

Food Price Watch



THE WORLD BANK



POVERTY REDUCTION AND EQUITY GROUP
POVERTY REDUCTION AND ECONOMIC MANAGEMENT (PREM) NETWORK

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SEPTEMBER 2010

Summary: In the first six months of 2010, global staple grain prices were on a downward trend. While in many countries staple food prices remained stable, staple prices still increased sharply in some countries with high levels of poverty. Since mid-June, global grain prices have been rising with a 56% rise in global wheat prices and knock-on impacts on other commodities such as rice, maize, and sorghum. The risks of price spikes in countries with a high burden of poverty and malnutrition will therefore need to be even more closely monitored and managed in the coming months.

In the first six months of 2010 staple grain prices declined on global commodity markets followed by a more recent upward trend. Between January and June 2010, the World Bank's grain price index declined by 16% (see figure 1). During this period Thai rice prices declined by 22%, US wheat prices fell by 20%, and sorghum and maize prices declined by 9%. A sudden reversal of this trend between June and August drove the grain price index up by 16%, due largely to a sharp increase in wheat prices which we discuss further below.

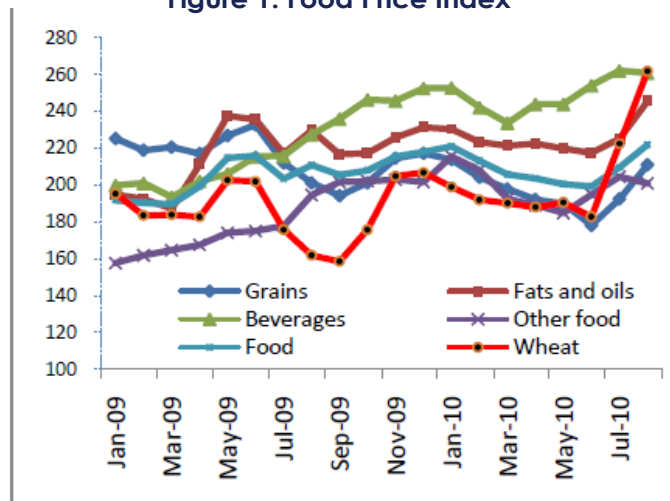
In spite of these global price declines in the first half of the year, price spikes of key staples continue to affect some countries with already high levels of poverty and malnutrition. Table 1 uses FAO data on national food prices to rank countries with the highest percentage changes in the price of key staples. In the four months leading to July 2010, wheat prices rose by 27% in Afghanistan partly due to

flooding in Pakistan. In Nigeria, where 43% of under-five children are stunted, sorghum prices rose by 20% between April and July due to weather-related shocks and greater cross-border demand from Niger. Rice prices in Mongolia and Nepal also increased by 12% and 9% respectively during this four month period. These examples show that local food prices are often determined by domestic or regional factors unrelated to global commodity market trends.

There are also a significant number of countries where staple food prices have declined in line with global price trends in the months leading to July 2010. For instance, there has been significant price declines of the main staple food, maize, in East and Southern Africa (table 1). In July, maize prices in Kenya were less than half its December 2009 levels, while maize prices in Tanzania and Uganda declined by 25% between April and July. Malawi and Zambia have also had good maize harvests and food inflation is not a concern. Data from several Asian countries suggest a similar pattern – with stability in the price of the main staple ranging from India, China, Vietnam and Cambodia. Overall, out of 42 countries where we have staple price data until July, more than half had lower staple prices in July relative to April.

Wheat prices rose by 56% between June and August 2010. Weather shocks and lower projections of wheat production for major exporters such as Russia, Ukraine, Kazakhstan and Canada fueled the rally in prices. Market confidence was further affected when Russia, whose wheat crop is expected to be around one-third less than last year and whose exports constituted 13% of global wheat exports in 2009/10, announced an export ban in early August. These market jitters occurred despite ample world wheat stocks and good output prospects for the other large wheat producers – the EU region and the United States.

Figure 1: Food Price Index



Source: DEC-PG

Note: Wheat prices are US\$/MT for US HRW wheat. All other prices are weighted indices.

Global maize, rice and other food prices have also risen over the past two months. The current rise in wheat prices is affecting the price of other staples due to increased demand for substitutes. This substitution effect, and a lower projected US harvest, has led to sorghum and maize prices rising by 8% and 7% respectively between July and August. Rice prices which declined about 20% between January and July rose by about 10% in August (see Figure 2). Aside from the wheat substitution effect, this increase in rice prices also

between July and August and pressures on foreign exchange reserves could result in the coming months. In Bangladesh wheat flour prices went up by 20% during the month of August while coarse rice (the main staple) prices remained virtually unchanged. On the other hand, several other East European countries have remained insulated from the wheat price hike – August Consumer Price Index data for Ukraine, Belarus, Kazakhstan, and Estonia show hardly any changes in domestic wheat prices.

Table 1: Price changes of key staples

A. April 2010- July 2010			
	Increase		Decrease
Afghanistan (Wheat)	27%	Kenya (Maize) a/	-43%
Nigeria (Sorghum)	20%	Uganda (Maize) a/	-25%
Rwanda (Beans)	13%	Tanzania (Maize) a/	-25%
Mongolia (Rice)	10%	Zambia (Maize)	-22%
Mali (Millet)	10%	Zimbabwe (Maize)	-21%
Nepal (Rice)	9%	Burundi (Beans)	-18%

B. Average annual change: 12 months preceding July 2010/12 months preceding July 2009			
	Increase		Decrease
Sudan (Sorghum)	32%	Zimbabwe (Maize)	-52%
Costa Rica (Rice)	19%	Democratic Republic of Congo (Cassava)	-44%
Pakistan (Wheat)	13%	Afghanistan (Wheat)	-35%
Mali (Millet)	13%	Uganda (Maize)	-27%
Mongolia (Rice)	12%	Bolivia (Rice)	-27%
Tanzania (Maize)	12%	Somalia (Sorghum)	-25%

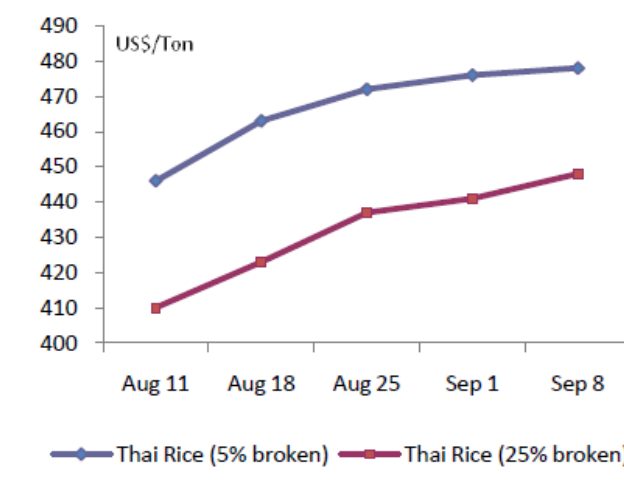
Source: FAO/GIEWS Data

reflects the impact of weather-related shocks in Pakistan and China - recent reports suggest that Pakistan's rice exports may be 35% lower than the previous year. Despite these projected output reductions, global rice production is expected to be at a record 454 million tons. Hence prices in the months ahead ought only be affected if large exporting countries impose export restrictions or due to panic-buying from large importing countries. Soybean output losses due to drought in the EU and the Black Sea and concerns over next year's production in South America has driven a 9% increase in the fats and oils index between July and August.

Limited data for August prices suggests that the impact of the wheat price rally on national food prices has varied significantly. In light of the lags in transmitting global price changes to local markets (see Box 1 for a recent analysis of the speed and extent of price transmission in Indonesia), and the limited country-level data we have for August prices, it is too early to make conclusive statements on the impact of the very recent global wheat price spikes at the national and household level. A few countries have seen a significant increase in wheat related items and in others, it appears that the impact has thus far been muted. For instance in Russia the price of buckwheat, an important staple, increased by 33% on average nationally in August while wheat flour has increased by 11%. Panic buying and hoarding are considered important factors in driving this price up. In Mauritania the imported price of wheat has gone up by 55%

Food price volatility remains a key issue. Both global commodity market swings and country level examples reflect the volatility of food prices, which appears to have increased since the 2008 food price spike². For instance, the recent spike in prices in Afghanistan comes on the heels of a steady decline in wheat prices over the past year. Maize prices in Tanzania had also risen by 22% in the year leading up to February 2010 prior to the subsequent decline.

Figure 2: Rice Prices



Source: <http://www.thairiceexporters.or.th/price.htm>.
 Note: Weekly export quote price of rice (fob Bangkok)

Box 1: The Transmission of International Price Shocks on Indonesian Food Prices

A recent World Bank report shows that the Indonesian markets for rice, sugar, cooking oil, soybeans and maize are well integrated with world markets. Over a period of about one year, a one percent increase in world prices leads, on average, to a one percent increase in domestic prices. However the different commodities differ in their speed of adjustment to world prices. In general, the speed of adjustment to world price shocks is fastest in the sugar and cooking oil markets and slowest for soybean and maize. The speed of transmission of an international price shock to the domestic economy also varies between the different provinces. For instance, in the case of rice, simulations indicate that the adjustment to a change in global rice prices is fastest in the capital Jakarta. The main factors determining the extent of market integration between the various provinces are remoteness and the quality of transport infrastructure in that province. The analysis also shows that those commodity markets with the highest degree of integration across provinces have smaller price differences: in the sugar and rice markets, the average price differences across provinces is 5% and 12%, respectively, while in the maize, soybean and cooking oil markets they are 16% and 22%, respectively. Up to 70% of price differences across provinces can be explained by differences in the degree of remoteness, transport infrastructure, amount of locally-produced output, land productivity and income per capita. Remote provinces pay more unless they have good transport infrastructure. For people in West Kalimantan, being remote implies paying about 133 Rp/kg more for rice than in the other provinces.

The data show that the transmission of price volatility from global markets to domestic markets is incomplete. Exchange rate variations matter more than world price variations as a determinant of domestic price volatility. After controlling for exchange rates and world prices, remote provinces appear to have a higher level of price volatility than central provinces. The analysis has some important policy implications. It shows that the constraints created by geography and remoteness to the transmission of price signals can be alleviated by improving the quality of infrastructure. This has important implications for food security. Policies that aim at decreasing transportation costs by improving infrastructure or by eliminating bureaucratic impediments to transport will enhance integration within Indonesia and contribute to a reduction in price differentials between provinces. These may in turn be more effective than any government policy to reduce price volatility. The study also highlights the importance of improving agricultural productivity as a way to reduce prices for consumers while at the same time increasing incomes for farmers.

Source: "Commodity Price Shocks and Market Integration in Indonesia" by Gonzalo Varela, Enrique Aldaz-Carroll and Leonardo Iacovone, included as Chapter 3 of forthcoming World Bank (2010) report Boom, Bust and Up Again? Evolution, Drivers and Impact of Commodity Prices: Implications for Indonesia.

Several countries are using active government intervention and budgetary resources to ensure staple price stability.

Egypt, which like most Middle East and Northern African countries subsidizes the price of bread, moved quickly to source wheat from Western Europe and the US following the Russian wheat ban as it had relied on Russian wheat for more than half its imports in 2009. The fiscal impact of the increased cost of wheat imports, assuming there is no change in the subsidized price of bread and that global wheat prices remain at current levels, is estimated to be around 0.5% of GDP in 2010/11. Both India and China have actively released food grain stocks and used procurement pricing over the past few months in order to ensure staple grain price rises are kept in check. Following widespread riots, the Government of Mozambique decided to introduce bread and rice subsidies in early September along with reductions in VAT and import tariffs on other food items.

In some countries stability in staple grain prices has been accompanied by increases in prices of other food items essential for a nutritious diet. When governments attempt to stabilize food prices they tend to focus on domestic staple grain prices as they constitute the largest share of household consumption. Yet non-starchy staples

are equally important for a nutritious diet and these prices also need to be monitored and their consumption encouraged for a balanced diet. For instance, while grain prices have remained stable in China, egg and meat prices have gone up by 9% and 14% between early July and early September.

These recent global staple price increases raise the risk of domestic food price spikes in low income countries and its consequent impacts on poverty, hunger and other human development goals.

As discussed earlier, global prices of key staples can decline at the same time as local staple food price spikes. However, a sudden increase in global staple prices adds to the risk of more widespread price increases of staples affecting larger numbers of people in more countries. The consequences of these price increases for the poor and malnourished depend on a number of factors. These include whether the household is a net buyer of the main staple, the relative price changes and availability of alternative staples and other nutritious food items, the extent public policy and safety net support structures cushion these spikes, and a household's initial conditions. The existing evidence shows that food price spikes typically increases poverty, lowers the dietary intake of nutritious foods, and can have adverse consequences on an individual's education and health goals.

Notes

1. United States Department of Agriculture, World Agriculture Supply and Demand Estimates, September 10, 2010.
2. See Food Price Watch May 2010 for further details on changes in the extent of food price volatility over the past few years.