

U.S. Commodities Markets

The 3 C's: Cattle, Corn and Cotton. Three Commodities Possessing Fundamental Upside

- Looking into Q4-22 and H1-23 we believe that the structural supply imbalances of U.S. and global corn, cattle, and cotton will persist which can limit downside price risks.
- After contracting for the last 10 months, the domestic beef cattle herd is displaying nascent signals that upstream female animals, heifers, are being retained for future breeding stock. We see these greenshoots signaling that tighter cattle and beef supplies are imminent.
- The USDA's September World Agricultural Supply and Demand Estimates (WASDE) report showed precipitously contracting corn production in the northern hemisphere. In the U.S., an expanding drought in the western corn belt (WCB) is compressing corn yields and pushing ending stocks to their lowest level since the 2015/16 marketing year (MY).
- U.S. and global cotton supplies continue to contract. The WASDE report showed that for the third consecutive year, global cotton demand exceeds supplies. We believe that the U.S. crop remains vulnerable to downside production risks and that supply pressures from China, India, and Pakistan persist.
- Despite the bullish supply narrative, we view the Fed's commitment of leveraging "restrictive" monetary policy to achieve domestic price stability and suppress acute inflationary tendencies can create downside price risks and fundamental headwinds by slacking downstream consumer demand for cattle (beef) corn (ethanol), and cotton (apparel).

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Liquidation of the Domestic Beef Cattle Herd Will Create Acute Animal Shortages, Leaving Beef Prices Exposed to Upside Risk

The lingering and protracted drought in the Southwestern and Western U.S. has been the primary catalyst of herd liquidation. In our research note [U.S. Cattle: Moving Toward Tighter Supplies](#) we detail the supply driven risks enveloping the domestic cattle herd cycle along with the residual price impacts that can keep both medium and long(er) term cattle and beef prices inflated.

Data Shows That Liquidation Tendencies May Be Decelerating

Higher frequency data points illustrate that the beef cattle herd is in the late cycle of its contraction phase. Inside the data, we see greenshoots indicating that expansionary tendencies are subtly emerging. Data from regional feeder cattle auctions and direct sales in Texas, New Mexico, and Oklahoma show that weekly placement pace of cattle entering the feedlots is slowing. While this can be a result of feeder cattle supplies being pulled forward, we believe that upstream cow/calf operators have incentives to retain animals for breeding. The data point that is the most illuminating shows that heifers as a percentage of weekly feedlot purchases are declining which suggests that heifers are being retained to increase breeding stock supplies.

Please see disclosure starting on page 7.

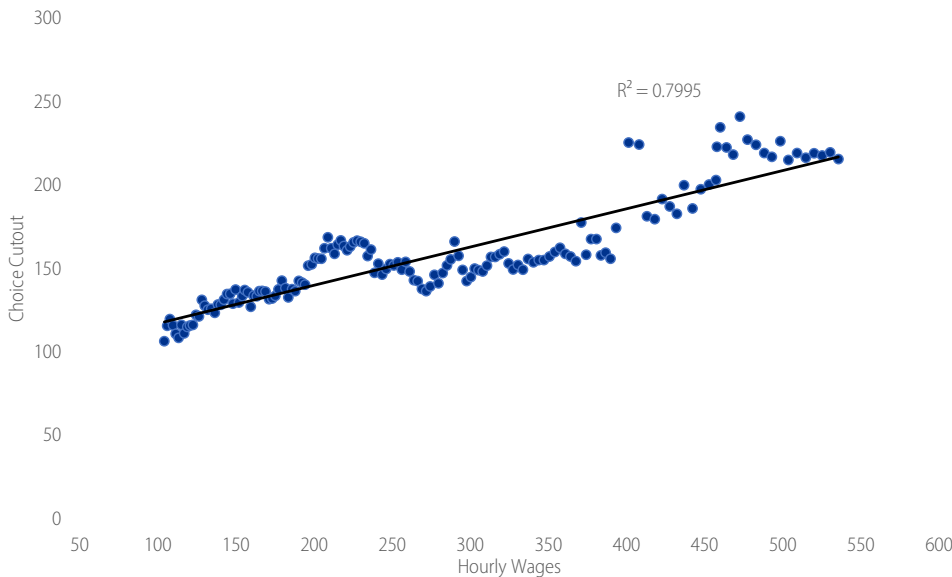
As the breeding herd starts expanding, both midstream feeder cattle and downstream live cattle supplies contract, which will lead to lower beef availability and higher prices throughout the cattle supply chain.

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Downside Price Risks for Cattle and Beef Can Emanate from Fed Policies

Causality between the intended and unintended economic consequences of the Fed's price stability policies include slowing wage growth and rising unemployment. Both variables are negative catalysts for downstream consumer level beef demand and packer margins.

Average Hourly Earnings & Choice Cutout Value



With the reopening trade's tailwinds behind, we see risk of slowing domestic beef demand, declining packer margins and reduced live cattle prices are increasing.

Source: HilltopSecurities

While gasoline prices have been receding for the past 12 weeks, the most recent data shows that traffic at casual dining, fast casual dining, and quick service restaurants (QSR) has been softening and that same store sales are in a downward trend. With the reopening trade's tailwinds behind, we see risk of slowing domestic beef demand, declining packer margins and reduced live cattle prices are increasing.

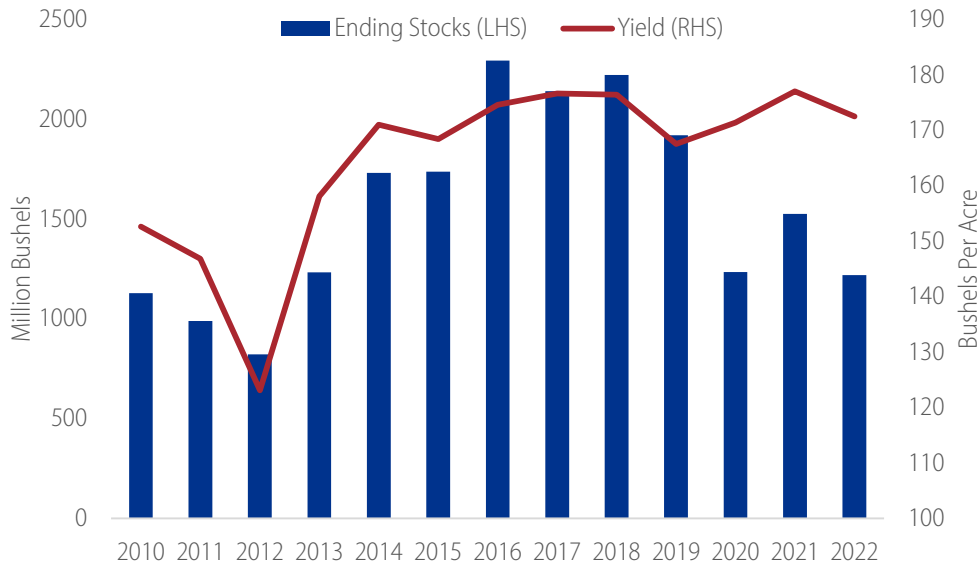
Our 3-, 6-, and 12-month live cattle price outlook remains unchanged at \$145, \$150, and \$155, respectively.

Falling Domestic and Global Corn Production Expose the U.S. Crop to Upside Price Risks

In the U.S., the lingering and intensifying drought in the WCB is suppressing yield objectives and production potential for the MY 22/23 crop. Globally, the shrinking EU corn crop and uncertainty about Ukraine production and the country's maritime export program can be supportive inputs for U.S. prices.

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U.S. Annual Corn Ending Stocks and Yield



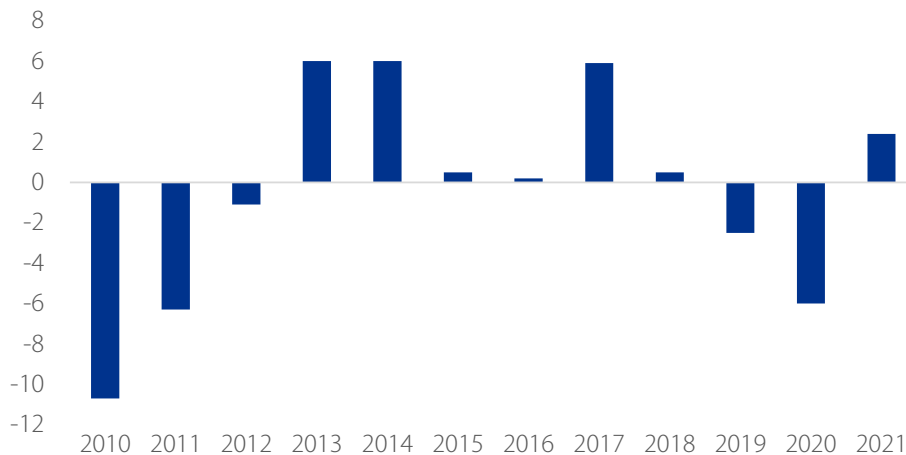
Source: USDA, HilltopSecurities

The September WASDE Report Showed Falling Corn Yields and Production

The declining MY 22/23 U.S. corn production resulted in the USDA raising farmgate prices and lowering demand, which resulted in a 1.219 bbu ending stocks figure, -306 mbu YoY. Nationally, yields fell by 2.9 bpa to 172.5 bpa, -4.5 bpa YoY while production was lowered to 13.9 bbu, -1.1 bbu YoY.

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Monthly Corn Yield Change From August To December



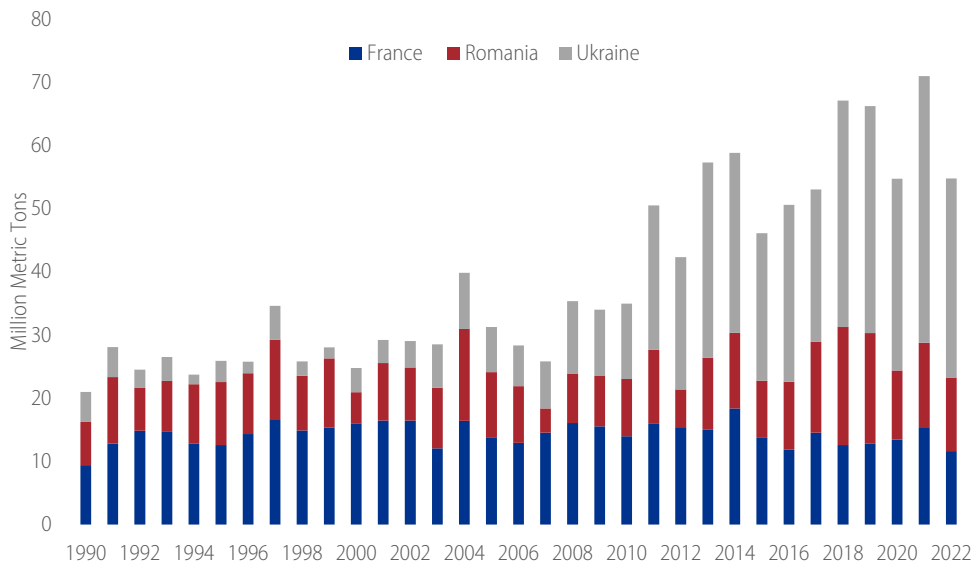
Source: USDA, HilltopSecurities

The downgraded national yield objective was primarily driven by the expanding drought throughout much of the WCB. Yields in Iowa, Nebraska, and South Dakota, first, third and fifth largest corn producing states in the U.S., each fell by 5 bpa from August. Yield objectives in Missouri and Minnesota, third and eighth largest producing states, were trimmed by 4 bpa MoM and 3 bpa MoM. Texas yields were lowered by 16 bpa MoM and production by -7% YoY.

With most of the U.S. corn being fully mature, late season yield and production risks remain, and we see further room for NASS to lower corn yields and production. Since 2010, the USDA's yield treatment between the August and December reports shows a 50-50 split between raising and lowering the national corn yield. The average reduction is 5.32bpa with a standard dev. of 3.35 bpa. The average yield increase was 3.07 bpa with a standard dev. of 2.59 bpa. With the drought fully intact in the WCB and harvest related risks still present, we see ample opportunities for upside risks to the balance sheet and for prices.

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Annual Corn Production



Source: UN's FAO, HilltopSecurities

With the drought fully intact in the WCB and harvest related risks still present we see ample upside balance sheet related and price risks.

Compressing U.S. Corn Supplies Arrive at a Critical Time for Global Feed Grain Production

After a summer of intense heat and limited rainfall, the EU corn production is forecast to decline by 10.9 mm YoY, -15%. Production in France, the region's largest producer, is expected to decline to 11.6 mmt, the lowest level since 1990. Corn production in Romania, the EU largest corn exporter, is expected to fall by 14% YoY to 11.7 mmt. Despite the strong dollar, we believe that with Argentine and Brazilian stocks at the bottom of the 10-year ranges and the southern hemisphere countries still in the intercrop period, that U.S. corn is a viable option for the global end user.

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Ukraine Corn Production Exports Remain a Wild Card for MY 22/23

Despite President Putin's concessions to ease restrictions of agricultural maritime exports from Ukraine, the country's agricultural crops are facing acute challenges. Earlier we assess how [Ukraine's corn and wheat export programs](#) impact the demand structure of North Africa and the Middle East. Because France primarily produces non-GMO corn which trades at a large premium to Romanian and Ukraine corn, we see Ukraine exports continuing to play a critical role in suppressing regional food inflation. Recent data shows that Ukraine's MY 22/23 corn and wheat production estimates are improving and are forecast to be above the [dire estimates of 50% YoY](#)

reductions made by private entities and NGOs in March and April. The most recent USDA data expects that Ukraine corn production will decline to 31.5 mmt, -10.6 mmt YoY.

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Headwinds for U.S. Corn Persist

Despite the encouraging domestic and global supply narratives, the strong dollar, lack of Chinese buying, ample global feed grain supplies (barley and wheat), and the slackening domestic/global gasoline (ethanol) demand present risks for U.S. corn disappearance and corn price objectives.

In particular, we believe that since Russia invaded Ukraine, U.S. corn exports have underperformed relative to expectations. At the start of MY 22/23, U.S. export sales for the upcoming marketing year were -51.6% YoY and at the bottom of the 3-year, range. While MY 21/22 global corn and feed grain supplies were looser than expected as crops in the southern hemisphere and the Black Sea overperformed, the FOB spreads in the U.S. are a source of concern and illustrate the lack of competitiveness of U.S. corn in the global export markets.

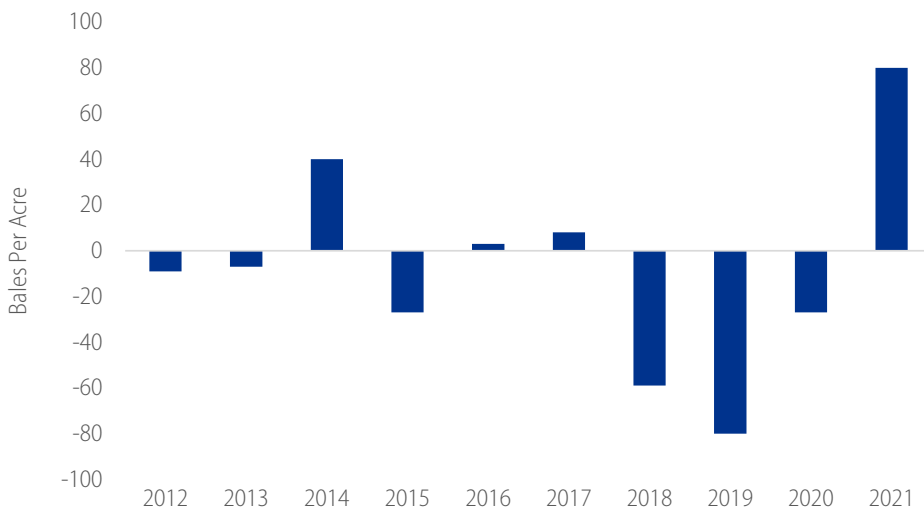
Our 3-, 6-, and 12-month price targets are \$6.50, \$7.35, and \$7.45, respectively.

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Global and Domestic Cotton Supplies Point to Sustained Tightness

The September WASDE report provided a bearish undertone for U.S. futures as domestic production estimates rose, +1. mb MoM, and ending stocks were raised +.9 mb MoM to 2.7 mb. Global cotton production was also raised, while demand was incrementally lowered. The incremental supply and demand adjustments left estimated U.S. ending stocks at the lower end of the 10-year range.

Monthly Cotton Yield Change From August To December



We believe that since Russia invaded Ukraine, U.S. corn exports have underperformed relative to expectations.

Source: USDA, HilltopSecurities

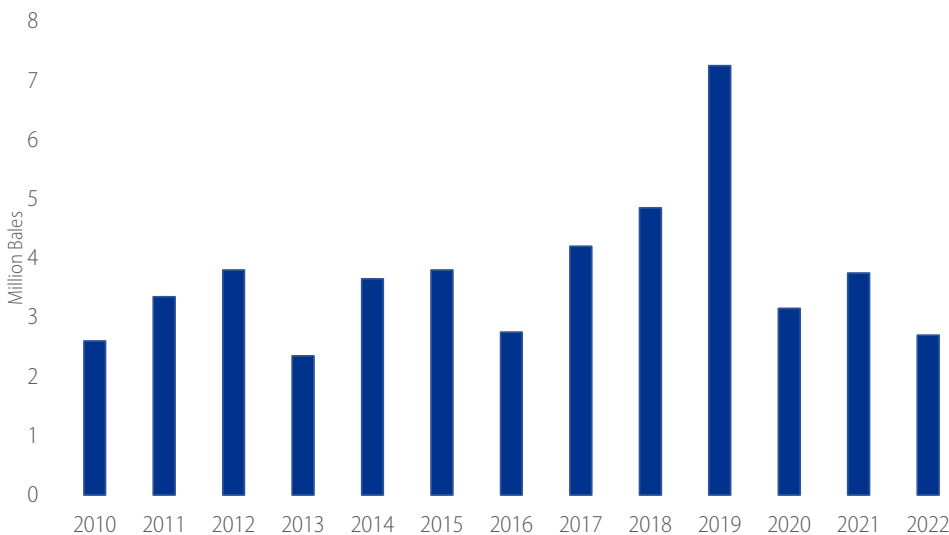
Texas Remains the Achilles Heel of U.S. Cotton Production

Despite the acute drought in western Texas the NASS raised harvested area for the state in the September WASDE by 300,000 acres MoM while lowering yields by 19 lbs to 614 lbs MoM. We believe that NASS' adaptation of the FSA's acres is translating to "on-paper" production increases which can overstate the actual size of the crop. Given the low quality of the west Texas, Oklahoma and Kansas crops we see increases in abandonment and falling regional and national production as highly probable.

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Historically, the USDA has a pattern of lowering cotton yields from August to December. Over the last 10 years the yield has declined 70% of the time with an average 38 bpa and a standard deviation of 19 bales. For the production shocks of MY 15/16 and MY 20/21, yields were lowered by 13 and 27 bpa from August to December.

Annual Cotton Ending Stocks



Given the low quality of the west Texas, Oklahoma and Kansas crops we see increases in abandonment and falling regional and national production as highly probable.

Source: USDA, HilltopSecurities

For the Third Consecutive Year, World Cotton Production Remains Below Demand

In the September WASDE, the USDA raised production by 1.45 mb and lowered use by 720,000 mb. Australian, Chinese, and Turkish production were raised. No changes were made to the Indian balance sheet, but Brazilian exports were lowered by 300,000 mb. The flooding in Pakistan is a difficult situation to assess and the USDA responded by lowering local production by 700,000 mb and raising imports by 200,000 mb. Despite the increasing irrelevance of China cotton in the global export markets, production was raised by 500,000 bales. While global cotton demand is incrementally contacting, we see the supply and demand imbalance creating fundamental price tailwinds for prices.

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Central Bank Policies Create Headwinds for Cotton Demand

Despite cotton's bullish supply narrative, the broad global central bank policy of raising rates to slow inflation can suppress consumer demand. In the U.S., causality between slowing wage growth, rising unemployment illustrates the growing probability of downside risks for domestic apparel and textile demand and for U.S. cotton futures prices.

In the U.S., causality between slowing wage growth, rising unemployment illustrates downside risks for domestic apparel demand and U.S. cotton futures prices.

While we don't fully embrace NASS's U.S. production estimates, **we are lowering our 3-, 6-, and 12-month targets to \$106, \$110, and \$103, respectively.**

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