

Foreign Exchange Rationing, Wheat Markets and Food Security in Ethiopia

Summary of ESSP-II Discussion Paper No. 4: "Foreign Exchange Rationing, Wheat Markets and Food Security in Ethiopia"
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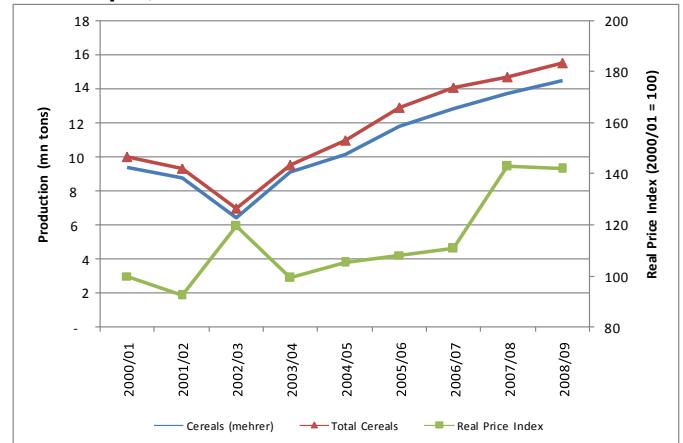
Beginning in April 2008, lack of access to foreign exchange effectively stopped private sector wheat imports. Government imports and subsidized sales to millers and households in late 2008, subsequently increased domestic supply and lowered market wheat prices, though market prices remained above import parity levels. Allowing the private sector access to foreign exchange for wheat imports (or auctioning government wheat imports of the same volume) would have eliminated the wheat import subsidy, estimated at about \$US 90 million in 2008, while reducing market prices to import parity levels.

Ethiopia has enjoyed remarkable growth in cereal production and overall real incomes (GDP/capita) from 2004/05 to 2008/09, as production of the four major cereals (teff, wheat, maize and sorghum) increased by 42 percent (an average of 9.1 percent per year), from 10.96 to 15.52 million tons (Figure 1). Almost all of this increase was due to increases in smallholder meher season production, which accounted for 93 percent of total production in 2007/08. In spite of these increases in production (and net supply), both nominal and real prices of major cereals rose between 2003/04 and 2007/08, with especially large price increases in 2007/08 (Figure 2). From 2003/04 to 2006/07, the average real price of the four major cereals rose by 12 percent; including 2007/08, the real price increase was 45 percent.

International prices of cereals also fluctuated widely, particularly between 2006 and 2008. However, the links between Ethiopia's domestic cereal markets and the international market are by no means straight forward. Among the major staples, only wheat is imported or exported on a significant scale. And frequent changes in trade and macro-economic policies, movements in international prices and fluctuations in domestic production have at times eliminated incentives for private sector imports of wheat.

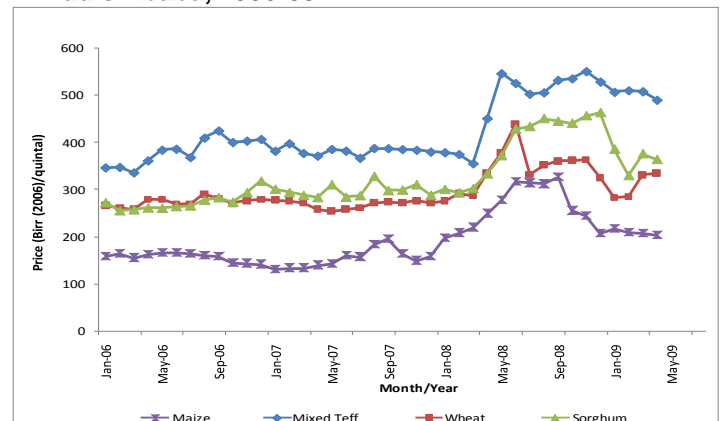
Nonetheless, the steady increases in real cereal prices that accompanied significant increases in per capita cereal supply from 2003/04 to 2007/08 remain a puzzle. Rapidly increasing domestic demand due to population growth and rising per capita incomes is one major factor. However, even with a high income elasticity of demand for cereals of 1.0, total cereal demand would have increased by only 21 percent between 2004/05 and 2006/07, significantly less than the 31 percent increase in cereal production over this period. These calculations would suggest that real prices should have fallen significantly rather than rising by 5 percent. The surge in real cereal prices in 2007/08 is even more puzzling, though it may have been due in part to expectations of a possible poor harvest or reduced levels of imports (after the start of foreign exchange rationing in March 2008).

Figure 1: Production and Real Prices of Major Cereals in Ethiopia, 2000/01 to 2007/08



Source: Calculated from Central Statistical Authority (CSA) production data and Ethiopian Grain Trading Enterprise (EGTE) wholesale price data for Addis Ababa. 2008/09 belg season production is estimated.

Figure 2: Real (Dec 2006) Wholesale Prices of Cereals in Addis Ababa, 2006-09



Source: Calculated from EGTE data and CSA consumer price index.

Considering only the wheat market, the supply and demand calculations appear more consistent with the observed 30 percent increase in real prices from 2000/01 to 2007/08. During this period, population increased by a total of 21 percent and wheat production rose by 52 percent, but per capita availability of wheat increased by only 14 percent since wheat imports changed little. Given

the large increase in per capita incomes over this period and a positive income elasticity of demand for wheat, it is likely that per capita demand increased faster than per capita supply. Thus higher real prices of wheat are broadly consistent with main supply and demand factors, but further analysis is needed to explain the magnitude of the real price trends.

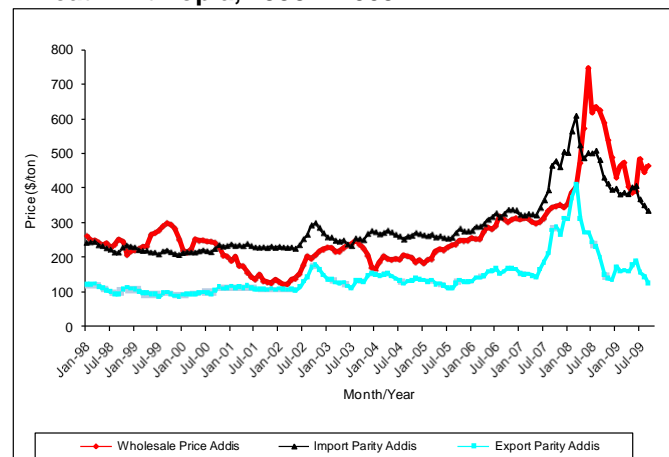
Wheat Prices and Trade

Wheat price formation regimes have changed several times between 2000 and 2009. For most of this period, domestic prices were not determined by international border prices. From July 2005 to March 2007, private sector wheat imports were profitable and domestic wheat prices closely tracked good domestic harvests coincided with an increase in international wheat prices, so private sector wheat imports were no longer profitable. Most recently, rationing of foreign exchange for imports effectively stopped private sector wheat imports beginning in April 2008. Domestic wheat prices rose above wheat import parity prices after May 2008, indicating that it would be profitable for private traders to import wheat if they had access to foreign exchange at the official exchange rate (Figure 3).

Partial equilibrium analysis shows, however, that government imports and sales in 2008-09 effectively increased domestic supply and lowered market wheat prices. These sales at the low official price also implied that recipient households, traders and flour mills enjoyed a significant subsidy. Allowing the private sector access to foreign exchange for wheat imports or auctioning government wheat imports in domestic markets would eliminate these rents and generate additional government revenue, while having the same effect on market prices as government subsidized sales.

Although government imports and sales reduced market prices from extremely high June 2008 levels, market prices still averaged 36 percent above import parity prices from July to October, 2008. Inhibiting private sector imports through foreign exchange rationing resulted in lower wheat imports, higher wheat prices, lower wheat consumption, and reduced welfare for net wheat consumers. Depreciation of the nominal and real exchange rates from December through June 2009 substantially reduced the gap between domestic wholesale market prices and import parity and thus the negative effects of foreign exchange rationing on net wheat consumers. **Restoring a liberalized trade regime would likely completely eliminate the gap between import parity and domestic wholesale prices, while allowing the private sector to respond to future production shocks with timely imports.**

Figure 3: Domestic, Import and Export Parity Prices of Wheat in Ethiopia, 1998 – 2009



Note: Import and export parity figures are calculated using U.S. Hard Red Winter Wheat Price (fob Gulf of Mexico) plus international shipping (estimated at US\$30/ton for December 2008) and domestic handling and transport from Djibouti to Addis (estimated at appx. 1,350 Birr/ton in December 2008). Source: Authors' calculations, Ethiopian Grain Trading Enterprise (EGTE) data.

Box 1: Wheat Market Regimes in Ethiopia, 2000 to 2009

Regime 1: January 2000 - June 2005: Domestic wheat prices were generally between import and export parity

Given levels of official imports (including food aid), there was little incentive for private sector imports of ordinary wheat

Domestic prices were determined by domestic supply (including official imports) and demand

Regime 2: July 2005-March 2007: Domestic wheat prices were generally at import parity levels

Private sector imports adjusted to equate total supply and domestic demand at the import parity price

Regime 3: April 2007- May 2008: Domestic wheat prices were again below import parity

Given sharp increases in world prices, private sector imports were not profitable

Regime 4: June 2008 – May 2009: Domestic wheat prices were above import parity

Restrictions on foreign exchange for imports prevented private imports from taking advantage of profitable import opportunities

This research note is intended to promote discussion; it has not been formally peer reviewed but has been reviewed by at least one internal and/or external reviewer. The Ethiopia Strategy Support Program of the International Food Policy Research Institute (IFPRI) works closely with the government of Ethiopia, and other development partners to provide information relevant for the design and implementation of Ethiopia's agricultural and rural development strategies. For more information, see <http://www.ifpri.org/book-757/ourwork/program/ethiopia-strategy-support-program> or <http://www.edri.org.et/>.

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