While agricultural prices have declined over the past 12 months, food price inflation remains high. FAO’s food price index, a measure of the monthly change in international prices of a basket of food commodities, is down 20 percent from year-ago levels. Yet, double-digit food inflation rates are reported in many countries around the world. Food inflation remains elevated in part because of the strong US dollar, which has kept commodity prices high in local currencies, and because post-farmgate costs such as energy, transportation, and food manufacturing costs, which account for a large share of the retail price, remain high due to core inflationary pressures. The poor suffer the most from high food prices as they spend high shares of their incomes on food and have weak capacity to cope with price shocks.
Food price inflation continues putting people's food security at risk

FAO's Food Price Index edged up slightly in April 2023, the first increase following 12 consecutive months of decline. The increase in this index for internationally traded food commodities was caused by a sharp rise in sugar prices and a moderate rise in meat prices. International prices for cereals, dairy and vegetable oils continued their prolonged decline after peaking in March 2022. Among cereals, only rice prices were up, but this rise was outweighed by further declines in the prices for wheat and maize. The main drivers behind these trends are explained in this month’s Market Monitor.

Despite the now yearlong decline in international prices, most people have not seen the cost of the food they buy come down. Instead, consumer food price inflation remains stubbornly high in much of the world. The food price inflation "heat maps", presented on the next page, compare levels of annualized inflation rates between March-April 2022 (when international prices peaked) and those a year later.

As illustrated in these maps, consumer food price inflation remains elevated in many high-income countries. In much of Europe, food prices edged up further during 2022 and early 2023 reaching rates of well over 10 percent on average. Food inflation still stood at near 20 percent in the United Kingdom and 15 percent or more in Germany and France by April 2023. Higher energy prices and a stronger US dollar, among other economy-wide factors, continue pushing up overall price levels in Europe, including those for food commodities and services. In the United States, inflation decelerated from over 10 percent a year ago to near 8 percent owing in part to monetary tightening, but food inflation remains significant as overall inflationary pressures (including rising wage costs) are waning only very slowly.

Food inflation moderated somewhat in the Russian Federation, China, India, Indonesia, and a few other Asian countries, mostly linked to government support policies. With few exceptions, food inflation remains high and accelerated further in other low- and middle-income countries. For instance, in Pakistan (following floods), Sudan (increased political tensions and droughts), Egypt (rising import costs), and Turkey (macroeconomic woes) food inflation edged up to around 50 percent or more, while Argentina, Venezuela and Zimbabwe recorded consumer price increases of well over 100 percent by April 2023. The poor suffer the most from high food prices, as they spend high shares of their incomes on food and have weak capacity to cope with price shocks. The 2023 Global Report on Food Crises estimates that food-price and related economic shocks were the main of three interrelated drivers of acute food insecurity in 27 of 58 countries/territories analyzed, pushing 84 million people into crisis-level or worse acute food insecurity, while being compounding factors to conflict or weather extremes that caused another 174 million people facing the same fate during 2022.

Nearly all of the affected populations live in low-income, net food-importing countries. These countries did not benefit from falling international food prices because their currencies lost value at an abnormally fast rate relative to the US dollar, which pushed up the domestic cost of food imports. As these vulnerable countries sunk deeper into the high price cycle, the ability of governments to cope with the compounding effect of the war in Ukraine was limited by import reliance and high debt obligations after the COVID-19 pandemic. While governments took measures (mostly temporary ones) to lessen the burden of high prices such as targeted cash transfers to vulnerable households, they have been unable to sustain these. The coping capacity of vulnerable households equally has eroded, as many had previously taken on debt, sold assets and/or depleted food stocks to cope with the livelihood losses and inflation during the COVID-19 pandemic and have had to continue these practices with persistent high food price inflation.

To cope with the further reduction in purchasing power, populations with low incomes in both developed and developing countries may be forced to make tradeoffs, such as reducing portions and skipping meals, that negatively affect current and future food and nutrition security. Despite falling international food prices, food affordability thus remains a challenge at both the macroeconomic and household levels, threatening the food security of vulnerable households around the world.
Food inflation: March - April 2022

For a few low-income countries the true degree of food price inflation may be underestimated, such as in the case of South Sudan where official sources suggest consumer food prices had declined year over year in April 2023, whereas estimates by the WFP and the World Bank suggest a continued rise in food prices, see e.g. https://microdata.worldbank.org/index.php/catalog/4505.


Food inflation: March - April 2023

World supply-demand outlook

**WHEAT** production in 2023 is forecast to fall by 3.0 percent from the 2022 record, with the bulk of the decline expected in Australia and the Russian Federation.

Utilization to remain near the 2022/23 level; growth in food consumption is seen balancing declines in feed use (mostly in China and India) and other use (largely in India).

Trade in 2023/24 (July/June) likely to contract by 3.0 percent from the 2022/23 record, mainly reflecting lower demand expected from China and the EU, and smaller shipments from Australia and Ukraine.

Stocks (ending 2024) forecast to decline by 0.7 percent below the 2022 level, mostly resting on larger harvests in the US, Brazil, and Paraguay.

Stocks (ending in 2024) forecast to decline by 0.7 percent below opening levels, led by a drawdown in the Russian Federation, and smaller declines in the EU, Kazakhstan, the United States, and several countries in Asia.

**MAIZE** production to rebound in 2023, rising by 4.2 percent from the 2022 level, mostly resting on larger harvests in the US, Brazil, and the EU, which outweigh population-led declines in Africa.

Utilization in 2023/24 set to rise by 1.9 percent, boosted by an expected robust recovery in feed use, especially in China, Brazil, and the US, as well as higher industrial use and food consumption.

Trade forecast to rise marginally (0.5 percent) in 2023/24 (July/June); bigger purchases by China, Mexico, Egypt, Iran, and Turkey are seen outweighing a fall in imports by the EU, while bigger sales by the US and Brazil overshadow a fall in expected exports by Argentina, Ukraine, and Paraguay.

Stocks (ending 2024) forecast to increase by 4.6 percent above their opening level, marking a partial recovery from their fall in 2022/23, led by a sharp rise in US inventories.

**RICE** production in 2023/24 seen recovering by 1.3 percent y/y, amid expected expansions in all regions, except for Latin America and the Caribbean and Oceania.

Utilization in 2023/24 seen largely stable y/y, as another cut in animal feed uses could offset population-led increases in food use.

Trade in 2023 (January-December) little changed m/m, as upward revisions to forecast imports by Near East Asian buyers are mostly compensated by downgrades to deliveries to various African countries.

Stocks (2023/24 carry-outs) seen rebounding to a record high, largely underpinned by accumulations in exporters, most notably India and Pakistan, but also importers, including China and Indonesia.

**SOYBEAN** production set to rise y/y possibly to a record high, chiefly tied to expectations of recovering output in Argentina and further production gains in Brazil and the US.

Utilization in 2023/24 to grow after stagnating in the previous season, underpinned by forecasts of higher crush demand mainly across Asia and the Americas.

Trade in 2023/24 (Oct/Sept) seen expanding by about 3.0 percent y/y, reflecting ample export availabilities that are expected to coincide with reviving global import demand.

Stocks (2023/24 carry-out) to increase markedly from their opening levels, with all major stockholders expected to replenish their reserves, while global stocks-to-use ratio would also recover.

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**World Balances**

Data shown in the second rows refer to world aggregates without China; world trade data refer to exports; and world trade without China excludes exports to China. To review and compare data, by country and commodity, across three main sources, go to [https://app.amis-outlook.org/#/market-database/compare-sources](https://app.amis-outlook.org/#/market-database/compare-sources)

Estimates and forecasts may differ across sources for many reasons, including different methodologies. For more information see Explanatory notes on the last page of this report.
Crop monitor

Crop conditions around the world

Crop condition map synthesizing information for all four AMIS crops as of 28 May. Crop conditions over the main growing areas for wheat, maize, rice, and soybean are based on a combination of national and regional crop analyst inputs and earth observation data. Only crops that are in other-than-favourable conditions are displayed on the map with their crop symbol.

Conditions at a glance

Wheat
In the northern hemisphere, winter wheat is under exceptional conditions in Europe, while poor in Spain and parts of the US. Spring wheat sowing is in full swing. In the southern hemisphere, sowing is continuing in Australia.

Maize
In the southern hemisphere, harvest is continuing in Argentina under poor conditions while in South Africa under exceptional conditions. In the northern hemisphere, sowing continues under favourable conditions.

Rice
In India, harvesting of the Rabi crop is wrapping up. In Southeast Asia, harvesting of dry-season rice is almost completed in the northern countries while in Indonesia harvesting of wet-season rice enters the final stages.

Soybeans
In the southern hemisphere, harvest is continuing in Argentina with poor yields. In the northern hemisphere, sowing is ongoing in the US, Canada, China and Ukraine.

El Niño Watch

The El Niño-Southern Oscillation (ENSO) is currently in a neutral state. According to the IRI/CPC forecast, there is around a 90 percent chance of El Niño conditions developing during June to September, and these odds remain high through December 2023 to February 2024 (>90 percent chance). If this El Niño event develops, models predict that it will likely be a moderate or strong event.

El Niño events tend to enhance rainfall in Central Asia, southern North America, south-eastern South America, southern Europe, eastern and southern East Africa, and southern and eastern China. Drier-than-average conditions tend to occur in Central America, the Caribbean, northern South America, parts of western and northern East Africa, Southern Africa, India, Northern China, the Maritime Continent, and Australia.

Positive Indian Ocean Dipole (IOD) conditions may also develop during June to October, according to the Australian Bureau of Meteorology. Positive IOD conditions can enhance El Niño-related drying influences in Australia and the Maritime Continent, and wetting influences during the East Africa short rains.

Source: UCSB Climate Hazards Center
Crop monitor

### Wheat

In the **EU**, conditions are favourable to exceptional except for Spain due to a historic drought. In the **UK**, conditions are favourable. In **Türkiye**, conditions are favourable as crops enter the reproductive stage. In **Ukraine**, May was drier than average; however, the April rains were enough to maintain favourable conditions in most regions except in the south. The ongoing war continues to obstruct fieldwork and access to inputs in the east and south regions. In the **Russian Federation**, conditions are favourable for winter wheat and for the continued sowing of spring wheat. In **China**, harvesting of winter wheat is ongoing under favourable conditions as sowing of spring wheat wraps up. In the **US**, winter wheat in the central and southern Great Plains has suffered from prolonged drought, leading to reduced yields and higher-than-average abandonment levels. Sowing of spring wheat is continuing across the country. In **Canada**, winter wheat conditions are generally favourable while spring wheat sowing begins under drought conditions in Alberta and Saskatchewan. In **Australia**, sowing is continuing in the eastern states under mixed conditions due to low soil moisture levels.

### Maize

In **Brazil**, conditions are favourable with the majority of the summer-planted crop (larger season) in the reproductive stage. In **Argentina**, harvest is continuing with significantly reduced yields for both the early-planted crop (typically larger season) and the late-planted crop (typically smaller season). The share destined for animal consumption has markedly increased due to the poor state of the crops. In **South Africa**, harvesting is wrapping up under exceptional conditions. In the **US**, sowing is wrapping up under favourable conditions. In **Mexico**, harvesting of the Autumn-Winter crop (smaller season) is continuing while sowing for the Spring-Summer crop (larger season) begins. In **Canada**, sowing is beginning under favourable conditions. In **China**, conditions are favourable for the spring-planted crop and the sowing of the summer-planted crop. In the **EU**, sowing is nearing completion under generally favourable conditions, albeit with dry conditions in Spain and Portugal. In **Ukraine**, sowing is wrapping up under favourable conditions away from the war zones. In the **Russian Federation**, sowing is over halfway complete under favourable conditions.

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**Pie chart description**

Each slice represents a country’s share of total AMIS production (5-year average), with the main producing countries (95 percent of production) shown individually and the remaining 5 percent grouped into the "Other AMIS Countries" category. Sections within each country are weighted by the sub-national production statistics (5-year average) of the respective country and account for multiple cropping seasons (i.e. spring and winter wheat). The late vegetative to reproductive crop growth stages are generally the most sensitive periods for crop development.
Rice

In China, conditions are favourable as early-planted rice enters the reproductive stage and the sowing of single-season rice continues. In India, harvesting of the Rabi crop is wrapping up under favourable conditions. In Indonesia, harvesting of wet-season rice is progressing under favourable conditions. Sowing of dry-season rice is continuing slowly as farmers wait for additional rainfall. In Viet Nam, conditions are favourable across the country for dry-season rice (Winter-Spring rice) as harvesting wraps up in the South. Sowing of wet-season (Summer-Autumn rice) is at the peak in the Mekong River Delta. In Thailand, harvesting of dry-season rice is nearing completion with good yields and an increase in total sown area compared to last year. In the Philippines, dry-season rice harvesting is wrapping up under favourable conditions. Sowing of wet-season rice is beginning under favourable conditions. In the US, sowing is wrapping up in the southern states while progressing in California under favourable conditions.

Soybeans

In Argentina, harvesting is continuing for both the early-planted crop (larger season) and the late-planted crop (smaller season) with low yields across all regions. The poor crop conditions are a result of an early frost in mid-February along with water deficits and extreme heat throughout the season, which hit at critical moments of yield development. In the US, conditions are favourable as sowing progress is noticeably ahead of average across most of the country, except for in North Dakota and Minnesota. In Canada, sowing is beginning under generally favourable conditions, except in Saskatchewan due to dry soils. In China, sowing continues under favourable conditions. In Ukraine, sowing is progressing under favourable conditions away from the frontlines of the war.

Information on crop conditions in non-AMIS countries can be found in the GEOGLAM Early Warning Crop Monitor, published 28 May.
Policy developments

Wheat

- On 25 May, Egypt disclosed it had deferred payments for its large wheat purchases, sometimes by several months, due to shortages of foreign currencies. The State-owned grains buyer had also delayed opening 180-day “letters of credit” for wheat imports until after shipments had been made. To date, traders have continued shipping grain, meaning the wheat reserves that Egypt uses to make subsidized bread have remained unaffected.

- On 19 May, the Russian Federation announced that the base wheat price used to calculate the wheat export duty will increase from RUB 15 000 (USD 192) per tonne to RUB 17 000 (USD 218) per tonne from 1 June.

Rice

- After banning exports of broken rice in September 2022, on 24 May India allowed them “on the basis of permission granted by the Government of India to other countries to meet their food security needs and based on the request of their government” (Notification 07/2023). This decision comes after India’s decision to levy a 20 percent export duty alongside the export ban (see AMIS Market Monitor October 2022).

Soybeans

- On 28 April, the Ministry of Agriculture and Rural Affairs in China granted a safety certificate for a gene-edited soybean variety for a period of five years beginning 21 April 2023.

- On 11 May, India allowed duty free import of crude soybean oil and sunflower seed oil until 30 June, so long as the importer had been granted a valid tariff rate quota authorization. On 15 May, the government lowered several base import prices: crude soybean oil from USD 1 024 per tonne to USD 983 per tonne; crude palm oil from USD 1 001 per tonne to USD 988 per tonne; and refined palm oil from USD 1 022 per tonne to USD 1 020 per tonne.

Biofuels

- On 28 April, Argentina announced the approval of a USD 394 million loan for over 30 irrigation projects in agricultural provinces that were hit by recent droughts, such as Buenos Aires, Santa Fe and Cordoba.

- On 3 May, Argentina proposed expediting imports from Brazil by the adoption of a new credit system with the view to reducing dependence on the US dollar. The proposal aims to reduce processing and payment time for Brazilian products from 180 days to 30 days and to reduce trading risks associated with the economic downturn in Argentina. To mitigate the risk of non-payment, Argentina would provide Brazilian exporters with assurances, such as future gas or wheat purchase contracts.

- On 15 May, the Fuels Parity Act was introduced in the US Congress. If passed, this legislation would allow ethanol from maize starch to qualify as an advanced biofuel and require the Environmental Protection Agency to quantify the greenhouse gas emission profile of biofuels under the renewable fuel standard.

Across the board

- On 28 April, Brazil extended the deadline for fuel distributors to meet their mandatory acquisition target of decarbonization credits under the national biofuel program RenovaBio. This program ensures greater use of biofuels in view of meeting Brazil’s goals in reducing the carbon intensity of domestic fuel consumption. The deadline for meeting the 2023 target was extended from 31 December 2023 to 31 March 2024.

- On 8 May in the EU, Sweden agreed to lower the amount of biofuel mixed in diesel and gasoline. Diesel currently costs about SEK 20.3 (USD 1.87) per litre and gasoline SEK 18.8 (USD 1.74). The government said reducing the amount of biofuel will cut the cost of a litre of diesel by SEK 5.5 (USD 0.50).

- On 26 April, Brazil extended the summer driving season, of E15 gasoline (gasoline blended with 15 percent ethanol) instead of the usual E10. This measure is expected to temporarily help reduce the country’s fossil fuel consumption and decrease the country’s dependency on fossil fuels.
traits and does not have the potential to harm the environment. The Canadian Food Inspection Agency would also not need to assess the newly-developed plants afresh, so long as they do not contain DNA from another species.

- On 15 May, China adopted duty-free treatment on grains imported from the Philippines, such as buckwheat, oats, and barley, following the agreement reached under the Regional Comprehensive Economic Partnership.

- On 1 May, Egypt increased by 20 percent the price of several subsidised products including rice (from EGP 10.50 - USD 0.34 - to 12.60 - USD 0.41 - per kilogram) and vegetable oil (from EGP 25 - USD 0.81 - to EGP 30 - USD 0.97 - per bottle). On 10 May, the Ministry of Supply implemented a reduction in the maximum claimable amount under a subsidized food program. The new regulations will require families with fewer than four members to select, monthly, either one kilogram of rice or one 800-gram package of pasta under the program.

- On 11 May in the EU, Spain allocated a sum of EUR 2.19 billion (USD 2.4 billion) to mitigate the consequences of an ongoing and increasingly severe drought within the country. The Ministry of Environment also plans to invest EUR 1.4 billion (USD 1.5 billion) to construct new infrastructure, including desalination plants; expand urban water reuse; and reduce fees and tariffs for affected agricultural operations.

- On 23 May in the EU, Italy allocated a total of EUR 2 billion (USD 2.2 billion) in emergency funds to assist the Emilia-Romagna region, which was severely affected by floods. Within this amount, about EUR 175 million (USD 194) has been specifically allocated for the agriculture sector. The floods have caused significant damage to over 5,000 agricultural farms in the region, impacting thousands of hectares of agricultural land.

- On 25 May, the EU adopted a regulation which renews the suspension of all customs duties, quotas and trade defence measures on Ukrainian exports to the EU for another year, until June 2024.

- On 27 April, the Ministry of Trade in Indonesia announced changes to its domestic market obligation (DMO) policy for palm oil, which took effect from 1 May. The new policy lowers the domestic cooking oil target from 450,000 tonnes to 300,000 tonnes a month, and tightens the DMO export ratio from 1:6 to 1:4 (meaning that for every tonne of palm oil used for domestic consumption, four tonnes can now be exported). It also raises the incentives for packaged cooking oil, and releases, over the course of nine months, export permits that had previously been suspended.

- On 30 April, Nigeria reviewed its Import Adjustment Tax in line with the implementation of the Common External Tariff of the Economic Community of West African States for 2022-2026. Tariffs will increase on imported commodities, such as rice, wheat, and alcohol. The 2023 revised document specifies that tariffs on rice will increase from 50 percent to 60 percent. A 70 percent tariff is now levied on wheat or meslin flour imports, up from 50 percent previously.

- On 26 April, the US authorized a private bank, JP Morgan, to process payments for agricultural exports via the Russian Agricultural Bank which was cut off from the SWIFT payment system by the EU over the war in Ukraine.

- On 1 May, the US Department of Agriculture announced the disbursement of about USD 130 million in additional, automatic financial assistance for qualifying farm loan program borrowers who are facing financial risk. The announcement is part of the USD 3.1 billion to help distressed farm loan borrowers that was provided through Section 22006 of the Inflation Reduction Act.

- On 17 May, the Black Sea Grains Initiative was extended for two more months.
International prices

### Wheat

The GOI sub-Index averaged 4 percent lower month-on-month. After dropping to a near two-year low in early May, values rebounded as traders re-focused on production issues in North America and shipments from Ukraine. However, prices retreated again following the extension of the Black Sea Grain Initiative. Lacklustre export progress weighed on US prices, although HRW and Dark Northern Spring quotations remained well-supported by production and planting-related worries, respectively. Values in the Russian Federation dropped sharply amid ample supplies, quoted below the earlier rumoured floor price. EU markets weakened against an adequate supply backdrop and export competition. Fob values in Australia also declined, but those in Argentina rallied on tight availabilities and worries about 2023/24 crop prospects.

### Maize

Maize export quotations declined for a fourth consecutive month, with the GOI sub-Index down by an average of 10 percent, touching its lowest since December 2020. Declines in US prices were tied to news of Chinese export sales cancellations and expectations for ample new crop supplies. Brazil’s market was especially soft on a favourable outlook for the second (safra) crop, albeit with nearby values thinly quoted ahead of the harvest. Despite widespread drought damage, quotations in Argentina also fell on rising new crop availabilities and slow demand. Amid background uncertainties about the Black Sea Grain Initiative, prices in Ukraine were nominal, but weaker month-on-month.

### Rice

In contrast to the generally weaker tone in global grains and oilseeds markets, the GOI rice sub-Index advanced by 2 percent in May. Owing to tightening supplies, particularly in Pakistan, linked to a poor 2022/23 harvest, Asian white rice export quotations strengthened across the board, offers in Thailand and Vietnam partly underpinned by domestic market gains. Although recent international demand remained thin, the underlying pace of exports by key suppliers remained strong - cumulative shipments by Thailand rising by almost one-quarter year-on-year during the first four months of 2023. Elsewhere, Gulf milled export values in the US eased slightly on prospects for a much-improved 2023/24 crop.

### Soybeans

Average soybean export prices retreated by 6 percent during May, with losses largely shaped by a bearish fundamental backdrop. In addition to the progressing harvest of a record Brazilian crop, prospects for a sizeable US outturn in 2023/24 added to pressure on Gulf fob quotations - with Midwest seeding advancing quickly amid beneficial weather. Downside in soya product markets added to the bearish tone at times, as did weak US export demand, with a heavy year-on-year fall in 2023/24 (Sep/Aug) export commitments a notable feature. While the discount to US values narrowed, Brazilian quotations (Paranagua) were still competitively priced. Up River fob prices in Argentina were notional amid thin activity.

### IGC commodity price indices

<table>
<thead>
<tr>
<th>Year</th>
<th>Month</th>
<th>GOI</th>
<th>Wheat</th>
<th>Maize</th>
<th>Rice</th>
<th>Soybeans</th>
</tr>
</thead>
<tbody>
<tr>
<td>2022</td>
<td>May</td>
<td>352.6</td>
<td>375.3</td>
<td>347.9</td>
<td>177.3</td>
<td>334.3</td>
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<tr>
<td></td>
<td>June</td>
<td>343.3</td>
<td>353.8</td>
<td>335.7</td>
<td>177.0</td>
<td>334.1</td>
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<td></td>
<td>July</td>
<td>308.2</td>
<td>302.5</td>
<td>299.7</td>
<td>174.3</td>
<td>306.3</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>309.4</td>
<td>292.8</td>
<td>306.7</td>
<td>174.1</td>
<td>313.0</td>
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<td></td>
<td>September</td>
<td>306.4</td>
<td>299.9</td>
<td>307.4</td>
<td>179.5</td>
<td>303.3</td>
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<tr>
<td></td>
<td>October</td>
<td>309.6</td>
<td>309.2</td>
<td>320.7</td>
<td>179.9</td>
<td>300.2</td>
</tr>
<tr>
<td></td>
<td>November</td>
<td>311.1</td>
<td>300.2</td>
<td>314.4</td>
<td>183.1</td>
<td>308.0</td>
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<td></td>
<td>December</td>
<td>306.3</td>
<td>287.7</td>
<td>309.6</td>
<td>190.0</td>
<td>304.8</td>
</tr>
<tr>
<td>2023</td>
<td>January</td>
<td>306.5</td>
<td>280.6</td>
<td>311.5</td>
<td>198.9</td>
<td>306.0</td>
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<tr>
<td></td>
<td>February</td>
<td>304.1</td>
<td>279.9</td>
<td>310.3</td>
<td>198.8</td>
<td>302.0</td>
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<tr>
<td></td>
<td>March</td>
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<td>200.7</td>
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<td></td>
<td>May</td>
<td>265.7</td>
<td>245.3</td>
<td>258.6</td>
<td>205.2</td>
<td>262.3</td>
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International prices

Selected export prices, currencies and indices

Daily quotations of selected export prices (USD/tonnes, 2021-2023)

<table>
<thead>
<tr>
<th>Effective date</th>
<th>Quotation</th>
<th>Month ago</th>
<th>Year ago</th>
<th>% change M/M</th>
<th>% change Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat (US No. 2, HRW)</td>
<td>23-May</td>
<td>370</td>
<td>353</td>
<td>489</td>
<td>+4.8%</td>
</tr>
<tr>
<td>Maize (US No. 2, Yellow)</td>
<td>31-May</td>
<td>233</td>
<td>261</td>
<td>418</td>
<td>-10.6%</td>
</tr>
<tr>
<td>Rice (Thai 100% B)</td>
<td>23-May</td>
<td>505</td>
<td>499</td>
<td>460</td>
<td>+1.2%</td>
</tr>
<tr>
<td>Soybeans (US No. 2, Yellow)</td>
<td>23-May</td>
<td>519</td>
<td>563</td>
<td>674</td>
<td>-7.8%</td>
</tr>
</tbody>
</table>

AMIS countries' currencies against US Dollar

<table>
<thead>
<tr>
<th>AMIS Countries</th>
<th>Currency</th>
<th>May 2023</th>
<th>Monthly Change</th>
<th>Annual Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>ARS</td>
<td>231.2</td>
<td>-6.6%</td>
<td>-49.0%</td>
</tr>
<tr>
<td>Australia</td>
<td>AUD</td>
<td>1.5</td>
<td>-0.8%</td>
<td>-5.9%</td>
</tr>
<tr>
<td>Brazil</td>
<td>BRL</td>
<td>5.0</td>
<td>0.7%</td>
<td>-0.6%</td>
</tr>
<tr>
<td>Canada</td>
<td>CAD</td>
<td>1.4</td>
<td>-0.3%</td>
<td>-5.0%</td>
</tr>
<tr>
<td>China</td>
<td>CNY</td>
<td>7.0</td>
<td>-1.5%</td>
<td>-4.2%</td>
</tr>
<tr>
<td>Egypt</td>
<td>EGP</td>
<td>30.8</td>
<td>0.0%</td>
<td>-40.4%</td>
</tr>
<tr>
<td>EU</td>
<td>EUR</td>
<td>0.9</td>
<td>-0.9%</td>
<td>2.6%</td>
</tr>
<tr>
<td>India</td>
<td>INR</td>
<td>82.3</td>
<td>-0.4%</td>
<td>-6.1%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>IDR</td>
<td>14814.1</td>
<td>0.1%</td>
<td>-1.5%</td>
</tr>
<tr>
<td>Japan</td>
<td>JPY</td>
<td>137.3</td>
<td>-2.8%</td>
<td>-6.2%</td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>KZT</td>
<td>445.9</td>
<td>1.2%</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Rep. of Korea</td>
<td>KRW</td>
<td>1328.0</td>
<td>-0.4%</td>
<td>-4.7%</td>
</tr>
<tr>
<td>Mexico</td>
<td>MXN</td>
<td>17.7</td>
<td>2.0%</td>
<td>12.9%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>NGN</td>
<td>460.1</td>
<td>0.0%</td>
<td>-9.9%</td>
</tr>
<tr>
<td>Philippines</td>
<td>PHP</td>
<td>55.8</td>
<td>-0.8%</td>
<td>-6.1%</td>
</tr>
<tr>
<td>Russian Fed.</td>
<td>RUB</td>
<td>76.9</td>
<td>2.3%</td>
<td>-20.6%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>SAR</td>
<td>3.7</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>South Africa</td>
<td>ZAR</td>
<td>19.1</td>
<td>-4.6%</td>
<td>-16.7%</td>
</tr>
<tr>
<td>Thailand</td>
<td>THB</td>
<td>34.2</td>
<td>0.0%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Türkiye</td>
<td>TRY</td>
<td>19.7</td>
<td>-2.1%</td>
<td>-21.0%</td>
</tr>
<tr>
<td>UK</td>
<td>GBP</td>
<td>0.8</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>UAH</td>
<td>36.9</td>
<td>-0.1%</td>
<td>-20.0%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>VND</td>
<td>23458.2</td>
<td>0.0%</td>
<td>-1.6%</td>
</tr>
</tbody>
</table>

FAO Food Price Index  May 2022 - May 2023

Nominal Broad Dollar Index  May 2022 - May 2023
Futures markets

Overall market sentiment
- Grains and oilseed markets continue to be influenced by a downward sentiment, driven by favourable crop conditions and the market’s expectation of sufficient carryover stocks.
- The situation in the Black Sea region remains fragile, resulting in a residual risk premium on grain prices.
- The recent rise in implied volatility in maize suggests that any supply shock has the potential to provoke sharp price fluctuations.
- Funds have liquidated most of their net long position, meaning that if they were to re-position themselves in the market, they would more likely tip the scale towards upside risks.

MONTHLY PRICE TREND

Futures prices
Grain and oilseed prices continued their downward trend in May. Chicago maize and soybean futures reached their lowest levels in 19 months and 10 months, respectively. These declines can mainly be attributed to increased export flows from Brazil, which benefitted from favourable weather conditions, leading to a record-high soybean and maize crop. Price quotations in Chicago were particularly affected as Chinese buyers took advantage of the competitive prices in Brazil, cancelling substantial amounts of US exports and switching to Brazilian origin.

Wheat prices have also declined and are now quoted below USD 230 per tonne. Tensions in the wheat market have somewhat eased with the extension of the Black Sea Grain Initiative for two more months. However, market participants still factor in a risk premium due to remaining uncertainties. Shipments from Ukraine have stalled recently, primarily because of inspection issues for vessels bound for Pivdennyi, which is the largest port in Ukraine. A year ago, Euronext wheat futures accounted for 44 percent of the global open interest, while CME represented 31 percent. Today, these shares have changed to 40 percent and 37 percent, respectively.

The bearish trend in grain and oilseed markets was amplified by an overall gloomy outlook for the world economy. Debt ceiling negotiations in the United States and revived fears over the stability of the country’s banking sector have reinforced concerns about a slowdown in global economic growth, pushing the dollar index up and weighing on agricultural commodity prices.

Volumes & volatility
Historical volatility in maize has seen various spikes in May for Chicago contracts, reaching levels similar to those observed last July. By contrast, volatility rates in wheat and soybeans have re-aligned within their historical range and returned to more stable levels, with 30-day historical volatility hovering around 30 percent in wheat and 20 percent in soybeans.

Implied volatility has remained relatively contained in wheat and soybeans but has exceeded 30 percent in maize, which is above the 10-year average range. This indicates growing concerns among market participants as dry weather might be impacting US maize production.

Forward curves
Both Euronext and CME wheat futures display a contango structure, most likely owing to the market’s expectation of significant carryover stocks for the main exporters by the end of the 2022/23 campaign following projections of the May WASDE report. High carryover stocks would reduce the risk of shortage at the beginning of the 2023/24 season, resulting in lower prices for nearest deliveries compared to longer dated expiries. However, possibly reduced outputs in Australia and Ukraine might lower global supplies later in the season, reflected by higher prices for future deliveries. Chicago maize and soybean futures remain in backwardation as market participants factor in a delayed Brazilian harvest and the risk of bottlenecks in Brazilian loadings in the upcoming 2023/24 marketing season.

Investment flows
Investment volumes decreased in May on Euronext as well as on the CME, with managed money significantly reducing their grain and soybean positions. Hedge funds have shifted from a net long to a net short position, a bearish positioning not seen since August 2020. Similarly, funds have established their least bullish stance since 2017 in soybean and have further reduced their net short position in wheat to a level last seen in November 2021.

CME has progressively re-gained market share in global open interest for wheat futures following the easing of tensions in the Black Sea region. A year ago, Euronext wheat futures accounted for 44 percent of the global open interest, while CME represented 31 percent. Today, these shares have changed to 40 percent and 37 percent, respectively.

Euronext futures volumes and price evolution

<table>
<thead>
<tr>
<th></th>
<th>Average daily volume (1000 tonnes)</th>
<th>May 2023</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>2 602.3</td>
<td>-28.6%</td>
<td>+15.7%</td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>122.0</td>
<td>+32.6%</td>
<td>+5.5%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Prices (USD/t)</th>
<th>May 2023</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>250.3</td>
<td>-8.5%</td>
<td>-42.4%</td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>241.0</td>
<td>-10.1%</td>
<td>-36.4%</td>
<td></td>
</tr>
</tbody>
</table>

CME futures volumes and price evolution

<table>
<thead>
<tr>
<th></th>
<th>Average daily volume (1000 tonnes)</th>
<th>May 2023</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>15 203.8</td>
<td>-24.3%</td>
<td>+29.2%</td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>43 742.6</td>
<td>-10.2%</td>
<td>+35.6%</td>
<td></td>
</tr>
<tr>
<td>Soybean</td>
<td>29 393.9</td>
<td>-21.9%</td>
<td>+37.4%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Prices (USD/t)</th>
<th>May 2023</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>230.4</td>
<td>-7.1%</td>
<td>-45.2%</td>
<td></td>
</tr>
<tr>
<td>Maize</td>
<td>239.7</td>
<td>-7.0%</td>
<td>-25.4%</td>
<td></td>
</tr>
<tr>
<td>Soybean</td>
<td>504.7</td>
<td>-6.5%</td>
<td>-17.1%</td>
<td></td>
</tr>
</tbody>
</table>
Market indicators

Daily quotations from leading exchanges - nearby futures

Wheat
USD per tonne

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
150 | 200 | 250 | 300 | 350 | 400 | 450
USD per tonne

EU (France-NYSE Euronext) Milling Wheat
USA (KCBT) Hard Red Wheat
South Africa (Safex) Wheat

Maize
USD per tonne

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
150 | 200 | 250 | 300 | 350 | 400 | 450
USD per tonne

EU (NYSE Liffe) USA (CBOT)
South Africa (Safex) Yellow
China (DCE)

Rice
USD per tonne

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
300 | 350 | 400 | 450 | 500 | 550 | 600
USD per tonne

USA (CBOT) Rough Rice
China (ZCE) Milled Rice

Soybean
USD per tonne

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
500 | 1000 | 1500 | 2000 | 2500 | 3000 | 3500
USD per tonne

USA (CBOT)
China (Dalian)
Argentina (MATba)
Brazil (BMF)

CFTC commitments of traders
Major categories net length as percentage of open interest*

Wheat

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
-40% | -30% | -20% | -10% | 0% | 10% | 20%
Long (bought)
Short (sold)

Commercials | Swap Positions | Managed Money

Maize

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
-60% | -50% | -40% | -30% | -20% | -10% | 0%
Long (bought)
Short (sold)

Commercials | Swap Positions | Managed Money

Rice

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
-50% | -40% | -30% | -20% | -10% | 0% | 10%
Long (bought)
Short (sold)

Commercials | Swap Positions | Managed Money

Soybean

May 22 | Jul 22 | Sep 22 | Nov 22 | Jan 23 | Mar 23 | May 23
--- | --- | --- | --- | --- | --- | ---
-50% | -40% | -30% | -20% | -10% | 0% | 10%
Long (bought)
Short (sold)

Commercials | Swap Positions | Managed Money

*Disaggregated futures only. Though not all positions are reflected in the charts, total long positions always equal total short positions.
Market indicators

Forward curves

**Euronext wheat (EBM)**
- EUR per tonne
- Graphs showing forward curves for Euronext wheat from March 23 to June 25.

**Euronext maize (EMA)**
- EUR per tonne
- Graphs showing forward curves for Euronext maize from March 23 to June 25.

**CBOT wheat**
- USD cent per bushel
- Graphs showing forward curves for CBOT wheat from March 23 to June 25.

**CBOT maize**
- USD cent per bushel
- Graphs showing forward curves for CBOT maize from March 23 to June 25.

**CBOT rice**
- USD per hundredweight
- Graphs showing forward curves for CBOT rice from March 23 to June 25.

**CBOT soybean**
- USD cent per bushel
- Graphs showing forward curves for CBOT soybean from March 23 to June 25.

Historical and implied volatilities

**Historical Volatility (30 days)**
- Graphs showing historical volatilities for various commodities from May 22 to May 23.

**Implied Volatility (Daily)**
- Graphs showing implied volatilities for various commodities from May 22 to May 23.

+ AMIS market indicators
Several of the indicators covered in this report are updated regularly on the AMIS website. These, as well as other market indicators, can be found at: https://www.amis-outlook.org/amis-monitoring/indicators/. For more information about forward curves see the feature article in No. 75 February AMIS Market Monitor 2020.
Fertilizer outlook

Price trends of major fertilizer products were mixed in May. Ammonia and phosphate fertilizer prices showed an important decline following the lower post-planting demand in the Northern Hemisphere, while urea and potash prices increased. Overall, world markets remain well-supplied despite the several ongoing supply-side challenges.

- **Natural gas** prices marginally decreased in May with abundant supplies and low demand in the Northern Hemisphere, as well as a slowing global economy.

- **Ammonia** prices decreased considerably in most markets except for Western Europe where prices went up, though that increase is likely to be temporary. In Europe, prices of imported ammonia remain lower than production costs but additional declines in natural gas prices may reverse this situation. A decline in Indonesian exports outside of Asia is similarly indicative of strong global supplies, showing that buyers outside of the region are being able to find enough product elsewhere.

- **Urea** prices were up 5 percent in May from the previous month, but remain well below year ago prices. Despite the increase, the global market remains sufficiently supplied. In Brazil, a major importer of urea, inventories remain ample, and ongoing declines in natural gas prices will likely increase urea supplies in Europe and other regions.

- **DAP** prices decreased substantially in May as spring planting demand in the Northern Hemisphere draws to a close and exports from China have increased in recent months, strengthening global supplies. Lower demand in Brazil has also pushed prices lower in that country.

- **Potash** prices increased in the United States and showed a stable trend in the Baltic. Overall, supply in world markets remains sufficient.

---

**Potash and phosphate (spot prices)**

| Month       | May-23 | May-22 | % change last month % change last year 12 month high 12 month low |
|-------------|--------|--------|-----------------------------|-----------------------------|-----------------------------|
| Ammonia US Gulf NOLA | 327.5  | 261    | -14.4||-72.6||1060.5 | 327.5 |
| Ammonia Western Europe | 387   | 217    | +5.1||-70.2||1294.0 | 368.8 |
| Ammonia avg. across regions | 320.8 | 142    | -5.8||-73.2||1139.3 | 320.8 |
| Urea US Gulf | 385.8  | 11.3    | +5.4||-37.9||655.4 | 312.4 |
| Urea Black Sea | 300.8  | 2.9     | +5.1||-52.5||576.6 | 286.2 |
| Urea avg. across regions | 351   | 4.4     | +4.0||-49.1||667.5 | 329.9 |
| DAP US Gulf | 521.7  | 42.5    | -18.1||-36.1||784.0 | 521.7 |
| DAP Baltic | 525.0  | -      | -12.1||-41.2||888.5 | 525.0 |
| Potash Baltic | 372.5  | -      | +0.0||-37.5||372.5 | 372.5 |
| Potash US Gulf NOLA | 395   | -      | +4.6||-49.1||757.5 | 365.5 |
| Natural Gas | 2.2    | 0.1     | -0.2||-73.5||8.8 | 2.2    |

All prices shown are in US dollars. Source: Own elaboration based on Bloomberg. *Estimated using available weekly data to date.
Ocean freight markets

Dry bulk freight market developments

<table>
<thead>
<tr>
<th>Index</th>
<th>May-23 average</th>
<th>Change (M/M)</th>
<th>Change (Y/Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltic Dry Index (BDI)</td>
<td>1467.8</td>
<td>-1.4%</td>
<td>-49.7%</td>
</tr>
<tr>
<td>sub-indices:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capesize</td>
<td>2236.8</td>
<td>+15.7%</td>
<td>-35.2%</td>
</tr>
<tr>
<td>Panamax</td>
<td>1365.0</td>
<td>-20.6%</td>
<td>-57.2%</td>
</tr>
<tr>
<td>Supramax</td>
<td>1082.2</td>
<td>-6.7%</td>
<td>-60.9%</td>
</tr>
<tr>
<td>Baltic Handysize Index (BHSI)</td>
<td>627.8</td>
<td>-3.3%</td>
<td>-61.9%</td>
</tr>
</tbody>
</table>

IGC Grains and Oilseeds Freight Index (GOFI)

<table>
<thead>
<tr>
<th>Index</th>
<th>May-23 average</th>
<th>Change (M/M)</th>
<th>Change (Y/Y)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sub-indices:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>178.7</td>
<td>-6.2%</td>
<td>-39.6%</td>
</tr>
<tr>
<td>Australia</td>
<td>86.4</td>
<td>-12.0%</td>
<td>-50.5%</td>
</tr>
<tr>
<td>Brazil</td>
<td>181.2</td>
<td>-10.7%</td>
<td>-41.5%</td>
</tr>
<tr>
<td>Black Sea</td>
<td>144.0</td>
<td>-4.8%</td>
<td>-39.7%</td>
</tr>
<tr>
<td>Canada</td>
<td>105.6</td>
<td>-4.3%</td>
<td>-42.8%</td>
</tr>
<tr>
<td>Europe</td>
<td>118.3</td>
<td>-3.9%</td>
<td>-44.1%</td>
</tr>
<tr>
<td>US</td>
<td>110.4</td>
<td>-7.6%</td>
<td>-42.0%</td>
</tr>
</tbody>
</table>

Source: Baltic Exchange, IGC. Base period for BDI: 4 January 1985 = 1000; for BHSI: 23 May 2006 = 1000; for GOFI: 1 January 2013 = 100

Freight rates in the dry bulk freight complex were mixed during May. While the Baltic Dry Index (BDI) averaged slightly lower month-on-month, strength in Capesize values contrasted with softer quotations in the grains and oilseeds carrying segments - the latter led by a steep drop in Panamax vessel earnings. While holidays in some regions curtailed activity at times, overall demand for commodities has fallen short of expectations thus far during the second quarter, with rates across all bulker sizes quoted sharply lower year-on-year.

Recent gains in Capesize rates were driven by brisk coal and iron ore shipments from Australia. Signs of tightening tonnage availability in the Atlantic amid increased demand for shipments out of Brazil and West Africa were also supportive. Trade statistics from China for the month of April were deemed positive for Capesize earnings, as data showed a year-on-year upturn in coal and iron ore arrivals, but more recent demand has been slower than anticipated.

Weakness in the Panamax sector partly stemmed from lower-than-expected soyabean imports by China, with April arrivals 10 percent lower year-on-year, in part due to customs-related delays and increased port inspections.

Supramax rates also eased on low enquiry levels in the Mediterranean and the Black Sea region, coupled with coal supply issues in Indonesia, where heavy rains and landslides affected mining operations and transportation. Likewise, limited activity in Europe and the Mediterranean weighed on Handysize earnings.

Softer fuel prices and timecharter rates contributed to an eight percent monthly drop in IGC Grains and Oilseeds Freight Index (GOFI) values, with weakness most pronounced in rates out of Australia and Brazil.

Source: International Grains Council

**Baltic Dry Index (BDI):** A benchmark indicator issued daily by the Baltic Exchange, providing assessed costs of moving raw materials on ocean going vessels. Comprises sub-Indices for three segments: Capesize, Panamax and Supramax. The Baltic Handysize Index excluded from the BDI from 1 March 2018.

**IGC Grains and Oilseeds Freight Index (GOFI):** A trade-weighted composite measure of ocean freight costs for grains and oilseeds, issued daily by the International Grains Council. Includes sub-Indices for seven main origins (Argentina, Australia, Brazil, Black Sea, Canada, the EU and the USA). Constructed based on nominal HSS (heavy grains, soybeans, sorghum) voyage rates on selected major routes. Capesize: Vessels with deadweight tonnage (DWT) above 80,000 DWT, primarily transporting coal, iron ore and other heavy raw materials on long-haul routes. Panamax: Carriers with capacity of 60,000-80,000 DWT, mostly geared to transporting coal, grains, oilseeds and other bulk, including sugar and cement. Supramax/Handysize: Ships with capacity below 60,000 DWT, accounting for the majority of the world’s ocean-going vessels and able to transport a wide variety of cargos, including grains and oilseeds.
The notions of **tightening** and **easing** used in the summary table of "Markets at a glance" reflect judgmental views that take into account market fundamentals, inter-alia price developments and short-term trends in demand and supply, especially changes in stocks.

All totals (aggregates) are computed from unrounded data. World supply and demand estimates/forecasts are based on the latest data published by FAO, IGC and USDA. For the former, they also take into account information provided by AMIS focal points (hence the notion "FAO-AMIS"). World estimates and forecasts produced by the three sources may vary due to several reasons, such as varying release dates and different methodologies used in constructing commodity balances. Specifically:

**PRODUCTION**: Wheat production data from all three sources refer to production occurring in the first year of the marketing season shown (e.g. crops harvested in 2016 are allocated to the 2016/17 marketing season). Maize and rice production data for FAO-AMIS refer to crops harvested during the first year of the marketing season (e.g. 2016 for the 2016/17 marketing season) in both the northern and southern hemisphere. Rice production data for FAO-AMIS also include northern hemisphere production from secondary crops harvested in the second year of the season (e.g. 2017 for the 2017/18 marketing season). By contrast, rice and maize data for USDA and IGC encompass production in the northern hemisphere occurring during the first year of the season (e.g. 2016 for the 2016/17 marketing season), as well as crops harvested in the southern hemisphere during the second year of the season (e.g. 2017 for the 2016/17 marketing season) for soybeans, the latter approach is used by all three sources.

**SUPPLY**: Defined as production plus opening stocks by all three sources.

**UTILIZATION**: For all three sources, wheat, maize and rice utilization includes food, feed and other uses (namely, seeds, industrial uses and post-harvest losses). For soybeans, it comprises crush, food and other uses. However, for all AMIS commodities, the use categories may be grouped differently across sources and may also include residual values.

**TRADE**: Data refer to exports. For wheat and maize, trade is reported on a July/June basis, except for USDA maize trade estimates, which are reported on an October/September basis. Wheat trade data from all three sources includes wheat flour in wheat grain equivalent, while the USDA also considers wheat products. For rice, trade covers shipments from January to December of the second year of the respective marketing season. For soybeans, trade is reported on an October/September basis by FAO-AMIS and the IGC, while USDA data are based on local marketing years except for Argentina and Brazil which are reported on an October/September basis. Trade between European Union member states is excluded.

**STOCKS**: In general, world stocks of AMIS crops refer to the sum of carry-overs at the close of each country’s national marketing year. For soybeans, stock levels reported by the USDA are based on local marketing years, except for Argentina and Brazil, which are adjusted to October/September. For maize and rice, global estimates may vary across sources because of differences in the allocation of production in southern hemisphere countries.

*For more information on AMIS Supply and Demand, please view AMIS Supply and Demand Balances Manual.*