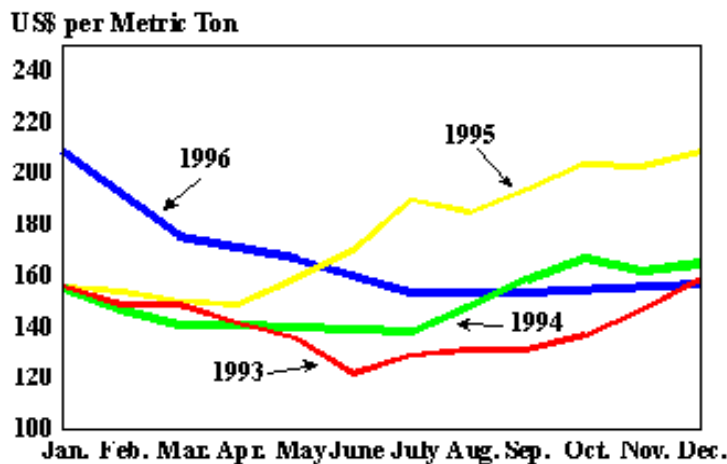


Rising Food Prices and Falling Grain Stocks: Short-run Blips or New Trends?

Per Pinstrup-Andersen and James L. Garrett

Figure 1--Monthly wheat prices, 1993-96



Source: Economic Research Service, U.S. Department of Agriculture, *Wheat outlook* (December 1995). Prices for 1996 are futures prices as of January 17, 1996, Chicago Board of Trade.

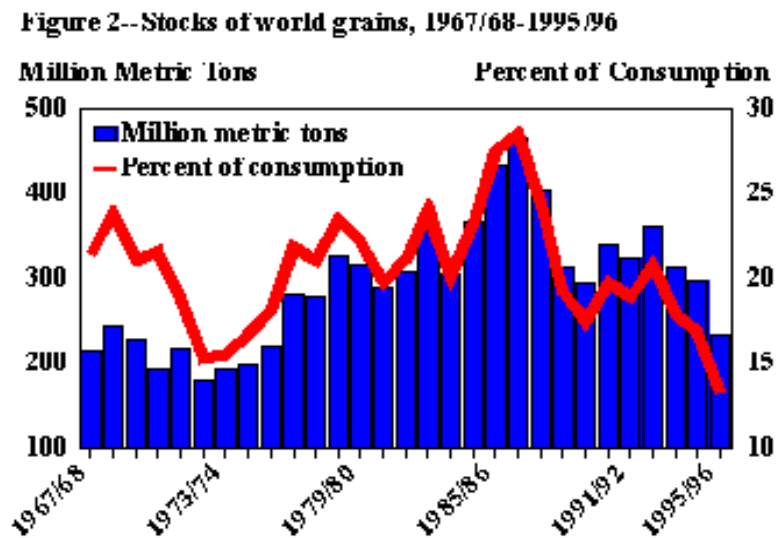
Grain traders in 1995 may have wondered if they were about to relive the world food crisis of the early 1970s. Prices for wheat, rice, and maize shot up during the year, grain stocks continued a three-year fall, fertilizer prices increased, and food aid dropped to slightly more than half of what it was in 1992. Average wheat prices in 1995 were 18 percent higher than prices in 1994, and 26 percent higher than in 1993 (Figure 1).

Prices for maize and rice followed a similar pattern. As production failed to meet demand for the third consecutive year, grain stocks tumbled from an average of 17 percent of total annual consumption in the 1994/95 cropping year to an estimated 13 percent at the end of the 1995/96 season (Figure 2). In addition, China shifted from being a net grain exporter to a major importer, as the Soviet Union had been in the 1970s.

Why Large Price Increases Now?

Overall grain production declined only about 3.4 percent in 1995, following a 2.5 percent increase in 1994. And global stocks have been declining for a number of years. So why large price increases now?

In early 1995 a number of factors came together to push prices up. On the supply side, wet weather slowed grain planting in the United States and Canada, two of the world's largest producers. Drought and civil conflict in Sub-Saharan Africa caused production to drop 20 percent below normal.



Source: Economic Research Service, U.S. Department of Agriculture, *Grain: World markets and trade*, Circular Series FG 10-95 (October 1995).

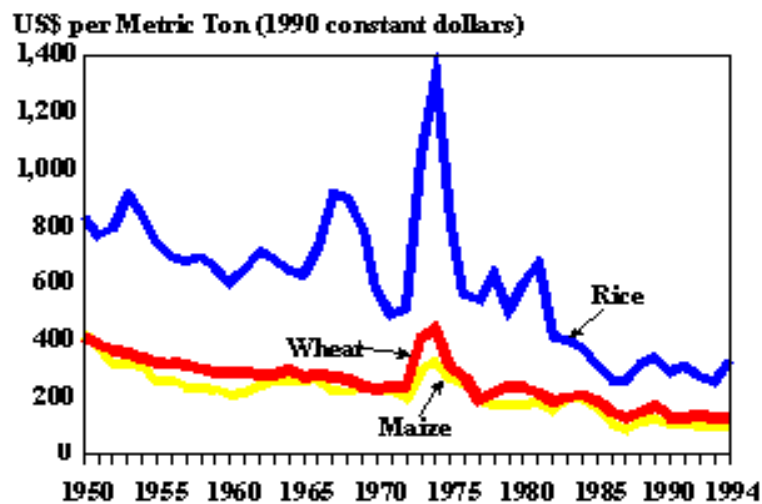
Also, in recent years, grain yields in Asia have stagnated, food production in Western Europe and North America has decreased because of government set-aside programs and reduced price subsidies, and food production in the former Soviet Union has declined. China's production also fell, and China significantly increased its presence in the world grain market. Although China exported almost 8 million metric tons of grain in 1993, it imported 14 million tons in 1994 and was expected to import more than 16 million tons in 1995.

At the same time, the 1995/96 forecasts were for global grain stocks to reach 13 percent, their lowest level in the past 30 years and well below the 17 percent the United Nations Food and Agriculture Organization (FAO) considers necessary to provide a margin of safety for world food security. Even during the world food crisis of the early 1970s, stocks never went below 15 percent.

Blips or Trends?

Are these rising grain prices and falling grain stocks just blips in the long-term trend of falling real prices (Figure 3) and otherwise relatively stable stock levels as a share of consumption? Or do they presage new trends? Grain traders seem to believe that these are relatively short-term price increases, as futures prices have moved toward price levels of previous years (Figure 1).

Figure 3— Grain prices, 1950-94



Source: World Bank, *Commodity trade and price trends, 1989-91* (Washington, D.D.C., 1993); Commodity Policy and Analysis Unit, International Economics Department, World Bank, *Commodity price data* (August 9, 1995).

In the short run, the weather, together with producer, consumer, and government actions, will have the greatest effect on production and prices. Just as farmers expanded production and consumers reduced purchases as prices rose during the world food crisis of the 1970s, farmers and consumers will do the same now. Farmers in Canada, the United States, Russia, and Ukraine are already expanding wheat plantings in response to high prices, and fertilizer demand is increasing to support expanded production plans.

Some governments are responding by attempting to increase supplies. The European Union will allow increases in the amount of agricultural land in production in 1996, and the United States is likely to do the same. If supplies increase and consumption falls, prices will fall. With normal or good weather, farmer and government actions should lead to increased global production in excess of consumption increases this year and stocks will begin to rebuild. However, because the world has exceptionally low grain stocks, even minor production declines due to bad weather could result in large price increases.

Some governments are taking steps to ensure that higher international prices will not lead to higher domestic prices. The European Union recently began taxing wheat exports, and in mid-1995 South Africa halted all new grain export contracts to increase domestic supplies and dampen domestic price rises. Unfortunately, such measures reduce international grain supplies, increase pressure on international prices, and prevent European and South African farmers from benefiting from higher international prices.

In the long term, actions taken by governments, the private sector, and international agencies will influence whether these price rises are blips or trends. Recent policy changes in North America and Europe could permanently lower grain stocks, increasing future price fluctuations because of a lack of stocks to buffer price variations. As these governments scale back farm-price support programs, they no longer need to buy and hold large reserves. The European Union now has less than one-quarter the stocks it held in 1993.

Projections by IFPRI and FAO indicate that if governments pursue appropriate macroeconomic and sectoral policies and expand investment in agricultural research and technology, agricultural productivity will increase, global grain production will keep up with demand, and real cereal prices will continue the downward trend of the last 50 years. If there is insufficient investment in the agriculture and rural sectors, real cereal prices could rise. The degree of success with which China and the countries of eastern Europe and the former Soviet Union make reforms along these lines will significantly influence future global food supply and demand.

The Effects of Rising Prices on Food Security in Low-income Countries

Rising prices can quickly put food out of reach of the 1.1 billion people in the developing world who live on a dollar a day or less. Many poor people in low-income countries spend more than half their income on food, and food price increases are detrimental to their well-being. However, many of the poorest people in low-income countries depend on agriculture--directly or indirectly--for their livelihoods, and rising crop prices may actually increase their incomes. Public policies to deal with rising prices must not harm poor producers while helping poor consumers.

Some analysts think that grain fed to livestock can buffer price rises. As grain prices go up, meat prices will too. Meat demand will decline, freeing up grain for direct consumption. As the gap between rich and poor widens, however, wealthier consumers may not reduce their consumption of meat much, even at higher prices, and the burden of reducing grain demand to the level of supply may fall mostly on the poor.

The international community and individual countries can take action to dampen price rises or alleviate their negative effects. Industrial and exporting countries can continue to hold sufficient grain stocks or join together to create a new global grain reserve to increase supplies when prices rise and dampen price shocks. However, as agricultural price subsidies in industrial countries are reduced, these nations have little incentive to hold stocks or support reserves of the required magnitude.

Many developing countries have found that strategies to keep grain affordable to consumers, such as holding large public grain stocks or setting ceiling prices, are unsustainably expensive. There are, however, things they can do:

- Hold small grain stocks to provide some insurance against price spikes.
- Use foreign exchange insurance or special credit arrangements, such as the International Monetary Fund's Compensatory Financing Facility, to finance needed imports.
- Use world futures and options markets to hedge against future price increases.
- Invest in transportation, communication, and agricultural research to ensure competitive rural markets and enhance the capacity of farmers to respond to changing prices.

These mechanisms affect overall domestic supply and prices. Developing-country governments may find it more cost-effective to target assistance programs to the poor and not to distort domestic prices for everyone. Employment-generation, credit, or income-transfer programs, such as food coupons, targeted to the food insecure could be expanded temporarily to help them deal with the negative consequences of short-term increases in food prices. Food aid, used wisely so it does not harm developing-country agriculture, can also assist low-income households in coping with food price increases.

In the long run, governments, communities, and the private sector must work together to reduce poverty and improve household food security. As the poor in both urban and rural areas increase

their incomes, they can better cope on their own with price fluctuations that affect the international grain markets.

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"A 2020 Vision for Food, Agriculture, and the Environment" is an initiative of the International Food Policy Research Institute (IFPRI) to develop a shared vision and consensus for action on how to meet future world food needs while reducing poverty and protecting the environment. Through the 2020 Vision initiative, IFPRI is bringing together divergent schools of thought on these issues, generating research, and identifying recommendations. The *2020 Briefs* present information on various aspects of the issues.