Agriculture and the U.S. Economy: Opposing Transitions

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Of the 12 Fed Districts, the KC District is the most concentrated in agriculture by some measures.
Commercial banks connected to agriculture are also concentrated in the Midwest.

Agricultural Banks in the U.S.

Bank Ag Loan Concentration, %
- 15 - 25
- 26 - 50
- Greater than 50

Source: Federal Reserve Board of Governors.
Outlook Themes

• The outlook for agriculture has traded places with the outlook for the broader economy the past few years.

• The Fed has begun to raise interest rates in recognition of sustained economic growth.

• But the prospects for agriculture will still be determined by supply, demand, and commodity prices.

• A stronger U.S. economy, and strength in farmland markets, have provided support through the downturn in ag.
  • The downturn in ag has been gradual, but persistent. And risks still remain.
From 2007 to 2013, the ag economy outperformed the rest of the U.S. economy.

Indicators for Ag Economy and Broader U.S. Economy
Change from 2007 to 2013

Source: USDA, University of Michigan, Federal Reserve Board, and Haver Analytics.
Since 2013, the outlooks have reversed.

Indicators for Ag Economy and Broader U.S. Economy
Change from 2013 – 2017

Percent

Farm Income (Left Scale)  Corn Price (Left Scale)  Consumer Sentiment (Left Scale)  Fed Funds Rate (Right Scale)

Percentage points

Source: USDA, University of Michigan, Federal Reserve Board, and Haver Analytics.
Half of the Fed’s “Dual Mandate” appears to be well-positioned.

U.S. Unemployment and Inflation

Source: BLS, Federal Reserve Board, and Haver Analytics.
Short-term interest rates have gradually inched higher, even as long-term rates remain low.

U.S. Interest Rates

Source: Federal Reserve Board and Haver Analytics.
With momentum in the economy, the Fed has begun to (very gradually) reduce the size of its balance sheet.

**Federal Reserve Balance Sheet**

Source: Federal Reserve Board and Haver Analytics.
In agriculture, however, the primary driver of the transition is supply and demand.

**U.S. Corn Price and Stocks-to-Use Ratios**

Source: USDA and staff calculations.
Demand for U.S. agricultural products remains high, but the growth has slowed considerably.

U.S. Agricultural Exports and Ethanol Production

Note: Ag exports to China calculated from data through Oct 2017.
Source: USDA, EIA, and Renewable Fuels Association
Large supplies of crops in the U.S. have weighed on prices in recent years.

*Domestic surplus = domestic production + imports + carryover from previous year – domestic use.
Source: USDA.
Better than expected harvests of key crops, however, have mitigated some effects of low prices.

**U.S. Corn and Soybean Yields**
Deviation from Trend

**U.S. Corn and Soybean Revenue**
Change from May Expectations to Q4 Actual

Source: USDA and staff calculations.
Food and ag exports have also rebounded, and 2017 has been a much more optimistic year for the cattle sector.

**U.S. Exports**

Percent change from previous year

- **Food, Excl. Meat**
- **Meat**
- **Oilseeds & Grains**

*Assumes 1200-pound animal.

Source: WiserTrade and USDA.

**Cattle Sector Profits**

Dollars per head*

*Assumes 1200-pound animal.

Source: WiserTrade and USDA.
Still, agricultural commodity prices generally remain low, and remain a primary concern in the ag economy.

Source: USDA.
Crop prices are unlikely to advance significantly between now and spring planting.

Difference Between Max and Min Prices (Corn)

Difference Between Max and Min Prices (Soybeans)

Source: Haver Analytics and Wall Street Journal.
The low price environment continues to stress liquidity, even as solvency measures remain stronger.

U.S. Farm Sector Solvency and Liquidity Metrics

Source: USDA.
Lenders have recognized the reduced liquidity as an increase in portfolio risk.

Source: Federal Reserve Bank of Kansas City.
Interest rates on ag loans have risen alongside higher risk profiles and increases in benchmark rates.

Source: Federal Reserve Bank of Kansas City.
Liquidity is also a growing concern for commercial banks with an agricultural concentration.

* Through third quarter of 2017.

Note: Highly concentrated agricultural banks have an agricultural loan to risk based capital ratio of at least 300%

Source: Agricultural Finance Databook.
The strength of farmland values has sustained the ag economy. Will it last?

Iowa Farmland Values

Equities and Bitcoin

Sources: USDA, Federal Reserve Board, Blue Chip Financial Forecasts, and speaker calculations.

A stronger global economy has been a significant driver to various regions and sectors.

**Real GDP Growth**

Percent change from previous year

- **Advanced Economies (Left Scale)**
- **Emerging & Developing Economies (Right Scale)**

Source: IMF and Haver Analytics.
Concluding Thoughts

• The U.S. farm economy remains in a prolonged downturn and agricultural commodity prices are likely to remain low in the near-term.

• Although the downturn has persisted for 4 years, liquidity is still a growing concern.

• Some producers remain well positioned, but financial stress has continued to build for many others.

• As long as farmland values remain strong, the sector will likely avoid systemic problems similar to the 1980s, but further consolidation is a likely outcome.

• A strong global economy will offer support, but significant areas of concern remain.
Questions?

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