Insights For What’s Ahead

Russia’s invasion of Ukraine set off a round of severe price increases for basic foodstuffs including grains, notably wheat, and sunflower oil, which were already elevated by the pandemic’s impact and supply chain issues. Food prices have also been impacted by the major disruptions in the energy markets, resulting from Russia’s invasion. Food processing, transportation, and the price of fertilizer, are among the energy intensive inputs into food supplies that fluctuate with the price of energy. Demand for corn for ethanol has also increased, also putting pressure on supplies of corn and exacerbating food shortages. The rising food prices have made the challenge of controlling inflation and ameliorating a recession that much more difficult. As the invasion continued into the spring planting season, the UN warned of a severe food crisis. That danger still persists – with many countries around the world at risk for further food insecurity because of higher prices and lack of supply.¹

But the global food insecurity situation has become more uncertain to project amid conflicting trends. More recently, there has been some brightening of the outlook. Food prices dropped significantly in July, marking the fourth consecutive monthly decline since hitting record highs earlier this year. The Food and Agriculture Organization of the United Nations (FAO) Food Price Index (FFPI) averaged 140.9 points in July 2022, down 13.3 points from June. The July decline was the steepest monthly fall in the FFPI reported since October 2008. Prices dropped on increased supply for some commodities, notably edible oils and the hope that the Russia-Ukraine grain agreement would lead to easing of supply pressures.

In August, however, prices have risen again. As of August 11, 2022, the World Bank’s Agricultural Price Index was 1% higher than two weeks ago. Both maize and wheat prices are 2% higher compared to January 2022, while rice prices are about 6% higher. Compared to the January 2021 average, maize and wheat price indices are 20% higher, while the rice price index is 16% lower. Complicating the situation further, 23 countries have implemented 33 separate export bans on food or edible oils and seven countries have implemented 11 measures limiting exports. Despite prices lower than their peaks earlier this year, the FAO and World Food Program have warned that 20 countries (all in Africa and the Middle East except for Afghanistan) are facing situations of acute food insecurity this summer.

Overall, while some countries have been seeing slight improvements in their food supply, concerns remain about the impact of significant global food inflation for essentials such as grains and cooking oils. Indeed, the World Bank reports that “92.9 percent of low-income countries, 92.7 percent of lower-

¹ The Conference Board first addressed this broad subject of food security on March 15 with a paper asking “What If Russia/Ukraine Grain Trade Halts?” The paper stated that Russia and Ukraine together “supply 16 percent of global exports of grains.” CED published a Policy Brief on this subject on April 4, 2022.
middle-income countries, and 89 percent of upper-middle-income countries have seen [food price] inflation levels above 5 percent, with many experiencing double-digit inflation.” In August, food price inflation in Lebanon reached 332 percent year on year above Zimbabwe’s 309 percent and Venezuela’s 155 percent; Turkey placed fourth at 95 percent.

Further, even with a large harvest expected in Russia this year, the crisis driven by the war may still persist. Many major wheat exporters have already committed much of their output in previously-agreed sales contracts, limiting the ability to shift export destinations. In addition, insurers remain reluctant to provide cover for ships entering the Black Sea, although there has been some progress in this area since the Russia-Ukraine grain agreement.

**The Russia-Ukraine Grain Agreement**

On Friday, July 22, the UN, Turkey, Ukraine and Russia reached a deal, signing mirror agreements allowing Kyiv to resume exports of grain through the Black Sea. The deal, which took two months to reach, enables Ukraine to export 22 million tons of grain and other agricultural goods through humanitarian corridors set up in the Black Sea (a significant amount of its winter wheat and other grains, such as corn, that have been stuck in its ports since the invasion). Exports of Russian fertilizers, though not covered by EU sanctions, are also expected to rise with the new agreement. The deal is set to last 120 days, with the possibility of renewal.

The deal includes the establishment of a coordination and monitoring center in Istanbul, staffed by UN, Turkish, Ukrainian, and Russian officials “to carry out general monitoring and coordination of safe navigation in the Black Sea,” according to Andriy Yermak, President Zelensky’s chief of staff. Under the terms of the deal: Russia will not target ports while shipments are in transit; Ukrainian vessels will guide cargo ships through waters that have been mined; Turkey, supported by the UN, will inspect ships to alleviate Russian fears of weapons smuggling; and Russian exports of grain and fertilizer via the Black Sea will be facilitated. The coordination and monitoring center began operations the Monday following the agreement.

Only 12 hours following the signing of the agreement, Russia launched a missile strike on Odesa, a key port for grain exports, leading to concerns over whether insurers will offer coverage for grain export ships transiting the Black Sea – a problem which affects ships docking at both Ukrainian and Russian ports. As of August 10, 12 ships had left Ukraine and participated in the export protocol. This represents, however, tonnage for only a small percentage of the grain stuck in Ukrainian ports at the start of the war and a very small part of Ukraine’s total 2021 grain harvest of 86 million tons. Other export methods, such as land exports and building of new storage facilities, are expected to have greater impact for the fall harvest.

A recent report from the International Food Policy Research Institute estimates that while the agreement should have some moderating effect on prices, the overall situation remains tight, particularly with other global export restrictions. The World Bank writes that “[e]stimates based on the [International Food Policy and Research Institute’s] COVID-19 Food Trade Policy Tracker that the total amount of exports that the restrictions affect account for 17.2 percent of total calories traded globally indicate the scale and severity of these restrictions.”
**Ukrainian and Russian Wheat Critical to Middle East and Africa**

US space agency report released last month revealed that 22 percent of Ukraine’s farmland had fallen under Russian control since fighting began in February. Following is a summary of updates on major crops.

Ukrainian wheat is very important to Africa and the Middle East, as many of these countries were already facing a food crisis prior to the Russian invasion because of regional drought, and it is critical that food is moved to these countries already facing crisis. **Twenty-six countries in total**, most in the two regions, get over half their wheat imports from Russia and Ukraine. In 2020, Ukraine supplied 85% of Egypt’s grain and 81% of Lebanon’s – figures that will be impossible to meet this year. For 2021, the figures were much more heavily weighted towards Russia, with Egypt purchasing 60% of its wheat from there. Over the past few months, Egypt, which has adopted a number of policies including capping unsubsidized bread prices, is also exploring **new markets** to purchase wheat, and in June, received its first shipment of Indian wheat purchased by the private sector. Even richer countries such as Turkey import large quantities of Ukrainian grain and cooking oils. Iran also buys wheat from Russia and Ukraine, as do South Asian countries like Pakistan and Bangladesh.

Ukraine typically ships approximately 75 percent of its agricultural exports through the ports along the Black Sea, and Russia exports to major clients such as Egypt, Turkey, Syria, and other African and Middle Eastern countries through the Black Sea as well. Since February, Black Sea ports have been effectively blocked due to fighting, putting Ukraine’s winter wheat crop at risk of spoilage and leading to severe food shortages in countries that need Ukrainian grain most. The need for a humanitarian corridor was made increasingly apparent last month, when a report from July 13 suggested that 130 cargo ships loaded with Ukrainian wheat were waiting in the Black Sea to enter the Danube and be transported from Romania to other destinations.

Ukraine has also charged that Russia has stolen some of its wheat, which has been either kept in Russia or exported in Russian ships from Russian ports to **countries such as Syria**, a close ally of Russia.

The success of the agreement will also depend on insurers and whether they are willing to take the risk to insure the shipments of grain through a conflict zone.

**Russian wheat forecasts**

According to USDA, Russia is expecting a strong wheat harvest this year. The agency forecasts Russian wheat production for marketing year 2022/23 at a “record” 88.0 million metric tons, up 17 percent from last year. This figure includes estimates of 65 million tons of winter wheat and 23 million of spring wheat, in a planted area of a 28.7 million hectares, another record.² The Russia agriculture consulting firm Sovecon estimates that Russia will export 42.6 million tons of wheat this year, a record, which if met would help considerably in addressing global food insecurity. However, Sovecon also notes that “Shipowners are still cautious about sending ships to the region amid the military operations and the risk of falling under sanctions, the same factor complicates payments for the Russian grain [.]”

² USDA forecasts exclude production from Crimea, as the US does not recognize the incorporation of Crimea into Russia. However, the forecasts from statistics published by Russia’s statistics agency Rosstat.
uncertainty complicates an assessment of the severity of the global food crisis this fall, as so much of Russian wheat exports are sent through the Black Sea. Accordingly, Russian wheat exports this year have been slow, with an estimated only 5.8 million tons exported this far, and Ukrainian exports (via all sources) only about a “third of normal.”

**Wheat Production and Harvest**

Global wheat production for 2022/2023 is projected down 1.8 million metric tons as downward revisions for the EU, Ukraine, and Argentina are only partially offset by increased production in Canada, Russia, and the US. Argentina’s wheat production for 2022/2023, suffering very dry weather, is projected at 18.5 million tons, 1 million tons lower than USDA’s official estimate. Significant rainfall alleviated drought conditions in Canada, where spring wheat represents 71 percent of area planted to wheat in 2022, with durum representing 23 percent, and the remainder winter wheat. USDA estimates Canada’s wheat production to be at 34 million metric tons for 2022/2023 compared to 2021.

Ukraine’s wheat production for marketing year (MY) 2022/2023 is estimated at 19.5 metric tons, down 41 percent from last year. Yield is estimated at 3.71 tons per hectare, down 17 percent from last year. Harvested area is estimated at 5.3 million hectares, down 29 percent from last year.

Winter wheat, which is planted from early September to mid-November, accounts for 97 percent of total Ukraine wheat production. Ukraine’s winter wheat harvest began in late June and will continue through mid-August. Based on estimates from Ukraine’s Ministry of Agriculture, the estimated harvested area is 4.96 million hectares; 1.5 million hectares lower than the State Statistics Service of Ukraine’s (SSSU) number published prior to the conflict.

**Sunflower Meal, Seed, and Oil**

Ukraine is normally the world’s top producer of sunflower meal, oil, and seed and the top exporter of sunflower meal and oil.

Ukraine has held its position as the world’s top producer of sunflower seed since MY 2008/2009. Due to the effects of the invasion, Ukraine is projected to become the third largest sunflower seed producer, after Russia and the EU, in MY 2022/2023. Ukraine normally produces one-third of the world’s sunflower oil and accounts for nearly half of global exports; however, in MY 2022/2023, Ukraine’s share of global sunflower oil production and exports is projected to shrink to 21 percent and 35 percent, respectively. Ukraine normally supplies two-thirds of global sunflower meal; in MY 2022/2023, Ukraine’s share of global exports is expected to fall to 40 percent.

It is unclear whether the US and other producers will be able to make up the full shortfall, but US farmers in five of the top eight sunflower-producing states increased their plantings by 25 percent or more, according to USDA’s July Oil Crops Outlook. Increased soybean oil may also serve as a substitute in global markets. The impact of reduced exports on Ukraine’s budget has been tempered by budget support from the US and international financial institutions.
US Wheat Production

Winter Wheat

According to the USDA’s July Crop Production report, the US winter wheat forecast is down 2.2 bushels per acre from the previous year, largely because of the worsening of drought conditions in the Central Plains, resulting in far lower yields and smaller hard red winter (HRW) wheat production. Higher yields in Washington, Oregon, and Idaho contributed to larger white wheat production. Eastern states experienced a mix of lower and higher yields. As of August 7, the US winter wheat harvest is 86 percent complete, down from 94 percent the previous year. This will reduce slightly the US’ ability to fill the wheat gap in global markets.

Spring Wheat

US spring wheat development is lagging, largely due to excessively wet conditions in the Northern Plains during planting, causing delay. However, elevated prices incentivized producers to plant as much as they were able. As of August 7, the spring wheat harvest is 9 percent complete, well below the 35 percent figure last year. Although delayed, the quality of this crop is expected to be superior to last year’s. As of August 7, 64 percent of spring wheat was determined to be in good/excellent condition, up from only 11 percent the previous year. This year, North Dakota, the largest wheat producing state, is expected to produce a record 51 bushels per acre.

Global Rice Production

Despite rice prices being lower overall than a year ago, they have moved higher in recent months as an alternative crop to wheat and other grains, particularly in Asia and the Middle East. On July 14, the USDA lowered its 2022/2023 global rice production forecast to 514.8 million tons. The US and EU account for the majority of the 0.6-million-ton reduction from the previous month’s estimate. Production is projected to be up at least 100,000 tons from the year prior in Australia, Bangladesh, Burma, India, Indonesia, Iran, Nepal, Nigeria, Pakistan, Sri Lanka, and Thailand. India holds the largest projected increase with an increase of 0.84 million tons to a record 130.5 million tons. Comparatively, production is expected to decline at least 100,000 tons in Brazil, the EU, Ghana, South Korea, Madagascar, the Philippines, Russia, Tanzania, and the US, with the US having the largest decline at 0.55 million tons to a total of 5.54 million. “Tight” supplies, however, mean that rice will likely play only a limited role in addressing food insecurity globally.

Indian Rice and Wheat Crops

Despite India’s projected record increase in rice production, reports have emerged that rice plantings in the country, the world’s largest rice exporter with 40 percent of global market share and exports to over 100 countries, have fallen by about 13 percent this year because of low rainfall in some areas, including the states of West Bengal and Uttar Pradesh. Rice prices have already risen in India, with predictions that export prices could rise to about $500 per ton, almost a 10 percent increase over the current price of $365 per ton. A good monsoon could permit later plantings and increase eventual harvests; however, one analyst noted that “rarely any sowing happens after mid-July.” India’s current policy of using rice to produce ethanol may also have to change if yields drop considerably.
This raises fears of continued global food price inflation and possible export restrictions such as India imposed earlier this year on wheat (now modified to include export of wheat flour with prior notification to the government) and sugar. Last year, India, the world’s second largest wheat producer, produced 109 million tons, of which 7 million was exported. Thus, India’s export ban, while significant, represents only between one-quarter and one-third of the grains that had been stuck in Ukraine before the export agreement.

**Despite Improvements, Global Food Insecurity Persists**

The United Nations World Food Programme (WFP) reported that in 2022, 345 million people are either acutely food insecure or at high risk across 82 countries with WFP and available data. This is an increase of 200 million people from before the COVID-19 pandemic. Approximately 50 million people are on the brink of famine in 45 countries, including 900,000 people already facing famine or famine-like conditions in parts of Afghanistan, Ethiopia, Somalia, South Sudan, and Yemen.

CED will continue to monitor the global food security situation as the peak harvest season in the Northern Hemisphere approaches.