Market Monitor

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Markets at a glance

 Easing Neutral Tightening 	FROM PREVIOUS FORECASTS	FROM PREVIOUS SEASON
WHEAT	—	
MAIZE	-	
RICE	-	
SOYBEANS		

No. 104 December 2022

With northern hemisphere grain and oilseed crops largely harvested, and the Black Sea Grain Initiative extended for another 120 days, market attention is shifting to growing conditions in the southern hemisphere. The third consecutive year of La Niña has prolonged drought conditions in Argentina, resulting in sharply reduced wheat production prospects relative to last year. By contrast, La Niña has resulted in abnormally wet conditions in Australia, which expects aboveaverage wheat yields; however, concerns remain over the quality of the crop, which could impact prices for milling wheat. Planting progress for South American maize and soybeans are on pace, but it is still too early to tell whether yields will return to more normal levels after last year's drought-reduced production.

The **Market Monitor** is a product of the Agricultural Market Information System (AMIS). It covers international markets for wheat, maize, rice and soybeans, giving a synopsis of major market developments and the policy and other market drivers behind them. The analysis is a collective assessment of the market situation and outlook by the ten international organizations and entities that form the AMIS Secretariat.





Feature article

Is Speculation Driving Commodity Price Volatility?

The debate whether speculation is driving food price volatility has come back to the forefront. Especially for low-income countries, such volatility in prices can increase food security risks, thus calling for a thorough investigation of the role of speculation on food markets. To this end, AMIS organized a public webinar with a group of experts in commodity futures markets, covering a wide range of perspectives.

Speculation is most frequently associated with investment operations in commodity futures markets, which are used by agricultural producers and buyers for hedging purposes. By agreeing on a future price of a commodity, the price risk of these market participants ("commercials") can be transferred to investors ("financials"), who buy and sell futures contracts in anticipation of making a profit, adding liquidity to the market. This buying and selling of futures contracts with the objective of making a profit rather than reducing risks related to the physical exchange of the commodity can be referred to as "speculation".

In order to determine whether speculation is indeed distorting food prices, it is important to consider that commodity futures markets can play their function as a price risk management tool only if they reflect the underlying value of the cash price, which is periodically guaranteed by the fact that futures contracts can be physically delivered. Although used for only a very limited share of the total positions held in futures exchanges, this possibility for a physical delivery allows market participants to take advantage of any price discrepancy between cash and futures price and ensures price convergence when contracts expire.

The literature usually identifies three ways in which speculation may destabilize markets: For one, speculative activities such as "trend following" (a market strategy based on buying when the price of commodity futures goes up and selling when the prices go down) may cause futures prices to regularly overshoot or undershoot the level of the underlying cash price. Although the literature is far from conclusive about the depth or frequency of this type of phenomenon, there is broad agreement that any effects would usually be short-lived.

In a second category, speculation is suspected to cause futures prices to periodically diverge from fundamental values in a more substantial way. In this context, activities of commodity index funds are viewed as a potential driver as they hold large long (i.e. buying) positions that can move the entire market. While the hypothesis of the existence of such a phenomenon raises legitimate concerns, the bulk of the evidence in the literature suggests that in practice these funds have little to no impact on commodity futures prices.

The last concern is about a potential manipulation during the delivery of a futures contract, usually coined as a "corner". In these cases, a "manipulator" tries to gather a position to be delivered that is large enough to cause a divergence between cash and futures prices. Delivery manipulation is arguably the most concerning form in which speculation can impact markets as it breaks the very core function of commodity futures as a risk management tool. To avoid it, market regulators such as the Commodity Futures Trading Commission in the United States use instruments such as position limits, which set a maximum number of contracts that can be held for non-hedging purposes.

While opinions on the exact impact of speculation might differ, it is usually regarded as indispensable to ensure the smooth functioning of futures markets. Allowing an adequate level of speculation for liquidity purposes without destabilizing markets is a delicate affair. By providing information on supply, demand and prices, commodity exchanges, market regulators and even initiatives such as AMIS all have a role to play to promote fair and orderly markets. Yet, even with fully transparent food markets, there might be instances when prices will be exceptionally volatile, and these require the urgent attention of policy makers in view of the detrimental impact that these situations might have on food security.

Is Speculation Driving Commodity Price Volatility?

Since the outbreak of the Ukraine war, agricultural futures market prices have been highly volatile, with levels not seen since the food price spikes in 2007/08 and 2010/11. Some believe that market speculators and managed money funds are to blame, by distorting market prices and thus hampering means by which producers, merchants and other hedgers can effectively manage price risks. This seminar examined the role of speculation in markets and discussed the impact of speculation in previous periods of high food prices, and the role it plays in current markets.

AMIS Webinar - Is Speculation Driving Commodity Price Volatility?

World supply-demand outlook

WHEAT 2022 production still forecast to reach a record level, up 0.4 percent year-on-year, but lowered slightly this month on reduced production prospects in Argentina due to prolonged dry conditions.

Utilization in 2022/23 headed for a marginal expansion from the 2021/22 level with growth in food consumption offsetting a foreseen decline in feed use of wheat, mostly in China.

Trade in 2022/23 (July/June) forecast to slightly decline from the 2021/22 level and virtually unchanged m/m with higher expected shipments for Australia and the Russian Federation offsetting lower sales anticipated for Argentina and the EU.

Stocks (ending in 2023) nearly stable m/m and forecast to rise by 2.4 percent above opening levels, with most of the expected buildup concentrated in China and the Russian Federation.

MAIZE 2022 production lowered slightly m/m, largely due to a downward revision in Ukraine reflecting war-related disruptions, bringing the global forecast down to 4.0 percent below last year's output.

Utilization 2022/23 forecast unchanged m/m and still pointing to a 1.1 percent decline compared to the 2021/22 level, underpinned by lower feed use and, to a lesser extent, industrial use.

Trade in 2022/23 (July/June) now forecast near the 2021/22 level following an upward revision this month mostly reflecting strong export pace from Brazil and Paraguay, and robust purchases by the EU.

Stocks (ending in 2023) lowered this month, mostly in Ukraine on account of lower production prospects, and now forecast to fall 6.8 percent below opening levels.

RICE production in 2022 still seen falling 2.4 percent below the 2021
all-time high, despite some small upward revisions for a few countries.

Utilization in 2022/23 raised somewhat, as slightly higher non-food use forecasts for China and upgrades to food intake namely in the Democratic Republic of the Congo and Malaysia outweigh a small downward revision for India.

Trade in 2023 unchanged m/m, but now forecast to fall 2.8 percent below a revised forecast for 2022.

Stocks (2022/23 carry-out) raised slightly following upgrades namely for the EU, Senegal and Venezuela. As a result, global reserves are now predicted to fall 1.6 percent below their record opening level to the second highest volume on record.

SOYBEAN 2022/23 production lifted marginally on higher forecasts for Brazil and the US, while the prolonged dryness in Argentina continues to be of concern.

Utilization in 2022/23 broadly stable m/m, with a higher crush forecast for the US offset by lower consumption projections mostly in India.

Trade in 2022/23 (Oct/Sep) virtually unchanged, confirming an 8 percent recovery in global soybean shipments after contracting for two consecutive seasons.

Stocks (2022/23 carry-out) raised slightly, mainly reflecting upward revisions for Brazil and the US thanks to their higher production prospects.

		FAO-AMIS		US	DA	IG	iC
Wheat	2021/22 2022/23 est f'cast					2021/22 est	2022/23 f'cast
^		3 Nov	8 Dec		9 Nov		17 Nov
Prod.	778.2	783.8	781.1	779.4	782.7	781.6	791.9
۲,	641.3	645.4	642.7	642.5	644.7	644.7	653.9
ply	1070.2	1077.5	1074.2	1070.1	1059.0	1059.8	1071.1
Supply	802.9	805.1	801.8	789.0	779.2	795.6	800.9
Utiliz.	773.2	775.0	774.7	793.8	791.2	780.6	785.5
Ę	630.4	636.3	636.0	645.8	647.2	639.7	644.4
de	195.7	193.7	194.0	205.1	206.6	196.7	192.8
Trade	186.0	185.7	186.0	195.5	197.1	186.8	184.4
cks	293.0	299.6	300.1	276.3	267.8	279.2	285.6
Stocks	159.1	158.3	158.8	134.6	123.5	145.9	148.1

		FAO-AMIS		US	DA	IC	iC	
Maize	2021/22 est	2022/23 f'cast		2021/22 est	2022/23 f'cast	2021/22 est	2022/23 f'cast	
		3 Nov	8 Dec		9 Nov		17 Nov	
Prod.	1212.3	1167.5	1163.6	1217.5	1168.4	1218.8	1167.9	S
	939.7	892.5	888.6	944.9	894.4	946.3	894.9	ш Z
ply	1498.5	1473.0	1470.4	1510.3	1476.1	1497.5	1452.6	
Supply	1071.8	1039.2	1036.5	1032.0	992.9	1030.6	991.5	Ē
Utiliz.	1199.4	1185.6	1185.7	1202.6	1175.3	1212.7	1190.5	z
Ē	907.5	889.2	889.3	911.6	880.3	911.6	885.3	
Trade	181.9	180.2	182.3	193.0	183.5	179.2	172.3]]
Tra	159.8	161.2	163.3	171.1	165.5	156.7	153.3	Σ
cks	306.8	288.6	286.0	307.7	300.8	284.7	262.1	$ _z$
Stocks	148.0	133.2	130.6	98.5	94.6	96.5	87.1	-

		FAO-AMIS		US	DA	IG	iC	
Rice	2021/22 est	2022/23 f'cast		2021/22 est	2022/23 f'cast	2021/22 est	2022/23 f'cast	
		3 Nov	8 Dec		9 Nov		17 Nov	
Prod.	525.6	512.6	512.8	515.1	503.7	516.0	507.8] o
P	379.8	367.4	367.7	366.1	356.7	366.9	361.5	ш Z
Supply	719.4	709.5	709.9	703.0	686.8	698.1	688.0	z
Sup	470.5	463.7	464.2	437.5	426.8	442.0	436.0	
Utiliz.	521.9	518.3	519.0	519.9	517.8	518.0	514.7	z
Ē	369.9	371.4	371.8	363.5	362.8	364.8	363.3	0
Trade	54.4	52.9	52.9	55.0	53.0	51.4	48.8	
Tra	48.7	48.4	48.4	49.3	48.0	46.4	45.8	Ξ
cks	197.1	193.4	194.0	183.1	169.0	180.1	173.2	
Stocks	96.5	92.4	93.0	70.1	61.2	72.2	69.7	2

Ē		FAO-AMIS		US	DA	IG	àC	
Soybean	2021/22 est	2022/23 f'cast		2021/22 est	2022/23 f'cast	2021/22 est	2022/23 f'cast	
õ		3 Nov	8 Dec		9 Nov		17 Nov	
Prod.	355.4	392.4	394.6	355.6	390.5	352.2	386.7].
	339.0	373.0	375.1	339.2	372.1	335.8	367.2	
ply	406.0	433.4	435.4	455.6	485.2	406.8	430.9	-
Supply	366.1	394.9	397.0	408.1	435.0	359.4	381.6	(F
Utiliz.	369.1	380.6	380.5	363.2	380.2	362.5	378.1]:
Ē	256.7	264.7	264.6	255.9	263.6	254.2	263.9	
Trade	154.4	167.1	167.1	154.0	169.1	155.0	165.4	1:
	62.8	68.6	68.6	62.5	71.1	64.2	69.1	
Stocks	40.8	48.2	49.7	94.7	102.2	44.3	52.9	
Sto	21.8	27.2	28.7	62.9	70.7	14.4	21.5	1

+i 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.

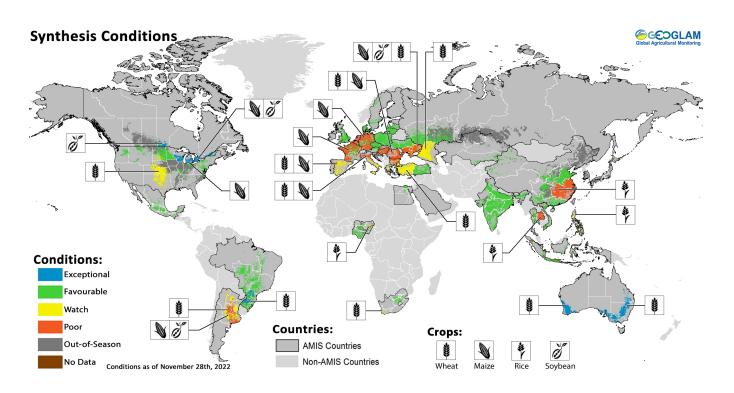
Revisions (FAO-AMIS) to 2022/23 forecasts since the previous report

		١	WHEAT				I	MAIZE					RICE				so	YBEAN	S	
	Production	Imports	Utilization	Exports	Stocks	Production	Imports	Utilization	Exports	Stocks	Production	Imports	Utilization	Exports	Stocks	Production	Imports	Utilization	Exports	Stocks
WORLD	-2654	298	-362	342	473	-3899	2139	75	2102	-2688	273	-13	639	-22	522	2163	-112	-64	-76	1505
Total AMIS	-2796	225	-585	900	-743	-3432	2900	717	1750	-2903	-127	-5	107	-50	87	1963	-112	-254	-81	1545
Argentina	-5100	-	-100	-2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-100	-
Australia	-	-	-	1500	-	-	-	-	-50	-	-	-30	-	-	-50	-	-	-	-	-
Brazil	141	-700	41	300	-200	27	700	27	1500	-	-	-	-	-100	-50	1186	-	-14	-	700
Canada	-	-	2	-	-100	-	-	46	-	-	-	-	-	-	-	38	-	18	-	20
China Mainland	-	-	-	=	-	-	-	-	-	-	-	-	249	-	-	-	-	-	-	-
Egypt	-	500	-	-	200	-	200	100	-	100	-	-	-	-	-	-	-	-	-	-
EU	17	500	-1254	-1000	-275	-642	1500	-142	-	1000	-32	-	68	-	100	-122	100	-22	-100	100
India	-	-	-	-	-	-	-	-	-	-	-	-	-187	200	-	-	-89	-303	9	200
Indonesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-50	-	-50	-	-
Japan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kazakhstan	500	-	-	-	426	-	-	-	-	-	-	-	-5	-	5	-	-	-	-	-
Mexico	10	-	10	-	-	-1000	500	-	-	-500	-	-	-	-	-	-	-	-	-	-
Nigeria	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Philippines	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rep. of Korea	-	100	500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-15	-	15
Russian Fed.	-	-	-	1500	-1500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saudi Arabia	-	200	100	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-61	110	-30
Thailand	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-30	-	-
Türkiye	300	-	-	-	300	1300	-	50	300	250	-60	-	-50	-	-10	-	-	-	-	-
Ukraine	-	-	-	-	189	-4000	-	-	-	-4000	-	-	-	-	-	-	-	-	-	-
ик	1336	-375	-20	600	254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
US	-	-	136	-	-136	882	-	635	-	247	-35	25	32	-150	92	890	-	340	-	550
Viet Nam	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-123	-117	-	-10

In thousand tonnes

Crop monitor

Crop conditions in AMIS countries



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

Conditions at a glance

Wheat

In the southern hemisphere, harvesting is picking up speed with exceptional yields in Australia and poor yields in Argentina. In the northern hemisphere, winter wheat is under mixed conditions going into winter dormancy.

Maize

In the northern hemisphere, harvesting is wrapping up with overall mixed conditions, while in India, sowing of the Rabi crop is beginning. In the southern hemisphere, sowing continues in Argentina, Brazil and South Africa.

Rice

In China, harvesting of late rice is wrapping up while India is transitioning from Kharif rice to Rabi rice. In Southeast Asia, wet-season rice harvesting is at its peak in northern countries while Indonesia wraps up dry-season rice harvesting.

Soybeans

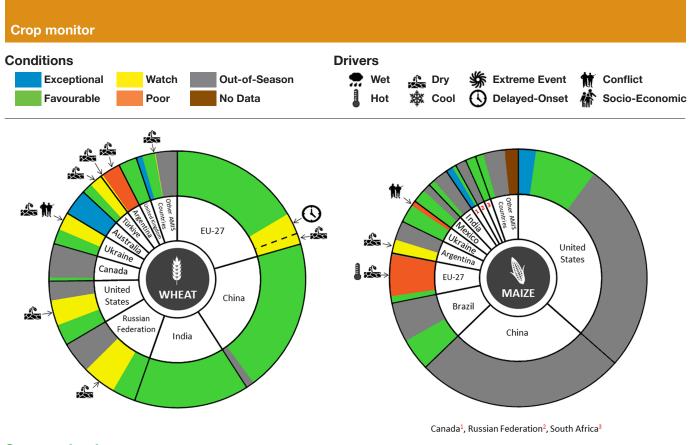
In the northern hemisphere, harvesting is wrapping up in Canada, India and Ukraine. In the southern hemisphere, sowing is beginning in Argentina under dryness, while progressing in Brazil under favourable conditions.

La Niña and Negative Indian Ocean Dipole Conditions

The El Niño-Southern Oscillation (ENSO) is currently in the La Niña phase. La Niña conditions will likely continue into early 2023 (76 percent chance for December to February and 59 percent chance for January to March), according to the IRI/CPC. Neutral ENSO conditions are likely after that.

Negative Indian Ocean Dipole (IOD) conditions weakened during November, and neutral IOD conditions are forecast for December, signifying the end of the negative IOD event. Persistent La Niña conditions since late 2020 have produced high-impact, multi-year droughts in eastern East Africa, southern South America, Central and Southern Asia, and southern North America. The forecast continuation of La Niña for several more months raises concerns about continued dry conditions in these areas. Recovery from severe drought can be a lengthy process, in which several seasons of improved precipitation may be needed to replenish reservoirs and groundwater.

Source: UCSB Climate Hazards Center



Summaries by crop

Wheat

In Australia, conditions are exceptional in most areas, despite ongoing flooding in parts of eastern Australia. Harvesting is well underway in northern and western cropping regions. In Argentina, yields are poor in most areas due do drought as harvesting is wrapping up in the north and beginning in the main producing areas, many plots have been used as forage. In the EU, conditions are generally favourable, albeit with delayed sowing in the southern countries due to low soil moisture levels. In the UK, conditions are favourable. In Türkiye, sowing is wrapping up under dry conditions in the west. In Ukraine, conditions are generally favourable, albeit with persistent dryness in Odessa and disruptions/security concerns in the southern and eastern regions due to the ongoing war. In the Russian Federation, sowing is wrapping up under generally favourable conditions except for dryness in the southern Caucasus. In China, winter wheat is under favourable conditions with ample soil moisture. In India, sowing is beginning in the northern and central states. In the US, dry conditions across the Great Plains from South Dakota to Texas continues to be a concern going into winter. In Canada, winter wheat sowing is complete and under favourable conditions going into winter dormancy.

Maize

In the US, harvesting is wrapping up in the north under exceptional conditions in Michigan and Wisconsin. In Canada, harvesting is wrapping up under exceptional conditions in Ontario. In Mexico, harvesting is ongoing for the spring-summer season (larger season) under favourable conditions. In the EU, harvesting is wrapping up with below-average yields across most of western and southern Europe due to droughts and heatwaves. In Ukraine, harvesting slowly continues with just over half the crop collected so far, so many crops will likely be harvested in during the winter or early spring. In India, sowing of the Rabi crop is beginning under favourable conditions. In Brazil, sowing of the spring-planted crop (smaller) is continuing under favourable conditions with a slight reduction in the total sown area expected compared to last year. In Argentina, sowing of the early-planted crop (typically larger season) continues at a slow pace due to dryness. Recent rains have improved conditions in some areas, but much of the intended sown area will likely shift to the later-planted crop (typically smaller season) in hopes of better soil moisture conditions. In South Africa, ample rainfall since mid-October has supported sowing and early development.

+i Pie chart description

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



Rice

In China, harvesting is wrapping up for late rice under mixed conditions due to persistent extreme heat and dry weather during the fertility period in the Yangtze River Basin. In India, harvesting of the Kharif crop is wrapping up in the southern and eastern states, while sowing is beginning for the Rabi crop. In Indonesia, harvesting of dry-season rice is wrapping up while the sowing of wet-season rice continues, albeit at a slower pace than last year. In Viet Nam, harvesting of wet-season rice is ongoing in the north. In the south, harvesting continues for the other wet-season rice (autumn-winter rice and seasonal rice), while sowing of dry-season rice begins in the Mekong Delta. In Thailand, harvesting of wet-season rice is ongoing under mixed conditions due to flooding in October that caused extensive damage in the Northeastern region. In the Philippines, wet-season rice is harvesting under mixed conditions as the passage of multiple tropical cyclones caused severe damage to crops in parts of Luzon and some parts of Visayas and Mindanao. In Brazil, sowing is wrapping up with a reduction in the total sown area.

Soybeans

In **Canada**, harvesting is wrapping up under exceptional conditions in Ontario, Manitoba, and Quebec. In **Ukraine**, harvesting is wrapping up under generally favourable conditions outside of the occupied territories. In **India**, harvesting is wrapping up in the major producing states under favourable conditions. In **Brazil**, sowing is progressing under favourable conditions despite earlier delays due to adverse weather. An increase in total sown area is expected compared to last year. In **Argentina**, sowing is beginning in the main producing areas of Buenos Aires, Entre Ríos, Santa Fe and Córdoba, as recent rains improved soil moisture conditions. However, the lack of surface soil moisture might impact the sowing progress, with southern Santa Fe and northern Buenos Aires being the most affected regions.

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

+1 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 & GeoTerralmage & SANSA), Thailand (GISTDA & OAE), Ukraine (NASU-NSAU & 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.

Policy developments

Wheat

- In the aftermath of a major drought, on 1 November Argentina authorized delays in the exportation of wheat to stabilize domestic supplies, allowing companies to reschedule contracted wheat exports without incurring the applicable 15 percent fine.
- On 27 November, the Ministry of Supply and Internal Trade of Egypt, in coordination with the Egyptian Commodity Exchange (EGX) added wheat to the list of traded commodities. In the wake of the war on Ukraine, the measure is expected to spur market orientation in wheat markets, stabilize prices, and increase supply chain stakeholders' ability to make informed plans, investment and planting decisions based on real time trading operations, seasonality conditions and current price data. With immediate effect, GASC started contributing wheat to mills through the EGX platform twice a week.

Maize

On 8 November, the Ministry of Agriculture in Argentina issued Circular SSMA 05/2022 which increases the maize export quota for the 2022/23 campaign to 20 million tonnes compared to 10 million tonnes previously.

Rice

- On 4 November, Australia and Vietnam initiated the Mekong Delta Sustainable Rice Value Chain Project, a 4-year partnership that aims to connect Vietnamese smallholder rice-growing communities to high-value markets. New research will be launched by the University of Queensland to develop disease-resistant rice varieties suitable for tropical conditions.
- On 17 November, in view of persisting critical shortages in Egypt, rice was declared a strategic commodity with immediate effect for a three-month period (Prime Minister's Decree no. 4148 of 2022, published in Official Gazette no. 46). To prevent concealment, hoarding and speculation by producers, suppliers, distributors, or sellers, domestic rice marketing was brought under stricter competition and disclosure requirements, subject to the application of fines and penalties. By 27 November, all stakeholders were to notify the competent directorates of supply and internal trade of the purpose of storage; packaging and shelf-life details; disclosure of any company contracts/agreements. The deadline was subsequently extended twice to 4 December and 25 December 2022.

- On 18 November, the Ministry of Supply and Internal Trade in Egypt capped the sale price of fine white rice (less than 3 percent broken) in luxury packing at EGY 18 (USD 0.74) per kilogram (Cabinet Resolution no. 89 of 2022, published in Official Gazette no. 46). To improve the availability of domestic supplies of paddy rice, Ministerial Resolution No. 109 of 2022 simultaneously required all farmers and owners of agricultural holdings to provide approximately 25 percent of all harvested rice to the competent supply and internal trade authorities during the August-December 2022 supply season, which was recently extended until 15 January 2023. Failure to comply could mean farmers would not be eligible to receive subsidized fertilizers and pesticides, and possibly not allowed to plant rice in the following year.
- On 29 November, the Department of Commerce in India lifted the ban on exports of organic non-basmati rice including broken rice (Notification No. 45/2015-2020. See also the October 2022 issue of the AMIS Market Monitor).
- On 15 November, Thailand approved a budget of THB 81 billion (USD 2.2 billion) to implement its Rice Price Guarantee Scheme during fiscal year 2022-23, of which THB 18.7 billion (USD 515 million) will take the form of direct payments; THB 7.5 billion (USD 207 million) will be used to stabilize prices; and THB 55 billion (USD 1.5 billion) to reduce farmers' input costs and improve rice quality.

Soybeans

After implementing an initial preferential exchange rate at ARS 200 per dollar measure in September, Argentina introduced a preferential exchange rate on the exportation of soybeans and soybean products at ARS 230 per dollar, effective from 28 November until 31 December 2022 (see also the October 2022 issue of the AMIS Market Monitor).

Biofuels

- On 21 November, the Ministry of Mines and Energy in Brazil maintained the mandatory blend ratio of biodiesel in diesel at 10 percent for the next 4 months. The blending mandate could, however, increase to 15 percent in April 2023, following the National Energy Policy Council decision, subject to the approval of the upcoming government in January 2023.
- On 15 November, Thailand authorized a 2-month extension of the diesel tax break in order to lower energy costs.

Policy developments

On 11 November, the Department for International Trade in the UK revoked import tariffs on renewable fuels from the US and Canada. The Trade Remedies Authority indicated the removal of the levy on hydrotreated vegetable oil will be applied retroactively from 30 January 2021.

Fertilizers

- On 9 November, the EU unveiled plans to improve the availability and affordability of fertilizers within the EU and abroad. Fertilizer businesses would be given priority for unhindered access to natural gas in the case of rationing. In addition to funds raised from measures like the cap on the market revenues of certain electricity generators, an amount of EUR 450 million (USD 450 million) will be expedited from its agricultural reserve as part of the temporary crisis framework amendment to help farmers offset high input costs. The EU is championing fertilizer trade transparency and will launch a market observatory in 2023 to share data on production, use, prices and trade.
- On 11 November, the Ministry of Industry and Trade in the Russian Federation set the rate of export duty on all types of fertilizers at 23.5 percent and the cut-off price at USD 450 per tonne. On 28 November, the Russian Federation increased the export quota for nitrogen fertilizers by 750 000 tonnes until the end of December 2022 to preserve production volumes and prevent overstocking of warehouses. In particular, the quota for urea exports was increased by 400 000 tonnes; the export quota for ammonium nitrate by 200 000 tonnes; and that for urea-ammonium nitrate mixture by 150 000 tonnes.
- On 2 November, the Department of Fertilizers in India approved a proposal to introduce a Nutrient Based Subsidy for various nutrients such as nitrogen (INR 98.02 USD 1.2), phosphorus, (INR 98.02 USD 1.2), potash (INR 23.65 USD 0.3) and sulphur (INR 6.12 USD 0.1) for the Rabi season starting 1 October 2022 to 31 March 2023. The total amount of approved subsidies was INR 518.7 billion (USD 6.4 billion), which includes support for indigenous fertilizers through freight subsidies.

Across the board

Export restrictions

On 1 November, the Minister of Economy in Indonesia extended the waiver on the application of the export levy on palm oil until the end of 2022 provided the reference price did not exceed USD 800 per tonne (see also the September 2022 issue of the AMIS Market Monitor). On 15 November, the reference price reached USD 826.58 per tonne. Consequently, the export levy was reinstated at USD 85 per tonne. At the same time, the export tax was raised from USD 18 per tonne to USD 33 per tonne.

Food security

- On 1 November, India exempted with immediate effect all wholesalers and large chain retailers from complying with the Stock Limit Order that was enacted on 8 October 2021. Spiking domestic and international prices of edible oils and oilseeds had caused significant hoarding of soybean seeds. In view of recent price declines, wholesalers and large retailers in all states and territories have now entire discretion to set stocks of edible oil and oilseeds of all brands and varieties at levels they deem appropriate.
- On 8 November, the National Food Agency (NFA) in Indonesia began implementing Presidential Regulation No. 125 (24 October 2022) to establish government food reserves and fulfil up to 5 percent of domestic consumption needs for 11 staple commodities. The new rules also seek to ensure adequate food supplies to low-income communities in case of shortages, price spikes, natural disasters, supply chain disruptions, and other emergencies. Food reserves will be constituted through the purchase of domestic production at specific reference purchase prices (HAP) or government purchase prices (HPP) set by NFA. Several institutions are involved in preparing technical procedures, including the Ministry of Finance; Ministry of State-Owned Enterprises (SOEs); State-Owned Bank Association; and agricultural SOEs. Under the supervision of the State Logistics Agency (BULOG), a first phase will focus on laying out detailed technical regulations on the planning, procurement and distribution targets for national and regional stocks of rice, maize and soybeans.
- On 24 November, as part international humanitarian assistance, Ukraine issued a government decree allocating UAH 900 million (USD 24.5 million) to the Ministry of Internal Affairs for the purchase of wheat and maize supplies to Sudan, Yemen, Kenya and Nigeria.

Climate change

On 11 November, the European Commission, Parliament and Council provisionally agreed to increase the EU's target for net carbon removals by natural sinks to 310 million tonnes of CO2 equivalent by 2030. New regulations on the Land Use, Land Use Change and Forestry (LULUCF) are set to enhance the quality of monitoring, reporting and verification of emissions and removals, using more accurate and precise data monitoring, including remote sensing. Under the

Policy developments

LIFE programme, financial support will also be made available to allow EU member States to expand their carbon sinks

through sustainable land management and upgraded strategic plans as part of the Common Agricultural Policy (CAP).

International prices

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

	Nov 2022	Change			
	Average*	M/M	Y/Y		
GOI	311.1	+0.5%	+9.9%		
Wheat	300.2	-2.9%	-1.1%		
Maize	314.4	-2.0%	+12.8%		
Rice	183.1	+1.8%	+10.3%		
Soybeans	308.0	+2.6%	+18.2%		

*Jan 2000=100, derived from daily export quotations

Wheat

November saw mixed price trends across key origins, as concerns about unfavourable weather in Argentina and the US contrasted with worries about global demand amid poor world economic conditions. The Russian Federation's temporary withdrawal from the Black Sea Grain Initiative initially propelled prices higher but values declined thereafter, as the mid-November extension of the deal eased supply fears. Despite sub-optimal growing conditions for domestic winter crops, US prices fell on disappointing export demand. EU offers (France) also receded amid stiff competition from Black Sea origins, albeit a steady pace of loadings and renewed buying by China offered support. In contrast, quotations in the Russian Federation firmed against the backdrop of accelerating shipments, although with prices termed nominal at times.

Maize

A softer tone prevailed in world maize markets during November, with the IGC sub-Index dropping by an average of 2 percent. There was a pullback in spot US prices, which turned lower on a seasonal increase in supplies and some improvement in Mississippi River logistics. With generally tepid overseas demand, concerns about competitiveness also featured. Quotations in Argentina drifted lower, but with market activity rather

IGC commodity price indices

ac commonly price malces										
		GOI	Wheat	Maize	Rice	Soybeans				
2021	November	283.2	303.4	278.7	165.9	260.5				
	December	285.6	297.8	283.1	163.9	269.2				
2022	January	294.5	288.4	294.2	166.8	288.9				
	February	315.4	295.4	310.4	167.8	323.0				
	March	353.4	353.6	369.7	169.6	344.0				
	April	349.6	354.8	358.9	171.6	336.0				
	May	352.6	375.3	347.9	177.3	334.3				
	June	343.3	353.8	335.7	177.0	334.1				
	July	308.2	302.5	299.7	174.3	306.3				
	August	309.4	292.8	306.7	174.1	313.0				
	September	306.4	299.9	307.4	179.5	303.3				
	October	309.6	309.2	320.7	179.9	300.2				
	November	311.1	300.2	314.4	183.1	308.0				
		(January 2000 = 100))				

subdued. Deep sea prices in Ukraine were poorly defined. Despite the confirmed extension of the shipping corridor agreement, fresh business was limited, partly on concerns about shipping delays. In Brazil, old crop values firmed on a strong pace of shipments, which included the loading of a first vessel destined for China.

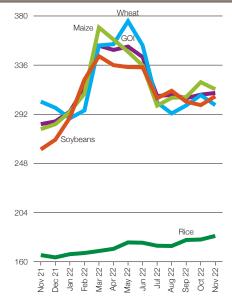
Rice

Despite harvesting pressure in several key exporters, average international rice prices were higher m/m. Thai export offers advanced on currency movements and ideas of stronger demand from Indonesia, where the state grain buyer received approval to import up to 500 000 tonnes over the coming months to replenish reserves. Vietnamese quotes were supported by prospects of sales to Indonesia, and as tight spot availabilities underpinned. In Pakistan, values advanced on slow new crop arrivals and ongoing uncertainty over the impact of heavy floods on production, while Indian prices ticked higher amid steady sales to regular buyers.

Soybeans

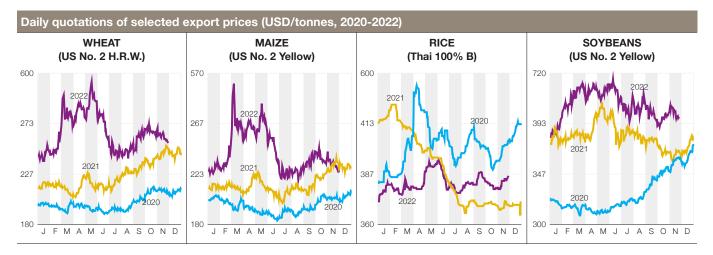
With gains at all origins, average soybean values advanced by 3 percent m/m in November, tied to supportive fundamentals and external influences. Although worries about Chinese demand persisted, US quotations were buoyed by firmer export demand and solid local processing, while gains in soya product prices and outside markets underpinned at times. This outweighed pressure from improving logistics and outlooks for large South American supplies. Cautious farmer selling and rumours of a more stringent biodiesel blending mandate buoyed prices in Brazil despite an anticipated record harvest, while offers in Argentina were nominally firmer. At that origin, support from building crop worries was countered by pressure from increased farmer sales, which followed the re-introduction of the "soy-dollar" programme.

IGC commodity price indices



International prices

Selected export prices, currencies and indices



Daily quotations of selected export prices

	Effective date	Quotation	uotation Month ago		% change M/M	% change Y/Y
Wheat (US No. 2, HRW)	28-Nov	406	444	376	-8.6%	+8.0%
Maize (US No. 2, Yellow)	30-Nov	321	357	323	-10.0%	-0.5%
Rice (Thai 100% B)	28-Nov	437	418	390	+4.5%	+12.1%
Soybeans (US No. 2, Yellow)	25-Nov	598	614	485	-2.6%	+23.3%

AMIS countrie	s' currenci	ies against	US Dollar	
AMIS Countries	Currency	Nov 2022 Average	Monthly Change	Annual Change
Argentina	ARS	162.1	-6.1%	-38.2%
Australia	AUD	1.5	3.8%	-9.5%
Brazil	BRL	5.3	-0.4%	5.3%
Canada	CAD	1.3	1.9%	-6.5%
China	CNY	7.2	0.3%	-10.9%
Egypt	EGP	24.4	-17.1%	-35.7%
EU	EUR	1.0	3.7%	-10.5%
India	INR	81.6	0.8%	-8.7%
Indonesia	IDR	15661.2	-1.5%	-8.9%
Japan	JPY	142.0	3.6%	-19.7%
Kazakhstan	KZT	463.8	1.8%	-6.9%
Rep. of Korea	KRW	1354.3	5.3%	-12.6%
Mexico	MXN	19.4	2.8%	7.4%
Nigeria	NGN	441.1	-1.4%	-7.0%
Philippines	PHP	57.4	2.2%	-12.4%
Russian Fed.	RUB	60.2	1.5%	20.7%
Saudi Arabia	SAR	3.8	0.0%	-0.2%
South Africa	ZAR	17.5	3.7%	-11.0%
Thailand	THB	36.3	4.4%	-8.9%
Türkiye	TRY	18.6	-0.1%	-41.9%
UK	GBP	0.9	3.9%	-12.7%
Ukraine	UAH	36.8	0.1%	-27.9%
Viet Nam	VND	24810.9	-2.0%	-8.6%



Nominal Broad Dollar Index Nov 2021 - Nov 2022



Futures markets

Overall market sentiment

- Markets were bearish in November for grains, but the downward potential seems limited. Soybean futures are still bullish
- Continuing concerns over the congested US waterway system have kept US wheat forward curves in contango
- Despite a consistent decline in November, volatility measures remain in the upper historical range
- Movement in managed money suggest a declining interest of financial investros in agricultural futures

MONTHLY PRICE TREND

Futures prices

Over the past month, a bearish undertone developed on grain futures markets with the price of wheat and maize down between 2 and 5 percent in both US and European markets compared to October. The renewal of the Black Sea Grain Initiative has taken away some uncertainty, especially in wheat, where prices have reached their lowest level of the year. However, the potential to decline further seems floored by low carry-over stocks, which would not be able to cushion many adverse market developments. US wheat crop conditions for South American maize are closely monitored in this regard as are signs of any loosening of the lockdown restrictions in China, which might increase demand for grains.

For its part, soybean futures displayed a much firmer tone in November, increasing by about 4 percent m/m in view of strong demand and concerns about South American yields. Despite recent spells of dryness, maize and soybean production in Brazil are still expected to reach a record, which should help rebuild some carry-over stocks.

Volumes & volatility

Volumes were up this month compared to October for wheat on CBOT and Euronext as well as for the CBOT maize contract, by 23, 35 and 39 percent, respectively. This rebound in volume supports the narrative of a seasonally high hedging demand at this time of the year for grain exporters. Interestingly, on two days in November, more wheat contracts were traded on Euronext compared to the CBOT, illustrating the currently vivid wheat exporting activity in Europe and the rather tepid trading activity in the US in view of the country's still logged barge system. By contrast, volumes were down by 39 percent on the CBOT for soybean contracts in November, in a context of steadily declining participation from managed money over the month.

Historical volatility and implied volatility for wheat showed a steady decline in November; both measures are now back to levels last seen in January 2022, possibly because geopolitical risks are less of a driving force in grain markets as compared to the February-May 2022 period. The situation nevertheless re-

mains highly volatile with a level of implied volatility in wheat that is higher than the average observed over the past ten years. By contrast, implied volatility for maize and soybean, while initially high after the outbreak of the war in Ukraine, has fallen back to relatively normal levels.

Forward curves

In Chicago, wheat futures contracts showed a steepening contango in November, indicating that the concerns over logistical bottlenecks are still far from resolved. The front month wheat futures might decline further until US wheat becomes competitive for exports, while prices far out on the curve entail higher carry costs and storage needs.

Both maize and soybean forward curves have flattened in November. Interestingly, new crop futures prices (with contract months dated after Q3 2023) display a lower level than old crop futures prices in maize and soybean, suggesting that market participants currently expect fewer tensions next year for these commodities. Euronext wheat still shows a steep backwardation, i.e. a higher price on the front months of the curve reflecting the still vivid level of activity of European exporters.

Investment flows

Over the last month, managed money long positions in CBOT maize and soybean were trimmed, showing that speculative market participants remain in risk-off mode. In the same vein, managed money participants were net sellers of wheat and reached their lowest net short position on CBOT wheat since May 2019.

Euronext futures volumes and price evolution								
Average daily volume (1000 tonnes)	Nov 2022	M/M	Y/Y					
Wheat	3 149.8	+23.2%	-17.8%					
Maize	140.3	-18.1%	-24.8%					

Prices (USD/t)	Nov 2022	M/M	Y/Y
Wheat	328.7	-3.4%	-2.2%
Maize	314.5	-5.1%	+13.3%

CME futures volumes and prices evolution								
Average daily volume (1000 tonnes)	Nov 2022	M/M	Y/Y					
Wheat	15 724.3	+35.1%	-15.1%					
Maize	42 161.6	+39.0%	-10.5%					
Soybean	21 781.4	-38.8%	-3.0%					
Prices (USD/t)	Nov 2022	M/M	Y/Y					
Wheat	302.7	-5.2%	+1.2%					
Maize	263.3	-2.3%	+16.3%					
Soybean	529.9	+4.2%	+16.0%					

Sep 22

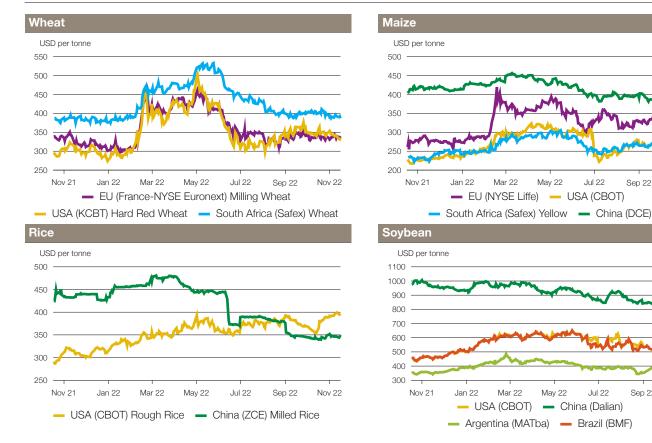
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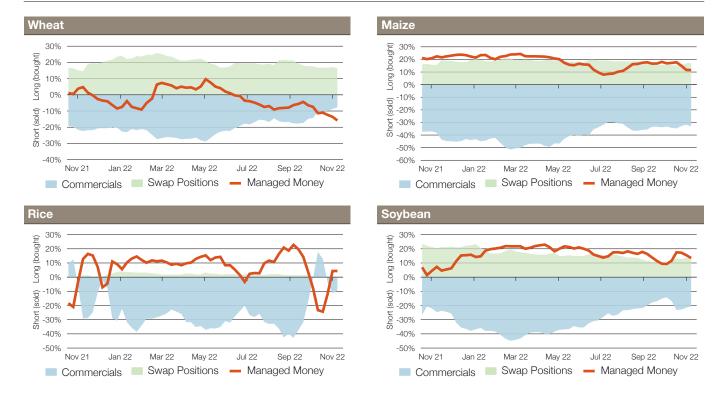
Market indicators

Daily quotations from leading exchanges - nearby futures



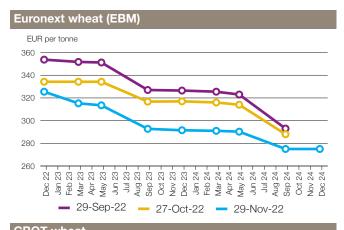
CFTC commitments of traders

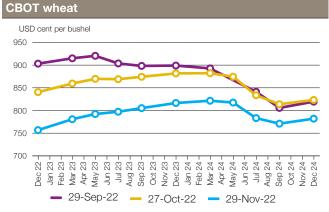
Major categories net length as percentage of open interest*



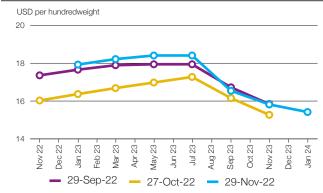
*Disaggregated futures only. Though not all positions are reflected in the charts, total long positions always equal total short positions.

Forward curves



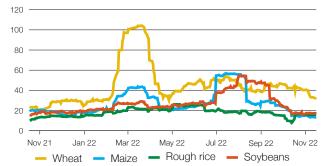






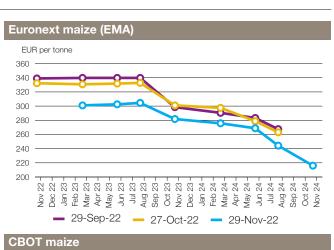


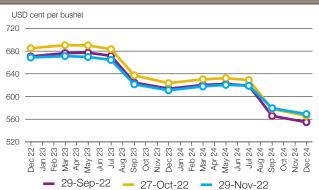


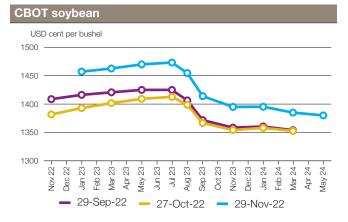


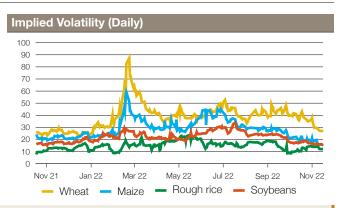
+i AMIS market indicators

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: http://www.amis-outlook.org/amis-monitoring/indicators/. For more information about forward curves see the feature article in No. 75 February AMIS Market Monitor 2020.

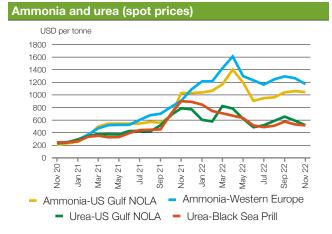




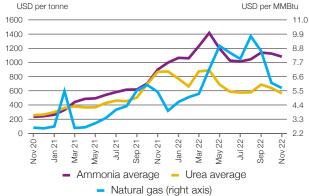


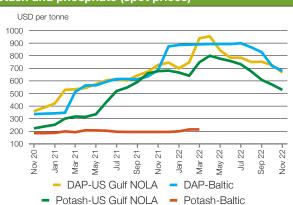


Fertilizer outlook



Ammonia average, urea average and natural gas	
(spot prices)	





Potash and phosphate (spot prices)

Fertilizer prices continued their downward trend in November, but remain high relative to historical levels. The supply outlook improved as nitrogen fertilizer production restarted in Europe and fertilizer exports from the Black Sea might see fewer restrictions in the coming months after the extension of the Black Sea Grain Initiative.

- **Natural gas** prices decreased in November, with relatively low demand for heating during most of the month in the Northern Hemisphere. Inventories, particularly in Europe and Asia, remain well-stocked.
- Ammonia prices were down in November. Plants continued to resume production as lower natural gas prices made production economically viable. Despite the continued disruption of Russian ammonia exports due to the war in Ukraine, global supplies of ammonia seem sufficient. Countries who previously relied on ammonia imports from the Black Sea have found other suppliers, and exports from China have been steadily increasing. Lower industrial demand due to the global economic slowdown also put downward pressure on prices.
- Urea prices decreased in November, but in view of their still high levels there is concern that farmers might be forgoing purchases. Import demand began to slacken in Europe, which sent urea producers to search for other markets - particularly from North Africa. A large Indian tender in November does not seem to have had a significant impact on prices.
- DAP prices decreased in November in an overall calm market environment. The U.S. phosphate export market had a slow month, and Chinese exports were reported to be down substantially compared to a year ago. On the importer side, demand was down in India as DAP purchases concluded for the season and in Brazil due in part to the devaluation of the country's currency.
- Potash prices decreased further in November as global supplies seem sufficient despite sanctions still reducing exports from Belarus. Imports in China were about the same as last year with Canada being the largest supplier. Trading in Brazil was limited in November due to lower demand and high stockpiles while inventories in India remain low.

	Nov-22 average	Nov-22 std. dev.	% change last month*	% change last year*	12 month high	12-month low
Ammonia-US Gulf NOLA	1044.0	-	-1.6	+1.4	1402.2	907.0
Ammonia-Western Europe	1171.9	52.4	-7.4	+29.3	1611.0	1088.3
Ammonia avg. across regions	1081.8	22.0	-3.9	+20.4	1416.9	997.9
Urea-US Gulf	519.1	10.6	-12.1	-34.0	823.1	486.9
Urea-Black Sea	516.2	2.5	-2.9	-42.7	890.0	488.7
Urea avg. across regions	563.7	11.9	-11.9	-35.0	888.8	563.7
DAP-US Gulf	665.6	25.6	-8.2	-8.4	954.0	665.6
DAP-Baltic	678.8	1.4	-5.6	-1.2	898.5	678.8
Potash-Baltic	-	-	-	-	215.0	195.0
Potash-US Gulf NOLA	528.8	6.0	-7.3	-22.0	799.5	528.8
Natural gas	5.3	1.0	-6.1	+5.2	8.8	3.7

All prices shown are in US dollars

Source: Own elaboration based on Bloomberg

*Estimated using available weekly data to date

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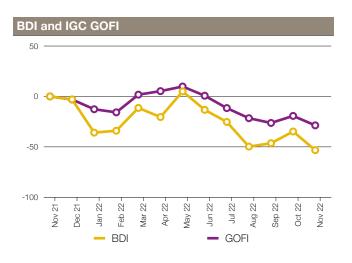
+i Chart and tables description Ammonia and urea: Overview of nitrogen-based fertilizer weekly prices (averaged by month) in the US Gulf, Western Europe and Black Sea. Potash & phos-

phate: Overview of phosphate and potassium-based fertilizer weekly prices (averaged by month) in the US Gulf, Baltic and Vancouver. Ammonia & urea averages: 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 prices averaged by month. Natural gas is used as major input to produce nitrogen-based fertilizers. DAP: Diammonium Phosphat

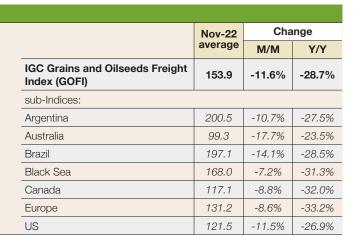
Ocean freight markets

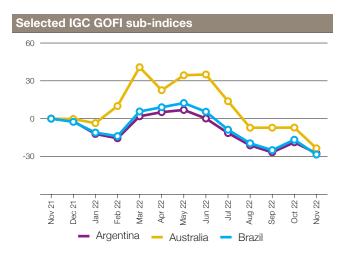
Dry bulk freight market developments								
	Nov-22	Cha	inge					
	average	M/M	Y/Y					
Baltic Dry Index (BDI)	1299.0	-28.4%	-53.3%					
sub-indices:								
Capesize	1398.6	-33.9%	-62.2%					
Panamax	1607.4	-23.2%	-43.4%					
Supramax	1214.5	-26.6%	-48.9%					
Baltic Handysize Index (BHSI)	784.8	-20.3%	-52.2%					

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



- With surplus vessel supply and limited charterer demand in some regions, freight rates across the dry bulk complex averaged sharply lower month-on-month in November. After the monthly drop, the benchmark **Baltic Dry Index** (BDI) was just one-half of its year ago level.
- While the extension of the Black Sea Grain Initiative was termed positive for the freight market, broader uncertainty about global economic prospects and seaborne trade continued to weigh on market sentiment. This was highlighted by disappointing October trade data for China which showed that soyabean imports were the smallest for that particular calendar month in eight years. However, more recent purchases and reports from traders indicated that arrivals should pick-up given the need to rebuild supplies.
- Participants also welcomed recent news of China's easing of some COVID-19-related restrictions, which prompted speculation about a potential upturn in demand for bulk commodi-





ties. Still, average **Capesize** earnings fell by one-third, with ongoing demand seen as insufficient to absorb available ton-nage.

- Panamax rates declined by around one-quarter, with initial losses tied to lacklustre minerals demand in the Atlantic.
- Ample vessel supplies in Asia pressured Supramax rates, as did slow trading at the US Gulf, where cargo movement was constrained by complicated river logistics. Handysize rates also posted steep losses on reduced enquiry levels in the Mediterranean and rising bulker availability in South America and Asia.
- With average bunker prices only slightly softer month-onmonth, the 12 percent average monthly drop in the IGC Grains and Oilseeds Freight Index (GOFI) was chiefly attributed to reduced vessel hire prices, notably on routes out of Australia.

+i 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.

AMIS - GEOGLAM Crop Calendar Selected leading producers*

Selected leading producers*

WHEAT		J	F	М	А	М	J	J	A	S	0	Ν	D
China (18%)	spring			Plar	nting		С	ŀ	larve	st			
	winter		сс		С	ŀ	larve	st			Planting		
EU (17%)	winter				сс		Harvest		st		Planting		
India (14%)	winter	С	С	ŀ	larve.	irvest				Planting			ig
Russian Fed. (12%)	spring				Plar	nting	С	С	Har	vest			
	winter			С	С	CF	larve	st		Plar	ting		
US (6%)	spring						с	с	Har	vest	Planting		g
	winter				С	С	ŀ	larve	st	P	lantin	g	
MAIZE		J	F	Μ	А	М	J	J	А	S	0	Ν	D
US (30%)				F	lantir	ng	С	С	С	Har	vest		
China (24%)	north			Plar	nting		С	с	Har	vest			
	south		F	lantir	g	С	С	ŀ	larve	st			
Brazil (10%)	1st crop	С	С	Har	vest					F	lantin	g	С
	2nd crop	F	Plantir	gC	С	с		ŀ	larve	st			
Argentina (5%)				Har	vest					Plar	nting	С	С
EU (5%)				F	lantir	ng	С	С	С	Har	vest		_
RICE		J	F	Μ	А	Μ	J	J	A	S	0	Ν	D
	intermediary crop				Plar	nting	С	С	С	Har	vest		
China (28%)	late crop						Plar	nting	С	Cł	larves	st	
	early crop		F	lantir	g	С	С	ŀ	larve	st			
India (24%)	kharif					F	Plantir	ng	C	С	- F	arve:	st
	rabi		С	Har	vest								
Indonesia (7%)	main Java		С	С	ŀ	larve.	vest		P	Planting			
	second Java				F	Plantir	ng	сс			C Harvest		
	winter-spring		С	С	Har	vest					Plan	ting	
Viet Nam (5%)	summer/autumn						Plar	nting	С	С	H	arve:	st
	winter				F	lantir	ng		С	С	Har	/est	
Thailand (4%)	main season					F	Plantir	ng	С	Cł	larves	st	
	second season	Plar	nting	С	С	С	Har	vest					
SOYBEANS		J	F	М	А	М	J	J	A	S	0	Ν	D
Brazil (39%)		С	С	Har	vest						lantin		С
US (30%)					F	lantir	ng C	С	С	- F	larves	st	
Argentina (12%)		С	С	С	F	larve.	-					Plar	nting
China (5%)						F	Plantir	ng C	С		vest		
India (3%)								nting	С		larves	st	
*Percentages refer to the global share of production according to the latest AMIS-FAO estimates available for the most recent season													
Planting (pe	Planting (peak)				Harvest (peak)								
Planting		Harvest											
C Weather co	;				Gro	wir	ng p	eri	od				

For more information on AMIS Supply and Demand, please view AMIS Supply and Demand Balance Manual

Main sources

Bloomberg, CFTC, CME Group, FAO, GEOGLAM, IFPRI, IGC, OECD, Reuters, USDA, US Federal Reserve, WTO

7, September 8, October 6, November 3, December 8

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