MARKET ANALYSIS NOTE #1

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EMERGING MARKET AND POLICY RESPONSES TO ETHIOPIA'S GRAIN HARVEST OF 1995-96[1]

SUMMARY

Important supply management issues have arisen in 1995/96 in response to the bumper meher harvest. As early as October 1995, concerns arose that the bumper crop could depress farm prices, inhibit adoption of fertilizer and improved seed currently being aggressively promoted through government extension programs, and retard the country's ability to overcome its 0.5 to 1.0 million ton annual structural grain deficit. Government and donors have responded with various attempts to stabilize cereal prices, including (a) a price support policy implemented by the Ethiopian Grain Trading Enterprise (EGTE) since November 1995, (b) a reduction in food aid imports by donors, and (c) donor-funded procurement of maize, wheat, and sorghum on local markets.

This report provides emerging findings on the market's response in the first half of 1996 to these efforts to stabilize cereal prices for farmers. The evidence to date indicates that prices for teff and wheat during the first half of 1996 have been 10% to 20% below their five-year real average levels. Maize prices in surplus-producing areas have been particularly depressed, falling as low as 55% to 70% of their five-year average levels in parts of Oromiya and Southern regions. Combined donor and EGTE maize purchases have amounted to less than 8% of the estimated marketed maize output. This volume has not been sufficient to restore maize prices close to their average levels in many parts of the country. This may have important implications for farmer planting decisions and grain production in the upcoming 1996 meher season.

The major lessons from the 1995 experience are that:

- Given the size of the 1995 meher harvest, greater purchases from the market were necessary to meaningfully stabilize producer prices at specified support levels.

- Effectively stabilizing producer prices at specified support levels would have involved substantially greater costs than what was actually incurred in 1996.

- Future market interventions to stabilize prices at desired levels would benefit from more accurate methods to estimate marketed grain output and producer price responses to local purchase operations.

- The objectives of raising and stabilizing farm revenues and household food security may also be achievable through investments that reduce the costs of grain marketing and input delivery.

BACKGROUND

Starting in September 1995, there was growing evidence of an above-average grain harvest for the meher season. In December, the Central Statistical Authority (CSA) and FAO independently forecasted that food grain production (cereals plus pulses) would be 20% and 27% higher, respectively, than that of the previous year (1994/95), itself a good harvest (Table 1). The EGTE forecasted in November a 27% increase in food grain production. In December, the Early Warning Department of the Disaster Prevention and Preparedness Commission (DPPC) forecasted a 9.5 million ton meher grain harvest -- up about 16% over the previous year. The main reasons cited for the production increase have been (a) an estimated 10% increase in area planted to these crops, (b) a 15% to 20% increase in fertilizer use,[2] and (c) favorable rains.[3]

Given the forecast of improved production, the estimated allocation for food relief was initially set at 253,000 tons, but was revised upward to 295,000 tons in March 1996 based upon updated information.[4] The need for commercial grain imports was estimated at about 60,000 tons. This compares to 0.5 to 1.2 million tons of food aid imported annually over the past decade.

GRAIN PRICE TRENDS

The initial consequences of the above-average grain harvest is indicated by the pattern of seasonal prices in representative markets (Tables 2 and 3). The tables show a comparison of average monthly wholesale prices of maize and white wheat for the period 1991-1995 and wholesale prices since July 1995. Prices were adjusted for inflation and converted to 1995 birr.[5]

In April, May and June of 1995 reported maize wholesale prices were higher than the historical average price levels in each of the representative markets, after adjusting for inflation. But as soon as July 1995, prices in the grain surplus areas started to fall, presumably in anticipation of an unusually large incoming harvest.

In each month since August 1995, wholesale maize prices in all markets examined here have fallen below the five-year average monthly levels. The decline was especially severe in surplus-producing areas. The typical upward movement in maize prices that occurs after the meher harvest in most seasons has not yet manifested in 1996. In Shashemene, Jimma, and Bako, prices in the first half of 1996 have ranged from 55% to 75% of their average levels over the 1991-1995 period, after adjusting for inflation. Prices in Addis Ababa markets have shown a similar pattern of decline. However, prices have declined to a much lesser extent in Mekele or Dire Dawa, traditional grain-deficit areas. Very large price differences are also reported among regions in the same month. For example, wholesale maize prices in Mekele and Dire Dawa are typically more than twice as high as those in the surplus producing areas of Bako and Shashemene.

The situation for wheat is less extreme. Real wholesale prices of white wheat in Hosaenna, a surplus producing area, and in Addis Ababa, were in the range of 80% to 90% that of the five-year average since July 1995 (Table 3). Prices have actually been higher than average in some deficit areas such as Dire Dawa and Mekele. This indicates that grain transfer costs from some surplus areas to the above deficit areas have temporarily increased in the first half of 1996.

Particular interest centers on the effect of the large 1995 harvest on cereal prices received by farm households, as opposed to wholesale prices reported above. Unfortunately, producer price information is only sporadically available through November 1995, and is difficult to interpret for the purposes of this note. However, available estimates by CSA indicate that producer maize

prices were in the range of 45 to 65 birr per quintal in large areas of the Oromiya, Southern, and Gambella Regions during the harvest period.[6]

PRICE SUPPORT POLICY AND PROGRAM IMPLEMENTATION

The Policy Response

In response to the forecasts and reports of low grain prices, EGTE responded with a policy intended to ensure minimum prices of selected grains for farmers. Farmers were to receive 70 birr per quintal for maize and 116 birr per quintal for wheat (white or mixed) delivered to EGTE depots. Prices were fixed through the season and uniform with respect to location. Traders delivering maize and wheat to EGTE could sell at the prevailing market price.

Implementation

The first purchases by EGTE under the price support policy occurred in December 1995. Table 4 displays the purchases of maize and wheat by EGTE at the support prices and the quantities purchased from traders as of December 1995. Prices at which EGTE purchased from traders are also displayed.

As of 2 June 1996, EGTE maize purchases at the support price have amounted to 5,036 tons, about 1% to 2% of estimated marketed supply of maize from the 1995 meher harvest, based on alternative assumptions about the proportion of grain that is marketed (Table 5). Under any plausible assumption, it is fairly certain that the EGTE has purchased (from farmers and traders combined) less than 5% of the maize circulating in Ethiopian markets. EGTE has apparently ceased accepting additional grain for purchase from farmers since mid-June due to financial constraints.

EGTE has purchased 7,334 tons of wheat from farmers at the wheat support price, about 2% to 5% of estimated marketed supply of wheat (Table 5). After including purchases from traders at market prices, EGTE's wheat purchases from farmers and traders combined has been about 7% to 13% of the marketed wheat output.

It can be argued that a price support program for maize and wheat would also support the prices of other grains that are substitutes in consumption. With an estimated cereal production of about 8 million metric tons, of which an estimated 20% is marketed, the estimated quantity farmers are expected to sell of the total crop would be 1.6 million metric tons. Thus as of 2 June, total EGTE cereal purchases of 30,395 tons constituted roughly 2% to 3% of the estimated marketed cereal supply.

There are three main reasons why EGTE has not purchased more grain from farmers at the support price. First, EGTE has refused to buy some grain that did not meet quality standards. Second, EGTE has acknowledged problems in obtaining adequate financing to purchase substantial volumes of grain. Third, EGTE continues to hold in stock about 65,000 tons of maize purchased last year at relatively high prices that cannot be easily sold given current market conditions. Also, interviews with traders and EGTE market enumerators suggest that many farmers were not aware that they would be able to sell their grain at the support price at least during the immediate post-harvest period. However, this finding is controversial because EGTE management states that the support price policy was extensively advertised in all areas.

Budget Costs of the Support Price Policy

A rough estimate of the cost of the EGTE price support program (as distinct from its more commercial market activities) can be derived as the difference between its expenditures on grain purchased at the support price and the cost of the same quantity of

grain at prevailing market prices in the same markets at the same time of purchase. This approach is likely to underestimate the true costs of the policy, since EGTE may have purchased in different quantities in different markets if it were pursuing strictly commercial objectives.

Following this procedure, and using data presented in Table 4, the estimated cost of the support price policy was Birr 342,969 (US$54,267) for maize, and Birr 142,378 (US$22,528) for white and mixed wheat.

Therefore, it can be inferred that a total amount of Birr 485,347 (US$76,795) was transferred from EGTE to farmers between December 1995 and June 1996 in connection with the support price policy. The farmer beneficiaries were concentrated in Nekempt, Hosana, Jimma, Bahir Dar, and Debre Markos (for maize support payments) and in Assela, Hosana, and Bale Robe (for wheat support payments), as indicated in Table 4.

Considering the volume actually purchased by EGTE at the support price, the amount transferred to farmers per ton was Birr 6.81 for maize and Birr 1.94 for wheat. If EGTE were to purchase a significant share of the marketed maize output (e.g., 50,000 tons, or roughly 13% of the 391,000 tons marketed according to figures presented in Table 5), the cost of supporting maize prices at 70 Birr per quintal is estimated at Birr 3.41 million (US$0.54 million).[7] This underscores the point that the costs of the support price policy were limited in the 1995/96 season because only a relatively small part of the marketed maize and wheat output was actually purchased by EGTE. Substantially higher budget costs would have been incurred if a large portion of the marketed maize output would have been purchased at the support price by EGTE.

THE LOCAL PURCHASE OF GRAINS FOR FOOD AID

The Policy Response

Another important part of the effort to stabilize farmer grain prices after the large 1995 meher harvest was the decision to procure food aid grain from domestic markets rather than from foreign imports. Negotiations between the European Union (EU) and the Ethiopian Government resulted in a decision in February 1996 for the EU to issue tenders for the purchase of 108,000 tons of wheat, maize, and sorghum.

Implementation and Effects on the Market

The program was to be implemented in two rounds. However, the second round has been postponed until after the next meher harvest later this year at which time the longer-run market situation can be assessed. For the first round, tenders for 90,000 tons (24,000 tons of wheat and maize each, plus 42,000 tons of sorghum) were issued in February and March for delivery in June and July to specified locations. The recipient of the grain has been the Emergency Food Security Reserve Administration, except in Tigray Region, where the non-governmental organization REST has been the recipient of 33,000 tons of sorghum.

The tenders were issued in lots of 3,000 tons, and over 100 bids were received from private traders, holding companies, and the EGTE. Information on the winning bids is presented in Table 6. The bids were awarded in late March and April. Delivery by the bid winners to the specified destinations is currently in progress.

The logic of purchasing grain locally instead of importing it for use as food assistance in response to a harvest expected to result in undesirably low grain prices to farmers seems straightforward. Local procurement has long been advocated by analysts as a means to procure grain to assist the food insecure while also supporting local production incentives and the development of local markets. By awarding bids to local traders, the local

purchase of grain can stimulate the demand for services offered by traders and transporters and thereby increase long-run investment in the food system.

However, such supply management programs require timely and accurate information for their success. In particular, local purchase programs require information on the amounts of grain produced and marketed locally, as well as timely information on local prices, both at the producer and wholesale level. Without this information, the appropriate amount to purchase is not clear, and there is a risk that either too much will be purchased with the effect of driving up prices excessively for consumers, or not enough will be purchased to have any meaningful effect on producer prices or production incentives.

In fact, very little timely information has been available during the 1995/96 season on either the marketed grain supply or on producer price levels.[8] For these reasons, it has been difficult to determine in advance the desired amount to purchase locally, or to assess the effects of the local purchase program or the EGTE support price program on farm-gate prices. However, the fact that wholesale prices in most major regional markets have continued to remain flat or have even declined in the past six months since the main harvest indicates that the volume of EGTE and EU purchases was insufficient to appreciably raise grain prices, if in fact this was an objective. Yet it is likely that the combined purchases from farmers and traders by EU and EGTE (105,000 tons) were successful in preventing prices from declining even further during the first half of 1996.[9]

The greatest evidence that the EU local purchase operation has actually raised market prices is in Tigray, where bids for 33,000 tons of sorghum were launched in February. Tigray is generally regarded as a grain-deficit region, and wholesale sorghum prices in Mekele were already higher than in most other regional markets for which data is available. In February, the wholesale price of sorghum rose from 131 birr/quintal to 160 birr/quintal, and rose again in March to 168 birr/quintal, despite the fact that sorghum prices declined or stayed flat over this period in almost all other regional markets covered by EGTE. Although this tender was cancelled in March because bid prices exceeded the cost of importing sorghum to Tigray from the world market, the tender was relaunched in April and lower bid prices were received as reported in Table 6.

Differential Between Awarded Contract Prices and Market Prices

From data presented in Table 6, it is possible to compare the contract prices agreed upon by the bid winners and the EU in February and March for delivery in May with the actual May wholesale prices in the respective delivery market as reported by EGTE. Large differences between forward contract prices and market prices could indicate, among other things, unpredictability in market conditions, lack of public information that might otherwise be incorporated into future price expectations, quality differences between contracted grain and grain monitored by EGTE, and/or barriers to entry or lack of competition in the bid process. As shown in Table 6, the winning contract prices were less than actual May wholesale prices in two of the 17 cases, less than 10% above the actual May wholesale prices in three of the 17 cases. Contract prices were more than 20% above the May wholesale price in four cases, all involving delivery of sorghum to Tigray and Kombolcha. Part of the reason for the relatively high contract prices can be attributed to the unusual decline in sorghum prices in these areas during the first half of 1996, and possibly to differences in quality between the grain on which market prices collected by EGTE are based (unspecified) and the Grade I grain specified for delivery in the EU contracts.

Based on the data in Table 6, it can be shown that the average procurement cost under the EU program exceeded May market prices (adjusted upward by 10% to reflect a quality premium) by 5.08 birr per quintal for wheat, -6.29 birr per quintal for maize (i.e., the procurement cost was below market value), and 34.14 birr per quintal for sorghum. For the 90,000 tons of cereal specified in Table 6, the procurement cost exceeded May market values by 14.05 million birr (US$2.22 million), after adjusting for a 10% quality premium for the contracted grain. To some extent, this may be an inevitable consequence of an unpredictable market environment. However, the costs of local purchase programs can be potentially reduced in the future through improved market information and forecasting systems and by designing the program so that a greater number of traders are able to bid on local purchase contracts.[10]

Notwithstanding these points, it is important to note that the cost of procuring the grain under local purchase arrangements in 1996 was clearly less than prevailing world market values plus transport costs. In this context, the local purchase of grain could be considered a cost savings. Moreover, the local purchase program was clearly more beneficial to those Ethiopian farmers who are net sellers of cereal than food aid import programs that may actually depress farm prices. As government, donors, and analysts learn more from experience with local purchase programs, and are able to modify the design of the programs accordingly, it is anticipated that local purchase programs can achieve important benefits, both in terms of procuring grain for targeting purposes and for increasing investment and competition in Ethiopia's grain production and marketing system.

IMPLICATIONS FOR FUTURE POLICY

There is no doubt that expectations about crop prices are important in farmers' decisions whether to adopt productivity-enhancing cash inputs such as fertilizer and more intensive agricultural management practices. Incentives for input suppliers to reliably deliver fertilizer and related technical inputs, seeds, information, and pesticides to farming areas depend on reliable demand for these inputs from farmers. To meet credit requirements and to have the incentives to use the technical inputs, farmers must have expectations of prices that result in net revenues sufficient to make the use of the inputs consistently profitable. Needless to say, in an environment of unstable weather and yields, stabilizing prices at levels significantly different from prevailing market conditions would be difficult and expensive. The wider the divergence between the support price and local market prices, the more costly the program.

This year, the fiscal costs of the EGTE price support program were minimized for two reasons: (a) the wheat support price did not differ greatly from market conditions in many surplus wheat-producing areas (see Table 4); and (b) credit constraints limited

the amount of maize that EGTE actually purchased at the maize support price. However, because of the latter, the evidence indicates that the majority of maize sold by farmers in important surplus-producing areas received prices below the support price of 70 birr/quintal (Table 2). Anecdotal field observations in important maize producing areas such as Wellega suggest that the area planted to maize this year is lower than last year. It will be several months before these observations can be either confirmed or refuted through CSA's crop area forecasts.[11]

Research findings from other parts of the world indicate that predictable farm revenues, not necessarily fixed prices, are important in stimulating profitable use and adoption of fertilizer and other cash inputs.[12] The goal of raising and stabilizing farm revenues can be promoted by improving the efficiency of the grain marketing system. A more efficient marketing system would help pull grain quickly out of surplus areas, thus relieving the localized gluts that depress farm prices, and more quickly deliver grain to deficit areas. Examples of investments that are likely to improve the efficiency of the grain marketing system include more timely and widely disseminated market information, improved road infrastructure, and removing barriers that raise the costs of moving grain from one region to another. The continuation of competitive local purchase operations during large harvest years, guided by timely information on marketed supplies and prices, could also stimulate private investment in the food system, promote competition, and reduce grain and input marketing costs over the longer run. These market-oriented approaches may prove to be more cost-effective over the long-run in stabilizing producers' revenues and promoting farm technology adoption and production than administered fixed price policies.

As is well known in Ethiopia, stabilizing prices and food supplies is an incomplete means to tackle the food insecurity problem. Even in good harvests, many people continue to go hungry because of inadequate purchasing power and because they fail to acquire enough food through safety net programs. Local purchase operations provide the means to support the incomes of surplus-producing households while also mobilizing food for relief and buffer stock programs. But the long-run problem is poverty and the sustainable solution will lie in the process of economic development involving the transformation of the economy from one based on low-productivity agriculture to a more commercialized and productive rural economy. As many as two thirds of Ethiopia's rural households are typically food deficit for part of the year. A recent report on the structure of Ethiopia's grain market mentions that 56 percent of farm households typically sell no crops.[13] Having enough food in the country clearly does not mean that all people will have access to adequate food, even in a relatively good harvest year such as 1995/96. Increasing the food supply and access to it remains the problem and objective. Research is currently being conducted to identify cost-effective strategies to stabilize and expand food production and consumption particularly for vulnerable groups in Ethiopia.

Table 1. Forecast of 1995/96 and estimates of 1994/95 area and production of major cereal and pulse crops for private peasant holdings in Ethiopia (Meher season)

Crop	Total Production (000 tons)				
	CSA Estimate 1994/95	CSA Forecast 1995/96	EGTE Estimate 1995/96	DPPC Estimate 1995/96	FAO Estimate 1995/96
Cereals	6,154.2	7,547.3	6,798.2	na	8,305.6
Teff	1,298.3	1,713.1	1,405.5	na	1,533.4
Barley	847.6	695.3	1,192.4		1,345.8
Wheat	1,023.9	1,118.1	1,377.8		1,567.7
Maize	1,673.2	1,956.7	1,358.7		2,017.3
Sorghum	1,121.9	1,802.0	1,250.7		1,497.6
Millet	153.0	208.9	213.2		278.2
Oats	36.1	53.0	--		52.7
Pulse crops	772.3	778.3	626.6	na	794.4
Total cereal/pulse crops	6,926.5	8,326.6	7,424.8	9,476.1[a]	9,100.0

Notes: [a]DPPC forecast also includes oilseed and other crops.

Sources: Central Statistical Authority, "Agricultural Sample Survey 1995/96, Report on Forecast of Area and Production of Major Crops, Statistical Bulletin 140, Addis Ababa; EGTE Planning and Market Study Unit, "Evaluation of Weather and Grains," November 1995, Addis Ababa. Disaster Prevention and Preparedness Commission, "Food Supply Prospect in 1996," Early Warning Department, DPPC, Addis Ababa, December 1995; Food And Agriculture Organization, "FAO/WFP Crop and Food Supply Assessment Mission to Ethiopia," FAO/Rome 1995.

Table 2. Average monthly wholesale prices for maize, selected markets, January 1991 to December 1995, and price levels for the 1995-96 season.

	MAIZE											
	Dire Dawa		Addis Ababa		Shashemene		Bako		Jimma		Mekele	
	constant Birr per quintal (1995=1)											
	5-yr. ave.	1995-1996	5-yr. ave.	1995-1996	5-yr. ave.	1995-1996	5-yr. ave.	1995-1996	5-yr. ave	1995-1996	5-yr. ave	1995-1996
July	174	160	136	125	117	109	108	109	121	142	152	170
August	170	162	133	119	108	88	111	103	114	123	147	140
September	183	160	122	112	104	80	113	104	104	91	142	135
October	158	149	106	85	80	70	113	73	80	69	162	162
November	150	145	95	87	80	74	95	58	82	68	156	143
December	136	142	101	84	92	74	70	57	82	59	158	138
January	141	145	106	78	91	69	71	58	93	66	143	133
February	145	141	107	82	90	70	79	55	94	64	146	135
March	149	142	112	81	94	72	80	52	95	62	150	134
April	149	143	118	75	100	75	89	48	101	49	144	127
May	156	148	123	71	107	69	89	52	104	42	146	121
June	159	121	128	78	117	76	100	52	110	60	153	126
Annual Average	145	147	116	90	98	77	92	68	98	75	150	139

source: EGTE data files

Table 3. Average monthly wholesale prices for white wheat, selected markets, January 1991 to December 1995, and price levels for 1995-96 season.

	WHITE WHEAT							
	Dire Dawa		Addis Ababa		Hosaenna		Mekele	
	constant Birr per quintal (1995=1)							
	1991-95	1995-96	1991-95	1995-96	1991-95	1995-96	1991-95	1996-96
July	230	235	176	162	149	140	219	220
August	230	230	187	162	152	139	210	221
September	222	223	190	157	150	130	193	222
October	226	225	182	150	141	127	186	213
November	228	233	170	144	120	120	183	210
December	218	229	157	139	124	116	182	206
January	219	240	158	146	127	118	187	217
February	220	239	156	144	132	118	199	227
March	227	238	155	145	133	117	199	237
April	225	239	160	144	135	110	201	224
May	223	239	168	146	144	110	213	218
June	226	219	172	149	145	--	215	--
Annual Average	224	232	169	149	138	122	199	211

source: EGTE data files

Table 4. EGTE Wheat and Maize purchases from farmers at support price and from traders at market price, July 1, 1995 to June 2, 1996.

Region	Procurement Site	White Wheat				Mixed Wheat				Maize				Total Procured
		Peasants Quintals	Traders Quintals	Price Birr/Quintal	Total Qty Quintal	Peasants Quintals	Traders Quintals	Price Birr/Quintal	Total Qty Quintal	Peasants Quintals	Traders Quintals	Price Birr/Quintal	Total Qty Quintal	
Nazareth													0	2197
Nazareth	Itya	0	2356	123.5	2356	0	2197	125	2197	0			0	5390
Nazareth	Arisrobe	0	0		0	0	3034	120	3034	0			0	10119
Nazareth	Shenkor		35	125	35		10119	115	10119				0	35
Nazareth	Haruta		1021	118	1021				0	5981	50	67	6031	1700
Shashemene	ArisNegel	0	1297.05	127	1297.05	0	679	114	679	865.72	4606	67	5471,72	7328.05
Shashemene	Shashemene	0	2104.39		2104.39	0	0		0	15373	4905.16	65	20278.16	7576.11
Nekemet	Bako	0	0			0	0		0	200	16296	58	16496	20278.16
Nekemet	Gutin	0	0			0	0		0	2460	181	60	2541	16496
Nekemet	Sire	0	0			0	0		0	325	1800	65	2125	2641
Nekemet	Nekemet	0	0			0	0		0	2153	440		2593	2125
Ambo	Ijaji	0	0			0	0		0	0	0			2593
Hosana	Hosana	5438	47811	116	53249	481.38	6447	114	6928.38	0	0			60177.38
Hosana	Butajira	0	1916.88	116	1916.88	0	1503.71	114	1503.71	4347	2260.17	65	6607.17	3420.59
Jimma	Asendabo	0	0			0		0	0	3979	0		3979	6607.17
Jimma	Metu	0	0			0	0		0	523	2067	62	2590	3979
Jimma	Bedele	0	0			0	0		0	2112	5205	61	773177	2590
Jimma	Jimma	0	0			0	0		0	2789	0	62	2789	7317
Baher Dar	Durbete	0	0			0	0		0	253.93	0		253.93	2789
Baher Dar	Merawi	0	0			0	0		0	0	0			253.93
Assela	Assela	16098	10945	118	27043	10753	315510	115	42304	0	0			69347
Assela	Sagure	158	0		158	0		115	0	0	0			158
Assela	Bekoji	747.63	275	117	1022.63	0		115	0	0	0			1022.63
Assela	Asas	3717.32	0		3717.32	0	0	115	0	0	0			3717.32
Assela	Lole(Kersa)	1213.45	0		1213.45	0	0		0	0	0			1213.45
Bale Robe	Robe	22402	15738	111	38140	0	0		0	0	0			38140
Bale Robe	Dodola	10987	1394	115	12381	1345	0		1345	0	0			13726
D/Markos	Jiga	0	0		0	0	0			8999	2010		11009	11009
Total		60761.4	84893.32		145654.72	12579.38	55530.71		68110.09	50360.65	39820.33		90180.98	303945.79

Source: EGTE, Price Monitoring Unit,

Notes: 1 - EGTE's budget year is from July to June; yet EGTE purchases actually began in the month of December.

2 - The support price policy commenced in November. EGTE's peasant purchase is at the support price (70 birr/q for maize and 116 birr/q for white and mixed wheat).

3 - The above total purchase excludes 20,000 tons purchased from State Farms (from January to May 1996).

Table 5. Estimates of EGTE cereal purchases as a percentage of total marketed cereal supply from domestic production

Crop	Forecasted 1995/96 production (tons)**	Assumed proportion of cereal production that is marketed	Total marketed supply (at alternative assumption of % of production that is marketed) (tons)	EGTE purchases from farmers and traders, July 1, 1995 to March 29, 1996 (tons)	% of total market supply purchased by EGTE	EGTE purchases from farmers at support price, July 1, 1995 to June 2, 1996 (tons)	% of total marketed supply purchased at support price by EGTE
	(a)	(b)	(c)=(a)*(b)	(d)	(e) = (d)/(c)	(f)	(g)=(f)/(c)
maize	1,956,731	15%	293,509	9,018	3.1	5,036	1.7
		20%	391,346		2.4		1.3
		25%	489,183		1.9		1.0
wheat	1,118,179	15%	167,727	21,377	12.7	7,334	4.4
		20%	223,636		9.6		3.3
		25%	279,545		7.7		2.6

** CSA forecast (1995).

Table 6. Winning bid prices for local purchase of grains under EU program for delivery in May 1996, and wholesale prices in the delivery market in April 1996.

Delivery Market	Quantity Bid/Awarded (tons)	Contract Price for May Delivery (birr/quintal)	May Wholesale Price (birr/quintal)	Seller*	Region
Maize					
Dire Dawa	6,000	127.1	143	AZBU	Southern
Shashamene	3,000	104.9	73	RADYA	Southern
Kombolcha	6,000	119.3	103	EGTE	Amhara
Kombolcha	9,000	104.5	103	EGTE	Oromiya
Sorghum-White					
Dire Dawa	3,000	129.4	175	AZBU	Southern
Kombolcha	3,000	178.8	133	AMBASSEL	Amhara
Kombolcha	3,000	160.0	133	HADIA	Amhara
Tigray	24,000	214.3	154	GUNA	Tigray
Tigray	8,000	214.6	154	AERMO	Tigray
Wheat 1					
Kombolcha	3,000	170.0	151	AMAN	Southern
Kombolcha	3,000	176.5	151	HAWAAS	Southern
Kombolcha	3,000	178.7	151	EAL	Amhara
Kombolcha	3,000	177.0	151	DERMO	Amhara
Kombolcha	3,000	165.9	151	MEKIA	Oromiya
Kombolcha	3,000	169.4	151	HAWAAS	Oromiya
Kombolcha	3,000	175.7	151	EAL	Oromiya
Kombolcha	3,000	156.2	151	EMADCO	Oromiya

Source: European Union Food Security Unit in Ethiopia.

* EAL - Ethiopia Amalgamated LTD. RADYA - RADYA International PVT LTD
AMBASSEL - Ambassel Trading House P.L.C. DERMO - Dermo In. Trading Ent.
AMAN - AMAN KEDIR P.L.C. HADIA - HADIA TRADING ENTERPRISE
AZBU -AZBU Import Export Enterprise HAWAAS - HAWAAS AGRI BUSINESS CO.
AMC - Agricultural Marketing Corporation, EGTE EMADCO - Emadco Share Co.
GUNA - GUNA Trading Share Company MEKIA - Mekia Grain Wholesaler
AEMRO - AEMRO Solomon Pvt. Trader

Notes:

1. This note was prepared by staff members of the MEDAC Grain Marketing Research Project: T.S. Jayne, Alemu Asfaw, Daniel Molla, and James Shaffer.

2. Source: AISCO, Ethiopia Amalgamated Ltd., and Ambassel records for 1995 fertilizer delivery, adjusted for carry-over stocks.

3. The underlying causes of the increase in grain cultivation and input use are difficult to isolate but most likely include (a) the liberalization of grain trade, which has increased cereal prices in several important surplus-producing regions (see Dercon, S. "The Consequences of Liberalization and Peace for Food Markets in Ethiopia, mimeo, Center for the Study of African Economies and Nuffield College, Oxford, 1993; and Asfaw Negassa and T.S. Jayne, "Cereal Market Response to Liberalization in Ethiopia, Working Paper #5, Grain Market Research Project, Ministry of Economic Development and Cooperation, 1996); (b) greater access by farmers to improved seed; and (c) improved input delivery and credit provision in 1995 (FAO, "Crop and Food Supply Assessment Mission to Ethiopia, FAO/Rome, 1995.

4. USAID Famine and Early Warning System/European Union Food Security Unit, 1996. Monthly Food Security Bulletin, March 1996, Addis Ababa.

5. Prices are wholesale prices reported by EGTE, Price Monitoring Unit. The deflator was the non-food component of the consumer price index for Addis as reported by CSA.

6. The CSA producer price estimates are difficult to interpret for the purposes of this analysis because they are based on farmers' reports of the prices they received at the place they sold the grain. Hence, one observation may be a price at the farm gate and an other at a distant market unadjusted for transport costs incurred by the farmer. Moreover, the prices reported by CSA are averaged across several zones. For details, see Central Statistics Authority, 1996. "Report on Average Producer's Prices of Agricultural Products in Rural Areas by Kilil and Group of Zones," Statistical Bulletin 142, Addis Ababa.

7. This is derived as 50,000 tons (500,000 quintals) * 6.81 birr/quintal = 3.405 million birr per quintal. If, in addition, 50,000 tons of wheat were purchased at a net cost of 1.94 birr per quintal, the total cost of defending these support prices would have been 4.38 million birr.

8. Although wholesale price information was collected by EGTE, it has been very difficult to assess whether changes in these prices provide evidence of parallel changes in farm-gate prices.

9. Even though EGTE purchases were 30,300 tons and EU purchases were 90,000 tons, the combined offtake from the market was only 105,300 because 15,000 tons of maize to be delivered through the EU program was awarded to EGTE (see Table 6).

10. Examples of this include offering contracts of lower volume to enable smaller traders to enter bids, and holding one auction nationally rather than limiting the geographical domain from which bids and grain procurement can be accepted.

11. The Grain Marketing Research Project, in collaboration with CSA, has designed a rural household survey (implemented in June 1996) designed to provide in-depth understanding of how farm production and marketing decisions respond to variable crop prices and output.

12. Huddleston, B. D.G. Johnson, S. Reutlinger, and A. Valdes, 1984. International Finance for Food Security. Baltimore, Md.: Johns Hopkins University Press; Newbery D.M.G. and J. Stiglitz, 1981. "Theory of Commodity Price Stabilization: A Study in the Economics of Risk, Oxford: Clarendon Press.

13. KUAWAB Business Consultants, 1994. "Structure of the Ethiopian Grain Market: A Rapid Appraisal," report submitted to USAID/Ethiopia, Addis Ababa.