Although global supplies of basic foodstuffs remain abundant, shocks created by COVID-19 started taking a toll on food markets last month. The historic plunge of oil prices, precipitous fall in ethanol production, and deceleration in feed demand led to sharp drops in maize prices. At the same time, protectionist trade policies, albeit temporary, raised concerns for global wheat and rice flows. With the global economic contraction in 2020 now forecast to be worse than the 2009 Great Recession, continued depressed demand in the face of ample supplies are likely to keep markets under pressure. Previous crises demonstrate that international collaboration is paramount to help stabilize food markets and contain the burden of prolonged economic turmoil on the most vulnerable.
**Feature article**

**Will we learn from the past?**

As COVID-19 spreads around the globe, fears of a deep global recession are mounting. Some also fear that food supplies may start running short, especially if supply chains are disrupted. Others fear that agricultural production may be disrupted by containment measures that restrict workers from harvesting and handling crops.

While we should take these concerns seriously—especially for fruits and vegetables, which have complex supply chains, or foods sold primarily through restaurants—they should not be overstated either, especially not for basic staples such as rice, wheat, and maize. As noted in this month’s report, global markets are well supplied, stocks are healthy, production of key staples is unlikely to be disrupted, and prices have remained relatively stable.

Nonetheless, several countries have taken steps to limit exports to ensure sufficiency of domestic food supplies (see IFPRI’s [food trade restrictions tracker](#)). As we saw during the food price crisis of 2007-2008, such policies might backfire and become a threat to global food security. At the time, leading cereal exporters cut their sales abroad in order to insulate their own markets from increasing food price rises. In response, several importing countries lowered or completely lifted import tariffs, which prevented any significant rationing of import demand. As a result, global food prices not only kept rising but also became more volatile. In the case of rice, the most important food staple, such policy measures contributed to almost half of its world price surge in 2007-2008.

In sharp contrast to the last crisis, cereal supplies today are at far more comfortable levels while upcoming production of key staple crops is unlikely to suffer major disruptions. This is particularly the case in major exporting countries where much of production is mechanized, requires relatively little labour input, and takes place in areas with dispersed, already socially distanced, rural populations. Similarly, there is low probability of disruptions to international transport and distribution of these key staples, being dry bulk commodities, which can be loaded, shipped and discharged with minimum human-to-human interaction.

Thus far, the trade restrictions put in place in recent months have been, for the most part, temporary measures with little adverse impacts on international prices. However, the danger is that more countries might follow suit, leading to the same panic-buying and hoarding behaviour witnessed a decade ago. The world’s poor would be the ones bearing the brunt.

The recent statement of G-20 Agriculture Ministers gives reason for hope that lessons have been learnt from 2007-2008. It cites the importance of working to ensure the continued flow of food, products, and inputs essential for agriculture and food production across borders despite the challenges faced from COVID-19. Such actions will allow international markets to play an instrumental role in avoiding food shortages and mitigating the inevitable global economic downturn that will result from the pandemic.
**World supply-demand outlook**

- **Wheat** production in 2020 to remain close to last year’s level (second highest on record); likely rebounds in Australia and Kazakhstan, together with higher production in the Russian Federation and several Asian countries, are seen to offset reductions in the EU, North Africa, Ukraine and the US.
- Utilization in 2020/21 to stagnate, with growth in food consumption largely offset by weaker demand prospects for feed and industrial use.
- Trade forecast for 2020/21 (July/June) pointing to a slight increase due to the inclusion of the UK trade with the EU from 2020/21; otherwise, world trade is heading for a small decline despite much better export prospects for Australia and Canada.
- Stocks (ending in 2021) to increase marginally, and the rise would be mostly a reflection of further buildups in China; excluding China, global wheat stocks are heading towards a decline of almost 5 percent, to their lowest level since 2013, with drawdowns expected in the US and North Africa.

- **Maize**<sup>*</sup> 2019 production nearly unchanged m/m with just a slight upwards revision in Mexico, boosting production to surpass 2018 output by roughly 22 million tonnes (2 percent).
- Utilization 2019/20 forecast lowered this month, mostly on sizeable downward revisions for the US and China where COVID-19 impacts on the economy and energy markets are seen to result in a significant fall in ethanol, starch and, to a lesser extent, feed demand.
- Trade for 2019/20 (July/June) still expected to reach 167 million tonnes, representing a marginal expansion from 2018/19 levels, supported by ample export availabilities.
- Stocks (ending 2020) lifted sharply (22.7 million tonnes) since last month as cuts in industrial and feed uses are expected to result in higher inventories in the US and China than anticipated earlier.

- **Rice** production in 2019 trimmed, largely on account of lower area estimates for Nigeria and reduced yield outcomes in Pakistan; these outweighed increases mainly for Cambodia and Mali.
- Utilization in 2019/20 downscaled, on less buoyant expectations of food intake in Nigeria and of industrial uses in China.
- Trade in 2020 lowered further and now seen close to the 2019 depressed level.
- Stocks (2019 carry-out) raised fractionally, as higher than previously anticipated reserves in Cambodia, China and Myanmar offset cuts for Nigeria and the Philippines.

- **Soybean** 2019/20 production forecasts trimmed further on unfavourable harvest conditions in parts of Argentina, Brazil and Uruguay, hence leading to a stronger than earlier anticipated drop in global production from the previous season.
- Utilization in 2019/20 adjusted downward in South American countries and Europe, reflecting, respectively, lower crops and muted demand growth. This season’s expansion in global utilization now set to drop below 1 percent.
- Trade forecast for 2019/20 lifted marginally, with upward revisions for China’s imports outweighing reduced import forecasts for Southeast Asian countries, largely linked to the COVID-19 pandemic.
- Stocks (2019 carry-out) scaled up, mainly reflecting prospective stock replenishments in China and further build-up of inventories in the US; in Brazil, revised carry-in stocks also contribute to higher than earlier anticipated end-of-season inventories.

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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/view-and-compare

Estimates and forecasts may differ across sources for many reasons, including different methodologies.  
* The 2019/20 AMIS-FAO world maize production forecast includes southern hemisphere maize crops harvested in 2019 whereas IGC and USDA include southern hemisphere maize crops to be harvested in 2020 in their 2019/20 world production numbers.

For more information see Explanatory notes on the last page of this report.
**CROP MONITOR**

Crop conditions in AMIS countries (as of 28 April)

**Synthesis Conditions**

Crop condition map synthesizing information for all four AMIS crops as of 28 April. 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, winter wheat is under mixed conditions in EU and parts of the western plains in the US. Spring wheat sowings have begun.

**Maize** - In the southern hemisphere, the season is wrapping up in Brazil and Argentina under mixed conditions. In the northern hemisphere, conditions are favourable in India and Mexico, while sowing is ongoing in the US and the EU.

**Rice** - Conditions are favourable in China and India. In Southeast Asia, harvest is ongoing for dry-season rice in northern countries and for wet-season rice in Indonesia under mixed conditions.

**Soybeans** - In the southern hemisphere, harvest is wrapping up in Brazil under mixed conditions while generally favourable conditions prevail in Argentina. In the northern hemisphere, sowing is beginning in the US and Ukraine.

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**ENSO and IOD Neutral Conditions**

*El Niño-Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) conditions are currently neutral and are expected to remain neutral through the northern hemisphere summer. However, there is an elevated chance of La Niña or La Niña-like climate arising by October. Such conditions are associated with the combined influence of abnormally cool equatorial East Pacific sea surface waters and abnormally warm sea surface waters in the western Pacific. La Niña or La Niña-like conditions during October–December typically reduce rainfall in East Africa, Central Southwest Asia, southern Brazil and central Argentina, and increase rainfall in Southern Africa, Australia, and eastern Brazil.*
**Wheat**

In the **EU**, despite one of the driest spring starts since 1979, conditions are generally favourable. However, additional rainfall over the next month or two is needed to maintain yields. In the **UK**, crops are under favourable conditions despite a dryer than normal spring. In **Turkey**, conditions are favourable albeit with a delay in crop growth due to late sowing. In **Ukraine**, winter wheat is under generally favourable conditions except in the south, where dry conditions continue to worsen with little or no rain received over the past two months. In the **Russian Federation**, conditions are generally favourable for winter wheat. Sowing of spring wheat has begun under favourable conditions. In **Kazakhstan**, winter wheat conditions are favourable as spring wheat sowing begins. In **China**, conditions are favourable to exceptional for winter wheat. Sowing of spring wheat has begun under generally favourable conditions. In **India**, harvest is ongoing under very good conditions. Compared to last year, there is an increase in total sown area and an increase in expected yields. In the **US**, winter wheat is under generally favourable conditions although with some dryness in the western reaches of the Great Plains. Spring wheat sowing is somewhat delayed due to wet and cold conditions in the upper Great Plains. In **Canada**, conditions are favourable for winter wheat awaiting winterkill assessment in the Prairies. In **Australia**, sowing is beginning in Queensland under favourable conditions.

**Maize**

In **Brazil**, harvest is wrapping up for the spring-planted (smaller season) crop under a mix of exceptional to poor conditions. A lack of rain in the South, the main producing region, caused a serious reduction of yields, especially in the state of Rio Grande do Sul. For the summer-planted (larger season) crop conditions are favourable with an increase in total sown area compared to last season. In **Argentina**, harvest is progressing slowly for spring-planted crops due to prioritization of soybean harvesting. Conditions are generally favourable except in provinces of San Luis and Entre Ríos, where prolonged dry conditions have taken its toll on the crops. In the **US**, conditions are favourable as sowing is ramping up after some initial delays due to earlier damp and cold conditions. In **Mexico**, harvest is just beginning for the autumn-winter crop under favourable conditions. Sowing of the spring-summer crop is beginning under favourable conditions. In the **EU**, a very dry spring combined with cold spells has negatively impacted sowing and emergence conditions in central and south-eastern countries. In the **Russian Federation**, sowing is progressing under generally favourable conditions. In **India**, harvest of the Rabi crop is underway in favourable conditions. In **China**, sowing of spring-planted maize is beginning under favourable conditions. In **South Africa**, conditions are generally favourable with good yields expected in the central growing states.

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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 accounts for multiple cropping seasons (i.e. spring and winter wheat).

The late vegetative through to reproductive crop growth stages are generally the most sensitive periods for crop development.
Rice

In China, conditions are favourable for early-season rice and the sowing of single-season rice. In India, harvest of Rabi rice is ongoing under favourable conditions. There is an increase in total sown area this year compared to the average. In Indonesia, harvesting of wet-season crops continues into the fourth month with yields estimated to be lower than last year due to the prolonged drought. Sowing of dry-season crops is delayed by the extension of the wet-season crops much later than usual. In Viet Nam, harvesting of dry-season rice (winter-spring) is ongoing under mixed conditions in the south due to saltwater intrusion. In the north, conditions are favourable with total sown area in line with the average. Wet-season (summer-autumn) sowing is beginning in the south under favourable conditions. In Thailand, harvesting of dry-season rice is ongoing under poor conditions due to insufficient water and hot weather. A shortage of irrigation water and rainfall during the season resulted in a two-third reduction of sown area compared to last season. In the Philippines, harvesting of dry-season rice is about half-way complete with below-average yields expected as most regions experienced moisture stress due to insufficient irrigation water supply during the reproductive stage. In Brazil, harvest is wrapping up under exceptional conditions. In the US, sowing and emergence are well underway under favourable conditions.

Soybeans

In Brazil, harvest is wrapping up under generally exceptional conditions with an increase in sown area and above-average yields making it an exceptional crop despite the persistent dry conditions in Rio Grande do Sul that reduced yields in the south. In Argentina, harvest is ongoing and making fast progress owing to good weather in April. Conditions are generally favourable for both the spring-planted and summer-planted crops, albeit with a mixture of conditions across the central growing regions and poor conditions in San Luis and Entre Ríos due to prolonged dryness. In the US, sowing is beginning under favourable conditions. In Ukraine, sowing is beginning under generally favourable conditions with the exception of the south due to low soil moisture.

Information on crop conditions in non-AMIS countries can be found in the GEOGLAM Early Warning Crop Monitor, published 7 May 2020.
Policy developments

Wheat

- On 15 April, India launched wheat procurement operations. Even as the lockdown has halved labour availability, strict COVID-19 health safety protocols apply under which passes are delivered to farmers to facilitate wheat harvesting and procurement. The Food Corporation of India estimated that government food grain stocks would reach 72.09 million tonnes by the end of September, i.e. more than twice the minimum required reserve level, enabling India to extend the implementation of its domestic food aid relief package until September, instead of June.
- On 6 April, Saudi Arabia’s state grain buyer, SAGO, asked Saudi investors in foreign agricultural land to import 350 000 tonnes of wheat between May and November, i.e. roughly 10 percent of the country’s annual needs, to fill the strategic reserves due to the COVID-19 pandemic.
- On 2 April, the Russian Federation announced it will sell 1.5 million tonnes of grains from its State reserves into the domestic market, starting from 13 April, raising the amount from an earlier announced 1 million tonnes. The measure aims to ensure supplies and keep prices down amid the coronavirus pandemic.
- On 17 April, Kazakhstan announced it is considering increasing the May quotas on wheat shipments from 200 000 to 250 000 tonnes and on wheat flour shipments from 70 000 to 150 000 tonnes.

Maize

- On 27 April, and for the first time since 2018, the applied import duty on maize in the EU increased, to EUR 5.27 (USD 5.72) per tonne, triggered by a slump in oil and ethanol prices (sorghum and rye will be subject to a similar duty increase). As reflected in EU’s WTO Schedule, the applied import duty on maize is subject to an automatic adjustment mechanism designed to ensure that the relationship between the domestic price and the international price of maize is maintained.

Rice

- After suspending the authorization of new rice export contracts between 25 and 31 March, Viet Nam introduced export quotas set at 400 000 tonnes per month for April and May. On 22 April, Viet Nam raised the rice export quota for April to 500 000 tonnes to accommodate cargoes transported to ports prior to the temporary suspension of shipments on 24 March 2020. On 29 April, Viet Nam announced that it will end rice export restrictions from the start of May.
- On 3 April, the government of Turkey suspended its import tariff on 100 000 tonnes of paddy rice, until 31 May 2020.
- On 8 April, the president of Nigeria approved the distribution to poor families of 46 000 tonnes of the smuggled rice that was seized by custom services during the border closure last year. This decision aims to limit shortages and price hikes due to the COVID-19 pandemic.
- On 9 April, the Italian Ambassador to China and the General Administration of Customs of the People’s Republic of China signed a protocol with the needed phytosanitary requirements for Italian risotto rice exports to China.
- On 20 April, Food Corporation of India was allowed to release some surplus of rice stocks for the manufacturing of alcohol-based sanitizers or for the blending with petrol. On 1 April 2020, grain stocks were high (58.49 million tonnes) relative to the norm (21 million tonnes).
- On 9 April, Indonesia’s state food company Bulog announced that it is planning to buy 950 000 tonnes of rice from local farmers to maintain its reserves of 1 to 1.5 million tonnes. This action is in anticipation of the country’s likely lockdown to contain the COVID-19 outbreak.
- On 12 April 2020, the Philippines approved a PHP 31 billion (USD 608 million) ‘Plant Programme’ to help farmers boost paddy rice production to 22.1 million tonnes (6 percent increase compared to 2019 output) to ensure food security amid the COVID-19 pandemic.

Soybean

- On 7 April, China, for the second time this year, asked its state-owned stockpiler Sinograin to release 0.5 million tonnes of its own soybean reserve to the state-owned crusher Cofo. Stocks are low due to shipment delays from Brazil and logistic disruptions related to the COVID-19 pandemic.

Across the board

- On 13 April, Canada announced funding of CAD 50 million (USD 36 million) to assist farmers, fish harvesters, and all food production and processing industries put in place the measures necessary to implement the mandatory isolation period applicable to all temporary foreign workers. Furthermore, CAD 100 million (USD 72 million) were made available to...
national food banks and other food rescue organizations to help improve access to food during the pandemic.

• On 6 April, the EU Commission adopted legislation to enable all EU member states to postpone the application deadlines for direct payments and certain rural development measures from 15 May to 15 June. The measure will allow more flexibility for farmers to fill in their applications during the COVID-19 pandemic.

• With effect from 1 April, Italy extended the validity of mandatory labelling of origin for pasta and rice (as well as tomato by-products) until 31 December 2021. The EU Guidance on the origin indication of the primary ingredient (EC implementing regulation 2018/775) came into effect simultaneously. In the case of pasta, for example, the countries where wheat was produced and/or milled must be specified.

• On 4 April, Nigeria announced the release of 70 000 tonnes of grains from the national strategic reserves on the domestic market to help tackle food shortages during the COVID-19 pandemic.

• On 26 April, the Russian Federation announced it is suspending grain exports, including wheat, rye, barley and maize until 1 July. The export quota of 7 million tonnes introduced on 27 March for the April-June quarter was fully exhausted.

• On 17 April, the US introduced a USD 19 billion Coronavirus Food Assistance Program (CFAP). This new package includes direct payments to producers worth USD 16 billion based on actual losses as well as any adjustment assistance that may be required due to short term oversupply conditions during the 2020 marketing year. Another USD 3 billion will be allocated to USDA purchase and distribution of fresh produce, dairy and meat, connecting farmers to regional and local distributors as well as food banks. Additional funding will be made available to food procurement and distribution based on industry requests, market analysis and food bank needs.

• On 13 April, the agriculture Ministry of Kazakhstan announced trade restrictions for food products until 1 September: an export ban for buckwheat, sugar, potatoes, onions of all types, garlic, sunflower seeds as well as sunflower oil; a quota determined monthly for carrots, turnip, beets, cabbage of all types, wheat or rye flour, soft wheat and meslin.

• On 17 April, the president of the US announced a USD 19 billion package to support American farmers during the COVID-19 pandemic, of which 16 billion will be distributed as direct payment to producers or as mass purchases of meat, dairy, vegetables and other products, of which 3.9 billion are for row crop producers, with a maximum of USD 250 000 per farm. An additional 3 billion of such farm goods will be distributed to poor people through food banks or food aid.

• On 22 April, India lowered the subsidies for the potash price from INR 11.124/kg to INR 10.116/kg (USD 150 to USD 130 per tonne) for the fiscal year 2020-21 starting on 1 April, a level never seen in the last decade.

• On 8 April, Ukraine temporarily removed its import duties on rice, rye, buckwheat, and other grain crops until 1 July 2020.

• On 24 April 2020, Japan announced an economic package of JPY 117.1 trillion (around USD 1.1 trillion) to help manage the COVID-19 crisis. This includes JPY 545 billion (USD 5 billion) to support the food, agriculture, forestry, and fisheries sectors.

Trade juncutures

• On 1 April, Australia announced emergency funding of AUD 110 million (USD 67.40 million) to subsidize air freight for agri-food exports after flights were severely disrupted by cross-border restrictions due to the global coronavirus pandemic. Destination markets include China, Japan, Hong Kong, Singapore and the United Arab Emirates.

• On 17 April, Argentina said that Brazil accepted to release 1 400 cubic meters of water at its giant Itaipu hydroelectric dam in order to raise the low level of the water in the Parana River, a key waterway for grains and oilseeds.

Stop press

• On 26 March, the Ukrainian Ministry of Economy declared that 128 000 tonnes of wheat flour from two state owned enterprises will be released on the local markets to limit the price increase related to panic buying amid coronavirus fears.

• On 26 March, the Indian Finance Minister declared that INR 1.7 lakh crore (USD 22 billion) would be allocated to the PM’s Gareeb Kalyan Scheme. The Scheme includes both cash transfers and food distribution. One of the components of the scheme is the distribution of 5 kg of wheat or rice and 1 kg of pulses to 800 million daily workers.
### International prices

#### International Grains Council (IGC) Grains and Oilseeds Index (GOI) and GOI sub-Indices

<table>
<thead>
<tr>
<th>April 2020 Average*</th>
<th>M/M % Change</th>
<th>Y/Y % Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>GOI</td>
<td>189</td>
<td>+ 0.6 %</td>
</tr>
<tr>
<td>Wheat</td>
<td>192</td>
<td>+ 2.5 %</td>
</tr>
<tr>
<td>Maize</td>
<td>171</td>
<td>- 4.9 %</td>
</tr>
<tr>
<td>Rice</td>
<td>195</td>
<td>+ 9.6 %</td>
</tr>
<tr>
<td>Soybeans</td>
<td>168</td>
<td>- 1.2 %</td>
</tr>
</tbody>
</table>

*Jan 2000=100, derived from daily export quotations

#### Wheat

Uncertainty about the impact of COVID-19 on the global grains economy persisted over the past month, with much of the focus on export curbs in the Black Sea region. Russia’s all-grains export quota for the final three months of the season, implemented at the end of March, was exhausted by late April. This was seen potentially switching some late-season demand to other origins. Some major importers remained active in the market, including Egypt, who continued to secure cargoes for 2019/20 shipment despite the start of procurements from the domestic harvest. Global price support stemmed from less than ideal conditions for 2020/21 crops in some areas, particularly in Europe and the Black Sea region, where rains were needed to maintain yield potential. Overall price sentiment was dampened by worries about longer-term demand prospects around the world, as weaker economic outlooks, the possibility of prolonged COVID-19 related movement restrictions and falling crude oil revenues were seen potentially curtailing purchases in some key markets.

#### Maize

The IGC GOI maize sub-Index fell for a third successive month, mainly on worries about a coronavirus-related slump in consumption. US prices were especially soft, as a number of ethanol processors idled or reduced capacity amid sharply lower fuel demand. With a number of meat packing plants also closing temporarily, larger amounts were diverted into export channels, adding further pressure to FOB quotations. Values in Argentina also fell quite sharply on a seasonal increase in supplies and as exporters looked to maintain competitiveness with the US. In contrast, average quotations in Ukraine were broadly stable, albeit with a slightly weaker tone evident towards the end of the month.

#### Rice

Rice prices posted heavy gains in April against the backdrop of COVID-19, as some key exporters imposed export restrictions in efforts to contain local price increases, including in Viet Nam where shipments in April were limited by a government quota. Logistical constraints amid broader quarantine measures also restricted dispatches from several key exporters, including India and Pakistan, with many turning to Thailand to cover requirements, where tight nearby paddy availabilities continued to underpin. However, values softened towards the end of the month on confirmation that Viet Nam’s exports would resume in full by May, while logistical constraints also began to ease.

#### Soybeans

Reflecting weaker prices at major origins, the IGC GOI sub-Index retreated by 1 percent m/m. After early mild support from less than ideal weather for South American crops, the market turned lower on heightened worries about the impact of COVID-19 on global economic activity. Despite recent purchases by China, pressure on US values was linked to generally thin international demand, as evidenced by a series of disappointing weekly sales tallies, while losses in soymeal and crude oil were also key influences. Although shipments continued to progress at a record pace on bigger dispatches to China, quotations in Brazil were weighed by increasing new crop supplies and a softer domestic currency.

![IGC Commodity Price Indices](image)
Selected export prices, currencies and indices

Daily quotations of selected export prices (USD/tonne, 2018-2020)

<table>
<thead>
<tr>
<th></th>
<th>Effective Date</th>
<th>Quotation (1)</th>
<th>Month ago (2)</th>
<th>Year ago (3)</th>
<th>% change (1) over (2)</th>
<th>% change (1) over (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat (US No. 2, HRW)</td>
<td>30-Apr</td>
<td>232</td>
<td>238</td>
<td>201</td>
<td>-2.5%</td>
<td>15.4%</td>
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<tr>
<td>Maize (US No. 2, Yellow)</td>
<td>30-Apr</td>
<td>141</td>
<td>156</td>
<td>159</td>
<td>-9.4%</td>
<td>-11.4%</td>
</tr>
<tr>
<td>Rice (Thai 100% B)</td>
<td>30-Apr</td>
<td>538</td>
<td>500</td>
<td>397</td>
<td>7.6%</td>
<td>35.5%</td>
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<tr>
<td>Soybeans (US No. 2, Yellow)</td>
<td>30-Apr</td>
<td>337</td>
<td>352</td>
<td>329</td>
<td>-4.3%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

AMIS Countries' Currencies Against US Dollar

<table>
<thead>
<tr>
<th>AMIS Countries</th>
<th>Currency</th>
<th>Apr 2020 Average</th>
<th>Monthly Change</th>
<th>Annual Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>ARS</td>
<td>65.5</td>
<td>-3.8%</td>
<td>-52.2%</td>
</tr>
<tr>
<td>Australia</td>
<td>AUD</td>
<td>1.6</td>
<td>1.7%</td>
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<tr>
<td>Brazil</td>
<td>BRL</td>
<td>5.3</td>
<td>-8.4%</td>
<td>-36.2%</td>
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<tr>
<td>Canada</td>
<td>CAD</td>
<td>1.4</td>
<td>-0.7%</td>
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<td>China</td>
<td>CNY</td>
<td>7.1</td>
<td>-0.7%</td>
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</tr>
<tr>
<td>Egypt</td>
<td>EGP</td>
<td>15.7</td>
<td>-0.3%</td>
<td>8.7%</td>
</tr>
<tr>
<td>EU</td>
<td>EUR</td>
<td>0.9</td>
<td>-1.8%</td>
<td>-3.4%</td>
</tr>
<tr>
<td>India</td>
<td>INR</td>
<td>76.2</td>
<td>-2.2%</td>
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<td>Indonesia</td>
<td>IDR</td>
<td>15,681.6</td>
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<td>-11.0%</td>
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<td>Japan</td>
<td>JPY</td>
<td>107.8</td>
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<td>Kazakhstan</td>
<td>KZT</td>
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<td>Rep. Korea</td>
<td>KRW</td>
<td>1,222.0</td>
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<td>Mexico</td>
<td>MXN</td>
<td>24.1</td>
<td>-8.1%</td>
<td>-27.3%</td>
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<td>Nigeria</td>
<td>NGN</td>
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<td>Russian Fed.</td>
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<td>Saudi Arabia</td>
<td>SAR</td>
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<td>South Africa</td>
<td>ZAR</td>
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<td>-31.2%</td>
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<td>THB</td>
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<td>TRY</td>
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<td>UK</td>
<td>GBP</td>
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<td>0.6%</td>
<td>-5.0%</td>
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<td>Ukraine</td>
<td>UAH</td>
<td>27.2</td>
<td>-2.3%</td>
<td>-1.7%</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>VND</td>
<td>23,476.4</td>
<td>-0.5%</td>
<td>-1.1%</td>
</tr>
</tbody>
</table>

FAO Food Price Index

Nominal Broad Dollar Index

Source: US Federal Reserve
Futures Prices

Prices fell m/m for maize and soybeans, rose modestly for wheat and spiked upward for rice as the effects of COVID-19 on the supply and demand for each commodity became more quantifiable. Maize showed the steepest m/m decline of 10.8 percent as multiple ethanol and meat processing plants shuttered – demonstrating the virus’s negative effects on feed and industrial demand. Maize values fell to a ten-year low, even as China was said to be negative effects on feed and industrial demand. Maize processing plants shuttered – demonstrating the virus’s supplies of dried distillers’ grain (DDGs), a feed by-

Volumes and volatility

Trade volumes were lower m/m for wheat and soybeans, while moderately higher for maize. Volumes for all three commodities were lower y/y. Historical and implied volatility was higher m/m and y/y for the three commodities with the exception of soybeans.

Historical Volatility – 30 Days, nearby

Basis levels and transport

Domestic basis levels continued to be weak m/m for maize as feed, industrial and export demand declined. Basis levels for soybeans were about unchanged to firmer. In Illinois, average quotes to local elevators were minus USD 6 per tonne for maize, and minus USD 3 per tonne for soybeans, each under the respective May futures prices. In Iowa, maize and soybean bids were minus USD 12 and minus USD 16 respectively (under the respective futures). In soft red wheat, bids for delivery to northern flour mills, which had been persistently high for months, fell to near normal levels. Maize and soybean bids delivered to gulf were about unchanged m/m at USD 19 and USD 21, respectively, while soft red wheat quotes fell for the third straight month to USD 22 (per tonne premium over respective May futures). Barge freight for the Lower Illinois River remained weak m/m USD 14 per tonne, reflecting declining export clearances and an adequately functioning river system. The USDA reported total 2019/20 exports for wheat (all wheat classes), and soybeans were running about 8 and 4 percent higher y/y, respectively (crop year basis), while for maize, total exports trailed at 65 percent y/y.

Forward curves

Forward curves reflected the fundamentals of each commodity. The wheat market, which showed a May/July inversion (downward slope) in March reconfigured to a carry (upward slope) as the cash basis fell significantly. Maize curves demonstrated greater upward slope as both domestic and export demand slumped. Soybean curves, which had flattened and inverted the previous month, eased back to a slight carry configuration.

Investment flows

Managed money maintained its net long for wheat and increased its net short in maize, but not to the record short levels it had established during 2019 planting season. Managed money moved to an almost even short levels it had established during 2019 planting season. Managed money moved to an almost even

Touring curves

Forward curves reflected the fundamentals of each commodity. The wheat market, which showed a May/July inversion (downward slope) in March reconfigured to a carry (upward slope) as the cash basis fell significantly. Maize curves demonstrated greater upward slope as both domestic and export demand slumped. Soybean curves, which had flattened and inverted the previous month, eased back to a slight carry configuration.

Investment flows

Managed money maintained its net long for wheat and increased its net short in maize, but not to the record short levels it had established during 2019 planting season. Managed money moved to an almost even position in soybeans. Similar to several previous months, commercials maintained net short positions while swaps dealers maintained net long positions for all three.
Market Indicators

Daily quotations from leading exchanges - nearby futures

Wheat

USD per tonne

Maize

USD per tonne

Rice

USD per tonne

Soybeans

USD per tonne

CFTC Commitments of Traders - Major Categories Net Length as percentage of Open Interest*

Wheat

Maize

Rough Rice

Soybeans

*Disaggregated Futures Only. Though not all positions are reflected in the charts, total long positions always equal total short positions.
AMIS Market Monitor

Forward Curves

**Wheat**

USD per tonne

<p>| | | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Mar-20</td>
<td>May-20</td>
<td>Jul-20</td>
</tr>
<tr>
<td>190</td>
<td>200</td>
<td>210</td>
</tr>
</tbody>
</table>

- 30-Apr-20
- 31-Mar-20
- 28-Feb-20

**Maize**

USD per tonne

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Mar-20</td>
<td>May-20</td>
<td>Jul-20</td>
</tr>
<tr>
<td>120</td>
<td>130</td>
<td>140</td>
</tr>
</tbody>
</table>

- 30-Apr-20
- 31-Mar-20
- 28-Feb-20

**Rice**

USD per tonne

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<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Mar-20</td>
<td>May-20</td>
<td>Jul-20</td>
</tr>
<tr>
<td>210</td>
<td>240</td>
<td>270</td>
</tr>
</tbody>
</table>

- 30-Apr-20
- 31-Mar-20
- 28-Feb-20

**Soybeans**

USD per tonne

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar-20</td>
<td>May-20</td>
<td>Jul-20</td>
</tr>
<tr>
<td>290</td>
<td>310</td>
<td>330</td>
</tr>
</tbody>
</table>

- 30-Apr-20
- 31-Mar-20
- 28-Feb-20

Historical and Implied Volatilities

**Historical Volatility (30 days)**

Historical and Implied Volatilities

**Implied Volatility (Daily)**

Historical and Implied Volatilities

Some 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: http://www.amis-outlook.org/amis-monitoring/indicators/
Fertilizer outlook

- **Natural gas prices** continued their free fall due to a slump in economic activity as a result of the COVID-19 pandemic and the collapse of oil prices. The April price average is 34 percent lower than one year ago.

- The COVID-19 pandemic also limited international shipping and pushed countries to rely on existing fertilizer stocks and domestic supply, with varying effects on prices worldwide.

- The start of the planting season in the US pushed domestic prices of **ammonia** and **urea** upwards. Elsewhere, prices followed different patterns with minor variations in Europe and a significant drop of ammonia prices in the Middle East (over 10 percent m/m).

- **DAP** prices increased slightly in the US m/m but remain 12 percent below one year ago levels. High inventories are keeping prices low worldwide.

- **Potash** prices remained unchanged from March and near 12-month lows due to reduced planting and a wet spring in the US combined with a tighter supply.

### 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** is used as major input to produce nitrogen-based fertilizers.

**DAP** is Diammonium Phosphate.

### All prices shown are in US dollars.

Source: Own elaboration based on Bloomberg.
Dry bulk freight market developments

- The dry bulk freight complex continued to display mixed trends across underlying segments. The Baltic Dry Index (BDI) averaged 11 percent higher m/m in April on gains in the Capesize sector, mostly involved in the transportation of iron ore. In contrast, values for grains and oilseeds carriers fell sharply. Apart from subdued enquiry levels, market sentiment was weighed by pessimistic scenarios, including projections by Clarkson’s Research for a 5 percent y/y contraction in seaborne trade in 2020, the steepest drop in over three decades.
- Nevertheless, major grain ports around the world were reportedly operating normally, even though slowdowns were noted on the Mississippi river (US Gulf) and Parana river (Argentina, Paraguay) due to low water levels and restricted drafts.
- The Baltic Capesize sub-Index moved back into positive territory in April and climbed to the levels of early 2020. Signs of recovering Chinese demand underpinned rates in Brazil, while ramping up of activity in Canada and South Africa added support.
- Early gains in the Panamax market were driven by brisk grains/oilseeds-related fixing in the northern Pacific and South America, coupled with China-Indonesia coal business. While shipments from the former two regions remained generally strong, values retreated recently on increasing vessel line ups at some origins.
- Tied to limited fresh inquiry across most loading areas, including the US Gulf and the Black Sea, average earnings in Supramax and Handysize markets plummeted by 38 percent and 25 percent, respectively.
- Voyage rates were affected by sliding bunker prices and slow demand for smaller carriers, highlighted by a 20 percent decline in the IGC Grains and Oilseeds Freight Index (GOFI), to a four-year low.

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 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 carryovers 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.

Main sources
Bloomberg, CFTC, CME Group, FAO, GEOGLAM, IFPRI, IGC, Reuters, USDA, US Federal Reserve

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