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## EXECUTIVE BRIEF: Turmoil in Cereal Markets: Another Food Price Crisis? November 8, 2010

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- An unexpected wheat production shortfall in the Black Sea region followed by destabilizing national policy responses led to a sharp increase in prices of wheat and coarse grains in international markets between June and September.
- Reference spot and futures wheat prices stabilized between late September and October, most likely due to the good world wheat production this year and the sizeable wheat stocks held in major exporting countries accumulated from bumper harvests in the two previous years, particularly in the United States.
- Thus, aside from reduced exportable wheat supplies in that region, the drivers of prices and trade in international markets are unlikely to lead to another food price crisis, although prices this year may remain higher than in 2009-10.
- The relatively moderate levels of oil and fertilizer prices may enable producers to boost cereal grain production and bring more wheat and coarse grains to the market over the next year.
- However, low income, food deficit countries relying on wheat imports—especially the urban poor in countries such as Yemen, Afghanistan, Tajikistan, and Mauritania—are likely to be negatively affected by higher import prices.

### Update on production losses and national policy responses

The devastation of the wheat crop in regions of the Russian Federation affected by drought and wildfires and the large fall in wheat yields in Kazakhstan and Ukraine, also due to unfavorable weather, resulted in a large cutback in world wheat output prospects in 2010-11. According to the October estimates of the United States Department of Agriculture (USDA), wheat production in Russia, Kazakhstan, and Ukraine has declined by 19.2, 5.5, and 3.9 million metric tons (MMT), respectively, compared to last year. With wheat yields lower than normal in Canada and the European Union too, world wheat production is expected to drop by 40.7 MMT compared to 2009-10, a six percent decline.

In response to the cereal crop failure, Russia instituted an embargo on exports of wheat grain and flour and other grains in August. In October, the export ban was extended through July 1, 2011, although under pressure from the domestic grain milling industry, it exempted exports of wheat and rye flour from January on. In Ukraine, the government ordered the Agrarian Fund, which holds the national stocks, to increase its purchases of wheat this year, which will likely reduce exportable wheat supplies. Ukrainian customs were reportedly already impeding wheat exports through rejection of export paperwork when an export quota for wheat came into effect on October 18<sup>th</sup>, to last through the end of the year. These wheat exports under the quota along with the 1.7 MMT estimated to have already been exported this marketing year tally only 26 percent of last year's exports of wheat grain, wheat flour, and other wheat products. Kazakhstan, so far, has maintained its wheat export plans in Central Asia and has not imposed new barriers to exports.

### The price shock in international markets: How does it compare to 2007-08?

The downward revision of wheat production prospects in the Black Sea region, the trade restrictions that ensued, and the surge in buying by major wheat importing countries led to soaring wheat prices in international markets. The price of U.S. No. 2 Hard Red Winter Wheat (fob, U.S. Gulf) rose by 55 percent between the week ending June 25 and the week ending October 1, from USD 185 to USD 287. The price of U.S. soft wheat and wheat prices in other export markets (Argentina, France, etc.) increased in a similar fashion.

But these price hikes remained smaller than the increases observed during the food price crisis of 2007 – 08, when the price of hard wheat peaked at USD 510. Furthermore, despite some volatility in response to reduced wheat production prospects in Australia and unfavorable winter wheat planting conditions in Russia and the U.S., the price of U.S. hard wheat held steady in October. Whereas the food price crisis was preceded by months of continuous price increases signaling the buildup of an imbalance between supply and demand, the recent upsurge in prices was more sudden, seemingly reflecting a short-term conjuncture.

Wheat futures prices at the Chicago Board of Trade (CBOT), which indicate market participants' expectations about future market conditions, also exhibited significant increases between July and August, with hikes comparable to those occurring

during the food price crisis. But these prices have also been stable since September, at a level about 40 percent below their peak in 2008, which is indicative of expectations of price stabilization in the coming months.

### Comparison of supply and demand drivers between 2007-08 and 2010-11

World wheat production in 2010-11 is forecasted to be the third highest on record (International Grains Council), significantly larger than in 2007-08. World grain production is also anticipated to be the third highest on record, with record outputs of maize and rice. And world wheat stocks substantially increased over the past two years, after two consecutive bumper harvests (see Figure 1). Global stocks at the end of the marketing year 2009-10 are estimated at 194 MMT, 70 MMT greater than in 2007-08, and much larger than the estimated production shortfall. Even in the former Soviet Union region, stocks are almost twice as large as in 2007-08. Although world wheat consumption in 2010-11 is expected to be larger than production, stocks are sufficiently large to fill in the gap.

The current circumstances are different from those prevailing during the food price crisis in other respects. The production and policy shocks that preceded the food price crisis were larger in scale. In particular, in 2006-07, Australia experienced a large production shock with a 45-percent drop in wheat production from the year before, while production was stagnant in other major exporting countries. Australian wheat exports, which represented 14 percent of world wheat exports in 2005-06, plummeted in 2006-07 and contracted further in 2007-08. The ensuing rise in cereal prices prompted countries such as Cambodia, Egypt, India, Indonesia, Pakistan, and Vietnam, which as a group accounted for 47 percent of world rice exports in 2006-07, to institute rice export bans, Argentina increased export taxes for wheat, and China instituted export taxes for grains, while world cereal stocks were low.

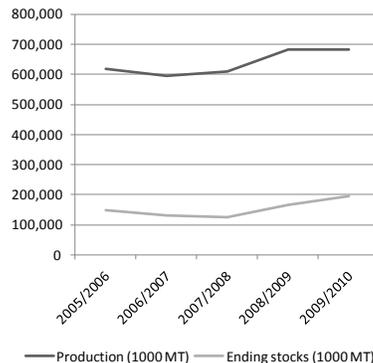
Russia has only recently become a major player in the world wheat market. In the marketing year 2009-10, Russia shipped 17.5 to 18.7 MMT of wheat (depending on the source) to export markets, that is, about 10 percent of world exports. Russia, Kazakhstan, and Ukraine together made up about 20 percent of world wheat exports in 2009-10. Thus, the contraction in wheat and coarse grain exports from these countries is translating into significant tightening international markets, which explains the substantial price increases. But exports from other major wheat producers holding important stocks and having a good harvest in 2010-11 are likely to expand and cover the export supply deficit.

In a similar fashion as in 2007-08, a year of record U.S. wheat exports, fears of wheat supply disruption and shortages following reports of production losses in the Black Sea region prompted large importers to make sizeable purchases, most likely with a precautionary motive. This increase in demand contributed to spike in prices. For instance, the price of U.S. hard red winter wheat peaked at USD 313 the week of September 17 following the 550,000 MT peak of U.S. hard red winter wheat exports the week of September 9 (see Figure 2). Large purchases of U.S., European, and Canadian wheat by Egypt were an important driver of this increase. But, since then, weekly U.S. hard red winter wheat exports have fallen back towards a more typical level, at 203,000 MT the week of October 28. Nevertheless, the acceleration of purchases by large importers led to tighter export restrictions in the exporting countries affected by the production shortfall, putting further pressure on prices.

Compounding the effects of cereal market drivers, the U.S. dollar depreciated against a number of key currencies in recent months and this has likely contributed to the increase in U.S. dollar-denominated cereal grain prices.

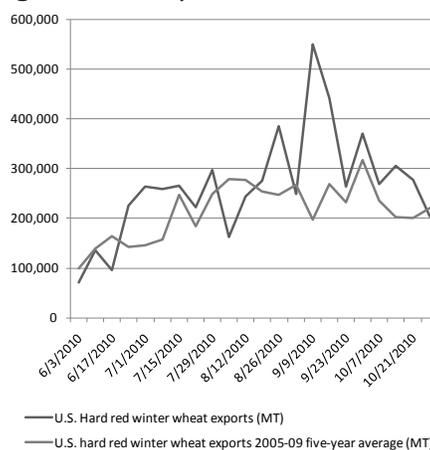
The price of oil is a major determinant of farm production costs and the cost of marketing agricultural products. In 2007-08, high oil prices contributed to fuel the food price crises. Although the price of oil rebounded from its trough in the aftermath of the oil and food price crisis, it has held steady within the range of USD 70 – 85 per barrel for the past year. If it remains at

**Figure 1.** World wheat production and ending stocks



Source: USDA

**Figure 2.** Weekly U.S. hard red winter wheat exports



Source: USDA

its current level, the costs of international trade in agricultural products and internal distribution will also tend to be stable and will not cause food prices to further increase. Similarly, fertilizer prices, which are heavily influenced by the price of oil, as measured by the fertilizer price index of the National Agricultural Statistics Service (NASS) at USDA, are just over half their peak in October 2008. The moderate level of fertilizer prices is favorable to a supply response from cereal producers in major exporting countries, for spring wheat in the southern hemisphere, in South America (Argentina in particular) and Australia, and for winter wheat in the northern hemisphere, which could lead to lower prices this year and next year.

Currently, the low interest rates due to expansionary monetary policy in the U.S. favor investment in agricultural commodity markets by non-commercial investors. Between May 2007 and May 2008, the growth in the world volume of traded grain futures contracts and options was important. Data from the U.S. Commodity Futures Trading Commission show an increase in non-commercial long (buy) positions in the CBOT wheat futures market in recent months (including positions of commodity index fund traders), which could indicate increased excessive speculation. However, studies have failed to establish a robust link between commodity index fund-related trading in futures and options markets and movements in futures prices. Thus, the recent spike in wheat prices is unlikely to be caused by excessive speculation.

Driven by rapid population and income growth in developing and emerging countries, the growth in grain demand outpacing the growth in grain supply was a major factor leading to the food price crisis. From 2006-07 to 2009-10, annual maize, rice, and wheat consumption grew by four, one, and two percent on average, respectively, in line with previous growth rates. The growth in demand for biofuels from crops such as corn also contributed to create an imbalance between supply and demand leading to the crisis. But aside from the fact that wheat is not used to produce biofuels, policies supporting biofuel production in developed countries have not significantly changed since the food price crisis and thus cannot have caused a shift in the demand for food crops (sugarcane, maize, and oilseeds) in recent months. Some developing countries such as India, China, and Thailand have put in place biofuel policies and shifts in demand in these countries may affect food prices over the next several years.

#### **Transmission of the supply shock to vulnerable low-income, food-importing countries**

Several countries exposed to food insecurity that are wheat importers may have become more vulnerable as a result of the price shock in international cereal markets. Mauritania experienced a 20 percent rise in the price of wheat in Nouakchott between July and August and the prices of imported rice, maize, and sorghum also rose in the recent months. Meanwhile, the Food and Agriculture Organization of the United Nations (FAO) estimated that the prospects for rice and sorghum are relatively low. Bread prices in Kenya, Zimbabwe, and Mozambique have shown rises that may be related to rising international prices of wheat and may harm poor urban populations. Overall, most countries continue to exhibit normal seasonal price variation with limited price transmission from currently volatile international markets.

Yemen, who has over the past five marketing years imported an average of 456,000 MT of wheat from Russia each year, has been particularly vulnerable after the rise in prices in international markets and the Russian export ban. But it is also expected to have an above-average harvest of wheat and sorghum and has made large purchases of wheat from the United States totaling over 196,000 MT this marketing year. Nevertheless, wheat prices have increased significantly in Yemen, which may have adverse effects on certain populations.

Pakistan officially banned wheat exports following the floods, which may adversely affect Afghanistan although there are reports of informal imports from Pakistan continuing. In Afghanistan, while moderate price increases have occurred over the past quarter, the price of wheat grain and wheat flour in Kabul, Mazar, Faizabad, Maimana, Kandahar, and Jalalabad remained equal to or lower than a year ago in September. Tajikistan witnessed a rise in the price of wheat flour between May and September, including a 27 percent rise in Dushanbe, but Tajikistan primarily sources wheat from Kazakhstan and domestic wheat harvest this year is estimated to be average to above-average. Similarly, in Afghanistan and Uzbekistan, this year's wheat harvest is expected to be good, which may allow households in rural areas to have good access to wheat.

#### **Another food price crisis?**

Continued monitoring of cereal grain supply and demand drivers in international markets will be crucial to warn of any changes in current trends and prospects. A major factor leading to the food price crisis of 2007 – 08 was the proliferation of policy measures to restrict exports, in food crop exporting countries, or facilitate imports, in food crop importing countries. Thus far, only Russia and Ukraine have instituted export restrictions on wheat and coarse grains in response to reduced cereal crop prospects. In the absence of widespread precautionary purchasing causing spikes in demand and escalation of trade restricting measures further limiting supplies in international markets, cereal grain markets should stabilize in the medium term although nominal prices may remain above their level in 2009-10.