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Agri Commodity Markets Research

January 2022: La Niña and the Russian Bear

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Food & Agribusiness

far.rabobank.com

Carlos Mera
Head of ACMR
+44 20 7664 9512

Michael Magdovitz
Senior Commodities Analyst
+44 20 7664 9969

World food prices experienced short-lived relief in December before the new year's geopolitical and weather risks reignited the bull market. Global agricultural markets are witnessing an alternate version of the Goldilocks story. On the one hand, a capricious La Niña (which means girl in Spanish) is shaving South American corn and soybean yields. On the other, a Russian bear is threatening full-scale war in the breadbasket of the Black Sea. Farm input prices are soaring, and farmers are reluctant sellers. 2022 looks to be marked by irrepressible demand falling on unreliable or reticent suppliers, with enduring risks to the consumer.

WHEAT

- Wheat has potentially huge upside volatility in the face of a possible Ukraine invasion
- US plantings are delayed, while Europe makes good progress.
- Global stocks will tighten in 2021/22, with limited relief offered by southern hemisphere crops.

PALM OIL

- An environment of relatively low Malaysian palm oil inventories will support palm oil prices in Q1 2022
- Heavy rainfall continues to affect Southeast Asian palm oil production negatively in January 2022.
- Malaysian labour shortages need to be addressed, otherwise palm oil production could underwhelm.

CORN

Corn Bulls are the only ones being fed

- High input costs and yield declines squeeze farmer profitability and selling interest.
- South America's crop troubles will drive corn demand to the US and price support to CBOT.

COFFEE

Lower crop expectations in Brazil and Colombia and worsening transport challenges

- ICE Arabica certified stocks to continue to decline in the light of ongoing disruptions .
- Heavy rainfall in Brazil may have had some adverse effects on some farms.

SOY COMPLEX

CBOT Soybeans rally is fueled by South American yield losses and strong consumption

- South American farmers, in addition to inflationary pressures, face La Niña-caused crop deterioration.
- CBOT Soymeal is enjoying strong demand amid sky-high grain prices and switching interest.

Dairy

Global milk supply growth dipped into negative territory in Q3 2021 and will remain low through the first half

- New Zealand milk production was down sharply by 5% in December
- Milk prices are rising, along with global dairy commodities, but limitations on near-term production growth remain.

Wheat

The CBOT Wheat forecast is neutral to slightly bullish, with potentially huge upside volatility in the face of a possible Ukraine invasion

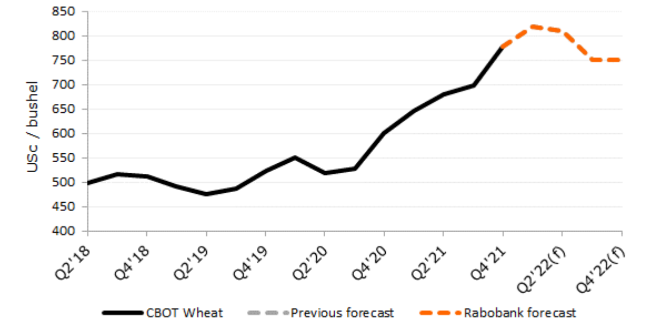
- A potential invasion could disrupt Ukraine exports for the remainder of the season and possibly beyond.
- A retaliatory embargo could see up to 29% of global exports being withdrawn from the market. The price effect on wheat would be so extreme that we believe any sanctions will contain an exception for wheat exports.

Geopolitics came to the front in the wheat market recently. In the case of a Ukraine invasion and a retaliatory blanket embargo on Russia and occupied Ukraine, the international market would be deprived of the largest and the third largest wheat exporters in the world (not counting the EU as a bloc; otherwise, the EU would be number one). Russia is exporting 35m mt this season (this is expected to grow to close to 40m mt in the coming season, as the 2022/23 crop looks to be in good shape). Ukraine is exporting 24m mt in the current season. The combined 59m mt is equivalent to a massive 29% of global exports. Countries willing to bypass sanctions could take a fraction of that, but only a fraction. Turkey, the Middle East, and northern Africa will struggle to get wheat from elsewhere. Given that stocks in the US and the EU are relatively low, we would expect wheat prices to double in this unlikely but possible case. In short, the consequences will be so large that we believe if there are sanctions targeting exports, they will contain an exception for wheat.

But there are several potential scenarios. Even if wheat exports could flow from Russia, Ukraine's logistics may be disrupted. On the other hand, if we just get ongoing tension but no invasion, weak currencies in Russia and Ukraine will incentivize more selling. Both the Russian ruble and the Ukrainian hryvnia have dropped by around 5% YTD vs. the US dollar and by around 10% since October. The weakness will continue until there is a resolution, which does not seem likely any time soon. Expect a lot of volatility. For our macro take on a potential invasion, please read out latest Global Economics and Markets report.

Prices are only partially reflecting the geopolitical risk

	unit	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22f	Q2'22f	Q3'22f	Q4'22f
CBOT	USc/bu	646	680	698	779	820	810	750	750
Matif	EUR/mt	227	219	234	284	280	280	258	255



Source: Bloomberg Finance L.P., Rabobank 2022

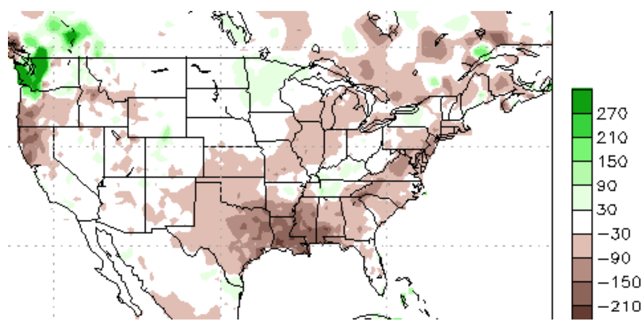
Weather has been relatively mild, but dryness is building in parts of the US, which has resulted in crop ratings deteriorating, though at this time of the year one cannot read much into crop ratings. Some of the pockets of dryness seen in the southern part of the US tend to correlate with La Niña and, therefore, are more concerning, as relatively dry weather will likely endure for longer. At the moment, La Niña is expected to continue into the northern spring (67% chance) and then transition to neutral in Q2 2022, but the probability of that transition is only 51%. This means there is a 49% chance that we could easily be under La Niña conditions the whole spring.

Meanwhile in the EU, there are also pockets of dry weather. Official estimates for some EU countries do not show any significant expansion in winter wheat area, and in some cases there is a slight drop. Temperatures have been moderate, so the crop development is adequate for now. But EU wheat has become quite variable during the summer, both in volume and quality. For now, things look relatively good even though the region may not repeat a bumper crop like last year.

Ukraine wheat grows mainly in the east and south of Ukraine

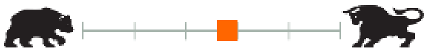
Source: USDA, Rabobank 2022

Dryness is building in the southern part of the US; 3-month rainfall anomaly (in mm) to January 24:



Source: NOAA, Rabobank 2022

Corn

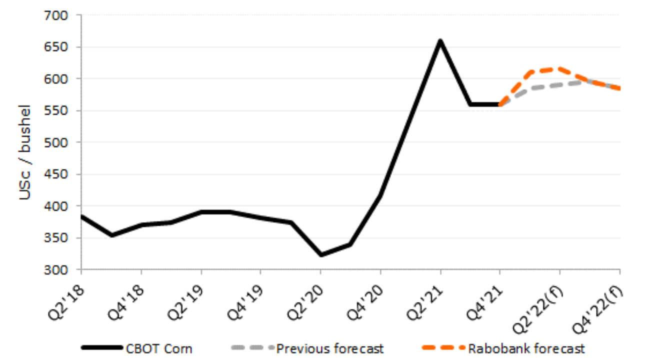


CBOT Corn bulls are the only ones being fed

- South America's second year of La Niña struggles force irrepressible global corn demand on low US supplies.
- The USDA's US corn acreage gains (on old and potentially new crop) would provide a relatively limited supply buffer.
- High input costs and yield declines squeeze farmer profitability and selling interest.

CBOT Corn bulls appear to have mostly run their course

	Unit	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22f	Q2'22f	Q3'22f	Q4'22f
Corn	USc/bu	536	659	560	559	**610**	**615**	**595**	**585**



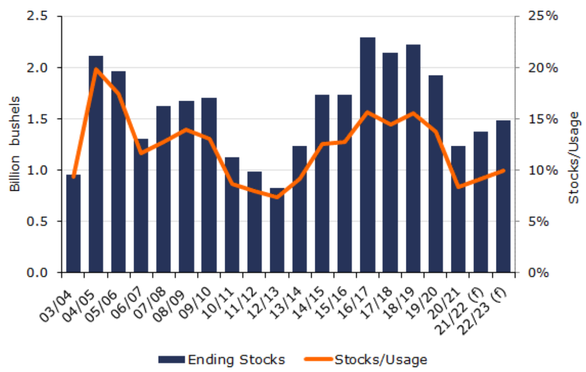
Consumer confidence is withering alongside South American row crops, and CBOT Corn price risk is intensifying in turn. CBOT Corn rose 3.5% last month to touch 8-month highs of USD 6.25 bu, above our bullish forecast in the November Outlook**.** Early hopes of a healthy 2022 corn replenishment are undone, for a second consecutive year, by La Niña. The weather phenomenon has delivered acute dryness and heat in southern Brazil/Argentina and excess moisture in northern Brazil. Crop conditions and early harvest yields have led analysts to cut their South American export estimates by 9m mt, or 5%. Lingering dryness and a near doubling of fertilizer prices threaten to cut corn production estimates further, particularly in Brazil's export-bound safrinha.

Rabobank has long been wary of the USDA's outsized reliance on a record 2021/22 South American corn crop to provide relief for strained US supplies. Beyond La Niña and input inflation that stymies farmer selling, Brazil's safrinha crop would only come towards the tail end of the US 2021/22 crop year. The USDA's export projections of 43m mt for Brazil are 3m mt too high amid lower production and strong domestic competition. Argentina's 2021/22 corn exports also need to be cut by 3m mt. Ukraine has delivered a strong corn harvest, but it faces export risks should Russia invade and embargo goods.

Amid all these supply concerns, irrepressible post-Covid global corn demand must be met. Following a year of rationing, particularly in China, global demand for corn is expected to strengthen by nearly 5% in 2021/22. The USDA's upward-revised US supplies (ending stocks were +1.54bn bu last month, thanks to higher acreage) are still 15% below the five-year average. Meanwhile, US corn export commitments are a remarkable 69% of USDA 2021/22 projections (2,425m bu, -12% YOY), +7% above the five-year average despite high prices, and ethanol demand is also enjoying a recovery.

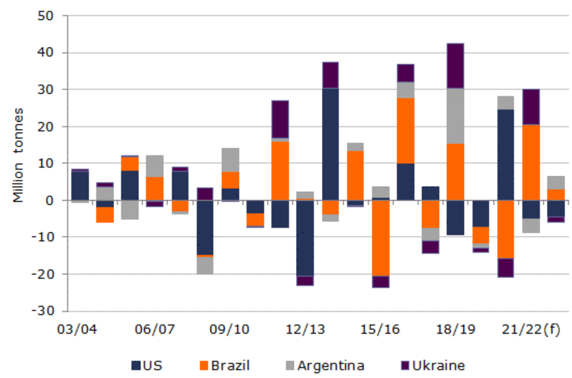
CBOT Corn is strongly supported by market participants; consumers and speculators are bidding up reluctant sellers. We do not see any indication of a shift in this bullish dynamic before mid-July, when a successful safrinha harvest in Brazil and corn pollination in the US could restore confidence in supplies. CBOT Corn is rising in order to temper demand and increase 2022/23 US acreage. We now see 92.3m planted corn acres, up from 91.8m acres forecast last November. This is thanks to a modestly more attractive CBOT Corn price relative to CBOT Soy, and improving margins (urea prices have softened since December but remain elevated). US acreage expansion is not a panacea; it merely provides a buffer for yield risk (the last four years have been below trend), especially in the temperamental Northern Plains, which face lingering dryness. Our CBOT target is raised towards USD 6.30, and we keep our bullish target of USD 5.90/bu in Q4 2022 unchanged. We expect 1.54bn bu to represent the high-water mark for US 2021/22 ending stocks; they are likely to fall to 1.38bn bu as they sate world demand. Amid dry conditions in the key regions of the US Northern Plains and southern Brazil, CBOT price risk may remain exceptionally elevated until Q3/Q4 2023.

US corn stocks/usage face a challenging recovery through 2022/23 amid strong demand and limited acreage



Source: USDA, Rabobank 2022

The world is relying on a Brazilian export recovery next year; strong Ukrainian exports will also be critical.



Source: USDA, Rabobank 2022

Soybeans

A CBOT Soybeans rally is fueled by South American yield losses and strong consumption

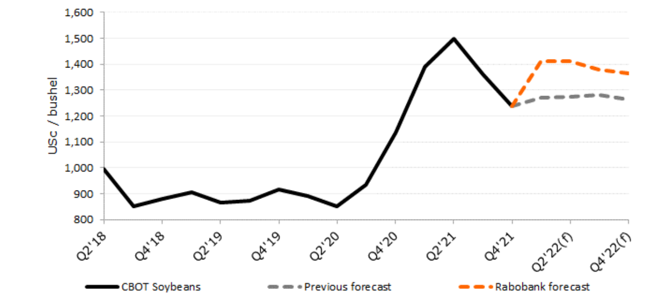
- Brazil and Argentine farmers, in addition to inflationary pressures, now face La Niña-caused crop deterioration.
- US and China crush margins have shown signs of improvement, which could foreshadow higher demand.
- CBOT Soy must remain price competitive to maintain acreage in the US summer crop rotation.

La Niña has Brazil and Argentina firmly in her grasp. The telltale signs are there: excessive dryness/heat in the south and excessive moisture over northern Brazil. Analysts have already cut the combined soy output potential of these countries by about 15m mt, or ~8%, since October. A forecast of intermittent rain will only slow, not stop, further yield deterioration of these crops. If rampant inflation weren't reason enough for South American soy farmers to hold back sales, anticipation of middling harvest results and lingering dryness will do the trick. True, sales are unusually low, even relative to last year, and harvest could unlock some of that withheld supply. Consumers, meanwhile, are anxiously watching their hopes for a 2022 South American soy supply buffer being crushed from the start. Strong speculative appetite for beans is giving further gas to CBOT Soy, which touched contract highs of USD 14.40/bu last week. Non-Commercial net length nearly doubled to 128k lots in the last month – carried higher by weather and investors searching for inflation hedges – but it remains far below any records.

The focus of oilseed markets has shifted from lackluster post-harvest US export sales to China (~25m mt, -10m mt YOY) to the déjà vu of La Niña conditions that reveal a foreboding glitch in the matrix. The perception of more comfortable 2021/22 US soy stockpiles (USDA figures: 340m bu, +84m bu YOY) was premised on record South American production that is now irrevocably pierced. With it went USD 12.50/bu CBOT Soy. The USDA cut world ending stocks by a conservative 7m mt last month, and stocks-to-use will

CBOT Soybeans' price support rose on La Niña drought

	Unit	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22f	Q2'22f	Q3'22f	Q4'22f
Soy	USc/bu	1388	1497	1361	1238	1410	1410	1380	1365

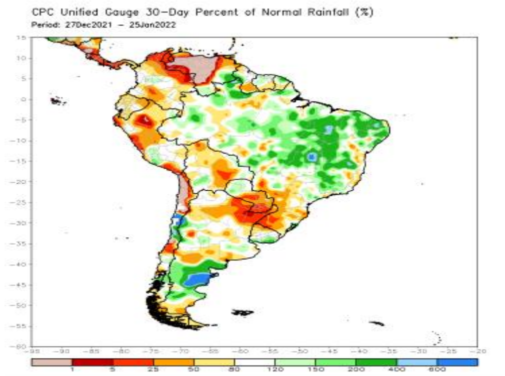


Source: Bloomberg Finance L.P., Rabobank 2022

probably finish at its lowest level in eight years. While we expect more production cuts to come, these will likely be less severe given the improved weather forecast and approaching harvest period should also induce some farmer selling. Should La Niña conditions continue, they would threaten safrinha corn development and drive competition for acreage in the US. The CBOT December Soy/Corn ratio, which fell to as low as 2.3 in December, has rallied to 2.37, a level that only slightly favors corn in the rotation. We have shaved our soy planting outlook by 0.4m acres, to 87.8m acres. We raise our CBOT Soy forecast with year-end prices seen at USD 13.65/bu.

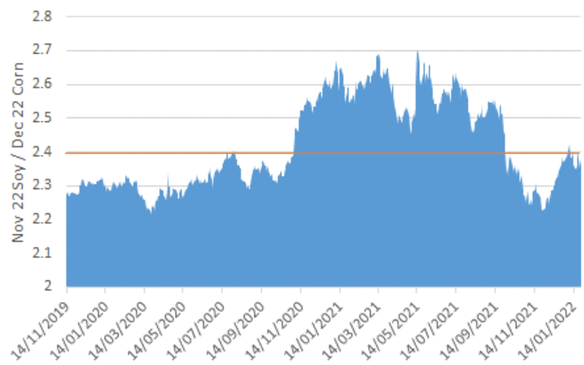
The window has closed on peak US export season, and the results are unimpressive relative to last year. The current pace of export commitments is 18% lower YOY and 2% behind the five-year average, requiring improvements in the coming weeks to meet the USDA's target. Low Chinese soy stocks may spark greater purchases from the US, particularly if Brazilian farmers remain reticent. The prevailing soybean import story for China is bearish: 100m mt (flat YOY) given its completed hog herd restocking and aim to lower soymeal inclusion in favor of grains. However, in recent weeks, China has picked up US soy cargoes. Beyond China, US crush margins and output are also doing well, thanks to renewed CBOT Soymeal strength. The lower-supply environment in South America will support price risk, though rainfall in the forecast and impending harvest in Brazil will temper crop failure/rationing fears.

Drought in southern Brazil/Argentina, and excess moisture in northern Brazil have combined to shave soy output by ~8%



Source: NOAA, Rabobank 2022

CBOT Soybeans has risen vs. Corn's to erode its historic premium and advantage in the 2022 summer crop rotation



Source: Bloomberg L.P., Rabobank 2022

Soymeal and Soy Oil

CBOT Soymeal gets some love after a long deprivation, while CBOT Soy Oil supply concerns outweigh biofuel mandate

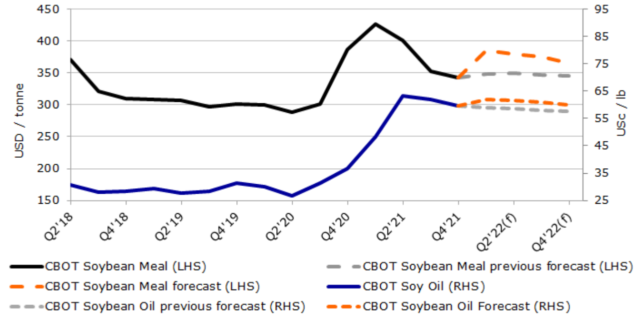
- China's high-protein wheat feeding has lowered soymeal inclusion, demand growth, and CBOT Soymeal prices.
- CBOT Soymeal has enjoyed strong demand amid sky-high grain prices and switching interest from wheat feeders.
- US and China crush margins have improved

CBOT Soymeal's thunderous rise to contract highs early this month stands in great relief to its dismal performance over most of 2021. Dim expectations for Chinese soymeal demand growth (2021/22: +4% YOY), following its massive shift to higher-protein wheat and corn, contributed to a sense of complacency for this key feed component. Consumers could not remain blind to the massive rise in corn and wheat prices relative to soymeal; we wrote about this eventual switch at length in the 2022 Outlook. With Argentina, the world's number one soymeal and oil exporter, facing issues from La Niña-imposed drought and soy production declines (-5m mt expected) the pendulum has swung back with great force. US and Chinese crush margins are healthier, the latter perhaps also due to low stockpiles. CBOT Soymeal's crush share improved from 50% to near 58%, which shows it playing a role in driving US crush margins and output higher.

Last month, NOPA saw a larger-than-expected rise in crush (186.4m bu, +4% MOM and +2% YOY). Stronger US crush is being spurred on by Argentina's poor harvest prospects, with doubts about its crush growth prospects (+6% YOY) driving import demand for meal, but especially for soy oil, to the US. For now, with La Niña raging, US 2021/22 soymeal export competitiveness (+1.7% YOY) and crush output growth (+2.2% YOY) appear to be secure. Persistently high grain prices and alternative supplier constraints should further bolster CBOT Soymeal remaining above USD 365/mt over the coming year.

High CBOT Soymeal and Oil prices seen flat to easing

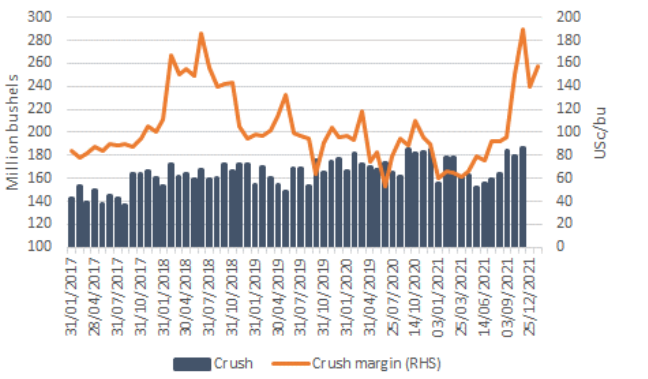
	Unit	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22f	Q2'22f	Q3'22f	Q4'22f
Soymeal	USD/ton	434	404	352	342	385	380	375	365
Soy Oil	USc/lb	45.9	63.2	61.8	59.5	62.0	61.5	61.0	60.5



Source: Bloomberg Finance LP, Rabobank 2022

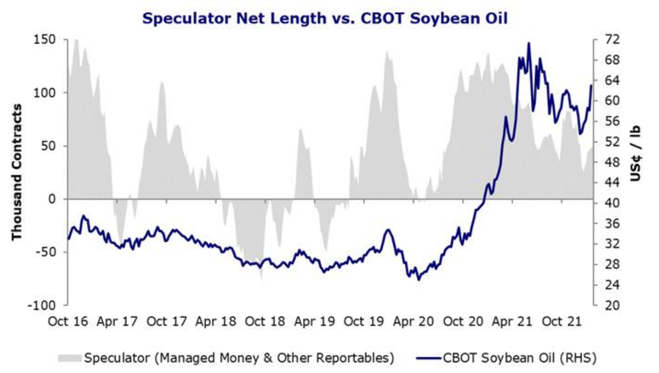
CBOT Soy Oil's golden sheen just won't fade. The EPA last month indicated flat US biodiesel-based biomass volumes in 2021 and a modest 13.5% increase in 2022 relative to the USDA's 2021/22 projection of a 24% increase for soy oil-based biofuel use. Those numbers will need to be reconciled, most likely through reductions by the USDA. A clear trend is emerging among major vegetable oil exporters; biodiesel mandates, initially introduced to help farmers and to achieve clean energy targets, have contributed to capacity constraints and high oil prices that are heaping pain on consumers and, in some cases, leading to cannibalization of its (primary) food demand. Brent Crude prices near USD 90/bbl deliver support to energy-related food commodities, but there's still no question of discretionary blending given the biodiesel premium. Governments from Indonesia to Brazil to the US are making efforts to tamp down domestic inflation for these high-quality food ingredients. None too soon for CBOT Soy Oil (up 13% MOM), which has caught fire thanks to Argentina's deteriorating soy crop. Argentina is the world's largest exporter of soy byproducts, and its farmers can be reluctant sellers in the best of times. The world is reorienting demand towards the US; 2021/22 US soy oil export demand was raised 14% by the USDA last week. Larger US crushings will help soy oil supplies, but the fact remains that all three demand drivers (food, biofuels, and feed) won't be satisfied in 2022. CBOT Soy Oil is seen softening only slightly and trading above USC 60/lb.

US crush margins and output are seeing a recovery on strong demand and scaled-back expectations for Argentina's output



Source: NOPA, Bloomberg L.P., Rabobank 2022

Speculative positioning has scope to rise in CBOT Soy Oil amid alternative uses and global vegetable oil scarcity



Source: CFTC, Bloomberg L.P. Rabobank 2022

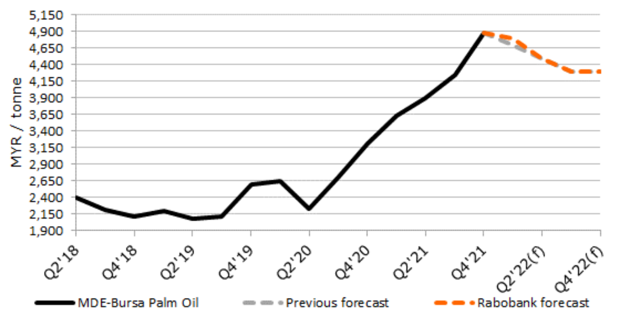
Palm Oil

An environment of relatively low Malaysian palm oil inventories will support palm oil prices in Q1 2022

- Heavy rainfall continues to affect Southeast Asian palm oil production negatively in January 2022.
- We expect MDE-Bursa Palm Oil active contract prices will average MYR 5,000/mt in Q1 2022.
- Availability of plantation labor will determine Malaysian palm oil production in 2022.

We revise up our MDE Palm Oil price forecast

	Unit	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22f	Q2'22f	Q3'22f	Q4'22f
Palm Oil	MYR/ton	3,647	3,850	4,246	4,880	5,000	4,800	4,500	4,300



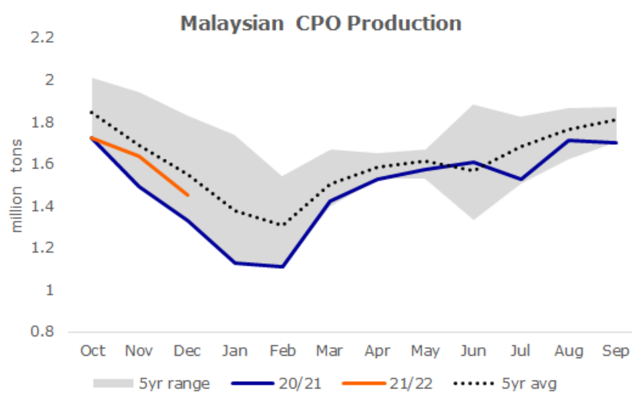
Source: Bloomberg Finance L.P., Rabobank 2022

Heavy rainfall continues to affect Indonesian and Malaysian palm oil production negatively in January 2022. The MDE-Bursa Palm Oil active contract price continues its bullish run, to reach over MYR 5,300/mt in late January 2022. The combination of heavy rainfall, which affected FFB harvesting activity in Indonesia and Malaysia in December 2021 and January 2022, recent volatility in global soybean and global vegetable oil complexes, and the Indonesian government's policy on palm oil export permits provided further support to already positive palm oil market conditions. We expect palm oil prices will remain supported in Q1 2022 due to a seasonal palm oil FFB yield down cycle in Southeast Asia. At the same time, in its January 2022 report, NOAA forecast La Niña to continue throughout Q1 2022 before transitioning to normal weather in Q2 2022. La Niña could still trigger heavy rainfall in Southeast Asia, which could result in severe flooding. This could potentially affect Southeast Asian palm oil production negatively in Q1 2022. The palm oil production cycle in Southeast Asia is expected to shift to a seasonal uptrend from Q2 2022 onwards, and we expect this to result in lower palm oil prices, quarter on quarter.

We expect MDE-Bursa Palm Oil active contract prices will average MYR 5,000/mt in Q1 2022. According to the Solvent Extractors' Association of India, Indian December 2021 palm oil and soft oil imports increased by 4.8% and 8.6% MOM, to 565,943mt and 650,920mt respectively. Meanwhile, Indian edible oil inventories (port stocks and pipelines) as of the end of December 2021 marginally improved by 4% MOM, to 1.7m mt. We expect that the environment of high palm oil prices and the backwardation in the MDE-Bursa Palm Oil futures price curve will result in limited demand from palm oil importers or at least a 'hand to mouth' buying pattern in Q1 2022. The spread between CBOT Soy Oil and MDE-Bursa Palm Oil active contract prices narrowed to around USD 100 to USD 120/mt in late January 2022. This makes soy oil import prices relatively more attractive compared to palm oil import prices and could result in reduced palm oil import demand.

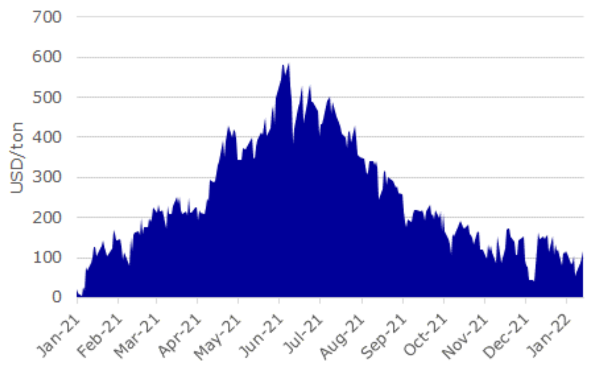
Availability of plantation labor will determine Malaysian palm oil production in 2022. According to the MPOB, Malaysian December 2021 palm oil production decreased by 11.3% MOM, to 1.4m mt. As a result, Malaysian total 2021 palm oil production decreased by 5.3% YOY, to 18.1m mt. Despite the setback in Malaysian palm oil production in January 2022, we expect Malaysian 2022 total palm oil production will increase by 4.9% YOY, to 19m mt. This forecast, however, assumes the labor shortage on Malaysian oil palm plantations will ease in 2H 2022 due to an increasing availability of trained migrant laborers. Without sufficient plantation labour, we could see lower-than-expected Malaysian palm oil production in 2022.

Malaysian 2022 palm oil production is expected to increase by 4.9% YOY to 19m mt



Source: MPOB, Rabobank 2022

The narrowing spread between soy oil and palm oil prices increases soy oil's attractiveness



Source: Bloomberg L.P., Rabobank 2022

Coffee

Lower crop expectations in Brazil and Colombia and worsening transport challenges

- ICE Arabica certified stocks to continue to decline in the light of ongoing disruptions, despite some shipments in bulk.
- Rainfall over Brazil's arabica areas seems to have had an adverse effect on some trees, especially after prolonged stress.

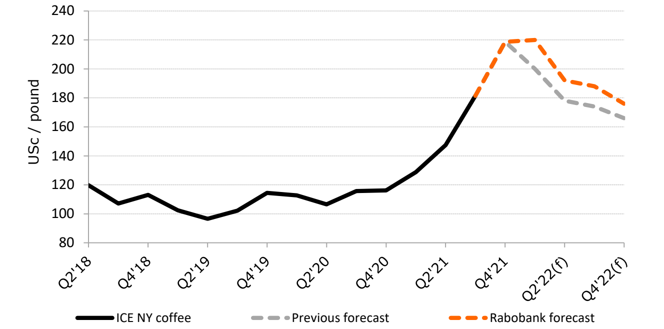
ICE Arabica has traded near the USc 240/lb mark since December at the highest prices in a decade. The disruption to the transport of coffee became more acute in the last couple of months since Omicron, which, as in previous waves, resulted in higher demand for the transport of goods in containers. Container shipping prices – a gauge of the level of disruption – were trending down between late September and early November, but since Omicron arrived in force in Europe in December, container prices resumed the trend higher. The increase in container shipping prices and arabica prices correlate to the depletion of arabica certified stocks, which are now at only 1.3m bags. We only need to go back 14 months to find a lower level, but the expectation is that certified stocks will continue to go down and that we are unlikely to see significant levels of newly certified coffee in 2022. We expect to see levels below 1m bags in the coming three months. However, with more shipments in bulk to Europe and the wave of Omicron in Europe and the US expected to pass (at some point, hopefully), the pace of the drop should be lowered.

Production-wise, it does not look pretty. Since our November Outlook, the expectations for Brazil and Colombia have become a bit more negative. In Brazil, there are numerous farms reporting an adverse effect from the heavy rains, which will impact the 2022/23 crop. This is not usually the case, but given the stress placed on the trees after a year of dry weather, this is not surprising. For the time being, we make no adjustment to the numbers since we are planning to visit the area shortly. When it comes to Colombian 2021/22 production, numbers in the current main crop are coming in very low. December registered production saw a drop of 21% YOY, whereas exports are 10% lower YOY. Therefore, we are reducing our expectations to 12.8m bags of 60kg each (off 14m bags two/three months ago). We still expect a good recovery later in the season (mitaca), led by stellar prices and good labor availability in the country. An increase in production in 2022/23 is likely if the weather is more or less normal.

Robustas look robust. With the expectation of record or near-record production in both the current Vietnamese harvest (2021/22) and the coming Brazilian conillon harvest (2022/23), we are not surprised to see the arbitrage at around USc 140/lb, the highest in ten years. Unlike arabica, we would expect some robustas to hit the board, especially if bulk shipment becomes more common, which will likely be the case, as containers are set to remain very expensive through 2022. This should prevent large backwardations in the future, especially from May onwards, once some of the Vietnamese coffee arrives in Europe. We believe the arbitrage will continue to be well supported if we have robusta stocks being replenished while arabica certified stocks continue to go down. At the moment, that is the most likely scenario in the coming six months to one year. However, the arbitrage depends to a great extent on the strength of arabica prices, and even though we are less bearish than back in November, we think that the current levels will result in increased production in the future and that it is only a matter of time before we start to see evidence of that.

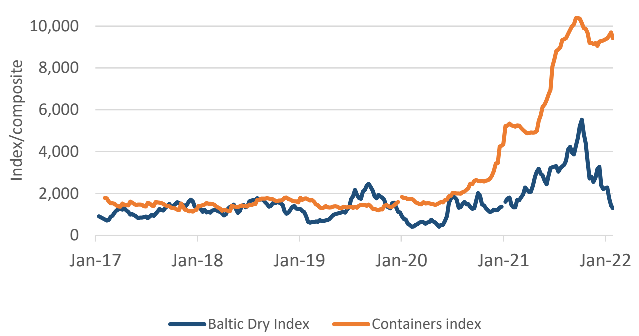
Arabica forecast increased but still bearish

	unit	Q1'21	Q2'21	Q3'21	Q4'21	Q1'22f	Q2'22f	Q3'22f	Q4'22f
ICE Arabica	USc/lb	129	147	181	176	220	192	188	176
ICE Robusta	USD/mt	1372	1512	1911	2000	2100	1950	1900	1900



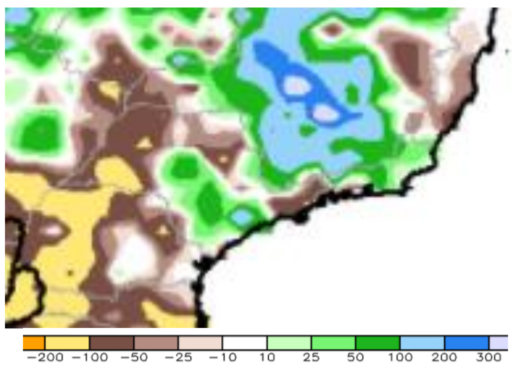
Source: Bloomberg Finance L.P., Rabobank 2022

Container shipping prices restarted their uptrend due to Omicron



Source: Bloomberg Finance L.P., Rabobank 2022

South of Minas and parts of Cerrado have seen heavy rains recently; 30-day rainfall anomaly (mm) to Jan 24:



Source: NOAA, Rabobank 2022

Dairy

Global milk supply growth dipped into negative territory in Q3 2021 and will remain low through the first half

- New Zealand milk production was down sharply by 5% in December and is likely to continue negative year-on-year growth through the remainder of the season.
- Milk prices are rising, along with global dairy commodities, but limitations on near-term production growth remain.
- China's import demand posted strong growth in 2021, but that growth rate slowed in 2H and will remain muted into 2022.

Global milk supply growth turned negative in Q3 among the major exporting regions, and markets are expected to remain tight in the near term. However, high global dairy commodity and milk prices will begin incentivizing additional supply growth. Although a rapid rise in milk prices might normally trigger a supply response, cost inflation will continue to give pause to expansion plans, while logistics and Covid-related staffing challenges at milk plants will limit milk buyers' ability to take on additional milk.

New Zealand milk production dropped sharply by 5% YOY in December amid wet weather. January, so far, has been exceptionally hot with minimal rain. Adding to the challenges, milk collections in March to May 2021 reflected strong growth and will make for difficult comparables to match in 2022.

Global commodity prices have skyrocketed to levels not seen since 2014. The Global Dairy Trade price index rose 4.6% as of the most recent event on January 18. Prices climbed for all products at the auction, including butter, cheddar, SMP, and WMP, up 5%, 1.1%, 5%, and 5.6%, respectively.

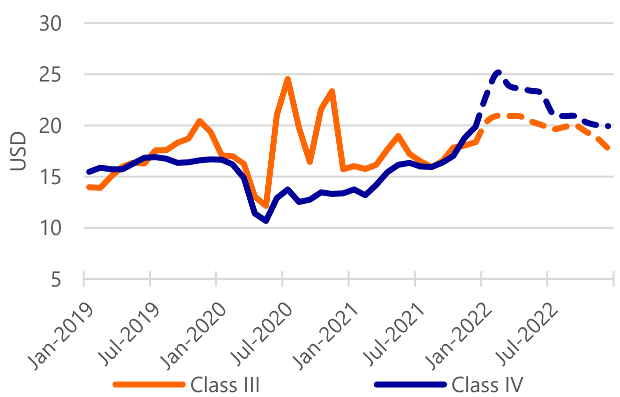
Chinese import demand showed strong growth in 2021, though that strength slowed in the second half of the year. Imports into China were up by 16% YOY in 2021. Since September, however, imports have been down 3% YOY. The rate of China's import growth should continue to be slow into 2022, particularly if prices remain high and stocks remain ample.

In the US, milk production growth turned negative, beginning in November. Rising milk prices are stimulating production once again, but the US milk cow herd will remain below year-ago levels until the second half of 2022. December milk production was down only slightly by 0.1%YOY, but the lower cow numbers (down 67,000 from December 2020) mean production strength will rely on milk yield improvement in the near term. Inflationary cost pressures, as well as expansion restrictions from many milk buyers, will likely keep any major expansions muted for now.

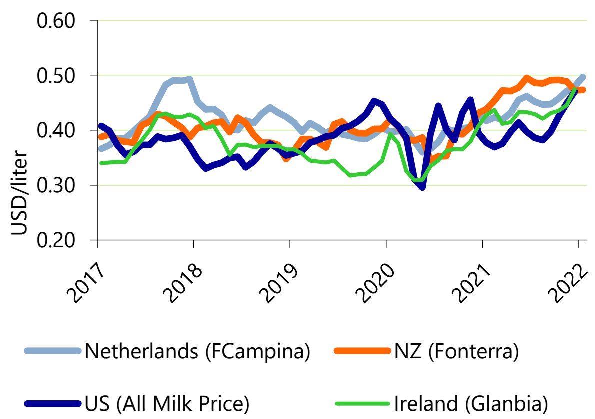
Strength in the butter and powder markets should push class IV milk prices above class III across 2022 in the US. Butter and nonfat dry milk prices have been pushed higher by improved demand at a time when output has been lower and stocks are being drawn down. Cream availability and butter churning activity is showing signs of picking up again, but higher output should be met with improved demand once activity begins returning to normal in the wake of the Omicron outbreak.

Prices will likely subside from near-term spikes, but markets should prepare for ongoing elevated prices compared to recent norms. Sustained periods of lower prices in recent years have been driven by rapid production growth in New Zealand or the removal of quotas in the EU, as well as heavy inventories overhanging markets. Today, however, inventories are low and supply limitations should tame production growth.

Class III and Class IV milk prices, historical and forecast

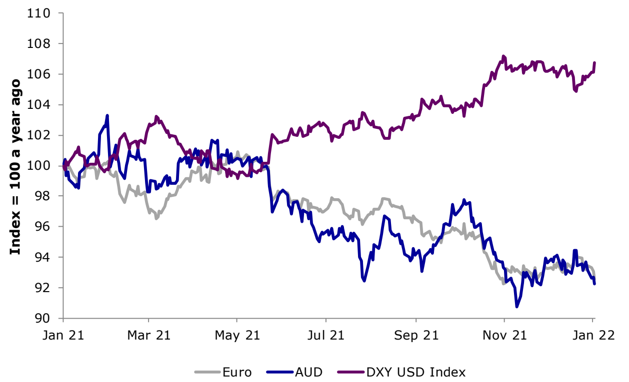


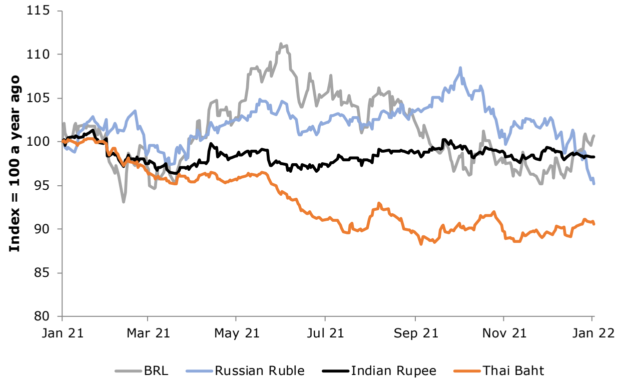
Farmgate milk prices, 2017-2022



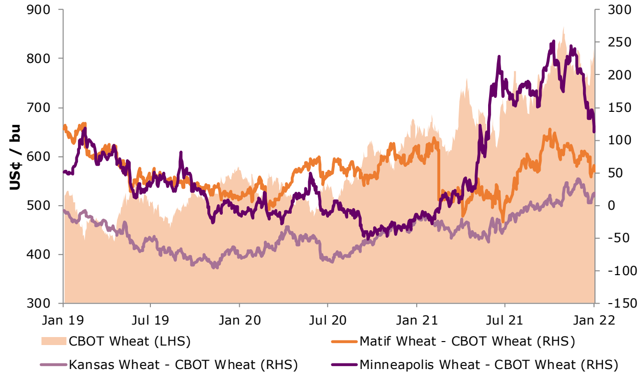
Agri Charts

Global Currencies USD Cross

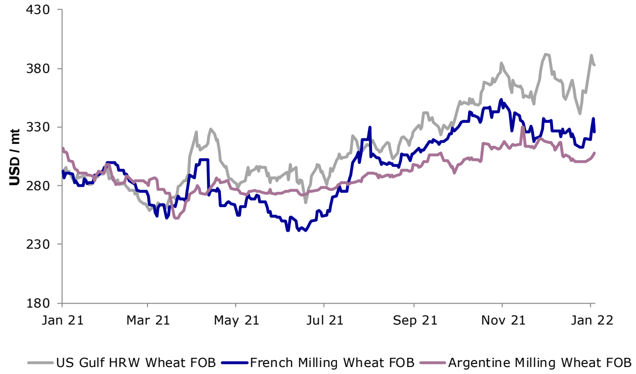




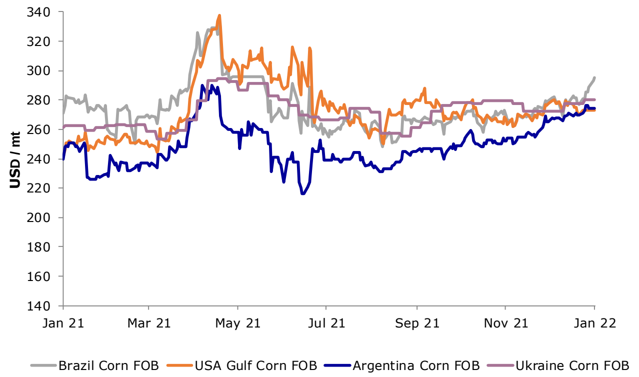
CBOT Wheat Spreads



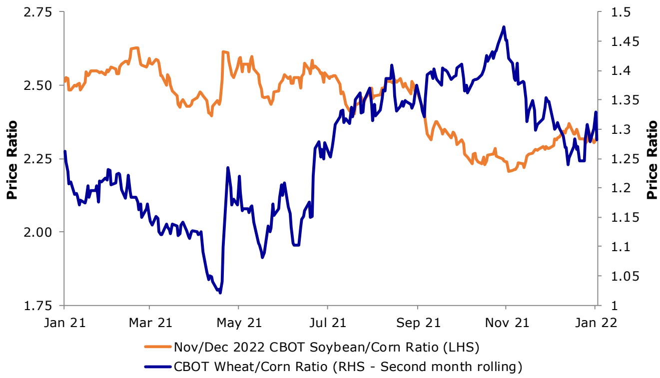
Wheat Protein FOB Prices



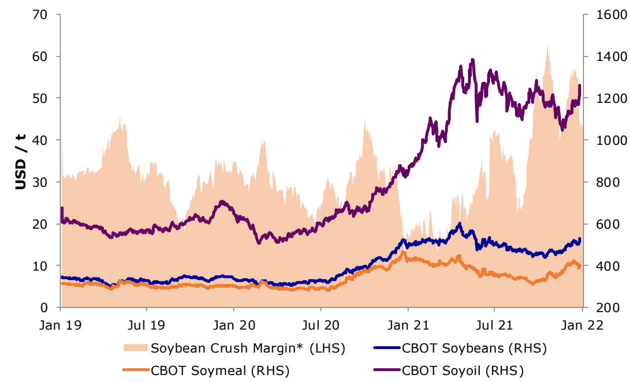
Corn FOB Prices



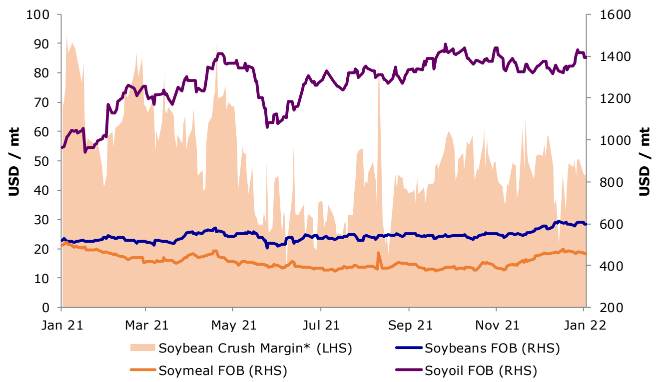
CBOT Ratios



CBOT Soybean Crush Margin



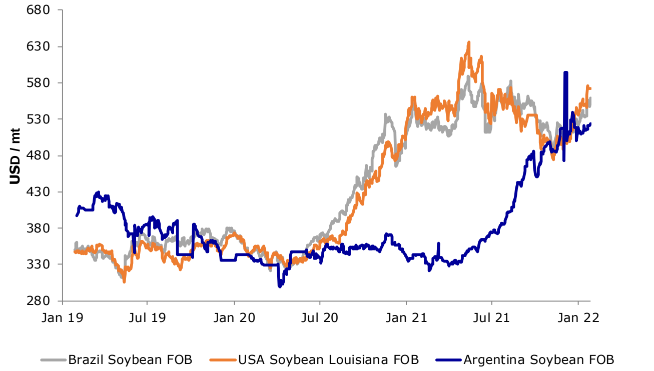
Argentina FOB Soybean Crush Margin



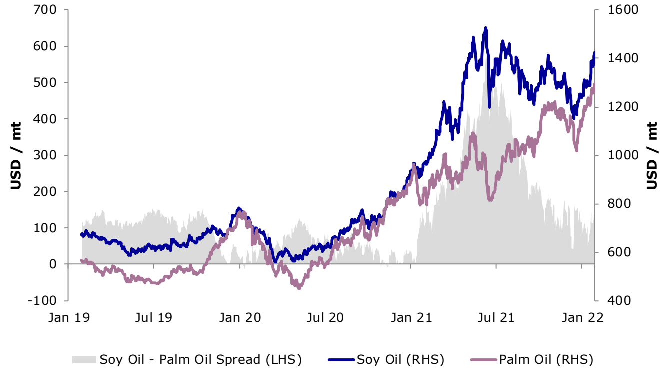
Source: Bloomberg Finance L.P., Rabobank 2022 *Calculated on a gross basis

Agri Charts

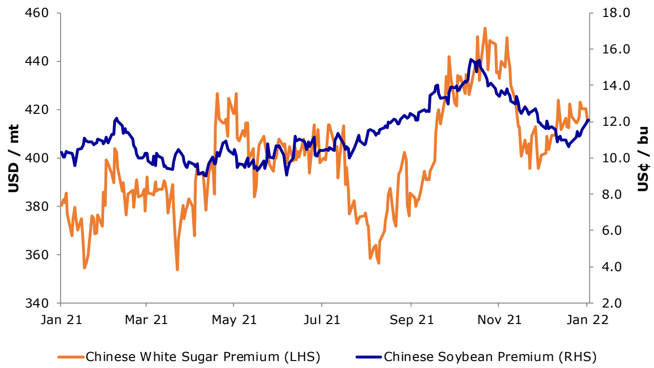
Soybean FOB Prices



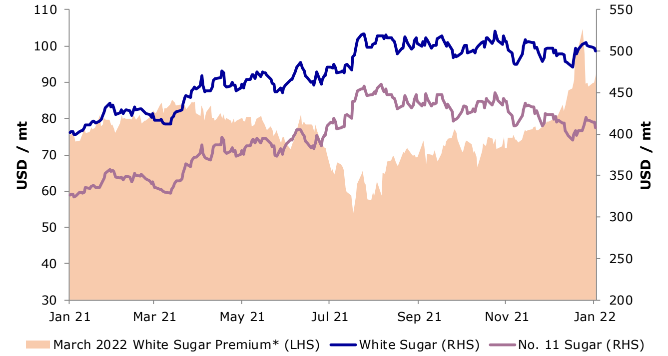
Palm Oil - Soy Oil Spread



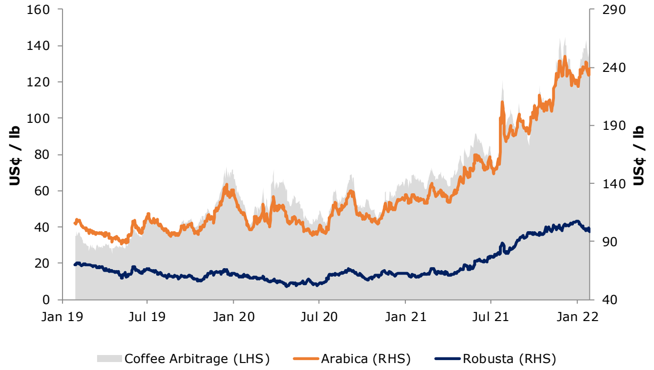
Chinese Futures Premiums



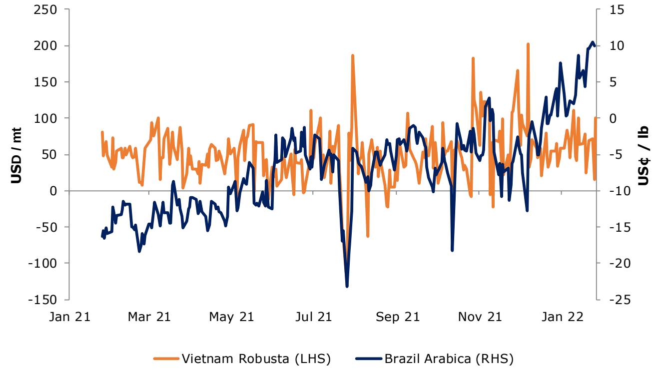
White Sugar Premium



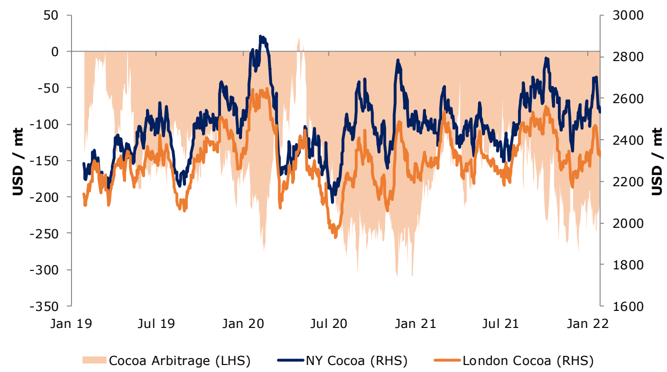
Arabica - Robusta Coffee Arbitrage



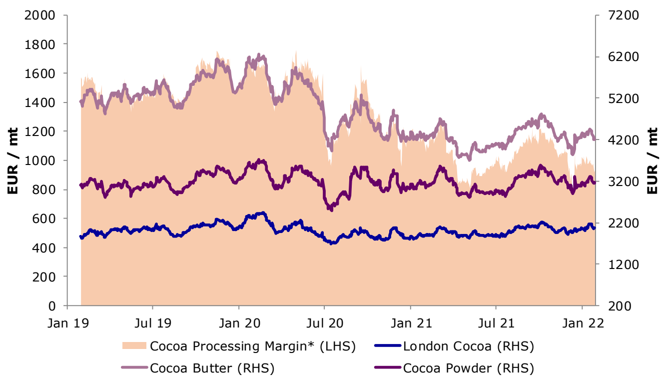
Coffee FOB Differentials



London - New York Cocoa Arbitrage



Cocoa Processing Margin



Source: Bloomberg Finance L.P., Rabobank 2022 *Calculated on a gross basis

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RaboResearch
Food & Agribusiness
far.rabobank.com

Agri Commodity Markets Research

Carlos Mera, Head of ACMR
carlos.mera@rabobank.com, +44 20 7664 9512

Michael Magdovitz, Senior Commodities Analyst
michael.magdovitz@rabobank.com, +44 20 7664 9969

Contributing analysts:

Mary Ledman – Chicago, US
mary.ledman@rabobank.com

Oscar Tjakra—Singapore
oscar.tjakra@rabobank.com

Rabobank Markets

Corporate Risk & Treasury Management Contacts

GLOBAL HEAD—Martijn Sorber
+31 30 21 69447
martijn.sorber@rabobank.com

ASIA—Ethan Sheng
+852 2103 2688
ethan.sheng@rabobank.com

AUSTRALIA—Adam Vanderstelt
+61 (2) 8115 3101
adam.vanderstelt@rabobank.com

NETHERLANDS—Arjan Veerhoek
+31 30 216 9040
arjan.veerhoek@rabobank.com

EUROPE—David Kane
+44 (20) 7664 9744
david.kane@rabobank.com

NORTH AMERICA—Neil Williamson
+1 (212) 8086966
neil.williamson@rabobank.com

SOUTH AMERICA—Ricardo Rosa
+55 11 5503-7150
ricardo.rosa@rabobank.com

Methodology note: For ICE Sugar (raws and whites), ICE Arabica, ICE Robusta, and ICE Cocoa (NY and London), we aim to forecast the second rolling contracts, whereas for Palm Oil, we aim to forecast the third rolling contract. We have also used these contracts in the price diagrams. For all other contracts, we focus on the front month.

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A summary of the methodology can be found on our website