U.S. Farm Economy: Stable but Vulnerable

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Outlook Themes

• In contrast to the broader economy, U.S. agriculture has been in the midst of a gradual but prolonged downturn.
  • Financial stress among agricultural producers continues to rise, albeit modestly.
    • Dairy operations and farms in the Midwest have been most exposed.
  • In general, ag prices are likely to remain low in 2020, but depend heavily on the outlook for trade.
Despite ongoing growth in the U.S. economy, the ag sector has been in a prolonged downturn.

U.S. Personal Income

*Annual average through Q3 2019

Sources: U.S. Bureau of Economic Analysis and Haver Analytics.
Farm income began to rise sharply in the early 2000s, alongside gains in commodity prices.

U.S. Net Farm Income and Agricultural Prices

Source: USDA and staff calculations.
Significant increases in key sources of demand supported agricultural commodity prices.

**U.S. Agricultural Exports and Ethanol Production**

Sources: USDA and U.S. Energy Information Administration.
Exports of major ag commodities increased sharply, supported by growth in China.

Change in U.S. Ag Exports
2000 - 2013

Percent change

- Soybeans
- Wheat
- Tree Nuts
- Dairy
- Corn

Note: Based on top commodities and destinations in 2013
Source: USDA.

Change in U.S. Ag Exports
2000 - 2013

Percent change

- China
- Canada
- Mexico
- Japan
- EU
Farm real estate values also increased significantly.

Farm Real Estate Values and Corn Prices

Index (2000=100)

*Average of indices for each individual state

Sources: USDA and staff calculations.
Beginning in 2013, however, ag commodity prices and farm incomes began to drop.

**Change in Commodity Prices**

2013 to 2016

- Corn: -40%
- Soybeans: -60%
- Cattle: -20%
- Milk: -80%
- Wheat: -60%

**Change in Farm Income**

2013 to 2016

- U.S.: -40%
- IL: -80%
- IA: -60%
- KS: -50%
- MN: -30%
- MO: -20%
- NE: -10%

Source: USDA.
While demand for ag products remained high, the pace of growth had begun to slow.

U.S. Agricultural Exports and Ethanol Production

Sources: USDA and U.S. Energy Information Administration.
A stronger U.S. dollar presented a notable headwind to ag exports beginning in 2014.

*Nominal, broad, trade-weighted exchange value of the U.S. Dollar

Sources: Federal Reserve Board, WSJ, World Bank and Haver Analytics.
Alongside demand headwinds, agricultural production continued to trend higher.

Sources: USDA and staff calculations.
The growth of farm real estate values also slowed noticeably, with declines in some areas.

Changes in Farm Real Estate Values

Sources: USDA and staff calculations.
Since 2018, trade disputes have weighed on demand and industry sentiment.

Timeline of U.S. Trade Disputes

2017
- Ongoing NAFTA renegotiation (starting in 2017)

2018
- January: U.S. imposes tariff on steel and other select imports from all suppliers
- April: China retaliates with tariff on select U.S. imports

2019
- July: Additional U.S. tariffs on China imports
  - July: Additional China tariffs on U.S. imports (including soybeans)
  - Tariffs from both parties largely remain in place with escalation of some, ongoing negotiations and further disputes

2020
- June: Mexico ratifies USMCA
- January: Phase 1 Trade Deal signed
- January: U.S. ratifies USMCA

Ongoing NAFTA renegotiation (starting in 2017)
Ag exports, particularly to China, dropped in 2018 and remained subdued through 2019.

**U.S. Food and Agricultural Exports**

- **To All Others (Left)**
- **To China (Right)**

**U.S. Soybean Exports**

- **To All Others**
- **To China**

Source: USDA.
Recently, farm income has increased slightly, but with support from government payments.

Note: 2019 Forecast
Source: USDA.
Farm loan delinquency rates and bankruptcies have trended higher, but at a modest pace.

**Farm Loan Delinquency Rates**

- **Percent**
  - Commercial Banks
  - Farm Credit System

**U.S. Farm Bankruptcies**

- **Number**

**Notes:**
- Includes all chapter 12 filings which are defined as “family farmers” and “family fishermen” with “regular annual income”.
- Annual bankruptcies are reported as the number of filings in the 12-month period ending 12/31 each year.

**Sources:**
- Board of Governors and FCA.
- United States Courts.
Farmland values have declined in some areas, but have generally remained strong.

Source: USDA.
Looking ahead, farm income is expected to remain similar to recent years.

U.S. Net Farm Income

Note: 2019 and 2020 are forecasts

Source: USDA.
The recent trade deal with China may provide some optimism, but uncertainty remains.

Internal FR Note: Projections assume increases from 2017 baseline of $12.5 billion in 2020 and $19.5 billion in 2021. % Changes indicated percent increase in exports from 2017.

A 60% increase in soybean exports to China would total 90% of all U.S. soybean exports.

Sources: USDA and WSJ.
Government payments provided significant support in 2019, but are questionable for this year.

2019 Market Facilitation Program (MFP) Payment Rates

Source: USDA.
Incomes may be rising, and solvency is relatively strong, but liquidity is (still) a key concern.

Farm Sector Debt-to-Asset Ratio

Note: Forecast for 2019 and 2020
Source: USDA.

Farm Sector Working Capital

Note: Forecast for 2019 and 2020
Concluding Thoughts

• The U.S. farm economy is likely to remain subdued in 2020 alongside low ag commodity prices.
  • Much focus remains on U.S. trade deal with China, but has been complicated by the coronavirus.

• Some agricultural banks appear likely to experience (slightly) higher rates of loan delinquencies in the coming year.
  • Areas concentrated in dairy, corn, and soybeans.
  • High percentage of borrowers with limited equity.
  • Very rural locations