FEDERAL RESERVE BANK OF KANSAS CITY – OMAHA BRANCH

Agricultural Economic Update

Nate Kauffman, Federal Reserve Bank of Kansas City March 28, 2019

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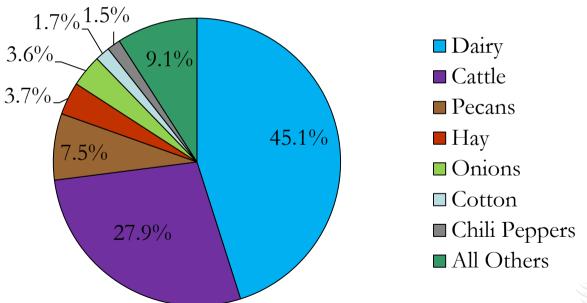
Outlook Themes

- The U.S. agricultural economy remains in a prolonged downturn.
- Financial stress among ag borrowers continues to increase at a modest pace, but has been more pronounced in the Midwest and Plains.
- Signs of a global economic slowdown have raised concerns for agriculture recently, in addition to ongoing trade disputes.
- Interest rates have continued to rise at a gradual pace, putting some pressure on highly leveraged operations, and possibly land values.



Dairy production and cattle account for the largest share of New Mexico's ag sector.

New Mexico Ag Commodity Concentrations

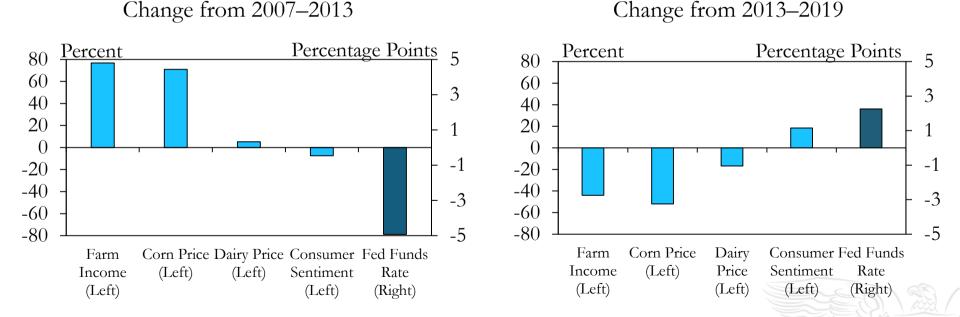


Note: All Others includes all individual commodities with a concentration of less than 1 percent. **Sources:** USDA and author's calculations.



The outlooks for agriculture and the U.S. economy began to reverse in 2013.

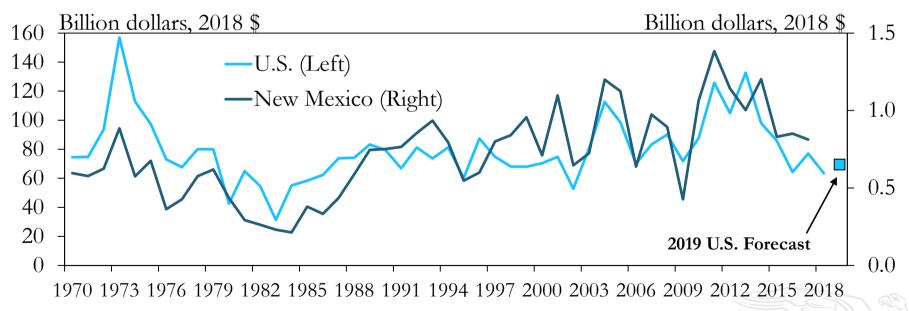
Indicators for Ag Economy and Broader U.S. Economy



Source: U.S. Department of Agriculture (USDA), University of Michigan, Board of Governors of the Federal Reserve System, and Haver Analytics.

The first U.S. farm income forecast for 2019 was released, and expected to be similar to recent years.

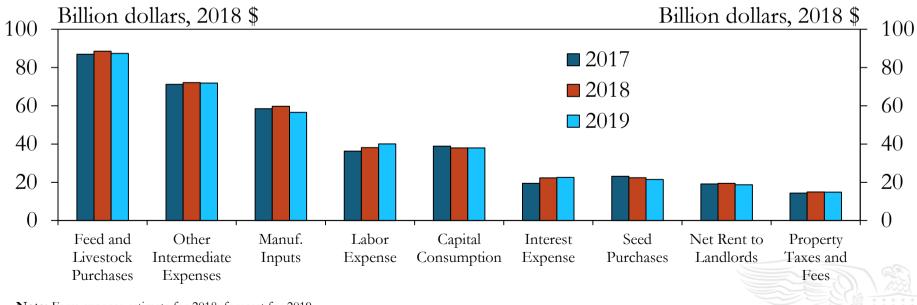
Net Farm Income



Note: Only national data are currently available for 2018 and 2019. **Source:** USDA.

Input costs are generally expected to remain elevated.

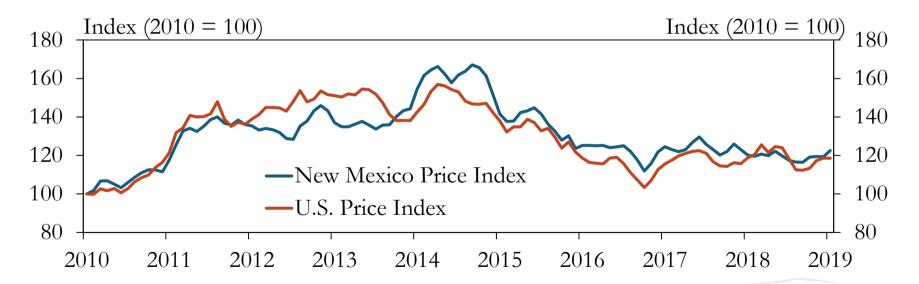
U.S. Farm Expenses by Component



Note: Farm expense estimate for 2018; forecast for 2019. **Source:** USDA and staff calculations.

The U.S. ag economy has been in a prolonged downturn alongside low commodity prices.

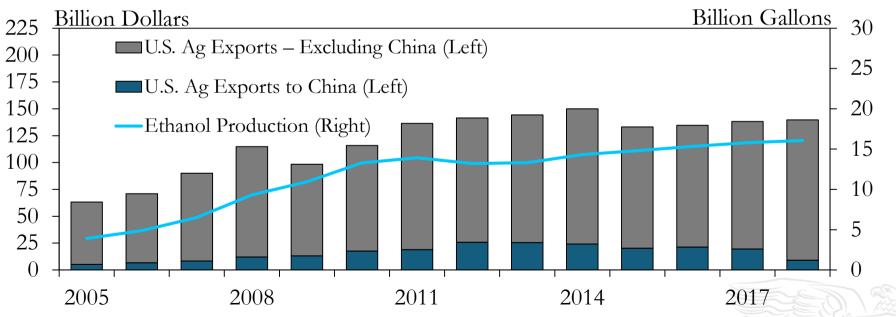
Agricultural Commodity Prices



Source: USDA, WSJ, Haver Analytics and staff calculations.

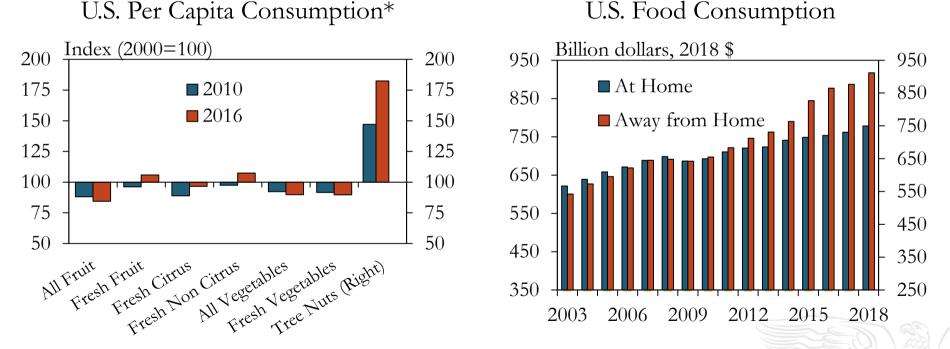
Despite heightened trade risks, key sources of demand for ag products have been relatively strong.

U.S. Ag Exports and Ethanol Production



Note: 2018 estimated based on changes year-to-date through October 2018 compared with the previous year. **Source:** USDA, U.S. EIA, and Renewable Fuels Association.

Food consumption trends in the U.S. have changed in recent years.

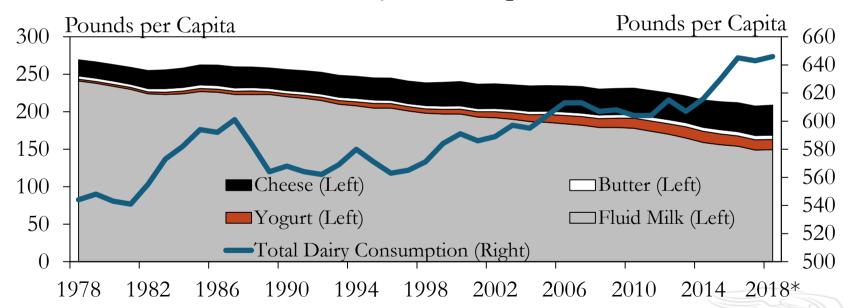


*Based on U.S. per capita loss-adjusted availability.

Note: Per capita fresh citrus an non-citrus fruit does not include juices. 2018 U.S. Food Consumption estimated based on change from November 2017 to November 2018 Source: USDA and staff calculations.

U.S. consumption of dairy products, overall, has increased with changing preferences.

U.S. Dairy Consumption

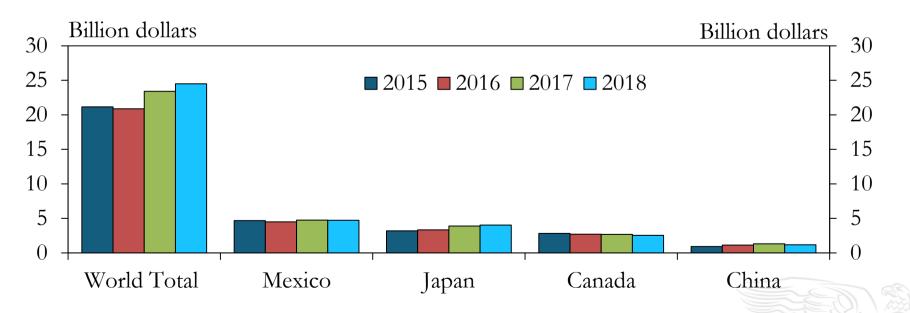


*Staff estimate.

Note: Total dairy consumption is on a milk-fat, milk-equivalent basis. **Source:** USDA and staff calculations.

Exports of livestock products have also remained relatively strong.

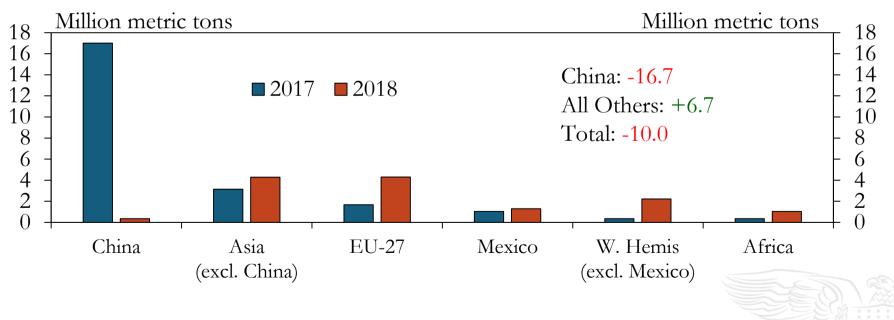
U.S. Livestock Product Exports



Note: "Livestock products" include dairy, beef, pork and poultry. **Source:** USDA.

Soybean exports, however, dropped sharply in 2018.

U.S. Soybean Exports, Fourth Quarter

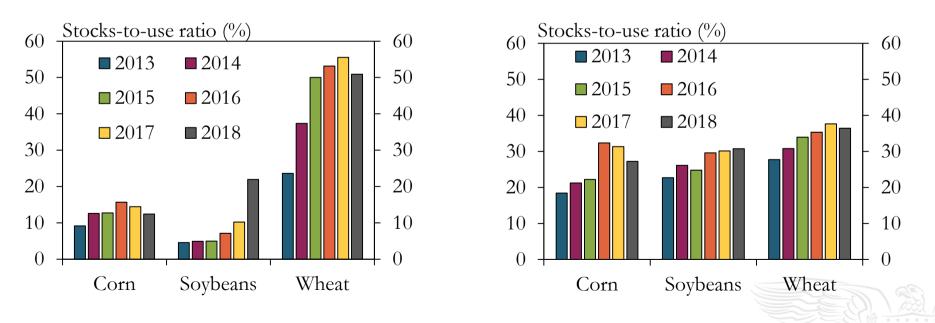


Source: USDA.

Inventories of major row crops have continued to build, both in the U.S. and globally.

U.S. Crop Inventories

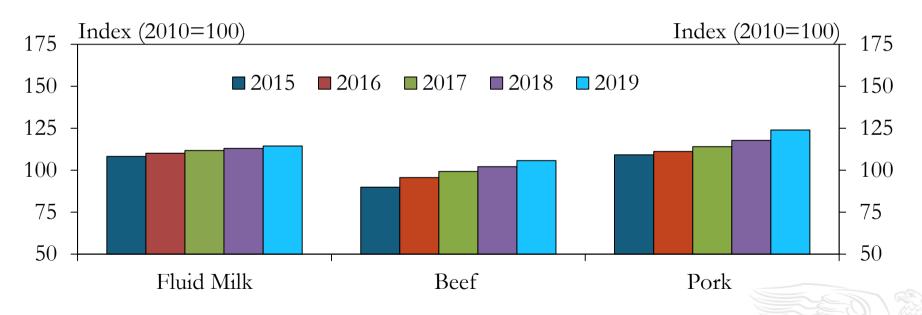




Source: USDA.

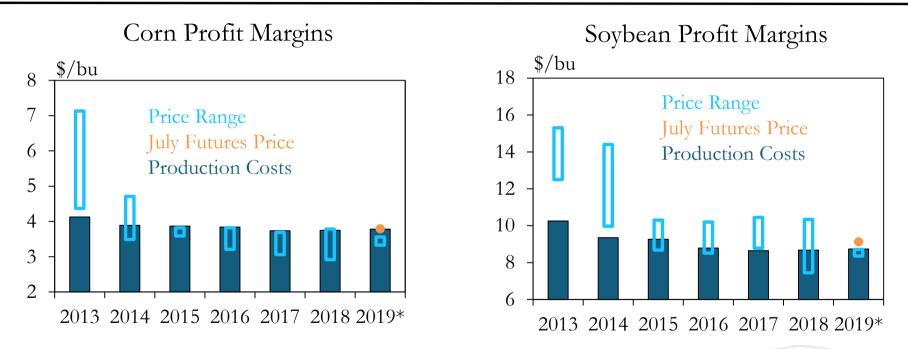
U.S. production of other ag products has also continued to rise.

U.S. Dairy and Meat Production



Note: "Livestock" includes dairy, beef, port and poultry. Meat products are reported in units of carcass weight equivalent. Source: USDA.

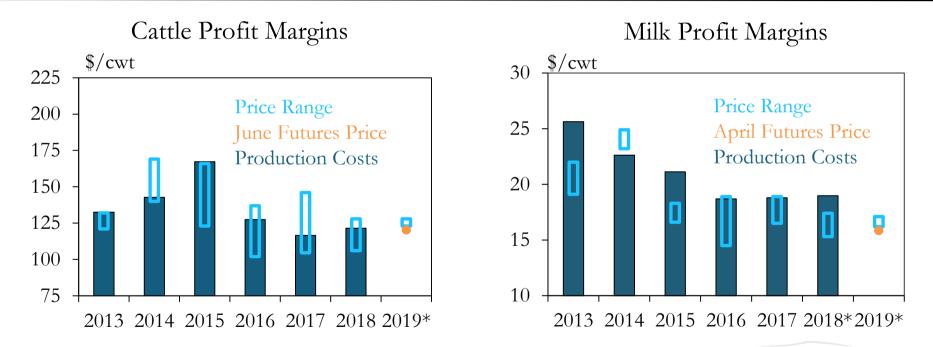
The sustained weakness in crop prices has limited profit opportunities.



Note: Production costs are calculated from USDA's Economic Research Service (Commodity Costs and Returns) and national yield averages for each year shown, but exclude the opportunity cost of unpaid labor from the calculation. Production costs reported for 2018 formally remain estimates by USDA definitions and are subject to change. *Forecasted costs of production

Source: USDA, Haver Analytics and CME.

Profits in the livestock sector have remained subdued, but have been especially weak in the dairy industry.



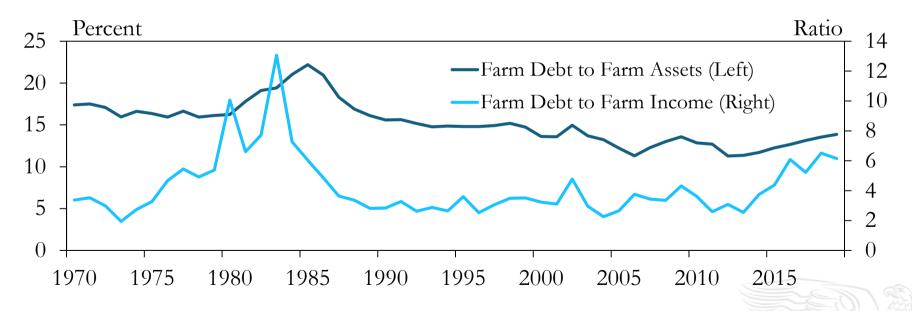
Note: Production costs are calculated from USDA's Economic Research Service (Commodity Costs and Returns) and national yield averages for each year shown, but exclude the opportunity cost of unpaid labor from the calculation. Production costs reported for 2018 formally remain estimates by USDA definitions and are subject to change. *Production cost forecasts and estimates not yet available. 2018 milk production costs estimated based on 1 percent increase in total costs and opportunity cost of unpaid labor. Source: USDA, University of Illinois at Urbana-Champaign, Haver Analytics and CME.

Farm Finances



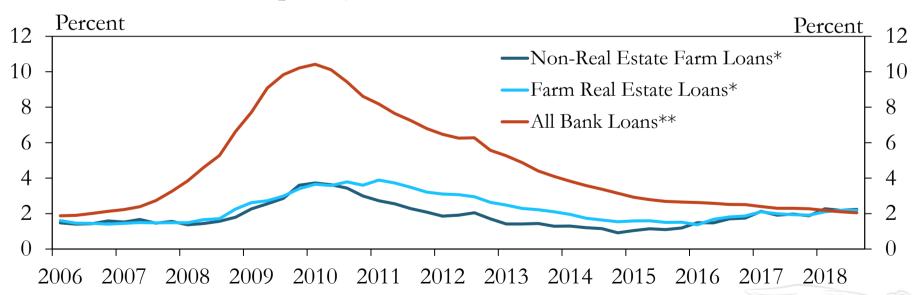
Leverage in the farm sector is expected to rise further in 2019, but is still low by historical standards.

U.S. Farm Sector Solvency and Liquidity Metrics



And although repayment challenges have increased over the past few years, delinquencies remain low.

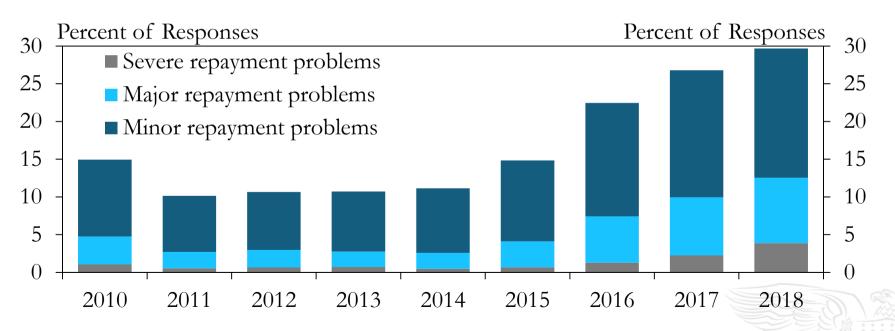
Delinquency Rates at Commercial Banks



* Includes the share of all past due, nonaccruing and net charge-off loans ** All bank loans include all loans made at commercial banks **Sources:** Federal Reserve Board of Governors.

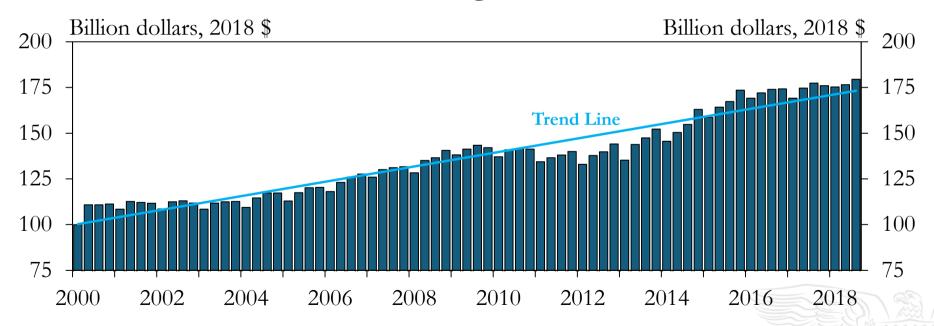
Still, loan repayment problems have continued to build.

KC Fed District Loan Repayment Problems



Farm debt continues to increase, especially demand for operating loans.

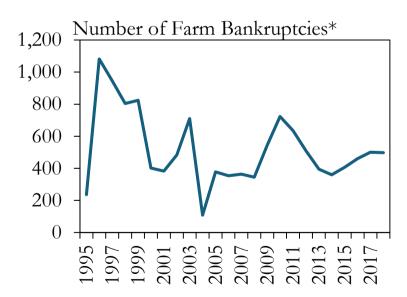
Farm Debt Outstanding at Commercial Banks



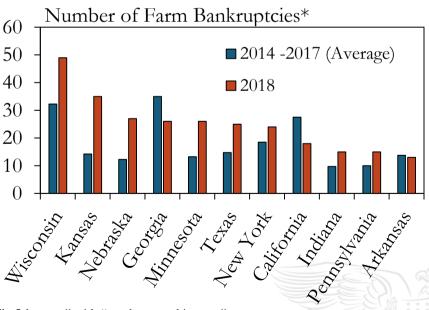
Source: Federal Reserve Bank of Kansas City.

And farm bankruptcies have edged higher over the past few years.

U.S. Farm Bankruptcies



States with the Most Farm Bankruptcies in Past 4 Quarters



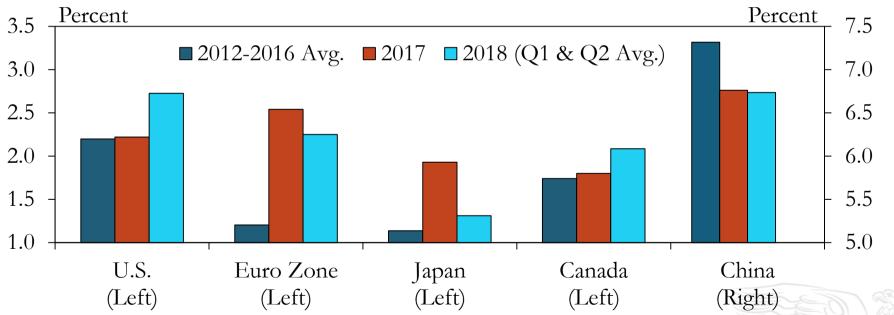
* Includes all chapter 12 filings which are defined as "family farmers" and "family fisherman" with "regular annual income". **Source:** United States Courts

Global Economics, Trade and Monetary Policy



In 2017 and early 2018, a relatively strong global economy supported robust demand for food and ag products.

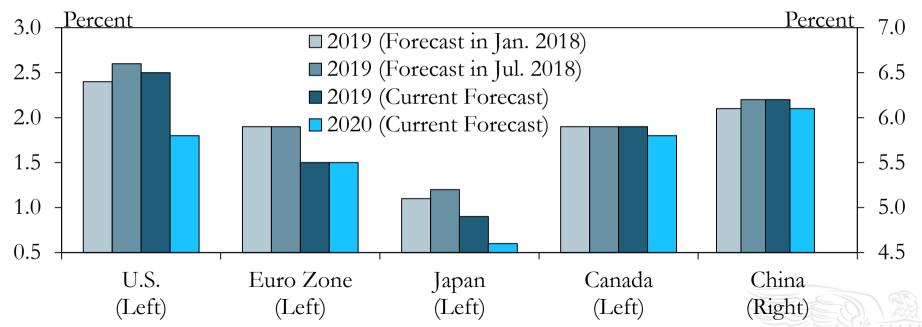
Real GDP Growth



Source: Wolters Kluwer (Blue Chip Forecasts) and Haver Analytics.

Over the past year, however, growth projections have been revised lower.

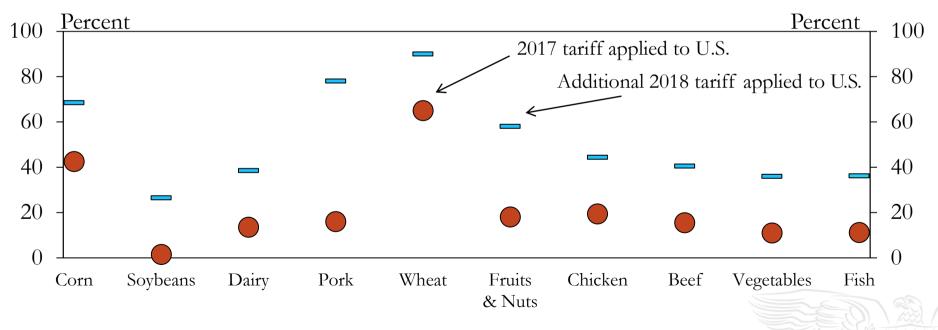
Real GDP Growth Forecasts



Source: Wolters Kluwer (Blue Chip Forecasts) and Haver Analytics.

Trade disputes elevated the risk for the ag sector in 2018 and have remained a significant factor.

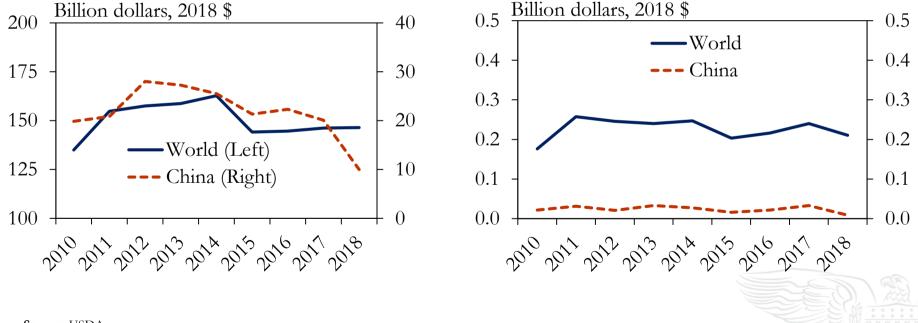
Most-Favored Nation Tariff Rates: China



Ag exports have remained solid, but exports to China dropped sharply in 2018.

U.S. Ag Exports

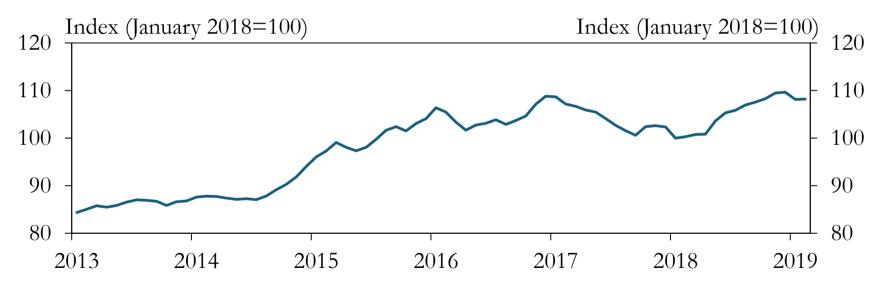
New Mexico Ag Exports



Source: USDA.

In 2018, the increase in the value of the U.S. dollar also posed an additional headwind for exports.

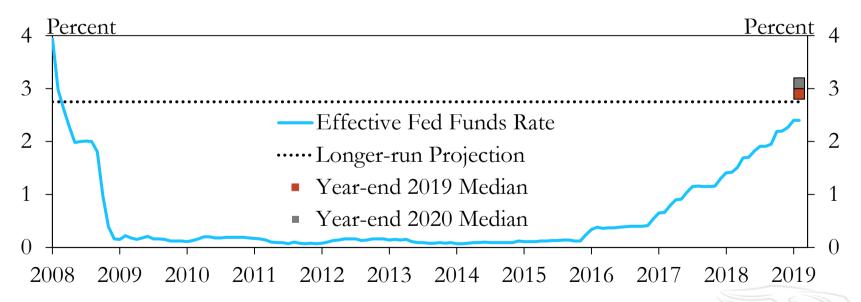
Exchange Value of U.S. Dollar



Note: Nominal, broad, trade-weighted exchange value of the U.S. Dollar **Source:** Federal Reserve Board and Haver Analytics.

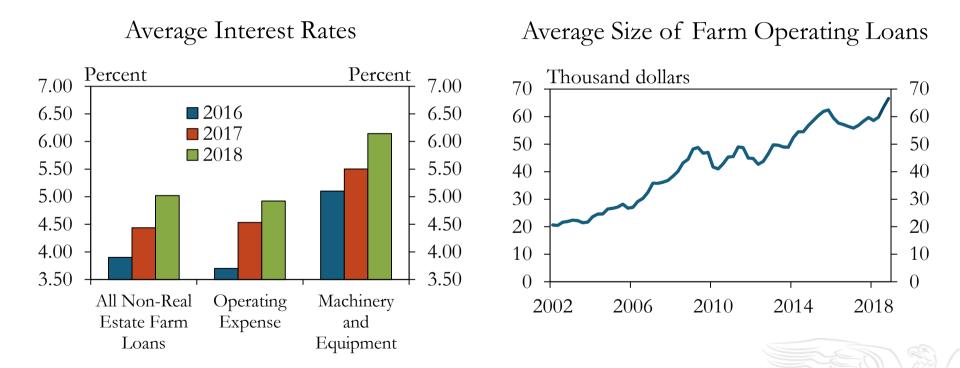
Benchmark interest rates also increased modestly in 2018.

Effective Federal Funds Rate

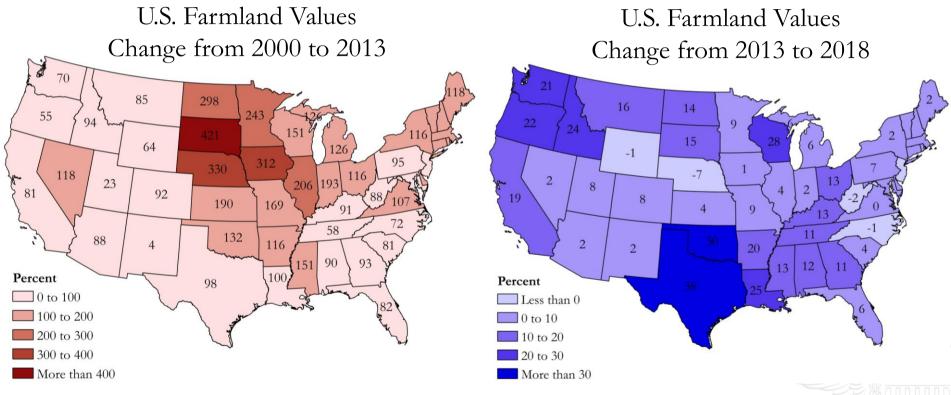


Source: Federal Reserve Board of Governors and Haver Analytics.

Interest rates on farm loans have edged higher over the past two years.



Although farmland values have declined in some states, the decreases have been quite modest.



Source: USDA.

Concluding Remarks

- National economic indicators remain solid, driven by growth in metro areas, consumer spending, and the services sector.
- The agricultural sector, however, remains relatively weak alongside low commodity prices and ongoing trade disputes.
- Financial stress has continued to build gradually. The path forward in agconcentrated regions depends significantly on the market for farm real estate.

