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**MARKETS, MARKETING BOARDS AND COOPERATIVES:
ISSUES IN ADJUSTMENT POLICY**

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This paper has been prepared as part of the study being
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Markets, Marketing Boards and Cooperatives:

Issues in Adjustment Policy

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INTRODUCTION

The structural adjustment efforts underway since the early 1980s in the MADIA countries have emphasized the liberalization of agricultural marketing and have led to a vigorous debate about the appropriate roles of the private and public sectors in pricing and marketing of agricultural commodities. Among the issues raised in this debate are the nature and causes of observed weaknesses in public- and private-sector marketing activities, whether and at what level to tax export-crop production, and whether producer and consumer prices can and should be stabilized. Even more central to this debate is the need to articulate the circumstances in which public-sector intervention in marketing activities is appropriate in a broader developmental context. On the one hand, advocates of increased liberalization argue that the failure of so many public marketing institutions to perform satisfactorily is evidence of the need to privatize a wide range of marketing activities and to press the public parastatals that may remain to perform solely as commercial entities. On the other hand, others cite the limits of the private sector in terms of its ability to perform certain developmental functions which must therefore be undertaken by the public sector. The need for these development functions stems from the nature of risks in agriculture in general, and in African agriculture in particular, as well as the weaknesses of the private sector. The latter, in turn, have been reinforced by the pervasive presence of the public sector. There are also certain activities which are inherently loss-making, and there is a question as to whether and how much of these the government can afford to provide.

The role of cooperatives is frequently raised in the context of examining appropriate marketing institutions and arrangements. In the 1960s, cooperatives were promoted by many newly independent governments and donors as a potential source of decentralized grass-roots participation in agricultural credit, input and commodity markets. As cooperatives began to gain political and economic power, however, governments often perceived them as a threat to the central political control. Consequently, government often sought to increase its control of cooperatives and, in so doing, undermined their effectiveness, major portions of Kenyan agriculture being the only exception to this general rule. By the 1970s, most cooperatives had become state-dominated entities that did not represent the interests of their membership, especially the small-scale farmers. Despite this history, in the adjustment dialogue cooperatives have come to be regarded as a compromise solution to disagreements between donors and governments over the role of the public and private sectors. However, governments and donors also disagree on the appropriate nature and role of cooperatives in agricultural marketing. On the one hand, governments, under pressure to abandon the single channel public marketing network and fearful of losing control of functions that are politically and economically important, see cooperatives as a more acceptable alternative than privatization. On the other hand, donor agencies, seeking increased private-sector marketing but facing government resistance to privatization, envision cooperatives as a reasonable private sector alternative to parastatals. Perhaps the most interesting aspect of these different views is that neither one seems to take account of the experience from earlier efforts to promote cooperatives--i.e., the importance of grass-roots support and the problems caused by the desire of governments to control cooperatives.

Finally, in the context of this debate, it is important to note the distinction between the issues related to pricing and those related to marketing institutions. Analysis often focuses on either pricing or marketing without an explicit recognition that any given pricing policy has implications for the choice of marketing institutions and vice versa. Similarly, using the market for political decentralization has implications for the distribution of political power.

This paper focuses on the appropriate roles for the public, private, and cooperative sectors and, to a lesser extent, issues of pricing of traditional export and food crops, in the context of the experience of the MADIA countries--Cameroon, Kenya, Malawi, Nigeria, Senegal, and Tanzania.¹ These traditional export and food crops constitute well over 90 percent of the area harvested, value added and employment created in agriculture in these countries. The paper is not concerned with the pricing and marketing of horticultural crops--an area in which government intervention has been minimal--or with livestock. It is generally recognized that, due to its flexibility, the private sector has played an extremely important role in developing horticulture, dairy, and livestock trade in such countries as Kenya.

In order to understand the historical growth and development of state intervention in agricultural marketing, the paper begins with a brief examination of agricultural marketing at independence. In the next two sections, some of the salient experiences of the MADIA countries with marketing parastatals and cooperatives are analyzed. This is followed by an overview of the content and experience with marketing liberalization programs

¹ Another MADIA paper has examined input pricing in great detail, specifically fertilizer pricing policy; see Lele, Christiansen, and Kadiresan 1989.

in the MADIA countries. Finally, conclusions and policy implications are discussed.

The thesis that emerges from the analysis is that the production and processing requirements of the various crops have influenced their marketing organizations. Nevertheless, the intentions behind public-sector intervention in agricultural marketing in both the colonial and the post-colonial eras have also been political in nature. The coverage of crops handled by marketing institutions has differed in East and West Africa, but in both cases marketing boards have been one of the most important means for distributing scarce resources and services--agricultural credit, fertilizers, consumer goods, support prices for output, food aid, food supplies, and employment opportunities.

In view of the fundamental importance of patronage politics in marketing parastatals, private-sector involvement in marketing cannot be promoted without adequately exploring the issue of decentralized development and the extent to which and the conditions under which the private sector alone will ensure the broad-based development of agriculture so crucial for a viable and self-sustaining economic development. This means defining the appropriate role of the public sector, i.e., the circumstances under which public support and regulation is required to ensure a competitive environment, and the circumstances that require intervention in order to provide services that the private sector is either unwilling or unable to provide. The oft-cited distinction between public and private goods also proves difficult to apply at early stages of development in the absence of financial markets, or markets to insure against risk. The experiences of the MADIA countries are discussed to explore the policy implications that emerge.

THE GENESIS OF INTERVENTION: AGRICULTURAL MARKETING AT INDEPENDENCE

Many of the restrictive practices that characterize agricultural marketing in the MADIA countries have their genesis in the structure of the agricultural sector during the colonial era. The evolution of these practices reflected a prejudice against the trading function in general and was influenced by economic relationships between classes and the public sector's need for revenues, neither of which was unique to Africa. Bauer observes that a desire to impose order on what was perceived as a chaotic system of private trade was an important justification for public intervention in export marketing in Nigeria and Ghana, (Bauer 1967, p.214). Referring to the Nowell Commission's investigation of agricultural marketing in West Africa, he notes that:

The Commission criticized the seemingly chaotic and unorganized system of marketing; and the collective marketing agencies which it proposed had the appearance of simplicity, efficiency and neatness. Moreover, the establishment of such agencies would result in the creation of large-scale organizations and of important official positions. (Bauer 1967, p.265)

In part, this preference for "organized" marketing stems from a misunderstanding of the operation of markets. Again, Bauer refers to the observations of many colonial administrators in Nigeria and Ghana:

The number and variety of intermediaries have been much criticized by official and unofficial observers. They are condemned as wasteful and are said to be responsible for wide distributive margins both in the sale of merchandise and the purchase of produce. (Bauer 1967, p.22)²

Although an explanation based on the desire to achieve order and efficiency has appeal at one level, it is also clear that marketing restrictions were used extensively during the colonial period to create

² The same phenomenon operated in India during the colonial and post-colonial period, (see Lele 1971).

economic rents through trade. In West Africa, the diversity and small-scale nature of food-crop trade, combined with the large number of producers, made it difficult to control or regulate. Consequently, marketing boards were confined to export crops--an area that European trading companies dominated, (Harriss 1981). Thus, in West Africa, agricultural parastatals were created to gain control of the acquisition and distribution of agricultural (primarily export) products--some argue at the expense of the producers, (Keene, Monk and Associates, Inc. 1984, p.i). However, Harriss, in her review of West African trade, observes that investments in marketing and transport infrastructure prior to the Second World War actually encouraged domestic agricultural production even though they were undertaken primarily in the interest of European trading companies. The establishment of some of the West African marketing boards was also motivated by declining world market prices for export crops and the growing distrust of private trading companies by African producers. The internally inconsistent objectives emanating from the desire of the British government to maintain both popular support and wartime revenues thus played a part, (Harriss 1981, pp.23-24).

In East Africa as well, the structure of European economic interests determined the nature of government intervention in marketing. Colonial agriculture was divided into estate and smallholder sub-sectors. The fact that each sector often grew different crops facilitated the ability of the marketing boards to restrict production of export crops. The restrictions imposed on production of export crops by smallholders, who were relatively more efficient (Lele and Agarwal 1989), enabled European farmers to maintain a monopoly on production of such crops as tea and coffee in Kenya. Marketing boards in Kenya emerged only in the areas where European production was dominant. Bates (1989) argues that, although the efforts of European farmers

to gain an economic advantage over African farmers in Kenya took several forms, one of the most durable was the operation of agricultural boards or parastatals, e.g., the Land and Agriculture Bank, the Wheat Board, the Maize Board, the Coffee Board, and the Kenya Cooperative Creameries, each of which were formed at the initiative of large-scale farmers and designed to enhance the profitability of production. Bates cites the Maize Board as representative of this phenomenon.

The basic instrument of their efforts was the Kenya Farmers' Association (KFA), an organization first formed in the 1912/13 crop year to dispose of the maize crop. The main obstacle to securing a high price for the maize crop was competition. Particularly troublesome were the small-scale African producers. ... Without the regulatory power of the state, there was little the KFA could do to compel cooperation by its members, much less to restrict sales by nonmembers, and thereby secure higher prices. (Bates 1989, pp. 16-17)

In order to ensure food supplies during the Second World War, the Kenyan government sought to guarantee the profitability of food production by empowering the KFA to act as an agent on the government's behalf, with power to regulate the movement of produce and product prices. As a government agent, the KFA took charge of maize production, storage, and transport on behalf of the government's maize board. The association formed by the large-scale farmers was thus legally accorded monopsony powers and mandated to secure prices high enough to guarantee a good profit to its members. In the case of Kenya, therefore, it can be observed that with some irony that "the dominance of the colonial state meant that, when independence came, the government of Kenya was endowed with public institutions for the promotion and regulation of agriculture that were unusually rich and sophisticated," (Bates 1989, p. 22).

Certainly this long history of state intervention (Harriss 1981, p.15), the potential of public-sector marketing to foster commercial agricultural production, the ability to mobilize resources to maintain operations of the

colonial governments, and the desire to maintain control over the marketing of politically strategic commodities such as maize, combined with doubts about the efficacy of the private sector in conducting trade, contributed to the post-independence prejudice against private trade and in favor of public control and regulation. This predilection for state-dominated marketing structures manifested itself in each of the MADIA countries.

Although the growth of public-sector marketing in the 1970s had obvious appeal for governments in extending their control as well as benefits to larger segments of the economy and society, it could not have been accomplished on such a scale without significant, if unarticulated, donor support. Between 1970 and 1984 the value of external assistance constituted between 35 percent and 65 percent of government expenditures in MADIA countries, (Lele and Jain 1989). In general, Tanzania and Senegal, the countries that received the most foreign assistance, were also those with the greatest growth of parastatals. In Tanzania, for example, there were nearly 400 parastatals by the end of the 1970s, and prices of nearly 1,000 commodities were controlled. A recent World Bank report (World Bank 1988 "Agricultural Marketing: The World Bank's Experience") documents that sub-Saharan Africa received more World Bank support for parastatals than either Asia or Latin America, some 48 food-crop projects, 45 export-crop projects, and 17 livestock projects in Africa had some marketing components during 1974-1985, (World Bank 1988, p. 11).

The criticism that donors have levied against these same parastatals during the course of liberalization in the 1980s has shown little awareness of the vested interests they helped to create, or consideration of whether the important developmental functions that parastatals helped to promote were in

fact achieved.³ With respect to the World Bank's lending to agricultural marketing projects, the above mentioned review observes:

Though there has never been an explicit Bank policy either in favor of or against parastatal organizations, it is evident that a marked change has occurred in the way these organizations are regarded. In the late 1960s and 1970s parastatals, many of them inherited from the colonial powers, were accepted fairly uncritically. Where deficiencies of hardware or management were identified, appraisal missions typically concluded that these could be remedied by project investments or by the introduction of technical assistance personnel at strategic points, (World Bank 1988, p. iii).

In many ways, donors tended to accept the parastatal structures for the same reasons that they appealed to governments--they were easier to work with than the private sector because they were controllable and limited in number.

Again, the Bank's review offers a valuable insight:

Parastatal projects were easy to design and appraise. They often had a legal monopoly of trade, so that assistance was clearly being provided to the only organization available - and one that was approved and supported by government. Centralized decision making meant that the principles governing the project could be sorted out fairly easily with the responsible manager, and ties to a parent ministry meant that the government's endorsement of the appraisal design could be readily obtained, (World Bank 1988, p.iii).

In addition to being easy to deal with compared to the private sector, parastatals seemed able to complete tasks that the indigenous private sector could not, given the stage of Africa's development. This perception, combined with African governments' clear unwillingness to let alien communities (i.e., Indians in East Africa and Lebanese in Senegal) achieve a prominent position in politically sensitive or economically powerful arenas, worked in favor of parastatals. The other side of the coin on the promotion of parastatal

³ Reaction to the inefficiencies of marketing parastatals, and especially admission of the role that donors themselves played in the excessive growth of the public sector was slow to come (see, for instance, the World Bank's Tanzania Agricultural Sector Report). Once accepted, however, the wholesale acceptance of privatization has frequently been associated with an inadequate definition of larger and longer-term development objectives.

operations was that the steps needed to develop the legal and institutional framework essential for the development of competitive markets were rarely taken, (Lele 1989b). These take time to develop and require relatively little financing on the part of donors, but they do require a substantial objective knowledge of the political, cultural, technological, and economic circumstances. Unfortunately, such knowledge is frequently inadequate among donor staff, who by-and-large come from experience in the public sector.

In the context of the current discussion of privatization, it is important to bear in mind the distinctions between different types of private sectors. These are rarely articulated explicitly, and their implications for privatization policy are rarely considered. For example, the promotion of non-indigenous traders such as the Indian and Lebanese and enterprising local ethnic groups (e.g., the Kikuyu, the Chaga, the Ibo or the Bamileke) may well be unacceptable on political grounds. The political need felt by governments to develop entrepreneurial talent among ethnic groups that have had less exposure to the commercial economy must also be recognized. Furthermore, it is important to distinguish among various elements of the private sector, which range from the professional large-scale traders to the formal external multinational sector to the market women. All privatization programs need to identify precisely who the actors and beneficiaries are and what the distributive implications vis-a-vis the activities of the public sector will be.

Finally, it must be acknowledged that, among the MADIA countries, taxation of agriculture was explicitly encouraged by donors and external policy advisors in the late 1960s and the early 1970s in recognition of the need to mobilize public-sector resources to modernize and industrialize economies. Given the perceived inelastic demand for primary commodity

exports, taxing agriculture to modernize and diversify economies seemed to be a logical approach, (Lele and Jain 1989). Export pessimism even led donors and governments to shift investment resources and policy attention away from export crops toward food production and industrialization in a period when foreign aid was rising. Moreover, the 1973-74 food crisis focused attention on impending food shortages. Only in Kenya and in estate agriculture in Malawi did this export pessimism not lead to explicit or implicit taxation of agriculture; indeed, Kenya experienced sustained growth in smallholder agricultural production of a variety of food and export crops, (Lele 1989a). Malawi, Cameroon and Senegal taxed smallholders explicitly through low producer prices for tobacco, coffee and groundnuts, while Nigeria and Tanzania did so implicitly through overvaluation of currency, (see Table 1). By the late 1970s, Nigeria and Tanzania had begun to provide budgetary subsidies to export crop parastatals as a means of compensating for the export taxes obtained through currency overvaluation, but these remedies did not fully redress the deleterious effect of currency overvaluation. When public sector expenditures on food-crop operations are considered together with taxation of export agriculture, however, one has to conclude that in most MADIA countries there was no net taxation of agriculture.

Whereas governments taxed exports, they tended to subsidize food crops through price-stabilization operations. In East Africa, the losses or overdue payments of the grain-marketing operations amounted to 5 billion shillings in Kenya and 2.8 billion shillings in Tanzania. These costs of maize operations were substantially larger than the revenues government extracted from export agriculture in either of these countries, (Lele 1989a, p. 138). Similarly in Malawi, while the government taxed smallholder tobacco, it subsidized maize. In West Africa, too, governments have subsidized food production through

Table 1: Ratio of Producer to International Prices
Calculated at Nominal Exchange Rates, 1970-1986

Year	Kenya		Malawi			Tanzania		
	Smallholder Coffee	Tea	Smallholder Dark- Fired	-----Estate----- Burley	Flue-Cured	-----Smallholder----- Tobacco	Cotton	Coffee
1970	0.91	0.60	0.22	0.4	0.57	0.43	0.72	
1971	0.90	0.67	0.25	0.39	0.68	0.50	0.61	
1972	0.98	0.63	0.23	0.40	0.63	0.46	0.57	0.57
1973	0.96	0.60	0.22	0.54	0.86	0.44	0.35	0.43
1974	0.97	0.55	0.23	0.62	0.84	0.42	0.32	0.43
1975	1.01	0.63	0.22	0.47	0.66	0.47	0.51	0.36
1976	0.85	0.57	0.21	0.48	0.70	0.40	0.41	0.30
1977	0.92	0.70	0.26	0.60	0.76	0.42	0.45	0.35
1978	0.94	0.64	0.26	0.50	0.74	0.47	0.55	0.39
1979	0.93	0.66	0.24	0.45	0.65	0.37	0.51	0.29
1980	0.98	0.76	0.23	0.46	0.40	0.35	0.52	0.41
1981	0.84	0.62	0.19	0.73	0.56	0.33	0.61	0.53
1982	0.83	0.56	0.24	0.51	0.50	0.30	0.73	0.52
1983	0.90	0.98	0.23	0.27	0.39	0.38	0.67	0.47
1984	0.80	0.66	0.25	0.30	0.38	0.27	0.65	0.47
1985	0.88	0.76	0.21	0.26	0.34	0.36	1.07	0.53
1986	0.79	0.69	0.22	0.43	0.45	0.32	1.11	0.33

Sources:

International prices from World Bank BESD, Commodity Statistics, for Coffee: "Other Mild Arabica"; Tea: "Average Auction (London)"; Tobacco: "United States All Markets"; Cotton: "Egypt (Liverpool)"; Groundnuts: "Nigerian (London)." Nominal exchange rates from IMF (1987). Producer prices for Kenya: Ministry of Agriculture (1987); Malawi: tobacco prices from Government of Malawi (1988), cotton (grade A) from World Bank (1986a), groundnuts (1970-1977) from World Bank (1981) and (1978-1986) from Government of Malawi (1988); Tanzania: World Bank (1986b).

fertilizer subsidies and food consumption through cheap imports, the allocation of import licenses for which was a major source of economic rent. Fertilizer subsidies provided through the public sector in Nigeria reached 1 billion naira in 1987. Finally, public-sector investments were also made in large-scale irrigation for food crops through River Development Basin Authorities in Nigeria and through various parastatals in Senegal (SAED) and Cameroon (SEMRY), each of which had a public-sector marketing component and whose operations were subsidized by governments. Even while criticizing its

economic viability, donors supported rice production generously in response to their own technocrats, who designed these costly schemes, and to the government officials who were interested in establishing them. The high projected prices of rice in the 1970s partially justified these investments, but prices since then have fallen.

THE ECONOMICS OF MARKET INTERVENTION

The previous section reviewed the genesis of public-sector intervention in agricultural marketing and some of the political motivation for intervention. In this section, the economic rationale for intervention will be reviewed.

Risk in Agriculture

Agricultural economists involved in formulating U.S. price policy for the modernization of agriculture in the 1940s justified intervention in prices on the ground that risks in agriculture are greater than in other sectors.⁴ Much like their European counterparts working in colonial Africa, they considered the assurance of a guaranteed market essential if farmers were to invest in modern purchased inputs. Similarly, a recent IFC report (IFC 1989), examining the reasons for the weak performance of IFC agricultural production ventures observes that there is a "...need for IFC to recognize that uncertainty is much more important in agriculture than in industry. Production and prices vary over a much wider range, and often both move in the same direction," (IFC 1989, p.vi).

⁴ See Schultz 1945; and Johnson 1947.

Production Risks confronted in rainfed agriculture can be divided into those associated with variability in yields and prices, and the resulting production instability. Since market prices and yields tend to move inversely, they should lead to stable incomes. However, both agricultural supply and demand tend to be highly inelastic in the short run, and futures markets do not exist. Thus, in the absence of some price support, a production surplus due to excellent weather can result in a disproportionate drop in market prices, especially in situations of poor infrastructure such as feeder roads, trunk roads, and railways and inadequate access to information, credit, transportation and storage facilities. Conversely, a sharp drop in production can result in disproportionately greater market price increases unless stocks can be released to bring prices down. With the exception of Kenya, production risks have not provided an adequate rationale for market intervention in Africa because, as we have pointed out elsewhere, there is very little use of modern inputs and technical packages are as yet limited. Nevertheless, without some minimum support for prices as one element of a modernization strategy, it is unlikely that modernization of agriculture will occur.

Stocking One important research question is the extent to which the private sector can and will undertake year-to-year stocking, which would reduce the need for public-sector storage, (Lele and Candler 1989). There is virtually no literature on Africa that addresses the issue of between-year storage by rural households, wholesalers, retailers or rural communities. Pinckney's work on Kenya suggests that such storage might be significant. However, other evidence suggests that private year-to-year storage may be limited (even where price interventions do not discourage such activity) because of the high costs of storage (up to 20 to 25 percent of the value of

output), the risk that price increases the following year will not cover storage costs (especially given the opportunity cost of relatively scarce working capital), and the time required to meet day-to-day survival needs. Reflecting the poor sequencing and phasing of market reforms, there has been relatively little donor support for the improvement of storage by household and the trading sector before market liberalization was undertaken. In any case, however, private traders are unlikely to undertake storage on a scale necessary to alleviate the effects of major droughts; trade is considered to be relatively cheaper than retaining high levels of stocks which may not be easy to dispose of without incurring losses. Thus, even though it is a loss-making proposition in the best of circumstances, some year-to-year price and supply stabilization will, in all likelihood, be necessary for governments. For donors, then, it is the pace and pattern of privatization and its role at early stages of economic development, rather than its principle, that needs to be considered.

Food Security It is also frequently implied that governments have tended to be unwilling to indulge in external trade. However, the MADIA paper on food security shows that dependence on food imports has increased. Indeed, African countries are importing as high or higher share of their food import needs than did many Asian countries in the crisis conditions of the 1960s, even though the capacity of African countries to finance food imports has declined. Further, food imports are often unreliable. Thus, increased internal production of food and/or easier financing of food imports (through more liberal access to a concessional IMF cereal facility, or perhaps increased donor assistance of food aid to finance stocks) may help promote liberalization of markets by increasing the security governments enjoy.

Weather Rainfed agriculture, as practiced in Africa, tends to be far riskier than irrigated agriculture in many other developing countries. The risk is often compounded in Africa due to the low and extremely variable rainfall relative to that in North America or Europe. Further, information regarding the likely failure of rains is poorer in Africa than elsewhere (Lele 1985); the development of early warning systems would be helpful in decreasing some of these risks.

The risks associated with the variability of weather conditions in Africa are frequently correlated with policy-induced risks. For example, in much of East and Southern Africa, where de facto or de jure parastatal monopolies have prevailed, domestic food crop failure has led governments to increase commercial or aid-subsidized food imports.⁵ The costs of public distribution of food, including transporting grain to distant consuming centers, have been borne by parastatals. Often governments have not reimbursed parastatals for these costs, although they have earned revenues on food aid received. On the other hand, in years of internal supply abundance, marketing parastatals are faced with either defending a market price, which often leads to substantial losses from year-to-year storage, or passing on these risks to producers by not purchasing the entire amount offered to them or the market.

Trade To the extent that governments have tried to carry out procurement operation at fixed prices by imposing restrictions on inter-

⁵ The availability of imported food, and therefore reliability of supplies of food for farmers dependent on the market, can be jeopardized by shortages of foreign exchange and the vagaries of donor food supplies, (Lele 1985, p.200). Shortages of foreign exchange are common, given the volatility of primary commodity markets on which most African countries rely for much of their foreign exchange earnings and employment. For a detailed discussion of the degree of dependence on agriculture as a source of foreign exchange and employment see Lele (1985).

district movements of grain, internal markets have been less integrated than they would otherwise be. In practice, however, there is more "leakage of grain" across borders. The real cost is that of clandestine marketing. On the other hand, integrated markets do not necessarily ensure price stability in the face of unstable supply and inelastic demand. Whereas markets do tend to become more integrated when movement restrictions are removed, they do not necessarily ensure the ability of governments to command grain at reasonable prices, especially in poor crop years. Recognition of this factor led both colonial and independent governments not only to indulge in grain trade to curry popular support but also to impose movement restrictions to ensure that supplies are commanded. In this context, it is important to note that the government of India liberalized grain trade after the Green Revolution, when it was more certain of realizing annual surpluses, not before.

Instability in Export Agriculture

Whereas instability in food-crop prices by and large reflects changes in domestic supply (although in countries such as Nigeria erratic imports of rice have also caused considerable price fluctuations), that of export-crop prices is externally induced. Elsewhere the MADIA study has demonstrated the considerable instability of international market prices for primary commodities over time (Lele 1985), as well as the need to make a distinction between export crops of high value (i.e., tea, coffee and cocoa), where domestic production at undistorted exchange rates and internal prices may be profitable even at the lowest level of international prices, and export crops of comparatively lower value (i.e., cotton, groundnuts, and tobacco), where price competition from domestic food crops may be severe especially in

circumstances of growing internal demand for food. In the last case, instability in the production of food crops and in food prices may cause a substantial and proportionately greater instability in production through an acreage response, since the area under annual export crops tends to be smaller. The MADIA study has also stressed the need to distinguish between annual and perennial crops and crops which require further processing. The latter must provide a stable supply of raw materials to any industries that have been established domestically in order to preclude losses by the processors.

Because the structure of marketing requires some vertical integration and offers fewer opportunities to producers for alternative selling arrangements, owners of processing operations may have more control over producer prices for export crops than those for domestic consumption. They can thus determine effectively how much of the international price fluctuations should be passed on to producers.⁶ In the recent past, there has been a tendency to confuse the high level of taxation of agriculture with that of price stabilization, albeit at close-to-border prices. At times, governments have tended to cross-subsidize food-crop operations by taxing export crops, e.g., smallholder tobacco production in Malawi, without adequately addressing the objectives of regional, rural/urban and inter-class

⁶ An additional producer-oriented argument for price stabilization has been made in the context of correcting the domestic terms of trade for agriculture in order to encourage long-term growth. While improvement in the terms of trade in favor of agriculture may induce some immediate aggregate supply response, a sustained response cannot depend on continued price increases:

...upward price adjustments cannot be expected to continue once the initial price distortions have been corrected, especially in view of the limited international market prospects for many of Africa's traditional export and food crops. Once the price distortions are corrected, important issues regarding long-term agricultural growth relate more to the stability of the pricing environment (Lele 1985, p. 209).

income distribution. For instance, Malawi has supported maize operations by taxing smallholder tobacco production, while estates have been left virtually untaxed, (Lele 1989b).

Price Stabilization

Virtually every Asian, European, and Latin American country that has successfully modernized its agriculture sector has guaranteed a minimum price for some major commodities, although some countries, such as Indonesia, have done so relatively more efficiently by setting low minimum prices for rice (thereby having to purchase smaller amounts domestically) and relying more on imports, (Siamwalla 1981). It is noteworthy, however, that Indonesia's food imports have not exceeded 5 percent of domestic needs, whereas in many African countries food imports already amount to between 20 to 40 percent of imports. This explains African reluctance to rely on imports in the context of a fluctuating import capacity, (See Lele, Christiansen et al. 1989). The cost of public price stabilization operations are also made greater for African parastatals due to the tendency of governments not to tolerate any price variability (at least in theory) instead of stabilizing prices within a broad range by becoming a buyer and seller of last resort.⁷

There is little agreement among economists about the need for price stabilization. Whereas Keynes considered wide and rapid fluctuations in the world prices of primary commodities to be "one of the greatest evils in international trade" (Kanbur 1985), recent theoretical literature questions the need for price stability from the viewpoint of both the producer and the

⁷ For Kenya, Pinckney has estimated that a policy with a standard deviation of 5 percent of the target price would result in \$3.5 to \$6 million less in average annual cost than a policy that held prices constant, (Pinckney 1986).

consumer. Thus, according to Newbery and Stiglitz (1981), stabilizing prices may increase income variability. Further long run effects of stabilization may be opposite to short run effects, e.g., price stabilization may encourage production of the commodity to a point where income in the long run decreases, rather than pursuing a diversified production strategy to reduce risks of price variability. They also emphasize, and Behrman concurs, that the distributive and efficiency effects of price stabilization need to be distinguished and that policies to stabilize consumption and income or to improve finance and future commodity markets may be more desirable than those to stabilize prices, (Behrman 1987). Besides, instability in earnings due to instability in volumes may be greater than instability in earnings due to prices, (Wahab 1985).

Gains to consumers and producers from price instability depend on the relative magnitudes of the supply and demand variances, assumptions about the benefits of risk reduction, and log-linearity and multiplicativity of disturbances, (Gilbert 1986, p. 635). Although some literature concludes that gains to consumers from price stabilization may be positive, questions remain as to the size of gains to producers. Further, the cost of holding the necessary stocks is believed to exceed the benefits in the form of more stable prices.

Consumers, especially the poor, who spend up to 60 percent of their incomes on food are among those who can benefit directly from government intervention in price stabilization. Wide fluctuations in food prices are politically explosive issues, and must be treated separately. Here it is enough to note that the negative income effects of food price increases are large and greater for low-income groups than for high-income groups because the former spend proportionately more of their expenditures on food. This is

true even in rural areas.⁸ The various MADIA papers document the growing dependence of rural households on the market for food out of necessity rather than choice, as population pressures reduce the area under cultivation, (Lele, Christiansen, Kadiresan 1989; Lele and Stone 1989). Thus, price stabilization is also a means of stabilizing income, and governments will continue to "control" prices on political and welfare grounds, as has been the case in East Africa through parastatals and in West Africa through trade policy toward rice.

Much of the experience of the MADIA countries supports concerns about the effectiveness and benefits of price-stabilization schemes. Nevertheless, there is still tremendous support for stabilization on welfare, developmental, and political grounds. Fears of an alternative to current stabilization schemes prevalent in many sub-Saharan countries include a low minimum support price and a variable second payment from excess profits (to make support less vulnerable to sharp declines in international prices) and a management of the stabilization institution by the economic agents themselves independently from government control (as in the case of some Latin American countries). Financial losses of marketing parastatals are an integral part of price stabilization. Due to the failure of governments and donors to take explicit account of the legitimate costs of year-to-year price stabilization in the financial structuring of parastatals, the shortages of working capital resulting from these losses reduces the ability of parastatals to make timely

⁸ This explains why small-scale producers tend to give high priority to meeting household food requirements through their own food production (e.g., by opting for stable but lower yields on food crops through mixed cropping, by varying planting dates and including "late" planting to reduce crop failure, and by stressing the production of drought-resistant crops). Whereas export crops enable producers to be sure of higher and more stable income, as in the case of tea and coffee in Kenya or cotton in West Africa, however, households tend to allocate a significant share of their acreage to higher-value crops.

delivery of production inputs or to make full and timely payment for purchases of output in the following year. The policy issue is likely to be one of how much stabilization countries can afford, given that cost is a function of reliance on stocks versus trade, and the range within which prices should be defended.

Scale of Investments

Marketing and processing of export crops involve scale economies and frequently require lumpy investments in processing facilities, which need to be utilized to full capacity, as well as in transport and communications, to ensure the timely delivery of inputs and collection of output. Since there was not an adequate entrepreneurial class with the necessary capital to undertake such operations in many African countries, prominent political leaders such as President Banda in Malawi, often became the entrepreneurs. Although the entrepreneurial class is much broader in Malawi now than previously, it is not yet very strong. In Nigeria, on the other hand, where there is a strong entrepreneurial elan, it is not clear why there has been no private investment in modernizing the processing of oil palm, or in road maintenance capacity; perhaps the returns are greater elsewhere.

Public-sector investment is needed in transport, electrification, communication, etc. There is abundant evidence to suggest that infrastructural investments facilitate the development of markets by improving factor mobility and market information and by reducing transportation costs and risks. Despite the benefits of transport infrastructure, however, underinvestment, especially in maintenance, has been characteristic of many of the countries because (i) the benefits are long-term and difficult to measure;

(ii) the link between market development and transport networks are not fully understood; (iii) concentration of power in central governments means that local governments do not have the administrative and financial capacity to maintain roads, (See Lele, Oyejide, Bindlish, and Bumb 1989).

Inadequate Financial Markets

Inadequate development of capital markets poses a major constraint to production. Covariance of risk over large geographical regions with uncertain rainfall increases the risks of default on repayment and reduces the scope for development of private financial markets in many parts of semi-arid regions, especially because low average labor productivity keeps surplus accumulation at a low level. A shortage of cash at critical periods is a constraint in purchasing fertilizers and hiring additional labor for land preparation, weeding, and harvesting. Unlike in Asia, where informal rural financial markets provide up to 60-70 percent of rural finance, inter-seasonal capital transfers among households that facilitate input purchases are less developed in Africa. Also in contrast to Asia, agricultural employment contracts are not yet sophisticated enough to alleviate the risk of financial market failure.

Since independence, financial markets have developed and become more sophisticated in some countries (e.g., Kenya) than in others (e.g., Tanzania and Malawi). Nonetheless, most African governments and their donor supporters concentrated heavily on substituting for freely operating markets, usually through the use of parastatals, rather than devoting resources to fostering conditions required for a competitive private sector. Once skepticism about the public sector became entrenched, however, the shift to privatization that

followed was so swift that there was not adequate time for gradual liberalization, or assessing the merits of public-sector performance of certain roles, or defining the future role of the public sector in financial markets, (see, for instance, Lele, Christiansen, and Kadiresan 1989).

EXPERIENCE WITH PUBLIC-SECTOR INTERVENTION IN MARKETING

In this section, we review the performance of the public-sector marketing operations. In particular, we evaluate the extent and causes of inefficiency and their implications for future policy.

Marketing Costs

One of the most pervasive themes of liberalization has been a concern about the excessive marketing costs of parastatals. In this context, a clear distinction needs to be made between problems arising from financial conditions, or management weaknesses, and/or those arising from political intervention.

Assessing the size of marketing costs (defined here to be the difference between the value of payments to producers and the total expenses incurred in selling the crop either internally or externally) is difficult, as data on these costs are incomplete, frequently unreliable, and not generally comparable among countries.⁹ In addition, data for public and competitive

⁹ Despite the massive donor assistance to parastatals, there has been little effort on the part of the donors to collect data that would help to identify the true sources and causes of parastatals inefficiency. An exception to this was a World Bank effort to establish a capacity in the Marketing Development Bureau in Tanzania which is responsible for providing government with advice on price and marketing development policy.

Table 2: Marketing Expenses Per Ton of Grain Purchased by
of Marketing Boards in Malawi, Kenya and Tanzania, 1972/73-1985/86

(Converted to US\$ using real effective exchange rates)

Year	Malawi				Kenya				Tanzania			
	Smallholder Payments		Marketing Costs		Smallholder Payments		Marketing Costs		Smallholder Payments		Marketing Costs	
	(US\$)	(%)	(US\$)	(%)	(US\$)	(%)	(US\$)	(%)	(US\$)	(%)	(US\$)	(%)
1972/73	120	68	55	32	NA	NA	NA	NA	NA	NA	NA	NA
1973/74	115	59	79	41	NA	NA	NA	NA	NA	NA	NA	NA
1974/75	129	60	87	40	NA	NA	NA	NA	NA	NA	NA	NA
1975/76	208	60	138	40	NA	NA	NA	NA	NA	NA	NA	NA
1976/77	163	57	125	43	NA	NA	NA	NA	NA	NA	NA	NA
1977/78	182	54	156	46	NA	NA	NA	NA	NA	NA	NA	NA
1978/79	198	57	151	43	NA	NA	NA	NA	NA	NA	NA	NA
1979/80	221	48	238	52	NA	NA	NA	NA	NA	NA	NA	NA
1980/81	192	45	232	55	94	68	90	32	NA	NA	NA	NA
1981/82	148	45	180	55	66	73	61	27	NA	NA	NA	NA
1982/83	133	53	118	47	30	68	60	32	44	59	244	41
1983/84	116	52	105	48	38	58	99	42	72	71	189	29
1984/85	120	56	95	44	65	62	162	38	26	60	221	40
1985/86	145	61	91	39	89	66	97	34	NA	NA	NA	NA

Source: Malawi data from ADMARC (1972-1987), except for marketing costs for 1974/75-1978/79 from World Bank (1986a). Kenya data from Coopers and Lybrand (1987). Tanzania data from World Bank (1986b). Real effective exchange rates from P. Seka/MADIA.

private sector operations are rarely available in Africa to permit an estimate of the legitimate costs of marketing, as distinct from those that are the result of avoidable inefficiencies in the public sector.

It is generally recognized that these costs tend to be higher in Africa than in Asia because unit transport costs are higher and distances are greater, (see, for example, Lele, Christiansen, and Kadiresan 1989). While wages in the public sector are commonly believed to be high in Africa, recent evidence indicates that this is not entirely correct, (Lindauer, Meesook, Suebsaeng 1988). Although public wages are higher for unskilled labor they tend to be lower than in the private sector for skilled labor. Nevertheless,

the normal costs of marketing, storage, and processing tend to be higher in the public than in the private sector.

Kenya

The performance of Kenya's parastatal sector is the most interesting because it is mixed. Kenya offers successful examples of semi-autonomous agencies (e.g., KTDA and coffee and dairying cooperatives) which have been important to the growth of smallholder production. At the same time, some parastatals and cooperatives have had a decidedly mediocre record.¹⁰ The most spectacular of the successes is that of Kenya Tea Development Authority, the causes of which deserve to be reviewed.

The Kenya Tea Development Authority (KTDA) is one of the most successful and most studied crop-marketing organizations in Africa, (Paul 1982, pp.60-62). The fact that tea required further processing and that an adequate supply of raw material was critical to building processing capacity and provided a rationale for KTDA's monopoly. The private sector was uninterested in investing in processing units for small farmers, since these units needed to be located in the areas of production in order to maintain the quality of tea leaf for high-quality processing, (Lele and Meyers 1987). (The same arguments have applied for monopoly of coffee processing to ensure adequate supply to processors). Lamb and Muller (1982) argue that KTDA does not provide a model of either rural development or public enterprises that can be

¹⁰ See Lele, van de Walle, and Gbetibouo for an analysis of the problems with the Cotton Lint and Seed Marketing Board (CLSMB) in Kenya. The mediocre performance of CLSMB can be attributed to a number of factors, starting with the lack of political clout that cotton has had historically relative to tea and coffee. Despite considerable evidence of the government's commitment to support cooperatives, some argue that more recently government has put the interests of powerful economic groups ahead of its general policy of support for cooperatives, (Wolf 1986, p.50).

neatly transferred to other countries, but they do point to four features that are instructive. First, KTDA was able to maintain its organizational autonomy. Its ability to do so was due largely to financial success, to the powerful domestic political constituency that tea growers became, and, to some extent, to the interest that external sources of financing had in KTDA. Second, the KTDA exerted considerable control over the use of its resources, with the result that resources were applied to tasks that were critical to each stage of development. "This stands in marked contrast to many other examples of institutional development, where the drive for bureaucratic growth often simultaneously creates both organizational redundancy and under-deployment to key functions," (Lamb and Muller 1982, p.57). Third, KTDA had an effective network of accountability built into all aspects of its operations. This prevented unrealistic assessments of potential performance and provided staff with necessary incentives. Finally, economic incentives to producers were provided in the form of a direct link between producer and world market prices. This link also served as an incentive for improving the quality of tea, (Lamb and Muller 1982).

In sharp contrast to the success of KTDA are the problems of the National Cereals and Produce Board (NCPB) which are of special interest because, as will be seen later, they are similar to those faced by Malawi and Tanzania, suggesting that issues related to intra- and inter-year price stabilization in the case of cereals have a generic quality. Maize marketing and the government's role have been an intensely political issue in Kenya. Most of the numerous commissions of enquiry established over the years have recommended that the government relinquish its monopsony position in maize marketing and function as a buyer and seller of last resort. Until the later half of the 1980s, the government virtually ignored this advice, but, perhaps

due to pressure from donors, has now allowed inter-district movement of grain and given millers the right to purchase maize directly in the market. These measures have been undertaken as a result of the escalating marketing costs in the 1980s, particularly finance costs, (see Table 2).

Overall NCPB deficits increased by over 100 percent in five years from Ksh 312 million in 1980/81, to Ksh 647 million in 1985/86. As in other countries, however, they stem from more than one source. In part, they

Table 3: NCPB Financial Management, 1980-1986

Year	Finance Costs ('000 MK)	Bank Overdrafts & Loans ('000 MK)	Loans From CSFC ('000 MK)	Government Agency ('000 MK)
1980/81	75,000	85,734	711,333	224,843
1981/82	119,000	140,285	1,316,273	229,627
1982/83	209,000	303,638	1,316,921	252,371
1983/84	197,000	144,743	1,345,677	165,933
1984/85	320,000	200,561	1,235,677	120,869
1985/86	371,000	262,015	2,235,677	31,050

Source: Coopers and Lybrand (1987).

Note: CSFC is the government-owned Cereals and Sugar Finance Corporation.

were the result of a build-up of stocks related to unusually high levels of production and increased indirect overhead costs, i.e., administrative costs. A report by Coopers and Lybrand Associates concludes that these large increases in overhead costs "...cannot be explained by corresponding increases in either the volume of business activity or the annual level of general price inflation in any of the years, with the exception of 1985, suggesting a significant absence of effective management and control of expenditure within the NCPB in the past," (Coopers and Lybrand 1987, Annex 8, p. 5). Thus, despite an increase in the margin per bag, rising from Ksh 40.25 in 1980 to Ksh 133.55 in 1986 (Coopers and Lybrand 1987, Annex 8), deficits increased sharply.

A more comprehensive examination of public sector enterprises in Kenya (Grosh 1988), covering 38 parastatals including the NCPB, acknowledges that

many of them have been poorly managed. Grosh argues, however, that neither the donors' solution of widespread privatization nor the government's efforts to tighten control over managers is likely to constitute a genuine solution to the problems of many public enterprises. She reaches several conclusions that are consistent with our own observations and relevant for an understanding of the factors affecting parastatal performance in countries other than just Kenya. First, the variety of performances among Kenya's public enterprises is wide, ranging from "excellent to abysmal." When assessed in terms of profitability and efficiency, approximately half of enterprises have performed well since independence.¹¹ Second, "firms which have attempted to subsidize their consumers or suppliers have usually run into financial problems. Their poor financial condition then causes inefficiency," (Grosh 1988, p.48). This implies a need for adequate financing to explicitly account for the costs of any subsidies in grain price-stabilization operations. Third, many of the problems of public enterprises have occurred since 1978 and are due to the stringent economic environment of the past decade. One of the critical weaknesses these enterprises face in dealing with this environment is their chronic undercapitalization, which often leads to excessive financing charges. In addition, foreign exchange shortages have caused shortfalls of imported capital goods that also impair efficient operations. Fourth, public enterprises are often required to undertake investments or provide services that are motivated by distributional rather than commercial criteria. (Lele,

¹¹ Grosh uses four different measures of performance to evaluate public enterprises: (1) financial rate of return or profitability, (2) efficiency measured in terms of good service, low unit cost of margins, rational resource allocation, and returns to employees, (3) returns to consumers, which is measured by comparing actual prices with opportunity costs--for tradable goods this opportunity cost is measured by the relevant international parity price, and (4) returns to suppliers, this indicator also compares actual prices with opportunity costs, (Grosh 1988, pp. 40-45).

van de Walle and Gbetibouo (1989) make a similar point with respect to cotton parastatals in West Africa.)

Malawi

In Malawi the operation of private-sector marketing has been weak, in large part because of government restrictions that prevented Indian traders from residing or working in rural areas, and the lack of experience and working capital on the part of Malawians. Not only has the private sector been weak, but, in contrast to Kenya, there has not been an effective network of either foreign or domestic voluntary agencies operating at the local level. Similarly, there has been severe underdevelopment from grass-roots institutions, which represent the interests of low-income rural households, because the government has not actively encouraged efforts like the Harambee in Kenya. In response to this lack of private sector activity, the government expanded operations of ADMARC (the marketing parastatal) to fill the void, a step which donors supported actively through financial support.

As can be seen from Figure 1, ADMARC's nominal marketing costs per ton increased steadily over the 1973-87 period, although in real terms costs per ton increased only slightly. For example, ADMARC's average total marketing costs per ton of

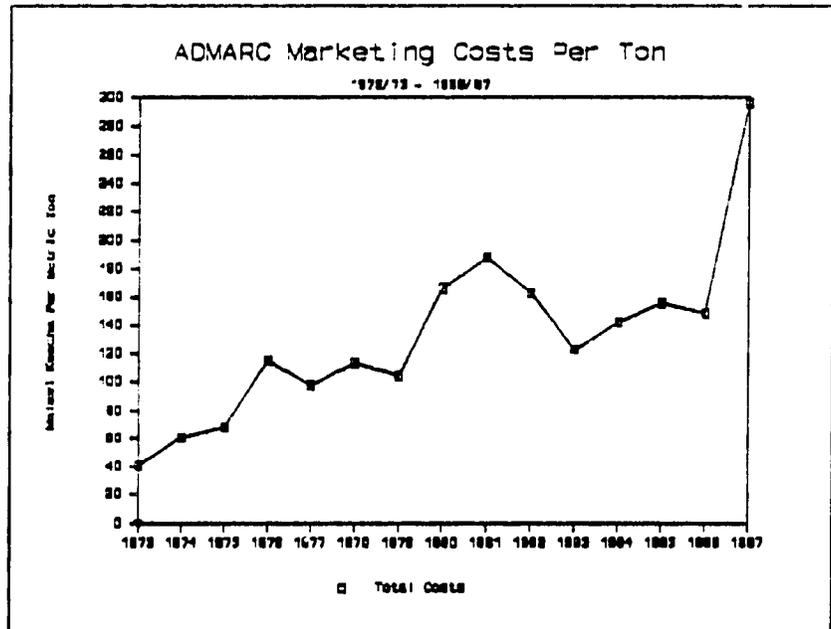


Figure 1

purchases for 1972/73-1978/79 were K85.73. For 1980/81-1986/87 these costs were K172.89, an increase of about 102 percent, (see Figure 2 and Table 2).¹² Between 1980 and 1986, the GDP deflator increased by approximately 100 percent. Over this same period, however, there were sustained increases in transport charges, employee salaries, and finance charges.

In the case of transport costs, the increase was due to devaluation of the currency and to increasingly insecure external transport routes, (see Table 4). The increase in employee salary costs was due largely to a rise in

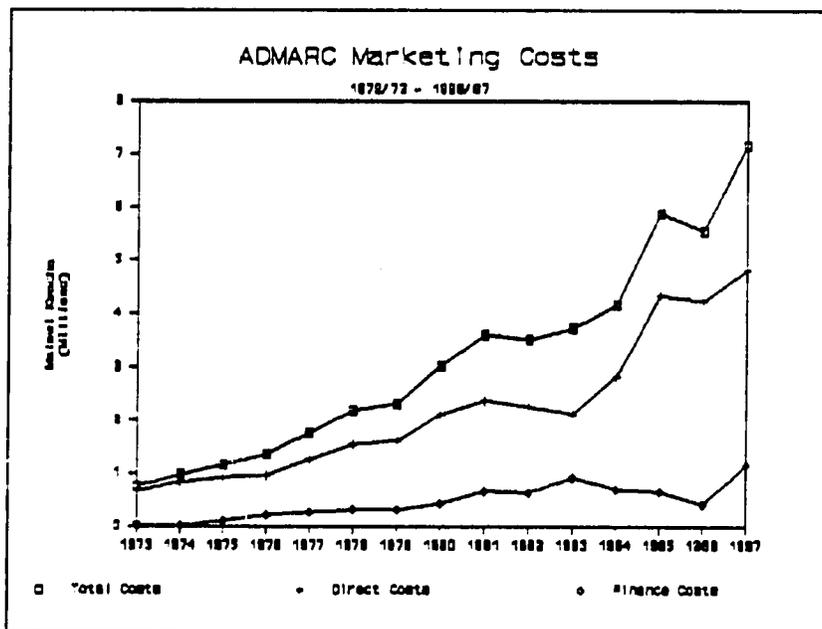


Figure 2

numbers. Head-office senior staff increased from 428 to 742 between 1980/81-1982/83 and 1985/86-1987/88, while junior staff increased from zero to 1,224 over the same period. During this time, the average number of staff members in the field increased by 58 percent, from 16,095 to 24,089, but average annual purchases during the same period increased by only about 5 percent, (Deloitte, Haskins, and Sells 1987, Annex 3).

¹² Total marketing costs plus the value of payments to producers equals the total expenses. Direct costs are the sum of selling, buying, and direct expenses from ADMARC's trading accounts. These costs include transport, packing, and storage costs; auction floor charges; insurance; marketing costs; grading, ginning, milling, and fumigation costs; and seed distribution costs. Administrative costs are comprised of expenses incurred by ADMARC's head offices, such as salaries and travel expenses of central office staff, legal and professional fees, rent, and insurance costs. Finance costs consist of interest payable on long-term loans and bank overdrafts.

The increase in finance costs is also noteworthy. For the 1979/80-1986/87 period, the average finance charge per ton of purchases was K 26.96 per ton as compared to K 9.68 per ton for 1972/73-1978/79, (see Appendix 5). The steady increase in overdrafts and finance charges between 1978/79 and 1986/87 can be seen in Table 4.¹³ The increased finance charges were due largely to the increase in producer prices and the resultant decrease in liquidity. Some of these crop price increases were mandated as part of the structural adjustment process. Perhaps more important than the increased finance charges, the liquidity problems led to delays and limits on the amount of crop purchases, which caused farmers to lose confidence in the ability of ADMARC to function as a buyer of last resort.¹⁴ These problems were not foreseen and suggest that, when evaluating a parastatal's finances, a broader range of issues needs to be considered than is typically included.

Although the rise in the number of employees per ton of purchases seems excessive, in part this represents an effort by ADMARC to increase the number of seasonal markets in order to provide less expensive access (in terms of transport costs) to purchased inputs, sales points for outputs, and food for households that are dependent on the market to meet their food deficit. In practice, however, the location of markets was influenced by political factors. At present, approximately 75-80 percent of the rural population is within eight kilometers of a seasonal market, although considerable overlap in the catchment areas of these markets is likely because of the political

¹³ For the period 1978/79-1980/81 the average size of ADMARC's bank overdraft was K2.5 million, or K12.6 per ton of purchases, as compared to K21.2 million, or K64 per ton of purchases, for the 1984/85-1986/87 period.

¹⁴ The problems that ADMARC has suffered in this regard can have serious consequences for farmers' confidence in the marketing parastatal and, therefore, in their willingness to rely on markets for food supplies. For an account of the impact of delays in ADMARC's purchases, see R. R. Nathan Associates (1987).

Table 4: ADMARC's Expenses Related to Crop Trading, 1978/79-1986/87

Year	Selling Expenses	Direct Expenses	Admin. Expenses	Long Term Borrowing	Over-drafts	Finance Costs
1978/79						
('000 MK)	3,189	12,916	4,106	31,244	-	2,996
(MK per Ton)	14	58	18	140		13
1979/80						
('000 MK)	3,528	17,707	4,821	37,884	979	4,246
(MK per Ton)	19	97	26	208	5	23
1980/81						
('000 MK)	3,584	20,114	5,874	50,995	6,419	6,530
(MK per Ton)	19	105	31	265	33	34
1981/82						
('000 MK)	3,459	19,114	6,363	55,587	5,714	6,236
(MK per Ton)	16	89	29	258	26	29
1982/83						
('000 MK)	2,415	18,899	6,758	69,261	14,002	9,269
(MK per Ton)	8	62	22	228	46	31
1983/84						
('000 MK)	6,745	21,524	6,624	66,043	8,308	6,782
(MK per Ton)	23	73	23	226	28	23
1984/85						
('000 MK)	10,107	33,375	8,901	54,387	18,828	6,464
(MK per Ton)	27	88	24	144	50	17
1985/86						
('000 MK)	8,672	33,786	9,091	53,456	29,172	4,054
(MK per Ton)	23	90	24	143	78	11
1986/87						
('000 MK)	10,272	37,961	11,905	81,011	15,721	11,591
(MK per Ton)	42	157	49	335	65	48

Source: ADMARC (1972-1987).

decisions surrounding their placement. In the long run, the establishment of an effective network of commercial and grass-roots institutions, including voluntary organizations, could provide production inputs and food supplies on a regular basis. Donors, however, did not take active interest in these issues until recently. In any case, it will take at least 10 years for an effective network of institutions to develop, even if it is politically permitted and effectively promoted by donors. In the meantime, agencies such as ADMARC have an effective role to play in making fertilizer available to

farmers and in ensuring supplies in rural areas, the benefits of which are difficult to measure. The important issue is how to minimize the costs of these operations until other institutions develop, rather than whether such functions ought to be performed by the government.

Tanzania

Parastatals in Tanzania have been negatively affected by a range of government policies. For instance, producer prices of export crops were typically determined on a residual basis, i.e., after taking into account the cost of operating the parastatals. In the case of maize, the National Milling Corporation (NMC) was required to purchase maize at prices that both encouraged production and sought to protect consumers. These price levels made little allowance for the costs of marketing and processing, however. For example, between 1972-75 and 1978-81 maize producer prices increased by 24 percent but the margin for conversion of maize to sembe was reduced by about 55 percent and the official consumer price of maize was lowered by 23 percent, (World Bank 1983). Indeed, in 1981/82 government-set retail prices for preferred cereals, drought staples, and pulses were below NMC's retail costs, (World Bank 1983; Bryceson 1985; Kaberuka 1984).

Government involvement extended beyond pricing decisions to the appointment of parastatal managers.

The split responsibility between the Ministry of Agriculture and the State House for appointment and supervision of parastatal management is no less an important factor in explaining inadequate control over parastatals. The Executive Chairman of the Board of Directors is a Presidential appointee, and the Minister appoints Board members. The parastatal general manager is bureaucratically essentially equal to Principal Secretary of the Ministry. The Ministry does not have the jurisdiction to dismiss a general manager, even in cases of flagrant violations of management standards, but can only recommend action to the Board of Directors or the President. Further, when appointments are made centrally, frequently criteria other than commercial or managerial acumen seem to enter in the choice of a general manager. Since the State

House makes CEO appointments across the spectrum of the roughly 400 parastatals, its span of control is far beyond levels which would be considered desirable under reasonably well working systems of management. It is no wonder, therefore, that the degree of control needed on a daily basis to ensure managerial efficiency in the agricultural sector is not exercised and major decisions even about the future of the organization itself ... remain pending for years, (World Bank 1983, pp. 84-85).

Inefficiency in day-to-day operations, including the weak financial and physical performance, were attributed to weak management and poor technical skills, lack of competition, externally imposed pricing policy, and the government's requirement that parastatals provide a complete set of social services for their employees--including education and medical facilities, work and private transportation, prepared food services, provision stores, mechanical workshops, and sports teams.¹⁵ Given this interference, the productivity of parastatals declined significantly between 1974 and 1981. The volume handled by agricultural parastatals increased by 18 percent, whereas parastatal employment increased by 37 percent, leading to a decline in labor productivity of 14 percent. Although the NMC increased its labor productivity noticeably between 1974/75 and 1977/78, processing volume decreased sharply between 1977/78 and 1980/81, with the result that the same number of employees handled roughly half the volume. Only two parastatals decreased employment between 1974 and 1981. For all parastatals, a decline in volume of 17 percent was accompanied by a decline in employment of only one percent during the same period, see Figure 3.

As a result of these inefficiencies, most crop parastatals accumulated large losses. In 1980/81, only the coffee and sugar parastatals showed a profit; the remaining nine showed combined losses of 692 million Tsh. (US\$ 84

¹⁵ The oil palm projects in Cameroon show a similar pattern of social services to employees that extended to the whole township, (Lele, van de Walle, Gbetibouo 1989).

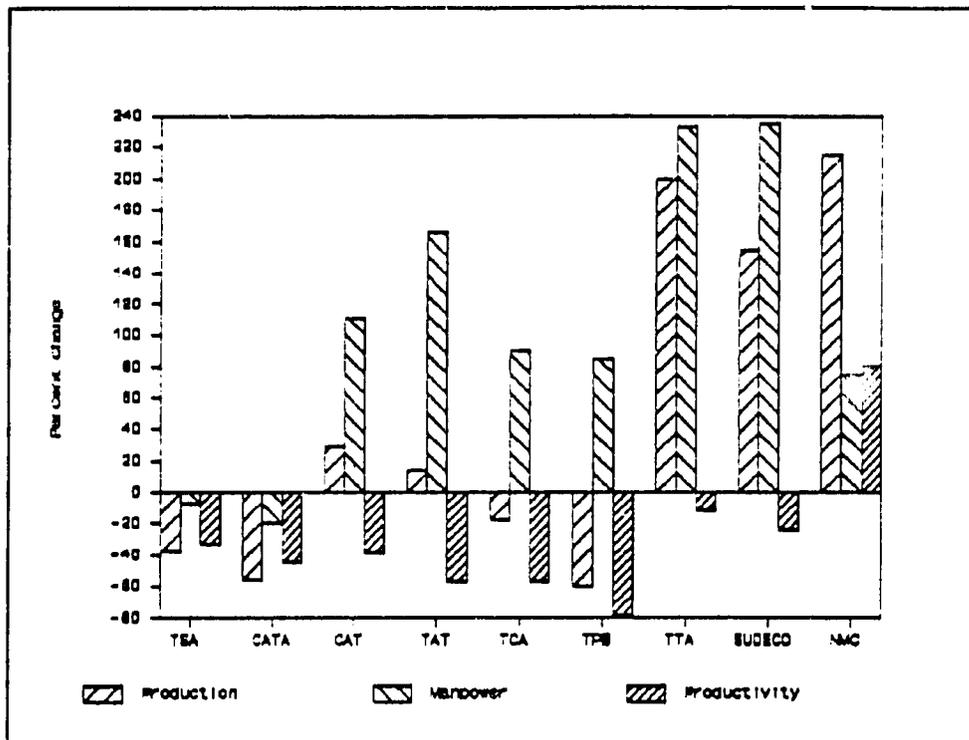


Figure 3: Change in Tanzania's Parastatal Production, Manpower, and Productivity, 1974-1981

million), which is equal to 21 percent of the value of their processed commodities. NMC alone was responsible for over two-thirds of total losses, representing 31 percent of its sales. The parastatals' overdrafts had reached 5,127 million Tsh and accounted for 80 percent of the loans of the National Bank of Commerce, the country's only commercial bank.

It is important to stress that administrative costs resulting from the growth of employment, although excessive, were a relatively small part of total losses, e.g., only one percent of sales in the case of NMC. The costs of financing and sales (which reflect purchases plus transport and processing costs) accounted for 97 percent of losses in 1980/81. Thus, even a significant reduction in administrative expenses would have had little effect

on losses.

Table 5: Groundnut Producer Prices and Marketing Board Margins
in Senegal, 1968/69 - 1983/84

Year	<u>Net Producer Price</u>		<u>Marketing Bd Margin</u>		Marketing Sale Price (F/Kg)
	(F/Kg)	% of Sale Price	(F/Kg)	% of Sale Price	
1968/69	16.50	67%	8.30	33%	24.80
1969/70	16.50	54%	13.85	46%	30.35
1970/71	17.60	46%	20.74	54%	38.34
1971/72	22.00	64%	12.12	36%	34.12
1972/73	22.00	53%	19.90	47%	41.90
1973/74	25.50	61%	16.40	39%	41.90
1974/75	40.00	76%	12.61	24%	52.61
1975/76	40.00	75%	13.00	25%	53.00
1976/77	40.00	72%	15.80	28%	55.80
1977/78	40.00	73%	14.90	27%	54.90
1978/79	40.00	71%	16.00	29%	56.00
1979/80	43.00	68%	20.10	32%	63.10
1980/81	45.00	54%	38.00	46%	83.00
1981/82	60.00	68%	28.00	32%	88.00
1982/83	60.00	67%	30.00	33%	90.00
1983/84	50.00	51%	48.50	49%	98.50

Source: Jammeh (1987).

Notes: 1/ These are conservative official estimates. The actual price received by the farmer is much lower when the value of losses and impurities generally imputed in official withholdings is taken into account.

2/ These are prices paid by the processing plants to marketing boards.

Senegal

In Senegal low, variable and declining rainfall has caused the production of groundnuts to stagnate, while there has been a corresponding increase in the area planted to sorghum and millets as population pressure on the land has increased. Elsewhere, Lele, Christiansen, and Kadiresan (1989) have demonstrated the devastating effect of the elimination in 1980 of ONCAD (the marketing paratatal) on the network of input distribution and output

purchases in the vital Groundnut Basin. The collapse in input supply has been complicated by the reluctance of the private sector to supply production inputs on credit, although the private sector has been active in the purchase of groundnuts for crushing. Market prices of groundnut oil have been increasing relative to what the processing companies (e.g., SONOCOS) that have replaced ONCAD, will offer for groundnuts. Government disbanded private Lebanese traders in the mid-1960s, establishing instead OCA and later ONCAD, each of which operated as a vertically integrated agency that supplied inputs on credit and purchased output. Each of these suffered from highly variable repayment rates of credit as well as highly variable marketing margins for groundnuts offered by small farmers, (see Table 5).

The excessively high marketing costs that characterized ONCAD were attributable to mismanagement and corruption, including rapid expansion of staff, (Jammeh 1988). For example, between 1966 and 1968, ONCAD's staff tripled from 400-500 full time staff to 1,800. Staff size increased further to 2,097 in 1974 and 2,964 in 1979. During this period salaries accounted for over half of the agency's operating expenses. This excessive growth in personnel could not be justified by increases in ONCAD's marketing functions or by increases in groundnut transactions but was due to political pressure to increase employment. The impact of these increased operating costs on marketing margins can be seen (see Table 5) in terms of the steady increase in margins charged per kilogram of product dating from 1969/70 to 1973-74, after which margins declined from 1974 to 1978.

More recently, the government has favored a strong diversification program to reduce the risk of relying solely on groundnuts. Investments in agricultural production and those in industry and construction increased. Investments within agriculture shifted away from groundnut production toward

other crops, rural development projects, irrigation, and groundnut processing. As a result, operating capacity of processing firms grew from 695,000 tons in 1976 to 895,000 tons in 1987, while the actual capacity used as a percentage of total operating capacity fell from 95.5 percent to 59.2 percent during the same period, (see Figure 4).

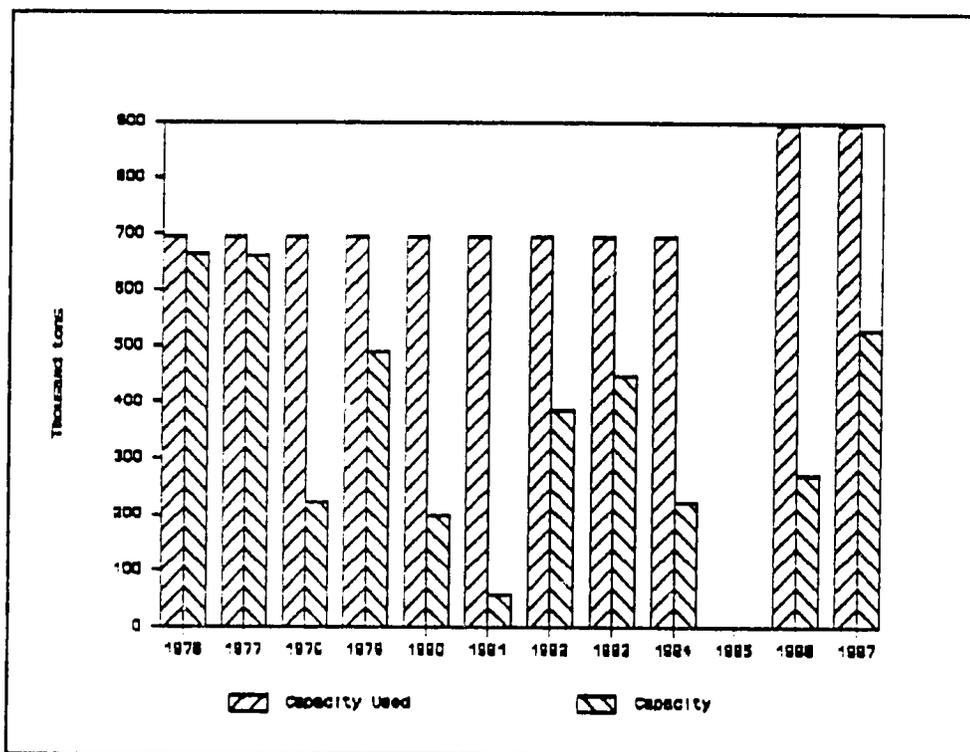


Figure 4: Senegal's Groundnut Processing Capacity and Utilization, 1976-87

Marketing costs were lowest during the period in which private traders were allowed to compete with the cooperatives, (Jammeh 1988). In addition, the monopsonistic parastatal had several policies that served as disincentives to producers, including onerous procedures for collecting credit provided for inputs. The result of these procedures was to cause serious delays in payments by cooperatives, thereby encouraging producers to seek alternate

marketing channels, even if on disadvantageous terms. Finally, abuses and irregularities in the parastatal's input distribution program were common: shortages or late arrival of often damaged inputs, diversion of needed supplies onto the parallel market for personal gain, regional imbalances favoring the Groundnut Basin, and patronage. In some cases, inputs requested by cooperative officials would remain in warehouses while being charged to members. Therefore, although inefficiency was a problem, it must be stressed that many of the policies that contributed to this inefficiency were beyond the parastatal's control.

The relative importance of the cost of increased employment, debt forgiveness, and unpredictable marketed volumes in explaining the financial problems of ONCAD is not known, as the data for ONCAD are not available to make such judgments. Nevertheless, it is clear from the recent experience with privatization (discussed later) that, although private traders tend to be active in output marketing, the salient issue is how to develop an integrated delivery system that is not monopolistic but which ensures repayment of credit provided for inputs, given that the private traders tend to be unwilling to provide credit for inputs, and the producers unable to purchase inputs without credit.

On balance, in each of these four countries there are examples of government intervention that contributes to the inefficiency of parastatal operations. The solution, however, does not lie exclusively with privatization. Instead, a minimum of two steps are necessary to strengthen parastatals: (i) greater independence from central government control, and (ii) explicit subsidy operations performed on behalf of the public sector for which criteria and incurred costs are made overt. With these changes, a parastatal will be able to achieve greater operational efficiency, offer

greater competition to the private sector, and provide the government with development functions (e.g., price stabilization) at an explicit cost.

Instability Of Agricultural Institutions

A crucial factor for improving the performance and productivity of farmers, especially those with small-scale operations, is the quality of institutional support.¹⁶ The instability of agricultural institutions has contributed to undermining farmers' confidence in them and, therefore, their willingness to rely on factor and output services. Examples from Tanzania and Senegal illustrate this point.

In Tanzania, marketing institutions have been in a state of nearly continuous change since independence, with most changes directed toward achieving greater central control over agricultural production and marketing. As Candler (1986) shows, in virtually every year between 1961 and the early 1980s there was a major change in marketing arrangements in Tanzania. Following independence in the 1961, Tanzania experienced extensive growth in cooperatives which the government encouraged as a means of counteracting the dominance of Asian traders. In 1963, the government created the National Agricultural Production Board (NAPB) as the coordinating institution for cooperative grain trade. By 1966, the cooperatives were supplying almost all of NAPB maize purchases, (Bryceson 1985, p.56). In 1967, the Arusha Declaration called for the creation of multi-purpose cooperative societies to replace the marketing cooperatives, as the former were accused of promoting capitalist relations. In the following year, guidelines were implemented that

¹⁶ For more detailed accounts of the role of institutions in agriculture, see Lele, van de Walle, and Gbetibouo (1989); Lele, Christiansen, and Kadiresan (1989); Jammeh and Lele (1989); and Lele et al. (1989).

effectively transferred control of the cooperatives from individual boards to state-appointed managers. This was part of an increased government role in marketing, partly in order to collect revenue, that became especially important after the abolition of the direct tax in 1969, and was reflected in the creation of new crop authorities. In 1971, a decision was taken to treat Ujamaa villages as multi-purpose cooperatives, thereby further confusing the role of existing cooperatives. Over the next five years, numerous decisions were taken that profoundly changed the nature of cooperatives such that, by 1976, all cooperative unions were abolished and replaced by village cooperatives and crop parastatals, (Candler 1986, pp.6-10).

Dissatisfaction with NMC mounted quickly, however, due mainly to the tremendous year-to-year fluctuations in the volume NMC handled due to climatic factors, frequency of late or missed payments for purchases, major financial losses that resulted from being required to sell at prices below cost, large storage losses (estimated by some at up to 30 percent), and corruption. In the face of rising parastatal losses--financed by overdrafts on the National Bank of Commerce that were so large as to be considered a threat to that NBC's financial stability--and continued dissatisfaction with performance, a commission was appointed in 1980 to study the situation and this led to the reestablishment of cooperatives in 1982. Since 1986, cooperatives have been reinstated, crop parastatals have been replaced by commodity boards, and the private sector is being allowed a greater role.

Another example of instability in Tanzania comes from the experience with cotton marketing. The Cotton Lint and Seed Marketing Board (CLSMB) was created in 1955 to coordinate cotton-sector activities and market seed and lint, while cooperatives performed ginning and oil refining; together these accounted for much of the success of smallholder cotton during the 1950s and

1960s. The CLSMB was replaced in 1973 by the Tanzania Cotton Authority (TCA), which centralized all cotton activities and then took over the cooperatives' functions when they were dissolved in 1976. In 1984, TCA transferred responsibility for some ginneries and oil mills to the regional farmers corporation, whose shareholders were Ujamaa villagers. In 1985, the TCA was dissolved and replaced by the Tanzania Cotton Marketing Board (TCMB), but without responsibility for ginneries and primary marketing, which were returned to the newly restored cooperatives, (Lele, van de Walle, and Gbetibouo 1988, p.35).

These reorganizations inevitably led to complete confusion on the part of producers as to which agency was to serve them and resulted in delays in payments to producers. Further, the separation of responsibility for credit, input distribution, and farm-gate purchasing contributed to extremely low repayment rates which aggravated financial difficulties of crop parastatals. More recently (1986-87),

...excellent weather and promising developments in the policy environment, including an improved producer price promoted under the adjustment program, led to a bumper crop ..., but institutional factors constrained even the management of the supplies which resulted. The TCMB is reputed to have purchased less than two-thirds of the crops because of lack of funds, transportation problems and weaknesses of the cooperatives... (Lele, van de Walle, and Gbetibouo 1988, pp.35-36)

In Senegal, several institutional changes hurt the groundnut sector, the most important of which was the institutional arrangements for services. In this regard, the changes in Senegal were reminiscent of those in Tanzania because they discouraged private trade and created a parastatal (ONCAD) as a substitute. ONCAD encountered financial difficulties when it was required by the government to forgive the debts of drought-affected producer's but was not reimbursed. At the same time, overexpansion of its staff due to political pressures, and mismanagement of funds contributed to problems with the

reliability of input supplies. When ONCAD was abolished in 1980, its smallholder credit program was eliminated and to date has not been replaced by a program of comparable coverage.

The institutional instability experienced by Tanzania and Senegal has obviously undermined smallholder confidence in the government and contributed to unreliable sources of supply for parastatals and agro-processors. This, in turn, has affected the availability of working capital for parastatals, interest costs, liquidity problems, and problems of excess processing capacity. It is this set of problems that has attracted the attention of donors interested in improving the performance of agricultural institutions. A common solution has been to restructure the parastatals, privatize several of the functions performed by the marketing board (e.g., input distribution and output marketing) and eliminate or scale back other functions (e.g., food security and buyer/seller of last resort operations).

Lessons from Experience with Parastatals

Do parastatals have a role to play given that they suffer from numerous problems? The World Bank's review of agricultural marketing experience argues:

Current disenchantment with parastatals should not be allowed to obscure the important role they have played in developing countries in Africa and Asia. They have been the dominant market force for export products and large scale grain marketing, and were often inherited from the colonial power. Sometimes, parastatals have been used to wrest control of the marketing system from ethnic minorities--in which case political considerations may well have overridden concerns for efficiency. In other cases, government seem to have felt that it was easier to replace an oligopolistic marketing structure than to regulate it. In yet other cases, governments have seen parastatals as a way of ensuring government "control" of domestic food supplies. They have been unwilling to leave this vital function, especially stockholding, in private hands (World Bank 1988, pp. 7-8).

A USAID study that examined the problems with parastatals summarized the debate about parastatals as follows:

Some economists argue that agricultural parastatals are unwarranted governmental intrusions in the markets for inputs and products, and should therefore be dismantled forthwith to make way for a laissez-faire market economy. Others, noting the volatile nature of production, the inadequate distribution and marketing systems, arbitrary and rapidly changing policies, and the political instability of many of these nations, argue that because the risks to entrepreneurs are so great, private interests will not organize effective markets, so parastatals are necessary to fill the void. They contend that parastatals per se are not the problem, rather, the ways in which they are (mis)managed and the uses to which they are put, especially to reward rent-seeking (Keene, Monk and Associates 1984, p.12).

Accepting these views creates a much more difficult problem for policymakers. Instead of simply encouraging privatization, it is necessary explore solutions to the problem of political intervention in parastatals to ensure competition among forms of institutions. We will return to this subject after examining the experience of the MADIA countries with cooperatives.

COOPERATIVES

The importance of agricultural marketing cooperatives in the context of recent policy reforms is that, as we stated earlier, they are often seen as a second best alternative by donors and governments. Although both of these perceptions contain some elements of truth, they also serve as the basis for many of the problems that have plagued so many cooperatives in the MADIA countries. As in the case of parastatals, the conclusion that emerges from the experience with cooperatives is that the all-too-common failure of cooperatives is due to the nature and extent of public-sector involvement in their management and operation. The motivation for public sector intervention is similar to that for involvement in marketing parastatals--control of

marketing channels, financial resources and political power. Therefore, although public-sector support is typically crucial to the success of cooperatives, the nature of intervention as it is commonly practiced serves to undermine the benefits of and the incentives for grass-roots participation.¹⁷

In order to understand the nature of the conflict between the ingredients required for successful cooperatives and the appropriate role for the public sector, it is necessary to distinguish between what is necessary and what is excessive.

The broader concept of co-operation ... acknowledges the interaction between economic and socio-political power and, therefore, recognizes the frequent need for structural change or for political mobilization for co-operatives to be able to benefit the poor. According to the broader view even with such change or innovation, but particularly in the absence of either, paternalism and external assistance in the form of leadership, management and finances are inevitable as a step towards more voluntary and self-reliant cooperatives in the long run, (Lele 1981, p. 58).

A cooperative that is so centralized in its management and decision-making authority as to assure the state sufficient control to mitigate any

¹⁷ Providing a universally accepted definition of a cooperative is difficult. The International Labor Organization (ILO) cites the following somewhat narrow definition:

...an association of persons, who have voluntarily joined together to achieve a common end through the formation of a democratically controlled organisation, making equitable contributions to the capital required and accepting a fair share of the risks and benefits of the undertaking in which the members actively participate, (ILO 1988, p.15).

In addition, the 23rd Congress of the International Cooperative Alliance, held in 1966, adopted the following six principles of cooperatives, adherence to the first four of which is necessary for membership in the Alliance:

(i) voluntary and open membership; (ii) equal rights of voting for members, i.e. one member, one vote; (iii) limited interest on share capital, if any; (iv) equitable distribution of the economic results arising out of the operations of the society; (v) constitution of provisions for the education of members, officers, employees and the general public; (vi) co-operation between co-operatives, (ILO 1988, p.19).

perceived threat to the state's power will typically fail to meet the needs of a voluntary and active membership. As a consequence, cooperatives have the best chance of success when the political leadership of the country is secure and willing to tolerate groups with divergent interests and at the same time provide technical and training support for the cooperatives' operations.¹⁸

Among the MADIA countries, Kenya has provided the most encouragement for cooperatives by developing a highly decentralized system that articulates and responds to producer interests (Alila 1985), with the result that cooperatives represent about 50 percent of small-farm households. The coffee processing and marketing cooperatives are by far the most active, accounting for half the membership in agricultural cooperatives and 71 percent of the turnover, (Lele and Meyers 1987).

Experience suggests that cooperatives dealing with export crops have been more successful than those that deal with subsistence-related food crops, because many export crops require further processing and cannot be used for domestic consumption or sold easily in rural markets. A centralized marketing facility is, therefore, easier to organize. Also, crops that require processing provide scope for economies of scale where the value added is usually substantial. In Kenya, the major crops other than coffee that are marketed through cooperatives are with the exception of milk (which is considered a cash crop), predominantly cash crops.

¹⁸ With regard to the impact of state intervention on the operation of cooperatives, the ILO argues that:

There is ample evidence that co-operatives are becoming increasingly subject to government intervention and in some countries are completely in controlled by the State. The danger of increased government intervention or control is that emerging co-operatives may not be geared to the problems of their members but to pre-established government policies: in other words, that co-operatives may become a government instrument and not an instrument of self-help of the people. (ILO 1988, p.27)

Promotion of food cooperatives continues to receive enthusiastic support from a broad range of interests, however, despite their limited success. To date, with the exception of maize in certain surplus areas, cooperatives have marketed only small amounts of food crops. In Africa, cooperative management has rarely been found to be efficient when commodities are bulky and low value (e.g., maize), or have complicated and expensive processing requirements (e.g., cotton and sugar).

In Tanzania, strong grass-roots cooperatives were encouraged before and immediately after independence, with the result that they grew in political strength to the point of being willing to challenge the authority of the ruling party TANU and later CCM.¹⁹ Subsequently, however, their political power came to be perceived as a threat to the existing authorities and caused the government to increase its control over the cooperative movement. As the members lost control over the operations of the cooperatives, the cooperatives became less effective in furthering the interests of their members. For several reasons, including the evolving political philosophy of government and complaints of increased corruption, the government abolished cooperatives in 1976 and replaced them with parastatal crop authorities and, as part of villagization, with small village societies, (Bryceson 1985; FAO 1987). The consequences of this change, as measured in terms of agricultural production, were disastrous. As a result, parliament passed legislation in 1982 re-establishing cooperatives.

Although the lessons of the early 1970s with regard to the consequences of too much government intervention in the operations of cooperatives are clear, it is by no means assured that the new cooperatives will be successful.

¹⁹ Part of the reason for continued state support of cooperatives after independence was that expansion of the cooperative movement provided a means of pushing Asian traders out of the rural sector, (Bryceson n.d., p.5).

The attitude of the government in the short run is more favorable than in the past; yet there is also evidence that in the long run the government views cooperatives as a tool of social policy, e.g., membership in cooperations is not voluntary but compulsory. In addition, there are several more technical factors that will hinder the prospects of success for cooperatives. For example, after a hiatus of a decade, the cooperatives were poorly prepared for taking over responsibility for agricultural marketing; the agricultural economy is weak, which will make it difficult for cooperatives to maintain financial viability; there is some evidence of overstaffing; and only a limited amount of technical assistance is available to cooperatives, (FAO 1987, pp. 17-18).

Hanak and Loft's (1987) comparison of the performance of cooperatives in Kenya and Tanzania is especially helpful for understanding the ingredients of successful cooperative activities. They point out that, at independence, a grass-roots cooperative movement was more advanced in Tanzania than in Kenya, because small farmers had been allowed to produce export crops in Tanzania, whereas in Kenya production of export crops was confined to estates. Kenya, however, turned out to be more tolerant of cooperatives than Tanzania. Referring to the efforts of Nordic donors to improve the performance and management of cotton cooperation in Tanzania, Hanak and Loft argue that the improvement in performance was dramatic, especially in comparison with cooperatives in other parts of the country.

The differences in performances in the two countries stemmed from the role of government. The Kenyan and Tanzanian governments and the Nordic group had the same set of perceptions, namely that cooperatives were an inherently appropriate institutional form. Both propped up weak cooperatives and developed mechanisms for external regulation. Kenya, however, built on the

more successful cooperatives, whereas Tanzania retained many cooperatives despite their poor performance. The Nordics continued to support these poor performers despite "the Tanzanian government's clear transgression of the by laws of the International Co-operative Alliance in its 1976 action" because of the general wave of support for Tanzania. In Kenya, by contrast, the government's own intentions to focus on the less successful agricultural areas was essential to the progress of management capabilities in the Kenyan coffee, dairy and pyrethrum societies and unions, (Hanak and Loft 1987).

After twenty years of work with cooperatives, however, the Nordics have little to show for the effort outside of the coffee/dairy belt. Hanak and Loft opine that Nordic evaluations have tended to overlook the fundamental issue of the viability of cooperatives as an institutional form in situations of weak agricultural bases with high bulk and low value, grown in dispersed areas, or with complicated and expensive processing requirements--factors which prevail in most semi-arid areas. Hanak and Loft conclude that, "unless the Nordic donors openly begin to reassess the blanket assumption that cooperatives are a good thing everywhere, there are dangers that future promotion will again turn to areas where co-operatives do not stand a chance of success," (Hanak and Loft 1987).

The experience of Cameroon with respect to cooperatives also shows examples of extremely good and extremely weak performance. At present, there are about 500 formally registered cooperatives in the country (with membership of approximately 400,000) dealing mainly with cocoa and coffee. In addition, there is a system of approximately 230 (as of 1987) savings and credit cooperatives (or credit unions) with a membership 62,000 which are the most successful cooperatives in the country. The characteristic that seems to explain the variation in cooperative performance is the extent of state

involvement.

There seems to have been almost an inverse relationship between support provided to cooperatives by government agencies and cooperative performance, i.e., cooperatives which received most government attention performed extremely poorly, and those which were insulated (often by efficient cooperative unions) to a high degree from government intervention performed well, (Personal Communication with the authors).

The first credit union (1963) began, and subsequent expansion occurred, in areas where tontines (informal savings and lending clubs) were already established. As a result, the credit unions have been able to formalize an already well-established institution (tontines) in ways that are beneficial to members. For example, before a newly formed cooperative can become a member of the Cooperative Credit Union League (the umbrella organization that provides management support, training, audits, and insurance services), it must operate as a pre-cooperative savings club, with the result that member confidence is established. Although credit unions are formal, registered cooperatives, they are rarely subjected to regulations or supervision by government cooperative agencies or central bank authorities. It is the presence of an effective umbrella organization--providing technical support and supervision--in conjunction with the absence of political interference that explains much of the success of the credit unions.

The experience of the credit unions is in contrast to that of the cocoa-marketing cooperatives in the Center and South Provinces, which have been exposed to considerable government intervention, including the appointment of government-seconded civil servants as managers and senior staff. In general, government seems to regard these marketing cooperatives as parastatals, reserving the right of approval for budgets of individual cooperatives. This pattern of state intervention continues despite attempts at reform.

Prior to independence there was an active independent cooperative movement, with the result that by 1960 there were 217 primary centers and higher-level cooperatives for marketing cocoa. In 1963, most of these cooperatives were dissolved, because (according to one source) their independence was perceived as a threat to the state, (GTZ 1986, p. 10). Ten years later, a series of reforms directed at cooperatives were undertaken by:

the central government. Reforms of the period were conceived largely in a top-down manner, faced with the necessity, as the Ministry saw it, of rapidly establishing a cooperative "presence" at all primary cocoa markets to protect the individual seller from manipulation by the private cocoa buyers, (GTZ 1986, p. 11).

Although these reforms offered the potential of farmer control over primary cocoa-marketing organizations, the state continued to dominate the management and operation of cooperatives. The pattern of continued government involvement in cooperatives, including secondment of large numbers of officials, represented a failure to distinguish between structures imposed by the state in response to the need for development and those for promoting voluntary participation at the household and local level.

In assessing the condition of a sample of cocoa marketing cooperatives, a recent report (GTZ 1986, p. 17) concludes that the structure of the present system suffers from fundamental problems, as evidenced by the precarious financial situation of the cooperatives--eleven of the fifteen examined were technically bankrupt. The failure of cocoa cooperatives was attributed, at one level, to inadequacies in the financing system on which the cooperatives depend, excessive costs within the cooperatives due to weak management, and poor management advice provided by state agencies charged with supporting the cooperatives. At a more fundamental level, however, it can be argued that the real problem with the cocoa-marketing cooperatives is that the membership is neither able to nor interested in influencing the operation of the

cooperatives. For example, the size of cooperatives is too large to facilitate communication or allow a sense of community.²⁰ Another dimension of the size problem is the absence of intermediate levels of farmer control, meaning that the gap between centralized management and the village--which is the natural administrative and organizational unit--is not bridged. The centralized administrative style of cooperatives stifles initiative on the part of the membership. The result of this structure is that cooperatives are "largely the creation of their managers, and these in turn are for the most part an emanation of the state," (GTZ 1986, p. 58).

Similar experiences with state involvement in cooperatives has characterized Senegal, which has alternately encouraged independent cooperatives and tried to control them through increased state involvement. In Senegal, the government legislated a cooperative statute in 1960 based on pre-independence French efforts which aimed at establishing a nationwide network of agricultural cooperatives. The new program, which was sponsored by Prime Minister Dia, was intended to "...provide a genuine feeling among its members that the coop was theirs, totally preempt credit and marketing from private traders and moneylenders, and thwart efforts by the marabouts to capture the new institutions," (Waterbury 1986, p. 81). The program was, however, inimical to the interests of so many rural interests, most notably the marabouts, that it contributed to Dia's demise and was eventually termed "boy-scoutism" by Senghor himself. After 1964, the marabouts, party members, extension agents, and officials of ONCAD had made their own local arrangements, with the result that cooperatives fell under the influence of local patrons.

²⁰ The average size of a credit union is approximately 268 members while that of a cocoa marketing cooperative is about 800.

Although the nature of the cooperatives changed, the institutions were still encouraged by the government; by 1970 there were 1,870 cooperatives in Senegal, with over half (1,060) in the Groundnut Basin. Throughout the 1970s cooperatives were under the jurisdiction of ONCAD, an affiliation that effectively converted the cooperatives into state-run entities within the agricultural bureaucracy and hurt their image and performance. The dissolution of ONCAD, the increasing politicization of cooperatives, internal corruption, and pressure from donors caused the government to reform rural cooperatives. As was the case earlier, the philosophy behind the reforms advocated by donors and some government agencies was that "...a unit must be found whose members trust one another, who will police themselves so that free-riders do not take over, who will feel directly responsible for their affairs and for their production, and who will hold larger cooperative structures responsible to them," (Waterbury 1986, p. 82). As might be expected, however, such a cooperative organization would threaten several rural interest groups, not the least of which are the marabouts. Therefore a compromise was sought. Features of the compromise included larger cooperatives (in Sine-Saloum, average membership rose from 200 to 1,730), little change in personnel and patrons who manage cooperatives, and the absence of grass-roots participation in organizing the new cooperatives. As a result, the new cooperatives are unlikely to be any more successful than earlier ones.

Lessons from Experience With Cooperatives

Two conclusions emerge from the experience with marketing cooperatives in the MADIA countries. First, in order for cooperatives to

effectively serve their membership--and thus be effective marketing institutions--they must achieve a delicate balance of state support and an absence of state intervention. Judging from the often disappointing performance of cooperatives, this blend is difficult to achieve. Support needs to be in the form of managerial assistance, training of officials, and insuring compliance with bylaws. The delicate mix between support and excessive intervention hinges on how the objectives of the cooperative are defined and achieved. Typically, in situations where government sees cooperatives as policy tools and thus seeks to control operations, the nature of the cooperative is corrupted and benefits for members eroded.

Second, given the general ingredients necessary for successful cooperatives (from the point of view of members), they are not well-suited to quickly supplementing or supplanting the operations of marketing boards or the private sector. A policy that seeks to maintain control of marketing functions by substituting cooperatives for marketing boards is not likely to be successful.

AGRICULTURAL MARKETING REFORMS: OVERVIEW AND EXPERIENCE

The reform policies agreed to by donors and African governments, chiefly in the form of structural and sectoral adjustment loans made by the World Bank and supported by other donors, have contained numerous measures that applied to pricing and marketing policy, including the reform of marketing parastatals. Although it is not possible to describe in detail the specifics of these reform policies for each of the MADIA countries, an overview will give the flavor of the relevant provisions.

A primary goal of adjustment programs was to increase producer prices, both through adjustment of the exchange rate where necessary (i.e., Nigeria, and Tanzania) and through changes in official prices, mainly for export crops, see Table 1. (It has not been possible to adjust exchange rates in Senegal and Cameroon due to their membership in the franc zone.) Reducing the role of the public sector in agricultural marketing has also been an issue. Donors (chiefly the World Bank and USAID) have also addressed the pricing and marketing of inputs, primarily the policies governing the importation, domestic distribution, and subsidization of fertilizer, (see Tables 6 and 7).²¹

It has been demonstrated elsewhere that the impetus for subsidy-removal programs has been the concern about budget deficits (Lele, Christiansen, and Kadiresan 1989; World Bank 1986b), the failure of subsidies to reach their intended beneficiaries, and the growth of public sector.²² This comparatively narrow focus precluded analyzing the role of fertilizer subsidies in the broader context of the need for intensification in African agriculture and whether the private sector could rapidly replace the public sector. An analysis of these broader issues (Lele, Christiansen, and Kadiresan 1989) concluded that there is not a single solution to achieving widespread use of fertilizer. Fertilizer subsidies may be justified in specific cases, where fertilizer demand is constrained by low but positive returns or by the low income of its users and there are clear market failures. Subsidies can be

²¹ For a detailed account of the level of fertilizer subsidies, fiscal cost, the cost of nutrients relative to output prices, and in the MADIA countries, see Lele, Christiansen, and Kadiresan, 1989.

²² Among the MADIA countries, Nigeria is an extreme case of the cost of a fertilizer subsidy; in 1985 the subsidy cost US \$240.9 million, which was 32.1 percent of the agricultural budget and 3.7 percent of the total budget, (Lele, Christiansen, and Kadiresan 1989).

most effective if they are combined with relaxation of the supply constraints stemming from market imperfection, e.g., inadequate supply of foreign exchange or absence of financial markets.

With respect to reform of agricultural marketing policies, provisions have included the restructuring of the institutions responsible for input and

Table 6: Agricultural Pricing and Marketing Policy Reforms:
Senegal, Cameroon and Nigeria

<u>Senegal</u>	
Output prices:	Producer prices for groundnuts and cereals were to be increased. Further, the price of imported rice was to be increased to encourage domestic production.
Input prices:	The fertilizer subsidy provided by SONAR has been replaced by limited subsidy financed by donors which was to be gradually phased out by 1989. Regional fertilizer prices are to reflect transport costs.
Institutions:	The groundnut seed and fertilizer marketing parastatal (SONAR) was abolished in 1988 and responsibility for marketing groundnuts was transferred to the groundnut crushing firms, private traders, and cooperatives. Seed stocks were reduced and free distribution limited. Further, administrative barriers to the internal marketing of cereals were removed.
Privatization:	The elimination of SONAR has shifted responsibility for marketing to the private sector and cooperatives.
<u>Cameroon</u>	
Output prices:	As part of the fertilizer subsidy removal program, government is to increase the producer price for coffee.
Input prices:	The fertilizer subsidy, which was targeted at coffee producers was gradually eliminated by 1992.
Institutions:	A number of parastatals are being abolished (e.g., SEMRY) or their role restructured; cooperatives are being promoted.
Privatization:	As part of the fertilizer reform package, the importation and distribution of fertilizer was privatized.
<u>Nigeria</u>	
Output prices:	Coincident with the abolition of marketing boards, the producer prices for exports crops increased.
Input prices:	Efforts made to eliminate the fertilizer subsidy met with some success, however, more recently the subsidy is again present due to currency overvaluation.
Institutions:	Export crop marketing boards were abolished.
Privatization:	Increased private sector activity in export crop trading has been accomplished and plans are underway to encourage private sector fertilizer trading.

output marketing, reducing the role of the public sector in marketing, and encouraging private-sector activity, (see Tables 6 and 7).²³ This emphasis has prevailed even though little empirically based work is available on the

²³ For an excellent survey of the literature and the evolution of issues concerning on privatization see van de Walle (1989).

structure and performance of private agricultural markets in Africa. At present, these markets are generally confined to food crops because governments control the distribution and marketing of export crops. Even where the private sector is allowed to operate freely in marketing and agro-processing (e.g., cotton and rubber in Nigeria), trade by licensed buying

Table 7: Pricing and Marketing Policy Reforms in Malawi, Kenya, and Tanzania

Malawi

Output prices:	Smallholder producer prices increased with the exception of tobacco.
Input prices:	Fertilizer subsidy removal program was attempted, but has yet to have been completed.
Institutions:	The marketing parastatal (ADMARC) has been reformed to increase efficiency and focus more exclusively on smallholder agriculture.
Privatization:	The use of private traders to purchase selected smallholder output has been encouraged. There are plans to privatize the distribution of fertilizer.

Kenya

Output prices:	As smallholder producer prices have been kept close to international levels, recommendations have focussed on other aspects.
Input prices:	Kenya has not had a fertilizer subsidy since the mid-1970s, however, its control of distribution and handling margins for a range of crops has been liberalized.
Institutions:	Implement programs of parastatal reform along with further restructuring of the public investment and expenditure program related to parastatals, and increase the flow of credit to smallholders.
Privatization:	Efforts to improve the efficiency of fertilizer importation and distribution have been addressed through import liberalization and privatization.

Tanzania

Output prices:	Substantial increases in official producer prices for food and export crops.
Input prices:	The explicit fertilizer subsidy was removed in 1984, but has been offset by pricing of grant-aid fertilizer and currency overvaluation.
Institutions:	The National Milling Corporation (MNC) has been restricted to a food security role and agricultural cooperatives have been introduced.
Privatization:	An increased role for the private sector in agricultural marketing has been encouraged.

agents is often alleged to be uncompetitive.

Also underway are operations to improve the legal and institutional framework in which the private sector operates as well as efforts to improve credit, information, and transport infrastructure. In view of the extent to which donors historically supported the growth of the public sector, the current emphasis on promoting the private sector without first insuring that

the prerequisites for a successful private sector are in place represents a serious shortcoming in the reform process. The lack of detailed agreements with governments on precisely which areas they are willing to privatize has posed many problems. Also, the capacity of the private sector to utilize resources has been limited and most donor officials have relatively little of the practical experience and knowledge required to strengthen the operations of the private sector. Instead, there is a tendency to assume that the private sector is active and strong and can quickly meet the challenge of agricultural marketing.

An example of some of the difficulties that arise from structural adjustment agreements which aim to reform marketing conditions and parastatals can be found in the Agricultural Sector Adjustment Operation (ASAO) in Kenya. The ASAO involves numerous conditions and sub-conditions related to restructuring parastatals and aims at achieving results which have been matters of dispute between donors and the Kenyan government for well over a decade, (Lele and Meyers 1987). The difficulty exists, in part, because donors have confined their analysis to narrow technocratic or economic-efficiency criteria, with little explicit analysis of the political factors that affect decisions. Recent MADIA studies (cotton and sugar in Kenya, and fertilizers generally) provide examples of the political reasons why and how governments have pursued certain courses of action. They show the degree of detailed analysis that needs to be undertaken on an issue-by-issue and country-by-country basis. Several examples will help to illustrate the point.

In Malawi, policy reforms affecting the smallholder marketing parastatal ADMARC have concentrated on divestiture of assets not related to smallholder agriculture and enforcing the requirement that ADMARC operate on commercial criteria (a condition that has caused concern in the government and ADMARC

about the ability to stabilize prices and act as the buyer/seller of last resort).

In addition, the privatization of grain trading was implemented with the intention of providing farmers with an alternate marketing channel and increasing the efficiency of crop procurement. Although the first buying season in which private traders participated under the new scheme (1987) coincided with a large influx of refugees and therefore increased demand for maize, implementation proceeded smoothly.²⁴ Nonetheless, there are several issues that need to be addressed before privatization can be said to have been successful. The increased demand for maize caused the market price to increase above the official price, thereby causing the volume of ADMARC's purchases to fall considerably below the level of recent years. Although purchases increased somewhat in 1988, there is concern about ADMARC's ability to fulfill its mandate to achieve food security under these circumstances.

In addition, the two most serious problems faced by private traders--transport constraints and lack of access to credit--have yet to be addressed. Without reliable transport and access to credit, private-sector performance will fall well short of expectations and will likely come to be dominated by the few traders who have access to these requirements. Finally, the privatization of grain marketing in Malawi--and the anticipated privatization of fertilizer marketing--has left ADMARC in the position of being held to commercial operational standards (i.e., no losses), while having responsibility for loss-making development functions without the anticipated government reimbursement. For example, ADMARC is expected to insure national food security by holding stock at the Strategic Grain Reserve, yet it is

²⁴ See Christiansen and Stackhouse (1989); Lele (1989b); and Bowbrick (1988).

expected to pay producer prices which preclude any taxation to finance the costs of its food-security and price-stabilization functions.²⁵ Adequate capitalization of ADMARC and regular compensation for loss-making operations by the government may, however, turn out to be a problem elsewhere in East Africa.

Finally, as a part of the liberalization program approximately 6 percent of seasonal markets were closed. The World Bank hoped to have nearly 200 markets closed in 1987/88, but settled for about 125. At present, some 75-80 percent of the rural population is within eight kilometers of a seasonal market location. The closure of seasonal markets was a contentious issue, given their political importance. Not surprisingly, by 1989/90 the closures had been more than offset by the new markets that ADMARC opened.

In summary, the privatization of smallholder-output marketing has been generally successful, although the early performance of traders suffered somewhat from the rapid pace of implementation, and traders' activities are hindered by shortages of working capital and vehicles, (Christiansen and Stackhouse 1989).

In Tanzania, various marketing reforms have been implemented since 1984, including the reintroduction of cooperatives, abolition of the crop-purchasing authorities (1984), a more tolerant attitude toward private traders (e.g., the elimination of restrictions on buying and transporting food grains), a more clearly defined and restricted role for the grain-marketing parastatal (NMC), and legalization of private-sector purchases from and sales to the NMC, cooperative unions, primary societies, and farmers, (Scarborough 1989). A

²⁵ Historically ADMARC has financed its loss on the maize trading account through a subsidy from the profits earned on tobacco and groundnut trading. Recent price increases for these commodities precludes this method of financing in the future.

preliminary assessment is that all these steps have had a very positive effect, as would be expected in country which has been operating substantially below its production possibility. Once the effect of these initial reforms is absorbed, however, Tanzania will begin to face many of the problems regarding appropriate roles of the private and public sectors being faced by other countries which did not deviate from growth as much as Tanzania. For instance, traders face a pervasive shortage of credit, information, and transportation. Any small increase in production causes substantial bottlenecks in movements of marketed output. The public sector role in improving the capacity of the private sector to undertake these tasks effectively, i.e., through dissemination of market information, provision of credit to traders, and improvement of transport is less developed than in Malawi, for example.

In Senegal, policy reforms have sought to enhance the economic environment through liberalization of input and output markets. Although it is still early in the process of state disengagement from the marketing of fertilizer and groundnuts, distortions may be emerging in the private market. Following the liquidation of the marketing parastatal (ONCAD) in 1980, groundnut marketing was turned over to the groundnut-crushing firms especially the Societe Nationale de Commercialisation des Oleaginaux du Senegal (SONACOS) whereas management of the national seedstock became the responsibility of the Societe Nationale d'Approvisionnement du Monde Rural (SONAR). Cooperatives became the agents for SONACOS, acting as intermediaries between farmers and crushing firms. In 1986, due to financial losses among the crushing firms and a growing parallel trade in groundnuts, donor pressure led to the transfer of marketing to three agents: the cooperatives, the crushing firms, and private traders. However, SONACOS continued to regulate the system and provide

marketing finance, although cooperatives were free to trade and sell at retail. Critics of the reforms claim that the crushing firms still control the market and that financing is still only available through SONACOS, (Jammeh 1987). For example, groundnut production, which was domestically marketed by nearly 2,500 cooperatives, is now channeled through a declining number of buying points--750 in 1988/89. Further, there are allegations that private traders (the organismes privés stockeurs) exercise monopsony power over the farmers, (EIU 1989).

Another aspect of Senegal's experience with privatization has been the effort to privatize fertilizer distribution--motivated largely by concern about the corruption and weak performance that characterized marketing parastatals in Senegal. At the same time that this privatization initiative was being pursued, subsidy removal, and reduced availability of credit, combined with increased climatic variation, caused the attractiveness of fertilizer use to diminish. As a result, the private sector has been reluctant to make the necessary investment to become involved in fertilizer distribution. The lack of private-sector participation combined with the inability of the public sector, due to financial constraints, to function as a seller of last resort has meant that the distribution of fertilizer has suffered, which has contributed to the decline in fertilizer use, (Lele, Christiansen, and Kadiresan 1988). As to privatization of cereal marketing, in which traders were allowed a more active role, the efforts in the Groundnut Basin have been successful. They are less so elsewhere, i.e., Casamance where trade is less well developed. However, stabilization of grain prices will remain an important issue in Senegal.

In Nigeria, marketing reforms have concentrated on privatization of export-crop marketing, since food-crop marketing is already largely in the

hands of the private sector. (According to Lele [1989], the government's attempts to intervene in grain markets have met with little success because support prices have been well below market prices and the capacity of the Nigerian public sector for managing price-support programs is weak.) Export-crop marketing was a government monopoly until the end of 1986, when the relevant commodity boards were abolished as part of the structural adjustment program. Subsequent privatization of export-crop trading, combined with currency devaluation in October 1986, led to substantially higher producer prices for these crops.²⁶ However, privatization also led to problems of quality control, as a result of which Nigerian cocoa now sells at a discount. Interviews with cocoa buyers in London suggest that poor-quality cocoa offered by Nigerian exporters interested only in short-term profit is a serious problem for Nigeria.

Privatization of fertilizer procurement and distribution has been an issue between the World Bank and the Nigerian government for several years. The issue is linked to the high rate of subsidy on fertilizer which has, in general, precluded private trade. At present, there is a proposal to privatize the commercial supply companies of the multi-state ADPs, which have operated as wholesalers. Further, there is a proposal to privatize retail fertilizer sales through encouragement of private traders and farmers' cooperatives. But cooperatives are weak in Nigeria, and the response of the private sector is yet to be seen.

In summary, the lesson that emerges from experience with privatization and liberalization efforts in the MADIA countries confirms the experience of

²⁶ For example, the producer price of cocoa increased by 180 percent from 1,600 naira per metric ton in 1986 to 4,500 naira immediately following the devaluation. It increased further to 6,500 naira per metric ton in mid-1988, and to 12,000 naira by the end of 1988.

other developing countries--i.e., that the ability of the private sector to function effectively in the area of agricultural marketing depends on the environment in which traders must operate. This environment is defined by many of the elements whose absence in the past served as a rationale for public-sector intervention in the first place. They include: (i) the presence of an entrepreneurial class able to undertake risk, (ii) competitive markets, (iii) adequate infrastructure, including transport and communication networks that allow the efficient movement of information, goods, and services, (iv) efficient markets for inputs and outputs (i.e., there are no market failures), including financial services, and (v) food security. Unfortunately, the public sector, due to its distrust of private markets and of ethnic domination, has concentrated on substituting for rather than supplementing the private sector. The result of this policy has been, in most cases, a lack of competition in the provision of marketing services that has contributed to inefficiency in marketing systems. This inefficiency, combined with a change in donor attitudes toward the public sector, has caused reform policy to encourage increased private-sector involvement in marketing. But too little attention has been paid to insuring the adequacy of the environment in which the private sector must operate. Reliance on markets alone will not necessarily ensure competitive pricing, marketing of crops where scale economies exist, food security, timely availability of inputs or markets for output.

SUMMARY, CONCLUSIONS AND IMPLICATIONS

Although public sector intervention in agricultural marketing is closely linked to the nature of agricultural production and the processing

requirements of crops, its implementation is frequently based on political objectives. The marketing arrangements that many African countries inherited from the colonial era were influenced largely by the economic interests of expatriate farmers and traders. During the colonial period, the public sector intervened in agricultural markets to impose order on a seemingly chaotic marketing system, create economic rents for European trading companies and estates, and generate revenues for the public sector. In order to preserve the benefits derived from state-dominated marketing structures, many of the independent African governments retained the marketing boards and parastatals bequeathed by the colonial governments and thus newly dominant groups came to direct marketing policy and institutions. In this context, market intervention was increasingly seen as a means of ensuring food security, enabling the government to perform development functions, stimulating agricultural production, maintaining control over politically strategic commodities, and providing a source of political patronage.

These interventions by governments in the operations of marketing boards and cooperatives have often adversely affected the efficiency of these agencies. Although there is a tendency to assume that the failure of many parastatals is due to their inherent inefficiency, the sources of inefficiencies often lie beyond the control of the parastatals, e.g., in pressure from the government to overstaff as a form of political patronage or to perform development functions without remuneration.

Many of the policy reforms that pertain to agricultural marketing undertaken by African governments during the 1980s emphasized the need to improve parastatal performance through a combination of restructuring, greater emphasis on commercial criteria and privatization. This emphasis frequently requires that part or all of the agency in question be privatized and the

losses of the operations that remain in the public sector be minimized or eliminated. Since extensive public sector control has been crucial to maintaining control over crucial marketing functions, most African governments have been reluctant to allow anything other than selective and closely regulated private sector involvement in agricultural marketing. Given the importance of parastatals and even cooperatives as institutions that can extend the political and economic power of governments, it is unlikely that they will relinquish completely the right to intervene in agricultural markets.

Despite the political nature of marketing organizations, there are legitimate economic functions that these institutions need to perform, including: (i) reducing the inherent riskiness of agriculture for small-scale farmers, (ii) ensuring markets and input supply to promote price stability, (iii) providing revenues for public sector, (iv) supporting large-scale investments in processing that the private sector is unwilling or unable to attempt, (v) addressing the constraints imposed by inadequate financial markets, (vi) creating demand for inputs, and (viii) assuring supply of food and inputs to low-income households in remote regions, which may not otherwise be reached.

The experience with public sector intervention in agricultural marketing in the MADIA countries indicates a clear need for institutional pluralism in order to foster competition. Although the private sector can provide increased competition and can clearly perform some tasks more efficiently than parastatals, the public sector must insure that certain requirements are met before the private sector can operate effectively. These requirements include: (i) stimulating the development of an entrepreneurial class capable of undertaking risk, (ii) encouraging free entry into markets, (iii) creating

adequate infrastructure, transport, and communication networks for the efficient movement of goods, and (iv) promoting efficient financial markets that are able to support commodity markets.

With respect to the role of cooperatives, the experience of the MADIA countries indicates that there are two requirements for successful cooperatives that are often contradictory. First, independent cooperatives that are able to represent the interests of their membership effectively are most likely to be successful. Governments, however, are often fearful of the political power of such cooperatives and are, therefore, reluctant to encourage grass-roots arrangements. Second, cooperatives need support to deal with the complex organizational, technological, and financial requirements of modern cooperative management. In this light, it is abundantly clear that cooperatives cannot be used as substitutes for parastatals with the public sector controlling their operations, since by their nature they require active and democratic grass-roots participation.

In Africa, privatization has not been preceded by the strengthening of the private sector or the establishment of legal and other institutions (e.g., standardization of weights and measures, collection and dissemination of market information, availability of credit to traders, transporters, wholesalers, and retailers). Thoughtful and long-term donor assistance to the private sector is required in transport, communication, information, and credit to contribute to the decentralization of economic and political power. The issue of timing will be critical to the development of efficient and effective marketing system and will determine whether the private sector will be competitive or merely replace public sector oligopolies while continuing to serve the same vested interest. Thus far, donors have tended to be naive about the appropriate extent and pace of privatization, especially given that

the interests in public sector operations, which they supported, have become entrenched.

The implication of these findings for donors is that, although the perception of politicized and inefficient parastatals is correct, it is not sufficient to sponsor reforms that in effect expect the private sector to address even a majority of agricultural marketing needs. Policies must be devised that continue to encourage the private sector and, at the same time, de-politicize parastatals operations in such a way that competition can be enhanced while development requirements are met. This means defining the appropriate role of the public sector in terms of the circumstances in which public support and regulation is required to ensure a competitive environment and intervention is needed to provide services that the private sector is unwilling or unable to provide. The need to assist producers in confronting the risks associated with rainfed agriculture as practiced in Africa, establish an environment where capital and technological inputs are readily available, and act as a buyer and seller of last resort combined with the need to protect consumers, particularly low income consumers, from wide price fluctuations will continue if there is to be agricultural growth with development in Africa. A limited amount of market intervention will necessarily be part of any overall agricultural strategy. Progress will in all likelihood be slow; and donors must recognize the major differences among and within countries in order to play a useful role in developing appropriate marketing institutions and arrangements which include both the private and public sectors.

REFERENCES

- ADMARC. Various dates. "Annual Accounts and Report for the Year Ended 31st March." Blantyre, Malawi: Ministry of Agriculture, 1972-1987.
- Adams, D.W. 1978. "Mobilizing Household Savings Through Rural Financial Markets." Economic Development and Cultural Change 26, No. 3 (April): 547-60.
- Alila, Patrick O. 1985. "Administration of Cooperatives for Rural Development in Kenya." In Challenging Rural Poverty, edited by Fassil G. Kiros. Trenton, NJ: Africa World Press: 169-182.
- Avramovic, Dragoslav. 1987. "Commodity Problems: What Next?" World Development 15, No. 5 (May): 645-655.
- Babin, D. 1988. "The World Bank and the IMF: Rolling Back the State or Backing its Role?" In The Promise of Privatization, edited by Raymond Vernon. Washington, D.C.: Council on Foreign Relations.
- Balcet, J.C. and Wilfred Candler. 1982. Farm Technology Adoption in Northern Nigeria. Washington, D.C.: World Bank.
- Bates, Robert H. 1981. Markets and States in Tropical Africa: The Political Basis of Agricultural Policies. Berkeley: University of California Press.
- _____. 1983. "Patterns of Market Intervention in Agrarian Africa." Food Policy 8, No. 4. (November).
- _____. 1989. "Politics and Agriculture in Kenya." MADIA Working Paper. Washington, D.C.: World Bank.
- Bauer, P.T. 1967. West African Trade: A Study of Competition, Oligopoly and Monopoly in a Changing Economy. New York: Augustus M. Kelley.
- Behrman, Jere R. 1987. "Commodity Price Instability and Economic Goal Attainment in Developing Countries." World Development 15, No. 5 (May): 559-573.
- Bienen, Henry. 1986. "Politics and Agricultural Policy in Nigeria." MADIA Working Paper. Washington, D.C.: World Bank.
- Bingen, R. James. 1987. "An Orientation to Production Systems Research in Senegal." MSU International Development Papers. Reprint No. 16.
- Bowbrick, Peter. 1988. "An Economic Analysis of the Impact of Private Traders on Agricultural Marketing." Lilongwe, Malawi: Planning Division, Ministry of Agriculture.
- Bryceson, Deborah Fahy. 1985. "The Organization of Tanzanian Grain Marketing: Switching Roles of the Co-operative and the Parastatal." In Marketing Boards in Tropical Africa, edited by Kwame Arhin, Paul Hesp, and Laurens van der Laan. London: KPI: 53-78.

- _____. n.d. "Second Thoughts on Marketing Co-operatives in Tanzania: Background to Their Reinstatement." Plunkett Development Series 5.
- Candler, Wilfred. 1986. "Tanzania: Notes on the Development of Marketing and Price Policy: 1961-1986." MADIA Working Paper. Washington, D.C.: World Bank.
- Christiansen, Robert E. and V. Roy Southworth. 1988. "Agricultural Pricing and Marketing Policy in Malawi: Implications for a Development Strategy." Paper presented at the "Symposium on Agricultural Policies for Growth and Development" at Mangochi, Malawi, October 31 to November 4.
- _____. and J.G. Kydd. 1987. "The Political Economy of Agricultural Policy Formulation in Malawi, 1960-1985." MADIA Working Paper. Washington, D.C.: World Bank.
- _____. and Lee Ann Stackhouse. 1989. "The Privatization of Agricultural Marketing in Malawi." World Development (May).
- Cleaver, Kevin and Mike Westlake. 1987. "Pricing, Marketing and Agricultural Development in Kenya." MADIA Working Paper. Washington, D.C.: World Bank.
- Clough, Paul. 1985. "The Social Relations of Grain Marketing in Northern Nigeria." Review of African Political Economy. 34 (December):16-34.
- Collinson, M. 1972. Farm Management in Peasant Agriculture. Boulder, CO: West View Press.
- Coopers and Lybrand Associates. 1987. "NCPB Reorganization Study." Vol. 6. Washington, D.C.
- COPAC. n.d. "Cooperative Information Note: Republic of Kenya." No. 2 Revised.
- _____. n.d. "Cooperative Information Note: Republic of Tanzania." No. 5 (1st Revision).
- Cox, Pamela M.J. 1984. "Implementing Agricultural Development Policy in Kenya." Food Research Institute Studies. 19, No. 2: 153-176.
- de Wilde, J.C. 1967. Experiences with Agricultural Development in Tropical Africa. Baltimore: Johns Hopkins University Press.
- Deaton, Angus. 1987. "The Demand for Personal Travel in Developing Countries." Infrastructure and Urban Development Discussion Paper. Washington, D.C.: World Bank.
- Deloitte, Haskins, and Sells. 1987. "Agricultural Development and Marketing Corporation Organisation and Management Review." Lilongwe, Malawi.
- Economist Intelligence Unit. 1989. Country Report: Senegal, Gambia, Guinea

Bissau, Cape Verde. No.1.

Eicher, Carl K. 1982. "Facing Up to Africa's Food Crisis." Foreign Affairs 61 (Fall): 151-174.

Ellis, Frank. 1983. "Agricultural Marketing and Peasant-State Transfers in Tanzania." Journal of Peasant Studies. 10 (July): 214-242.

FAO/World Bank. 1987. "Agricultural Cooperatives in Tanzania" Agricultural Sector Review Mission, Working Paper 5. Rome: FAO (July).

Gaviria, Juan. Forthcoming. "The Role of Transportation in Agricultural Performance in Cameroon." MADIA Working Paper. Washington, D.C: World Bank.

_____. Forthcoming. "The Role of Transportation in Agricultural Performance in Malawi." MADIA Working Paper. Washington, D.C.: World Bank.

German Agency for Technical Cooperation (GTZ). 1986. "Rehabilitation of the Cocoa Marketing Cooperatives in the Central-Southern Region of Cameroon." Provisional Final Report. (November).

Gilbert, Christopher L. 1986. "Commodity Price Stabilization: The Massell Model and Multiplicative Disturbances." The Quarterly Journal of Economics. (August).

Government of Kenya. Various dates. Economic Surveys. Nairobi, Kenya, 1970-1985.

Government of Kenya, Ministry of Agriculture. 1987. Mimeographed sheets. Kenya.

Government of Malawi, Ministry of Agriculture. 1988. Mimeographed sheets. Malawi.

Grosh, Barbara Ann. 1988. "Improving the Economic Performance of Public Enterprises in Kenya: Lessons from the First Two Decades of Independence." Ph.D. diss., University of California-Berkeley, Berkeley, California.

Gulhati, Ravi. 1988. "The Political Economy of Reform in Sub-Saharan Africa." Economic Development Institute of the World Bank. Washington, D.C.: World Bank.

Hanak, Ellen. 1989. "The Politics of Agricultural Policy in Tanzania." MADIA Working Paper. Revised Draft. Washington, D.C.: World Bank.

_____ and Michael Loft. 1987. "Danish Development Assistance to Tanzania and Kenya, 1962-1985: Its Contribution to Agricultural Development." MADIA Working Paper. Washington, D.C.: World Bank.

Harrison, Kelly, Donald Henley, Harold Riley, and James Shaffer. 1987. "Improving Food Marketing Systems in Developing Countries: Experiences from Latin America." MSU International Development

Papers. Reprint No. 9.

- Harriss, Barbara. 1981. "Some Lessons from the History of Internal Trade in the Interior of West Africa." Discussion Paper No. 105. Institute of Development Studies (December).
- Hesp, Paul and Laurens van der Laan. 1985. "Marketing Boards in Tropical Africa: A Survey." In Marketing Boards in Tropical Africa, edited by Kwame Arhin, Paul Hesp, and Laurens van der Laan. London: KPI.
- Higgins, G.M. 1982. Potential Population Supporting Capacities of Lands in the Developing World. A technical report of the Project, "Land Resources for Populations of the Future." Rome: FAO/International Institute for Applied Systems Analysis.
- International Labor Organization. 1988. "A Review of Co-operative Development in the African Region: Scope, Impact and Prospects." Report prepared for the 7th African Regional Conference.
- IMF. 1987. International Financial Statistics Statistical Yearbook. Washington, D.C.: International Monetary Fund.
- International Fertilizer Development Center. 1986. "Cameroon Fertilizer Sector Study." Muscle Shoals, Alabama: International Fertilizer Development Center.
- International Finance Corporation. 1989. "Lessons from IFC's Experience in the Agricultural Production Sub-Sector." Washington, D.C.: International Finance Corporation.
- Jammeh, Sidi C. 1985. "The Evolution of Marketing and Pricing Policy in Senegal." MADIA Working Paper. Washington, D.C.: World Bank.
- _____. 1987. State Intervention in Agricultural Pricing and Marketing in Senegal. Ph.D. dissertation, Johns Hopkins University.
- _____ and C.G. Ranade. 1986. "Agricultural Pricing and Marketing in Senegal." MADIA Working Paper. Washington, D.C.: World Bank.
- _____ and Uma Lele. 1988. "Building Agricultural Research Capacity in Senegal." MADIA Working Paper. Washington, D.C.: World Bank.
- Johnson, D. Gale. 1947. Forward Prices for Agriculture. Chicago: University of Chicago Press.
- Jolly, C.M., M. Kamuanga, S.Sall, and J.L. Posner. 1988. "Farm Level Cereal Situation in Lower Casamance: Results of a Field Study." MSU International Development Series. Reprint No. 27.
- Jones, William O. 1987. "Food-Crop Marketing Boards in Tropical Africa." Journal of Modern African Studies 25 (September):375-402.
- Kaberuka, D.P. 1984. "Evaluating the Performance of Food Marketing Parastatals." Development Review Policy. 2: 190-216.

- Kaldor, Nicholas. 1987. "The Role of Commodity Prices in Economic Recovery." World Development. 15, No. 5: 551-558.
- Kanbur, S.M. Ravi. 1983. "How to Analyze Commodity Price Stabilization?" Discussion Paper 35. (August).
- Keene, Monk and Associates, Inc. 1984. "Agricultural Parastatals." A report prepared for USAID, PPC/PDPR (September).
- Kelly, Valerie Auserehl. 1988. "Acquistion and Use of Agricultural Inputs in the Context of Senegal's New Agricultural Policy: The Implications of Farmer's Attitudes and Input Purchasing Behavior for the Design of Agricultural Policy and Research Programs." MSU International Development Papers. Reprint No. 18.
- Kooten, G.C. and Andrew Schmitz. 1985. "Commodity Price Stabilization: The Price Uncertainty Case." Canadian Journal of Economics. 2 (May).
- Kuhn, Johannes and Heinz Stoffregen. 1975. "How to Measure the Efficiency of Agricultural Cooperatives in Developing Countries. Case Study-- Kenya." Rome: FAO.
- Lamb, Geoffrey and Linda Muller. 1982. "Control, Accountability, and Incentives in a Successful Development Institution: The Kenya Tea Development Authority." World Bank Staff Working Papers No. 550. Washington, D.C.: World Bank.
- Lele, Uma. 1987. "Agriculture and Infrastructure." Paper prepared for "Symposium on Transportation and Structural Adjustment," Transportation Department, World Bank, Baltimore, MD, May 6-8.
- _____. 1985. "Agricultural Growth, Domestic Policies, the External Environment and Assistance to Africa: Lessons of a Quarter Century." In Trade, Aid, and Policy Reform: Proceedings of the Eighth Agriculture Sector Symposium, edited by Colleen Roberts. Washington, D.C.: World Bank.
- _____. 1988. "Comparative Advantage and Structural Transformation: A Review of Africa's Economic Development Experience." In The State of Development Economics: Progress and Perspectives, edited by Gustav Ranis and T. Pau Schultz. New York: Basil Blackwell, Inc.
- _____. 1977. "Considerations Related to Optimum Pricing and Marketing Strategies in Rural Development." In Decision-Making and Agriculture, edited by Dams and Hunt. Lincoln: University of Nebraska Press.
- _____. 1981. "Cooperatives and the Poor: A Comparative Perspective." World Development 9:55-72.
- _____. 1979. The Design of Rural Development: Lessons from Africa. Baltimore: Johns Hopkins University Press.
- _____. 1971. Food Grain Marketing in India: Private Performance and Public

Policy. Ithaca: Cornell University Press.

- _____. 1989a. "Sources of Growth in East African Agriculture." The World Bank Economic Review 3, No. 1 (January):119-144.
- _____. 1989b. "Structural Adjustment, Agricultural Development and the Poor: Some Lessons from the Malawian Experience." MADIA Working Paper. Washington, D.C.: World Bank.
- _____ and L. Richard Meyers. 1986. "Agricultural Development and Foreign Assistance: A Review of the World Bank's Experience in Kenya, 1963 to 1986." MADIA Working Paper. Washington, D.C.: World Bank.
- _____ and Rahul Jain. 1989. "Aid to African Agriculture: Lessons from Two Decades of Donor Experience." MADIA Working Paper. Washington, D.C.: World Bank.
- _____ and Wilfred Candler. 1981. "Food Security: Some East African Considerations." In Food Security for Developing Countries, edited by Alberto Valdes. Boulder, CO: Westview Press.
- _____, Ademola Oyejide, Vishva Bindlish, and Balu Bumb. 1989. "Nigeria's Economic Development, Agriculture's Role and World Bank's Assistance, 1961-88: Lessons for the Future." MADIA Working Paper. Washington, D.C.: World Bank.
- _____, Nicolas van de Walle, and Mathurin Gbetibouo. 1989. "Cotton in Africa: An Analysis of Differences in Performances." MADIA Working Paper. Washington, D.C.: World Bank.
- _____ and L. Richard Meyers. 1987. "Growth and Structural Change in East Africa: Domestic Policies, Agricultural Performance and World Bank Assistance, 1963-1986." Parts I and II. DRD Discussion Paper No. 273 and 274. Washington, D.C.: World Bank.
- _____ and Steven Stone. 1989. "Population Pressure, the Environment, and Agricultural Intensification in Sub-Saharan Africa: Variations on the Boserup Hypothesis." MADIA Working Paper. Washington, D.C.: World Bank.
- _____ and Manmohan Agarwal. Forthcoming. "Smallholder and Large-Scale Agriculture: Are There Trade-offs in Growth and Equity?" MADIA Working Paper. Washington, D.C.: World Bank.
- _____, Robert E. Christiansen, and Kundhavi Kadiresan. 1989. "Issues in Fertilizer Policy in Africa: Lessons from Development Policy and Adjustment Lending Experience, 1970-87." MADIA Working Paper. Washington, D.C.: World Bank.
- Lindauer, David L., Oey Astra Meesook, and Parita Suebsaeng. 1988. "Government Wage Policy in Africa: Some Findings and Policy Issues." The World Bank Research Observer 9 (January):1-26.
- Lipton, Michael. 1983. "Is Increased Agricultural Marketing Good for the Rural Poor?" Development Research Digest. 10 (Winter):55-59.

- Macbean, Alastair and Ductin Nguyen. 1987. "International Commodity Agreements: Shadow and Substance." World Development. 15, No. 5: 575-590.
- MacKenzie, Richard B. and Gordon Tullock. 1981. The New World of Economics. Homewood, IL: Richard D. Irwin, Inc.
- Maizels, Alfred. 1987. "Commodities in Crisis: An Overview of the Main Issues." World Development. 15, No. 5: 537-549.
- Meagher, Kate. 1988. "The Market in the Lived Economy: A Report on the Dynamic of Official and Parallel Market Activities in Arua District, Uganda." University of Sussex (November).
- Mellor, John W. 1978. "Food Price Policy and Income Distribution in Low Income Countries." Economic Development and Cultural Change 27 (October).
- Morris, Michael. 1988. "Etude sur la Commercialisation des Cereales dans la Region du Fleuve Senegal: Methodologie." MSU International Development Series. Reprint No. 25F.
- Mosley, Paul. 1984. "The Politics of Economic Liberalisation: USAID and the World Bank in Kenya. 1980-84." Working Paper No. 30. University of Bath, December.
- Newbery, David M.G. and Joseph E. Stiglitz. 1981. The Theory of Commodity Price Stabilization: A Study in the Economics of Risk. Oxford: Clarendon Press.
- Newman, Mark D. 1987. "Grain Marketing in Senegal's Peanut Basin: 1984/85 Situation and Issues. MSU International Development Papers. Reprint No. 14.
- _____. 1987. "Tradeoffs Between Domestic and Imported Cereals in Senegal: A Marketing Systems Perspective." MSU International Development Papers. Reprint No. 15.
- _____, P. Alassane Sow, and Ousseynou Ndoeye. 1988. "Regulatory Uncertainty and Government Objectives for the Organization and Performance of Cereal Markets: The Case of Senegal." MSU International Development Papers. Reprint No. 24.
- Paul, Samuel. 1982. Managing Development Programs: The Lessons of Success. Boulder, CO: Westview Press.
- Pinckney, Thomas C. III. 1986. "Production Instability and Food Security in Kenya: Measuring Trade Between Government Objectives." Ph.D. diss., Stanford University, Stanford, Calif.
- Quinn, Victoria, Mabel Culligo, and J. Price Gittinger. 1988. "Household Food and Nutritional Security in Malawi." Paper presented at the "Symposium on Agricultural Policies for Growth and Development" at Mangochi, Malawi, October 31 to November 4.

- R.R. Nathan Associates. 1987. "The Impact of the Fertilizer Subsidy Removal Program on Smallholder Agriculture in Malawi." Washington, D.C.
- Ruthenberg, H. 1960. Farming Systems in the Tropics. Oxford: Clarendon Press.
- Scarborough, V. 1989. "The Current Status of Food Marketing in Tanzania." Unpublished paper.
- Schultz, T.W. 1945. Agriculture in an Unstable Economy. New York and London: McGraw Hill.
- Siamwalla, Ammar. 1982. "Security of Rice Supplies in the ASEAN Region." In Food Security for Developing Countries, edited by Alberto Valdes. Boulder, CO: Westview Press.
- Southworth, H.W. and B.F. Johnston. 1967. Agricultural Development and Economic Growth. Ithaca: Cornell University Press.
- Speirs, Mike. 1989. "Peasants, Merchants and the State - Some Reflections on Cereals Policies in Burkina Faso." Economics Institute, Royal Veterinary and Agricultural University, Copenhagen, February.
- von Pischke, J.D. 1980. "The Political Economy of Specialized Farm Credit Institutions." World Bank Working Paper No. 446. Washington, D.C.: World Bank.
- Wahab, Indra. 1985. "Effects of Price Stabilization on Export Revenue Instability of the Individual Countries." Trade and Development. 6: 17-46.
- Waterbury, John. 1986. "Agricultural Policy Making and Stagnation in Senegal." MADIA Working Paper. Washington, D.C.: World Bank.
- Wellisz, Stanislaw and Ronald Findlay. 1988. "The State and the Invisible Hand." The World Bank Research Observer 3 (January):59-80.
- Williams, Gavin. 1985. "Marketing Without and With Marketing Boards: the Origins of State Marketing Boards in Nigeria." Review of African Political Economy. 34 (December):4-15.
- Wolf, Thomas. 1986. "State Intervention at the Cabbage-Roots: A Case Study from Kenya." IDS Bulletin. 17, No.1: 47-50.
- World Bank. 1988. "Agricultural Marketing: World Bank's Experience." Report No. 7353. Washington, D.C.: World Bank.
- World Bank. 1986a. "Improving Agricultural Marketing and Food Security Policies and Organization - A Reform Proposal." Report No. 6083-MAI. Washington, D.C.: World Bank.
- World Bank. 1986b. World Development Report, 1986. Washington, D.C.: World Bank.

World Bank. 1981. "Malawi: The Development of the Agricultural Sector."
Report No. 3459-MAI. Washington, D.C.: World Bank.

World Bank. 1986c. Tanzania Agricultural Sector Mission: Technical Papers.
Rome: FAO/World Bank Cooperative Programme Investment Centre.

World Bank, Eastern Africa Projects Department, Southern Agriculture
Division. 1983. "Tanzania Agricultural Sector Report." Report
No. 4052-TA. Washington, D.C.: World Bank.

**Appendix 1: Real Effective Exchange Rate Indices for
MADIA Countries, 1970-87**

<u>Year</u>	<u>Cameroon</u>	<u>Kenya</u>	<u>Malawi</u>	<u>Nigeria</u>	<u>Senegal</u>	<u>Tanzania</u>
1970	101.7	93.6	98.7	105.9	100.1	94.5
1971	104.2	98.4	97.9	99.4	101.9	97.2
1972	100.3	100.0	100.0	100.0	100.2	100.0
1973	95.9	106.7	110.5	108.0	95.3	102.1
1974	95.4	103.3	109.7	101.4	94.5	96.5
1975	90.9	101.4	110.4	85.9	78.4	87.2
1976	91.7	104.9	109.4	71.3	85.4	94.1
1977	89.1	102.3	116.1	72.3	85.8	94.8
1978	86.5	95.7	116.0	68.8	91.1	93.8
1979	85.5	98.8	118.7	65.3	91.6	100.4
1980	86.6	99.1	116.2	61.6	99.3	89.8
1981	93.4	102.8	110.5	56.0	107.8	68.9
1982	96.3	98.6	116.8	55.5	102.3	53.8
1983	93.5	104.5	113.0	47.1	101.7	52.1
1984	90.9	96.4	104.7	33.9	115.4	49.6
1985	93.9	97.8	105.2	38.3	103.9	42.9
1986	90.8	122.2	114.4	83.6	93.7	79.1

Source: P. Seka/MADIA (updated for 1984-1986 by P. Fishstein).

**Appendix 2: Ratios of Producer Prices to International Prices, 1970-1986
Calculated at Purchasing Power Parity Exchange Rates**

Year	Kenya		Malawi			Tanzania		
	Smallholder--- Coffee	Tea	Smallholder Dark-Fired	Estate Burley	----- Flue-Cured	Smallholder Tobacco	----- Cotton	----- Coffee
1970	0.85	0.56	0.22	0.42	0.56	0.41	0.68	
1971	0.88	0.66	0.24	0.39	0.66	0.49	0.59	
1972	0.98	0.63	0.23	0.40	0.63	0.46	0.57	0.57
1973	1.02	0.64	0.24	0.59	0.95	0.45	0.35	0.44
1974	1.01	0.57	0.25	0.68	0.92	0.40	0.31	0.41
1975	1.02	0.64	0.25	0.52	0.73	0.41	0.45	0.32
1976	0.89	0.59	0.23	0.53	0.76	0.37	0.39	0.29
1977	0.94	0.71	0.30	0.70	0.88	0.40	0.43	0.33
1978	0.90	0.61	0.30	0.58	0.86	0.44	0.52	0.37
1979	0.92	0.65	0.29	0.53	0.77	0.37	0.51	0.29
1980	0.98	0.75	0.27	0.54	0.46	0.31	0.47	0.37
1981	0.86	0.64	0.21	0.81	0.62	0.23	0.42	0.36
1982	0.82	0.56	0.28	0.59	0.59	0.16	0.39	0.28
1983	0.94	1.02	0.26	0.31	0.44	0.20	0.35	0.24
1984	0.77	0.64	0.26	0.31	0.40	0.13	0.32	0.23
1985	0.87	0.74	0.22	0.27	0.36	0.15	0.46	0.23
1986	0.96	0.85	0.25	0.50	0.52	0.25	0.88	0.26

Sources:

International prices from World Bank BESD, Commodity Statistics for Coffee: "Other M: Arabica"; Tea "Average Auction (Liverpool)"; Tobacco "United States All Markets"; Cotton "Egypt (Liverpool)."

Purchasing power parity exchange rates from P. Seka/MADIA.

Producer Prices from Kenya: Government of Kenya (1987); Malawi: tobacco prices Government of Malawi (1988), cotton (grade A) from World Bank (1986a) groundnuts (1977) from World Bank (1981) and (1978-1986) from Government of Malawi (1988); and Tanzania: World Bank (1986b).

Note: Seed cotton producer prices converted to lint cotton equivalent using 34% conversion rate. Green leaf producer prices converted to made tea equivalent using 22% conversion rate.

Appendix 3, Table 1: Ratio of Producer Prices to International Prices For Coffee in Cameroon, Kenya, and Tanzania, (1970-1984) Calculated at Nominal Exchange Rates

<u>Year</u>	<u>Cameroon</u>	<u>Kenya</u>	<u>Tanzania</u>
1970	0.55	0.90	
1971	0.60	0.90	
1972	0.62	0.98	0.57
1973	0.65	0.96	0.43
1974	0.54	0.97	0.43
1975	0.76	1.01	0.36
1976	0.41	0.85	0.30
1977	0.26	0.92	0.35
1978	0.44	0.94	0.39
1979	0.43	0.93	0.29
1980	0.47	0.98	0.41
1981	0.48	0.84	0.53
1982	0.44	0.83	0.52
1983	0.37	0.90	0.47
1984	0.30	0.80	0.47
1985	0.33	0.88	0.53
1986	0.32	0.79	0.53

Sources: International prices from World Bank BESD, Commodity Statistics, Nominal exchange rates from IMF (1987); Producer prices for Kenya: Government of Kenya (1987), for Tanzania: World Bank (1986b); and Cameroon: International Fertilizer Development Center (1986).

Appendix 3, Table 2: Ratio of Producer Prices to International Prices For Coffee in Kenya, Tanzania, and Cameroon, (1970-1984) Calculated at Real Effective Exchange Rates

<u>Year</u>	<u>Cameroon</u>	<u>Kenya</u>	<u>Tanzania</u>
1970	0.56	0.85	
1971	0.63	0.88	
1972	0.63	0.98	0.57
1973	0.63	1.02	0.44
1974	0.52	1.01	0.41
1975	0.69	1.02	0.32
1976	0.37	0.89	0.29
1977	0.23	0.94	0.33
1978	0.38	0.90	0.37
1979	0.37	0.92	0.29
1980	0.41	0.98	0.37
1981	0.45	0.86	0.36
1982	0.43	0.82	0.28
1983	0.35	0.94	0.24
1984	0.28	0.97	0.23
1985	0.31	0.87	0.23
1986	0.29	0.96	0.26

Sources: Real effective exchange rates from P. Seka/MADIA. See App. 3 Table 1 for other sources.

Appendix 4:
 Ratios of Export Crop to Maize Prices in
 Kenya, Tanzania and Malawi, 1970-1985

	-----Kenya-----			-----Tanzania-----			-----Malawi-----			
	Coffee/ Maize	Tea/ Maize	Tobacco/ Maize	Coffee/ Maize	Grndnts/ Maize	Cotton/ Maize	Cotton/ Maize	Tobacco/ Maize	Cshwnts/ Maize	Coffee/ Maize
1970	27.2		7.84	11.66	3.31	3.28				
1971	19.1	19.5	7.71	8.03	3.03	3.37	4.23	22.31	3.46	
1972	20.0	15.5	7.32	9.90	3.61	2.87	4.58	24.17	3.75	18.75
1973	23.7	15.2	5.97	9.49	3.51	3.43	4.35	21.88	3.46	15.96
1974	21.7	15.5	4.86	10.73	3.59	4.34	3.42	18.91	2.73	13.33
1975	15.3	11.6	6.05	11.19	3.70	3.77	2.73	14.29	1.87	7.00
1976	32.9	13.8	5.40	8.75	3.11	2.25	2.50	9.66	1.29	10.00
1977	44.7	24.2	6.24	8.70	3.39	3.52	2.50	10.90	1.33	18.75
1978	31.7	17.8	7.80	11.28	3.70	3.94	2.71	10.67	1.31	12.81
1979	36.8	17.6	7.88	12.54	5.81	4.19	2.82	10.51	1.92	10.67
1980	27.6	16.7	6.31	0.40	4.60	3.25	3.00	8.95	1.73	11.42
1981	22.6	17.7	6.53	7.58	4.65	3.24	3.20	9.64	2.75	12.36
1982	25.8	18.0	4.03	4.50	2.87	2.45	2.47	7.41	3.09	9.93
1983	22.7	14.2	7.56	9.35	4.64	3.39	2.69	9.96	2.65	8.67
1984	22.0	29.6	6.61	8.33	4.89	3.31	2.73	7.61	2.95	10.40
1985	21.2	18.0	8.11		5.57	3.56	2.10	6.30	2.42	6.75

Sources: Kenya: Government of Kenya (1970-1985).

Malawi: ADMARC (1972-1987).

Tanzania: Cotton, tobacco, cashewnuts prices from Marketing Development Bureau and coffee prices for 1972-1977 from World Bank and for 1978-1985 from Marketing Development Bureau.

Appendix 5: Total and Per Ton ADMARC Marketing Costs, 1972/73 - 1986/87

	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>	<u>1977/78</u>	<u>1978/79</u>	<u>Average</u>
TOTAL CROP PURCHASES								
(M. Ton)	185,269	162,140	170,300	117,900	181,300	192,176	223,391	
('000 Kwacha)	16,477	14,343	17,179	20,458	23,042	25,477	30,522	
DIRECT COSTS 1/								
('000 Kwacha)	6,595	8,307	9,291	9,710	12,603	15,364	16,105	
(Kwacha/M. Ton)	35.60	51.23	54.56	82.36	69.51	79.95	72.09	63.61
ADMINISTRATIVE COSTS								
('000 Kwacha)	858	1,448	1,281	1,859	2,527	3,427	4,106	
(Kwacha/M. Ton)	4.63	8.93	7.52	15.77	13.94	17.83	18.38	12.43
FINANCE COSTS								
('000 Kwacha)	132	98	1,032	2,015	2,522	3,075	2,996	
(Kwacha/M. Ton)	0.71	0.60	6.06	17.09	13.91	16.00	13.41	9.68
TOTAL MARKETING COSTS								
('000 Kwacha)	7,585	9,853	11,604	13,584	17,652	21,866	23,207	
(Kwacha/M. Ton)	40.94	60.77	68.14	115.22	97.36	113.78	103.89	85.73

1986/87

Appendix 5: (continued) Total and Per Ton ADMARC Marketing Costs, 1972/73 -

	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	1985/86	1986/87	Average
TOTAL CROP PURCHASES									
(M Ton)	182,380	192,149	215,796	303,841	292,849	377,342	374,245	242,000	
('000 Kwacha)	28,238	29,900	28,859	41,940	46,048	74,262	88,544	90,585	
DIRECT COSTS 1/									
('000 Kwacha)	21,235	23,698	22,573	21,314	28,269	43,482	42,458	48,233	
(Kwacha/M. Ton)	116.43	123.33	104.60	70.15	96.53	115.23	113.45	199.31	117.38
ADMINISTRATIVE COSTS									
('000 Kwacha)	4,821	5,874	6,363	6,758	6,624	8,901	9,091	11,905	
(Kwacha/M. Ton)	26.43	30.57	29.49	22.24	22.62	23.59	24.29	49.19	28.55
FINANCE COSTS									
('000 Kwacha)	4,246	6,530	6,236	9,270	6,782	6,464	4,054	11,591	
(Kwacha/M. Ton)	23.28	33.98	28.90	30.51	23.16	17.13	10.83	47.90	26.96
TOTAL MARKETING COSTS									
('000 Kwacha)	30,302	36,102	35,172	37,342	41,675	58,847	55,603	71,729	
(Kwacha/M. Ton)	166.15	187.89	162.99	122.90	142.31	155.95	148.57	296.40	172.89

Sources: ADMARC (1972-1987), except for total purchases for 1986/87 from Deloitte, Haskins and Sells (1987), and marketing costs for 1974/75-1977/78 from World Bank (1986a).

Notes: 1/ Direct costs are the sum of "total selling expenses" and "total buying and direct expenses," which include transport and packing costs, auction floor charges, insurance, marketing costs, depot and storage costs grading, ginning and milling costs, fumigation costs, and seed distribution costs.

2/ ADMARC data on volume of crop purchases, before 1979/80 were converted from short tons to Metric tons by multiplying by 1.102.

3/ Finance costs are listed as "interest payable" on the ADMARC Profit and Loss Accounts and include interest paid on long term borrowings, bank overdrafts and other.