U.S. Economy in High Gear, but Ag Stuck in Neutral

Nate Kauffman, Federal Reserve Bank of Kansas City
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Outlook Themes

- Momentum in the national economy has persisted, but the agricultural economy has remained in a prolonged downturn.

- Agricultural credit conditions have continued to deteriorate, although the value of farm real estate has remained a relative bright spot.

- Signs of stabilization in agriculture earlier in the year have become more questionable with ongoing trade disputes.
The outlooks for agriculture and the U.S. economy have reversed since 2013.

**Indicators for Ag Economy and Broader U.S. Economy**

**Change from 2007–2013**

**Change from 2013–2018**

Source: U.S. Department of Agriculture (USDA), University of Michigan, Board of Governors of the Federal Reserve System, and Haver Analytics.
Residential real estate markets have also picked up while farmland markets have cooled.

**House Prices and Farmland Values**

<table>
<thead>
<tr>
<th>Change from 2007–2013</th>
<th>Percent</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Farmland Values</td>
<td></td>
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**Source:** FHFA, Federal Reserve Bank of Chicago, and Haver Analytics.
Job growth in metro areas has outpaced growth in rural areas the past several years.

**Employment Growth**

Percent change from previous year

- **US Non-Metro**
- **US Metro**
- **Illinois Non Metro**
- **Illinois Metro**

Sources: BLS and Haver Analytics.
And farm income has remained less than half of its recent peak.
Lower commodity prices have been a primary driver of the sustained weakness.

U.S. Agricultural Prices

Index, 2010 = 100

Source: USDA and Haver Analytics.
Commodity prices in Illinois have generally remained flat for the past two years.

Source: USDA, Haver Analytics, and author’s calculations.
Despite reduced exports to China, key sources of demand for ag products have been steady.

U.S. Ag Exports and Ethanol Production

Note: 2018 estimated based on changes year-to-date through June compared with the previous year.
Demand has remained strong, but higher-than-expected crop production has weighed on prices.

U.S. Corn and Soybean Yields
Deviation from Trend

Source: USDA and staff calculations.
Production of other ag commodities has also increased notably.

**U.S. Commodity Production and Inventories**

Index, 2010 = 100

- Cattle Inventory (Million Head)
- Hog Inventory (Million Head)
- Milk Production (Billion LB)

**Note:** Annual milk production data available through 2017.

**Source:** USDA.
With lower prices, liquidity has deteriorated, but measures of solvency have remained strong.

U.S. Farm Sector Solvency and Liquidity Metrics

Source: USDA.
Although farmland values have declined in most states, the decreases have been quite modest.

### Seventh District Farmland Values

#### Non-irrigated Cropland

<table>
<thead>
<tr>
<th>Year Range</th>
<th>IL</th>
<th>IN</th>
<th>IA</th>
<th>WI</th>
<th>Seventh District</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009–2013</td>
<td>50</td>
<td>60</td>
<td>50</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>2013–2018</td>
<td>10</td>
<td>20</td>
<td>15</td>
<td>25</td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Federal Reserve Bank of Chicago.
And although repayment challenges have increased over the past few years, delinquencies remain low.

Source: Federal Reserve Bank of Kansas City.
Still, loan repayment problems in the farm sector have continued to build.

Tenth District Loan Repayment Problems

Source: Federal Reserve Bank of Kansas City, Survey of Agricultural Credit Conditions.
And an increasing number of applications for farm operating loans has been denied at agricultural banks.

**Denials of Farm Operating Loan Applications**

**Source:** Federal Reserve Bank of Kansas City, Survey of Agricultural Credit Conditions.
Recently, trade disputes have elevated the risk to agricultural producers and cash flow.

**Largest One Month Declines in Soybean Prices since 1988**

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</thead>
<tbody>
<tr>
<td>Recession</td>
<td>Incr. Production</td>
<td>Incr. Production</td>
<td>Incr. Production</td>
<td>Reduced Exports</td>
<td>Asian Financial Crisis</td>
<td>Chinese Tariffs</td>
<td>Recession</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Wall Street Journal and Haver Analytics.
China has announced increases in tariffs across a range of agricultural products.

**Most-Favored Nation Tariff Rates: China**

- **Source:** WTO

The diagram shows the tariff increases for various agricultural products, with notable changes for corn, soybeans, pork, wheat, and fish. The tariffs range from 0% to 100%, with specific tariff rates applied to each category.
Trade policy uncertainty also remains with respect to NAFTA, particularly as it relates to Mexico.

**Most-Favored Nation Tariff Rates: Mexico**

Source: WTO
Soybean prices declined sharply in June despite a significant increase in exports.

**U.S. Soybean Exports and Prices**

[Graph showing U.S. Soybean Exports and Prices from 2010-2015 on the left, 2018 on the left, and 2018 Soybean Price on the right over the course of the year.]

Source: USDA
Export strength was driven by demand from regions outside of China.

U.S. Soybean Exports, Q2

Million Metric Tons

<table>
<thead>
<tr>
<th>Region</th>
<th>Million Metric Tons</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Asia and Oceania</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td>2.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU-27</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other W. Hemisphere (excl. Mexico)</td>
<td>0.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>0.5</td>
<td></td>
<td></td>
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<tr>
<td>Taiwan</td>
<td>0.5</td>
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</tbody>
</table>

China: -0.33
All Others: +2.82

Source: USDA
Concluding Remarks

• National economic indicators remain relatively strong, driven by growth in metro areas, consumer spending, and the services sector.

• The agricultural sector remains one of the weakest in the region as commodity prices have dropped recently alongside trade disputes.

• The near-term test for U.S. agriculture will come in Q4, after the fall harvest. Risks will mount if prices remain low, trade disputes remain unresolved, and planting in South America rebounds.
  • Uncertainty around the next Farm Bill also remains.
Questions?

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