Economic Outlook

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Regional Federal Reserve Banks are an important structural component to U.S. monetary policy.
Outlook Themes

• Modest economic growth, but sluggish and short of expectations.

• Divergent economic growth. Some industries and regions performing much better than others.

• A downturn in the agricultural and rural economy continues to raise the risk profile of the sector.
Past expectations about the path of many economic indicators have often missed the mark.

Sources: barchart.com, Blue Chip Financial Forecasts, and Haver Analytics.
Economic growth generally has been positive, but has consistently fallen short of expectations.

U.S. Real GDP Growth

Sources: Bureau of Economic Analysis, Haver Analytics, Macroeconomic Advisors and Blue Chip Financial Forecasts.
Economic growth has also softened globally.

Global Real GDP Growth

Source: IMF and Haver Analytics.
Central banks have sought to stimulate growth with very accommodative monetary policy.

Central Bank Interest Rate Targets

Note: Interest rates for each region shown are the following: U.S. (Fed Funds Rate), ECB (Main Refinancing Operation), UK (Bank Rate), Japan (Overnight Call Rate).
Markets have adjusted their expectations of future short-term interest rates.

Futures-Implied Federal Funds Rate Path

Sources: CME Group and barchart.com.
The Fed’s monetary policy is based on a “Dual Mandate”.

... and moderate long-term interest rates.
U.S. labor markets have improved steadily since the Great Recession.

U.S. Unemployment Rate and Job Growth

Sources: Bureau of Labor Statistics and Haver Analytics.
Wages have also begun to pick up and labor force participation has steadied somewhat.

U.S. Labor Force Participation and Earnings

Sources: Bureau of Labor Statistics and Haver Analytics.
However, inflation has been persistently low.

U.S. Price Indexes

Sources: BEA and Haver Analytics.
A stronger dollar has reduced inflationary pressure and has been a headwind for export activity.

**U.S. Exports and Value of U.S. Dollar**

Sources: WiserTrade, U.S. Census Bureau, and Haver Analytics.
Low commodity prices have also contributed to reduced inflationary pressures.

**U.S. Energy Prices**

- Crude Oil (Left Scale)
- Natural Gas (Right Scale)

Sources: EIA and Haver Analytics.

**U.S. Ag Prices**

- Corn (Left Scale)
- Cattle (Right Scale)

Sources: Wall Street Journal and Haver Analytics.
Commodity-based, export-dependent businesses have continued to struggle.

Sources: BEA and Haver Analytics.
Developments in energy and ag have led to significant swings in personal income growth.

### Real Per Capita Personal Income

**Top 10**
- North Dakota
- Wyoming
- Nebraska
- Oklahoma
- Texas
- South Dakota
- Minnesota
- Montana
- Arkansas
- Iowa

**Bottom 10**
- Mississippi
- West Virginia
- North Dakota
- Nebraska
- Montana
- Iowa
- Oklahoma
- South Dakota
- Wyoming
- Kansas

**Sources:** BEA and Haver Analytics.
Employment growth across sectors has diverged.

**U.S. Nonfarm Employment Growth**

Percent change from previous year

Sources: BLS and Haver Analytics
The gap between metro and rural employment growth has also widened.

**Median State Employment Growth by County Type**

Percent change from previous year

- **Metro and Near-Metro Counties**
- **Rural Counties**

Source: BLS.
Farm income and spending have continued to trend lower.
Profit margins in the crop sector have remained weak.

**U.S. Crop Sector Profit Margins**

**Corn**

<table>
<thead>
<tr>
<th>Year</th>
<th>Price Range</th>
<th>Avg. Oct. Price Through 10/12</th>
<th>Production Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$4.5 to $7.0</td>
<td>$6.1</td>
<td>$5.2</td>
</tr>
<tr>
<td>2014</td>
<td>$4.0 to $6.5</td>
<td>$5.7</td>
<td>$5.3</td>
</tr>
<tr>
<td>2015</td>
<td>$3.5 to $5.0</td>
<td>$5.2</td>
<td>$5.1</td>
</tr>
<tr>
<td>2016</td>
<td>$3.0 to $4.5</td>
<td>$4.7</td>
<td>$4.8</td>
</tr>
</tbody>
</table>

**Wheat**

<table>
<thead>
<tr>
<th>Year</th>
<th>Price Range</th>
<th>Avg. Oct. Price Through 10/12</th>
<th>Production Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>$6.0 to $8.5</td>
<td>$7.2</td>
<td>$6.5</td>
</tr>
<tr>
<td>2014</td>
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<td>$6.1</td>
</tr>
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Sources: USDA and Haver Analytics.

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.
Livestock sector profits have also been poor.

### U.S. Livestock Sector Profit Margins

**Cattle**

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<th>Price Range</th>
<th>Avg. Oct. Price Through 10/12</th>
<th>Production Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>125-175</td>
<td>150</td>
<td>125</td>
</tr>
<tr>
<td>2014</td>
<td>150-200</td>
<td>175</td>
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<tr>
<td>2015</td>
<td>175-225</td>
<td>200</td>
<td>175</td>
</tr>
<tr>
<td>2016</td>
<td>200-250</td>
<td>225</td>
<td>200</td>
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</tbody>
</table>

**Dairy**

<table>
<thead>
<tr>
<th>Year</th>
<th>Price Range</th>
<th>Avg. Sept. Price</th>
<th>Production Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>100-150</td>
<td>125</td>
<td>100</td>
</tr>
<tr>
<td>2014</td>
<td>125-175</td>
<td>150</td>
<td>125</td>
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<tr>
<td>2015</td>
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Sources: USDA and Haver Analytics.
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.
Reduced cash flow has sparked persistent increases in demand for financing.

Farm Lending at Agricultural Banks

Source: Federal Reserve Bank of Kansas City, Agricultural Finance Databook
Borrower liquidity has deteriorated more notably in 2016.

Change in Level of Working Capital
Crop Producers: KC Fed District

Source: Federal Reserve Bank of Kansas City
Lenders have also recognized heightened risk in their farm loan portfolios.

Change in Ag Bank “Watch” and “Classified” Lists
KC Fed District

Watch List

Classified List

Source: Federal Reserve Bank of Kansas City
Farm loan delinquency rates have remained low, but have edged up slightly.

Past Due and Non-Accruing Farm Loans at Commercial Banks

Percent, seasonally adjusted*

* Percent of all outstanding non-real estate farm production loans at commercial banks.
** Total nonperforming loans includes the share of all past due, non-accruing and net charge-off loans.
Source: Federal Reserve Bank of Kansas City’s Agricultural Finance Databook.
Farmland values have generally remained strong, but pressure has been building.

Changes in Farmland Values
KC Fed District

Source: Federal Reserve Bank of Kansas City
The U.S. economy continues to expand modestly, but growth has often been weaker than initially expected.

Economic growth has diverged. Commodity-dependent, rural, and export-based regions or industries have struggled.

Risk in the ag economy has continued to build, but gradually.

What will the next farm loan renewal season look like?
Questions?

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