Food and Agribusiness Market Update

Industry Consulting Team | March 2024

Matthew Greer
Food and Agribusiness Industry Manager
Tel: 912-381-5389
Matthew.Greer@truist.com

Brennan Sharp
Food and Agribusiness Analyst
Tel: 251-802-7425
Brennan.Sharp@truist.com

Highlights

- Grain prices are anticipated to remain low following a year of record production
- Poultry industry benefits from cheap feed and increasing consumer demand due to cattle shortage, while the pork sector stays challenged driven by decreasing demand and rising production costs
- FSMA 204(d) and labor shortages will drive food processing and manufacturing automation; while GLP drugs could alter consumer dietary choices in the long-term, most companies anticipate no meaningful impact in the short-term due to affordability concerns

"Normal is an illusion. What is normal for the spider is chaos for the fly" – Morticia Addams

Over the last three years the food and agriculture sector has navigated through a period marked by unprecedented volatility, a true stress test of resilience and adaptability. This period has been a microcosm of broader economic principles that govern our interconnected global systems embodying the cycle of boom and busts that are as old as time itself. The COVID-19 pandemic and the war in Ukraine served as a catalyst for a series of disruptions that included a shock to supply chains, labor shortages and shifts in consumer demand, which highlighted the fragility of our food system.

From farm to table, the past few years were characterized by extremes with historically strong profits on farms, rising labor costs for suppliers and distributors, and high inflation, ultimately this led to consumers paying more for food at home and dining out, both surpassing the core inflation (less food and energy) rate of +20.6% since 1/1/2019 *(see Figure 1)*.

However, history teaches us, periods of extremes are often followed by a reversion to the mean—a principle that seems poised to manifest itself in 2024. In the past year, food production costs went from hyper-inflation to below core inflation, eventually deflating below -4% YoY* in November 2023 *(see Figure 2)*. Decreasing commodity prices and energy costs and greater efficiencies in the supply chain contributed to a moderation in food production costs in Q4 2023. The forces that drive these economic cycles, such as grain markets and foreign trade, are self-correcting over time, guided by the hand of the markets and interventions by policymakers. As we head into what should be perceived as a return to normalcy, where consumers and producers are hopeful for stability in 2024, history offers us a critical lesson: the concept of "normal" is, in essence, an illusion.

Figure 1: U.S. Food Away From Home CPI is Outpacing Core Inflation

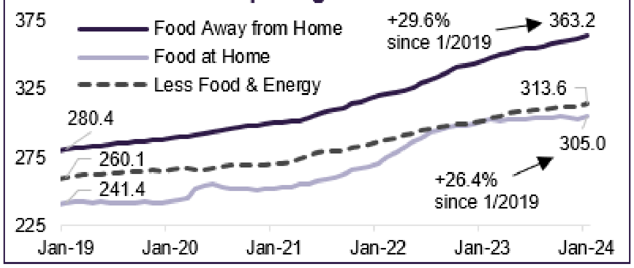

Figure 1 Note: Consumer Price Index (CPI); index as 1982-84 = 100

Figure 2: U.S. Food Production Costs PPI Deflated After Outpacing Core Inflation

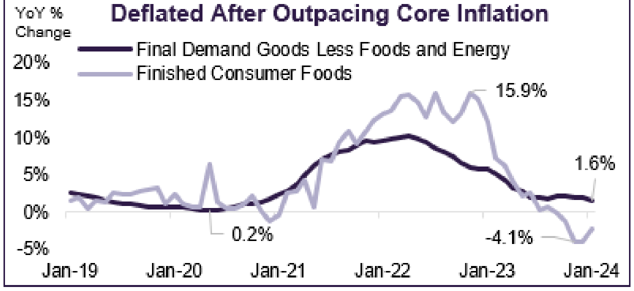

Figure 2 Note: Producer Price Index (PPI); index as 1982=100

Grain Markets: Prices should remain low with tighter margins following a year of record production

Corn:

- Impact of lower prices is shown in: (1) decrease in cost of animal feed, which can lower the price of meat, dairy, and eggs, (2) decrease in ethanol prices, potentially influencing fuel prices, (3) decreased demand in fertilizers, as farmers reduce production as margins become thinner
- February USDA-WASDE report projects total demand of 14.7B bushels and supply of 17.2B bushels, making ending stocks of 2.5B bushels and ending stocks-to-use ratio*** of 17.2% for the 24/25 season *(see Figure 3)*— corn ending stocks-to-use has not been this high since the ethanol mandate in 2005
- USDA is forecasting annual net farm income to decrease by $43B (-27%) from 2023 to 2024, which is a signal that corn prices should remain low for the foreseeable future, since net farm income has a correlation with corn being it is the top produced crop domestically
- CBOT* corn futures market set an all-time record of 340,732 net short contracts from money managers the week ending 2/20/24

Figure 3: Corn Price (Last Trading Day) to Annual Stocks-to-Use Ratio

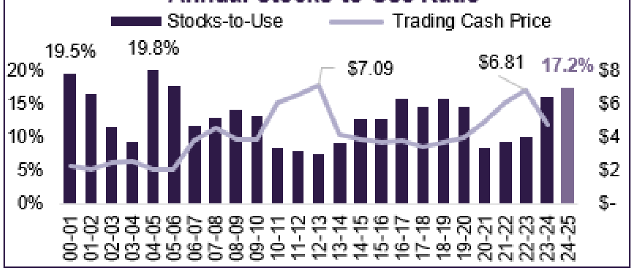

Figure 3 Note: prices are not inflation adjusted, 24/25 Stock-to-Use is a projection

* "YoY" Year-over-Year Comparison, ** Chicago Board of Trade, *** "Ending Stocks-to-Use"– leftover supply of agricultural products at the end of a crop season compared to the annual supply to meet
Source: Bloomberg, CBS News, Reuters, Standard Grain, U.S. Bureau of Labor Statistics, USDA

Soybeans:
- Similar to corn, global ending stocks-to-use could reach record high levels in 2024 as poor U.S. exports struggle to compete with South American countries, such as Brazil, trading at lower prices
- Chicago Board of Trade soybeans short contracts are the highest since the 2019 record of 168,835 with 136,677 contracts the week ending 2/20/24, following a bearish path parallel to the corn trade market— not a promising sign for domestic growers
- U.S. soybean crush is predicted to be an all-time high at 2.4B bushels (55% of total use) this crop year with a forecasted 450,000 bushels per day of new crush expansion in 2024—some crush expansion have been delayed with 2025 and 2026 expecting to have nearly 150,000 and 375,000 bushels per day in expanded crush production respectfully

Meat Proteins: Poultry industry benefits from a cattle shortage, while the pork sector stays challenged

Poultry:
- Relationship between corn prices and chicken production costs suggest a potential increase in chicken consumption in 2024 — given the integral role of corn in this market, lower corn prices are likely to reduce input costs for poultry integrators
- While the market experienced modest growth of 1% in 2023, consumer sensitivity to meat prices and tendency to opt for more economical meat products may contribute to a further uptick in chicken consumption
- Risk of avian influenza still poses a significant challenge and poultry is particularly vulnerable to the disease, making it imperative for producers to maintain rigorous biosecurity measures this spring when the migration season of wild birds occurs

Pork:
- Coming off years of increased production costs of 2% in 2022, 21% in 2021, and 53% higher in 2020 (all YoY), 2023 was a challenging year to increase profit— the industry continues to experience a cost-price squeeze with rising production costs and lackluster demand
- USDA forecasts a YoY growth rate of -0.5% (midpoint estimate) for pork Consumer Price Index (CPI), which is not a promising sign for margins in the industry *(see Figure 4)*
- The cost of compliance with Proposition 12, a California law that sets new standards for how certain farm animals must be kept, will put further challenges on pig farm operations — even though it is a California law, it also applies to all businesses selling in the state, which is impactful as California is one of the largest markets of protein consumption
- A series of positive news with meaningful reductions in input costs, increasing global demand, and softening interest rates are needed for stable industry growth in 2024

Beef:
- As of 1/1/2024, the total cattle count stands at 87.2 million, the lowest recorded USDA inventory number since 1951 *(see Figure 5)* — 28.2 million beef cows were recorded, a 2% annual decrease
- With heifers comprising nearly 40% of the cattle on feed concentration the previous year and a half *(see Figure 6)*, there appears to be no immediate sign of herd rebuilding efforts — consequently, it seems we are still on a continued path of increasing beef prices
- The industry's move to retain cattle for herd replenishment will likely be a catalyst for significant price surges, and consequently beef packers will struggle to post profits while working through this down industry cycle

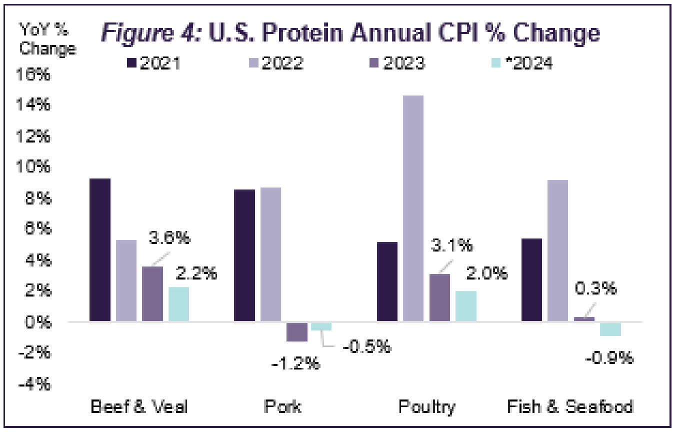

Figure 4 Note: data recorded is not seasonally adjusted (NSA), index as 1982-84 = 100, and *2024 data is the forecasted midpoint interval as of 2/23/2024

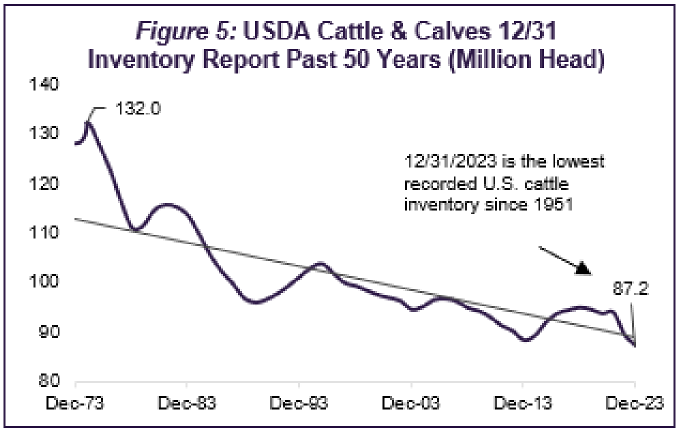

Figure 5 Note: data recorded is not seasonally adjusted (NSA), index as 1982-84 = 100

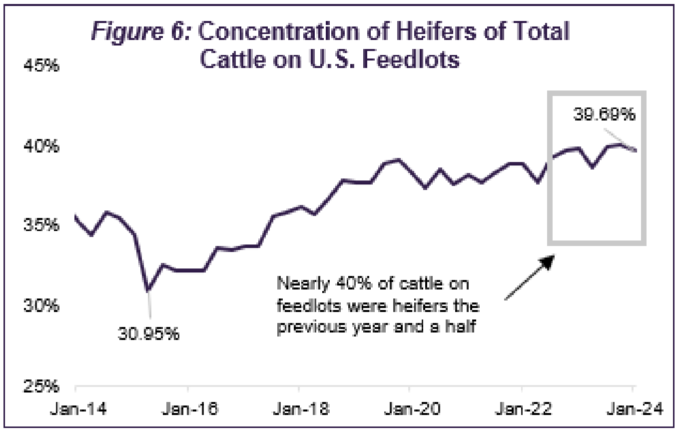

Figure 6 Note: data recorded quarterly

TRUIST

Source: AgWEB, American Soybean Association, Bloomberg, Iowa State University, Michigan Farm News, Reuters, USDA

Food and Agribusiness Market Update

Industry Consulting Team | March 2024

Key Themes in 2024: Weight loss medication, production automation, and food regulation

GLP-1 Drugs: Will they lead to less food consumption?

- While numerous analysts are consistently asking publicly-traded food companies, especially in the snack food or candy space, about pharmaceutical drugs like Ozempic and Wegovy, both semaglutides*, and their potential to cause decreased food consumption and changes in consumer eating habits, most companies anticipate no meaningful impact in the near future
- Despite a primary purpose to aid Type 2 Diabetes patients, nearly 42% of Americans taking semaglutide* medication are prescribed for weight loss and other purposes, which is a significant jump from 9.6% in 2018 *(see Figure 7)*
- Despite rapid growth in U.S. prescriptions, affordability is limiting the widespread adoption of this drug—while these products are over $1,000 a month in the U.S., they are 90% cheaper in countries like Canada and the U.K.
- Even in cases where insurance companies cover these drugs for weight loss, there is a high copay amounting to 30-50% of the medication cost— when supply catches up with demand, it is mostly likely that these drugs will not be affordable for most Americans
- In the future if insurance covers most of the cost, we may see an impact in certain sectors of the food industry, particularly with snack and confectionary manufacturers, as people who have taken the drug reported changes in taste preferences and reduced appetite for foods high in sugar and fat

Automation:

- Temporary labor services surged post-pandemic to 3.2 million workers in the end of 2021 and now sits at nearly 2.7 million as of 1/31/2024 (*see Figure 8),* creating a less stable workforce for manufacturers due to a lack of full-time employees
- Retaining full-time labor in the food processing industry has always been a challenge and the labor shortage impacting all industries is irreversible as the baby boomer generation continues to retire– in 2020, 55.8 million Americans were 65+ in age *(see Figure 9)*, this is a 59.4% increase compared to 2000
- Primarily due to this full-time labor shortage, manufacturers are quickly moving to automate processes, and, in some cases, completely retooling plants or moving to new facilities for the benefit of limiting the risk of production inefficiencies caused by unreliable labor
- Stronger food safety requirements also drive the need for automation, and as modern technology and artificial intelligence revolutionize this space, the food robotics market is expected to increase from $2.6B to $9.2B by 2032

Food Safety Modernization Act ("FSMA") 204(d):

- An estimated 1 out of every six Americans (48 million people) get sick from foodborne illnesses each year, including 128,000 hospitalizations and 3,000 deaths — FSMA Rule 204(d) aims to reduce or prevent foodborne illnesses by revolutionizing traceability and mandating documented records for certain foods when the regulation goes into effect in January 2026
- An estimated 31% of the supply chain currently lacks the necessary infrastructure for such detailed traceability — companies that operate under this future regulation must invest in systems, trainings, and processes to meet these stringent requirements
- As companies prepare to comply with FSMA to strengthen food safety and traceability, benefits of leveraging the data (as required by the regulation) will revolutionize the food supply chain for years to come with enhanced procurement and inventory management
- The benefits of data are leading to enterprises moving to cover all food items, not just regulated products, which a representative from iFoodsDS, a food traceability software company, mentioned "many view it (the regulation) as a tax… you have a requirement to food safety and you meet that requirement, then when you have the data look at what all you can do with it"

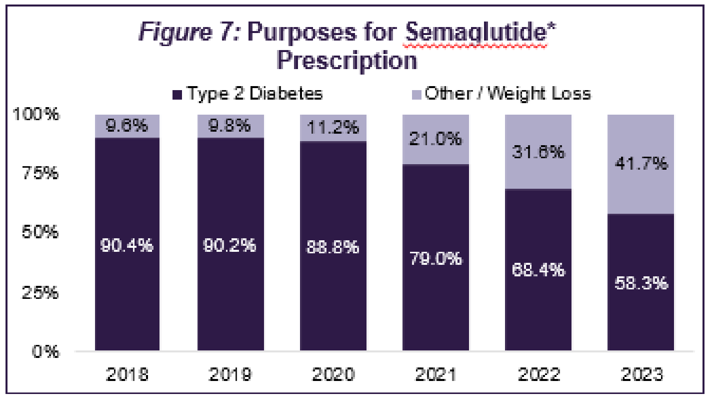

Figure 7 Note: data based on analysis of millions of electronic health records in a study conducted by Epic Research

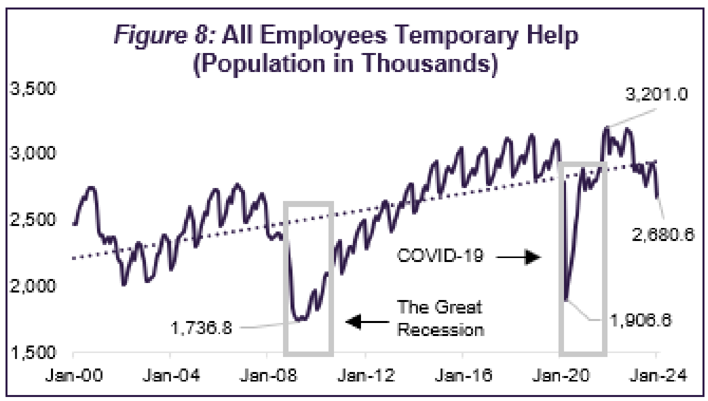

Figure 8 Note: data recorded is not seasonally adjusted (NSA)

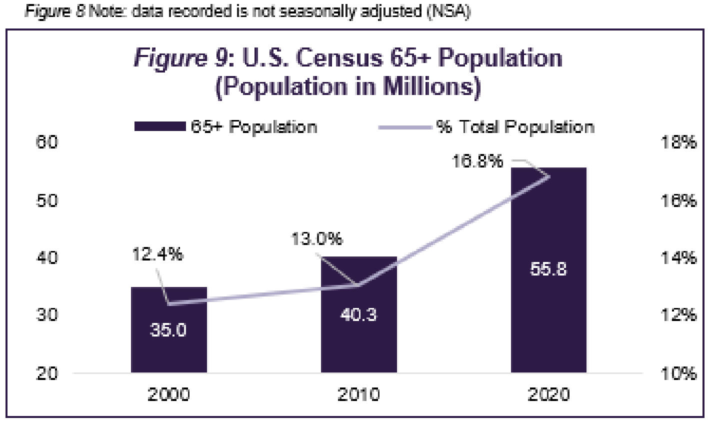

Figure 9 Note: data recorded is not adjusted and confirmed with U.S. Census Bureau

TRUIST

* "Semaglutide- an ingredient in Ozempic and Wegovy

Source: Acquired Podcast (Season 14: 1/21/2024), Bloomberg, Brainy Insights, CDC, CNN, Epic Research, iFoodsDS, U.S. Census Bureau, USDA