMD)	Low food prices, low inflation, multiparty democracy	Market-driven development
World Bank and IMF	Structural adjustment	Continued market reforms, debt relief

Policy Options

Zambia's shifting political circumstances have been further complicated by a rise in world copper prices, which began to climb again in 2004 (see Figure 2). Although this price rise provides new opportunities, it could also challenge Zambia's market-driven development strategy (Breisinger and Thurlow 2008). As noted earlier, most state-owned enterprises were privatized during the 1990s. Despite initial reluctance, the government sold its mining assets to a foreign firm soon after 2000. This sale took place at a time when copper prices were low and the inefficient copper mines were hemorrhaging US\$1 million a day (McCulloch et al. 2000). The government was therefore forced to offer tax incentives to foreign companies in order to secure the sale and reduce its fiscal deficit (Craig 2001). Negotiated tax rates were set at less than 1 percent of the revenues earned by the copper mines. Thus, although copper prices and profits have risen rapidly since 2004, their effect on government revenues remains small.

At the same time, however, the effect of rising copper prices on Zambia's exchange rate has been pronounced. The real exchange rate appreciated by 25 percent during 2005 alone (World Bank 2007). This rise has undermined the competitiveness of agricultural exports and reduced the profits of commercial agriculture. Falling prices were passed on to those smallholder farmers who had benefited from the rise of agricultural exports during the 1990s (Fynn and Haggblade 2006). Conversely, food crop farmers with good access to input markets have benefited from lower prices for imported fertilizer. These benefits, however, are offset by lower prices for imported foods, which hurt farmers closer to and more dependent on urban markets. In fact, urban consumers are the likely beneficiaries from the appreciation because they have a stronger preference for, and better access to, foreign imports.

Figure 2: Global Commodity Prices, 1970–2006



Source: World Bank 2007, cited in Breisinger and Thurlow 2008.

Note: Dollar-denominated commodity prices deflated by U.S. producer price index.

Given these present circumstances, Zambia now faces a difficult policy choice: should the government raise mining taxes and use these revenues to invest in growth? On the one hand, higher copper prices and an appreciating exchange rate could lead to the kind of Dutch disease experienced during the 1960s and 1970s, thus undermining Zambia's recent successes in export growth and diversification. Back in the 1960s, the government argued that such losses would be temporary if mining revenues were used to promote industrialization. Now, however, the copper mines are owned by private companies whose tax rates are low, and thus current copper revenues are not sufficient to finance large-scale interventionist sectoral policies.

Raising taxes on foreign mining companies offers a number of advantages. Although tax breaks were needed when copper prices were low, copper prices are now at a historic high and mining companies no longer need preferential treatment. Furthermore, the country's exchange rate is already appreciating and undermining agricultural exports, which had driven poverty reduction during the 1990s. Without additional revenues, the government's ability to respond to this appreciation remains limited. If taxes were increased, the government could use the additional revenue to invest in raising the productivity of agriculture and industry. If effective, this step should benefit workers in the food and manufacturing sectors, whose jobs and livelihoods are

being threatened by eroded export competitiveness and cheaper imports.

Increasing mining taxes also has disadvantages, however. When private mining companies remit their profits, they are in effect relieving some of the pressure on the kwacha by increasing the demand for foreign currency. If the government increases mining taxes, then more of the copper revenues remain inside the country, thus increasing the demand for kwacha and exacerbating the appreciation. The government therefore finds itself in a difficult situation: if it raises mining taxes to respond to the appreciation but is unable to properly invest in non-mining sectors, then it risks making the appreciation and its negative consequences even worse. So, given Zambia's poor track record in turning mining revenues into productive investments, it may be better to leave mining taxes unchanged. This approach would not address the adverse effects of the current appreciation, but it would minimize the risk of an unsuccessful investment strategy that further undermines agricultural exports and rural incomes.

The choice of whether to use mining revenues to finance economic development suggests that the political economy of Zambia has in some ways come full circle. After independence, the country adopted a state-directed industrialization strategy financed by copper revenues. Then when copper

prices collapsed, the resulting macroeconomic crisis forced a departure from an interventionist approach and a transition to democracy. The new government adopted a market-oriented strategy, which required more restrained macroeconomic policies. The government was forced to limit its sectoral policies with some positive consequences for agriculture and negative ones for the urban sector. Today's government is now struggling to retain its urban base against rising opposition parties targeting the urban poor. This situation may prove enough of an incentive for the government to raise mining taxes and again use these revenues to finance urban-biased policies.

Assignment

Given the current political environment and taking into account the mechanisms through which a change in world copper prices affects the agricultural sector, your assignment is to advise Zambia's government on how to use the revenues gained from increasing mining taxes to improve economic growth and reduce poverty.

Additional Readings

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