False Promise or False Premise? The Experience of Food and Input Market Reform in Eastern and Southern Africa

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"The MMD's overzealous pursuance of capitalist policies under the directives of the IMF and World Bank have registered no success – they have been a disaster for the nation. We believe that neoliberalism is not simply an economic doctrine, it is a political project that seeks to perpetuate the present unfair, exploitative world economic order." ("An Affront to Intelligence," Editorial Comments, The Zambia Post, 10 August 2000).

"The desperate state of our economy bears testimony to the damage wrought by delayed reform... Indeed there is a price to pay for reform, but there is an even bigger price to pay for failing to reform." (Frederick Chiluba, President of Zambia, quoted in Southern Africa Integrated Regional Information Network News Brief, October 25, 2000).

1. INTRODUCTION

What is the relationship between agricultural transformation and agricultural market policy reform? The political debate and the academic literature are both very divided on this question. In fact, the literature evaluating the effects of agricultural market reform in Africa arguably ranks among the most sharply divided and inconsistent within the field of economic development. How could it be that some scholars find that the agricultural marketing reforms have had generally positive effects on agricultural growth and food security, while others analyzing the same countries over the same time period point to a mixed record, while still others blame the reforms for contributing to the crises facing small farm households across the continent?[1]

After a decade or more since the initiation of the reform programs, many politicians continue to be unconvinced of the most fundamental elements of the process. In some cases, politicians openly contend that agricultural market liberalization has been a false promise, that private sector response has been too slow and too weak to spur rural development, and it is necessary to bring the state back into direct distribution of strategic inputs and/or commodities, albeit in a more limited and selective manner than before. An alternative view examined in this paper is that market liberalization has in some cases been a false premise: it has not actually been implemented, and hence its effects cannot be measured.

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[1] In the academic literature, the diversity of opinion on the record of agricultural market reforms in Africa can be readily grasped by comparing Kherallah et al 2001; Barrett and Carter 1999; Dorward, Kydd, and Poulton 1999; Seppala 1998; Sahn, Dorosh, and Younger 1997; Stewart 1994; World Bank 1994; Mosley 1994;. Jaeger 1992; and Duncan and Howell 1992.

The paper addresses three major issues. First, we attempt to reconcile the opposing viewpoints on the effects of agricultural market policy reform in eastern and southern Africa. In doing so, we argue that a major source of the controversy stems from assumptions that countries have actually moved to a liberalized market environment. Drawing from studies of Ethiopia, Kenya, Malawi, Zambia, and Zimbabwe, we conclude that the policy environment is not clearly more hospitable toward private investment than it was before the liberalization process began. In such cases, the basic model of input and output liberalization has yet to be tested, and hence conclusions that it has not produced its anticipated effects are largely unjustified. There are several notable exceptions to this conclusion, and the paper identifies important benefits that have been reaped even from the partial reform measures that have been implemented in the region.

A second objective of the paper is to analyze the phenomenon of non-reform and policy reversal: why has implementation proceeded so slowly and sporadically despite the billions of dollars in aid-conditionality that were the *quid pro quo* for implementing the reforms? More fundamentally, why have African policy makers not taken a more aggressive stance toward implementing the reforms? Third, and following from this discussion, we identify a number of lessons for donor-government dialogue and for the design of future reform strategies. These involve confronting the incentive structures both within African governments as well as within donor organizations.

At the outset, it may be important to address the question of why it is even necessary to assess the extent to which African governments have implemented an agricultural policy reform agenda. While this may be obvious to some, others have stressed that policy reform is quite insufficient to ensure a positive response by the private sector. In recent years, with increasing appreciation of the role of institutional factors in the development of markets, the early reform programs have been heavily critiqued for their naivete in assuming that markets would blossom if only freed of policy constraints. And even in the design of the more recent reform programs, attention to the full range of activities required for smallholder farmers to respond to liberalization are arguably still under-emphasized. However, the danger of dwelling inordinately on these issues is the risk that attention to implementation of the original core policy reforms becomes relatively neglected. Recent efforts to explain the poor track record of liberalization -- focusing on, for instance, the naive presumptions that policy reform was sufficient -- while clearly part of the story, largely ignore the question of whether the elements of the policy reform agenda that *were* identified were actually implemented. It is generally accepted that while not sufficient, changes in the policy environment are often necessary conditions for economic growth to occur. An understanding of why key aspects of agricultural policy reform have proven so difficult may hold valuable lessons for future agricultural transformation strategies.

Before proceeding, it is also important to ask whether the countries focused on here provide a unbiased reflection of Africa's experience with sectoral reform implementation. While the findings of this paper are not altogether inapplicable to West Africa, the pace of food market reform has generally progressed more smoothly than in the former settler economies of Eastern

and Southern Africa.[2] And we will argue that the generally higher production growth in these West African countries compared to those analyzed here is somewhat correlated with the more comprehensive adoption of reforms and a relative more stable transition to a liberalized food marketing system.

2. WHY ARE THE EFFECTS OF THE REFORMS SO CONTROVERSIAL?

Controversy over the effects of agricultural market reform stem from four main sources. (1) the overly aggregated and imprecise way in which the terms "policy reform" and "liberalization" are conceived and discussed in the literature (Peters 1996); (2) difficulties of isolating the effects of specific policy reforms from other processes affecting agricultural performance; (3) assumptions over the sustainability of the former controlled marketing systems; and (4) confusion over whether the officially stated reforms were actually implemented. We briefly elaborate on the first three points, and then provide a longer discussion on the phenomenon of non-implementation, which is the primary focus of this analysis.

What does market reform mean?

The policies and actions included in the term "market reform" or "market liberalization" are vague and under-specified. These terms, as noted by Peters (1996), are more broad political labels than precise technical terms. Discussions of "agricultural market reform" have often been lumped together with broader macro components of structural adjustment programs. While the macro and sectoral policy changes were related, and sometimes coordinated under structural

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[2] Historical factors provide part of the explanation. First, the importance of European agriculture in the former colonial settler economies still has lingering effects on contemporary agricultural policy. In general, the greater the importance of European agriculture during the colonial period, the greater the degree of state intervention in food marketing activities, even to the present (Jayne and Jones 1997). While the political might of commercial farm lobbies has declined in the post-independence period, pressure for agricultural subsidies and continued intervention has been solidified as African elites have increasingly acquired commercial farm land. Second, in contrast to West Africa where imported rice and wheat were the most politically sensitive food commodities, urban food security in most of eastern and southern Africa depended more heavily on domestically-produced cereals, in particular white maize. Historically, white maize has not been readily available on world markets. Post-independence food policy in these countries was strongly driven by the priority put on white maize self-sufficiency given the unreliability of alternative sources. A third distinction that separates food policy in most of West Africa from the former settler economies of Eastern and Southern Africa was the obligation that the new leaders of the post-independence governments felt toward the rural population that had, to varying degrees, provided the armed resistance that led to independence. Food and input markets became the cornerstone of an implicit and sometimes explicit "social contract" that the post-independence governments made with the African majority to redress the neglect of smallholder agriculture during the former colonial period. For these reasons, the commonly accepted "Berg hypothesis" that African governments taxed their agriculture, an observation that was drawn mainly from West African experience, was not appropriate for many countries in eastern and southern Africa.

adjustment programs, it is difficult for overly-aggregated assessments to isolate the effects of specific sectoral reforms.

For our purposes, we define market liberalization policies as changes in the marketing policy environment that encourage incentives for private investment and new entry. Key food and input market liberalization policies that were identified early on in the reform process were the elimination of subsidized state distribution programs and price controls that provided inadequate margins for private traders to compete, regulations prohibiting private firms from participating in particular marketing activities, costly licensing requirements, and restrictions on private grain movement across district or state boundaries.

A separate issue is whether agricultural market liberalization requires complementary public investments in market institutions and infrastructure necessary for markets to function effectively. As mentioned earlier, recent explanations for the disappointing record of the agricultural reforms has stressed that these elements have been neglected in the design of such programs. However, Meerman (1997) and others have argued that the designers of the reforms certainly understood the importance of these factors, but concentrated on what they thought would be feasible for governments to accomplish in the short and medium run under the terms of aid conditionality agreements. At least to some extent, even the early market reform programs stressed the need for complementary public sector strengthening of market institutions that facilitate trade and investment, even though they did not formally feature prominently in aid conditionality agreements.

Difficulty of isolating the effects of the reforms from other conditions

A number of studies have approached the evaluation of agricultural market reform by partitioning a country's history into two periods -- pre- and post-reform periods -- and assessing the trends in outcome variables. Many of these studies have correctly concluded that input use has declined and that production levels have been outstripped by population growth in the post-reform period in most of the region (Tables 1a-c). While absolute agricultural production has increased in the eight countries examined in these tables, per capita production has been lower in the 1995-2000 period than in the 1980-84 period in every country except Uganda. Trends in food production, while not presented here, show an even worse decline for most countries, due to a moderate shift in the composition of agricultural production during the 1990s from staple foods to non-food crops. Some studies attribute this disappointing performance to the agricultural reforms, or to structural adjustment programs more broadly (Seshamani 1998; Chilowa 1998; Chisvo 2000).

Experimental design theory stresses the importance of "with vs. without" analyses as opposed to "before vs. after" assessments. The main problem with before vs. after assessments is that numerous conditions may be changing over time and affecting outcomes besides the one(s) under examination. Constraints on data availability make it difficult to isolate the specific effects of individual policy changes from other conditions and trends affecting the economy such as political turmoil, HIV/AIDS, agricultural policies in other countries, and weather shocks.

Consequently, most evaluations of the effects of agricultural market reform are subject to an "identification problem" in so far as there are other forces influencing the economy that cannot be controlled for.

Table 1.a. Agricultural Production Indices

	89-91=100							
Year	Ethiopia	Kenya	Malawi	Mozambiqu	Tanzania	Uganda	Zambia	Zimbabwe
1980-84	92.4	70.7	87.7	101.1	81.7	77.5	73.2	77.0
1985-89	91.4	91.4	93.8	95.4	94.4	87.0	94.3	98.0
1990-94	100.1	98.5	98.6	94.0	98.3	104.8	97.7	94.5
1995-00	120.5	105.4	130.4	126.9	103.8	115.1	99.1	111.3

Table 1.b. Per Capita Agricultural Production Indices

	1989-91=100							
Year	Ethiopia	Kenya	Malawi	Mozambiqu	Tanzania	Uganda	Zambia	Zimbabwe
1980-84	116.1	93.1	124.4	113.0	105.0	92.4	88.2	99.8
1985-89	100.0	100.7	107.8	99.2	103.7	93.0	101.2	107.5
1990-94	94.6	92.7	96.3	87.5	92.1	99.2	92.7	90.4
1995-00	98.5	86.6	118.0	97.1	83.4	93.4	82.6	96.9

Table 1.c Total Fertilizer Nutrient Use

	thousands of metric tons					
Year	Ethiopia	Kenya	Malawi	Tanzania	Zambia	Zimbabwe
1980-84	41.2	75.8	37.4	29.2	74.2	159.7
1985-89	71.6	115.0	45.2	44.5	83.3	156.4
1990-94	92.7	112.7	57.4	44.2	70.2	156.9
1995-00	156.0	126.5	52.2	31.0	50.9	165.9

note: Mozambique has consumed under 10,000 tons of total nutrient in each year since 1980; Uganda has consumed less than 3,000 tons of total nutrient in each year since 1980.
Source: FAO AgriStat Website, http://apps.fao.org/

Were the status quo policies sustainable?

It has sometimes been implicitly assumed that the continuation of the pre-reform policies was a viable option. Such a view under-appreciates the extent of the crises faced by many countries that made reform unavoidable (Sahn, Dorosh and Younger 1997). For example, heavy subsidies on consumer maize meal and fertilizer in Zambia in the late 1980s certainly contributed to lower urban poverty and increased maize yields, but they accounted for over 15% of the government

budget during this period (Howard and Mungoma 1997). In Kenya, the maize marketing board ran annual deficits equal to 5% of GDP. These policies contributed to exchange rate devaluations and high inflation rates that forced the governments into fiscal crises. While the subsequent cutback in consumer maize meal subsidies has raised the price of basic food and initially contributed to a rise in urban poverty (McCollough and Balch 2000), the former policies of the 1980s clearly could not be sustained. As argued by Sahn (1999), many African countries' were not in a position to continue incurring the recurrent costs of their agricultural policies. These policies contributed to the fiscal crises throughout the region that made governments become dependent on international lenders for budget relief.

Did the reforms really occur?

Many studies of agricultural market reform appear to take on face value that the reforms really occurred, at least partially. While a widespread view has emerged that food and input market liberalization has failed to live up to its promises, especially in many eastern and southern African countries, a close examination reveals that many of the most fundamental elements of the reform process either remain unimplemented or were reversed within several years. For example,

- In Zimbabwe, price controls on maize meal were reimposed in 1998, five years after the government eliminated them as part of the terms of a World Bank/IMF structural adjustment loan program started in 1991. The country's Grain Marketing Board (GMB) has still remained the dominant buyer of grain throughout the reform process (Chapoto 2000). The GMB has reverted back to a two-tiered maize pricing structure; it sells maize at a lower price to politically-influential large-scale milling firms than it does to other buyers, thereby disadvantaging smaller millers and traders and entrenching the dominance of several large millers that monopolized the market before liberalization in the early 1990s. Also the GMB remains the sole legal exporter and importer of maize, and continues to offer pan-territorial and pan-seasonal maize prices, as it did before the grain market reform program was initiated. While this policy environment has provided niches for new entry and investment at certain stages of the maize supply chain, notably in assembly, local milling and retailing, private investment at other key stages clearly continues to be impeded.

- Zambia's state marketing board, NAMBOARD, was abolished in 1989 but the Food Reserve Agency, formed in 1995 and initially envisioned to play a limited role of holding buffer stocks, has since 1997 become the major distributor of fertilizer in the country. After almost a decade of aid-conditionality agreements with international lenders, the investment climate for commercial fertilizer wholesaling and retailing is characterized by high risks due to the continuation of non-commercial fertilizer distribution under various government programs (Govereh et al 2001).

- As part of aid-conditionality agreements, the Ethiopian government has curtailed the operations of its official state marketing board. At the same time, it has permitted the creation of regional holding companies which are owned/managed by influential

members of the ruling party. These holding companies enjoy near-monopoly rights for the distribution of fertilizer in their respective regions. Two large private companies have been forced to significantly reduced their level of participation in the fertilizer market because regional governments have been actively promoting the holding companies while simultaneously raising barriers for private sector companies. Some of the activities of the holding companies appear to be partially handled and financed by government (Stepanek et al 2001).

- In Kenya, aid-conditionality agreements pertaining to maize market reform commenced in the late 1980s with the Agricultural Sector Adjustment Operation (World Bank) and the Cereal Sector Reform Programme (EU). The reform process has been marked by increased political interference in the decisions of key cooperative and joint-venture marketing organizations. Rent-seeking arrangements that created resistance to reform in the early stages of the process have been reestablished within the evolving "market-oriented" institutions that have developed since liberalization. In the maize sector, the state-owned marketing board has continued to directly participate in markets to support maize prices. Maize import tariffs, marketing board price supports, and relatively high transport costs have combined to make maize prices in Kenya among the highest in the world, particularly for among countries where maize is a staple crop (Nyoro, Kiiru, and Jayne 1999).

- There are still maize import controls of one type or another in Zimbabwe, Ethiopia, and Kenya. Malawi's state-owned marketing board, ADMARC, is still the dominant maize buyer in Malawi. In 1999 and 2000, the government has distributed free "starter packs" of maize seed and fertilizer to almost all rural households in the country, with analysis concluding that the program has undercut the market for commercial input suppliers (IFDC, 2000).

These brief examples show that many policy barriers inhibiting the development of competitive input and commodity markets remain. There may be legitimate objectives underlying the government actions creating these policy barriers, but nevertheless it would inappropriate in such instances to expect to measure a discernable private sector response in such a policy environment. A chronology of food and input market reform implementation is presented for Zimbabwe, Zambia, Ethiopia, and Kenya in Table 2. The information presented indicates that key elements of the envisaged reform programs that were intended to encourage private investment are currently not implemented.

Table 2a. Zimbabwe: Chronology of Maize Market Reform, 1991-2000.

1991	• Announcement of Economic Structural Adjustment Program, including a grain market reform component supported by World Bank, USAID and other donors.
1993-1994	• Control of private maize movement and sale progressively relaxed; large-scale millers still obliged to procure maize from GMB. • Retail maize meal prices decontrolled; GMB two-tiered selling price eliminated. • GMB still sole legal importer and exporter of maize • Subsidies on GMB trading margin narrows price range within which private traders can operate. • Formation of Zimbabwe Agricultural Commodity Exchange.
1996-1997	• Maize import/export remains under GMB monopoly.
1998	• GMB raises its maize selling price to millers to adjust to prevailing market prices. Millers responded by raising roller meal price by 21%, causing food riots of January 1998. • Government reintroduces controls on maize meal prices, May 1998. • GMB enters the maize milling industry. • GMB announces decision to start extending agricultural credit to small and large-scale farmers with effect from the 1998/99 season.
2000	• Price controls on maize meal still exist. • GMB retains pan-territorial and pan-season producer price and selling prices • GMB maintains two-tiered maize selling price (lower for large-scale registered millers than for all other buyers). • GMB retains exclusive monopoly over maize import and export.

Sources: Takavarasha 1994; Chapoto 2000; Chisvo 2000

Table 2b. Kenya: Chronology of Maize Market Reform: 1988-2000.

1986 - 1987	• Government agrees to implement Agricultural Sector Adjustment Program with World Bank (1986). • The state-run National Cereals and Produce Board (NCPB) sets fixed producer and consumer; private trade across district boundaries prohibited except by license. Commercial millers obligated to purchase maize supplies from NCPB. Maize meal prices set by government.
1988 - 1991	• Government agrees to implement Cereal Sector Reform Program with EU (1988) and Agricultural Sector Adjustment Program II with World Bank (1991). • Government progressively relaxed movement and price controls on private maize trading • NCPB continues setting fixed producer and consumer prices; all commercial millers obligated to purchase a portion of their supplies from NCPB. Maize meal prices fixed by government.
1992	• Government reimposes restrictions on private maize movement and trade
1994	• Government limits NCPB's access to finance to purchase maize. • Government introduced a variable import duty following substantial imports by private traders • The margin between NCPB buying and selling price is too low to cover costs; implicit subsidy on its trading margin hampers private traders' ability to compete and invest in the marketing system.
1996	• Exports banned after a weak harvest, later replaced by a 25% tariff on maize imports
1998	• Tariff on maize imports increased from 25% to 33% in anticipation of a large harvest. • Government announced that NCPB would not purchase any maize domestically.
1999-2000	• Maize stabilization policy continued, with the NCPB purchasing 72,000 tonnes of domestically produced maize. • Maize import tariff fluctuates from 33% to zero to 75% to 25% over 15-month period (March 1999 to May 2000).

Sources: Nyoro, Kiiru, and Jayne 1999; Awuor 2001 (Kenya).

Table 2c. Ethiopia: Fertilizer Market Reform, 1993-2000.

1993	• Ban on private imports of fertilizer lifted; previously, the state Agricultural Inputs Supply Corporation handles the bulk of fertilizer importation and distribution.
1995	• Ethiopian government agrees to liberalize fertilizer market as part of aid-conditionality agreements with donors.
	• Pan-territorial fertilizer pricing by AISCO impedes private sector fertilizer delivery in outlying areas
	• Regional holding companies allegedly owned/managed by influential ruling elites begin engaging in fertilizer trade.
1996	• Government announces decontrol of import and wholesale prices; retail control prices maintained.
	• Government introduces regional 'tenders" to award monopoly distribution privileges by district; regional holding companies win most of the tenders.
1997-2000	• Price controls on retail fertilizer prices relaxed in 1997.
	• Regional tender process generally results in monopoly distribution rights being given to regional holding companies. State fertilizer marketing firm and regional holding companies have 81% of total market share in 1998.
	• Government New Agricultural Extension Programme accounts for 67% of all fertilizer used by smallholders in the country; government procures 85% of its fertilizer supply for this program from the regional holding companies.

Source: Stepanek et al 2001

Table 2d. Zambia: Chronology of Fertilizer Market Reform, 1991-2000.

prior to 1990	• importation, distribution, and pricing of fertilizer handled by government marketing agency, NAMBOARD. Fertilizer subsidy averaged roughly 50% of full retail cost.
1990-1993	• Economic Structural Adjustment Program initiated 1991. Donors provide balance of payments support for fertilizer importation.
	• NAMBOARD abolished in 1990, but fertilizer and credit marketing functions transferred to other state agencies (NCZ, CUSA, LIMA Bank and ZCF using a network of state-affiliated cooperatives). Govt. still set retail fertilizer prices to be paid by smallholders until 1992. Credit recovery rates 30-40%.
1994-1996	• Formulation of the Agricultural Sector investment Program (ASIP), a tool for implementing the government policy of liberalization and market reform, 1994.
	• Food Reserve Agency (FRA) established, 1995, to manage the national food reserve.
	• Govt continues to control smallholder fertilizer imports with donor BOP support.
	• Agricultural Credit Management Programme (ACMP) launched. Private firms were contracted to provide fertilizer and seed on credit to farmers via local credit coordinators. Allocation process determined by government. Designed to ease the private sector into rural credit to smallholders.
	• Credit recovery rates near 30%. Private firms asked to absorb some of the risks of government loan default; they refuse and exit the market. ACMP program abandoned.
1997-1998	• Food Reserve Agency takes over fertilizer distribution on credit to smallholders.
	• Donors cease financing of fertilizer imports.
	• pan-territorial pricing re-introduced for FRA-distributed fertilizer; makes private sector fertilizer uncompetitive in outlying areas.
1999-2000	• Private firms carry out fertilizer importation, but FRA buys from two of them and contracts them to carry out a government fertilizer distribution program on credit. Most fertilizer imported for distribution to smallholders goes through FRA program.
	• 2000 season FRA loan repayment rate 43%.
	• Pan-territorial pricing structure for FRA program still maintained.

Sources: Pletcher 2000; Republic of Zambia 1996; Jayne, et al. 1999; Mwanaumo 1999 (Zambia).

A frequent consequence of evaluating the effects of reform without carefully ground-truthing how the reforms were actually implemented is the premature and possibly exaggerated finding of "market failures." Researchers have in some cases correctly noticed a lack of private sector response but have incompletely identified its causes.[3] Certainly there are market failure problems, but explanations for such problems have often tended to focus on the under-provision of public goods and have tended to neglect the importance of unresolved policy barriers. In such cases, therefore, we suggest that frequently-heard conclusions that liberalization "has been a failure" or "has not produced its intended effects" is largely unjustified.

One might reasonably question the counterfactual: is there any evidence that these countries would have experienced higher agricultural growth had they actually implemented a more comprehensive reform agenda? The literature is highly divided on this issue (see, for example, the references listed in footnote 1). Yet, while subject to the "before-after" methodological critique mentioned earlier, we calculate the same per capita agricultural production trends for a group of West African countries that have, by general consent, achieved a food and input market environment that is relatively more conducive to private investment.[4] The general picture, reported in Table 3, show that the growth rates in at least some African countries provide cause for encouragement, and that the policy environments in these countries may have played a positive role in this growth (Badiane 2001).

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[3] Take for example a recent study on Zambia concluding that "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 fertilizer" (McCulloch, Balch and Cherel-Robson 2000, pg. 8). We will argue below that in Zambia's case, private sector response in input and credit markets has been impeded *because of* continued government programs for allocating fertilizer on credit since the reform process began. Similarly, Chilowa's (1998) analysis of Malawi concludes that private maize traders response to market reform since the late 1980s in spite of his finding that "there were no significant barriers to entry in the marketing of smallholder crops" (pg 560) and that by 1996, "there was full liberalisation of crop and input marketing by removing licensing procedures (pg 561). However, his article indicates that the maize marketing board, ADMARC, has continued throughout the liberalization program to set the margin between its maize selling price and buying price too low to cover marketing costs, without addressing how this policy might affect private sector trading incentives.

[4] While being a subjective assessment of policy reform, the World Bank's 1999 "Report Card," rates countries, albeit subjectively, on the basis of their performance in relation to four general categories, one of which is "structural policies." Of the eastern and southern African countries examined here, the structural policies rankings were as follows: Ethiopia=D; Kenya=D; Malawi=B; Zambia=B; Zimbabwe=D. The scores for the west African countries listed in Table 3 were Benin=B; Burkina Faso=C; Mali=B; Ghana=A; and Cote dilvoire=A (World Bank 1999 Country Performance Rating Process).

Table 3. Per Capita Agricultural Production Indices in Selected West African Countries

	---------- 1989-91 = 100 ----------				
Year	Benin	Burkina Faso	Mali	Ghana	Cote d'Ivoire
1980-84	75.4	77.6	92.7	90.5	98.0
1985-89	90.4	101.0	93.2	96.2	100.7
1990-94	106.6	104.1	99.4	105.9	94.5
1995-00	130.3	108.0	106.0	124.3	104.1

Source: FAO AgriStat Website, http://apps.fao.org/

Summary of selected "general consensus" effects of the reforms

Even though the food and input market reform process has been partial and marked by reversals in most countries in the region,[5] there have been clear changes in some aspects of food and input marketing in selected countries, and these policy changes have produced effects about which there is general consensus. While this paper cannot exhaustively review the effects of food and input market reform, we briefly highlight three aspects of the partial reform process for which the evidence is reasonably consistent: (1) where genuine policy reform has occurred, this has often resulted in tangible gains in agricultural productivity and food security; (2) upside food price instability has not been exacerbated by price decontrol, but downside price risk has; and (3) the policy environment has become more unstable since the initiation of the reform programs, creating a policy environment for private sector investment that is legal but highly risky.

Consumers have been the main beneficiaries of the output market reforms

The partial reforms that were implemented in eastern and southern Africa have created major changes in maize milling and consumption. For decades prior to the reforms, maize meal consumption in urban and grain-deficit rural areas was predominantly in the form of a refined sifted meal processed by a few large-scale roller milling firms.[6] These registered milling firms were integrated into the state food marketing channel. Milling and retailing margins were fixed by the government based on millers' stated cost structure. A second form of maize meal – whole or "posho" meal – was consumed in rural areas where grain supplies were available. Households would take their grain to small-scale informal hammer millers and pay a fee for milling it into whole meal. Cross-country studies in eastern and southern Africa indicate that unit processing costs for hammer-milled maize meal are typically less than half those of the refined roller-milled

[5] Kenya's fertilizer market reforms and Ethiopia's grain market reforms are notable exceptions.

[6] This has been called "roller meal" (80-85% extraction rate) in Zambia and Zimbabwe, "sifted meal" in Kenya. An even more refined "breakfast meal" (60-70% extraction rate) has been popular in urban areas of Zambia and Zimbabwe.

meal, which is significant given that about 30-50% of the retail cost of maize meal during the control period was comprised of milling margins (Bagachwa 1992; Rubey 1995).

Other factors held constant, the lower processing margins of whole meal would have given hammer millers a major cost advantage over the refined industrial-milled meal. Yet government subsidies were typically applied to refined meal marketed through the official marketing channels, thereby reducing its price relative to whole meal. The dominance of the large-scale industrial millers was further ensured through controls on the private movement of grain into urban areas, which made grain largely unavailable in urban areas and thus provided registered millers with a monopoly on maize meal sales to urban areas. Prior to the reforms, over 90% of the maize meal consumed in the urban areas of Kenya, Zimbabwe, and Zambia was in the form of refined meal (Jayne et al 1995).

Under pressure from international lenders, the Governments of Kenya, Zambia, and Zimbabwe in 1993 each eliminated controls on private grain trading, deregulated maize meal prices, and eliminated subsidies on maize sold to registered millers. Prices of industrially-milled meal soared. However, where private trade to urban areas was legalized, maize grain became readily available in urban areas, fueling the rapid expansion of whole meal processing, retailing, and consumption. In each country, the large-scale millers swiftly lost a major part of their market to small hammer mills, whose numbers rapidly expanded in urban areas.[7] Widely viewed during the control period as a product having negligible demand, whole maize meal by 1994 accounted for 40%-60% of total urban meal consumption in Zimbabwe, Kenya, and Zambia. The increased availability of whole meal at 60% to 75% the cost of roller meal has partially or fully offset the adverse effect of eliminating consumer subsidies on roller meal in these countries. Similar benefits have been achieved in rural grain-deficit areas that were formerly dependent on refined industrial-produced meal prior to the reforms. Household surveys carried out in the 1993-1995 period indicated that low-income consumers in particular shifted quickly to hammer-milled meal (Rubey 1995; Jayne and Argwings-Kodhek 1997).

Concerning grain and fertilizer distribution, private sector response to policy reform has generally been favorable for farmers in areas where infrastructure and the policy environment provided the incentives to do so. Empirical studies in support of this conclusion are of two types: variants of structure-conduct-performance studies based on trader survey data (e.g., Fafchamps and Minten 1998; Vase et al. 1996; Gabre-Madhin 1999; Nyoro et al 1999; Wanzala et al 2000; Govereh et al 2000; Amani and Maro 1992); and those based on price analysis showing changes in marketing margins and prices over time (e.g., Dercon 1995; Alderman and Shively 1998; Asfaw, Jayne, and Myers 1998; Chapoto 2000; Rubey 1995; Barrett 1997a; Jayne and Argwings-Kodkek 1996). One study in which farmers were directly asked whether they prefer the current (partially liberalized) system or the pre-reform system in Kenya found general support for liberalization (Argwings-Kodhek 1998).

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[7] The number of hammer mills operating in the capital cities of Nairobi, Harare, and Lusaka has risen by 80%, 57%, and 40% in the past several years (Jayne et al. 1995; Republic of Zambia 1995).

The response of the private sector in remote areas has been more controversial (Chilowa 1998; Seshamani 1998; Howard and Mungoma 1997; Barrett 1997b; Jones 1998; Chisvo 2000; Omamo and Mose 1998; Smith 1995). However, these have in some cases been the areas where special non-commercial activities have been concentrated (e.g., government grant crop input packs, programs for distributing subsidized fertilizer on credit, and/or distribution of food relief). Many of these programs are intended to serve smallholders in areas considered unattractive to the private sector, but it has been difficult to disentangle whether the evidence points to inherent problems with private sector investment in the remote areas, or whether lack of response is at least partially related to unresolved policy barriers, the continuation of state activities that undercut commercial trading incentives, and the possibility that inputs such as fertilizer are unprofitable in some areas given existing production and marketing cost structures.

Food market liberalization has buffered the effects of upside price risk for consumers but not downside price risk for producers

One of the major fears associated with food market reform in the region was that it would exacerbate consumer food price instability and food insecurity. Comparisons of actual retail maize meal price dispersions in Zambia, Zimbabwe, Kenya, and Mozambique show that in most cases, the probability of upside price instability has not increased after retail prices were decontrolled (Jayne et al 1999). These findings are based on comparing the distribution of unconditional real monthly prices during the period when prices were controlled and afterward.[8]

The post-liberalization distribution of monthly maize meal prices in all four countries shows very little increase in upside price risk for consumers compared to the pre-liberalization distribution of heavily subsidized refined meal prices. For example, prior to liberalization in Zambia, there was a 10% probability of roller meal prices rising above ZK 540 per kg (in August 1998 kwacha) in Lusaka. After 1993, and due to the removal of consumer subsidies on the product, the probability of roller meal prices exceeding ZK 540 per kg rose to 44%. However, the elimination of policy barriers on small-scale hammer millers in 1993 provided urban consumers' with easy access to hammer-milled meal in urban areas. Examining the price distribution of 1993-1998 hammer-milled maize meal, the probability that hammer-milled whole meal would exceed ZK 540 per kg was only 11%, virtually the same as roller meal during the control period when these prices were heavily subsidized by the state. Similar results were found in Zimbabwe, Kenya and Mozambique (Jayne et al 1999). The main conclusion is that while whole meal prices have exhibited relatively high price variability (compared to roller meal during the control period), this greater price variability has occurred around a lower mean level. For consumers of whole meal, which includes a relatively high percentage of the urban poor, the upside risk of staple food price spikes has actually declined since the initiation of partial reforms in these countries.

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[8]Ideally, controlling for exogenous changes in supply and demand would provide for more robust results, but data limitations prevent this. Details on method and sample periods in each country are in Jayne et al 1999.

Smallholder farmers, by contrast, have in some areas been adversely affected by the withdrawal of marketing board depots offering pan-territorial support prices in remote areas (Jayne and Jones 1997). With the elimination of pan-territorial producer prices in some countries, downside price risk for maize has risen and has contributed to shifts in production into other crops (Zulu et al 2000; Bryceson 1993).

The agricultural marketing policy environment is more unstable now than before liberalization

Due to frequent policy reversals and changing government mandates, the policy environment in most countries in the region is more uncertain than during the control period. Survey evidence suggests that traders in many countries perceive the agricultural input policy environment as especially unpredictable and subject to change.[9] The perceived threat of government re-entry into the market ranks among the major sources of risk of future investment (Govereh et al 2001; Wanzala et al 2001). Politicians' statements about private sector behavior and the need for government re-entry into markets have been a relatively neglected variable in the analyses of private sector response to the reforms (Mwanaumo 1999).

The vicious cycle of government threat of re-entry followed by lack of private sector response is most evident in marketing functions that require big initial investments such as long-distance transport, wholesaling, inter-seasonal storage, and fertilizer importation (Barrett 1997b; Stepanek et al 2001). Much of the limited investment of this type has been by larger foreign-based firms with diversified portfolios that could afford to take risks (Govereh et al. 2001). For marketing functions requiring smaller capital outlays that could be recouped more quickly, such as retailing, assembly, and grain milling, private sector investment response has been less affected by longer-term policy uncertainty (Barrett 1997b).

3. CASE STUDIES OF REFORM IMPLEMENTATION: FERTILIZER MARKET REFORM IN ETHIOPIA AND ZAMBIA

While it is widely understood that governments continue to directly participate in agricultural marketing ostensibly to fulfill social functions that markets cannot, there is much less recognition of how governments may preserve indirect control over markets even after exiting from direct marketing functions. Only in a few cases has a competitive system developed in which private sector firms operate on a "level playing field." While an overriding concern with liberalization has been that it could lead to a non-competitive and potentially exploitative market structure favoring a few large firms, it is noteworthy that this result has occurred in many cases as a result of continued direct government involvement during the reform process.

Conceptually, it would be a step forward to distinguish private sector involvement in agricultural markets between "insiders" and "outsiders." We illustrate the importance of this distinction based on two short case studies of fertilizer markets in Ethiopia and Zambia.

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[9] Sachs and Warner (1995) conclude that Africa is the only region of the world in which the degree of openness has not significantly increased during the past two decades.

Ethiopia's fertilizer market liberalization experience: 1993-2000[10]

Up to the early 1990s, fertilizer import and distribution in Ethiopia was the sole responsibility of the national parastatal, Agricultural Input Supply Corporation (AISCO). After entering into a series aid conditionality agreements in exchange for donor financing of fertilizer, the Ethiopian government agreed to allow private marketing of fertilizer in 1993. By 1995, several private wholesalers and numerous retailers had entered the market to compete against AISCO (renamed AISE in 1996). After a history of pan-territorial pricing, fertilizer wholesale and retail prices were progressively liberalized starting in 1996.

During this same period, the government launched its New Extension Program (NEP). Under the NEP, the central and regional governments coordinate farmer input credit and select fertilizer distributors to supply farmers with fertilizer and improved seed on loan. The program has rapidly expanded, enlisting about 25% of all rural households in 1999. As the government strengthened and expanded its extension program and took control of input credit, annual fertilizer imports increased 67% between 1990 and 1995, and by another 56% between 1995 and 1998. However, since 1998, fertilizer use has stagnated.

The NEP has quickly become the dominant means by which farmers acquire fertilizer (Table 4). The NEP by 1999 accounted for 67% of total fertilizer sales to farmers, all in the form of in-kind credit. The previously important service cooperatives accounted for 19% of the total also in the form of in-kind credit. Only 14% of total sales were in the form of cash sales. There were widespread reports that some regional governments have attempted to suppress the private retailing of fertilizer on a cash basis in order to force farmers to participate in the NEP (GMRP 1998). Government officials in some regions locked warehouses of independent retailers who were not part of the NEP and mandated a ceiling price on private traders' fertilizer (GMRP 1998). These activities have taken place within the context of delicate negotiations between government and donors concerning fertilizer market liberalization.

Table 4. Importance of Sales Outlet Channel for Fertilizer Distribution Firms, 1999 Crop Season

		Fertilizer Distribution Company						
	Total Ethiopia*	AISE	Dinsho	Ambassel	Guna	Wondo	Ethiopia Amalgamated	Fertiline
	tons distributed							
Total National sales (tons)	290,264 (100 %)	95,903	26,238	68,480	14,248	35,444	37,900	12,051
	% of firms sales by type of program (sums to 100% down columns)							
Govt. Extension Program (NEP)	195,539 (67 %)*	50	96	89	9	91	64	22
Service Coops	53,720 (19 %)	25	3	1	92	8	20	41
Cash Sales	41,005 (14 %)	25	1	10	--	1	16	37

* Percentage of total sales by program are in parentheses. Source: compiled by authors from NFIA data files, 1999.

[10]This section is based on Stepanek et al 2001.

Also during this same period, a number of newly formed "holding companies" began distributing fertilizer. These companies appear to be owned by or affiliated with regional government officials.[11] Unlike the truly private sector firms who must arrange for their own retailing activities, the district administrations (at the directive of regional governments) assist in the major retailing functions of fertilizer distributed by the government-affiliated firms, such as storage, transport, and retail staffing.

In 1997, these newly formed companies (Dinsho, Ambassel, Wondo, and Guna) entered into agreements with regional governments to distribute fertilizer for the NEP program in their respective regions. A year later, under pressure from donors, the government agreed to hold fertilizer tenders to determine which firms would supply fertilizer for the NEP program in each region.

But the tender process has so far been unsuccessful in reducing the level of concentration of fertilizer distribution at the regional level (Table 5). The Amhara regional government awarded without tender all fertilizer sales through the NEP to the regional government-affiliated firm, Ambassel, which accounted for 85% of total fertilizer sales in Amhara in 1999. Nominal auctions were held in the South but almost all of the contracts were awarded to the government-affiliated company, Wondo, which controlled 92% of the market. The Tigray region also had one firm, Guna (affiliated with the regional government in Tigray), controlling over 70% of the market. These firms were provided near-monopoly rights to distribute fertilizer in their respective regions by their regional governments. By contrast, the tender process in Oromiya awarded contracts to three firms, which were to service different parts of that region. The

Table 5. Distribution of Fertilizer Sales in Ethiopia, 1999 Crop Season

	Tons of fertilizer sold to farmers	AISE	Dinsho*	Ambassel*	Wondo*	Guna*	Ethiopia Amalgamated	Fertiline	%
		---------- % of sales in each region (sums to 100% across rows) ----------							
National	290,264	33	9	22	12	5	14	5	100
Oromiya	143,477	51	18	4	--	2	20	5	100
Amhara	73,507	9	--	85	–	1	5	--	100
Southern	38,587	4	–	–	92	–	4	–	100
Tigray	15,110	26	–	–	–	70	4	–	100
all others	19,583	54	3	–	--	–	20	23	100

Note: * signifies firms that are allegedly affiliated with regional governments. Cells enclosed by dashed lines show the region in which the company and regional government are allegedly affiliated. Source: Compiled by authors from NFIA data files, 1999.

concentration of markets among one or two firms at the region-level is masked when viewed only at the national level. At the national level AISE had the greatest market share, with 33% of total national fertilizer sales, and each of the regional government-affiliated firms account for less than 25% of the national market share (Table 5). However, when examining market share by region, market concentration becomes clearly evident.

A minimum of 89% of the government-affiliated firms' sales (i.e., those of Ambassel, Dinsho,

[11] Official government policy states that these firms are independent private companies.

and Wondo) were linked to the government's New Extension Programme.[12] These "insider" companies have been provided preferred access to government warehouses, vehicles, and staff, thus directly, as well as indirectly, subsidizing their wholesaling and retailing operations and providing a competitive cost advantage over truly private firms that must pay full market costs for their own transportation, warehousing and retailing activities. Also, because of their prominence in the government NEP program, these firms benefitted from the formal distribution of government-guaranteed agricultural credit in-kind, thereby reducing marketing uncertainty and increasing their share of the fertilizer market. Several large truly private fertilizer marketing firms have been unable to secure tenders and have been effectively driven out of the market.

Zambia's fertilizer market liberalization experience: 1989 - 2001

Before 1989, fertilizer distribution was the preserve of NAMBOARD, a government parastatal which supplied fertilizer through cooperatives. The Zambian government initiated in the early 1990s a process of fertilizer market reform. However, the fertilizer reform process in Zambia has been controversial and many politicians have remained publicly skeptical that the private sector would be able to adequately serve the needs of small farmers, especially in the more remote parts of the country. And fertilizer use by smallholders has indeed declined markedly in Zambia since the inception of the reform process, contrary to the expectations of reform advocates. A cursory assessment could conclude that liberalization has been responsible for the decline in fertilizer use, but the example of Zambia underscores the importance of carefully examining how reform programs are actually implemented in the field to avoid the potential for erroneous conclusions from policy analysis.

There have been four distinct phases of Zambia's fertilizer reform program between 1991 and 2000. In the first phase, from 1991-93, the government appointed several state-affiliated banks and credit unions to distribute fertilizer on credit. Repayment rates were less than 5% during this period (Govereh et al 2001). In the second phase, from 1994-96, the government appointed a few large private firms as Credit Managers (most importantly, Cavmont Merchant Bank Ltd. and SGS Ltd.) to import and deliver fertilizer on loan to "credit coordinators," who were private retailers tasked with forwarding the fertilizer on credit to farmers. Cavmont and SGS did not take ownership of the fertilizer; rather they received management fees for their role of distributing fertilizer to designated credit coordinators on behalf of government. The designation of both credit managers and credit coordinators was made by government. The volume of fertilizer supplied through this system was determined by availability of donated fertilizer from donors and local production. In 1994/95 and 1995/96, credit coordinators repaid Cavmont and SGS between 20-30% of the total loan value during this period, with evaluations concluding that many credit coordinators sold the fertilizer illegally instead of forwarding it to designated farmers on loan (Republic of Zambia 1996; Pletcher 2000). Pletcher (2000) argues that because this government distribution system provided selected private agents with the potential for major financial gains and a protected market, they became co-opted into the government system and

[12]The only exception is Guna, which primarily covers the Tigray region, which does not have a significant NEP program because of the region's general unsuitability to the maize, wheat, and tef technology packages being promoted through the NEP.

did not lobby for a more transparent open market system. Cavmont and SGS exited the market only when government insisted that they sign performance contracts requiring them to absorb some of the repayment losses being incurred by the system.

The government responded by designating the state-run Food Reserve Agency to carry out the tasks of importing and distributing fertilizer to the agents. During this third phase, which lasted until 1999, the FRA appointed private sector "agents" to distribute fertilizer to farmers and cooperatives on behalf of FRA. Ostensibly, the criteria for designating agents was related to past repayment history and collateral, but in practice the system was again vulnerable to political interference (Republic of Zambia 1996). Evaluations of the program again concluded that a large proportion of the in-kind credit, ostensibly designed to help farmers afford fertilizer, was diverted before reaching them (Govereh et al 2001).

The fourth phase started in the 1999/00 crop season. Under pressure from donors to curtail the state's distribution of fertilizer on credit, the government contracted several large private firms to import and distribute roughly 45,000 tons of fertilizer (roughly three-quarters of all fertilizer delivered to the smallholder sector) to designated cooperatives on credit. The private firms operated on a commission basis on behalf of FRA. In 2000, there were four main fertilizer importers and wholesalers in Zambia: Omnia, Sasol, Norsk Hydro, and Farmer's Friend, with 85% of the volume concentrated in the hands of the two firms that the government chose to distribute fertilizer to selectively chosen cooperatives under its credit program. As with the private agents and credit coordinators before them, the selection of cooperatives to receive the fertilizer on credit lacked transparency and allegedly involved interference from state officials.[13] Evaluations indicated once again that a large proportion of fertilizer acquired on loan from FRA (through Omnia and Farmer's Friend) was sold for cash before it got to farmers (Govereh et al 2000; Smith et al 2000). Overall repayment rates rose to 43% (Smith et al 2000).

Several conclusions emerge from the studies by Pletcher (2000); Republic of Zambia (1996), Govereh et al (2001), and Smith et al (2000). First, government has continued to influence the allocation of fertilizer over the entire period of liberalization. Second, a key feature of the post-reform period was that quantities of fertilizer imported into Zambia to meet the needs of smallholder farmers was never determined by demand conditions. From 1991 to 1996, imports were determined by the availability of donor fertilizer and local production. After 1997, the quantities of fertilizer imports for government programs depended on government borrowing. While fertilizer consumption has declined during the 1990s, it would be inappropriate to conclude that this has been due to decreased demand for fertilizer as a result of liberalization. In fact, commercial sales by the private sector have increased during the 1990s, while government distribution has declined.

Third, government fertilizer distribution program have substituted at least partially for commercial distribution by private firms. For the large private firms that distributed the fertilizer

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[13]Politicians' financial interest in the FRA fertilizer distribution surfaced publicly in a front page article in the country's main newspaper, the Zambia Times ("Members of Parliament 'Shrink' Over FRA Debts Debate," November 11, 2000).

on behalf of the government, and whose credit default losses were covered by government guarantee, the program created an un-level playing field that was slanted against traders not able to link into the government distribution scheme. Retailers acquiring their fertilizer supplies from commercial channels indicated that their sales were depressed during the months that the government distribution program operated and then increased after the program ended (Govereh et al 2001). Private sector outsiders have continually complained that uncertainty over the timing, location, and volume of fertilizer distributed by the government adds risks and costs to their operations, and reduces their participation in the market.

Summary

These two case studies illustrate the importance of carefully examining how "privatization" occurs under a market reform program. In some cases, *de jure* market reform can be implemented in such a way as to maintain *de facto* control over the system. In such cases, the market reform process clearly proceeded in a manner that was unintended by its advocates. This underscores the point that an accurate approach to the analysis of agricultural market reform must be based on a careful study of whether and how the reforms were actually implemented.

4. EXPLAINING THE PHENOMENON OF PARTIAL REFORM IMPLEMENTATION

A broad assessment of the agricultural reform process in the region shows three aspects of non-reform. First, some aspects of the reform program were never implemented. Second, some policy reforms were implemented initially and later reversed. Third, some policy changes were implemented *de jure* but either were not enforced or were implemented in a way that maintains allocative control in the hands of state officials, resulting in greater ambiguity in the policy environment as mentioned earlier.

One of the key questions arising from a review of the partial and sporadic nature of agricultural market reform in the region is why governments have not more aggressively supported the agricultural market reform that they have adopted. This question necessarily takes us into the realm of speculation and interpretation of observed government behavior. This issue cannot be treated comprehensively here, and unique country-level conditions warrant caution against over-generalization. However, at a broad level, there appear to be three interrelated sources of the failure to generate local ownership of and commitment to the reform programs in the countries examined. The relative weights on these three explanations vary across the countries examined. These are (1) real concerns as to the effects of reform implementation on the welfare of key segments of the rural and urban population; (2) the failure to alter both policy makers' and the general public's perceptions of private sector behavior and to recognize the major public sector support required for markets to function effectively; and (3) the continued use of agricultural food and input policy for patronage purposes.

Genuine concerns over the effects of the reforms on constituents' welfare

The reforms process, even if implemented exactly as envisioned by its advocates, would have produced both winners and losers. Especially in countries where subsidies during the control

regime provided widespread benefits to millions of consumers and producers, politicians have expressed reluctance to accept the reforms because they signaled a retreat from the "social contract" commitments made earlier upon African governments' assumption to power after independence. Neither governments in the region nor donors have made sufficient effort to explain the rationale for the reforms to the public. And the rise of multi-party politics has put additional pressures on politicians to maintain policies with popular support, despite their potentially adverse long-run consequences. Within the fledgling pluralist societies that are emerging in some countries, opposition parties, intellectuals, trade unionists, and sometimes NGOs assail policy reforms that incumbent governments have ostensibly accepted. Local critics have sometimes sought to portray incumbent leaders as puppets of the international lending agencies, and this sometimes motivates leaders to take actions for political gain even if that creates non-performance problems with the donors.

Understanding the role of the public sector in the development of market-oriented food and input delivery systems

There has been a tendency for policy makers in the region to view the state and the private sector as substitutes. To some extent, the "state vs. markets" view was accentuated by the fact that few politicians in Southern Africa have ever experienced a market-oriented economy before, the history of controls dating back to the 1930s in Zimbabwe, South Africa, Kenya, and Zambia. Many government officials explicitly embraced Marxist principles after independence and received their educations in formerly communist countries. The experiences of colonialism in many cases reinforced the Marxist perspective. As stated by Jenkins (1997), "The Marxist doctrine that profits were the result of the exploitation of labour generated the perception that poverty was the result of exploitation of the poor by elites, and, more generally, of poorer nations by richer ones. This increased the appeal of 'African socialism'." For all these reasons, it may not be surprising that many African policymakers still do not fully accept the logic or assumptions of a market economy, despite being compelled to move in this direction under pressure from international lenders and donors. Furthermore, internal logic of the "state vs market" framework provided very little rationale for the state to spend public funds to support private entrepreneurs, who were seen as competitors. State support for the private sector was also impeded by the widespread suspicion of ethnic minorities that are heavily engaged in private food and input trading in the region. These views partly explain the vast under-provision of market-supporting public goods in the region.

Largely as a result of these perceptions, the private sector's response to the reform process has been hampered by what has variously been referred to as "vicious cycles" and "self-fulfilling prophesies" (Jayne et al 1999; Mwanaumo 1999). In such cases, politicians' skepticism over the ability of the private sector to respond has led to calls for the return to state intervention, which then scares off private investment, thereby making the rationale for government intervention more compelling. The private sector's response to liberalization is likely to be strengthened by more consistent statements by officials and by modifying relevant parliamentary acts, legal statutes, and other "institutional details" of developing markets so as to minimize the potential for policy reversals. Actions to provide greater policy stability may become increasingly necessary in countries such as Zimbabwe, Zambia, and Kenya, where the private sector has in a

number of cases been hurt by responding to positive policy incentives, only to see these policies reversed at a later stage.

However, although many African leaders and civil servants still interpret reality through a neo-colonial and quasi-Marxist perspective, and tend not to fully grasp the synergistic role between government activities and private entrepreneurs in making farmers better off, donors and international lenders do not need to accept these views as static and impervious to change. The views of African leaders and bureaucrats have consequences for the way in which the reforms should be constructed, presented and pursued.

So far, structural adjustment programs are designed around ideas that are poorly understood in the mainstream of both "developed" and "developing" countries. In general terms, structural adjustment and market liberalization appear to be popularly conceived as "letting markets work" and "getting governments out of controlling the economy." In the most general way, these ideas capture the basic essence of how the international lenders have approached structural adjustment in Africa, yet they are clearly simplifications of the actual design of most agricultural reform programs and do not reflect the details of what the international financial institutions have actually pursued, including the notion that specific government actions are critical for the success of a market-oriented economy.

Highly mathematical *ex ante* economic analyses in support of reform generally specify the expected results, but policy makers generally find these analyses obtuse and are usually asked to accept that x leads to y without understanding how, and to take the wisdom of the lending agency representative on faith. One approach to overcoming entrenched ideological convictions is to provide concrete and easily digestible information on how the reforms work so that the policy maker can begin to understand the mechanics of the process that lead to intended results, and the kinds of government behavior and investments that are necessary for these benefits to manifest (Clements 2001). The program has to be expected to build its own constituency. Conclusions that politicians were not adequately committed to the reforms is often indicative of inadequate design and/or resources for explaining and educating the public and the bureaucracy on how the reforms work. Importantly, and in hindsight, there was little effort to counteract government perceptions of being spectators to the process -- that the reforms required little on their part other than getting out of the way.

While inadequate knowledge has contributed to problems of ownership and weak reform implementation, this is not always the major constraint (see next section on patronage). In the end, the program cannot succeed if a sufficient mass of local bureaucrats do not understand and somewhat enthusiastically promote it, and hence the entire reform program strategy can be recast in terms of this objective. This will involve a shift in rhetoric (Clements 2001). Articulating the concept of liberalization in a way that more explicitly recognizes and sanctions an ongoing support role for government may help nurture (both in the public and within governments) a greater awareness that the model of liberalization posits no deterministic outcomes -- it has a chance to succeed only if governments undertake important activities to support the process. Greater efforts to engage the public and government in the logic and mechanics of liberalization is likely to be a necessary but insufficient condition to foster greater local ownership and commitment for agricultural reform in the future.

Clientelism and patronage

Because of the tendency for politically influential groups to succeed over time in altering the design of distribution systems to their interests, they have often been the most formidable critics of reform (Seidman 1974; Bates 1981). The ability to maintain patronage relationships is facilitated by continued government involvement in the allocation of commodities or inputs. This has often been accomplished while ostensibly adhering to the principle of market reform but taking the stance that the market is unable to perform certain social functions, therefore requiring some continued government intervention. In this context, reform programs have been implemented in such a way as to preserve patronage linkages not unlike those that existed before the reforms were implemented (Bratton and van de Walle 1997; Tripp 1997). These dynamics are clearly present in the government of Kenya's attempts to raise domestic maize prices far above levels observed elsewhere in eastern and southern Africa (Nyoro et al 1999) and the continued role of the Grain Marketing Board in Zimbabwe's food marketing system. Many state officials in the region have become large commercial farmers with a stake in forwarding the case for selective agricultural subsidies and continued state involvement in the distribution of inputs on credit, and price supports for farm commodities.

The two case studies presented earlier of fertilizer liberalization policy in Zambia and Ethiopia show how patronage activities could be continued through careful structuring of the rules within ostensibly "liberalized" markets. In Ethiopia's case, this was achieved through an opaque tender process that awarded monopoly distribution rights to selected firms. In Zambia's case, patronage activities have been preserved through the selection of recipients to receive fertilizer on credit, in an environment where, historically, credit repayment rates were very low and where there has been little effort to sanction defaulters. Cases such as these, where some aspects of liberalization have been implemented, but where key features of state allocation of resources remain intact, contribute to the analytical problems of assessing the effects of the reforms or even reaching consensus on whether they have occurred.

Economic policy analysis has largely ignored problems identified in the literature on patronage i.e., the political logic of a system in which the authority of the state is diverted to enhance private power rather than public interests. As argued by van de Walle (2000), a relatively autonomous state elite, long used to exploiting public resources, has generally found the reform process easy to manipulate to gain new avenues for patronage.

The world view of neo-colonialism provides a useful framework for African politicians seeking to blunt arguments for liberalization. According to this view, external forces still seek to control domestic African economies, and liberalization is the Trojan horse for implementing this objective. Leaders such as Moi of Kenya and Mugabe of Zimbabwe have argued that the aid-conditionality reforms were externally imposed and that the general slide in agricultural performance could be attributed to them. This has not only found some currency among domestic constituents but also among well-meaning but not always well-informed international groups in developed countries. Ironically, however, the core elements of the liberalized policy environment on which poor agricultural performance has been blamed remain to be genuinely implemented.

The most important critique of the patronage explanation is that it should not be overgeneralized. There are exceptions that can be cited where governments were able to override patronage concerns and implement at least portions of aid conditionality agreements. In some of these cases, policy reforms did actually lead to improved outcomes. Some of these examples have been cited earlier. But the accumulation of a large body of literature on clientelism and patronage relations in Africa would suggest that this is an important constraint on meaningful policy reform in the region. Policy analysts and those arguing for greater donor assistance resources will need to come to grips with this problem and confront it in numerous countries if policy reform is to achieve its intended outcomes.

5. CONCLUSIONS AND CHALLENGES FOR THE FUTURE

The foregoing highlights two key challenges for donors, governments, and researchers to work together in developing agricultural marketing systems that perform better and contribute to overall economic development. These are: (1) how to build sustained local political support for constructive agricultural market reform and development; (2) how to design markets so that they can truly contribute to small farmer productivity and income growth.

Key Challenge 1: How to build political support for constructive agricultural market reform

The future of the aid-conditionality model

Most of the food and input reform programs negotiated between donors and governments since 1980 have taken place within the context of aid conditionality. Under this framework, governments and lending agencies ideally are to work together to influence economic policy in a borrowing country through conditions attached to the lending agency's support. Conditionality has been defined more crassly as a means to buy reforms. Studies evaluating the effect of aid conditionality on African countries' policy environment mostly conclude that it has been largely ineffective (Collier 1997; Berg 1997; van de Walle 2000; Jones and Wickrema 1998). Burnside and Dollar's (1997) econometric analysis finds no effect of aid on policy reform. As stated by Collier, "despite a decade of conditionality – and an aid flow estimated at $64 billion under the Special Program of Assistance for Africa – African governments have largely failed to deliver even a minimally adequate economic environment" (pg. 58).

Why has aid conditionality generally not been effective in leveraging policy reform? First, governments have come to learn that conditionality has no teeth. In hindsight, it is clear that many governments agreed to the terms of aid-conditionality to gain access to the loan resources, and implicitly viewed the *quid pro quo* of agreed-upon policy reforms as something to be negotiated. African political leaders have clearly observed other governments enter into aid conditionality agreements with international lenders and donors, then later refuse to implement the reforms after the funds were disbursed, and still gain access to second- and third-round loans. After having received the loans, governments frequently cited a heightened realization of the need to protect vulnerable groups who would allegedly be hurt by the reforms, and the need for a gradualist approach to reform implementation. In many cases, this has paved the way for new

conditionality agreements, often involving the same policy changes that were part of the terms of earlier agreements.[14] It is not unreasonable to surmise that many African leaders have learned that the aid conditional agreements impose few hard constraints on their policy choices. But the continuation of external financing support in the absence of serious reform contributes to a shift in public expenditures from growth-generating public investments to consumption for favored clients.

Perhaps the greatest irony of the aid conditionality process in the eastern and southern Africa region over the past decade is the widespread perception that the World Bank and IMF have dictated the terms of agricultural policy reform, that weak governments have actually implemented them under duress, and that the lack of clear economic turnaround in the region casts doubt on the technical logic of the agricultural market liberalization model. Sahn (1999), Collier (1997), and Townsend (1999) argue that in the minority of African countries in which policy reform has largely been implemented and sustained, the growth response is quite encouraging. According to Collier, "the core failure of conditionality is not, therefore, that it has been pressing for the wrong policies, but that it has failed to achieve them" (1997, p 58).

Why have international lenders not taken a more aggressive stance toward ensuring compliance with aid conditionality? Berg (1997) and Collier (1997), both "insiders" of World Bank operations, argue that country staff have strong incentive to successfully conclude agreements, both for professional rewards and because of the perceived need for "defensive" lending to prevent already-fragile economies from deteriorating further. The recent experiences of Somalia and Sierra Leone raise the question as to whether the costs of recurrent infusions of financial assistance to support fragile states, even if they fail to improve their economic policy environment, may be acceptable in some cases to avoid the potential consequences of civil strife and anarchy.

One way to deal with non-compliance is to move to "short-leash" lending in which individual reforms are priced, and donors would pay on delivery. However, this approach still suffers from several drawbacks. First, it does not address the problem of government adopting the policy but later reversing it. Second, and most importantly, aid conditionality is fundamentally incompatible with genuine partnership and local ownership of policy reform (Collier 1997). It is now accepted that a reform program can be credible only to the extent that governments are truly committed to it and take ownership of the process. Evidence of this can be assessed by the degree to which governments try to explain the logic of the program to the public and generate broad-based political support for it. So far, such public campaigns in support of policy reform have been conspicuously absent in most countries in the region (van de Walle 2000).

Collier (1997) argues that donors and international lenders might play a more positive role in supporting agricultural policy reform by providing aid based on countries' actual policy environment. This approach is compatible with the findings of Burnside and Dollar (1997) that aid enhances growth in a favorable policy environment and retards growth in a weak policy

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[14]Collier refers to the example of the government of Kenya, which sold the same agricultural reform to the World Bank four times over a 15 year period, each time reversing it after receipt of aid (1997, p. 60).

environment. This approach also makes commitment to the reforms voluntary, which also transforms the international lenders' role from a "carrot and stick" enforcer to a selective supporter that makes no demands but provides positive support for adoption of pro-development policies. However, this approach does not entirely redress the key problem of current aid conditionality: What to do with countries that chose not to reform and which are large enough that their problems cause external effects well outside their borders? This puts donors in a dilemma: not directly helping to address their problems might not only contribute to the misery of millions of people but also spread instability to neighboring countries.

"Developed Country" Behavior in International Agreements

Many of the same patronage problems described above are present in developed countries as well. The Uruguay Round trade agreements included a 30 percent reduction in trade restrictions by the European Union and United States over five years. By 2000, less than 5 percent of this reduction has been implemented, creating a potentially distorting effect on world markets for key commodities that compete with African farmers (Chisvo 2000). Developed countries, most the EU and the US, spend US$251 billion per year subsidizing their agricultural trade, which one study asserts costs developing countries US$700 billion in lost trade per year (Chisvo 2000). Yet developing countries are expected to adhere to a robust cutting of subsidies and protectionist policies mainly through structural adjustment programs.

The irony of this situation has not gone unnoticed in Africa. As some international agencies push for policy reform in Africa while another (the World Trade Organization) fails to achieve much progress in selected high-income countries, local analysts and politicians openly wonder whether this is part of a concerted effort of the capitalist order to gain further advantage in international markets (see, for example, the first citation on pg 1). These concerns give greater credence to neo-colonialist arguments that have stiffened the public's opposition to market reform in many African countries.

We have already stressed the growing recognition that local ownership in the policy reform process is critical to its overall success. Ownership is likely to be influenced by perceptions that the reform "bar" is being set uniformly throughout the world. The past 20 years have seen dramatic enhancements in Africans' access to world news. Arguments that wealthy countries can afford to pay the costs of their inefficient agricultural programs while poor countries cannot contributes to a sense that the international system is not fair and undermines the integrity of international economic fora in general. The degree of public support in Africa for policy reform in particular, and good governance in general, is likely to be influenced by the extent to which agricultural reform is approached in good faith by all in the international community.[15]

Key Challenge 2: How to move beyond liberalization to the issue of how to design input and output markets to catalyze smallholder productivity and income growth.

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[15]The recent European Union decision to eliminate import duties on exports from selected developing countries is a useful step in this direction.

So far, agricultural marketing reforms have replaced often unreliable, high-cost, and centralized forms of state marketing with more open markets that may be competitive but are lacking in information, infrastructure, and the ability to induce investments in a range of specialized activities and coordinate them together within a functioning holistic system. Financial market failures and past problems with strategic loan default restrict farmers' access to credit and constrain the demand for productivity-enhancing inputs, which depress private sector investment in input supply and contribute to low productivity agriculture. Bottlenecks at one stage of the supply chain depress the incentives for investment and growth at other stages.

Market liberalization is not an end in itself. Schultz's "efficient but poor" observation of low-resource farmers also describes the functioning of firms, markets, and entire economies in many developing areas (Shaffer 1985). Markets can be efficient in that margins and price spreads may approximate the costs of trading, but these costs may be too high and unstable to encourage rapid private investment in the marketing system to promote on-farm productivity growth. The primary emphasis of market liberalization must therefore be seen as reducing the financial and transaction costs and risks of trading.

The institutional challenges in alleviating poverty over the long run can be seen by contrasting marketing systems in high-income countries like the U.S. with those in sub-Saharan Africa. In most high-income countries, the risks and transaction costs of commercialized agriculture have been reduced through low-cost market information accessible on a daily basis, linked to national and global information systems utilizing modern communication technology; large volumes handled by marketing and processing firms, which allows them to spread their fixed costs and hence reduce the risks of sunk-cost investments; globalized trading networks to reduce covariant supply risks and reduce search costs; well-specified grades and standards to allow for remote contracting by commodity specification rather than by visual inspection; sophisticated contracting arrangements designed to address future contingent outcomes, thereby reducing the risks of making costly specialized investments; futures and options markets to shift and absorb market risks associated with production and investment; commodity exchanges to enable participants to lock-in quantities for sale or purchase to facilitate advance planning in production decisions; specialized insurance to reduce many types of risks; well-established legal systems to accommodate more sophisticated contracting arrangements and contract disputes; the establishment of collateral to encourage the development of credit systems; and competitive financial systems serving rural areas to reduce credit-related constraints on crop input use.

By contrast, agricultural marketing systems in most of Africa are generally characterized by high transaction costs, such as private haggling in spot markets over small volumes. Use of personalized, kin-based trading networks are still prevalent; these networks have evolved to minimize risks and transaction costs of exchange but limit the scope of trading activity. Poor transport and communications restrict the scope of the market and increase the risk of commercialized production. The supply of commercial agricultural credit is extremely scarce due to the weaknesses of systems for legal recourse and contract enforcement. Property rights established by government and local traditional hierarchies are often in conflict, with uncertain procedures for resolving disputes. Gray areas in the structure of property rights leave room for economic outcomes to be determined by power relations or remain unresolved. Liberalization and a combination of donor and private sector interest has produced some progress in producing

market institutions for disseminating information and reducing risks to farmers and firms. But progress has been slow, and there are still major challenges in developing commodity exchanges that truly benefit smallholder farmers in the region.[16] Limited product grades and standards contribute to higher transaction costs of market exchange by requiring traders to visually inspect the product rather than contracting remotely by product specification. Poor transport infrastructure creates high marketing costs. A considerable part of the food price instability problem in Africa is related to the high cost of transportation, which makes import parity prices two to four times higher than export parity prices in much of the region (Koester 1986). For example, road transport of white maize from northern South Africa to the Copperbelt of Zambia costs roughly $90, roughly the amount that South African farmers are paid to grow it (Scott 1995). Rail rates are $90 per ton but take two months and frequently incur huge losses en route. And finally, there are continued policy barriers to private investment in the markets for food and inputs, specific examples of which are identified in Section 2.

Market reform itself is a long-term, continuous process of institutional innovation. The tendency to view market reform as a short-run process of handing state activities over to the private sector under-emphasizes the collaborative supportive role of government in a market-oriented economy. The evolution of more productive economies over the past two-hundred years has featured the evolution from spot markets to more complex marketing and contracting arrangements that deal with contingent future outcomes. These complex marketing arrangements have successfully reduced risks and transaction costs of investment in more technically efficient production processes and have hence proven valuable because they have encouraged productivity growth at other stages of the system (North 1994). But these innovations cannot occur without commensurate advances in the state's legal system. A complex contracting mechanism between farmer groups, an out-grower company and an international marketing firm may involve high costs in terms of negotiation, legal services, monitoring, and related public resources to resolve contract disputes if necessary, but such mechanisms may provide the stability of returns to justify major investments in new technology that lead to productivity gains at other stages of the food system. In this regard, market reform policy should be regarded as a continuous process of searching for alterative institutional arrangements, adapted to local conditions, capable of promoting new investment and productivity growth throughout the food system.

6. CONCLUDING COMMENTS

Substantial controversy remains over the effects of agricultural market reform in Africa. We have argued that a primary cause of this confusion stems from differing perceptions as to whether the reforms were actually implemented. Our review of food and input market liberalization in eastern and southern Africa shows a decidedly partial record of reform. Some of the most fundamental aspects of market liberalization remain unimplemented; others were

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[16] Agricultural commodity exchanges now exist in South Africa, Zimbabwe, Zambia, and Kenya. Yet these exchanges are utilized primarily by large-scale commercial farmers and industrial buyers, and there are high costs of participation that have restricted their use by smaller traders serving smallholder farmers.

reversed after a short period. But perhaps the most common path of reform implementation has been the adoption of some key reforms that make private trade legal, mixed with continued or new government activities that erode its profitability. Governments have typically defended this approach by arguing that markets are unable to perform certain social functions, and that direct government programs are still necessary. This perspective, while theoretically compelling, has in practice left the door open for large-scale state programs channeling key resources to selected beneficiaries -- most often not the poor (Sahn 1999; Badiane and Kherallah 1999). This approach has generally prevailed over strategies based on public investments to overcome market failure problems but which do not enable public officials to directly choose how commodities are distributed. In this context, reform programs have been implemented in such a way as to preserve patronage linkages not unlike those that existed before the reforms were implemented. These activities have clearly affected the risks and incentives for private sector investment in agricultural markets. Cases such as these, where some aspects of liberalization have been implemented, but where key features of state allocation of resources remain intact, contribute to the analytical problems of assessing the effects of the reforms or even reaching consensus on whether they have occurred.

Most survey evidence of private traders and potential investors to Africa during the 1990s has shown that a major impediment to investment is fear of policy reversal (Govereh et al 2001; Wanzala et al 2001; Gebremeskel et al 1998; Kherallah, Minot, and Berry 2000; Collier 1997). Such findings indicate that, in the minds of the people who were supposed to be the cornerstone of the liberalized marketing systems, a real change in the policy environment has occurred in only a minority of countries. In cases where private sector response has been weak, does this signify that liberalization has amounted to a false promise or that the premise that it was implemented is largely false?

Agricultural market reform in Africa over the past twenty years has been undertaken in the context of aid conditionality. Perhaps the greatest irony of the aid conditionality process in the region is the widespread perception that the World Bank and IMF have dictated the terms of agricultural policy reform, that weak governments have been forced to implement them, and that the lack of clear economic turnaround in the region casts doubt on the technical logic of the agricultural market liberalization model. The weight of the empirical evidence indicates that in the minority of African countries in which agricultural policy reform has largely been implemented and sustained, the growth response is quite encouraging. This suggests that the core failure of conditionality is not, therefore, that it has been based on misguided policies, but that it has failed to achieve them. However, it is generally agreed that the agricultural sector's response to the reforms would have been -- and will be in the future -- considerably stronger if accompanied by greater attention to the public good investments and institutional aspects of market development.[17]

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[17] It has sometimes been argued that structural adjustment has decimated public budgets and forced cutbacks in market-supportive public investments. The evidence is far from compelling. van de Walle (2000) cites a study by Jawarajah and Branson showing that state revenues declined from 18.7 to 17.7 percent of GDP during the course of World Bank adjustment programs in their sample of African countries. World Bank data indicate that across Africa (excluding South Africa and Nigeria), government

Agricultural policy debate in Africa is still often framed in broad terms of market liberalization versus government participation in the economy. While the experiments with government setting prices or acting as the coordinating organization of the economy have not been successful in promoting a transformation out of poverty agriculture, neither has the absence of government participation in the promotion of development. The most salient policy questions pertain to how to support governments in making the complementary investments that are critical to stimulate a growth response from the agricultural sector, but which are under-provisioned both by governments and by private enterprise. The devil is clearly in the details. The role of the analyst is to identify the rules and public inputs which will promote rural transformation and are within the political and resource means of governments. The needs and resources change with the process of the transformation. Policy analysis is part of the process, but only if it accurately identifies the policy environment that it evaluates.

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