The events currently unfolding in Ukraine have sent shockwaves through global markets. The crisis comes at a moment when food markets are already struggling with soaring prices and the fallout from the COVID-19 pandemic. While AMIS supply and demand forecasts are little changed compared to February expectations, conditions are evolving rapidly. The AMIS Secretariat will continue monitoring developments closely and work with its partners to help minimize any adverse effects on global food markets.
The Ukraine conflict and global food price scares

The escalating tensions in the Black Sea region have heaped fresh risks on global food markets already struggling with soaring prices, supply-chain disruptions, and a bumpy recovery from the COVID-19 pandemic. Before the crisis, overall conditions in markets for staple foods looked reasonably favourable and seemed to augur for softening prices during 2022, even as sharply rising food prices in domestic markets in many developing countries continue to raise concerns about greater food insecurity. The escalation of the conflict is now putting markets into serious turmoil.

Financial markets reacted immediately, with stock markets sinking and commodity prices soaring. The price of oil jumped past USD 105 a barrel on 24 February. Ukraine and the Russia Federation combined account for around 30 percent of global wheat exports. The harbour of Odessa and the Black Sea serve as major conduits for international grain shipments from Ukraine, and the country is also among the top exporters of barley, maize, sunflower and other oilseeds. The Russian Federation and Ukraine are breadbaskets, exporting millions of tonnes of wheat to food import-dependent developing countries in the Middle East, South Asia, and sub-Saharan Africa. They each provide about 6 percent of the globally traded supply of food energy in kilocalories (see Figure 1). Any serious disruption of production and exports from these suppliers will no doubt drive up prices further and erode food security for millions of people. Indeed, international spot prices for hard wheat rose to close to USD 10 per bushel on 28 February, 2022, their highest level since February 2008. Wheat prices in futures markets have been showing very high volatility for already more than 100 days, according to IFPRI’s Food Security Portal.

While Ukraine no longer is a big producer of the key ingredients for fertilizers such as urea and potash, the Russian Federation is. Disruptions in those supplies and rising prices for oil and gas, would further drive up fertilizer, and, hence, also food prices.

It is still too early to foresee the full ramifications of disruptions in the supply of key food staples from Ukraine and the Russian Federation as well as the implications of a prolonged rise in oil and fertilizer prices on agricultural markets. Wheat harvests in the two countries will occur during the European summer, so some of the impact will depend on how the conflict will play out in terms of affecting production in the Russian Federation and Ukraine, and for how long export channels will be blocked.

In the near term, food prices in world markets should be expected to rise further amidst all uncertainty, and this will add to global food insecurity. This will also fan consumer food price inflation which had surged already during 2021 (see Figure 2), especially in low-income countries, but also in Ukraine and the Russian Federation. Poor farmers may earn higher incomes from increasing food prices, but most are net consumers of food. Governments of low-income countries have very limited fiscal capacity to protect the purchasing power of low-income families and prevent higher food prices from causing greater food insecurity and further deterioration of diets. Given the global ramifications of food price inflation, strengthening this capacity through additional financial assistance should be an immediate priority for the international community.

Figure 1: Global market shares (in volume) for key agricultural exports from Ukraine and Russian Federation

![Graph showing global market shares for key agricultural exports from Ukraine and Russian Federation.](source: TDM 2021 and IFPRI Trade in Macro-Nutrients database 2018-2020 average (Intra-EU flows excluded from totals).)

Figure 2: Domestic consumer food price inflation around the world, January 2022 (year-on-year change in food consumer price index, %)

World supply-demand outlook

### WHEAT
2021 production still seen close to the previous season’s record as downward revisions for production in the EU, Iraq, and Paraguay are balanced by a further upward revision for Australia’s output.

Utilization in 2021/22 set to rise by 1.5 percent from 2020/21 despite a downward adjustment this month largely reflecting lower utilization in India on account of higher exports.

Trade in 2021/22 (July/June) forecast at a record and lifted this month on greater than anticipated demand from Kazakhstan and Saudi Arabia, and higher than expected sales from Australia and India.

Stocks (ending in 2022) now forecast slightly above opening levels after an upward revision this month mostly in the EU on account of a revision of historical production figures and lower expected exports.

### MAIZE
Production in 2021 scaled up on higher expect output in India and the EU, and still headed for a record level, 3.7 percent above last season.

Utilization in 2021/22 raised marginally m/m and forecast to rise by 2.6 percent from 2020/21, driven largely by greater feed and industrial use.

Trade in 2021/22 (July/June) still forecast to fall below the 2020/21 level, by 1.7 percent, despite an upward adjustment this month underpinned by both higher imports and exports by the EU.

Stocks (ending in 2022) lifted on higher estimates for the EU and India stemming from production revisions, further boosting the expected rise in global stocks above opening levels to 3.3 percent.

### RICE
Production in 2021 upgraded and now seen expanding by 0.7 percent y/y. Upward revisions since February chiefly concerned India and, to a lesser extent, Madagascar, which overshadowed a reduction namely for the United Republic of Tanzania and.

Utilization in 2021/22 still seen reaching an all-time high, primarily on expanding food uses, but also on greater use of rice for animal feed.

Trade in 2022 little changed m/m, with greater imports by African and Near East Asian buyers seen spearheading a 3.8 percent annual increase in global flows.

Stocks (2021/22 carry-out) raised largely on upward revisions to Indian reserves. As a result, global inventories are now expected to exceed their record opening levels by 0.9 percent, while the major exporters’ stocks expand by 5.4 percent y/y.

### SOYBEAN
2021/22 production revised down markedly on lower forecasts for Brazil, Argentina, and Paraguay due to prolonged unfavourable weather conditions. Global production is now seen contracting by 3.6 percent from last season’s record level.

Utilization in 2021/22 trimmed, mainly reflecting expectations of lower domestic crush in Argentina and Brazil (on reduced domestic supplies), as well as in China (tied to subdued feed demand).

Trade in 2021/22 (Oct/Sept) revised down on smaller import forecasts for China and Argentina, while shipments were downgraded for major South American exporters.

Stocks (2021/22 carry-out) lowered further to the lowest level since 2013/14, broadly reflecting lower forecasts for Argentina, Brazil, and China.

### 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

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.
Revisions (FAO-AMIS) to 2021/22 forecasts since the previous report

<table>
<thead>
<tr>
<th></th>
<th>WHEAT</th>
<th>MAIZE</th>
<th>RICE</th>
<th>SOYBEANS</th>
</tr>
</thead>
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<tr>
<td>Prod.</td>
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<td>1100</td>
<td>-3012</td>
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<tr>
<td>Import</td>
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<td>800</td>
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<td>Util.</td>
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<td>-13</td>
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<td>-20</td>
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<td>Export</td>
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<td>Stocks</td>
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<td>-1300</td>
<td>-1300</td>
<td>-200</td>
</tr>
</tbody>
</table>

Note: Only significant changes (of more than 1,000 tonnes) are displayed in the table.
Crop Monitor

Crop conditions in AMIS countries

Crop conditions in AMIS countries

Crop condition map synthesizing information for all four AMIS crops as of 28 February. 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 along with 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, dry conditions persist in North America and develop in the western and southern EU. The conflict in Ukraine brings uncertainties.

**Maize**
In the northern hemisphere, conditions are favourable in India and Mexico. In the southern hemisphere, the prolonged drought remains a concern for southern Brazil and Argentina.

**Rice**
Rabi rice is favourable in India. Conditions are generally favourable in Southeast Asia except for southern Viet Nam. Dry conditions continue in Brazil.

**Soybeans**
In the southern hemisphere, a prolonged drought has reduced yields in southern Brazil, while recent rains have helped to improve prospects in Argentina.

Climate Influences: La Niña Advisory

The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase and is expected to remain as La Niña for several more months. Forecast chances of La Niña conditions continuing through April are high, according to IRI/CPC (93 percent chance for February-March-April; 77 percent chance for March-April-May). Transition to ENSO-neutral conditions is likely during May-June-July (56 percent chance). La Niña conditions typically increase the chances of below-average precipitation in East Africa, Central and South Asia, southern South America, the southern United States, northern Mexico, and eastern East Asia. There are elevated risks of a two-year sequence of dry conditions in these regions, associated with La Niña conditions last year and this year. La Niña conditions typically increase the chances of above-average precipitation in parts of Southeast Asia, Australia, Southern Africa, and northern South America.
Crop monitor

Conditions
- Exceptional
- Favourable
- Watch
- Out-of-Season
- Poor
- No Data

Drivers
- Wet
- Hot
- Dry
- Cool
- Extreme Event
- Delayed-Onset
- Conflict
- Socio-Economic

Summaries by crop

Wheat
In the **EU**, most countries are under favourable conditions; however, rainfall deficits in the southern and western countries will require the resumption of rains in spring to avoid negative impacts on yields. In the **United Kingdom**, conditions are favourable. In **Ukraine**, winter wheat has resumed growing earlier than usual in the southern and central regions after a warmer than average February. The outbreak of conflict brings uncertainties for crop yields due to the potential impact on farmers’ ability to access agricultural inputs, machinery, fuel, and to perform fieldwork. In the **Russian Federation**, above-average rainfall during early February is likely to benefit winter wheat once growth resumes. In **Turkey**, recent above-average rainfall in the central regions continues to support crop growth. In **China**, conditions remain favourable for winter wheat. In **India**, conditions are favourable with the total sown area at last year’s levels and above the 5-year average. In the **US**, conditions remain mixed with long-term dryness in the northwest and the southern plains. In **Canada**, winter wheat conditions remain mixed in the Prairies and favourable in Ontario.

Maize
In **India**, the Rabi season crop is in the vegetative stage under favourable conditions with an increase in total sown area compared to the 5-year average and last year. In **Mexico**, conditions are favourable as the harvesting of the spring-summer crop (larger season) is wrapping up and the autumn-winter crop (smaller season) is in the early vegetative stage. In **Brazil**, conditions are mixed for the spring-planted crop (smaller season) with a reduction in yields expected in the south region due to hot and dry conditions. In the Center-West, Southeast, and Northeast regions, most crops are in reproductive stages under favourable conditions. Sowing of the summer-planted crop (larger season) is about halfway done with good crop development. In **Argentina**, conditions for the early-planted crop (larger season) remain mixed in the regions of Buenos Aires, Córdoba, and La Pampa, and have turned poor for Santa Fe and Entre Ríos due to prolonged dry conditions during the growing season, along with high temperatures during the critical flowering stage. Conditions have improved for the late-planted crop (smaller crop), benefitting from successive rainfall events starting during the second half of January. In **South Africa**, conditions remain generally favourable.

**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.
Crop monitor

**Rice**

In **India**, conditions are favourable as the transplanting of the Rabi crop is almost complete. The total sown area is lower than last year in the southern states. In **Indonesia**, wet-season rice sowing enters the final month with the total sown area well above last year’s levels. Earlier sown wet-season rice is being harvested with good yields owing to ample rainfall and sunlight during the growing season. In **Viet Nam**, winter-spring rice (dry-season) is sowing across the country with an increase in sown area to date in the north due to ample rainfall. Earlier sown plots in the south are beginning to harvest under mixed conditions due to saline intrusions in the Mekong River Delta provinces, which impacts are still uncertain. In **Thailand**, dry-season rice is in the young panicle forming stage and grain filling stage under favourable conditions. The total sown area is expected to be above last year’s levels. In the **Philippines**, dry-season rice sown between November and December is in the young panicle forming up to the heading stage under favourable conditions.

In **Brazil**, conditions remain under watch due to a lack of water availability for irrigation and high temperatures.

**Soybeans**

In **Brazil**, most crops are in ripening to harvest stages under mixed conditions. In the Center-West, Southeast, North, and Northeast regions, harvesting is ongoing under favourable conditions. In the South region, most crops are in reproductive stages and a reduction in yield is expected compared to the 5-year average, due to insufficient rains and high temperatures. In **Argentina**, conditions have improved for both the early-planted crop (larger season) and the late-planted crop (smaller season) with recent successive rains. However, the impact of the prolonged drought is still evident with much of the crop showing uneven development.

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**Sources and disclaimers**

The Crop Monitor assessment is conducted by GEOGLAM with inputs from the following partners (in alphabetical order): Argentina (Buenos Aires Grains Exchange, INTA), Asia Rice Countries (AFSIS, ASEAN+3 & Asia RICE), Australia (ABARES & CSIRO), Brazil (CONAB & INPE), Canada (AAFC), China (CAS), EU (EC JRC MARS), Indonesia (LAPAN & MOA), International (CIMMYT, FAO, IFPRI & IRRI), Japan (JAXA), Mexico (SIAP), Russian Federation (IKI), South Africa (ARC & GeoTerraImage & SANSA), Thailand (GISTDA & OAE), Ukraine (NASU-NISAU & UHMC), USA (NASA, UMD, USGS - FEWS NET, USDA (FAS, NASS)), Viet Nam (VAST & VIMHEMARD).

The findings and conclusions in this joint multiagency report are consensual statements from the GEOGLAM experts, and do not necessarily reflect those of the individual agencies represented by these experts.

More detailed information on the GEOGLAM crop assessments is available at [https://cropmonitor.org](https://cropmonitor.org).
Wheat

On 23 February, the General Administration of Customs in China published Announcement No. 21 lifting restrictions on Russian wheat imports. The protocol on phytosanitary requirements was revised to allow imports of spring wheat grown in all producing regions in Russia where wheat dwarf smut is not prevalent, and for processing purposes exclusively. The protocol underscores the importance of complying with the relevant international standards; adequate pest monitoring in production areas, grain transportation and storage sites; the need for prevention, inspection and control measures; appropriate information exchange and notification on disease surveillance and risk assessments; and delivery of phytosanitary certification.

Rice

On 18 February, China increased the minimum purchase prices for 2022 to CNY 2480/t (USD 392.14/t) for early indica rice, CNY 2580/t (USD 407/t) for late indica rice and CNY 2620/t (USD 413/t) for japonica rice. The total volume of rice purchased at the minimum purchase price for 2022 will be limited to 50 million tonnes (20 million indica rice and 30 million japonica rice).

On 7 February, India announced the minimum support price (MSP) for all Kharif (June-December) crops for the 2021-2022 crop year. The MSP of paddy rice was increased from INR 1868 per quintal (USD 247/t) to INR 1940 per quintal (USD 260/t); and of grade ‘A’ paddy from INR 1888 per quintal (USD 250/t) to INR 1960 per quintal (USD 262/t).

Soybeans

On 4 February, India extended its policy on private stock limits on oils and oilseeds until 30 June 2022. The stock limit was originally set between 8 October 2021 and 31 March 2022. The measure intends to deal with the high edible oil prices and reduce hoarding.

Across the board

On 1 March, an amended Seed Law came into effect in China, notably to strengthen the provisions relating to intellectual property rights in the seed industry.

On 22 February, China released a policy document pointing to increased subsidies for arable land rotation and incentives for large oil-producing counties. China seeks to concentrate on supporting suitable regions, key varieties, and business service entities as well as promoting the belt-like composite of planting of maize and soybeans. Similarly, the policy aims to strictly control the processing of ethanol produced from maize biomass.

On 1 February, India announced it will allocate INR 2.37 (USD 31 680) trillion for the procurement of wheat and paddy rice under the Minimum Support Price (MSP) program.

On 31 January, India announced that it would offer 10-11 million tonnes of rice from the Food Corporation of India (FCI) stocks at subsidised rates to ethanol producers. This measure is aimed at reducing the high level of rice stocks, which are about 7 times the stocking norm set by the Indian government.

On 26 February, as part of its overall crop insurance policy coverage, the United States Department of Agriculture granted additional financial support to farmers who are enrolled in the Pandemic Cover Crop Program. To ensure the continuation of best conservation practices, farmers’ total premium bills will be reduced if cover crops are planted during the current crop year.

Stop press

On 26 January, the United Kingdom published a notice (Notice to Traders 09/22) explaining rules for the rice quota for the period January 2022 to 31 December 2022 and how to apply for a license.
International prices

<table>
<thead>
<tr>
<th>International Grains Council (IGC) Grains and Oilseeds Index (GOI) and GOI sub-Indices</th>
<th>Feb 2022 Average*</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M/M</td>
<td>Y/Y</td>
</tr>
<tr>
<td>GOI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wheat</td>
<td>315.4</td>
<td>+7.1%</td>
</tr>
<tr>
<td>Maize</td>
<td>295.4</td>
<td>+2.4%</td>
</tr>
<tr>
<td>Rice</td>
<td>310.4</td>
<td>+5.5%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>167.8</td>
<td>+0.6%</td>
</tr>
<tr>
<td>Soybeans</td>
<td>323.0</td>
<td>+11.8%</td>
</tr>
</tbody>
</table>

*Jan 2000=100, derived from daily export quotations

Wheat

The IGC wheat sub-Index averaged 2 percent higher m/m following a period of two-sided movements, with external markets adding to extreme volatility at times. Export prices rose across all origins as the escalating Black Sea situation stoked fears about the potential for a marked reduction in world export availabilities. EU prices were underpinned by ideas that the ongoing geopolitical events could shift demand to local origins, while US quotations drew additional support from unfavourably dry conditions for 2022/23 winter crops in parts of the Plains. Against the backdrop of uncertainty and volatility, Black Sea cash values were especially nominal recently amid reports that cargoes scheduled to load in Ukraine were being shifted to other loading areas.

Maize

Average global maize export prices advanced moderately during February, buoyed mainly by worsening crop prospects in South America. Trading activity was also influenced by developments in the Black Sea region and associated uncertainties about future export flows from the region, with background support from strength in wheat prices. Amid global supply concerns, US prices were underpinned by talk of potential supplemental demand for US exports. In Argentina, Up River values gained on underlying production worries and a steady pace of shipments. With solid overseas demand and gains at other key origins, FOB prices in Ukraine also rose markedly but were highly nominal by month end.

Rice

While many Asian markets were quiet during Lunar New Year celebrations, average international rice prices were slightly stronger in February. Gains in Thailand were underpinned by currency movements, albeit with some offsetting pressure from subdued demand, while Vietnamese values were little changed as traders awaited new crop supplies from the Winter/Spring harvest. Indian quotes were slightly stronger as sales to regular buyers underpinned, while values in the US also advanced on tightening supplies amid domestic and offshore demand.

Soybeans

Against the backdrop of prospects for sizeable y/y reductions in production and availabilities in South America owing to a sustained period of adverse weather, average global export values advanced sharply during February, rising by 12 percent m/m to more than a nine-year peak. Amid worries about southern hemisphere supplies, gains were also underpinned by a significant upswing in international demand for US supplies, while strength in markets for soybean products was a key influence throughout the month. Surging prices for grains, crude oil and vegetable oils - in large part linked to Black Sea events - provided further background support.

IGC commodity price indices

<table>
<thead>
<tr>
<th>2021</th>
<th>GOI</th>
<th>Wheat</th>
<th>Maize</th>
<th>Rice</th>
<th>Soybeans</th>
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</thead>
<tbody>
<tr>
<td>February</td>
<td>268.6</td>
<td>229.0</td>
<td>271.5</td>
<td>199.1</td>
<td>272.6</td>
</tr>
<tr>
<td>March</td>
<td>264.0</td>
<td>223.4</td>
<td>267.4</td>
<td>194.4</td>
<td>267.6</td>
</tr>
<tr>
<td>April</td>
<td>270.6</td>
<td>225.3</td>
<td>284.2</td>
<td>189.2</td>
<td>275.3</td>
</tr>
<tr>
<td>May</td>
<td>287.2</td>
<td>240.0</td>
<td>308.2</td>
<td>188.4</td>
<td>292.1</td>
</tr>
<tr>
<td>June</td>
<td>275.3</td>
<td>238.2</td>
<td>292.8</td>
<td>182.7</td>
<td>276.2</td>
</tr>
<tr>
<td>July</td>
<td>271.8</td>
<td>242.4</td>
<td>275.2</td>
<td>170.3</td>
<td>276.6</td>
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<tr>
<td>August</td>
<td>276.3</td>
<td>264.8</td>
<td>271.9</td>
<td>165.6</td>
<td>274.8</td>
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<tr>
<td>September</td>
<td>279.3</td>
<td>274.9</td>
<td>272.6</td>
<td>166.3</td>
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<tr>
<td>October</td>
<td>279.8</td>
<td>288.6</td>
<td>276.3</td>
<td>167.7</td>
<td>264.1</td>
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<td>303.4</td>
<td>278.7</td>
<td>165.9</td>
<td>260.5</td>
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<tr>
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<td>297.8</td>
<td>283.1</td>
<td>163.9</td>
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<td>2022</td>
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<td>288.4</td>
<td>294.2</td>
<td>166.8</td>
<td>288.9</td>
</tr>
<tr>
<td>January</td>
<td>315.4</td>
<td>296.4</td>
<td>310.4</td>
<td>167.8</td>
<td>323.0</td>
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International prices

Selected export prices, currencies and indices

Daily quotations of selected export prices (USD/tonnes, 2020-2022)

Daily quotations of selected export prices

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<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>
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<tbody>
<tr>
<td>Wheat (US No. 2, HRW)</td>
<td>24-Feb</td>
<td>437</td>
<td>379</td>
<td>287</td>
<td>+15.3%</td>
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<tr>
<td>Maize (US No. 2, Yellow)</td>
<td>24-Feb</td>
<td>290</td>
<td>290</td>
<td>249</td>
<td>+0.0%</td>
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<tr>
<td>Rice (Thai 100% B)</td>
<td>24-Feb</td>
<td>409</td>
<td>423</td>
<td>524</td>
<td>-3.3%</td>
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<tr>
<td>Soybeans (US No. 2, Yellow)</td>
<td>24-Feb</td>
<td>656</td>
<td>597</td>
<td>546</td>
<td>+9.9%</td>
</tr>
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</table>

AMIS countries’ currencies against US Dollar

AMIS Countries | Currency | Feb 2022 Average | Monthly Change | Annual Change |
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>ARS</td>
<td>106.3</td>
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<tr>
<td>Australia</td>
<td>AUD</td>
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<td>BRL</td>
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<td>CAD</td>
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<td>CNY</td>
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<td>EGP</td>
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<tr>
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<td>IDR</td>
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<td>JPY</td>
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<td>KZT</td>
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<td>Rep. of Korea</td>
<td>KRW</td>
<td>1197.8</td>
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<td>MXN</td>
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<td>Nigeria</td>
<td>NGN</td>
<td>415.6</td>
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<td>Philippines</td>
<td>PHP</td>
<td>51.3</td>
<td>-0.1%</td>
<td>-5.8%</td>
</tr>
<tr>
<td>Russian Fed.</td>
<td>RUB</td>
<td>78.7</td>
<td>-2.1%</td>
<td>-5.7%</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>SAR</td>
<td>3.8</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>South Africa</td>
<td>ZAR</td>
<td>15.2</td>
<td>1.8%</td>
<td>-3.0%</td>
</tr>
<tr>
<td>Thailand</td>
<td>THB</td>
<td>32.6</td>
<td>1.6%</td>
<td>-8.0%</td>
</tr>
<tr>
<td>Turkey</td>
<td>TRY</td>
<td>13.6</td>
<td>-0.8%</td>
<td>-48.0%</td>
</tr>
<tr>
<td>UK</td>
<td>GBP</td>
<td>0.7</td>
<td>-0.2%</td>
<td>-2.4%</td>
</tr>
<tr>
<td>Ukraine</td>
<td>UAH</td>
<td>28.5</td>
<td>-1.5%</td>
<td>-2.2%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>VND</td>
<td>22736.8</td>
<td>-0.2%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

FAO Food Price Index

Nominal Broad Dollar Index
Futures markets

Overall market sentiment

- The escalating conflict between the Russian Federation and Ukraine was the main driver of prices going up
- Unfavourable weather in South America impacted futures prices of maize and soybean
- Prices, volumes and volatilities in futures markets increased compared to January 2022 and February 2021
- Commercials kept their short positions and financials kept their long positions, except for the Chicago wheat futures

MONTHLY PRICE TREND

Futures prices

Prices on global futures and commodities markets surged in response to the escalating crisis in Ukraine, with the CME reaching its limit for agricultural products, crude oil exceeding the level of USD 100 per barrel and Euronext wheat and maize futures exceeding their historical price records at the market opening. Markets are expected to stay highly volatile for the coming weeks, with prices for agricultural commodities remaining at elevated levels.

Volume & volatility

Last month was characterized by high volumes and volatility in markets on both sides of the Atlantic. On Euronext markets, wheat and maize volumes increased significantly compared to January 2022 and also compared to February 2021. Similarly, historical and implied volatility went up, especially for maize. February wheat, maize and soybean volumes sharply increased in the US, and were about twice as high as in January 2022. Historical volatility for the three commodities remained quite steady in line with January, while implied volatility increased.

Forward curves

In European markets, the wheat forward curve suggests that operators anticipated higher prices last month than in January as well as additional upward pressure on prices in the short term (contango), likely linked to the escalating tensions in the Black Sea region. Further out, the market anticipates an easing of prices (backwardation), reflecting the relatively good wheat production forecasts as well as the end of the Algerian boycott of French wheat. Similarly for maize, the forward curve illustrates an anticipation of higher prices reflecting uncertainties due to the conflict in Ukraine and impact on available supplies, resulting in a small contango for the first part of the curve. As in the case of wheat, the relatively optimistic forecasts for next season’s crop translated into a backwardation.

In the US, the forward curves for wheat, maize and soybean have accommodated varying levels of rising prices. For Soft Red Wheat a contango for at least one year reflects the geopolitical tensions in the Black Sea region and possible reduction of supply as well as the sharp rise in freight costs. Prices have also been impacted by tight supplies due to bad weather conditions in the US for the next crop. With regard to maize and soybean, forward curves also demonstrate the expectation of higher prices in the current geopolitical context and in view of the insufficient rains in south America giving rise to fears of yield losses. These fears subside in the long run as the forward curve shows a backwardation for both commodities around summer 2022.

Investment flows

On the Euronext market, funds were net buyers of wheat and maize whereas commercial actors were net sellers, confirming a constellation that started at the end of 2020. About three quarters of commercial positions have a hedging purpose and that figure has remained consistent since the start of the campaign. On the CME market, funds were keeping their long positions and commercials their short positions for maize, soybean and rice. By contrast, since mid-December, both commercial and financial participants are both net sellers of wheat.

### Euronext futures volumes and price evolution

<table>
<thead>
<tr>
<th>Volumes (million tonnes)</th>
<th>Jan 2022</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>57.71</td>
<td>+29%</td>
<td>+15%</td>
</tr>
<tr>
<td>Maize</td>
<td>2.85</td>
<td>+43%</td>
<td>+56%</td>
</tr>
<tr>
<td>Prices (USD/Mt)</td>
<td>Jan 2022</td>
<td>M/M</td>
<td>Y/Y</td>
</tr>
<tr>
<td>Wheat</td>
<td>290.57</td>
<td>-5%</td>
<td>+6%</td>
</tr>
<tr>
<td>Maize</td>
<td>286.93</td>
<td>+4%</td>
<td>+10%</td>
</tr>
</tbody>
</table>

### CME futures volumes and prices evolution

<table>
<thead>
<tr>
<th>Volumes (million tonnes)</th>
<th>Jan 2022</th>
<th>M/M</th>
<th>Y/Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>326.82</td>
<td>+57%</td>
<td>-4%</td>
</tr>
<tr>
<td>Maize</td>
<td>921.49</td>
<td>+51%</td>
<td>+5%</td>
</tr>
<tr>
<td>Soybean</td>
<td>722.87</td>
<td>+68%</td>
<td>+29%</td>
</tr>
<tr>
<td>Prices (USD/Mt)</td>
<td>Jan 2022</td>
<td>M/M</td>
<td>Y/Y</td>
</tr>
<tr>
<td>Wheat</td>
<td>290.98</td>
<td>+2%</td>
<td>+21%</td>
</tr>
<tr>
<td>Maize</td>
<td>253.28</td>
<td>+6%</td>
<td>+17%</td>
</tr>
<tr>
<td>Soybean</td>
<td>581.11</td>
<td>+13%</td>
<td>+14%</td>
</tr>
</tbody>
</table>

**Figure of the month**

1675c$/b closure price of the CBOT Soybean futures (22 march 2022), highest level since 9 years
Market indicators

Daily quotations from leading exchanges - nearby futures

Wheat
USD per tonne

Maize
USD per tonne

Rice
USD per tonne

Soybean
USD per tonne

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

Wheat

Maize

Rice

Soybean

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

**Wheat**
- USD per tonne

**Maize**
- USD per tonne

**Rice**
- USD per tonne

**Soybean**
- USD per tonne

**Historical and implied volatilities**

**Historical Volatility (30 days)**

**Implied Volatility (Daily)**

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**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:


For more information about forward curves see the feature article in No. 75 February AMIS Market Monitor 2020.
Fertilizer outlook

Fertilizer prices remain at high levels and have in many cases increased since the escalating tensions in the Black Sea region, heightening concerns that crop nutrient shortages may impact global food security. In addition, the Russian Federation is a key supplier of natural gas, accounting for about 20 percent of global gas trade and providing about 40 percent of EU imports. Any constraint on natural gas supplies - a key input for nitrogen fertilizer production - will have a significant impact on fertilizer availability and prices. Moreover, the Russian Federation and Belarus are important exporters of nitrogen fertilizer and potash. Large disruption in fertilizer trade could adversely affect agricultural production prospects globally, particularly in developing countries.

- Urea prices fell moderately in February as India, a major urea importer, announced it would buy the product later than usual. However, prices increased markedly during the last week of the month.

- DAP prices for the most part were stable in February reflecting seasonally appropriate lower demand. After initially increasing slightly, prices in the U.S. Gulf strengthened more substantially towards the end of the month.

- Potash prices were up slightly in the Baltic following reduced supplies from a major producer in Belarus and Lithuania ceasing potash shipments from Belarus.

- Ammonia prices marginally increased in the U.S. Gulf and remained stable in western Europe despite the increase in natural gas prices. The effect of the Russian Federation’s export ban on ammonium nitrate exports - for which ammonia is a key input - remains ambiguous.

- Natural gas prices increased in February amid ongoing supply concerns reflecting the unfolding situation in the Ukraine.

### Chart and tables description

**Ammonia and urea**: Overview of nitrogen-based fertilizer prices in the US Gulf, Western Europe and Black Sea. Prices are weekly prices averaged by month.

**Potash and phosphate**: Overview of phosphate and potassium-based fertilizer prices in the US Gulf, Baltic and Vancouver. Prices are weekly prices averaged by month.

**Ammonia average and urea average**: Monthly average prices from ammonia’s US Gulf NOLA, Middle East, Black Sea and Western Europe were averaged to obtain ammonia average prices; monthly average prices from urea’s US Gulf NOLA, US Gulf Prill, Middle East Prill, Black Sea Prill and Mediterranean were averaged to obtain urea average prices.

**Natural gas**: Henry Hub Natural Gas Spot Price from ICE up to December 2017 and from Bloomberg (BGAP) from January 2018 onwards. Prices are intraday.

**DAP**: Diammonium Phosphate

### Tables

<table>
<thead>
<tr>
<th></th>
<th>Feb-22</th>
<th>Feb-21</th>
<th>% change last month</th>
<th>% change last year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia-US Gulf NOLA</td>
<td>1073.7</td>
<td>1085.0</td>
<td>-0.4</td>
<td>-5.3</td>
</tr>
<tr>
<td>Ammonia-Western Europe</td>
<td>1282.3</td>
<td>1250.0</td>
<td>+2.6</td>
<td>+23.5</td>
</tr>
<tr>
<td>Ammonia avg. across regions</td>
<td>1067.7</td>
<td>1073.7</td>
<td>-0.6</td>
<td>-5.8</td>
</tr>
<tr>
<td>Urea-US Gulf</td>
<td>617.7</td>
<td>618.8</td>
<td>+0.1</td>
<td>+2.6</td>
</tr>
<tr>
<td>Urea-Black Sea</td>
<td>746.7</td>
<td>740.0</td>
<td>+0.9</td>
<td>+4.7</td>
</tr>
<tr>
<td>Urea avg. across regions</td>
<td>679.7</td>
<td>682.2</td>
<td>-0.4</td>
<td>-4.4</td>
</tr>
<tr>
<td>DAP-US Gulf</td>
<td>770.5</td>
<td>770.5</td>
<td>+0.0</td>
<td>+2.6</td>
</tr>
<tr>
<td>DAP-Baltic</td>
<td>900.0</td>
<td>900.0</td>
<td>+0.0</td>
<td>+2.3</td>
</tr>
<tr>
<td>Potash-Baltic</td>
<td>230.0</td>
<td>230.0</td>
<td>+0.2</td>
<td>+3.2</td>
</tr>
<tr>
<td>Potash-US Gulf NOLA</td>
<td>660.0</td>
<td>660.0</td>
<td>+0.0</td>
<td>+0.3</td>
</tr>
<tr>
<td>Natural gas</td>
<td>4.7</td>
<td>4.7</td>
<td>+0.7</td>
<td>+5.6</td>
</tr>
</tbody>
</table>

All prices shown are in US dollars

Source: Own elaboration based on Bloomberg

*Estimated using available weekly data to date.
Losses across all segments pressured the Baltic Dry Index (BDI) to a one-year low in late-January, but accelerating activity following the Lunar New Year holidays in Asia contributed to the more recent upswing in freight prices. The Index averaged a touch lower m/m in February and was two-thirds below its 13-year peak registered in early-October 2021. The recent inclusion of the waters around the Black Sea and the Sea of Azov to the list of "high risk" areas by London’s marine insurance market was seen influencing premiums.

Average Capesize rates were down by 3 percent after a period of volatile activity. Values were initially pressured by negative sentiment in the Pacific, where an earlier coal export ban in Indonesia boosted excess tonnage availability. An upturn in Chinese demand after seasonal holidays provided support more recently.

Early weakness in the Panamax sector was partly linked to reduced enquiries at the US Gulf and in South America, while the latter region featured increasing vessel line-ups in Brazil amid seasonally rising soyabean exports and relatively slow deliveries to ports. Still, improving sentiment in the Americas and accelerating dispatches out of Indonesia lifted average values thereafter, limiting m/m declines to 8 percent.

While net changes in Supramax and Handysize earnings were mixed, both segments were buoyed by a post-lunar holiday rebound in activity in Asia. Furthermore, the latter sector saw improved enquiry levels in the Mediterranean and Europe.

As demonstrated by the IGC Grains and Oilseeds Freight Index (GOFI), average voyage costs (including fuel expenses) on main routes eased moderately during the past month, but remained markedly higher than a year ago. Declines were recorded in all constituent origins, with the exception of Australia, where nearby loading capacity remained extremely tight.

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 bulks, 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.
Explanatory note

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 marketing season (e.g. 2017 for the 2016/17 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.*