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THE QUARTERLY

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April 2024

Sticky Inflation Puts Fed on the Horns of a Dilemma

Inflation is proving to be more difficult to quash than expected, but the Fed doesn't want to crash land the economy after avoiding a recession for this long.

Executive Summary

As we pointed out in our Year Ahead report in December, expectations that the Fed would cut rates six or seven times were completely irrational. The market has belatedly come around to our earlier view. But while many now completely dismiss the chance of an economic slowdown, we believe the Fed still has concerns. That's why Chairman Jerome Powell reiterated his belief that three rate cuts were still warranted in 2024.

After the best three-year stretch for farm incomes in history, the coming year will be challenging for row crops due to ample domestic supplies and the relentlessly strong U.S. dollar. Unfortunately, U.S. farmers continue to lose global export market share, and policy makers have eschewed trade agreements that would improve international market access. Meanwhile, the farm bill remains in a state of flux amid the highly partisan divides in Congress.

While commodity markets have steadily trended lower over the past two years, natural gas prices have completely bottomed, dropping 80%, and are now flirting with all-time lows. While troubling news for producers, near-record low natural gas prices are a boon for American consumers as well as for businesses that use a lot of natural gas to produce basic materials such as steel, concrete, cardboard and fertilizer.

This quarterly update is prepared by the Knowledge Exchange division and cover the key industries served by CoBank, including the agricultural markets and the rural infrastructure industries.

Topics In This Issue:

- *After nearly 80 years of fighting for freer global trade, the U.S. has moved to a more insular stance – which will hurt U.S. agriculture.*
- *Congress is wrapping up its least-productive session in history and still needs to take action on the farm bill.*
- *Plentiful grain stocks and a strong dollar continue to weigh on grain markets.*

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Inside this issue

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SPOTLIGHT

The "de-volution" of global free trade agreements

By Rob Fox

By Abbi Prins

Thirty years ago this month, ministers from 123 countries gathered in Marrakesh to sign the documents creating the World Trade Organization. The WTO evolved out of the 1947 Global Agreement on Tariffs and Trade (GATT), negotiations for which began almost immediately after Japan's World War II surrender in September 1945. This effort to tear down tariffs and increase economic ties across nations was just one of several multi-country institutions – others included the United Nations, World Bank, and the International Monetary Fund – that world leaders created to rebuild a world devastated by two world wars and the Great Depression.

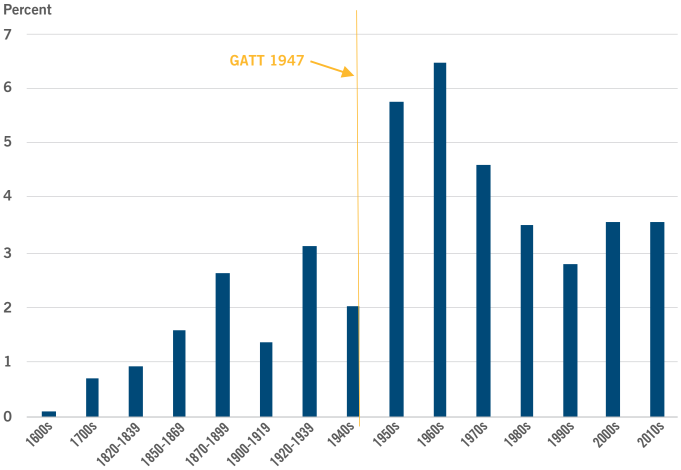
By most measures, the post-WWII trade liberalization efforts were a wild success. The average tariff rate across the GATT participants fell from 22% in 1947 to 5% by 1999. The economic efficiencies gained from trade helped boost global economic growth rates to the highest levels in human history – the world economy grew by 500% between 1950 and 1990 *(Exhibit 1).*

From GATT's inception, agriculture has been the most difficult area in which to achieve agreement on lower trade protections. In the 1970s and 1980s, the U.S. and the

1 Post-WWII international trade liberalization set the stage for unprecedented levels of global growth.

2 The WTO, once seen as the culmination of decades of painstaking free-trade negotiations, has lost global influence.

EXHIBIT 1: Average Annual Global Economic Growth Rate



Source: World Bank (2023); Maddison Project Database 2020 (Bolt and van Zanden, 2020); Maddison Database 2010 (Maddison, 2009) – with major processing by Our World in Data

EU were the world's largest agricultural producers, and they fought bitterly in export markets, using explicit export subsidies to help support sagging domestic grain prices. Developing countries and other exporters complained, and rightly so, that the export subsidies were artificially driving down global grain prices and hurting small farmers worldwide. Emerging future export powerhouses Brazil, Canada, Argentina and New Zealand were among a group of 14 countries known as the Cairns Group that refused to move forward with any trade negotiations unless this agricultural "problem" was fixed. The monumental 1992 Blair House Agreement between the U.S. and the EU put an end to most of the trade-distorting excesses and seemingly cleared the way for further liberalization in agriculture, services, intellectual property rights and other topics.

But the rush of optimism amongst trade negotiators was short-lived. One of the early cases that came to the WTO's newly formed dispute resolution process was the Brazil-U.S. cotton dispute in 2002, in which Brazil accused the U.S. of using trade-distorting subsidies. The WTO Appellate Body took more than five years to issue its final ruling against the U.S. and then issued several questionable rulings against the U.S. in subsequent years. Across multiple administrations, the U.S. accused the Appellate Body of "judicial overreach" and implied worse than that – incompetence and overt bias. The Obama administration refused to reappoint two Appellate Body members, leaving the panel with only five of seven members. The Trump and Biden administrations have blocked any further appointments, leaving all seven seats currently vacant and the body completely non-functional.

The WTO just wrapped up its 13th ministerial conference (MC13) in Abu Dhabi, with the biggest achievement being a two-year agreement to extend a moratorium on placing tariffs on digital goods. Members made no serious attempt to resolve the Appellate Body situation, meaning the WTO's ultimate dispute arbiter will remain out of action, likely forever.

Given the inability of the 166-member WTO to advance meaningful trade liberalization, countries have moved to form smaller, regional trade agreements in recent years including the Regional Comprehensive Economic Partnership (RCEP) trade bloc and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). The U.S., having lost influence and interest in the WTO, was the driving force behind the formation of the CPTPP but changing domestic political winds prompted the U.S. to withdraw from the agreement before its final ratification.

To those on the front lines of U.S. trade negotiations 30 years ago, the subsequent stall and reversal in trade liberalization efforts has been disorienting. Recently a group of 11 U.S. senators sent a letter to U.S. Trade Representative Katherine Tai demanding the administration act on our growing trade deficit in agricultural products. The U.S. farm economy needs our policy makers to re-engage in meaningful international trade negotiations.

3 U.S. politicians have lost most of their desire to pursue free trade agreements, **putting U.S. agriculture producers at an ever-increasing disadvantage to competing exporters.**

MACROECONOMIC OUTLOOK

Fed threading rates through the economic needle

By Rob Fox

At its March meeting, Fed officials reiterated their December guidance that three rate cuts (75 bps total) are still likely in 2024 despite the uptick in various inflation measures seen in the first quarter. February's core Personal Consumption Expenditures (PCE) deflator rose 0.3% on the month *(Exhibit 1)* and the year-on-year rate dipped slightly to 2.8%, both of which are still higher than ideal.

Late in 2023, market participants were pricing in six or even seven cuts this year, believing that a recession was probably forthcoming, and that the Fed would have to aggressively cut rates. But since the calendar year flipped, labor market and consumer spending metrics have kept surprising to the upside, and today "the market" largely dismisses the recession scenario.

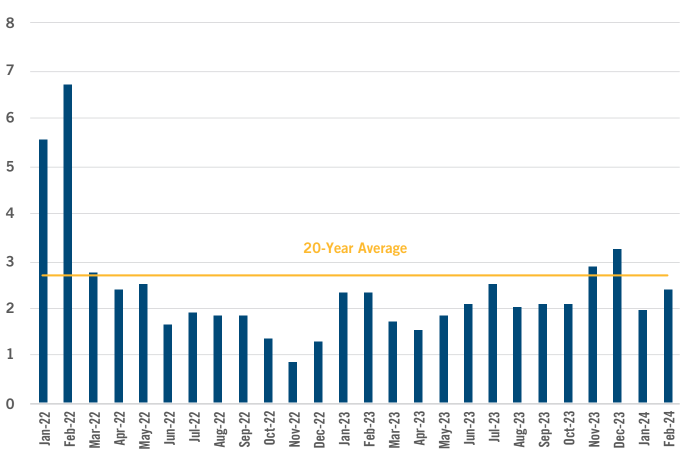
But the Federal Open Market Committee's March comments did provide some new hints as to how the Fed is reading the economic tea leaves. The "dot plot," which shows the individual FOMC members' forecasts, showed rate expectations edged slightly higher across future years and their outlook for "long-term" rates moved higher for the first time in over five years, increasing from 2.5% to 2.6%. Seven of 19 top policymakers now think rates will be 3% or higher in the long run, up from only four in December.

1 **Though trending in the right direction, inflation rates are still higher than ideal.**

2 **Strong labor and consumption metrics have led the market to dismiss earlier recession concerns, but there are still some worrying signs.**

EXHIBIT 1: Real Personal Consumption Expenditures

Percent Growth YoY



Source: St. Louis Fed FRED Database

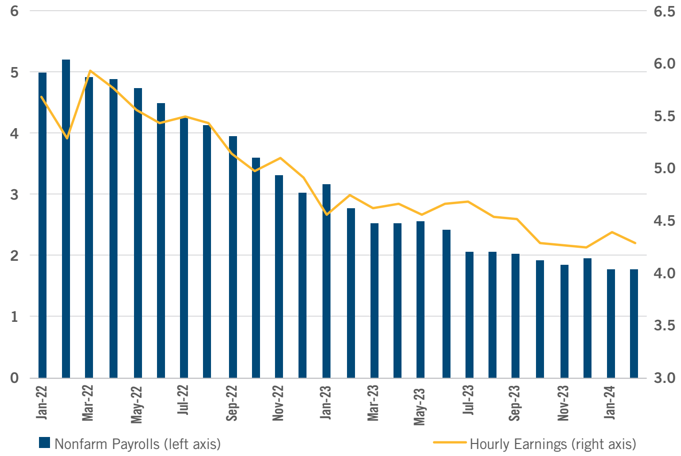
So while the Fed is assuring rate cuts this year, it appears to be admitting the inflation situation will likely take longer to subside than earlier hoped for. Chairman Powell said "my instinct would be that rates will not go back down to the very low levels" of the pandemic era. The Fed is also keeping a wary eye on consumer spending, new job growth and wages – all of which are still decent but not spectacular *(Exhibit 2).* Short-term real interest rates (inflation adjusted) are currently running over 3%, which is too high for an economy to hit full stride over the long run.

Our take is that the Fed knows that there are some cracks showing in the economic foundation (unemployment has crept up, manufacturing and small business surveys are still weak, food services are struggling, durable goods continue to deflate, credit card defaults are up, etc.) and wants to act as soon as possible but only in a responsible manner. "The outlook is always much more uncertain than most people think, including us," Chairman Powell told the Marketplace radio show. "The economy has performed in unexpected ways." Given that inflation is still too high, and the economy is showing signs of stress, we anticipate the Fed will wait at least until June before launching the next rate-cutting campaign.

3 **In our view, the Fed acknowledges inflation may not be declining as quickly it would like but rate cuts are still needed to ensure the economy does not continue to decelerate.**

EXHIBIT 2: Jobs Created and Wage Growth

Percent Growth YoY



Source: St. Louis Fed FRED Database

GOVERNMENT AFFAIRS

Time is running out for Congress to act

By Lauren Sturgeon Bailey

Enacting less than 50 bills so far, U.S. senators and representatives entered the second session of the 118th Congress having passed the fewest bills of any U.S. Congress on record – but did pass the final tranche of six bills to fund the government through the remainder of FY 2024. Shortly after House passage, Rep. Marjorie Taylor Greene (R-GA) filed a motion to remove Speaker Mike Johnson (R-LA) from his leadership position, saying he should not have negotiated with Democrats. Rep. Greene described it as a warning, but many in the Republican party are loath to enter another speaker debacle.

With few legislative days left before the election, members of Congress are eager to hit the campaign trail. They leave behind a long, difficult legislative to-do list, including addressing the Farm Bill, FY 2025 funding and aid to Ukraine, Israel and Taiwan. The margin in the House continues to shrink, with several members leaving before the end of the term. The Republican majority has 218 seats, the Democratic minority has 213, and the full House has four vacancies (3R, 1D) – which makes passing any legislation extremely difficult.

Farm bill update

To date, neither the House nor the Senate Agriculture committees have released text to reauthorize the farm bill. House Agriculture Committee Chairman Glenn Thompson (R-PA) continues to publicly commit to marking up a farm bill this spring. While the far right continues to raise concerns on spending levels and the cost associated with a farm bill, the left opposes any cuts to the Supplemental Nutrition Assistance Program or the Inflation Reduction Act (IRA) conservation spending. As always in a farm bill reauthorization year, the political divide is wide. Chairman Thompson will need a commitment from Speaker Johnson for floor time before the chairman will be comfortable releasing farm bill text to the public.

Senate Agriculture Committee leaders continue to publicly posture around how to pay for a new Farm Bill. Ranking Member John Boozman (R-AR) has advocated for reference price increases to support farm programs for producers. Chairwoman Debbie Stabenow (D-MI) pushed back: If reference prices are increased for major commodity programs, they should be increased for all producers, no matter the commodity. This of course would create a significant cost even though Senate rules do not require a "pay-for." The chairwoman also said that she would not cut nutrition programs or move money from IRA climate initiatives. Many believe that pressure from House consideration of a farm bill will move the Senate and require them to come to the table with a compromised position.

In the short term, time for Congressional action is running out and getting more difficult. ■

1 **After nearly six months of debate, Congress funded the government through the remainder of FY 2024.**

2 **The shrinking margin in the House of Representatives makes passing any legislation extremely difficult.**

3 **To date, neither the House nor the Senate Agriculture committees have released text to reauthorize the farm bill.**

GRAINS AND OILSEEDS

Higher soybean plantings expected to pull acres out of grains

By Tanner Ehmke

Grain and oilseed prices continued their descent last quarter under the pressure of a strengthening U.S. dollar, the arrival of the South American harvest and ample inventories in the U.S. USDA's *Prospective Plantings* report indicated farmers will be cutting back on planted acreage this spring. Corn, grain sorghum, barley and oats all saw major reductions since last year, while soybeans, cotton, spring wheat and durum wheat each saw increases *(Exhibit 1).* But much can happen with weather and markets to shift the balance this spring. Low water levels on the Mississippi River are already raising concerns of slower grain and oilseed shipments ahead *(Exhibit 2).*

Corn

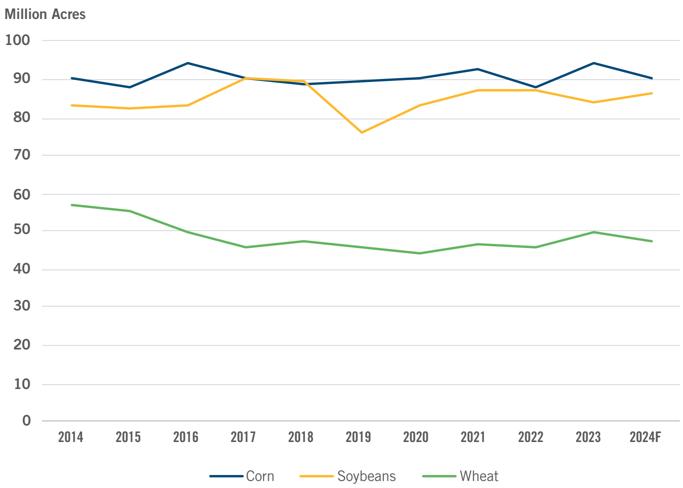
USDA surprised the market with its low U.S. corn acreage forecast of 90 million planted acres, down 4.9% YoY. Corn prices fell 33% YoY under the weight of growing world inventories and a strong U.S. dollar, discouraging corn acreage *(Exhibit 3).* Farmers are also shifting away from other feed grains. Planted acreage for grain sorghum is down 11% YoY at 6.4 million acres and combined barley and oat acreage is down 14% YoY at 4.9 million.

Corn supplies in the U.S. are ample, with farmers holding on to a bigger share of the crop this year compared to last. USDA reported U.S. corn stocks on March 1 at 8.35 billion bushels *(Exhibit 4),* up 13% YoY while the share of on-farm corn inventories versus off-farm grew to 60%, up from 55% last year. Domestic demand is struggling to offer optimism with corn usage for alcohol in January down 3% YoY. Exports, though, have been strong, particularly to Mexico. Total U.S. export sales commitments are up 19% YoY, but will face strong competition from Brazil next quarter as the safrinha corn crop comes to market.

1 **USDA's *Prospective Plantings* report indicates an increase in soybean acreage, but surprised the market with its cut in corn acres.**

2 **USDA confirmed plentiful supplies of U.S. corn, soybean and wheat inventories in March as commodity prices continue to languish.**

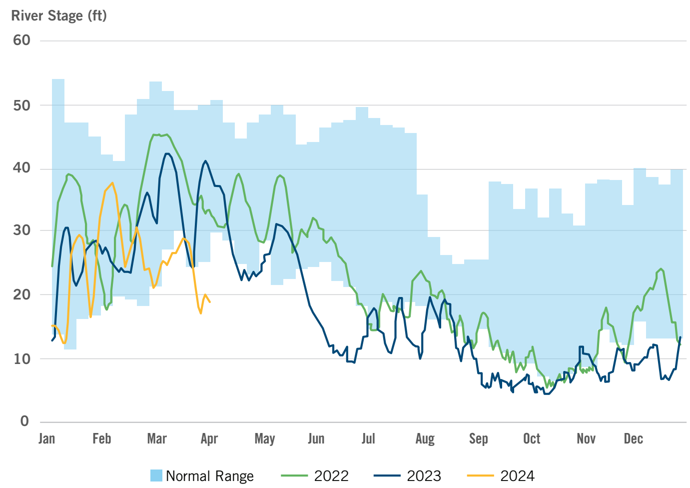
EXHIBIT 1: U.S. Planted Acreage



Source: USDA-NASS

EXHIBIT 2: Mississippi River Level

Measurement Taken at Wickliffe, Kentucky, April 3, 2024



Source: Action Intel BargeAI

Soybeans

Farmers made clear they intend to plant more soybeans this spring with USDA forecasting a 3% YoY increase to 86.5 million acres. Strong domestic demand has helped soybeans hold a greater price premium to corn with soybean crush record large as renewable diesel drives new demand for soybean oil. Soybeans crushed in January exceeded last year's pace by 2% – a consistent theme as new soybean crush capacity comes online.

Languishing Chinese demand and growing competition from a record South American crop have dragged on exports, pulling total soybean export commitments down 19% YoY. The lethargic export pace dragged on total usage, pulling total disappearance last quarter down 13% YoY. U.S. soybean inventories on March 1 were 1.85 billion bushels, up 9% YoY.

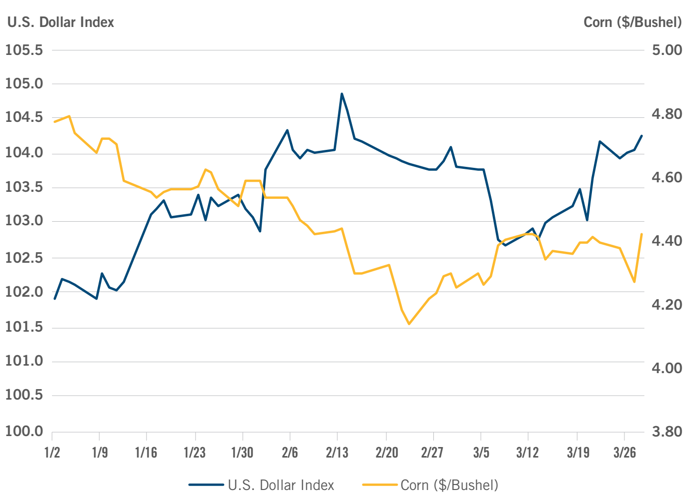
Wheat

USDA pegged U.S. wheat stocks on March 1 at 1.09 billion bushels, jumping 16% YoY while wheat disappearance fell 10% YoY to 334 million bushels with the ongoing slow export pace. Nonetheless, spring wheat and durum picked up a surprising amount of acreage in the *Prospective Plantings* report. Both crops are cheaper to plant than corn. However, total U.S. wheat acres are down due to lower winter wheat acres.

Winter wheat conditions on the Plains improved thanks to moisture linked to El Nino. However, El Nino is fading fast. With conditions improving, yield prospects are also higher. The last time Kansas set a record wheat yield was 2016, an El Nino winter. Overseas, growing conditions among major exporters are not as favorable. Warm and dry conditions prevail in Ukraine and Russia, and excessive wetness plagues Western Europe.

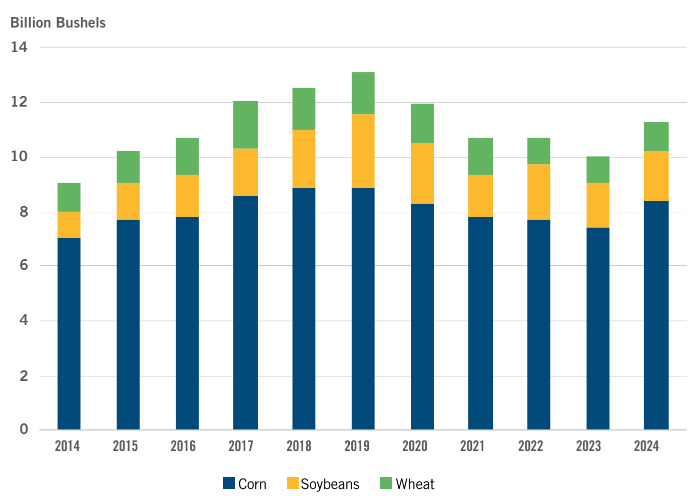
3 A strong U.S. dollar remains a headwind to U.S. grain and oilseed exports, with low water levels on the Mississippi River raising concerns of future bottlenecks.

EXHIBIT 3: U.S. Dollar vs. Corn, Q1 2024



Source: Barchart.com

EXHIBIT 4: U.S. Stocks on March 1



Source: USDA-NASS

FARM SUPPLY

Farm production costs inch higher amid lower commodity prices

By Jacqui Fatka

Sliding commodity prices – paired with farm input costs creeping slightly higher – will limit farm-level profitability heading into the 2024 growing season. Ag retailers and distributors could see slightly lower demand during the spring agronomy season due to an anticipated overall 2% YoY decrease in total plantings of principal crops. USDA's March *Prospective Plantings* report estimated corn acreage to drop nearly 5%, with soybean plantings projected 3.5% higher. Corn's climbing production costs *(Exhibit 1)* and farmers' tighter balance sheets will limit the potential for any added corn acres this spring and the inputs required to produce high yields.

After last year's worrisome dryness for many key Midwest growing regions, above-average precipitation this spring will bring relief to drought-stricken areas of the Midwest including Iowa, Wisconsin and southeastern Minnesota, according to the National Oceanic and Atmospheric Administration *(Exhibit 2).* Last year's corn yields avoided repeating 2012's negative drought impact, likely due to better seed genetics and improved weather during the latter part of the growing season.

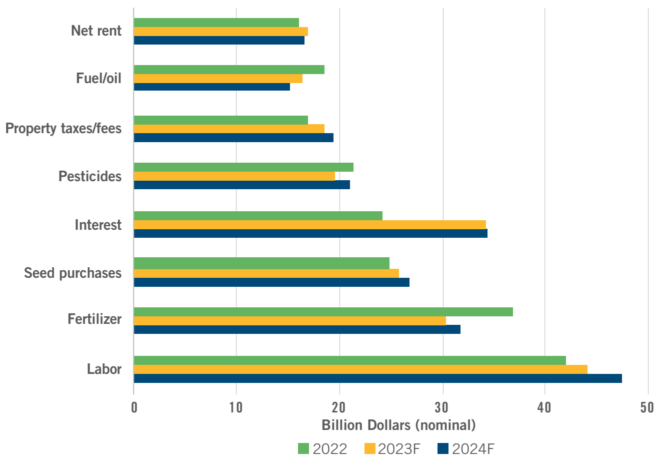
After reaching recent lows in late 2023 near $500 per short ton, North America fertilizer prices climbed nearly $100/st to close out the first quarter, according to Bloomberg's Green Markets North America Fertilizer Price Index. Farmers trying to get a head start applying spring fertilizer faced difficulties obtaining product. Urea ammonia nitrate (UAN) inventories started off the year low and remain tight heading into April. Anhydrous ammonia applications in late fall emptied stocks on hand, and the quick start this spring continues to use up limited supplies.

1 **Increased spending on farm inputs will be limited in 2024** **with lower overall acreage and tighter farmer balance sheets.**

2 **Drought conditions likely will persist in the Upper Midwest,** **with some improvement in the Great Plains.**

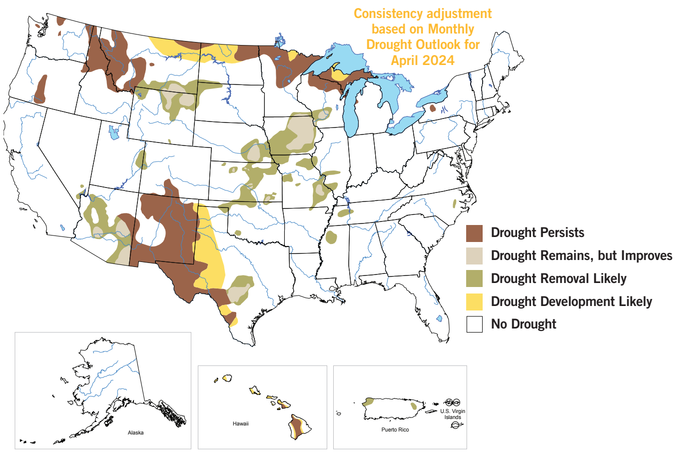
3 **Spring fertilizer supply hiccups** **seen as farmers try to get an early start on applications.**

EXHIBIT 1: Selected U.S. Farm Production Costs
2022-2024F



Source: USDA-ERS, Farm Income and Wealth Statistics, data as of Feb. 7, 2024.
F= forecast

EXHIBIT 2: U.S. Seasonal Drought Outlook
Valid for April 1-June 30, 2024



Source: NOAA/NWS/NCEP Climate Prediction Center

BIOFUELS

Producers optimistic that higher blends, SAF will offset EV demand impact

By Jacqui Fatka

The ethanol outlook overall is positive for 2024 as plants capitalize on lower corn prices and improved margins *(Exhibit 1).* Ethanol production started with lower production in January, with corn for fuel alcohol consumption at 434 million bushels, down 10% from December 2023 and 2% lower than January 2023. Reports indicate some marginal plants came back online, which could create minimal oversupply.

The Environmental Protection Agency will allow eight Midwestern states to use E15 year-round starting in 2025 but will still require waivers this summer. Rising E15 and E85 blending enables the ethanol industry to hold the line in an otherwise declining gasoline market. Every 1 million new battery-only EVs sold reduces ethanol demand by 45 million gallons per year. Renewable diesel continues to provide solid demand for soybean oil and other feedstocks including animal fats and corn oil *(Exhibit 2).* The lower prices for renewable identification numbers (RINs) in recent months may reduce plant utilization or force producers to slow or even shelve renewable diesel expansion plans.

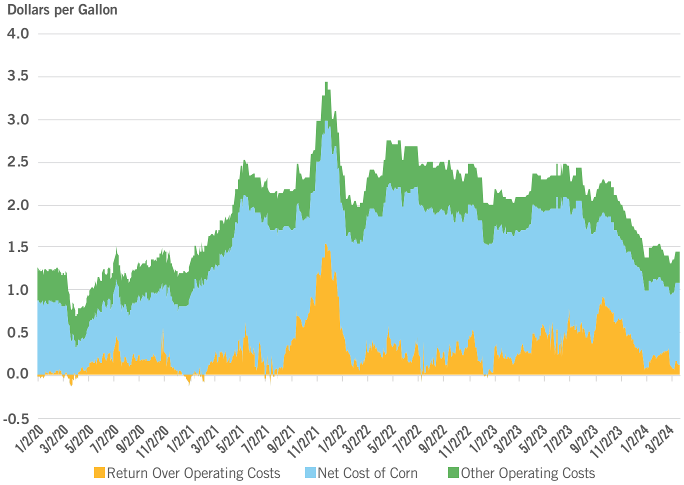
The Department of Treasury has yet to release its revised GREET (Greenhouse gases, Regulated Emissions, and Energy use in Technologies) model which will specify what qualifies for Inflation Reduction Act Section 40B sustainable aviation fuel tax credits. Ethanol producers will need to shave off 25 to 30 carbon intensity (CI) points through sourcing lower CI grains or capturing carbon underground before corn ethanol-to-jet qualifies for 40B. This determination will also set the tone for implementation of the 45Z Clean Fuel Production credit, scheduled to go into effect on Jan. 1, 2025.

1 Improved ethanol demand encourages marginal plants to come back online, pushing overall ethanol supplies higher.

2 The wait for IRA tax incentive regulations for SAF is putting the biofuels industry in limbo.

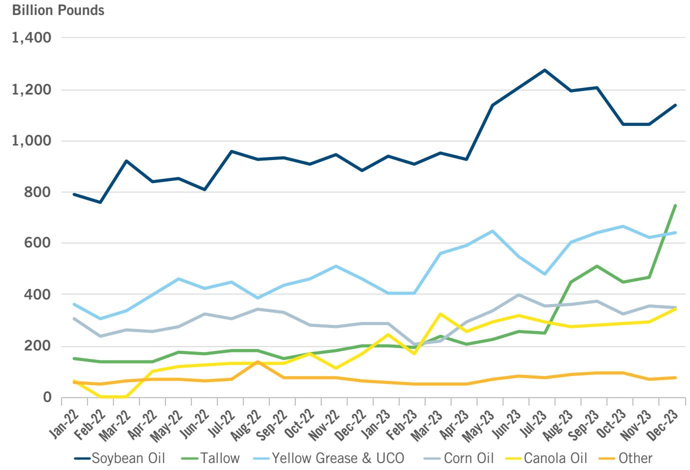
3 Lower prices for RINs are creating downward pressure on future plant utilization and renewable diesel expansion.

EXHIBIT 1: Ethanol Operating Margins Based on Nearby Futures and Iowa Corn Prices



Source: Iowa State University, Center for Agricultural and Rural Development (CARD)

EXHIBIT 2: Fats, Oils and Greases Consumed for Production of Biofuels



Source: U.S. Energy Information Administration (EIA) Monthly Biofuels Capacity and Feedstocks Update

ANIMAL PROTEIN

Standing ovation accompanies easing inflation

By Brian Earnest

Incessant input cost inflation significantly weakened animal protein producers' ability to keep margins in the black over the past two years. Key components were tight labor supplies, elevated feed costs and rising interest rates. But feed costs are the biggest component of total production costs and a reduction there will go a long way toward offsetting the other higher costs. Poultry producers are already seeing the benefits of cheaper rations, in excess of a 25% cost reduction in feed to start 2024.

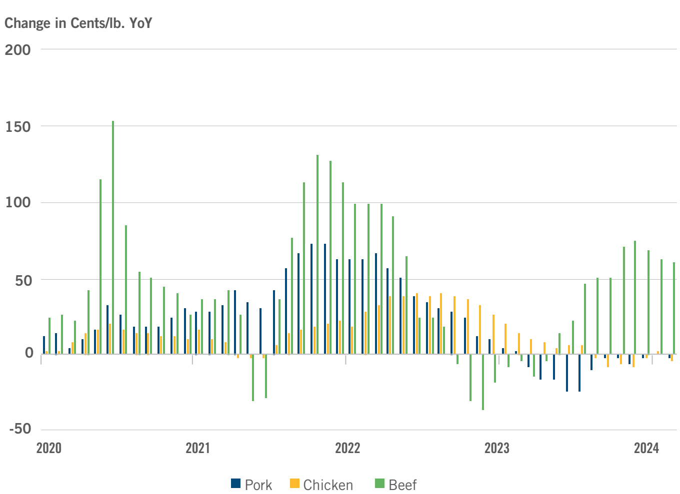
Feed cost is a major factor for animal protein producers who are considering expansion vs. contraction, but demand is another. Massive food inflation over the last 30 months has had a big impact on consumer habits. While increases in both menu and retail prices could potentially be detrimental to animal protein disappearance, dollar sales at both retail and food service have remained healthy. Meat and poultry inflation softened through much of 2023. While we expected the burden of higher prices for pork and chicken on the consumer to be short lived, beef prices should remain sky high. Retail beef prices hit new records to start 2024, with a combined average for January and February up 8% YoY *(Exhibit 1).* Chicken and pork dropped slightly below 2023 levels.

The domestic market is providing fairly good support, but demand for exports is generally weaker. Tighter domestic cattle supplies, combined with foreign exchange headwinds in Japan and economic uncertainty in China, suggest the U.S. will rely more heavily on Mexico – already the top export destination for U.S. meat and poultry. But with combined freezer inventories near 15-year lows *(Exhibit 2),* concern appears unwarranted.

1 Feed costs are down about 25% YoY, partially easing the burden on animal protein producers.

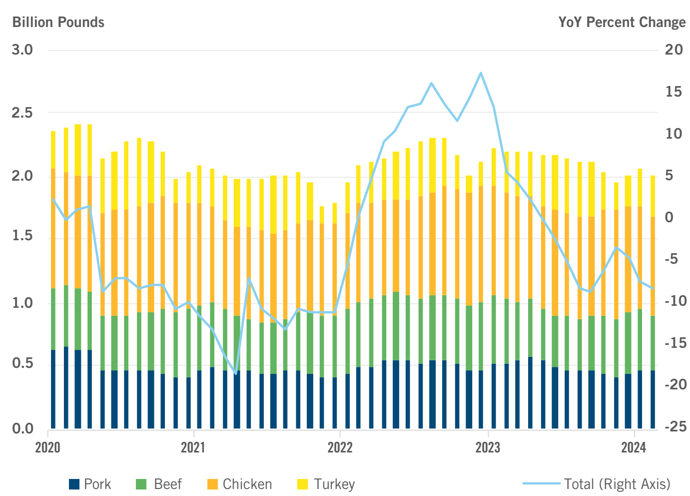
2 Demand for animal protein, especially beef, remains exceptional despite rapidly rising prices.

EXHIBIT 1: YoY Change in Retail Meat and Poultry Prices



Source: LMIC, USDA, CoBank Calculations

EXHIBIT 2: USDA Cold Storage Inventories, End of Month



Source: LMIC, USDA

CHICKEN

Elevated input costs and weaker demand were trouble for the U.S. broiler industry in 2023, but the course seems to be straightening in 2024. Prices for primary feed inputs corn and soybean meal are falling, while broiler parts have been appreciating *(Exhibit 3).* Historically, this has been an ideal situation for expansion, but lower productivity rates are keeping growth at bay.

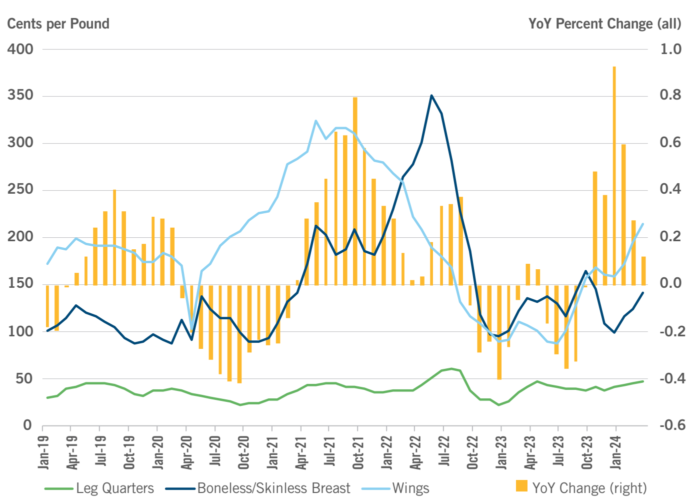
After languishing at seasonal lows in the upper $0.90/lb. to end December, wholesale values for boneless breast meat are climbing near $1.50/lb., averaging a 5% premium YoY, and a 15% premium vs. the five-year average. Wings have been falling short of the mark after a short-lived burst of interest in 2020 sent wholesale values soaring. However, to start 2024, wing prices have steadied with the long-term average, but that is 80% higher than a year ago. Foreign market disappearance growth has been sluggish for U.S. chicken, with cumulative export volume down 3% in the most recently reported 6-month period. Fortunately, domestic markets are clamoring to value protein, and leg quarter values are up more than 30% YoY.

If there is one area of concern, Highly Pathogenic Avian Influenza continues to threaten access to foreign markets. This is not expected to dissipate anytime soon, despite limited instances of HPAI in domestic broiler flocks. In particular, China has been quick to restrict U.S. poultry from regions that detect HPAI in commercial flocks, but slow to reopen those product flows. In 2022, the U.S. held a 26% market share of China imports of chicken; for 2023, it was just 19.6%, with Brazil gaining the lion's share. USA Poultry and Egg Export Council estimates U.S. broiler industry export market loses of roughly $263 million for 2022-23, and total system losses of more than $5.5 billion *(Exhibit 4).*

1 Broiler integrator margins improved as markets are heating up and input prices are falling.

2 Export volume is down 3% in the most recent six-month period while domestic support for dark meat continues to swell, boosting dark meat values.

EXHIBIT 3: U.S. Wholesale Chicken Prices



Source: USDA, CoBank

EXHIBIT 4: U.S. Poultry Industry Loss Due to HPAI Ban
February 2022 through December 2023

Million U.S. Dollars

	Broiler	Turkey	Eggs	Total
Export Loss	263	293	538	1094
U.S. Domestic Drop in value	1025	542	2886	4453
Total	1288	835	3423	5546

Note: Does not include expenses to fight HPAI (indemnification cost, etc.)

Source: USAPEEC

BEEF

All indications continue to point towards tighter beef supplies for U.S. consumers, not only for 2024, but in the years to come. The Jan. 1 U.S. cattle inventory dropped 2% from last year, to its lowest level in over 70 years. This decline was not a big surprise, as beef cow slaughter was at its highest level since 2011, and often 10%-15% higher than the five-year average from 2021 to 2023 *(Exhibit 5)*. Herd rebuilding has been slowed by drought-induced weak pasture conditions and financial stress for upstream producers. Cutter cow prices have spiked recently up more than 45% YoY, and 120% above the five-year average, hampering incentives for cow-calf operators.

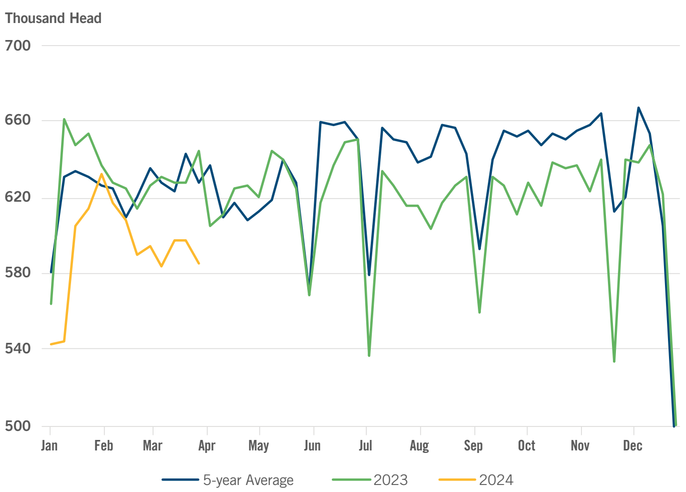
Winter storms massively disrupted cattle flow in January, spiking weights to start 2024. Other disruptions – including shorter slaughter schedules to accommodate tighter labor availability, and shrinking cattle supplies – have meant overall cumulative fed cattle slaughter is down 6% YoY. Beef production declined by 4% YoY, or 280 million pounds, during the first quarter. Wholesale markets have been increasingly supportive amidst expectations of tighter beef and cattle availability. The boxed beef cutout soared to more than $300 per cwt. in February, a first for the period.

Exceptionally strong consumer beef demand and a dwindling beef cow herd have surfaced record high prices across the board *(Exhibit 6)*. Fed cattle futures have jumped into the $180s, the boxed beef cutout averaged a 7.6% premium YoY during the first quarter, and retail beef prices were up 8% YoY in February. The question now is, will the consumer begin to balk at high-priced beef, and will they seek out value offerings? For now, lean beef trim values have skyrocketed, up more than 30% from where they started the year. Lean beef imports are projected to rise as well, and it is all but certain that after two years as a net beef exporter, the U.S. beef trade deficit will widen in 2024.

1 **As the U.S. cattle inventory continues to suffer stress in major producing regions,** **beef production is down 4% YoY, or 280 million pounds**

2 **U.S. will be a net beef importer during 2024,** **as consumption outstrips domestic supplies.**

EXHIBIT 5: U.S. Weekly Cattle Slaughter (Federally Inspected)



Source: USDA

EXHIBIT 6: Beef Price Index

Source: USDA, LMIC, CoBank

PORK

Pork's big story in recent years has been lack of market strength for pork products (outside of bacon) at retail outlets. This, combined with retail prices of processed products lurching higher in recent years, has discouraged disappearance and pressured producer returns.

Much like the story for chicken, it seems hog producers are starting to breathe again as feed prices retreat. After several quarters deep in the red, margins are improving for wean-to-finish operations *(Exhibit 7).* Iowa State estimates wean-to-finish operations were about $5.50 per head in the black for February after a $39 loss a year earlier.

While declining feed costs are a big positive for hog producers, both domestic and foreign demand has improved as well with growing reliance on Mexico. U.S. pork exports grew by 7.5%, or 500 million pounds, in 2023, and USDA forecast suggests another 4% in growth for 2024 *(Exhibit 8).* Industry analysts attribute the surge in export opportunity to the peso trending closely with the U.S. dollar, and strong economic conditions.

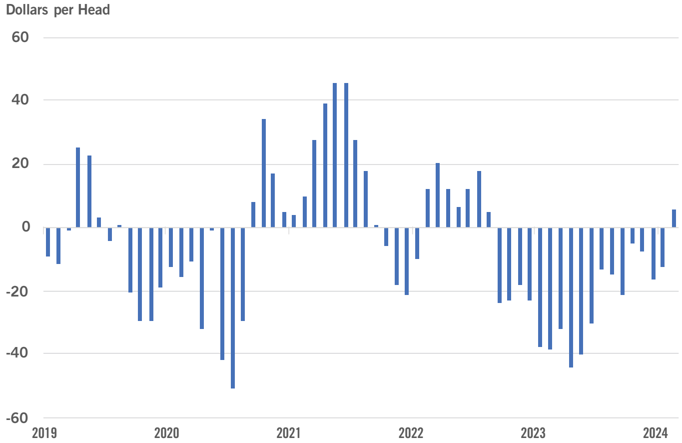
After recovering from the polar vortex-related production decline early in the quarter, pork production remained elevated, and yet the cutout value still surged, up 19% YoY to end March. That was a function of improved loin, rib, butt, and belly prices. Despite the improving market conditions, the latest USDA Quarterly *Hogs and Pigs* report hinted at supply moderation through much of 2024, as the breeding herd continues to contract annually (down 2% YoY on March 1). This suggests plenty of potential left on the table for pork. The bottom line for pork margins is that the trend appears to (finally) be headed in the right direction.

1 **After spending 17 straight months in the red, producer profitability is finally returning to the black.**

2 **Exports rose 7.5% during 2023, with much of the gain coming in the fourth quarter. Robust opportunity in Mexico is stoking optimism.**

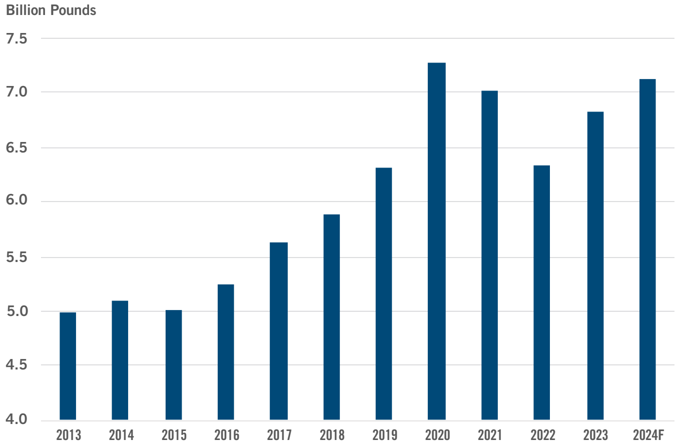
EXHIBIT 7: Iowa Hog Market Profit

Wean-to-Finish Operations



Source: LMIC, Iowa State University

EXHIBIT 8: U.S. Pork Export Volume



Source: USDA-ERS; 2024 forecast is from USDA's World Agricultural Supply and Demand Estimates (WASDE) report.

DAIRY

Class III milk prices and replacement availability dominate conversations

By Corey Geiger

FUTURES PRICES INDICATE that 2024 could be the third-highest milk price year on record *(Exhibit 1).* However, sluggish international dairy trade and tepid domestic consumer demand due to four years of inflationary forces have been slowing growth in dairy product sales. On the processing side of the equation, conversations at dairy meetings across the U.S. have been dominated by new cheese production capacity coming online later this year and shrinking dairy replacement inventories. These situations could pull dairy demand and milk prices in either direction as the year unfolds.

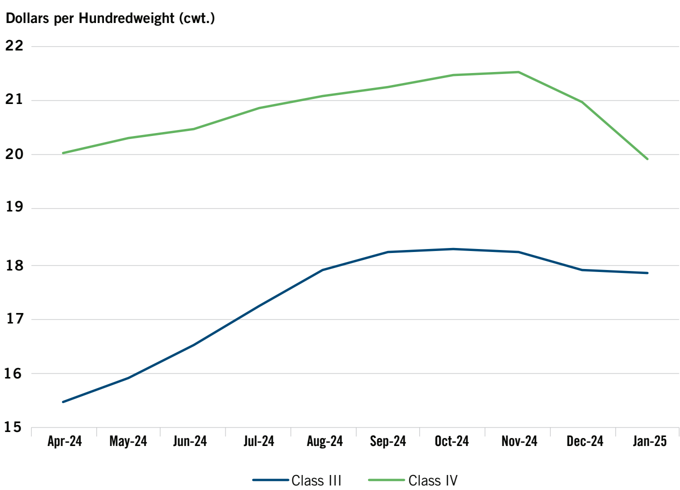
The prospect of new plant capacity coming online, and with it more cheese trying to find a consumer home later this year, has been putting downward pressure on Class III milk prices *(Exhibit 2).* On the flip side, strong butter demand, even with near-record retail prices, has lifted Class IV milk prospects higher. Together, cheese and butter prospects have inverted the Class III to Class IV price relationship. This unusual market situation could persist throughout 2024 and well into 2025, delivering lower milk prices to farmers in high cheese production regions such as the Upper Midwest. Meanwhile, strong Class IV markets, like those found on the West Coast, will receive higher mailbox prices. The spread also dampens Class I prices due to average pricing formulas.

Even as Class III price forecasts remain off pace from Class IV, there's not a lot of extra milk in the marketplace. Midwest Class III spot milk prices indicate that milk is fetching closer to Class III Federal Milk Market Order minimum prices this year compared to milk selling for $7 to $8 per cwt. under value last year to proprietary plants. Milk supply caps, known as base excess plans, also continue to keep markets in balance given slowed growth in demand.

1 **Class III milk price prospects have cooled with new cheese plants slated to come online.**

2 **Strong butter sales have lifted the Class IV price forecast and inverted the Class III to Class IV relationship.**

EXHIBIT 1: CME Milk Futures April 2024 to January 2025



Source: CME Group

EXHIBIT 2: CME Spot Class III Milk Prices

Source: USDA-AMS Dairy Market News

In other regions, especially the Northeast, the Texas Panhandle, and western Kansas, managers for new or growing processing plants have concerns about future milk prospects. U.S. milk production has been flat for over eight months even though milk component production grows annually by roughly 1%. The main reason for concern over additional milk supply is dairy replacement numbers. Dairy replacements expected to enter the U.S. milking herd fell 709,100 head in the past six years to reach a 20-year low. Record beef prices have encouraged dairy farmers to use even more beef semen on their dairy cows to capture premiums in the beef market as newborn crossbred calves are fetching $800 to $950.

Dairy farmers are moving full steam ahead with a plan to make two kinds of calves – dairy heifers and beef-on-dairy crosses. In 2023, U.S. bull studs sold a record 9.4 million units of beef semen, and a whopping 84% – 7.9 million units – was sold to dairy farmers. The trend shows no signs of slowing with beef semen sales surpassing the 7 million units of conventional dairy semen, according to data from the National Association of Animal Breeders *(Exhibit 3).* The only category with higher semen sales than beef is gender-selected dairy semen. That category totaled 8.4 million units and accounted for 54% of all dairy semen sales.

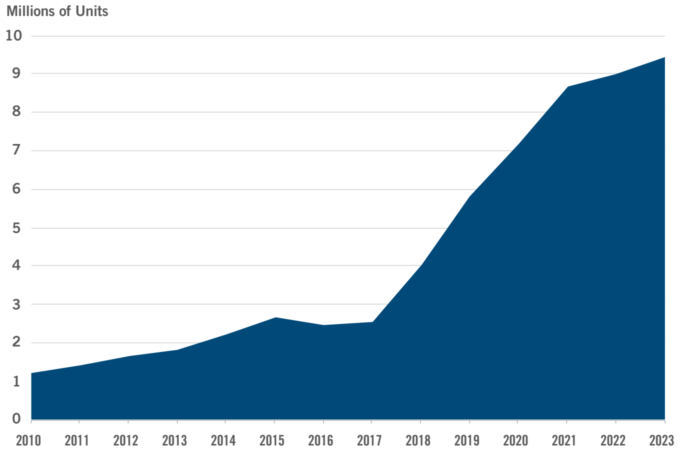
As replacement values have skyrocketed from $1,200 in 2019 to near $2,800 per head this year, farmers have pulled way back on culling in order to keep milk barns full. Compared to this time last year, dairy-cow culling is down 113,800 head, and this is taking place during an era of record beef prices *(Exhibit 4).*

While the impact of Highly Pathogenic Avian Influenza (HPAI) on dairy cows in six states continues to draw concern, it has not had much impact on the market through early April.

3 High beef prices and beef-on-dairy continue to cut into the dairy replacement numbers, minimizing prospects for growth in milk production.

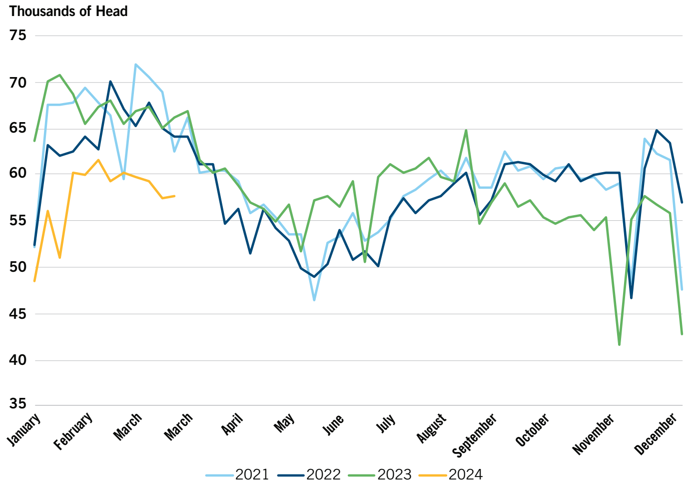
4 Dairy cow slaughter has pulled back as 113,800 fewer cows were culled this year.

EXHIBIT 3: Domestic Beef Semen Sales Have Climbed Substantially



Source: National Association of Animal Breeders (NAAB) U.S. sales data

EXHIBIT 4: U.S. Dairy Cow Slaughter Numbers



Source: USDA NASS, AMS, and Food Safety Inspection Service

COTTON, RICE AND SUGAR

Attractive cotton and rice prices to expand planted acreage in the U.S. this spring

By Tanner Ehmke

Cotton

A 15% rise in cotton prices last quarter fundamentally changed the outlook for cotton planting this spring. In its *Prospective Plantings* report, USDA-NASS expects U.S. cotton acreage to expand 4.3% YoY to 10.7 million acres *(Exhibit 1)*. This was the opposite of what farmers indicated in the National Cotton Council's survey conducted in December and January, which projected a 3.7% YoY drop to 9.8 million cotton acres. Tight U.S. cotton inventories following last year's small harvest drove last quarter's price rally. The rally was supported by very strong Chinese buying as the world's largest cotton user rebuilds its state inventories.

The U.S. cotton export program has suffered as a result of the scarcity of supplies, allowing more room for Brazil to step into a greater role in the global cotton trade *(Exhibit 2)*. Brazil is now on its way to replace the U.S. as the world's largest cotton exporter. The prospects of expanded cotton acreage in both the U.S. and Brazil portend a price war later in the year as they compete for global market share with Chinese demand expected to retreat.

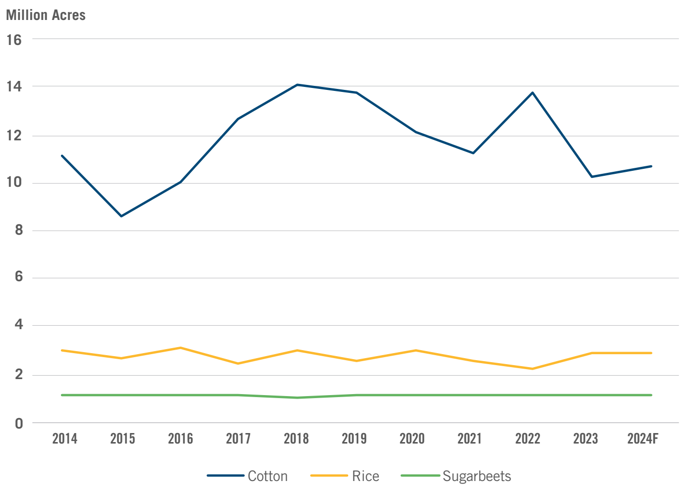
Rice

Rice prices succumbed to the downward trend across the grain complex and fell 8.4% last quarter, pressured by a strong U.S. dollar and the arrival of the Brazilian rice harvest that competes directly with U.S. rice exports. The sharp drop in U.S. rice prices was also accompanied by falling prices in Brazil. USDA forecasts Brazilian exports to rise to 1.3 MMTs in the current marketing year, up 8% YoY.

1 Rising cotton prices are driving a turn-around in U.S. cotton acreage.

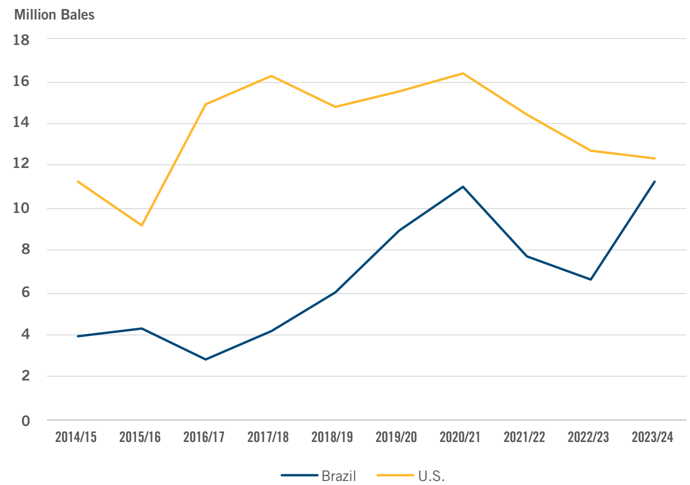
2 Strong rice exports have underpinned U.S. prices, enticing more planted rice acres this spring.

EXHIBIT 1: U.S. Planted Acreage



Source: USDA-NASS

EXHIBIT 2: Cotton Exports



Source: USDA-FAS

Despite the recent drop in prices, rice still holds a historically large price premium to soybeans. USDA-NASS forecast U.S. rice planted acreage to rise to 2.93 million acres, up 1.3% YoY. U.S. rice inventories on March 1 tallied at 100.5 million cwt., up 31% YoY due to last fall's bigger harvest *(Exhibit 3).* The pace of disappearance, though, jumped 30% YoY thanks to a swift export program that preceded the arrival of the Brazilian harvest.

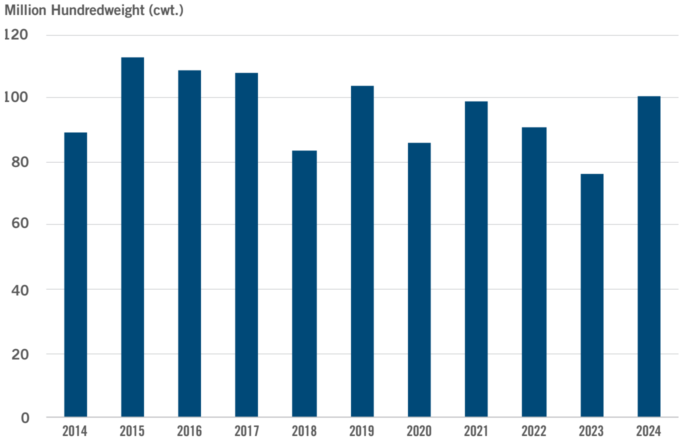
Sugar

El Nino has hindered sugar production in key growing regions such as Brazil, India and Mexico, causing international sugar prices to continue climbing 8.8% last quarter. The resulting drop in Mexican raw sugar imports into the U.S. *(Exhibit 4)* has tightened the U.S. stocks-to-use ratio for the 2023/24 marketing year to 13.4 – just under USDA's minimum level of 13.5. A month earlier than expected, USDA announced it would expand the tariff rate quota (TRQ) to increase the amount of raw sugar that can be imported under low tariffs by 137,789 tons. U.S. sugar producers were displeased with the ruling as U.S. production this year is expected to reach a near-record high. USDA forecasts the U.S. will import 715,000 tons of high-tier tariff sugar for 2023-24, up from 455,000 tons in 2022-23. USDA-NASS forecasts U.S. sugarbeet acreage this spring to drop 0.7% YoY to 1.129 million acres due mostly to losses in North Dakota.

The collapse of the Francis Scott Key bridge in Baltimore in March may have the greatest impact on sugar compared to other agricultural commodities. In 2023, Baltimore was the top port for handling sugar, accounting for 21% of all U.S. sugar imports with the second-largest sugar refinery in the U.S. located near the port. However, the port closure will not have an immediate impact on the refinery's operations as the plant has several weeks of raw sugar supply already in inventory.

3 The port closure in Baltimore will have minimal impact on sugar refining in the near-term with the second-largest refiner in the U.S. carrying sufficient inventories.

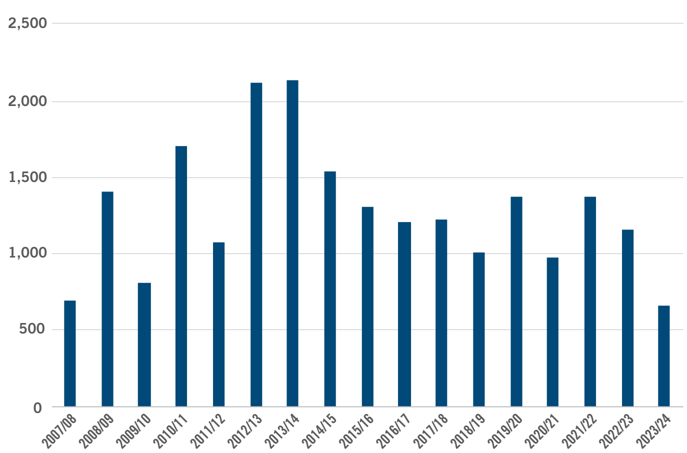
EXHIBIT 3: U.S. Rough Rice Stocks on March 1



Source: USDA-NASS

EXHIBIT 4: U.S. Sugar Imports from Mexico

1,000 short tons, raw value



Source: USDA, World Agricultural Outlook Board, World Agricultural Supply and Demand Estimates (WASDE).

SPECIALTY CROPS

Supercenters grab produce market share, cocoa price doubles in two months

By Billy Roberts

Low-price retailers make gains in produce sales

Traditional grocery stores remain the top outlet for purchasing fresh produce, per FMI-The Food Industry Association's latest *Power of Produce* report. However, mass merchandisers and supercenters are gaining market share in the categories, with 59% of shoppers purchasing fruits and vegetables from non-supermarket retailers in 2023 (*Exhibit 1).* Despite having the largest share of consumers' produce spending, supermarkets lost $1.5 billion in category sales from 2020 to 2023. At the same time, produce shoppers shifted back to brick-and-mortar locations: Surveyed shoppers who say they're shopping for fresh produce online spiked to 64% in 2020, dropped and held steady at 46% in 2022 and 2023, but fell to 37% in 2024. That 37% of online produce shoppers do appear devoted to the channel, with 78% saying they expect to continue doing so. As FMI noted, high-income shoppers are more likely to purchase groceries online and to purchase fresh produce.

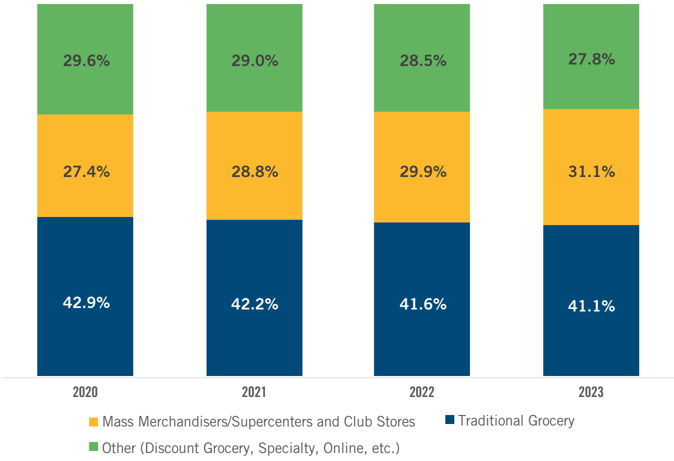
Cocoa prices continue to surge

A poor 2023 cocoa harvest, coupled with the International Cocoa Organization's forecasted shortage of 374,000 metric tons this year, continues to hit futures prices. From January through October 2023, the average daily cocoa futures price was $3,130.4/MT. By New Year's Eve 2023, that price had reached $4,747/MT, surpassing a record in place since 1977. In 2024 alone, the futures price has nearly doubled *(Exhibit 2).* Cocoa exports from the Ivory Coast are reportedly down by one-third in

1 **Fruit and vegetable consumers have shifted their spending toward lower-priced retailers.**

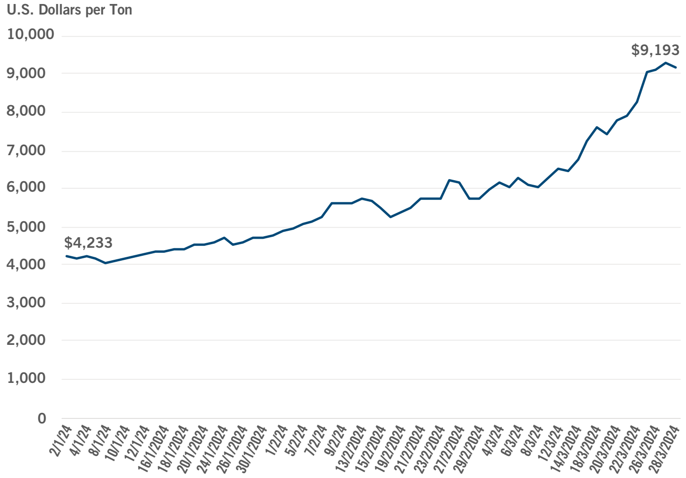
2 **Multiple challenges in cocoa production have led to record cocoa futures prices.**

EXHIBIT 1: Produce Dollar Share by Retail Channel, 2020-23



Source: FMI-The Food Industry Association, "Power of Produce 2024"; CoBank

EXHIBIT 2: New York Cocoa Futures



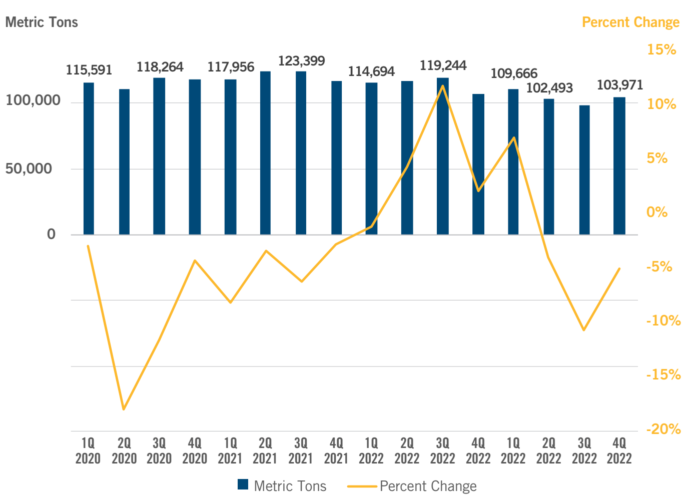
Source: International Cocoa Organization; CoBank recent months, and major cocoa plants there and in Ghana have reportedly halted or reduced processing because they cannot afford to buy beans. The challenges in pricing come as cocoa grindings in North America have been falling steadily on a quarterly basis for the better part of two years *(Exhibit 3),* with reported incidents of canceled cocoa supply contracts for smaller chocolate producers. Any widespread default on supply contracts would obviously impact cocoa processors worldwide, with some already looking to procure cocoa from South America and Asia, where available. Meanwhile, chocolate brands including Hershey are featuring more sugar confectionery products. Hershey has brought on NBA great and analyst Shaquille O'Neal as a brand ambassador to boost awareness of the company's gummy offerings.

3 Citrus forecasts for 2023/24 are slightly below their year-ago levels.

U.S. citrus crop forecast dips slightly

The most-recent forecast for the U.S. citrus crop from USDA indicates the 2023/24 total of 4.85 million tons, down 1% from the final 2022/23 utilized total of 4.9 million tons. USDA's Crop Production report expects domestic production of 2.77 million tons of oranges, an increase of 11% over the final production levels seen in the 2022/23 season. Grapefruit production is likewise expected to improve, though by a more modest 4%, to reach 340,000 tons. Reductions are likely in lemon production (by an expected 25% to 836,000 tons in 2023/24) and in tangerines (forecast to drop 7% to 904,000 tons in 2023/24).

EXHIBIT 3: Quarterly Cocoa Grindings in North America



Source: National Confectioners Association Cocoa Grindings Quarterly Reports

FOOD AND BEVERAGE

Food inflation curbs restaurant visits, boosts private-label groceries

By Billy Roberts

Inflation has abated for food at home, where prices grew 1% over the past 12 months, per the Labor Department's Consumer Price Index. However, inflation for food-away-from-home (4.5%) outpaced even the 3.2% overall inflation. Consumers are trading down from restaurants to eat at home. While dollar sales growth for food-away-from-home remains notably ahead of food-at-home sales *(Exhibit 1),* this growth masks a notable decline in restaurant traffic *(Exhibit 2).* In fact, roughly a quarter of low-income consumers (household incomes of less than $50,000 per year) report eating less fast food, and about half are making fewer trips to fast-casual and full-service restaurants, per surveys by Revenue Management Solutions.

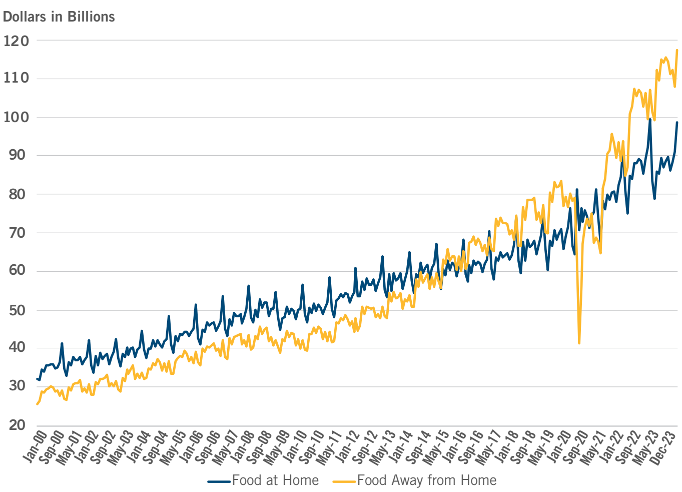
Consumers have traded down to lower-cost products even within their usual grocery spending. As a result, private-label goods have gained market share following several years of decline. If history is any precedent, private-label gains will moderate, especially with more stable economic growth and abating inflation (or even potential deflation in certain categories). During the Great Recession, a similar shift toward private label offerings led to significant growth in store brands, ultimately achieving their market share peak of the low-20% range before stalling.

Research from the Private Label Manufacturers Association (PLMA) and market researcher Circana finds private label notched a 4.7% increase in dollar sales across the U.S. in 2023, rising to $236 billion (including $42.6 billion in food and $12.9

1 **The food and beverage category has seen sales volume decline steadily in recent years, including among major brands in 2023.**

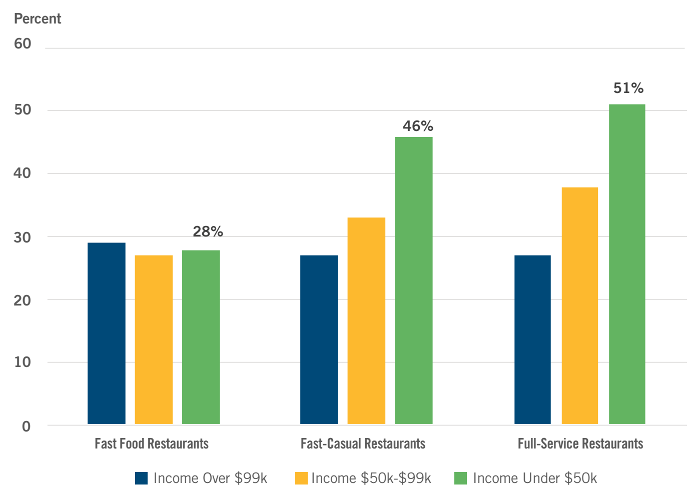
2 **Despite dollar sales increases, restaurants did not gain traffic, particularly among lower-income households.**

EXHIBIT 1: Monthly Sales of Food at Home and Food Away From Home (Nominal Sales)



Source: Calculated by USDA-ERS, from various sources, Feb. 20, 2024.

EXHIBIT 2: Lower-Income Households are Dining Out Less



Source: Revenue Management Solutions, as reported March 22, 2024 by Reuters. Results of a survey of 1,604 people in the U.S. from Jan. 31-Feb. 5, 2024. Chart shows the share of respondents, according to income level, who said they are visiting restaurants less in the past month than in previous months.

billion in beverages). However, much of that growth came in the first half of the year, with last-half growth at 1.4%, suggesting that private-label growth may be returning to the low-single-digit increases that were common before this era of higher inflation.

Going forward, categories at most risk to private label competition are those that already have seen significant private label penetration. Chief among these are categories that consumers are likely to regard as commodities: cooking oils, frozen produce (fruits and vegetables), spices and herbs, baking ingredients, and animal proteins. More-resilient categories are those where private label products have had little impact already, including salty snacks, ready-to-eat cereal, seasoning mixes, better-for-you/nutritious options, and chocolate confections.

For its part, Circana's 2024 food and beverage outlook predicts modest food and beverage volume growth across the industry after three consecutive years of volume declines, likely welcome news for food/beverage brands that have endured a half-decade where volume declines have been more frequent than increases *(Exhibit 3).* The more favorable expectations come as several headwinds that weighed down 2023 are expected to recede, particularly inflation which, while lower in many food/beverage categories, has other expenses still weighing heavily on consumer budgets and overall spending habits.

Resources:

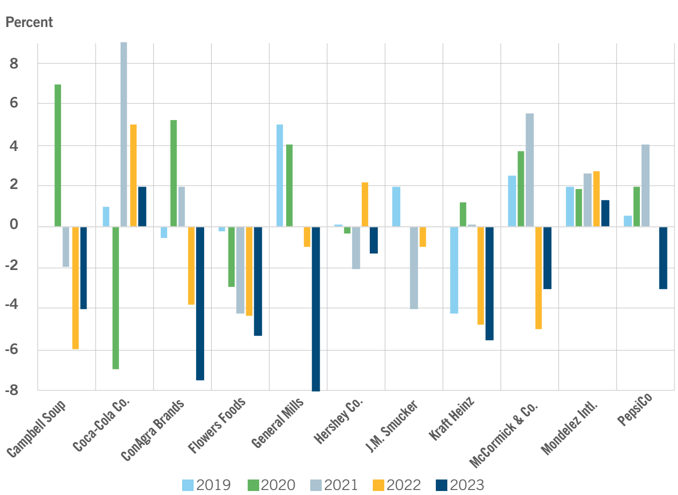
PLMA's 2024 Private Label Report

Waylon Cunningham, "Fast-food companies seeing low-income diners pare orders." Reuters, March 27, 2024.

Circana's 2024 Food and Beverage Outlook Predicts Modest Volume Growth Following Three-Year Decline, company press release, Nov. 6, 2023.

3 Consumers have pivoted to private label brands,
which tallied double-digit percentage sales increases.

EXHIBIT 3: Select Brands' Volume Performance, 2019-23



Source: Company disclosures including 10-K filings

POWER, ENERGY AND WATER

Bottomed out: The winter that wasn't tanks U.S. natural gas prices

By Teri Viswanath

In last year's comment on the state of the U.S. natural gas market *(Is This the Beginning of the End for Cheap Shale Gas?),* we suggested that the nation would soon reckon with structurally higher fuel prices. After a decade of seemingly endless and cheap domestically produced shale gas, we expected that more exports, less opportunities for fuel-switching, and supply bottlenecks would contribute to very tight balances and much higher energy bills. Yet, at the time, we didn't fully appreciate the depths that natural gas prices would plumb.

Indeed, the country would soon experience one of the warmest heating seasons on record (thanks to the El Niño-influenced mild weather), with the average spot gas deliveries at Henry Hub averaging just $1.49/MMBtu in March, establishing a new end-of-season floor. According to the National Oceanic and Atmospheric Administration, the meteorological winter was the warmest winter on record for the contiguous U.S., with an average temperature of 37.6 °F or 5.4 degrees above average. Parts of the Upper Midwest – where homes typically use 34% more natural gas than the national average – set all-time record highs, with seasonal temperature anomalies exceeding a whopping 10°F above normal.

If the absence of heating demand were not enough to crater prices, the slow deceleration in production likewise contributed to the 2024 market glut. Despite more than a 30% decline in natural gas-directed drilling from year-ago levels, unusually strong crude oil prices and continued oil-directed drilling have brought enough associated gas production onto the market to slow-roll the supply losses needed to rebalance the market. Last year, U.S. natural gas production grew by 4% or 5 billion cubic feet per day (Bcf/d), with the largest share of that contribution (representing more than half the annual gains) coming from the oil-dominant Permian basin. What's more, with crude oil futures trading well above the average break-even price of $58 to $61 per barrel, we don't anticipate a slowdown any time soon.

The culmination of loose supply/demand balances have left end-of-winter inventories brimming, with end March levels sitting at the third-highest ever recorded. Working gas in storage was 2,259 Bcf as of Friday, March 29, 2024, according to U.S. Energy

1 **According to NOAA, the meteorological winter was the warmest winter on record for the contiguous U.S.**

2 **Loose supply/demand balances have left end-of-winter natural gas inventories brimming, with end-March levels sitting at the third-highest ever recorded.**

Information Administration estimates. A normal summer refill season will typically see about 2,000 Bcf re-injected back into natural gas storage, but with the last official estimate of demonstrated peak storage capacity sitting at 4,196 Bcf and falling *(Exhibit 1),* something clearly has to give.

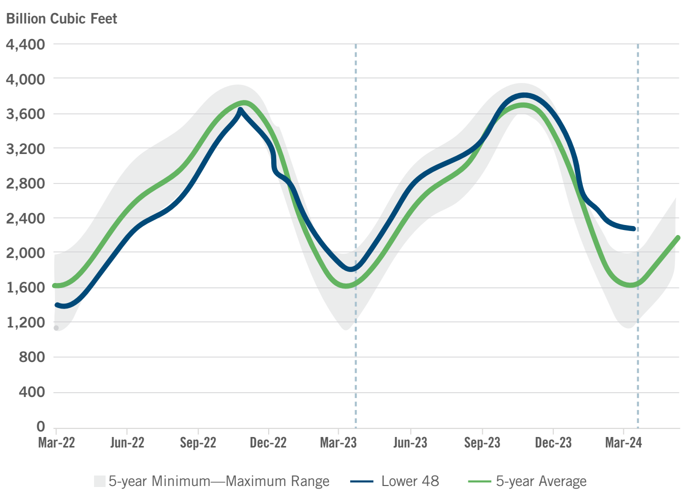
Commodity traders often say that the cure for low prices is low prices. In other words, during periods of supply surplus or loose balances, sellers will cut back their supply and buyers will increase their purchases. Yet, as we cautioned last year, the domestic market mechanism for rebalancing is becoming increasingly inflexible.

Indeed, the domestic market looks vastly different than it did before the shale boom. The country produces almost double the amount of natural gas it did in 2006 and total exports now account for one-fifth of that production. In the next five years, upwards of 90% of gas demand growth could come from liquid natural gas (LNG) exports, with as much as one-third of U.S. production reserved for international trade. The problem is that the next source of demand-side balancing, namely new LNG export capacity, won't prove a release valve until this time next year – with Golden Pass and Plaquemines possibly going into service much later this year or delayed until 2025. And with European stockpiles nearly as high as the U.S., there is a strong possibility that 2024 export flows could be somewhat anemic compared to year-ago levels.

So, just how low could natural gas prices go? Will Henry Hub prices follow the current Permian prices into negative territory, much like Cushing crude oil prices did in 2020? Probably not, but certainly this year is charting a course for bargain-basement territory, underscoring our sentiment that this is the last hurrah for low-cost shale gas.

3 **2024 is charting a course for bargain basement territory, underscoring our sentiment that this is the last hurrah for low-cost shale gas.**

EXHIBIT 1: Working Gas in Underground Storage Compared with the 5-year Maximum and Minimum



Source: U.S. Energy Information Administration Weekly Natural Gas Storage Report

Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2019 through 2023. The dashed vertical lines indicate current and year-ago weekly periods.

COMMUNICATIONS

Data center demand shows no signs of slowing down

By Jeff Johnston

Growth in the data center market continues to surprise to the upside driven by investments related to artificial intelligence. Enterprises and hyperscalers see AI as a major tool to boost economic productivity, which is particularly important in today's tight labor market. This trend is the reason why Nvidia – the undisputed leader in AI processing chips that carries a $2.2 trillion market cap – grew its fourth quarter sales in 2023 by 265% YoY.

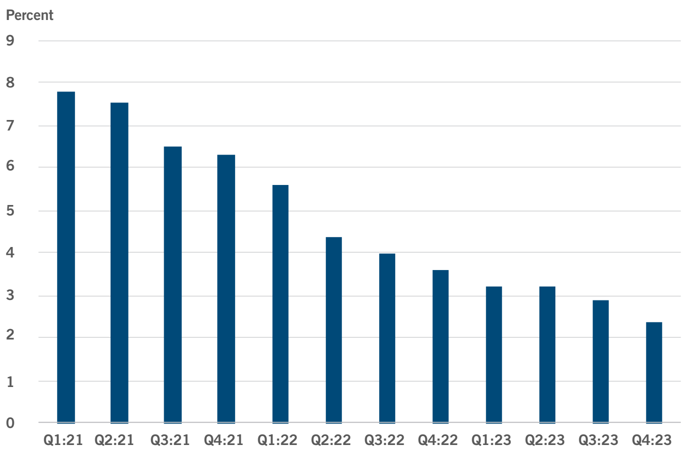
According to datacenterHawk, the top five data center markets in North America increased their absorption by more than 1.4 GW YoY for the third quarter straight, with AI related investments the primary driver of growth. The pricing environment continues to be very favorable to data center providers. With demand outstripping supply, North American annual rent growth was 3.3%, a 43% increase over the eight-year average. And overall vacancy rates fell to 2.4% in the fourth quarter last year, down from 2.9% in in the third quarter *(Exhibit 1).*

Data centers running AI applications consume a considerable amount of power, and the impact this is having on electricity load growth is set to overwhelm the system. For example, in 2022 the Federal Energy Regulatory Commission (FERC) was calling for a 2.6% increase in electricity load growth over the next five years. This year, that growth forecast was revised to 4.7%, representing an 81% increase thanks to the expected demands from data centers. FERC believes that the electric grid "is not prepared for significant load growth."

1 Generative AI is the driving force behind the unprecedented demand for new data centers, which is causing a massive supply/ demand imbalance in the energy markets.

2 Data center lease rates are at all-time high, while vacancy rates are at an all-time low.

EXHIBIT 1: North American Data Center Vacancy Rates



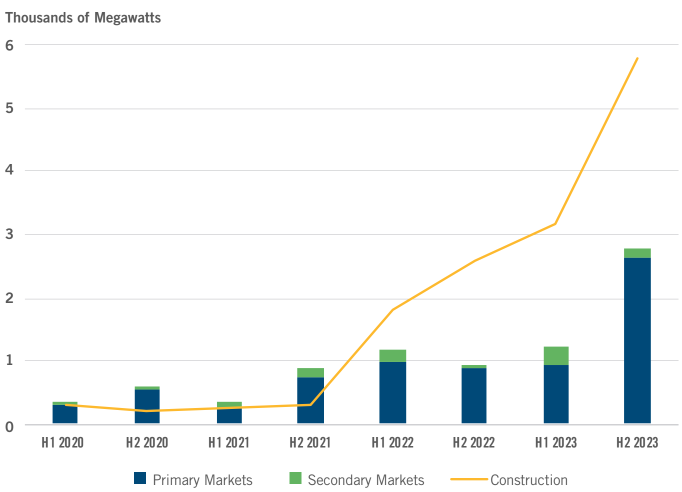
Source: datacenterHawk

The supply demand imbalance in the energy complex has upended the way companies deploy data centers. Historically they needed to be close to deeply interconnected fiber networks, Fortune 500 companies, government agencies and cheap land and power. Now, access to power is by far the No. 1 criterion as the industry realizes it's easier to move megabits of data than electricity. This has made secondary markets that are outside of the traditional data center hubs (think Northern Virginia, Dallas, Atlanta, New York, Chicago, and San Francisco) attractive options for data center operators *(Exhibit 2).*

Given the explosive growth from AI applications, the power issues, and the fact that it takes about three years to build a data center, navigating these dynamics to ensure market demands are met is a major challenge. Despite these market dynamics and associated risks, there will be no shortage of capital being deployed over the next several years to acquire land, build new data centers and make grid-related investments to meet the growing power needs of the industry.

3 Hyperscalers are forced to build new data centers in secondary markets where power is available.

EXHIBIT 2: U.S. Data Center Absorption and Construction



Source: JLL Research (includes markets with complete historical data from 2020 to 2023)

This quarterly update is prepared by the Knowledge Exchange Division and covers the key industries served by CoBank, including the agricultural markets and the rural infrastructure industries, as well as relevant legislative and regulatory developments.

Lauren Sturgeon Bailey
Vice President, Government Affairs

Brian Earnest
Lead Economist, Animal Protein

Tanner Ehmke
Lead Economist, Grains and Oilseeds

Jacqui Fatka
Lead Economist, Farm Supply and Biofuel

Rob Fox
Director, Knowledge Exchange

Corey Geiger
Lead Economist, Dairy

Jeff Johnston
Lead Economist, Communications

Christina Pope
Senior Research Editor, Knowledge Exchange

Abbi Prins
Industry Analyst

Billy Roberts
Senior Analyst, Food & Beverage and Specialty Crops

Teri Viswanath
Lead Economist, Power, Energy and Water

CoBank's Knowledge Exchange Division welcomes readers' comments and suggestions.
Please send them to KEDRESEARCH@cobank.com.