Macroeconomic, Credit, and Agricultural Issues
Today’s Roadmap

- The U.S. is recovering from a severe recession, but it is slow
  - Financial Crisis and Impact on Credit
  - Unemployment, real estate, and business activity
- Fiscal, Monetary, and International Challenges
- Are farmland values sustainable?
Recently, financial stress has moved closer to its long-run average.
However, delinquency rates on commercial real estate and agricultural loans remain elevated.

**Delinquency Rate on Commercial Real Estate Loans**

- 2006: 1%
- 2007: 2%
- 2008: 3%
- 2009: 5%
- 2010: 9%

**Delinquency Rate on Agricultural Loans**

- 2006: 0.5%
- 2007: 1%
- 2008: 1.5%
- 2009: 2%
- 2010: 3%

Source: Federal Reserve Board of Governors
Bank profit margins have rebounded.

Source: FDIC and Agricultural Finance Databook
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An elevated unemployment rate is another reason for a slow recovery (limited demand).

U.S. Unemployment Rate (U3)

Source: Bureau of Economic Analysis and Bureau of Labor Statistics
U.S. consumers are spending money.

Source: U.S. Census Bureau
Home foreclosure inventories have dipped.

Home Foreclosure Inventory

Percent of loans serviced


Nevada
U.S.
Nebraska

Source: Mortgage Bankers Association
Home prices have dropped, and may be forming a bumpy bottom.

Case-Shiller Home Price Indices

Index (Jan. 2000)

Source: Standard & Poor's
Manufacturing activity has strengthened.
Corporate profits and equipment and software investment have rebounded.

Corporate Profits and Nonresidential Fixed Investment

Percent change from year ago

Source: Bureau of Economic Analysis
The economy is recovering from a very steep recession with stronger gains expected in 2011.

Real GDP Growth

Annualized percent change from previous quarter

Source: Bureau of Economic Analysis and Blue Chip Economic Indicators
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Fiscal, Monetary, and International Challenges
How will rising federal debt levels affect long-term economic conditions?

U.S. Debt as a Percent of GDP

- **CBO Alternative Fiscal Scenario (Nov. 2009)**
- **CBO Extended Baseline Scenario (August 2010)**
- **CBO Extended Baseline Scenario (Nov. 2009)**

Source: Congressional Budget Office
When the Federal Reserve decides to exit from quantitative easing (QE) policy, what challenges might agriculture face?
What does the Eurozone Sovereign Debt Crisis mean for the U.S. economy and agriculture?

Source: Bloomberg data starting 1/4/10 and ending 11/30/10. U.S. is priced to Euros.
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Good Quality Farmland (Non-irrigated Cropland) Values
(Percent change Third Quarter 2009 to Third Quarter 2010)

Source: Federal Reserve District Surveys (Chicago, Minneapolis, Kansas City, Dallas)
Capitalized Revenues from Corn Production

Land values should equal capitalized revenues

\[
\text{Land Values} = \frac{\text{Expected Revenues}}{\text{Capitalization Rate}}
\]

Assumptions:
- Corn Price: $5.00 per bushel
- 25% of gross revenues go to land

### Yield (bushel per acre)

<table>
<thead>
<tr>
<th>Yield (bushel per acre)</th>
<th>150 bushels</th>
<th>200 bushels</th>
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<tbody>
<tr>
<td>Capitalization rate</td>
<td>3750</td>
<td>5000</td>
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<tr>
<td>5%</td>
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Note: Nebraska irrigated corn yield 198 bushels per acre (2009 average)
U.S. average annual price $5.20 per bushel (2010 average)
At $5 per bushel corn, rising cap rates could slash cropland values.

Authors’ calculations assuming 200 bushels per acre and 25% of gross revenues capitalized into land.

Eastern Nebraska Irrigated Cropland Value = $5000
At a historical cap rate of 7.5 percent, record high corn prices are needed to justify current cropland values.

Authors’ calculations assuming 200 bushels per acre and 25% of gross revenues capitalized into land.
Questions?

Federal Reserve Bank of Kansas City – Omaha Branch

www.kansascityfed.org/omaha