U.S. Commodities Markets

# Assessing the Continuing Impact of the War in Ukraine on Global Commodities Markets

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- As the war in Ukraine grinds on, global and U.S. agricultural futures continue to maintain risk premiums that have pushed prices to multi-year and in some circumstances record highs.
- Uncertainty about Russian and Ukraine short- and medium-run supplies of corn, wheat and edible oils still dominates the world commodity and inflationary discourse. During this time the world has largely pivoted and slowed their buying of U.S. corn and has not purchased U.S. wheat.
- We believe that relative to the initial expectations, the U.S. corn and wheat export programs have underperformed, leaving the U.S. as the residual supplier to the world.

## U.S. corn and wheat markets are acting efficiently

While global analysts were predicting that the world's end users would stimulate new U.S. export sales, the opposite has occurred. Since the beginning of the invasion, the prompt CME soft red winter wheat (SRW) has appreciated by 30%, Kansas City hard red winter wheat (HRW) by 31%, hard red spring (HRS) wheat contract by 26% and the CME prompt corn contract has risen by 22%.

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During this time U.S. export sales have underperformed relative to expectations of them being able to help fill the corn and wheat export deficit. Trade data show that global end users of corn and wheat are systematically following the crop production calendars, modifying their purchasing specifications, and buying from the lowest cost origin. With the combined effects of an appreciating U.S. dollar and tight domestic supplies, it appears that market forces have efficiently preempted any attempt to increase U.S. exports of wheat and corn.

## Russian wheat exports are overperforming

Since the invasion in February, Ukraine's maritime agricultural export activity has ceased while Russia's has overperformed. Weekly data show that despite Russia being broadly categorized as a pariah and a non-expedient trade partner, the country's wheat exports in March through April have been unexpectedly strong. During this period, Russia exported 4.2 mmt of wheat which is 6% below the five-year average but is the third largest over this period.

We believe that in the absence of Ukraine wheat exports, Russian and European wheat is filling the supply gap in North Africa, the Middle East and East Africa. While there are reports of some countries like Egypt and Turkey diversifying and/or reducing their Russian wheat import exposure. Other importers like Algeria and Morocco have historically maintained a diversified supplier list and are not expected to change their practices.

*Please see disclosure starting on page 6.*

Because the global sanctions do not target Russian bulk agricultural commodities, some countries in the aforementioned regions like Ethiopia and Sudan are even actively buying Russian wheat to help control social unrest and lower domestic inflationary pressures. Ultimately, even though Russia is directly responsible for creating regional food supply shocks and exacerbating core inflation, the country's uninterrupted wheat exports remain critical for preventing widespread runaway inflation and ensuing social turmoil.

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## U.S. wheat export sales data confirms underperformance

Sales for marketing year (MY) 21/22 and MY 22/23 are not exhibiting the type of demand-driven business the initial wartime narrative was projecting. Since the start of the conflict, U.S. MY 21/22 all-wheat export sales are -53% YoY, while MY 22/23 sales are -21% YoY. Except for the 104 kmt of next marketing year (NMY) of HRW sales to Nigeria, the U.S. has not conducted material new sales in key inflation-sensitive export markets. As the global core food crisis rages, U.S. wheat participation is immaterial. We view the lack of U.S. wheat sales to Egypt, the world's largest wheat importer, and the lack of buying by North African and Southeast Asian countries as clear signals about the health of the U.S. export program and the relative ability of the U.S. to play an active role in helping remedy the burgeoning global food challenges.

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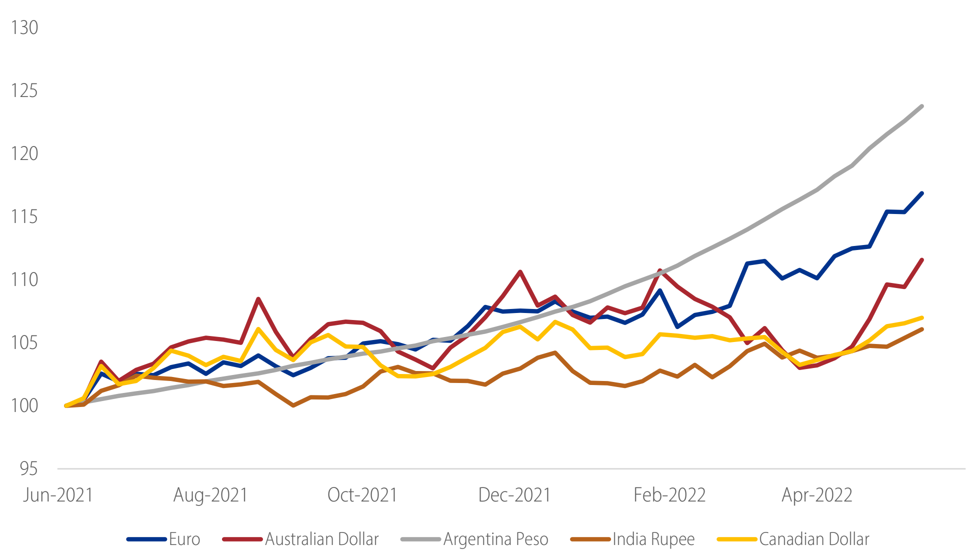
## U.S. wheat exports are experiencing strong fundamental headwinds

We attribute the underwhelming U.S. MY 21/22 and MY 22/23 export sales to a cocktail of fundamental variables including:

- Strength of the U.S. dollar against other wheat exporting currencies: Euro, Australian dollar, Romanian leu, Argentine peso, Indian rupee.

### Indexed U.S. Dollar Performance Compared to Wheat Exporting Currencies




**Source: Bloomberg, HilltopSecurities**

- Increased domestic shipping costs. Since the start of the Ukraine conflict, USDA's grain rail car price index has appreciated by 39% and the grain barge

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price index has risen by 10%. These domestic freight costs are captured in the free-on-board (FOB) prices at export terminals.

- The premium of VLSFO bunker fuel in Houston and New Orleans compared to Hamburg, Rotterdam and Rouen is an additional negative input.
- Bumper wheat crops and historically strong export programs during MY 21/22 in Australia, Argentina, EU, and India are attracting global buyers.

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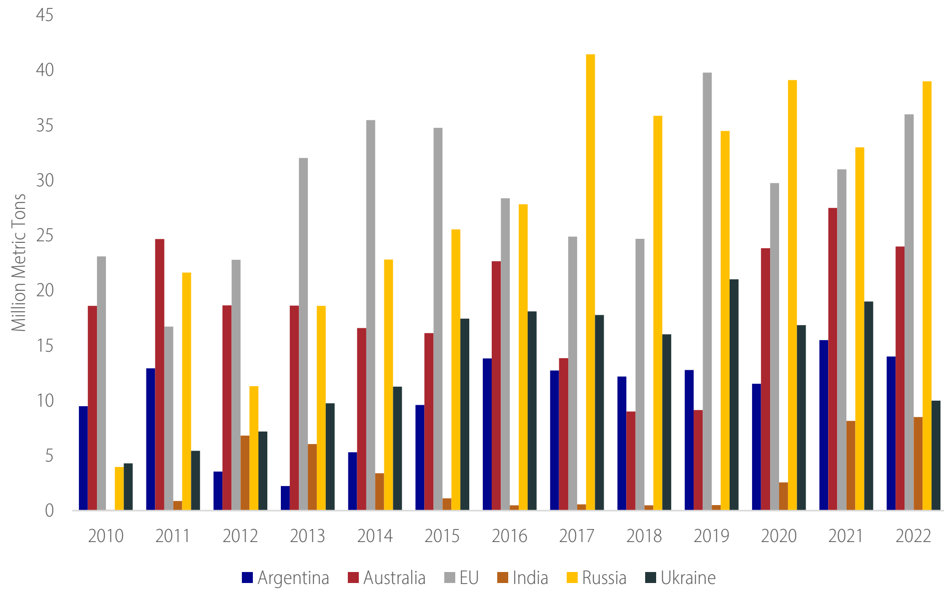
### Annual Wheat Exports




**Source: USDA, HilltopSecurities**

- U.S. is rationing high protein wheat for a second consecutive year. MY 21/22 ending stocks of U.S. hard wheats (HRW+HRS), 490mbu, -26% YoY, are the tightest since MY 13/14.

## Wheat export price spreads are capturing U.S. fundamentals

Because U.S. wheat is fundamentally undersupplied, the global trade is buying from oversupplied countries like Australia, Argentina, Europe, and India. We use FOB price spreads at export terminals as real-time data points to measure and track the relative competitiveness of global wheat. We also believe that FOB spreads reflect the domestic supply and demand structure of exporting countries. As illustrated in the graph on page 4, when compared to other origins, U.S. HRW priced at Houston Gulf and SRW priced at New Orleans are both uncompetitive.

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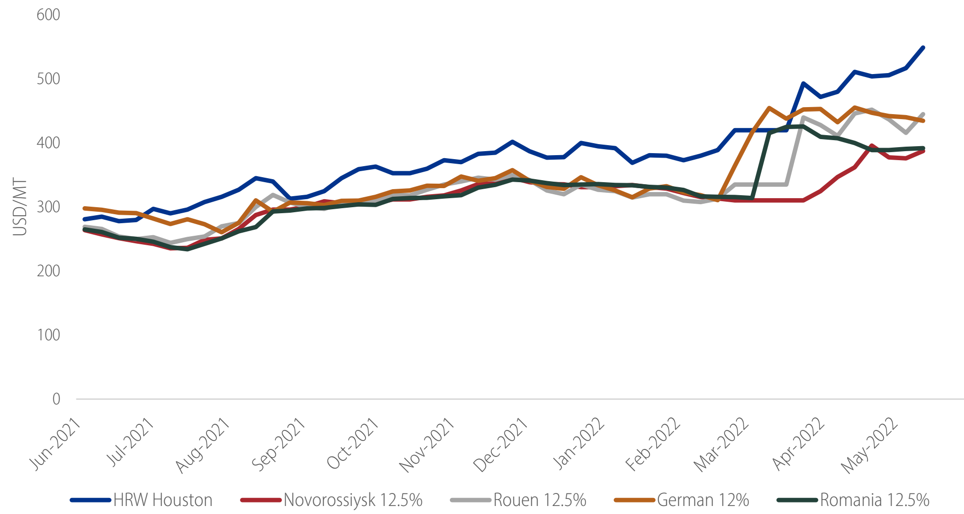
U.S. wheat FOB prices were already expressing tight domestic supplies earlier in the year. As the conflict in Ukraine expanded, we believe that the risk assets which flowed into the listed U.S. wheat futures markets helped upstream cash prices appreciate further. Higher domestic midstream cash prices combined with rising rail and barge rates pushed downstream FOB prices higher. As U.S. HRW and SRW FOB prices climbed, the strengthening U.S. dollar helped widen even further the relative value spread with competing foreign markets, which resulted in lethargic export sales and the U.S. underperforming relative to initial analyst expectations.

## Global Spot FOB Hard Milling Wheat Prices




Source: Bloomberg, HilltopSecurities

## U.S. is the world's residual corn exporter

We believe that prior to the Ukraine conflict, the USDA's estimated MY 21/22 1.360 bbu ending corn stocks, the tightest since MY 14/15, was supportive to U.S. fundamentals. Just like for U.S. wheat futures, we believe that as Russia invaded Ukraine the risk asset flows into U.S. corn futures were ostensibly about pricing a global corn supply shock and uncertainty about Ukrainian exports. We also view these flows as an expression of subdued confidence about the U.S.' ability to help fill any global corn export gaps. However, the increasing supplies of global feed grains are a negative for U.S. corn exports. Since the invasion, Argentina and Brazil have experienced timely moisture which has been beneficial for late-stage crop development. In our assessment of the USDA's April WASDE report we discuss the estimated corn production spreads between the USDA and local entities. We view the estimated record large MY 21/22 44.5 mmt Brazilian corn export program combined with 39.0 mmt of Argentine corn exports and Australia's 9.0 mmt barley exports, both the second largest on record, as key inputs that are helping to relieve the global feed grain supply shock. Aside from China purchasing material volumes of MY 22/23 corn, we believe that the -52% YoY decline of U.S. corn sales for MY 22/23 and the +12% YoY increase in current marketing year (CMY)21/22 corn exports sales reflects the improving global corn and feed grain fundamentals and reinforces the idea that the U.S. is the residual supplier.

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## Ukraine's MY 22/23 crop projections are materially lower

In the May WASDE report the USDA estimates Ukraine MY 22/23 corn production at 19.5 mmt, -53% YoY and exports at 9.0 mmt, -60% YoY. Wheat production is estimated at 21.5 mmt, -25% YoY and exports at 10 mmt, -48% YoY. We view the USDA's estimated large YoY decline in Ukraine corn and wheat as problematic and should exacerbate both regional and global core inflation levels as the cost of feed inputs and core food staples rise.

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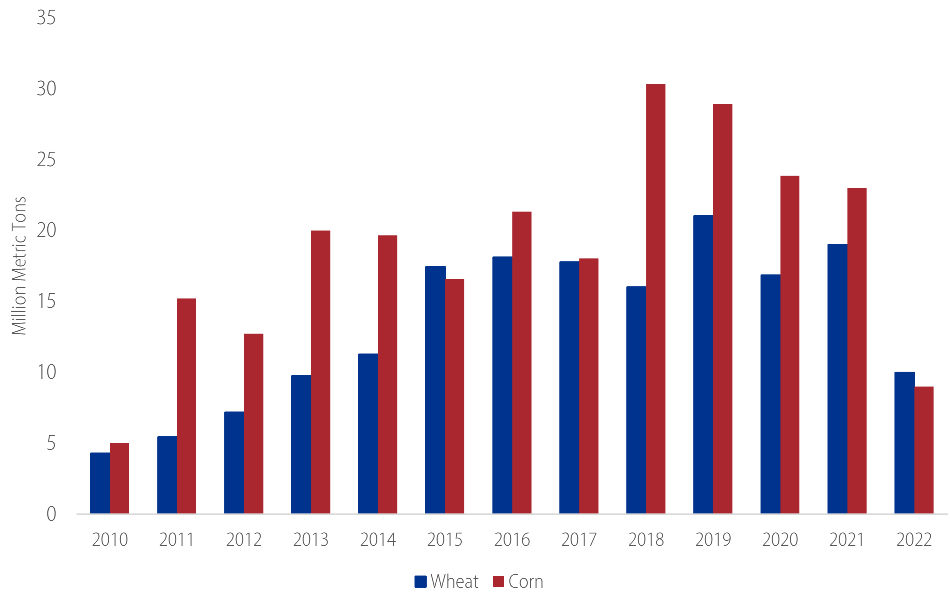


**Source: USDA, HilltopSecurities**

Despite the latest comments from President Biden about increasing support to help Ukraine resume agricultural export activity, we view the size and scope of the Russian military campaign that has closed Ukraine ports as well as the recent hypersonic missile attacks on the port city of Odessa as major hurdles. Current Ukraine agricultural export business to the EU and Romania is being conducted by rail and truck and volumes are immaterial.

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We believe that until Ukraine can export bulk agricultural commodities on ocean vessels, the country's export volumes will continue to be immaterial and will do little to quell the inflationary food pressures that are plaguing the African and Middle East economies. In our research note, May WASDE Report Estimates Tight Supplies of Global Cereal and Feed Grains, we articulate these Ukraine driven corn and wheat supply challenges in greater detail.

## Conclusions

**Corn:** Unless Ukraine can resume corn exports in a significant way, we do not see a need for the risk premium in US futures to hastily dissipate. Ukraine harvests corn at roughly the same time as the U.S., September through November and exports most of it from October to March. If during MY 22/23 Ukraine can restart corn exports on ocean vessels, it is possible that some of this volume could displace U.S. corn and result in sales cancellations which could be negative for U.S. futures prices.

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If Ukraine is unable to export material volumes of corn, we believe U.S. MY 22/23 corn export sales could experience further upside support. Because the U.S. and Ukraine are the largest exporters in the northern hemisphere, we believe that as global crop calendar starts to deemphasize southern hemisphere supplies and export business slows, the loss of global corn supplies can ultimately create a bid market for U.S. corn. This would be a positive for U.S. corn futures prices.

**Wheat:** As winter wheat harvest is approaching, production scenarios of northern hemisphere producing countries like the U.S., EU, Russia, and Ukraine are starting to unfold. Given the developing supply shortage of U.S. high protein milling wheat for MY 22/23, we believe U.S. wheat will play a minor role in the MY 22/23 global export regime. We expect that Russian, Canadian, and EU wheat will assume greater global prominence and help address the Ukraine driven supply gap.

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Because drought in key U.S. HRW producing states like Kansas, Oklahoma, and Texas is the worst since 2011, there is a high probability that yields will compress, protein levels will rise, and the production will decline. We believe that at current futures price levels, the job of the HRW and HRS futures markets is to ration demand and limit exports. While it is possible for U.S. SRW production to overperform, we believe French and European wheat will assume a larger role in the regional export trade.