

Agricultural Finance

COVID-19 Impact on the U.S. Agricultural Sector

Executive Summary

We find the evidence suggests the primary impact of Covid-19 on the U.S. agricultural sector will be (1) reconfiguration of the value chain to accommodate dining at home rather than dining away from home, (2) reduced demand for ethanol, and (3) the potential for reduced trade in the short term due to labor constraints as officials try to slow the spread of the disease. This may disrupt cash flows and pressure commodity prices. We currently do not, however, anticipate a significant negative long-term impact on the U.S. agricultural sector.

Recession Considerations

Many economic forecasts in January, including MetLife Investment Management's, anticipated a recession in 2021. The recession has since been pulled forward to the first quarter of 2020. Uncertainty remains regarding the duration of actions necessary to effectively slow the spread of Covid-19 and the subsequent pace of recovery. We look for GDP growth in 2020 to fall to negative 4.3%, down from an expectation at the start of year of positive 1.8%.

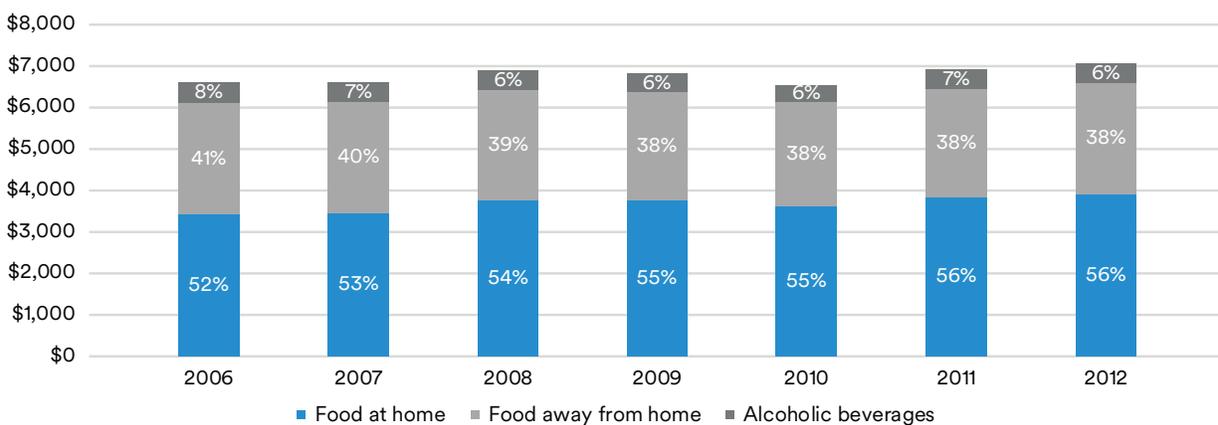
Historically, the agriculture sector has been relatively independent from broader financial trends. People can change where, and likely what, they eat, but they still eat. Furthermore, the sector has benefitted from emergency policy actions deeming it as essential. This has kept the value chain functioning. As a result, we anticipate the increase in stress will be muted relative to other sectors.

Configuring the Value Chain for Home Food Consumption

During the Great Recession, food consumption away from home declined but was largely offset by additional spending on groceries (Figure 1). We anticipate the decline in restaurant spending to be significantly worse than during the Great Recession. Dining in a restaurant has been nearly uniformly banned or discouraged across the country. Some restaurants are offering carry-out and delivery to generate revenue during the closures. The shift to eating at home will offset declining demand for food away from home, leaving total food-related expenditures down slightly. The at-home diet may shift to more fruits and vegetables, baked goods, and greater amounts of dairy but less higher value beef and alcohol, as it did in 2008-2009.

The largest challenge for food value chains is that processors provide very different forms of food for restaurants' chefs than at-home cooks. Restaurants prefer uniform food ingredients that require minimal processing. Conversely, grocery shoppers often purchase food that requires preparation before cooking. For example, grocery shoppers may buy heads of lettuce while restaurants prefer bagged lettuce. This has posed short-term challenges for processors to reconfigure processing lines to meet heightened demand for staple goods. The supply chain has also dealt with short-run stock outs due to consumers stocking pantries with two weeks of supplies.

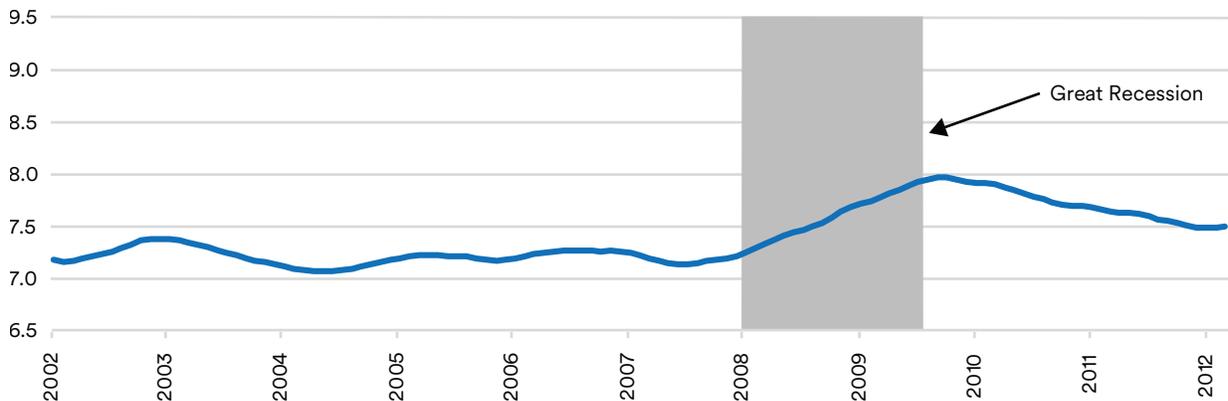
Figure 1 | Share of Average Household Food Expenditures*



An extended outbreak of Coronavirus will impact agribusinesses by creating logistic issues or by reducing the throughput capacity of facilities. Currently, the risk of logistic issues is softened relative to other sectors as the U.S. government has already deemed shipments of food as essential. However, if a nationwide quarantine was enacted, the resulting loss of labor would yield declines in throughput capacity at agricultural processing facilities. Most modern agribusiness processing facilities focus on economies of scale; so, without an adjustment to resource allocation, reducing the throughput would cause cash flows and profit margins to decline.

Cold storage is one agribusiness property type that could see increased demand due to the coronavirus outbreak. While we expect domestic consumption of perishable products to remain relatively constant in the near-term, observations from the Great Recession indicate a sharp increase in the volume of perishable products being placed in cold storage is likely (Figure 2). An extended coronavirus outbreak could inhibit agricultural exports and spur increased demand for cold storage. If countries slow the pace of imports, the forecasted record production of U.S. livestock products in 2020 would reason to further amplify demand for cold storage.

Figure 2 | U.S. Cold Storage Inventories of Livestock Products, Fruits, and Vegetables^{ix}
(lbs - billions, 12-month rolling average)



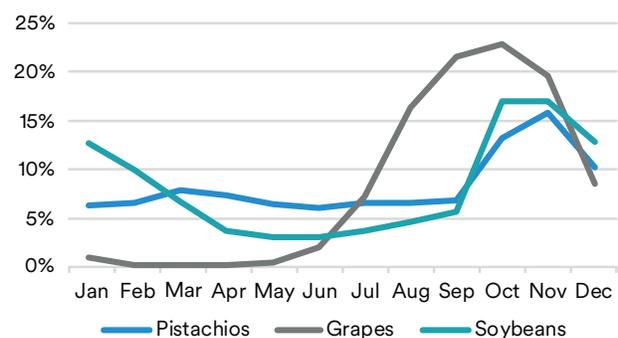
The Effect of Reduced Energy and Ethanol Consumption

Biofuel prices have declined significantly in recent weeks, dragging corn and soybean prices down as well. Potential increases in crude oil production amid reduced global demand have weighed on all major energy price indices. Gasoline demand is widely expected to fall by at least 25% in the initial weeks of the Covid-19 social distancing. Because ethanol is blended with most gasoline sold in the U.S., we expect a similar decline in ethanol consumption. As a result, demand for corn may fall by as much as 260 million bushels between March and July. Lower prices for U.S. corn could also lead to increased exports. However, exports would need to rise substantially to offset the potential decline in production.

Seasonality of Exports May Limit Effect on U.S. Crop Farmers

As highlighted above, labor shortages could create logistical and transportation issues for certain segments of the agricultural sector. However, this bottleneck should have minimal impact for most U.S. crops in the near term. On average, exports of U.S. annual and permanent crops are generally lower during the spring and early summer. We expect the impact of Covid-19 to be greatest during this period. A greater proportion of U.S. crop exports occurs immediately after harvest in the fall and winter (Figure 3). If a backlog of exports does not persist into the fall; ports should be able to handle the peak volumes of U.S. crop exports with minimal disruptions.

Figure 3 | Percent of US Annual Exports for Select Food Commodities by Month^{xv}
(10YR Average)



The livestock sector could see the most significant impact from delays at ports. Livestock product exports, such as pork and dairy, are less seasonal compared to crops, such as grapes and soybeans (Figure 3). Therefore, reduced throughput at ports could impact short-term cashflows for livestock and dairy producers who rely on exports. Some of this excess supply will likely be rerouted for domestic supply as grocers are confronting higher demand and look to keep food stocked on shelves.

One tailwind for the livestock sector is the improving Covid-19 situation in China, as its ports have begun to return to full capacity. This will be important for U.S. exporters once the domestic situation eases. China committed to purchase \$80 billion of U.S. agricultural goods by the end of 2021 as part of the Phase One agreement between the two nations. We expect livestock products will constitute an important share of those purchases. An ongoing outbreak of African Swine Fever has decimated Chinese livestock production since 2018.

Navigating the Uncertainty for Farmers

Over the short term, we anticipate Covid-19 will affect annual crop producers in the U.S. Midwest and Mississippi Delta region. In recent weeks, concerns over trade flows and reductions in ethanol demand led to lower corn and soybean prices. Most planting of annual crops does not begin until early-April. Therefore, growers are likely altering planting decisions as some of the economic uncertainty is resolved.

While the global pandemic has amplified uncertainty in markets, agricultural products are essential to consumers. Short-term challenges exist, but will be less severe than other sectors of the economy.

The decline in ethanol production has also reduced the production of distillers grains. This important feed ingredient is being substituted with soybean meal and other grains. As a result, the soybean-to-corn price ratio, which represents a relative measure of profitability between the two crops has increased in recent weeks. Producers may respond to this development by planting a greater number of soybean acres this spring and fewer acres of corn.

We expect the effect on permanent crop producers to be especially muted. Consumers typically demand more fruits and vegetables during recessions. Additionally, growers could see short term increases in demand if logistical challenges limit winter imports from Latin America. For U.S. tree nut producers, most production is harvested in the fall and exported by March, limiting the possible impact of delays at ports. Barring a prolonged impact to logistics and the value chain, we expect strong global demand will continue to support permanent crop prices and farm incomes.

Endnotes

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- ^{xxiii} Calculated using monthly tree nut export volumes. FAS Global Agricultural Trade System. Data as of March 2020.

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