

Food Security

Update July 29, 2022

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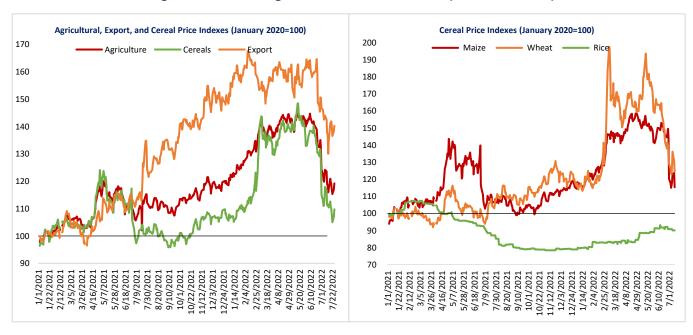
AT A GLANCE

- The agricultural, cereal, and export price indices were stable over the past 2 weeks.
- Domestic food price inflation remains high around the world. High inflation continues in almost all lowincome and middle-income countries, and the share of high-income countries with high inflation is also increasing sharply.
- Russia and Ukraine signed an agreement to free more than 20 million tonnes of grain stuck in Ukraine's Black
 Sea ports.
- The war in Ukraine threatens poor countries with overlapping food and debt crises.
- The Horn of Africa is suffering its worst drought in more than 40 years.

GLOBAL MARKET OUTLOOK (AS OF JULY 26, 2022)

Trends in Global Agricultural Commodity Prices

Figure 1: Trends in Agricultural and Cereal Prices (Nominal Indices)



Source: World Bank commodity price data.

Note: Daily prices from January 1, 2021, to July 26, 2022. The export index includes cocoa, coffee, and cotton; the cereal index includes rice, wheat, and maize.

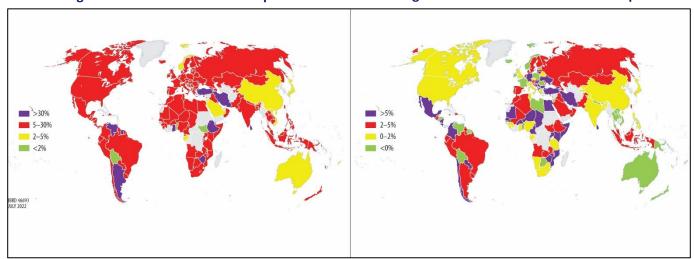
The agricultural, cereal, and export price indices were stable over the past 2 weeks, with the agricultural index closing at the same level as 2 weeks ago, the export index up by 2 percent, and the cereal index down by 1 percent. Maize prices closed 1 percent higher than 2 weeks ago, wheat prices 2 percent lower, and rice prices 5 percent lower. Maize prices were 2 percent lower than the January 2022 average, wheat prices 4 percent higher, and rice prices 5 percent higher. The maize and wheat price indices were 16 percent and 22 percent higher, respectively, than the January 2021 average, and the rice price index was 14 percent lower (Figure 1).

Food Price Inflation Dashboard

Domestic food price inflation (measured as year-on-year change in the food component of a country's Consumer Price Index (CPI)) remains high (see the dashboard in Annex A). Information from the latest month between March and June 2022 for which food price inflation data are available shows high inflation in almost all low-income and middle-income countries; 93.8 percent of low-income countries, 89.1 percent of lower-middle-income countries, and 89 percent of upper-middle-income countries have seen inflation levels above 5 percent, with many experiencing double-digit inflation. The share of high-income countries with high inflation has also increased sharply, with about 78.6 percent experiencing high food price inflation. The most affected countries are in Africa, North America, Latin America, South Asia, Europe, and Central Asia (Figure 2). In real terms, food price inflation exceeded overall inflation (measured as year-on-year change in the overall CPI) in 78.7 percent of the 160 countries for which food CPI and overall CPI indexes are both available (Figure 3). This week's 10 countries with the highest food price inflation, in nominal and real terms, are listed in Table 1 (using the latest month for which data are available between March and June 2022).

Figure 2: Food Inflation Heat Map

Figure 3: Real Food Inflation Heat Map



Source: International Monetary Fund, Haver Analytics, and Trading Economics.

Note: Food inflation for each country is based on the latest month from March to June 2022 for which the food component of the Consumer Price Index (CPI) and overall CPI data are available. Real food inflation is defined as food inflation minus overall inflation.

Table 1: Food Price Inflation: Top 10 List

Country	Nominal food inflation (%YoY)	Country	Real Food Inflation (%YoY)
Lebanon	332	Lebanon	122
Zimbabwe	255	Zimbabwe	23
Venezuela	155	Iran	33
Turkey	94	Sri Lanka	26
Iran	86	Turkey	16
Sri Lanka	80	Colombia	14
Argentina	66	Hungary	10
Suriname	55	Rwanda	10
Ethiopia	38	Burkina Faso	10
Moldova	34	Somalia	10

Source: International Monetary Fund, Haver Analytics, and Trading Economics.

Note: Food inflation for each country is based on the latest month from March to June 2022 for which the food component of the Consumer Price Index (CPI) and overall CPI data are available. Real food inflation is defined as food inflation minus overall inflation.

EMERGING ISSUES

Ukraine-Russia Trade Agreement Allows Trade Via Black Sea Ports

On July 22, 2022, Russia and Ukraine signed an agreement to free more than 20 million tonnes of grain stuck in Ukraine's Black Sea ports. The agreement, brokered with support from the United Nations and Turkey, could have major implications for global food security and food prices. The inability of Ukraine to export grain from its Black Sea ports has severely reduced the supply of food to import-dependent African and Middle Eastern countries. Before the war in Ukraine, Ukraine was a breadbasket—providing wheat, maize, and barley to countries throughout Asia, Africa, and the Middle East.

A recent webinar hosted by Agricultural Market Information System (AMIS) discussed efforts to alleviate the storage and transportation problems that the war has caused in Ukraine and highlighted the challenges facing Ukrainian producers. Representatives from the Ukrainian Grain Association detailed the war's impact on Ukrainian grain production, citing a 25 percent decrease in harvested area, a 37 percent decrease in production, and a 41 percent decrease in export capacity from last season. In June 2022, logistics challenges have reduced export capacity to 2.2 million tonnes, which is 4.5 million tonnes less than expected before the onset of the war. High logistics prices have reduced the profitability of trade, forcing farmers to reduce planting area in order to maintain income levels, a coping strategy which could decrease future production. As such, countries that rely on Ukraine for food imports will be forced to pay higher prices or find alternative trading partners. Representatives from the International Grain Council (IGC) further detailed the impacts of the war by citing a decline in storage capacity from 57 million tonnes to 24 million tonnes as of early May 2022. The IGC also noted that, as the harvest continues through October 2022, it is likely that there will be a 12-million-tonne shortage of storage capacity. Factoring in newly opened trade routes via the Sulina and Bystre canals decreases this to a shortage of 11 million tonnes. To avoid such storage capacity shortages, grain exports must reach, on average, 7 million tonnes per month between August and October 2022.

The AMIS webinar concluded that the new trade agreement between Russia and Ukraine would alleviate some of the pressure to export grains and avoid storage capacity shortages. According to the IGC, Odesa and Black Sea ports have the capacity to export 5 million to 6 million tonnes per month at full capacity. Given the current export capacity of 2.2 million tonnes, allowing additional trade via Black Sea ports would be sufficient to meet the 7 million tonnes of export capacity required to avoid storage capacity shortages, but recent missile strikes on Odessa and Black Sea ports have severely damaged infrastructure, reducing the ports' export capacity.

War in Ukraine Threatens Poor Countries with Debt and Food Crises

The war in Ukraine is having extreme impacts on the world's poorest countries. The countries at highest risk of a debt crisis are experiencing the additional threat of a food crisis. A recent World Bank blog described the dire situation that many poor countries have been facing since the start of the war, with surging food import bills resulting from high grain prices caused by the war. According to World Bank data, import bills for wheat, rice, and maize are expected to rise by more than 1 percent for low-income countries at high risk of a debt crisis—more than double the increase from 2021 to 2022 (Figure 4).

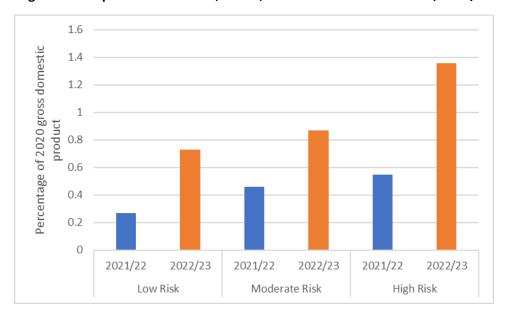


Figure 4: Change in Net Import Bill for Wheat, Maize, and Rice for Poor Countries, 2020/21 vs 2022/23)

Source: World Bank Group Macroeconomics, Trade, and Investment Global Practice

Note: Risk levels for debt distress are based on indicative debt burden thresholds and benchmarks that depend on a country's macroeconomic framework and other country-specific information.

Seven countries are at greatest risk of overlapping food and debt crises: Afghanistan, Eritrea, Mauritania, Somalia, Sudan, Tajikistan, and Yemen. Overlapping debt and food crises can have devastating impacts, with international assistance the only solution. For poor countries that depend on food imports from Russia and Ukraine, many of which are in Africa, finding alternative food sources in the short term is difficult with low regional supply and limited transport and storage infrastructure. Since the start of the COVID-19 pandemic, these countries' debt has increased. By the end of 2020, their public and publicly guaranteed debt to foreign creditors was a record US\$123.8 billion, an increase of almost 75 percent since 2010.

Increasing emergency aid to at-risk countries is one possible solution to avoid the devastating impacts of overlapping debt and food crises in the world's poorest countries. Aid to increase food security in developing countries would help governments provide targeted, cost-effective cash transfers to the most vulnerable segments of their populations. Aid would also be targeted to farmers in at-risk countries to increase access to inputs and transform food systems to increase resilience, productivity, and efficiency. Debt restructuring and debt relief would also be a priority for countries with unsustainable debt burdens. To prevent the catastrophic outcomes of debt and food crises, the blog calls for prompt and decisive action by policy makers.

How to Mitigate the Impact of the War in Ukraine on Commodity Markets

Another recent <u>World Bank blog</u> analyzed policy responses to previous episodes of historical price shocks to highlight how the impacts of the war in Ukraine on commodity markets can be mitigated. The authors note that prices quintupled in 1 year during the first oil price shock in 1974 and tripled during the 1979 oil price spike, reaching a high of US\$151 per barrel of crude oil in real 2022 prices. The policy response to this crisis involved three main channels of market mechanisms: demand reduction, substitution, and supply response. Noting that the global demand for oil fell 11 percent between 1979 and 1983, the authors attributed the decline to greater fuel efficiency, changing consumer preferences, and the global recession in 1982. In the 5 years after the 1979 oil price shock, the share of crude oil in energy consumption in OECD countries fell by 7 percentage points. This has been understood to be a result of the shift away from oil-powered electric power stations to nuclear and coal energy sources. The authors further highlight that the high oil prices encouraged increases in oil production from high-cost sources, including Prudhoe Bay in Alaska and the North Sea fields of the United Kingdom and Norway. New sources of production were also found for food in South America, particularly in Argentina and Brazil.

Having considered the impact of the broad-based commodity price boom in the 2000s that led to prices peaking at US\$171 per barrel in real terms in mid-2008, the authors noted that policy responses included the G20 establishing AMIS in 2011 to increase transparency and policy coordination.

Drawing lessons from history, the authors suggested that countries promote energy efficiency and encourage production of energy, preferably using sources of low-carbon energy instead of market-distorting fuel subsidies. For food commodities, key steps may include introducing measures to promote efficient use of inputs such as fertilizers, reducing food waste, and easing biofuel mandates.

What makes the current commodity price shock unique, the authors noted, is that price increases have been more broad-based across all fuels, leaving less opportunity to switch to cheaper fuels. Furthermore, the energy intensity of gross domestic product (the amount of energy needed to produce a given amount of output) is much lower than in the 1970s, so consumers may be less sensitive to relative price changes. Finally, the authors highlight that, although many countries have responded to the current shock with energy subsidies and tax breaks, fewer policies have been designed to address the underlying imbalance between supply and demand.

Severe Drought in Horn of Africa

The <u>United Nations Office for the Coordination of Humanitarian Affairs released a brief</u> highlighting that the Horn of Africa is suffering its worst drought in more than 40 years. After four consecutive failed rainy seasons, an estimated 18.6 million people are experiencing acute food insecurity, and malnutrition is rising in Ethiopia, Kenya, and Somalia.

Data that the World Food Programme (WFP)'s Regional Bureau for Eastern Africa has released suggest that the significantly below-average March-to-May rainfall season marked the fourth consecutive poor season since late 2020. In many areas of Ethiopia, Kenya, and Somalia, the drought has been estimated to be the most severe in 70 years. The combined effect of drought and price shocks have worsened the food security and malnutrition situation, with an estimated 18.4 million to 19.3 million people facing severe food insecurity (IPC 3+) and likely deterioration during the June-to-September season. Forecasts for the upcoming October-to-December rainy season are for below-average rainfall, suggesting that market demand may continue to rise despite reduced supply from crop harvests. The WFP is projecting that the number of food-insecure people may rise to 22 million by the end of the year.

The situation has prompted <u>UNICEF</u> to issue a regional call to action, appealing for support on behalf of 2 million children across Djibouti, Ethiopia, Kenya, and Somalia who need treatment for severe, acute malnutrition. According to the <u>WFP</u>, the nutritional status of children under 5 has deteriorated in most drought-affected areas because of inadequate consumption, limited availability of milk products, and greater disease burden. In the first quarter of 2022, the number of new acutely malnourished children admitted for treatment was 27 percent to 68 percent higher than in 2021 across Ethiopia, Kenya, and Somalia. The drought has displaced an estimated 7.5 million people in 2022, exacerbating risks of child labor, gender-based violence, and disease outbreaks, in addition to widespread food insecurity and hunger.

Finally, the <u>WFP</u> has highlighted that, over the next few months, the risk of a fifth consecutive below-average October-to-December rainfall season will have devastating, long-lasting impacts on societies through disrupted livelihoods, eroded assets, magnified food insecurity and malnutrition, and extensive environmental impacts.

REGIONAL UPDATES

East and Southern Africa

East and southern Africa are experiencing acute food insecurity that the Famine Early Warning Systems Network (FEWSNET) is projecting will worsen in the coming months. Crisis (IPC 3) and worse conditions are particularly severe in the Democratic Republic of the Congo and Ethiopia, with up to 10 million people in acute food insecurity in each country; 7.5 million each in Somalia, South Sudan, and Sudan, with risk of famine in the latter two; 5 million each in Kenya and Zimbabwe; and up to 2.5 million each in Madagascar, Malawi, Mozambique, and Uganda. Although some countries, including Ethiopia, are experiencing the lowest rainfall on record, which drives poor crop harvest prospects and livestock deaths, others are experiencing flooding, such as South Sudan, where floods can isolate communities and families from food and income sources. High food, feed, and fertilizer prices limit food access and increase malnutrition.

East Asia and the Pacific

Although the East Asia Pacific region has relatively been more insulated from commodity-related disruptions arising from the Russia-Ukraine military conflict, some countries may be more vulnerable to food inflation. This may heighten social risks and trade protectionism, according to a <u>Moody report</u>. The Philippines, Thailand, and Vietnam have high energy and food weights in their Consumer Price Index baskets, rendering them more vulnerable to food and energy inflation, while Cambodia and Lao PDR were at high risk of experiencing elevated social risks. For

governments, compensating for food price increases will entail costs, and the pace of fiscal consolidation will slow down as spending pressures persist. According to Nomura Holdings, food inflation in Asia, excluding Japan, may accelerate in the second half of 2022, given the approximately half-year lag between the movement of global food costs and their impact in Asia, with Singapore, South Korea, and the Philippines estimated to experience the sharpest increases in prices. To combat inflation, countries in the region have rolled out a range of measures, including fuel subsidies (e.g., Indonesia, Malaysia, South Korea, Thailand), fertilizer subsidies (e.g., Indonesia, Philippines, Thailand), price controls (e.g., Malaysia, Thailand), and export restrictions (e.g., Malaysia for poultry and previously Indonesia for palm oil). However, Indonesia is now waiving its export levy for all palm oil products from July 15 until August 31 to boost exports after the country's three-week CPO export ban in April-May 2022 resulted in surplus inventories and depressed farmgate prices domestically. This decision may lead to further reductions in Crude Palm Oil Futures prices (FCPOc3), which have plunged by about 50 percent since late April to their lowest point in over a year.

Despite the above-average rice production forecast in 2022, concerns regarding sub-optimal rice output still loom in the region—arising from high fertilizer costs. Production prospects for rice producers in the region is mostly estimated to be near or above the 2017-2021 average (FAO, 2022). However, concerns of reduced crop yield due to high fertilizer prices remain in Thailand and the Philippines, while China has reported a higher incidence of pests and diseases in its rice crops this year, with some provinces reporting an almost 10 percent increase in affected areas. Vietnam, a major rice exporter, has faced challenges related to high freight and production costs. In response to high fertilizer prices, the Philippines government is looking into negotiating with China, Indonesia, the United Arab Emirates, Malaysia, and Russia for the country's procurement of fertilizers. The Government of Indonesia, on the other hand, has limited its fertilizer subsidy to only urea and NPK while reducing the number of eligible commodities from 70 to 9 to reduce pressures on its state budget. The Lao PDR Ministry of Agriculture and Forestry (MAF) is encouraging the Laotian and Vietnamese private sector to form a fertilizer manufacturing joint venture in response to the rising demand on the domestic market.

Europe and Central Asia

<u>Droughts in Europe in July 2022: almost half of the EU +UK territory at risk.</u> On July 18, the European Commission's Joint Research Centre published the "Drought in Europe - July 2022" report, which assesses Europe's drought situation based on the European Drought Observatory. The analysis of the evolution and impact of the prolonged drought in the EU shows that a staggering portion of Europe is currently exposed to warning (44 percent of EU+UK) and alert (9 percent of EU+UK) drought levels associated with soil moisture deficit in combination with vegetation stress.

Water and heat stress is driving crop yields down from a previously negative outlook for cereals and other crops. France, Romania, Spain, Portugal, and Italy will need to deal with this reduced crop yield. Germany, Poland, Hungary, Slovenia, and Croatia are also impacted. At the EU level, the yield forecasts for soft wheat, durum wheat, and winter barley are now just below the five-year average. The forecasts for rapeseed, maize, and sunflowers were also reduced but remain at, or just above, the five-year average. Forecasts for sugar beet, potatoes, and soybeans (still mostly based on historical trends), as well as spring barley, remain essentially unchanged.

Latin America and the Caribbean

In Latin America and the Caribbean, high food prices continue to drive food insecurity. On July 12, 2022, the Food and Agriculture Organization (FAO) issued a high domestic food price warning for Chile (wheat) and moderate domestic food price warnings for Colombia (wheat flour), El Salvador (maize), Guatemala (maize), Honduras (maize), and Peru (wheat flour). In Guatemala, the cost of the basic food basket exceeds the daily non-agricultural minimum wage. In Haiti, the security situation continues to worsen, limiting the supply of produce in markets and restricting the movement of households. This, combined with consecutive reduced cereal harvests, high food prices, natural disasters, and sociopolitical turmoil, has resulted in an estimated population experiencing IPC3+ (crisis or worse) food security conditions of 5.6 million (50.3 percent, FEWSNET). Food insecurity remains a significant concern in the eastern Caribbean, with 2.8 million persons estimated to be food insecure. High reliance on food imports makes the region particularly vulnerable to high international food prices. (The FAO Food Price Index in June 2022 was 23.1 percent above its value a year ago.)

Disruptions in global trade, including from economic sanctions on Russia, one of the world's largest fertilizer producers and exporters, have significantly affected <u>Latin America and the Caribbean</u>. Peru is one of the countries most affected globally, with international sanctions or export restrictions affecting almost 69 percent of fertilizer use. Argentina and Brazil have also been affected, with 28 percent and 19 percent, respectively. In Mexico, the government has announced a planned investment of US\$500 million to increase production in underused fertilizer plants.

Middle East and North Africa

In June, compared to the same period last year, food and beverage prices have continued to increase in many countries in the region. The spike in food prices has been prompted by the outbreak of war between Ukraine and Russia. The Middle East and North Africa relies heavily on the Black Sea region for its wheat consumption. Since wheat is one of the key staple foods in the Middle East and North Africa, the disruption in the wheat supply chain is causing critical issues in food security in the region. As a result, the food CPI has increased significantly in most countries in the region: Egypt (24.2 percent), Morocco (9.5 percent), Iraq (7.6 percent), Lebanon (216 percent), Syria (71 percent), Yemen (43 percent), and Palestine (8.1 percent; as of May). The government of Egypt announced that the country secured wheat for six months after its import agreement with India for 180,000 tons; however, most other countries in the region are still facing a critical wheat shortage.

Food insecurity persists due to a number of reasons. Historic food price increases in Lebanon have resulted in 19 percent of its population facing some sort of food shortage. Ongoing armed conflict and displacement are further fueling the food insecurity in some countries in the region. As of May 2022, northern and southern regions of Yemen reported approximately a 50 percent increase in the number of people with inadequate food consumption over the same period last year. In Palestine, approximately 1.8 million people, constituting 31.2 percent of households are experiencing moderate or severe food insecurity as a result of long-lasting armed conflict. Water scarcity is prevalent. For example, in Morocco, cumulative rainfall was 32 percent lower at the end of May 2022 than in a normal year, resulting in a 17.1 percent decrease in vegetable production.

South Asia

In rural areas of Afghanistan, food security outcomes have improved temporarily, given limited crop production. As of late June, the harvest had reportedly concluded early across most of the country, except in higher-elevation areas where harvesting is ongoing or has not yet started. At the national level, rainfed and irrigated wheat production is likely to be below average, with northern and northeastern rainfed areas expected to experience the greatest deficits. Afghanistan's vulnerability to conflict and natural disasters frequently leads to high levels of food insecurity. As a result of overall food scarcity in the country, the diversity of food intake by families in the country is limited, with 16 percent of households consuming one meal or less per day. One in 10 households rely on food aid as a staple food source (bread). Twenty-three percent of people in communities across Afghanistan cannot meet their basic food needs. Wardak province faces the worst rate of inability to access basic food needs (88 percent). Sixtynine percent of the people in communities across Afghanistan cannot meet their basic food needs. The most common coping mechanism is relying on less-preferred foods, which 42 percent of households on average across the country are doing. Between January and May 2022, humanitarian partners reached 21.5 million people with at least one form of humanitarian assistance, including 20.9 million vulnerable people, 271,000 cross-border returnees, 78,000 refugees, 121,000 people affected by floods and other weather-related events, and 140,000 new internally displaced persons. Although this represents a broad reach in absolute terms, millions of people reached require multiple rounds of assistance over the year to survive.

TRADE POLICY RESPONSES

Trade policies are a major source of risk for global food price stability. This section tracks recent trade policy announcements as potential sources of such risk. For regular tracking of trade measures, see the Macroeconomics, Trade, and Investment Global Practice COVID-19 Trade Policy Database for Food and Medical Products, the World Trade Organization COVID-19 Agriculture Measures Database, and the IFPRI COVID-19 Food Trade Policy Trade Tracker.

Trade policy actions on food and fertilizers have surged since the beginning of the war in Ukraine. Countries actively used trade policy to respond to domestic needs when faced with potential food shortages at the beginning of the COVID-19 pandemic. Active export restrictions on major food commodities are listed in Table 2 and restrictions on other foods in Table 3. Eighteen countries have implemented 27 food export bans, and seven have implemented 11 export-limiting measures.

Table 2: Food Trade Policy Tracker (Major Food Commodities)

Jurisdiction	Measure	Products	Announcement	Expected End Date
Afghanistan	Export ban	Wheat	5/20/2022	12/31/2022
Algeria	Export ban	Sugar, pasta, oil, semolina, all wheat derivatives	3/13/2022	12/31/2022
Argentina	Export taxes	Soybean oil, soybean meal	3/19/2022	12/31/2022
Burkina Faso	Export ban	Millet, maize, sorghum flours	2/28/2022	No end date
Belarus	Export licensing	Rice, whole-meal flour, flour from rye, barley, pasta	3/25/2022	12/31/2022
Belarus	Export licensing	Wheat, rye, barley, oats, corn, buckwheat, millet, triticale, rapeseed, sunflower seeds, beet pulp, cake, rapeseed meal	4/13/2022	9/30/2022
Cameroon	Export ban	Cereals, vegetable oil	12/27/2021	12/31/2022
Georgia	Export ban	Wheat, barley	7/04/2022	7/01/2023
Ghana	Export ban	Maize, rice, soybeans	4/26/2022	10/30/2022

Indonesia	Export taxes	Palm oil, palm kernel oil	3/17/2022	No end date
India	Export ban	Wheat	5/13/2022	12/31/2022
India	Export restriction	Wheat flour and related products	07/06/2022	No end date
Iran	Export ban	Potatoes, eggplants, tomatoes, onions	4/27/2022	12/31/2022
Kyrgyzstan	Export ban	Wheat, meslin, flour, vegetable butter, sugar, sunflower seeds, eggs, barley, oats	3/19/2022	9/19/2022
Kosovo	Export ban	Wheat, corn, flour, vegetable oil, salt, sugar	4/15/2022	12/31/2022
Kuwait	Export ban	Grains, vegetable oil, chicken meat	3/20/2022	12/31/2023
Lebanon	Export ban	Processed fruits and vegetables, milled grain products, sugar, bread	3/18/2022	12/31/2022
Pakistan	Export ban	Sugar	4/15/2022	12/31/2022
Russia	Export taxes	Sunflower oil, sunflower meal	4/15/2022	12/31/2022
Russia	Export quota	Sunflower seeds	4/1/2022	8/31/2022
Russia	Export licensing	Sunflower oil	4/15/2022	8/31/2022
Serbia	Export ban	Durum wheat, maize, wheat flour, corn flour, sunflower oil	3/10/2022	12/31/2022
Tunisia	Export ban	Fruits and vegetables	4/12/2022	12/31/2022
Turkey	Export ban	Cooking oils	3/9/2022	12/31/2022
Turkey	Export ban	Beef meat, sheep meat, goat meat	3/19/2022	12/31/2022
Turkey	Export ban	Butter	4/15/2022	12/31/2022

Table 3: Food Trade Policy Tracker (Other Commodities)

Jurisdiction	Measure	Products	Announcement	Expected end date
Argentina	Export ban	Beef	1/1/2022	12/31/2022
Azerbaijan	Export licensing	Flour-grinding industry goods, starch, wheat gluten, oilseeds and other seeds, medicinal and industrial crops, feed	3/19/2022	12/31/2022
China	Export ban	Phosphate rock	9/28/2021	12/31/2022
China	Export licensing	Fertilizers	9/24/2021	12/31/2022
Kyrgyzstan	Export ban	Mineral fertilizers	2/26/2022	8/26/2022
Lebanon	Export ban	Meat products, fish, potatoes, fruits and vegetables, oil, animal fat, ice cream, cacao, mineral water, milk	3/11/2022	No end date
Lebanon	Export ban	Processed fruits and vegetables, milled grain products, sugar, bread	3/18/2022	12/31/2022
Turkey	Export ban	Beans, lentils, olive oil	2/27/2022	No end date
Ukraine	Export ban	Nitrogenous fertilizers	3/12/2022	No end date
Russia	Export ban	Fertilizer	2/4/2022	8/31/2022
Russia	Export licensing	Nitrogenous fertilizers	11/3/2021	12/31/2022

Source: International Food Policy Research Institute COVID-19 Food Trade Policy Tracker and Macroeconomics, Trade, and Investment Global Practice COVID-19 Trade Policy Database for Food and Medical Products.

ANNEX A: FOOD INFLATION JULY 2021-JUNE 2022 (PERCENT CHANGE, YEAR ON YEAR)

Country/Economy	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
Low Income												
Afghanistan												
Burkina Faso	5.6	6.1	8.6	8.4	10.2	14.3	14.2	17.8	24.3	25.6	25.2	
Burundi	12.9	14.2	13.7	11.7			14.4	16.2	15.0	19.3	22.9	21.0
Chad	-0.7	-5.4	-1.1	-2.3	-2.6	2.9	6.0		7.2	8.2	10.8	
Ethiopia	31.9	37.3	41.9	40.7	39.0	41.7	40.1	41.8	43.5	42.9	43.9	38.1
Gambia	11.4	8.9	9.0	8.8	9.1	9.9	9.8			15.5	14.2	13.7
Guinea	15.9	17.0	16.1	15.7	15.2	15.1	13.5	14.1	14.7	12.6		
Liberia	0.2	0.1	0.2		-6.6							
Madagascar	8.4	8.4	8.0	7.9	8.0	7.8	7.3	7.6				
Malawi	10.3	9.7	10.9	11.8	12.8	13.6	14.2			19.5		
Mali	2.6	1.8	6.7	4.8	7.5	10.6	11.1	10.5	11.5			
Mozambique	10.4	10.7	11.8	12.3	10.5	9.8	10.9	8.9	8.0	10.5	13.9	16.3
Niger	7.9	7.5	6.7	7.7	8.8	9.8			11.3			
Rwanda	-3.4	-5.6	-8.3	-10.5	-12.3	-9.6	-2.8	0.3	2.5	13.2	23.8	26.1
Sierra Leone	15.4	14.9	13.3	18.2	18.8	19.4	15.7	17.1	23.0	23.0		
Somalia	4.7	5.9	5.9	7.1	7.4	7.4	11.6	12.7	12.0	11.9	14.7	16.9
South Sudan	24.9	18.4								0.1		
Sudan												
Togo	14.4	15.2	12.4	13.4	11.9	14.9	16.8	17.9	19.1	13.6	13.7	
Uganda	0.6	1.3	2.9	3.1	4.7	5.3	5.3	4.5	1.9	5.3	13.6	14.5
				Lower	Middle Inc	ome						
Algeria	9.3	11.5	13.7	12.3	13.6	12.0	11.9	13.1	13.6	15.7		
Angola	23.0	22.5	23.3	23.2	23.6	23.8	25.2	25.7	26.1	25.9	25.8	25.1
Bangladesh	5.1	5.2	5.2	5.2	5.4	5.5	5.7	6.2	6.3	6.2	8.3	8.4

Belize	4.6	5.5	4.9	5.8	5.7	3.3	2.5	3.7	5.9	7.1	7.3	
Benin	8.6	5.8	10.7	7.7	7.4	11.4	15.6	4.6	1.9	-1.0	-1.7	
Bhutan	4.4	4.3	3.2	5.0	6.4	6.9	5.3	4.1	4.0	3.7	3.5	
Bolivia	0.1	0.1	2.8	0.2	1.2	0.5	0.2	0.4	-0.3	-0.5	0.9	1.1
Cabo Verde	0.6	2.2	2.4	3.3	5.2	6.9	10.0	11.6	16.5	15.8	15.2	16.2
Cambodia	3.1	3.5	2.6	2.0	2.4	2.8	3.6	5.9	5.7			
Cameroon	4.4	4.2	4.5	4.0	4.7	7.6			10.0			
Cote d'Ivoire	7.8	8.8	10.6	9.0	11.4	12.2	11.9	8.8	8.4	7.4	5.2	9.8
Djibouti	-3.1	1.6	4.7	4.6	3.7	3.5			6.8			
East Timor	5.8	6.0	6.4	7.5	7.7	7.3	6.4	6.8	7.0	7.3	8.0	
Egypt	4.9	6.6	10.7	11.5	8.0	8.4	12.4	17.7	19.8	26.0	24.8	22.4
El Salvador	-0.1	2.1	4.0	6.1	7.4	8.0	8.9	9.5	9.8	10.9	13.3	14.4
Eswatini	5.4	5.5	5.1						3.4			
Ghana	9.4	10.8	11.4	10.9	13.0	12.8	13.8	17.5	22.5	26.6	30.1	30.7
Haiti	14.4				29.5	26.3	25.5	25.9	26.6	27.7		
Honduras	-0.5	1.0	3.1	4.8	5.7	6.7	7.5	8.1	8.8	10.6	13.0	6.1
India	4.6	3.8	1.6	1.8	2.5	4.4	5.6	6.0	7.5	8.1	7.8	7.8
Indonesia	2.7	3.3	3.2	3.0	3.0	3.1	3.5	2.5	3.4	5.3	5.8	9.1
Iran, Islamic Republic of	57.6	59.4	62.5	61.4	46.9	41.7	42.7	40.7	41.2	44.3	50.9	85.5
Kenya	8.8	10.5	10.6	10.3	9.6	8.8	8.5	8.4	9.7	11.1	12.2	13.4
Kyrgyzstan	23.3	21.5	19.9	17.4	15.4	13.3	12.5	12.1	15.8	18.0	17.1	14.8
Lao People`s Democratic Republic	4.4	2.8	3.0	2.9	2.6	2.7	4.2	5.5	6.1	5.7	8.1	16.9
Lesotho	8.4	7.8	7.6	7.4	6.9	6.6	7.5	7.6	7.4	7.2	7.4	
Mauritania	6.1	7.3	7.4	7.2	6.7		9.4	9.6	11.4	13.4		
Mongolia	11.2	13.8	15.5	18.2	18.7	20.4	21.2	17.9	18.0	16.8	18.0	
Morocco	2.7	-1.1	-0.3	0.9	2.9	4.6	4.3	5.5	9.1	9.1	8.4	
Myanmar	6.1	6.2	5.8	8.8		12.4		12.8	15.4			

Nepal	5.8	5.4	6.9	5.5	5.7	5.7	4.9			7.4	7.1	7.4
Nicaragua	3.7	6.1	8.1	8.7	10.2	10.4	10.3	11.0	13.7	16.2	16.9	15.5
Nigeria	21.0	20.3	19.5	18.3	17.1	17.2	17.0	17.0	17.2	18.4	19.5	20.6
Pakistan	8.3	10.1	10.2	8.3	10.2	10.3	12.9	14.7	15.3	17.0	17.3	25.9
Palestine, State of	4.1	5.2	3.8	1.6	1.8	1.6	6.7	7.4	9.6	9.7	8.1	6.7
Papua New Guinea						5.2			6.2			
Philippines	4.0	5.6	5.1	3.8	2.3	1.5	1.6	1.1	2.8	4.0	5.2	6.4
Samoa												
Senegal	4.7	3.9	4.5	4.3	3.8	5.4	9.2	10.6	10.1	11.3	12.1	14.1
Sri Lanka	11.0	11.0	9.9	11.7	17.1	21.6	24.3	24.4	29.5	45.1	58.0	80.1
Tajikistan	12.4				7.4	7.5	6.8		7.1	8.1		9.6
Tanzania, United Republic of	5.1	3.5	4.0	3.9	4.4	4.8	6.4	6.1	6.5	6.6	5.5	5.9
Tunisia	8.0	7.4	7.2	6.9	6.9	7.7	7.7	8.9	9.1	8.9	8.4	9.9
Ukraine	10.8	11.6	13.7	13.6	13.3	12.8	14.1	14.4	19.6	23.1	24.1	28.3
Vietnam	5.0	5.1	4.7	4.3	3.9	3.9	3.1	1.6	1.8	2.1	2.4	2.9
Zambia	31.2	31.6	29.7	28.2	25.5	19.9	16.9	16.0	15.3	14.1	12.3	11.9
Zimbabwe	55.1	50.5	54.5	61.4	65.4	64.9	63.3	69.3	75.1	104.0	155.0	255.0
				Upper	Middle Inc	ome						
Albania	4.2	4.6	4.5	3.8	5.0	6.5	6.7	6.9	9.2	10.4	11.8	13.2
Argentina	56.4	53.4	53.4	51.3	50.6	50.3	50.5	55.8	59.8	62.1	64.2	66.4
Armenia	13.4	15.1	15.4	15.9	17.0	12.9	12.3	11.4	12.8	14.5	14.7	17.3
Azerbaijan	6.2	7.6	10.2	13.1	14.8	15.7	17.1	17.0	16.7	18.3	20.1	18.4
Belarus	8.9	9.5	11.1	12.1	11.8	11.5	12.0	11.3	15.5	19.0	19.3	19.6
Bosnia and Herzegovina	2.2	3.7	5.2	6.7	8.5	10.6	11.8	13.3	14.8	15.0	23.5	
Botswana	6.5	6.3	6.4	6.8	6.7	7.2	7.1	6.8	6.8	6.2	8.3	9.6
Brazil	13.4	14.0	12.6	11.7	8.9	7.9	8.0	9.1	11.6	13.5	13.5	13.9
Bulgaria	1.8	3.6	4.5	6.0	7.3	8.9	11.2	13.5	16.9	20.7	22.1	23.8

China	-4.4	-4.9	-6.0	-2.7	2.0	-1.3	-3.9	-4.0	-1.6	1.7	2.2	2.9
Colombia	9.7	11.5	12.4	13.7	15.3	17.3	20.0	23.3	26.3	27.0	22.0	24.1
Costa Rica	1.2	1.2	2.7	3.2	3.6	3.0	3.3	7.3	8.8	11.1	13.0	15.2
Dominica												
Dominican Republic	9.9	10.6	10.1	8.5	8.0	9.3	9.4	10.2	11.8	12.9	13.1	13.0
Ecuador	-0.9	0.0	0.5	1.0	0.6	1.1	2.7	2.7	2.1	2.5	4.1	7.7
Equatorial Guinea	-1.7	-1.0	-0.5	2.0	2.1	3.4			5.8		6.7	
Fiji	5.4	7.2	8.3	5.4	4.5	7.1	5.1	3.1	8.0	7.2	3.6	3.3
Gabon	1.0	1.3	1.3	1.3	1.7	2.1	2.3	2.8	3.5	3.9		
Georgia	14.1	16.2	15.9	18.4	17.0	15.6	16.2	17.3	17.8	21.4	22.0	21.8
Grenada												
Guatemala	2.5	2.3	3.0	2.9	2.2	3.1	3.2	3.3	4.9	5.6	7.2	10.7
Guyana	16.9				11.4	11.6				13.8	11.5	7.3
Iraq	7.5	10.2	7.6	5.3	8.4	7.4	8.5	7.8	7.5	9.0	9.0	
Jamaica	4.5	7.0	10.1	11.8	7.9	4.9	0.5	0.8	4.1	6.3	13.9	13.7
Jordan	0.9	1.6	1.7	0.0	-0.5	2.7	3.4	2.4	4.2	4.3	5.8	4.1
Kazakhstan	10.9	11.3	11.5	11.3	10.9	10.0	9.9	10.1	15.7	17.9	19.0	19.2
Kosovo, Republic of	1.7	3.5	4.2	4.2	6.7	8.1	8.8	9.7	14.2	16.4	18.6	17.6
Lebanon	245.4	288.0	278.3	302.7	359.1	441.0	486.9	401.5	390.4	374.4	363.8	332.0
Libya				5.9		4.7			5.5			
Malaysia	1.3	1.2	1.8	1.9	2.6	3.1	3.6	3.8	4.2	4.2	5.3	6.1
Maldives	2.8	2.4	1.7	2.2	2.5	2.3	2.0	1.8	2.9	3.7	4.7	
Mauritius	9.6	7.8	5.5	7.3	8.6	9.9	10.3	16.4	19.1	17.8	11.9	6.5
Mexico	7.3	8.0	8.8	8.4	10.8	11.7	12.0	12.6	13.0	12.8	12.5	13.6
Moldova, Republic of	4.1	4.8	8.3	12.7	15.5	17.5	21.1	23.4	27.0	30.2	32.5	34.3
Montenegro	3.3	4.0	4.8	4.8	5.6	7.2	11.3	13.1	18.3	19.8	21.3	22.5
Namibia	6.2	5.2	4.9	5.1	5.2	5.1	5.6	5.5	4.7	5.8	6.8	7.0
North Macedonia, Republic of	2.2	4.0	3.9	4.6	5.7	6.9	9.2	9.6	11.4	15.1	17.4	21.5

Panama	1.4	1.4	2.0	2.5	2.2	2.2	2.1	2.3	2.8	3.0	3.6	5.2
Paraguay	10.4	11.5	13.5	14.7	13.3	12.3	14.1	15.7	17.5	19.8	18.4	18.6
Peru	4.1	6.1	6.9	7.5	6.7	8.0	7.9	7.9	11.1	11.8	13.7	11.9
Romania	2.3	2.7	4.3	5.3	6.1	6.7	7.2	8.8	11.2	13.5	14.2	14.7
Russian Federation	7.4	7.7	9.2	10.9	10.8	10.7	11.1	11.5	18.0	20.5	20.1	18.0
Saint Lucia												
Saint Vincent and the Grenadines												
Serbia	1.6	5.1	8.3	9.8	11.4	12.0	13.4	15.2	16.1	16.1	16.3	18.8
South Africa	6.7	6.8	6.7	6.2	5.6	5.4	5.7	6.5	6.7	6.2	8.1	8.6
Suriname	64.5	64.4	66.1	66.0	67.3	61.5	67.7		68.3	60.9	55.1	
Thailand	-0.5	-1.5	-1.1	-0.3	0.4	0.8	2.4	4.5	4.6	4.8	6.2	6.4
Turkey	25.0	29.1	29.0	27.5	27.2	43.7	55.6	64.2	71.6	90.8	93.1	94.3
Venezuela	2022.0	1946.0	1585.0	1298.0	1037.0	557.0	389.0	270.0	229.0	192.9	155.0	
				Hig	gh Income							
Antigua and Barbuda												
Aruba	-0.3			1.7	4.1		4.9	6.1	7.2	8.3	9.7	11.1
Australia			1.3			1.9			4.3			
Austria	0.1	0.5	0.6	1.1	1.6	1.7	5.0	4.2	5.5	8.2	8.8	11.3
Bahamas												
Bahrain	0.1	-2.9	-0.1	0.5	2.2	3.3	9.5	12.2	10.6	9.7	11.6	
Barbados	1.2	1.6	7.2			6.3			17.0			
Belgium	-0.9	-0.4	-1.0	-0.3	0.3	1.2	2.4	4.0	4.8	5.1	6.3	8.4
Bermuda		1.3	1.4	1.5				5	5	5.4		
Brunei Darussalam	1.9	2.1	2.5	2.3	2.4	2.0	2.5	2.6	3.8			
Brunei Darussalam Canada	1.9 1.7			2.3	2.4 4.4	2.0 5.2	2.5 5.8	2.6 6.7	3.8 7.7	8.8	8.8	8.8
		2.1	2.5							8.8	8.8	8.8
Canada		2.1	2.5 3.9			5.2			7.7	8.8	8.8	19.2

Cyprus	4.1	8.3	1.4	-0.1	-3.0	-0.2	3.5	7.9	9.7	11.2	8.5	7.8
Czech Republic	0.8	1.5	1.9	1.0	2.1	4.2	5.4	6.9	7.8	11.1	15.5	18.0
Denmark	0.5	0.6	1.6	1.4	2.1	1.7	4.0	5.5	6.3	7.7	10.6	13.0
Estonia	1.2	2.0	3.3	2.7	5.4	6.2	9.4	12.4	13.8	14.6	17.0	19.2
Faroe Islands			-0.2			0.6			2.6			6.2
Finland	0.0	0.5	0.6	1.1	1.6	1.7	3.2	4.5	5.1	6.0	9.0	10.9
France	0.9	1.4	1.1	0.7	0.4	1.4	1.7	2.3	3.4	4.3	4.6	5.8
Germany	4.3	4.5	4.8	4.5	4.6	5.9	4.9	5.0	6.2	8.6	11.1	12.7
Greece	1.7	3.1	3.1	3.0	3.4	4.3	5.2	7.1	8.1	11.3	12.4	12.9
Hong Kong SAR, China	2.7	2.7	2.3	2.3	2.2	2.9	2.9	3.5	4.6	4.0	4.0	4.0
Hungary	3.1	3.7	4.4	5.2	6.0	8.1	10.1	11.3	13.0	15.6	18.6	22.1
Iceland	1.6	1.5	1.9	1.3	1.7	2.9	3.5	4.4	4.8	5.0	6.2	7.3
Ireland	0.0	0.1	0.4	0.9	1.0	1.6	2.2	3.0	3.0	3.5	4.5	6.7
Israel	1.8	1.8	3.1	2.6	2.8	3.0	4.1	5.0	4.8	4.7	5.5	4.0
Italy	0.1	0.7	1.2	1.2	1.5	2.9	3.6	4.8	5.9	6.7	7.6	9.3
Japan	-0.7	-1.1	0.9	0.4	1.4	2.2	2.0	2.8	2.4	3.2	3.1	3.7
Korea, Republic of	5.6	4.4	3.0	1.7	5.9	6.3	5.5	3.7	3.2	4.3	5.9	6.4
Kuwait	10.1	9.7	8.1	7.7	6.9	7.2	7.3	7.3	7.6	9.8	8.7	
Latvia	1.3	2.1	3.8	4.6	5.7	7.3	8.8	11.8	15.0	17.8	18.7	22.5
Lithuania	2.1	2.7	4.1	5.9	7.6	10.5	11.8	14.7	17.3	22.0	25.5	28.5
Luxembourg	0.8	1.2	0.8	1.2	1.4	2.3	2.8	3.4	3.9	5.4	5.5	6.8
Macao SAR, China	0.6	0.6	0.9	1.0	1.2	1.0	1.3	1.8	1.7	1.5	1.7	1.9
Malta	2.9	3.1	3.6	3.4	4.6	5.0	7.0	8.0	8.1	9.2	9.9	10.2
Netherlands	-0.9	0.1	-0.1	0.2	1.2	2.6	4.4	5.1	6.2	8.5	9.1	11.2
New Caledonia	2.5	1.5	1.4	0.7	1.9	0.8				3.7	4.6	5.7
New Zealand	2.8	2.4	4.0	3.7	4.0	4.5	5.9	6.8	7.6	6.4	6.8	6.8
Norway	-2.7	-2.9	-3.8	-4.0	-3.6	-1.9	-1.6	0.8	0.5	2.1	3.1	
Oman	1.1	1.4	1.9	3.4	2.8	3.2	5.1	5.0	4.9	5.5	5.0	6.1

Poland	2.8	3.7	4.3	4.9	6.4	8.6	9.4	7.6	9.8	13.4	14.2	14.2
Portugal	0.6	0.6	0.7	0.5	1.4	2.9	3.7	4.6	7.4	10.7	12.8	13.2
Qatar	2.6	1.3	4.2	4.2	6.8	6.8	7.2	6.9	4.5	4.1	6.7	4.3
Saint Kitts and Nevis												
Saudi Arabia	1.2	1.8	2.3	1.3	1.5	1.0	2.1	2.4	3.3	4.6	4.6	4.4
Seychelles	16.1	14.4	13.1	12.6	10.9	7.8	2.3	1.0	0.2	-0.8	1.3	2.2
Singapore	1.1	1.5	1.6	1.7	1.9	2.1	2.6	2.3	3.3	4.1	4.5	
Slovakia	2.6	3.5	4.2	4.0	4.5	5.9	8.2	9.5	11.7	13.9	16.0	17.9
Slovenia	-1.2	-1.5	-0.4	0.3	1.2	3.9	4.7	6.3	6.9	9.4	11.1	12.8
Spain	1.7	1.9	1.8	1.7	3.3	4.9	4.8	5.6	6.8	10.4	11.2	13.0
Sweden	-0.3	0.3	0.9	1.2	1.0	1.8	2.0	4.0	5.4	6.4	8.5	11.2
Switzerland	-2.0	-1.2	-1.8	-1.9	-1.6	-1.4	-1.5	-1.1	-0.4	-0.3	0.9	1.8
Taiwan, China	2.5	3.8	3.5	4.0	4.8	4.3	3.7	5.3	5.9	6.9	7.4	7.3
Trinidad and Tobago	5.0	5.7	5.7	7.6	6.2	5.8	6.5	7.9	7.9	8.7		
United Arab Emirates	-1.4	-1.1	0.3	1.9	3.6	3.7						
United Kingdom	-0.7	0.4	0.9	1.4	2.5	4.3	4.4	5.0	5.9	6.7	8.6	9.8
United States	3.4	3.7	4.5	5.1	5.8	6.0	6.7	7.6	8.8	9.4	10.2	10.4
Uruguay	5.9	6.7	6.0	7.3	6.7	6.5	7.0	10.3	13.3	12.2	10.8	11.5

Source: IMF, Haven, and Trading Economics data. Food inflation is calculated from the food and non-alcoholic beverages component of the Consumer Price Index (CPI) for each country.

Note: Food inflation is defined as percent change in monthly nominal food and beverages CPI index, year on year (e.g., index in May 2020 relative to prices in May 2019). Blank (white) cells indicate missing data.



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