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Food Grain Marketing Reform in Ethiopia

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Abstract: During the past 15 years, there has been a high level of direct government intervention in food grain marketing in Ethiopia. To maintain its strong hold on the grain market, the government established a compulsory delivery quota system for both producers and traders, with geographically uniform fixed prices with no seasonal variation. Licenced traders were banned in surplus-producing regions, and grain movements between surplus and deficit regions were restricted. As a result of the government's direct intervention in the grain market, markets became disrupted geographically. The integrated market systems were cut off, giving way to the creation of segmented markets. The prices in these segmented markets were uncorrelated and created distorted prices. The distorted prices in turn led to artificial shortages of food crops. Recognizing the social and economic problems associated with the government's marketing and pricing policies during the late 1970s and the 1980s, a free market system was adopted in February 1990. Since then, the market has experienced price fluctuations related to supply and demand.

Introduction

Agricultural practices in Ethiopia are primitive, and production is limited to subsistence mixed farming. The average annual growth rate of agriculture was only 1.2 percent in 1973–83, and annual agricultural GDP declined to –3.9 percent in 1980–86 (World Bank, 1988). The rate of growth of food crop production has also been stagnant and in some cases decreasing, with the population growing at the rate of 2.9 percent per year. During recent years, agriculture has been unable to provide sufficient food relative to demand. Food grain supply has been in deficit in all urban centres and in many rural areas and even more scarce in areas of frequent drought. Because of bad marketing and pricing policies, the grain marketing system is thought to have been a major contributor to food shortage problems. As shown in Table 1, nearly 10 percent of the population is affected by food shortages every year. Marketing as an institution has contributed little to the reduction of those shortages, especially in famine-stricken areas.

Table 1—Population Affected by Food Shortages during 1979–88,
by Administrative Region (in thousands)

Region	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Shewa	14	176	239	533	195	204	852	709	330	511
Welo	996	950	450	592	1,069	1,821	2,587	1,547	334	1,017
Tigre	919	1,213	500	600	1,000	1,332	1,429	1,000	358	1,036
Eritrea	1,000	218	650	713	842	518	827	650	399	1,050
Gonder	317	109	67	202	493	470	363	341	221	292
Gojam	–	–	99	20	35	76	–	–	–	–
Illubabor	22	–	–	6	–	–	–	102	209	–
Welega	12	–	28	97	–	–	–	116	118	–
Bale	527	368	379	109	35	58	84	99	30	30
Sidamo	203	153	310	333	145	186	533	442	221	320
Gemu Gefa	14	81	232	108	–	80	106	153	27	33
Arusi	–	–	185	220	60	21	82	20	66	–
Harer	287	1,177	420	777	285	329	875	1,517	576	925
Kefa	–	39	13	26	–	–	–	90	39	–
Ethiopia	4,308	4,484	3,473	4,415	4,144	5,054	7,814	6,786	2,928	5,214

Source: Alemayehu (1990).

For the last 15 years, the grain market has been disrupted in terms of both crops and geographical differentiation. The direction of trade was also disrupted. Market competitiveness was affected by the creation of barriers to free entry into the market. At the same time, since prices were fixed by the state rather than by market forces, the free market was unable to perform its function on the basis of supply and demand. In this process of pricing and marketing activities, the producer has been very disadvantaged. Because the level of food insecurity is chronic and there are many vulnerable groups, it is assumed that efficient marketing would help to minimize the food insecure groups and reduce the level of relief food aid. On the other hand, the level of food insecure groups will increase when the market is disrupted. Bigman (1982) argues that, according to World Bank estimates, as much as 40–60 percent of the population in developing countries is undernourished, and the number may increase even further as the food problem becomes especially acute in times of market disruption. With the current state of grain marketing, Ethiopia may not be an exception to this rule.

The level of government intervention in the food grain marketing system over the past 15 years has been very high. During this period, the role of the private sector in food grain marketing was minimized, and in some regions private traders were totally banned. Abbott (1987) writes that during the 1970s and 1980s the combination of Marxist political views and the interests of development planners encouraged governments to take an increasing role in agricultural marketing. The potential role of indigenous private enterprise was largely ignored.

Ethiopia established, as did many other African countries, government marketing institutions: the Ethiopian Grain Board and the Ethiopian Grain Council, in 1950 and 1960, respectively. The first acted as a regulatory body while the latter acted as a price stabilizer by actively participating in the market by holding stocks. However, these institutions were not able to regulate the grain marketing system, so that low prices for producers and high prices for consumers existed until the onset of the revolution. A study by Stanford University's Food Research Institute (Thodey, 1969) recommended that the integration of the marketing systems should be improved. But before any improvement could be made, the government was overthrown. During the period in power of the new government, the grain marketing system developed a new feature with the creation of the Agricultural Marketing Corporation (AMC). Unlike similar institutions in many underdeveloped countries, the AMC is socialist in concept, which led to the banning of private traders and creation of fixed prices with a compulsory delivery quota system.

Grain marketing in Ethiopia was problematic in the past but has become more so in recent years. The current grain marketing problems are often associated with government intervention in the market through the AMC. The AMC, as a government marketing institution, controlled the grain marketing sector through the imposition of compulsory delivery quotas for both producers and traders, and application of fixed prices and restriction of free movement of grain among regions have been practised for more than a decade. During this time, licenced traders were banned in most of the surplus-producing regions, and nearly all traditional market structures that had positive integration and that used to be competitive were abolished. Free entry into the market was also restricted to give more monopoly power to the government marketing agency. A uniform pricing system was applied in all parts of the country and at all times of year, ignoring transport costs and seasonal price variations.

Objectives of Government Intervention in Grain Marketing

The socialization of the distribution system through government intervention was believed to be the major characteristic of a socialist planned economic management system. Thus, controlling prices and the market as an integral part of a socialist economic management system was a major objective of government intervention in the market. In relation to this, Franzel *et al.* (1989) assert that the driving force for attaining control over marketing is both

ideological and pragmatic. On the ideological side, there is a strong belief that merchants and other intermediaries exploit the peasantry and consumers and that state intervention is required to curtail exploitation. The pragmatic reasons are associated with the post-revolutionary land reform. The end of share tenancy in grain surplus areas led to increased on-farm consumption; thus, the share of peasant production marketed declined from 25 percent to 10 percent during 1974–78. This, they claim, had resulted in higher urban prices that promoted the establishment of the AMC in 1976. This again led to a situation where the activities of private traders were sharply curtailed. It was these conditions and general thinking prevailing at the time that led the government to intervene in the market.

To implement government intervention in the market, many government agencies were established with regard to grain marketing, of which the AMC was the principal one. The AMC was actually initiated as a project during the previous government, with the assistance of the World Bank. Since the project proposal was found to be suitable for the new system, the project was easily accepted by the new government with some modifications. At the same time, while the World Bank was very opposed to the activities of the AMC, it has continued its financial assistance. Under the framework of the formation of a socialist economic system, the AMC's objectives were to ensure stable producer and consumer prices, maintain adequate producer incentives, reduce marketing margins through greater efficiency and reduced risks and profits, and ensure adequate food supply in all parts of the country through a policy of low food prices.

To attain active government participation in the grain market and to achieve these objectives, a committee was set up and it decided to fix prices for 14 types of grains on 6 markets. A compulsory quota delivery system for both producers and traders was introduced with the new pricing system. The minimum grain quota for each peasant association was 100 quintals and, for licenced grain wholesalers, 30 percent of their purchase, to be delivered to the AMC. In 1980/81, these quotas were raised to 150 quintals for the peasant associations and 50 percent of purchases for wholesale traders. State farms and producer cooperatives were obliged to deliver all their marketed output to the AMC.

In order to ensure grain delivery, 1,768 grain collection centres were established by the AMC. Every year, before each harvest, fixed quotas were allocated to each region by the AMC with the approval of the national grain purchase task force and of the Office of the National Committee for Central Planning. The quotas were allocated to each region on the basis of purchase demand rather than production structures. The national grain purchase task force, operating through a series of grain purchase task forces, was usually responsible for allocating regional quotas down to the *woreda* level, and eventually quotas were set for service cooperatives and individual farmers. The fulfilment of quotas by service cooperatives and individual farmers was strictly enforced.

Prices paid by the AMC were established by the Council of Ministers for the farm gate, wholesale markets, and state farms. The ranging of prices and price differentiation based on distances and storage costs were abandoned in 1980/81. Instead, prices became geographically uniform throughout the country and all-year-round, regardless of differences in transport and storage costs and demand. The uniform pricing policy lasted up to beginning of 1990 when the new market liberalization policy became effective.

Results of Government Intervention

To facilitate the role of the AMC, improved infrastructure, storage facilities, and transport equipment were set up and operated by a series of crop purchasing committees, task forces, and service cooperatives. These facilities have been expanding as a result of greater government attention at both national and regional levels. For example, when the storage capacity increased from 1.6 million quintals in 1979 to 6.4 million quintals in 1989, the total work force also increased, from 2,019 in 1979 to 4,191 in 1989. Despite all these measures taken at both the policy and execution levels, grain marketing and pricing activity remained

a major problem. Limited marketable surplus, rising food prices, increasing food imports and international food aid, low level of agricultural growth, and unavailability of staple food items are the major characteristics of the grain production and marketing systems in Ethiopia today.

These problems are further aggravated by critical shortages of basic consumer goods, with rising prices and an increasing share of black market activities in major cities and towns and in rural areas. These problems are manifestations of contradictory situations in the grain production and distribution systems. On the one hand, agricultural production is by-and-large organized under small-scale production, with stagnant agricultural development and decreasing agricultural production; while on the other hand, there is a huge government food grain marketing agency, an expanding compulsory delivery quota system, and highly organized government intervention in the market.

While it is very difficult accurately to assess the market system, two features are clear. First, two market and pricing systems have been operating, one distorted and the other controlled, and, second, the government marketing system has had a negative impact on the distribution of commodities.

To give more purchasing power to the AMC, grain movements among regions were stopped. Checkpoints to stop grain movement were established in key places, so that the traditional trade connections between small town traders and large wholesalers in large urban centres were very much minimized, and marketing chains were broken off and became virtually non-existent. The traditional trade connections between surplus and deficit regions, in particular, came to a complete stop. The integrated market system, that was moving towards full market integration, was thus disrupted, and created several segmented markets.

Initially, the procurement and handling capacity of the AMC was substantially less than the marketable surplus. At the same time, private traders were allowed to operate so long as they submitted 30 percent of their purchase to the AMC. Then the government felt the need to strengthen the AMC, and free entry into the market was restricted, not only through central government measures but mainly by the regional administration. The regional administrations in Arusi and Gojam actually banned all private grain traders, while elsewhere traders operated on the basis of area-specific regulations. Such restrictions paved the way for the creation of a single monopolistic government marketing agency and disrupted or destroyed the competitiveness of the grain market, contributing to the creation of market inefficiencies. Since private grain traders were banned in two heavy surplus regions, Arusi and Gojam, and allowed in other parts of the country, government intervention created geographical distortions of the grain market. With the start of fixed prices and a compulsory quota delivery system, two market systems and two pricing systems were operating within a single economy. While the controlled market system played a dominated role, the so-called free or open-market system became a residual market system. Distortion of the market and prices meant replacement of competitive traditional market structures by a system that is superimposed by government intervention involving deliberate stoppage of movement of commodities among markets, a compulsory quota delivery system, and fixing of market prices. As a result of such intervention, the market and prices of food grains during the 15 years became highly distorted. The formation of prices in the residual market did not follow the rules of supply and demand; nor did the controlled market system give appropriate signals for the allocation of resources or any indication of shortages and abundance of commodities.

Geographically, the AMC's major concentration for purchases of cereals was on the Arusi, Gojam, and Shewa regions. The AMC's purchase of cereals in different regions was not based on production structures but emphasized buying preferred crops in a given region and leaving other crops for the open market system. The AMC's preference for one crop over another created market disruption on the basis of crop differentiation. For example, teff and maize represented 36 and 24 percent, respectively, of cereal production in Gojam during 1982/83–1987/88. In Arusi Province, the average percentage of production of wheat and maize for the same period was 38 and 11 percent, respectively. During the same period, the average percentage of the AMC purchases of teff and maize in Gojam was 71 and 6 percent, and for wheat and maize in Arusi 67 and 3 percent, respectively. So some crops in some regions, such as maize in Gojam, where private traders were banned, were left with no buyer. This again

created a market distortion on the basis of crop differentiation linked to geographical market distortion.

In the pre-revolution period, grain was moved first from a smaller market to a larger market. Later, mainly during the off-season, grain was moved from a larger market such as the Addis Ababa market to smaller markets such as Nekemte and Debre Markos. Since markets were segmented due to the start of the AMC's operation, the normal links between surplus and deficit regions were disrupted, which also changed the direction of trade. Geographical disruption of the market and the change of direction of trade resulted in extreme differences among commodity prices in surplus and deficit regions. For example, the producer price of black teff in Gojam between February and April 1985 was 52 birr, while it was 209 birr in Welo. When the producer price of wheat in Arusi between November 1984 and January 1985 was 61 birr, it was 141 birr in Welo. The situation indicates that the prices of commodities in these segmented markets were uncorrelated. In some cases, the prices of some commodities were moving in opposite directions. On the other hand, since the AMC's prices were geographically uniform throughout the year, the price correlation coefficient of a single commodity between any two markets was always 1.0.

The negative impact of government intervention in the food grain marketing system on short- and long-run agricultural development in Ethiopia was believed to be fully recognized by both the government and international agencies such as the World Bank. Many consultancy reports were written on the poor performance of the food grain marketing sector. But the system that led the country into the continuing food crisis continued to operate with its full-scale and original mandate until the 1990 main harvest season.

Finally, with due recognition of the social and economic problems facing the country, the 11th plenary session of the Workers Party of Ethiopia announced major economic policy changes. One of these involves the food grain marketing sector. The new policy states that there will be no prices set by the government. Farmers as well as traders will no longer be required to supply compulsory delivery quotas. Prices will be determined by market forces. All checkpoints have been removed so that grains can move in any direction. The new policy clearly states that the AMC will enter the market as buyer and seller so long as it makes a profit. Generally, the food grain marketing system will operate as a free market, although this will take some time to become fully operational countrywide. It is still uncertain how the free market will function during the transitional period. Another very important question is the actual role of the AMC during the transitional period. Since the very basic conditions for the existence of a competitive market, such as free entry into the market, were restricted, and, since there are few licenced traders, it is still uncertain how fast the market will become competitive and how fast the traditional or new market structures will become functional.

However, regardless of these many uncertainties, the grain market started to react to the new economic policy changes immediately. The prices of major food grains, especially teff, went down by about 30–40 percent. The AMC's price data, collected in the free market in many grain marketing places, indicate that the prices of white teff went down to 105 birr per quintal in Addis Ababa. But from the middle of May 1990, the prices started to go up, and the prices of red teff seem to be stabilizing at about 30 percent below, and the prices of white teff at about 15–20 percent below, the old prices. Three possible reasons why the prices at first went down, started to go up later, and then seemed to stabilize, can be put forward.

First, the psychological factor, that people are happy that the controlled market system is abolished makes them want the new system to be seen as a challenge to the old system. Second, merchants with large illegal stocks were afraid that prices might decrease, so they dumped their stocks on the market, which unexpectedly increased supply and brought the prices down. And third, since the stability of prices was initially unreliable, merchants were unable to move their stock to deficit areas.

However, the prices of food grains started to increase even though they were still below the old prices. Four possible reasons may account for this. First, the AMC, which was supplying grain to the public through the *kebeles* (urban dweller associations) decreased its activities, which shifted demand from the AMC to the open market, and pushed prices upwards. Second, since the traditional market structures did not recommence normal

operation, grains did not start to flow to the big terminal markets. Supply of grains to big markets such as the Addis Ababa market through the marketing chains was thus unable to catch up with market demand. Third, since licencing of traders in all urban centres, but mainly in the surplus-producing regions, will take some time, the open market is not as competitive as it should be. The presence of only a few merchants influenced prices to go up. And fourth, since May and June are the planting time for farmers, the supply of grain in the market in these months may have started to decrease and pushed up prices in the market.

Food Grain Marketing in the 1990s

The most important question that has to be answered is the role of AMC in the future, and whether there will be any government activity to stabilize the market. The Ethiopian smallholder agricultural sector accounts for about 92 percent all food grain production. Food grain production is also the single largest source of income for the majority of the rural population. The future organization of the grain marketing sector should be directed primarily to helping smallholders increase their sources of income and to speeding up the growth of the agricultural sector.

During the past 11 years, or since the beginning of the economic campaign, there has been a great need to give more emphasis to agricultural development. The central objectives of agricultural development policy during this period were to attain food self-sufficiency, to expand the agricultural export base, and to produce enough raw materials for the small but growing industrial sector.

At the policy level, even though it was quite different in practice, the main objective of the grain marketing sector was to contribute towards the attainment of these objectives through increasing smallholder agricultural production.

At a more aggregate level, food crop production is concentrated in three surplus regions, Arusi, Gojam, and Shewa, followed by Gonder and Wolega. During 1982/83–1988/89, 79 percent of the AMC's average grain purchases came from the three surplus regions. In the past, the public grain marketing sector has marginalized the smallholder, particularly in the surplus-producing regions, which had a greater negative impact on the development of the country's agricultural sector.

When the new grain marketing policy becomes fully implemented, the contribution of the grain marketing sector to the country's agricultural development and in meeting the three policy objectives will be undoubtedly very important. The main role of the grain market is to contribute to economic growth, to attain nutritional well-being and equitable income distribution, and to achieve food security. These objectives can at best be realized only when the market is operating efficiently to a point where it is able to give signals of scarcity and abundance to buyers and sellers as well as to policy makers about food shortages and food insecure groups. It is hoped that the grain market in Ethiopia in the 1990s will be relatively free and that it will give the appropriate signals to producers and consumers, buyers and sellers, as well as for policy makers and investors. However, it is not clear whether the AMC will play a market and price stabilization role or not.

Note

¹Office of the National Committee for Central Planning, Ethiopia.

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Discussion Opening—William Grisley (Centro Internacional de Agricultura Tropical)

Teferi's paper addresses a topic of major importance not only for Ethiopia, but also for many other developing countries. In his study of state participation in and price regulation of selected grain markets in Ethiopia, he concludes that the state's action contributed to both chronic food scarcity and periodic shortages and has dimmed the prospects for economic development in rural areas. This conclusion is anything but surprising. A similar conclusion could be drawn in many other developing countries, especially those in sub-Saharan Africa. Why is this the case and what are the factors responsible for its occurrence?

The wider issue in development is the roles of the state and the private sectors and the relationship of the public to these sectors. Many developing countries have elected to extend the role of the state sector beyond its traditional functions of security provision, infrastructure development, and general economic regulation to direct involvement in the production, financing, and marketing of consumer goods, services, and commodities. The crux of the problem is not necessarily the involvement of the state in these activities but the fact that the state often gives itself a monopoly position in important economic sectors. The resulting economic inefficiencies and distortions in resource allocation are thus not necessarily due to state participation but to the monopoly position of the state entity. Managers of state firms that hold monopoly positions have no incentives to become more efficient. A monopoly position held by a private firm would in theory result in similar lack of incentives and resulting inefficiencies.

If the monopoly position and not the ownership of the firm is the problem, why then have governments in many developing countries—and formerly the countries of Eastern Europe—protected the monopoly position of state or private entities? The reason lies in the absence of a public that is allowed to influence state policies. Governments that do not regularly face the whims of voters have largely ignored the wishes of the public because they have not found it costly to do otherwise. A necessary condition for effective public participation in the development of state policies is political democracy. Governments that are subject to public pressures cannot long afford to allow state or private firms to enjoy monopoly positions in non-public goods sectors and sectors in which strong externalities do not exist.

With the demise of socialist régimes in Eastern Europe, the trend in developing countries is towards a more open political system. When state firms' monopoly position is eliminated, they will have to become competitive in order to survive. In agriculture, the flexibilities required in production and marketing will make continued participation by unprotected state firms difficult and many will fail. Over the longer term, both producers and consumers will benefit from this political trend.

[Other discussion of this paper and the author's reply appear on the following page.]

General Discussion—*L.P. Apedaile, Rapporteur* (University of Alberta)

Responding to the opener's remarks, Shimizu noted that melon yields are stable from year to year, allowing the DEA method to be applied to measuring management performance. He further noted that sustainable farming necessarily involves multiple objectives to which the DEA technique is well suited. He agreed that a longer data base would be useful; in such a longer data series he will introduce farm growth as one of the output indices. Responding to criticism of the conclusion that the presence of more full-time workers is associated with lower technical efficiency, he referred to two problems. First, the exclusion of part-time workers leads to overestimation of technical efficiency for one-worker farms and underestimation for three-worker farms. Second, dropping the fixed asset variable had the same effect. This estimation problem is related to the fixed upper limit of 100 percent for quality and quantity in the output index, although the estimates improve as the number of full-time workers increases. Finally, he noted that the measures of technical efficiency are independent of the degree of specialization in melons on the farms because of the low degree of correlation between melon output and total farm output.

Veeman *et al.* were asked why a price variable was excluded, noting that even with cross-sectional data, border prices for cereal imports would vary across nations. The response was that a price series is not included in the World Bank report used as the data base, and that the limited availability of consistent price data to match that base would have restricted the sample size. Another problem raised was the specification of the model. The size of a country could affect the level of imports. Larger countries could avoid imports by interregional transfers of cereals. Veeman accepted the point and observed that a size dummy might work. Veeman further admitted the absence of a strong theoretical base to the model, emphasizing the absence of literature on the effects of income distribution on cereal import demand. Disaggregation of the cereals variable to enable a focus on food grains would be a good idea. The results of their work could not be construed to mean that imports by LDCs would increase further, observing that yield barriers and poverty are the most important long-run determinants of cereal imports.

Relating to Abebe's paper, he was asked if there had been economic growth in Ethiopia during the period under study and whether a surge in cereal output could be expected now that the Marxist policies were being changed. Abebe responded that the growth rate had declined from 1.2 percent in the early 1980s to negative values in the late 1980s up to the overthrow of the government in early 1991. He felt that it was too early to tell whether cereal output would respond dramatically to the new policy environment. Another participant listed a number of features of the Ethiopian situation and asked if the almost 50-percent commitment of treasury funds to the military would now be redirected to finance a food policy. He wondered about the inflationary consequences of consumer food subsidies. A question was also asked about the likelihood of land redistribution under the new government. Abebe said that all land belongs to the state and that there are no plans to privatize ownership. He noted, however, that there is now secure access to land under long-term leases, which is a major improvement over the previous policy. In reply to the opener's remarks, Abebe reaffirmed that the quotas had to be abolished, especially for the food surplus areas, because they are the major impediment to production increases. The Agricultural Marketing Corporation (AMC) would probably be needed to procure grain to feed the army. However, in Abebe's view, the AMC should be abolished along with the delivery quota system. The only possible future role for the AMC would be as a sort of buffer stock manager to stabilize prices.

Participants in the discussion included D. Belshaw (University of East Anglia), J. Benet (Hungarian Academy of Sciences), R. Herrmann (Universität Giessen), P.J. Lund (Ministry of Agriculture, Fisheries, and Food, UK), and H. Shinoura (Agricultural Research Institute, Japan).