
Rising Farmland Values: Causes and Cautions

**Federal Reserve Bank
of Chicago
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Unemployment soared higher during the Great Recession

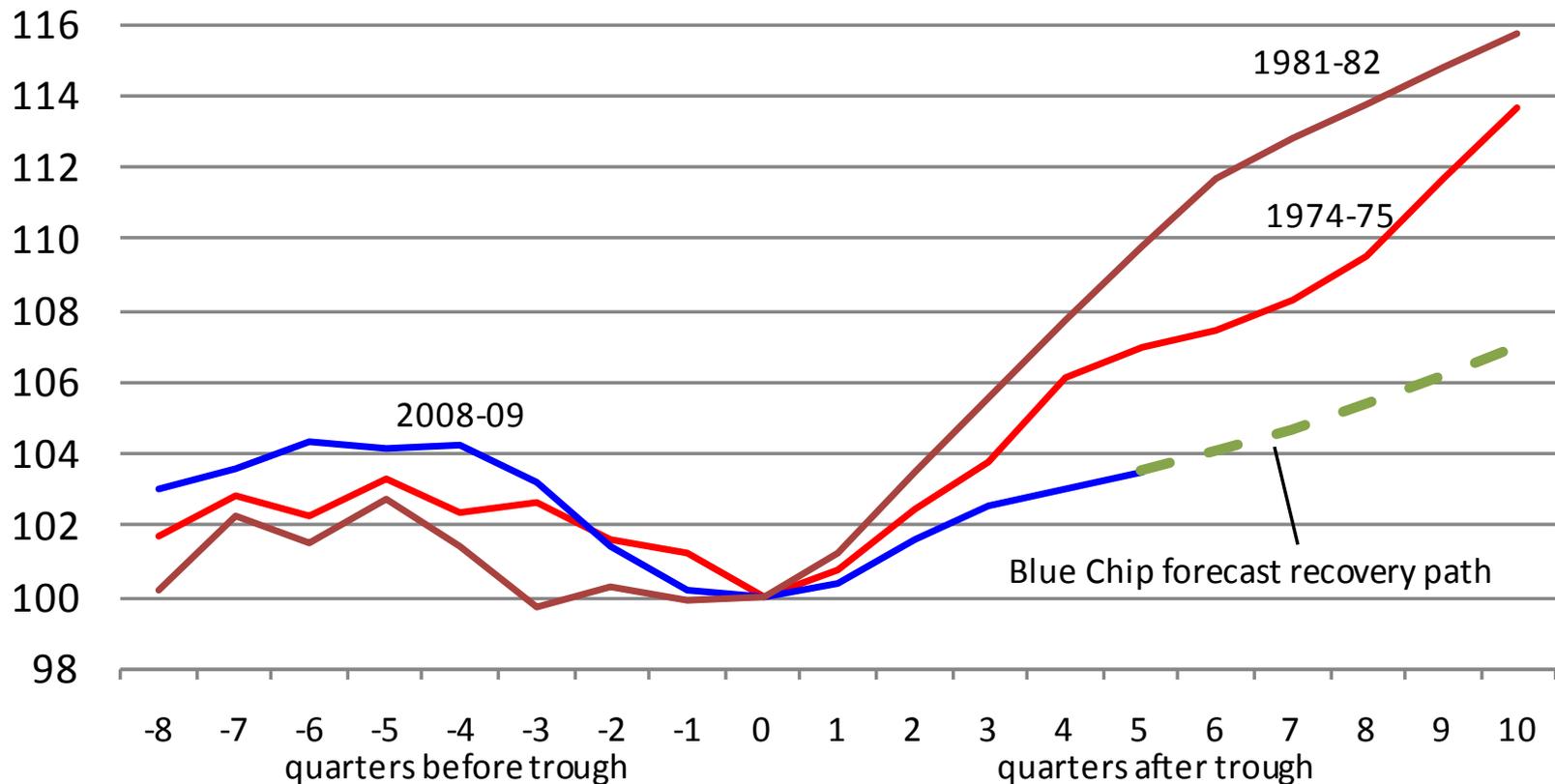
(Civilian unemployment rate, percent SA)



The path of this recovery is forecast below past deep recession recovery cycles

Business cycle recovery path

index - business cycle trough = 100



Housing market tanked and bouncing along bottom

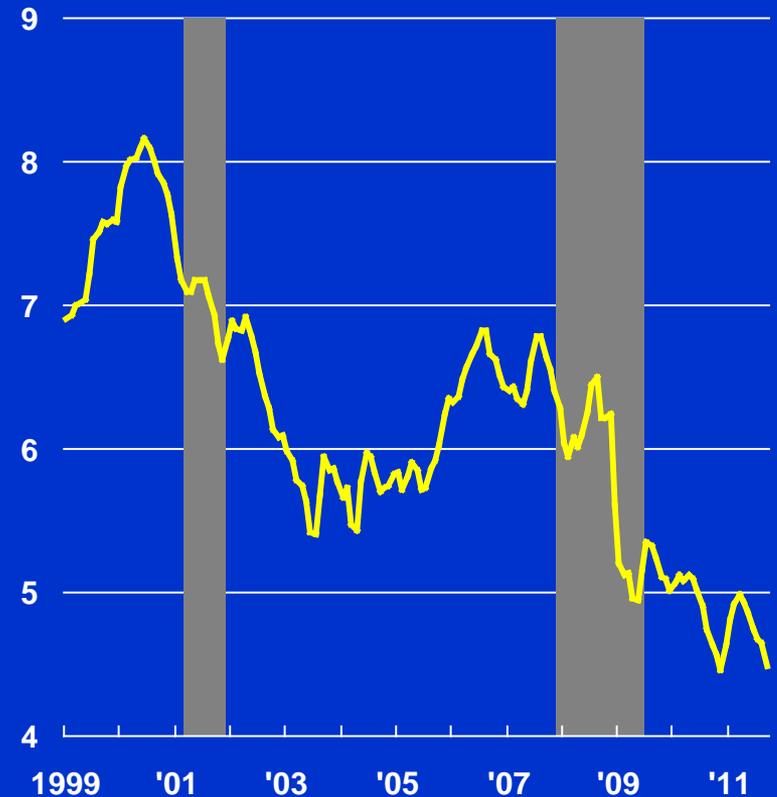
Housing starts

(thousands of units, 3-month moving average, SAAR)

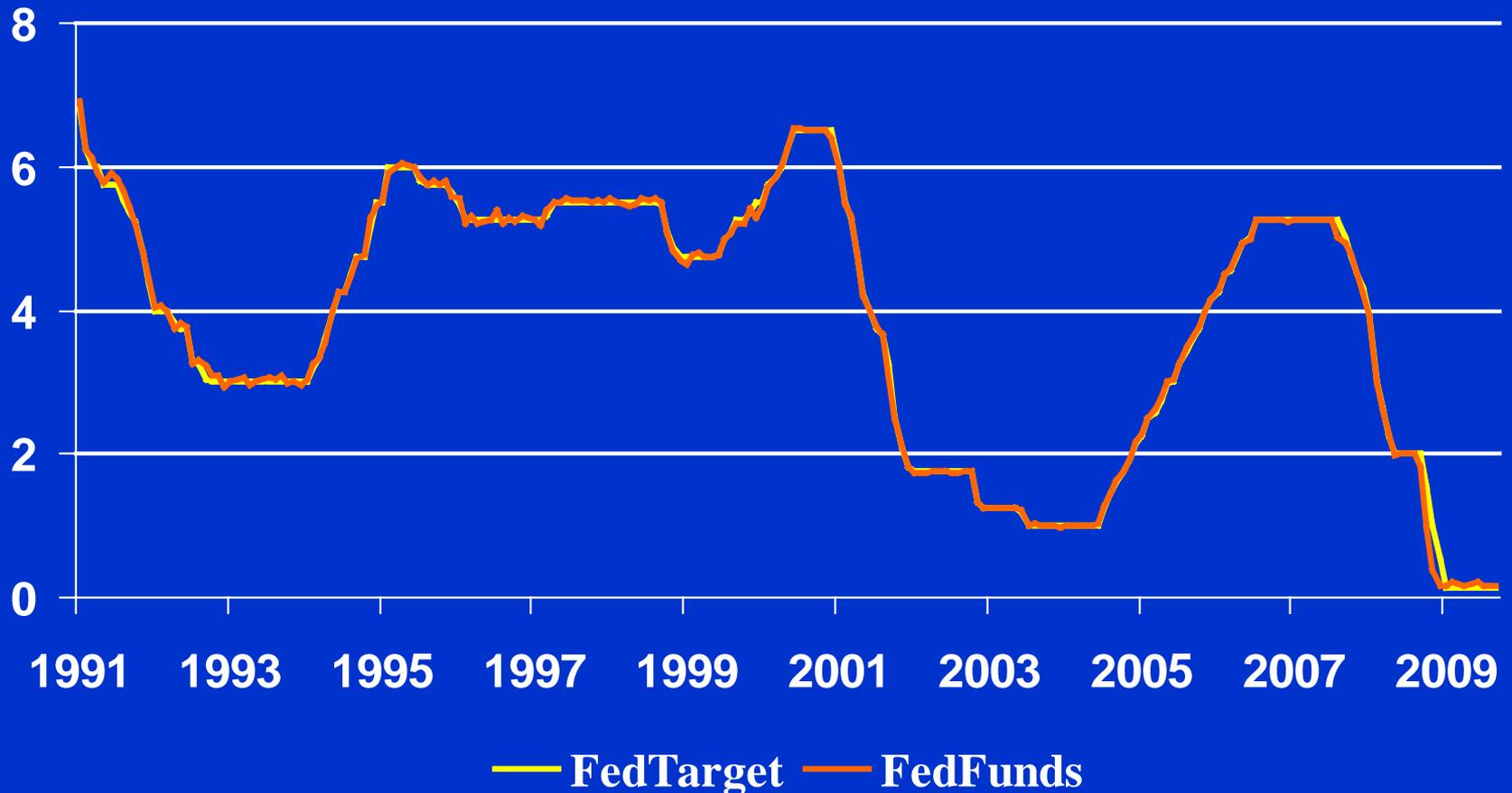


Home mortgage rate

(percent, effective rate for all loans closed)

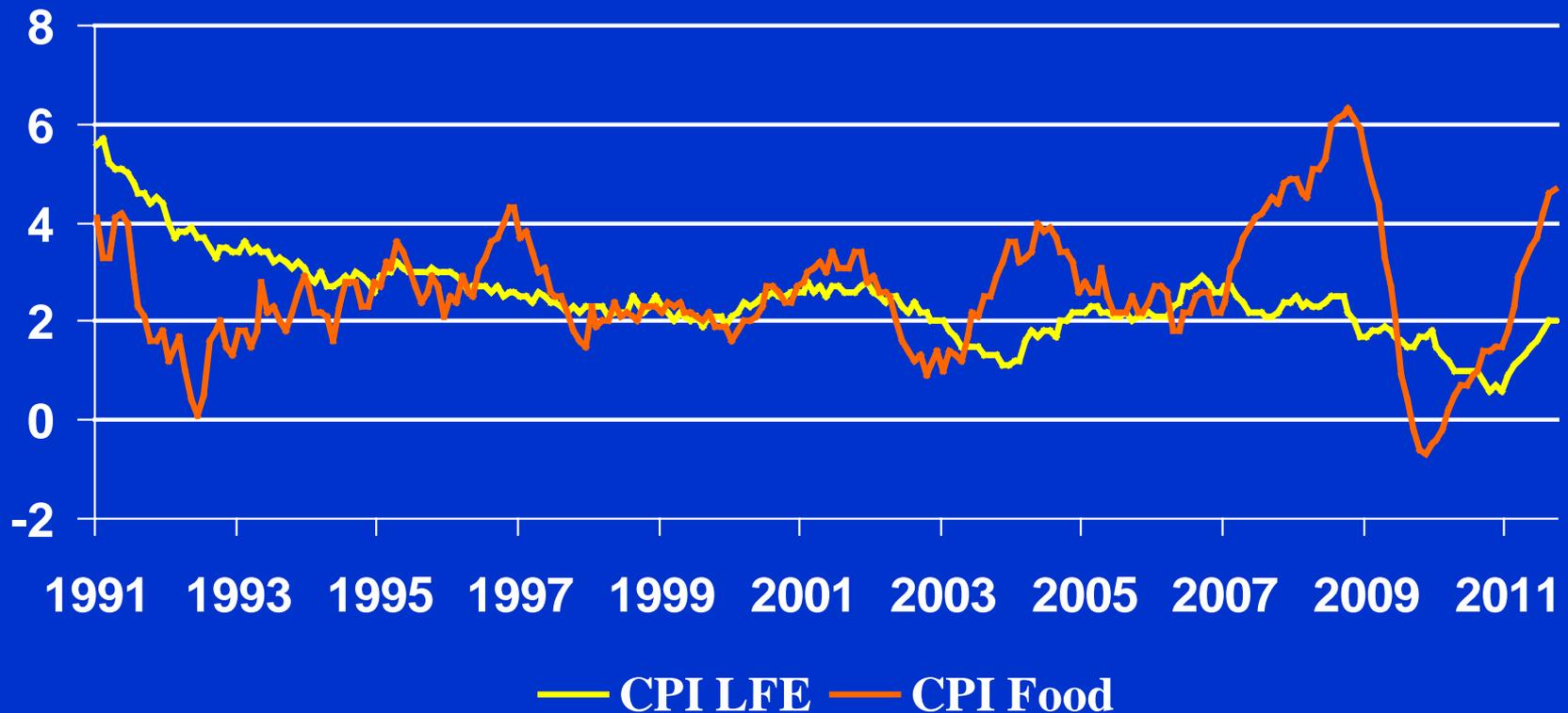


In December 2008, the Federal Open Market Committee lowered its Fed Funds rate target to a range from 0 to 0.25%



Food price increases again rising faster than core inflation (less food and energy)

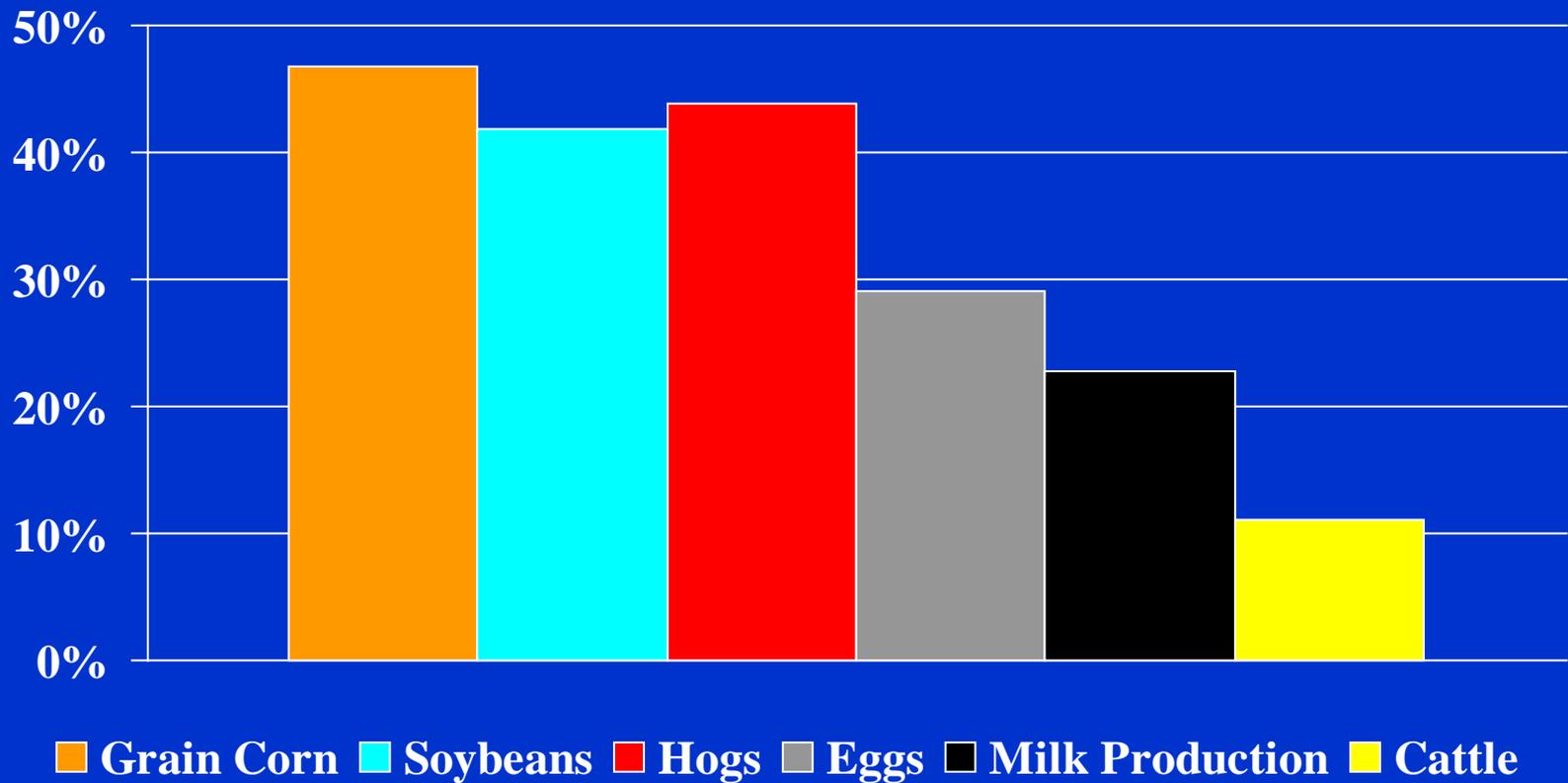
(Consumer price index, percent change from year ago)



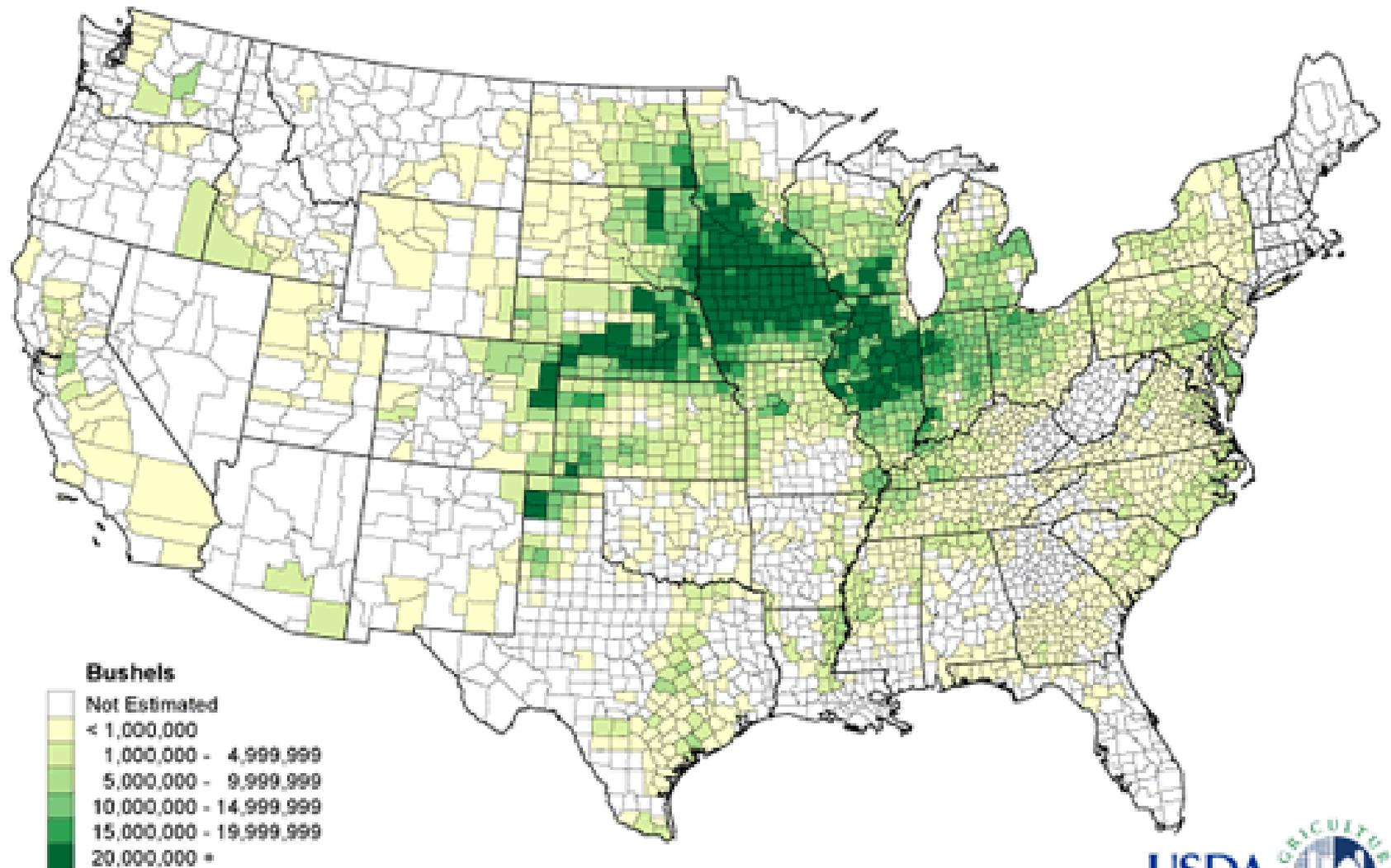
Why is the Chicago Fed interested in Agriculture?

- **Important portion of District economy**
 - Wide geographic impact
 - “Backbone” of economy
- **Leading farm states**
- **Food manufacturing**
 - Jobs
 - Income
- **Impact on commercial banks**
- **Response to stakeholders**

7th District Agriculture Products (as % of U.S. total, 2010)



Corn for Grain 2005 Production by County





U.S. ETHANOL BIOREFINERY LOCATIONS



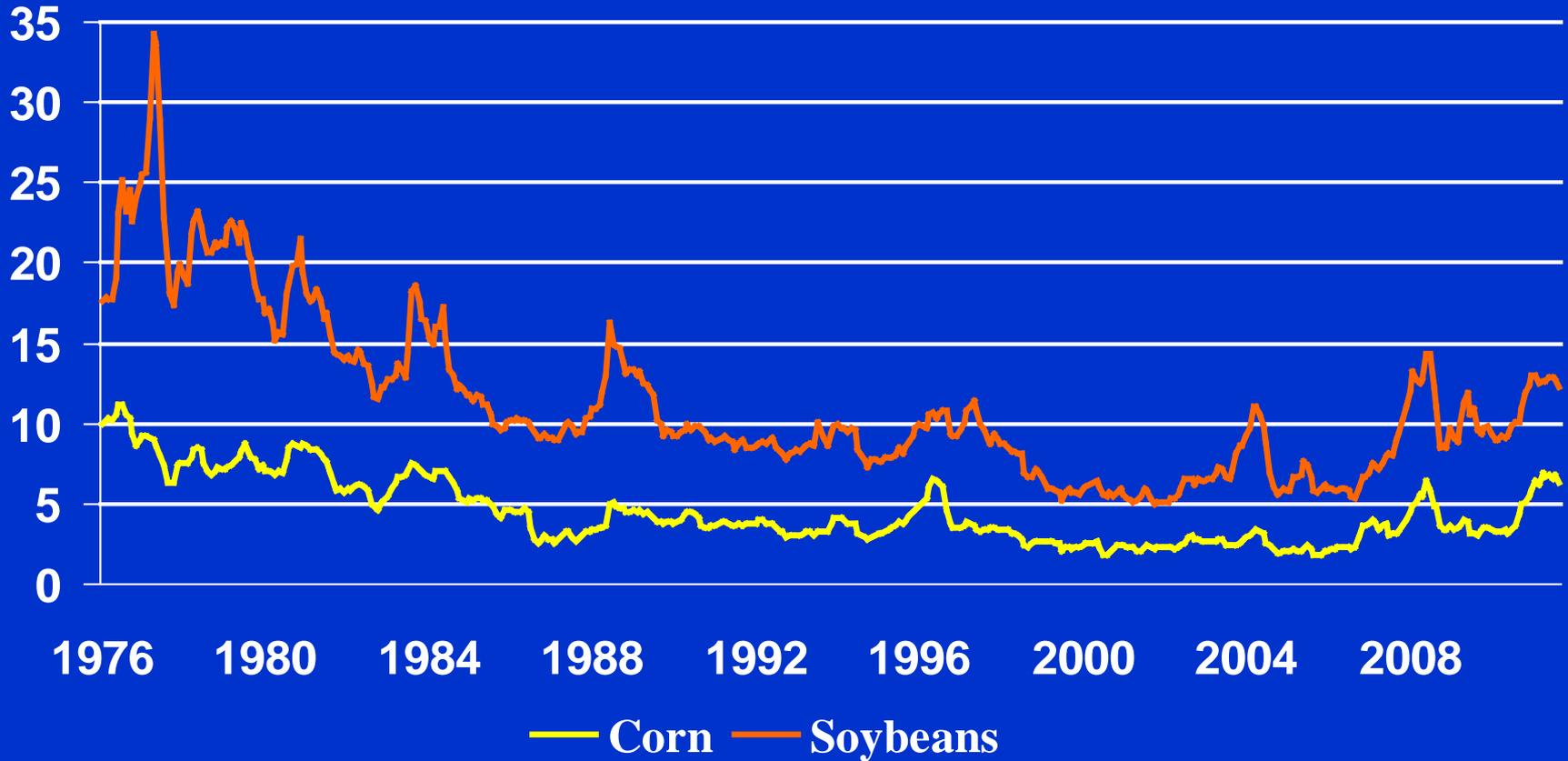
Biorefineries (204)

Biorefineries under construction (9)

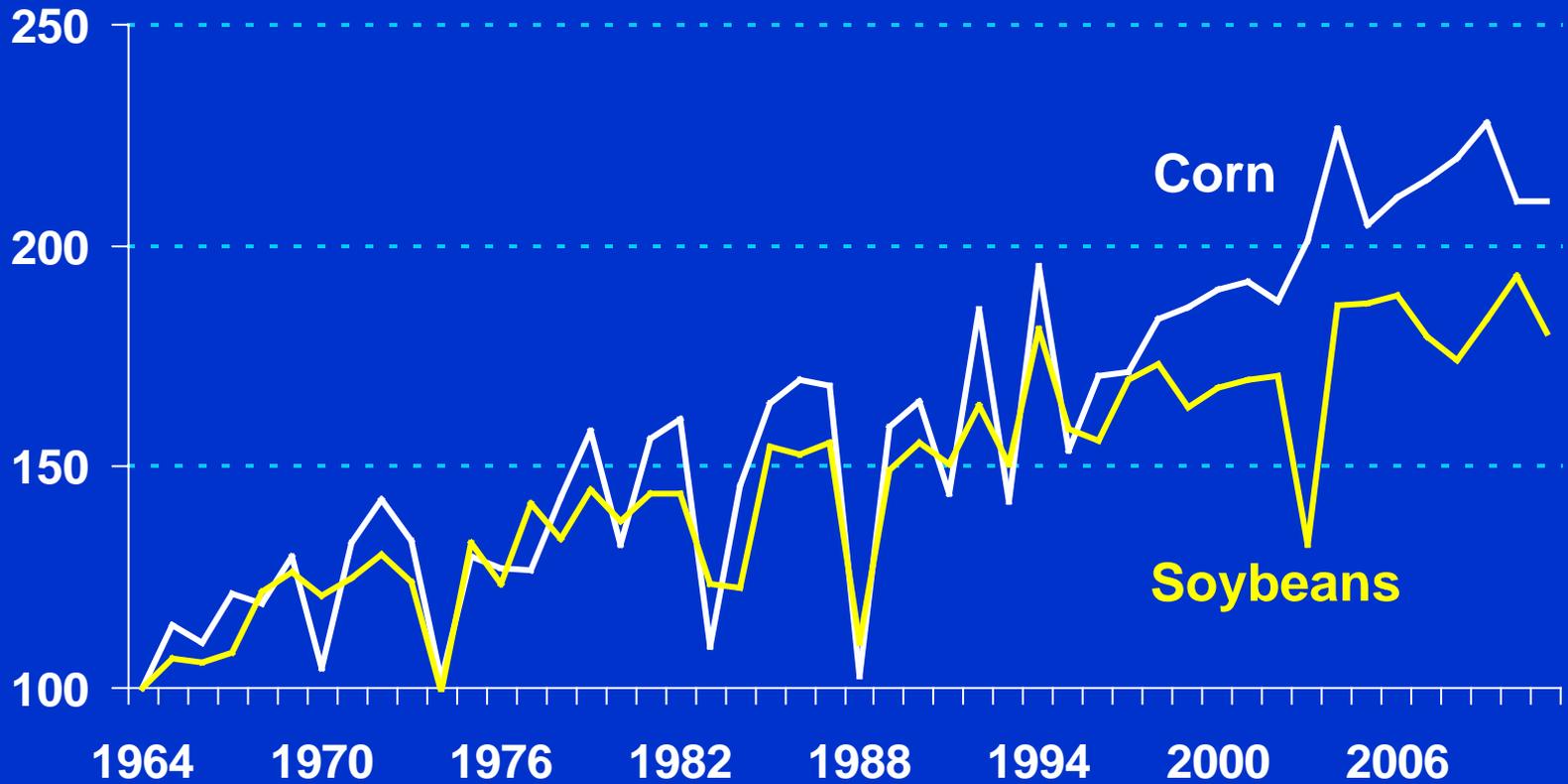
Source: Renewable Fuels Association,
January 2011

Real Crop Prices

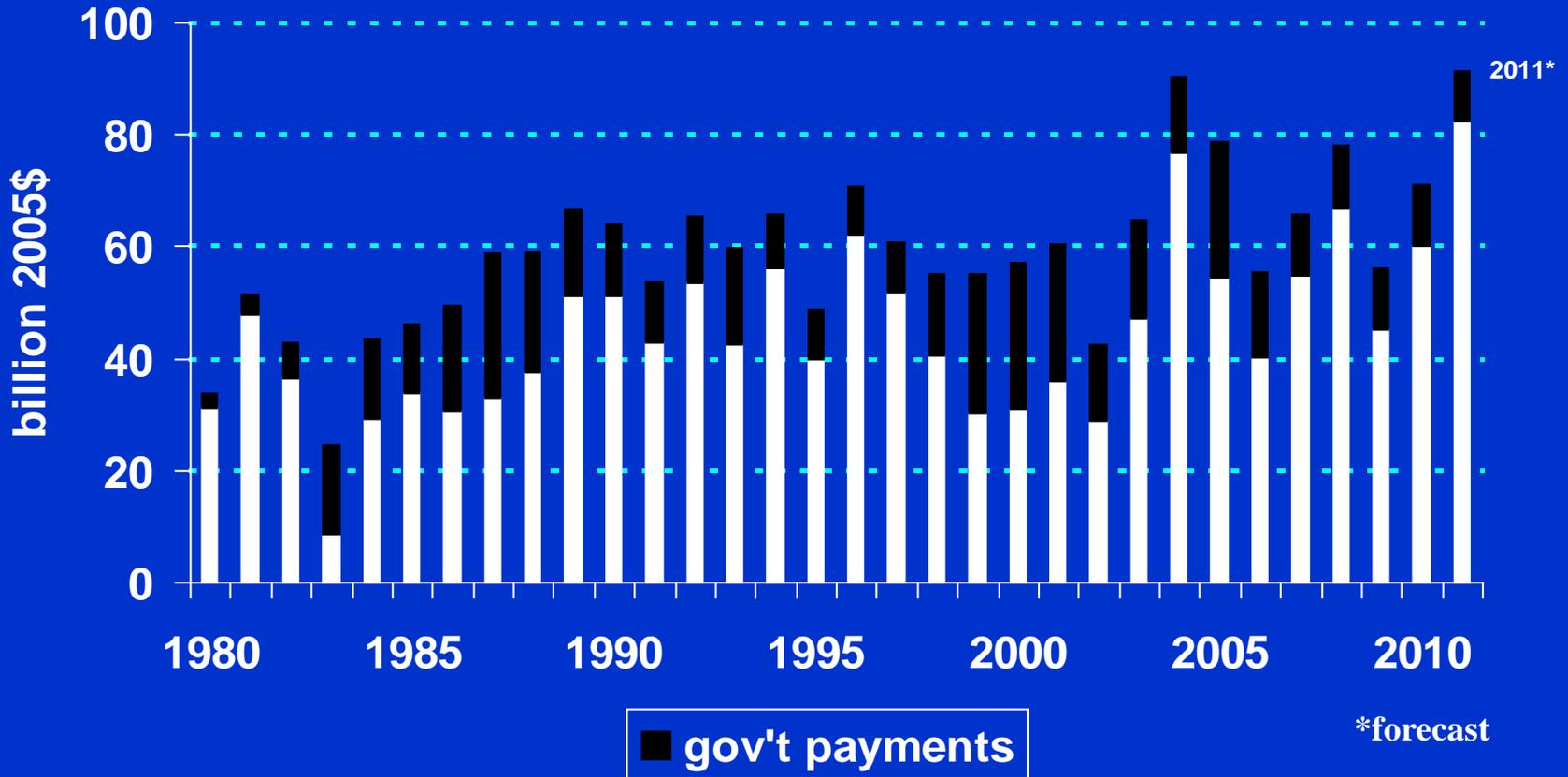
(\$/bushel, adjusted by CPI-U for January 2008)



7th District Crop Yield Indexes (1964=100)



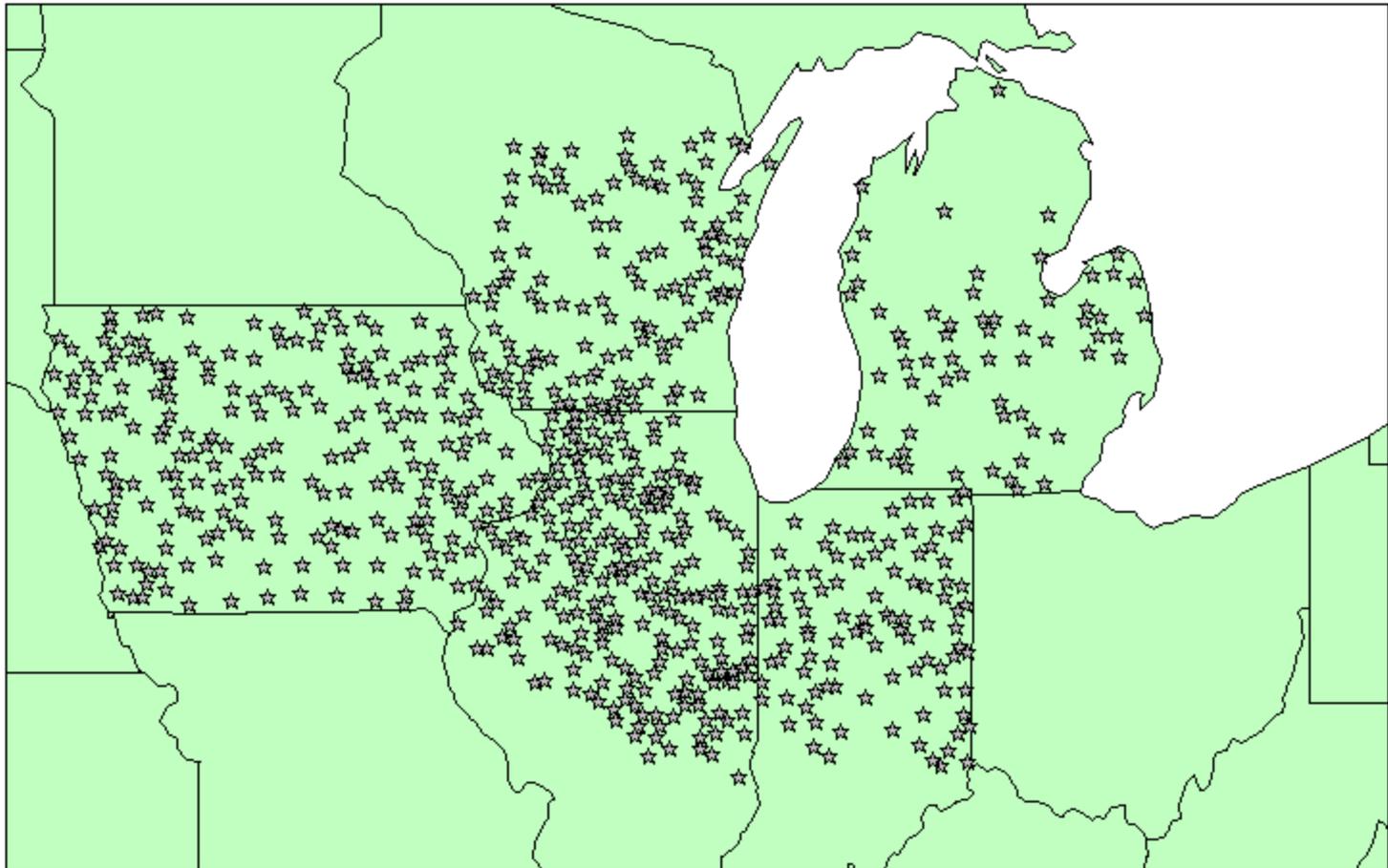
Real net farm income higher in 2011



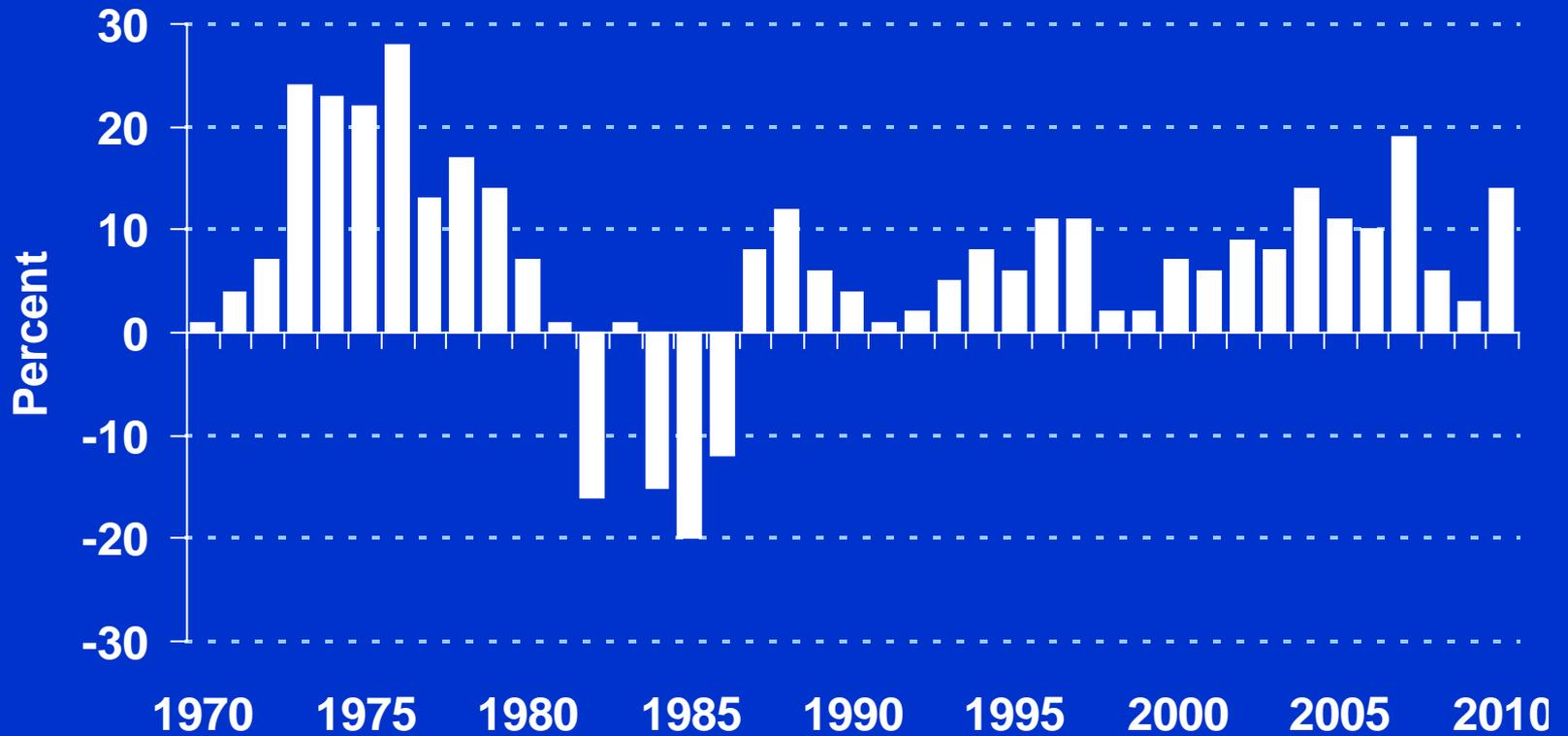
Why the interest in farmland values?

- **Accounts for huge portion of sector asset value**
- **An indicator of agriculture's health**
- **Affects collateral values & portfolio quality**
- **Impact on lending institutions**
- **A factor in the 1980's farm crisis**

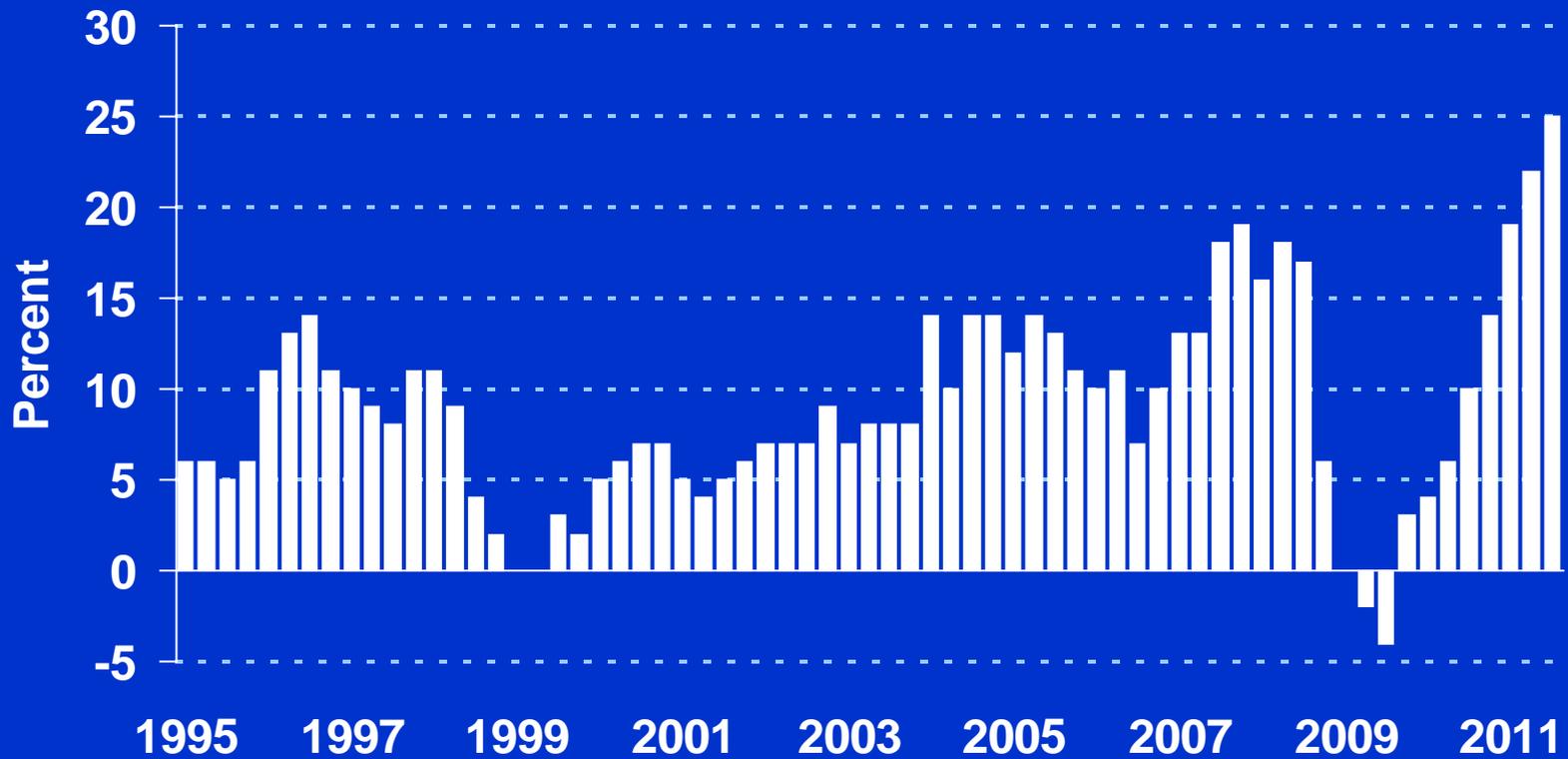
Banks in 7th District Land Value and Credit Conditions Survey



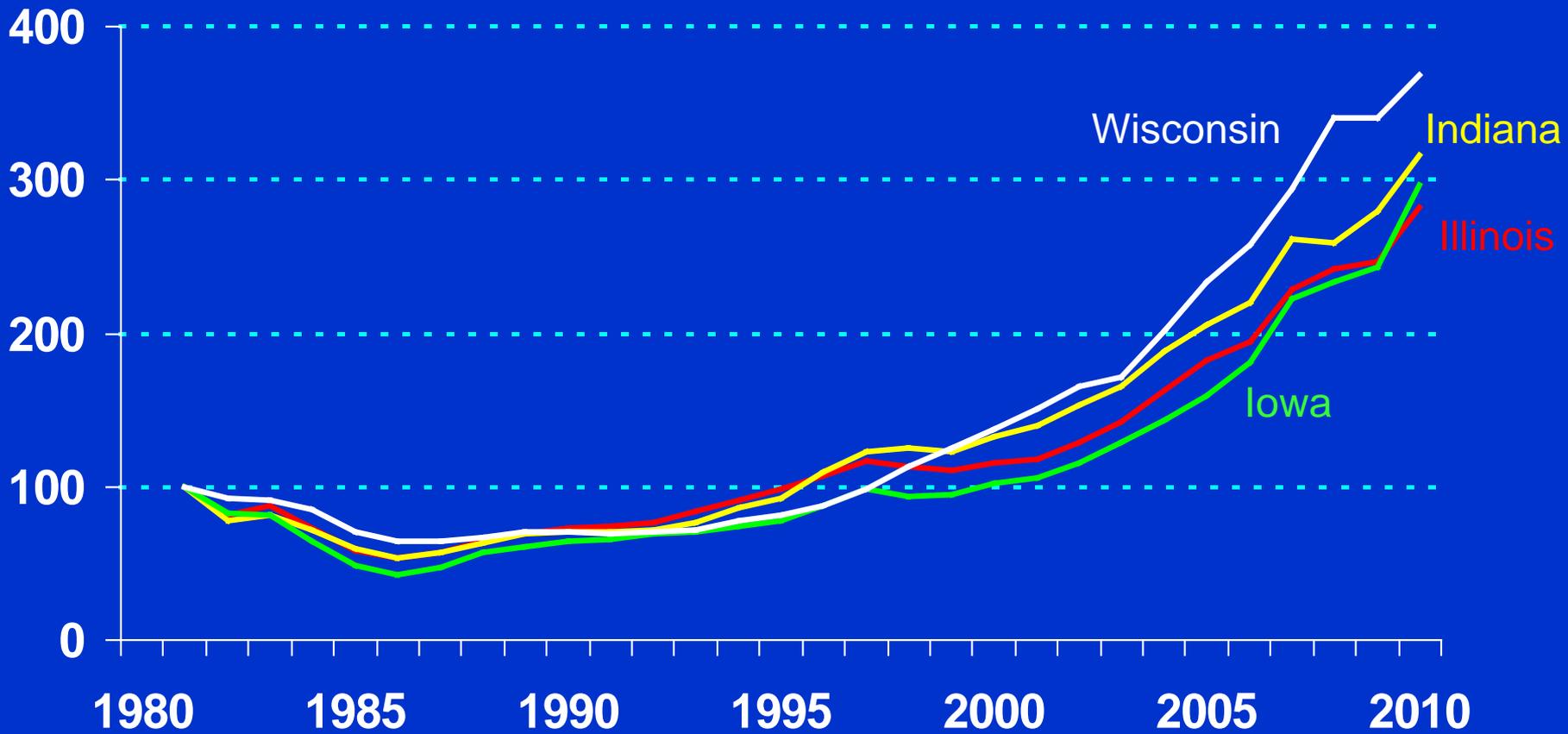
Annual change in farmland values in Seventh Federal Reserve District



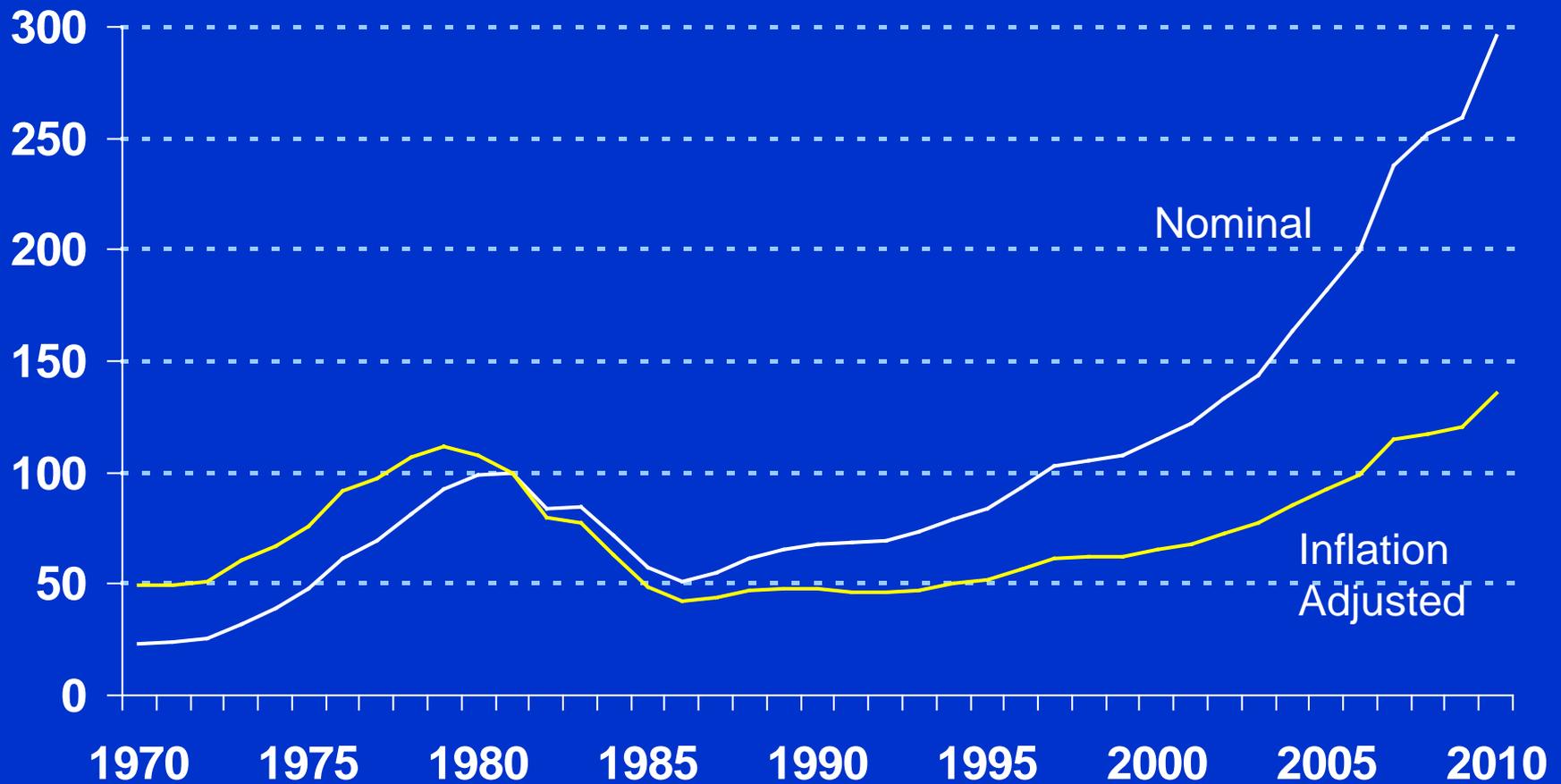
Year over year changes by quarter in farmland values in the Seventh Federal Reserve District



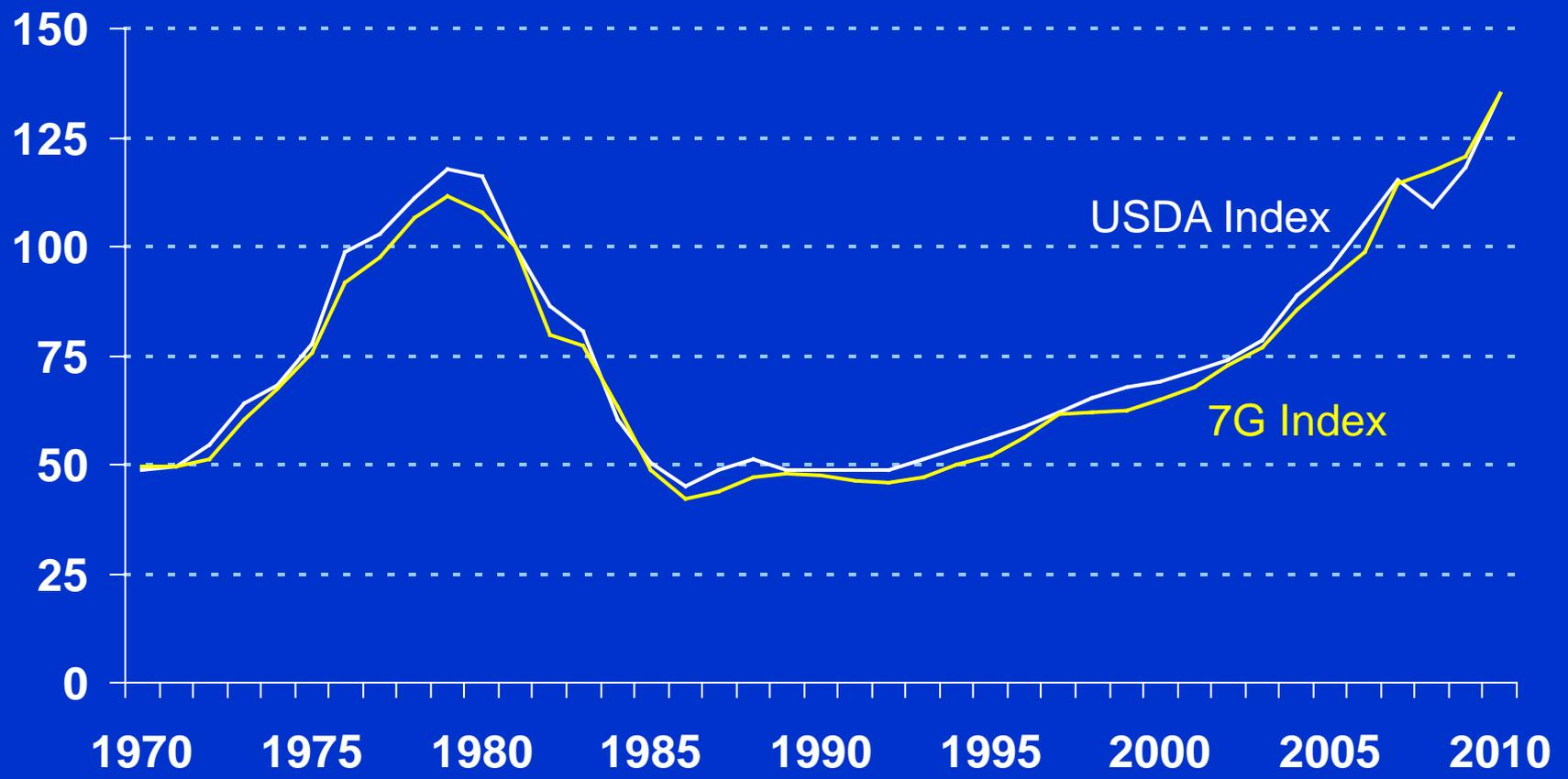
Farmland Value Indexes for Seventh District States (1981=100)



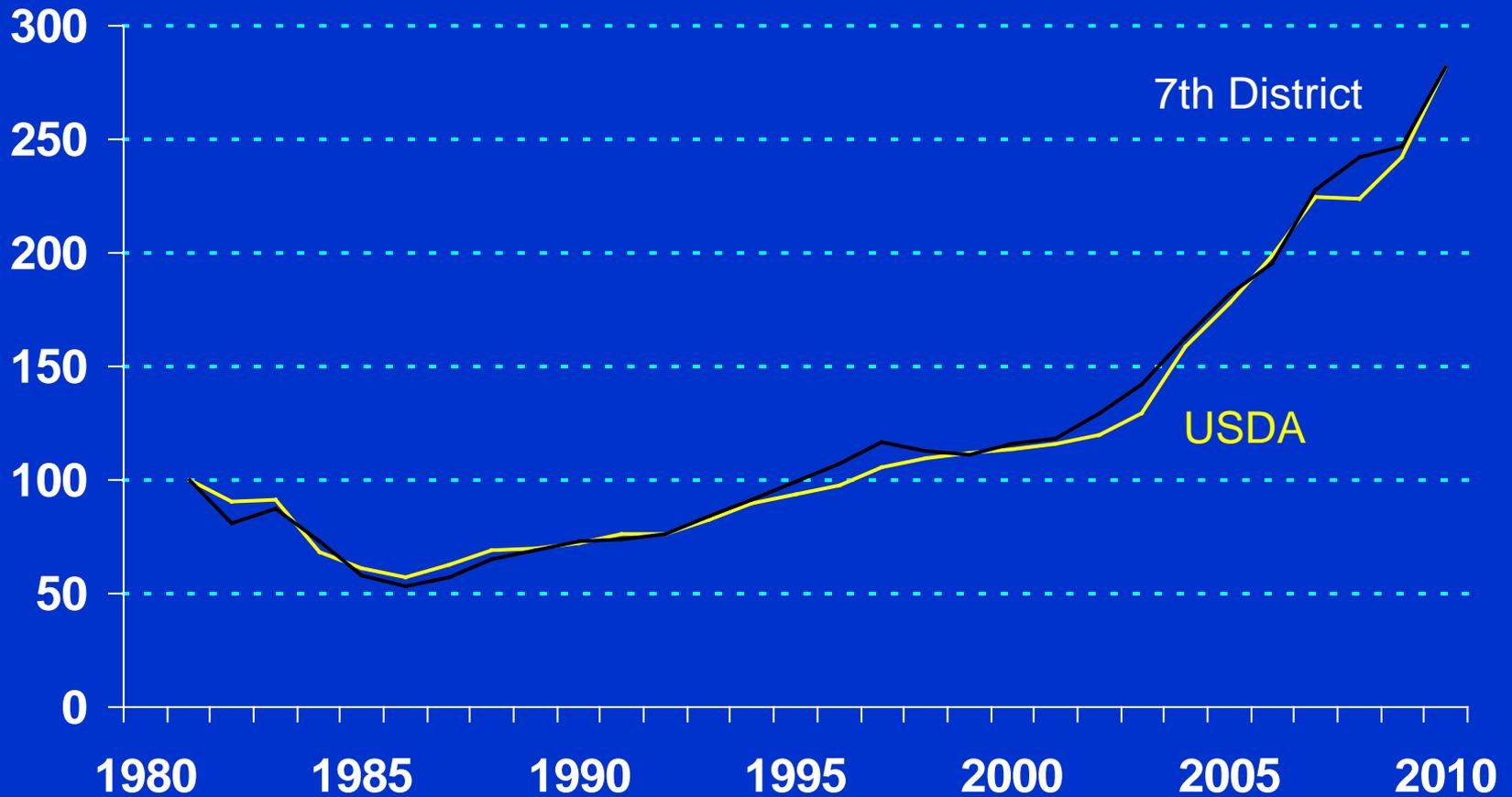
Indexes of Seventh District farmland values *(1981=100)*



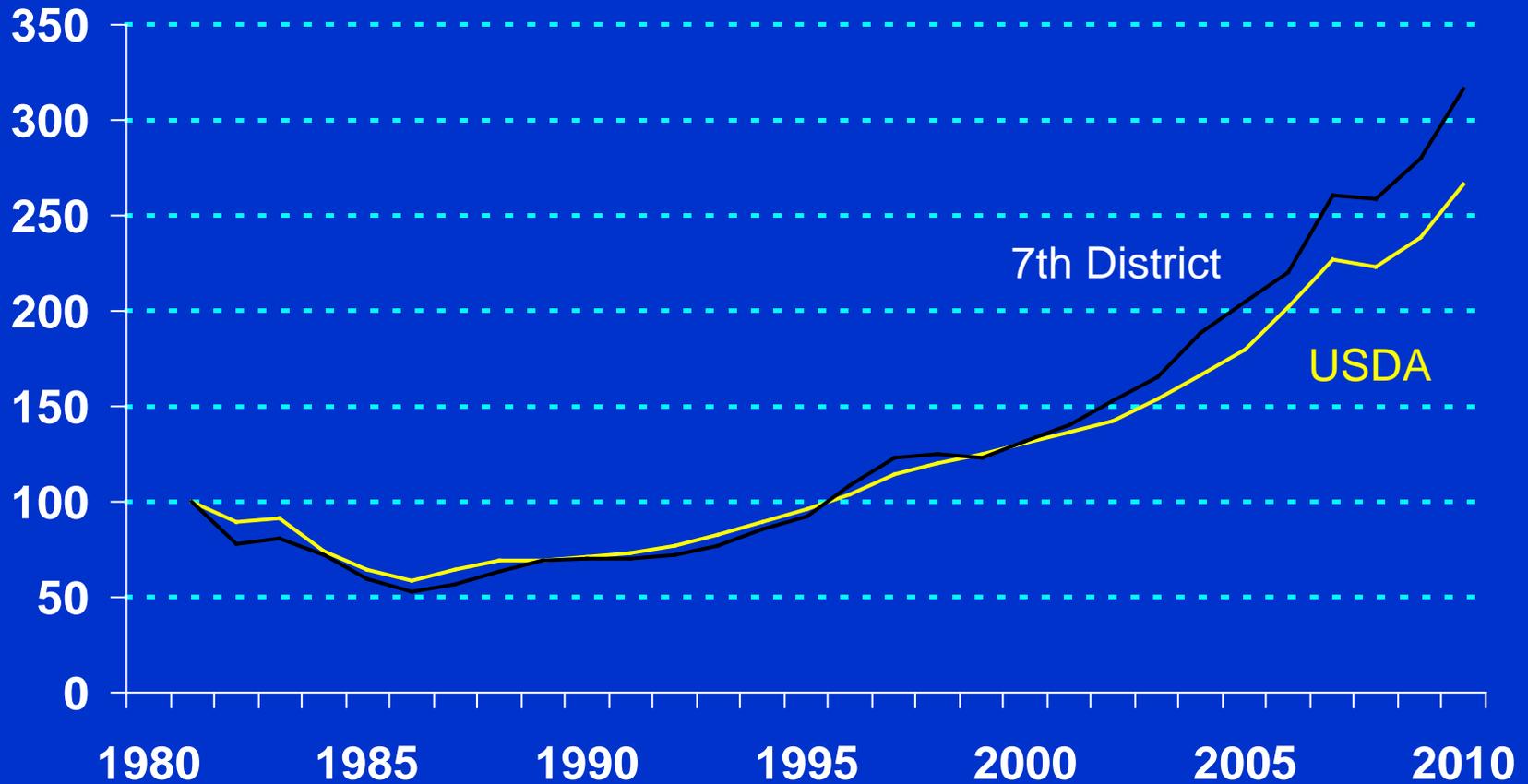
Indexes of Seventh District farmland values and USDA farm real estate (1981=100, adjusted by PCE)



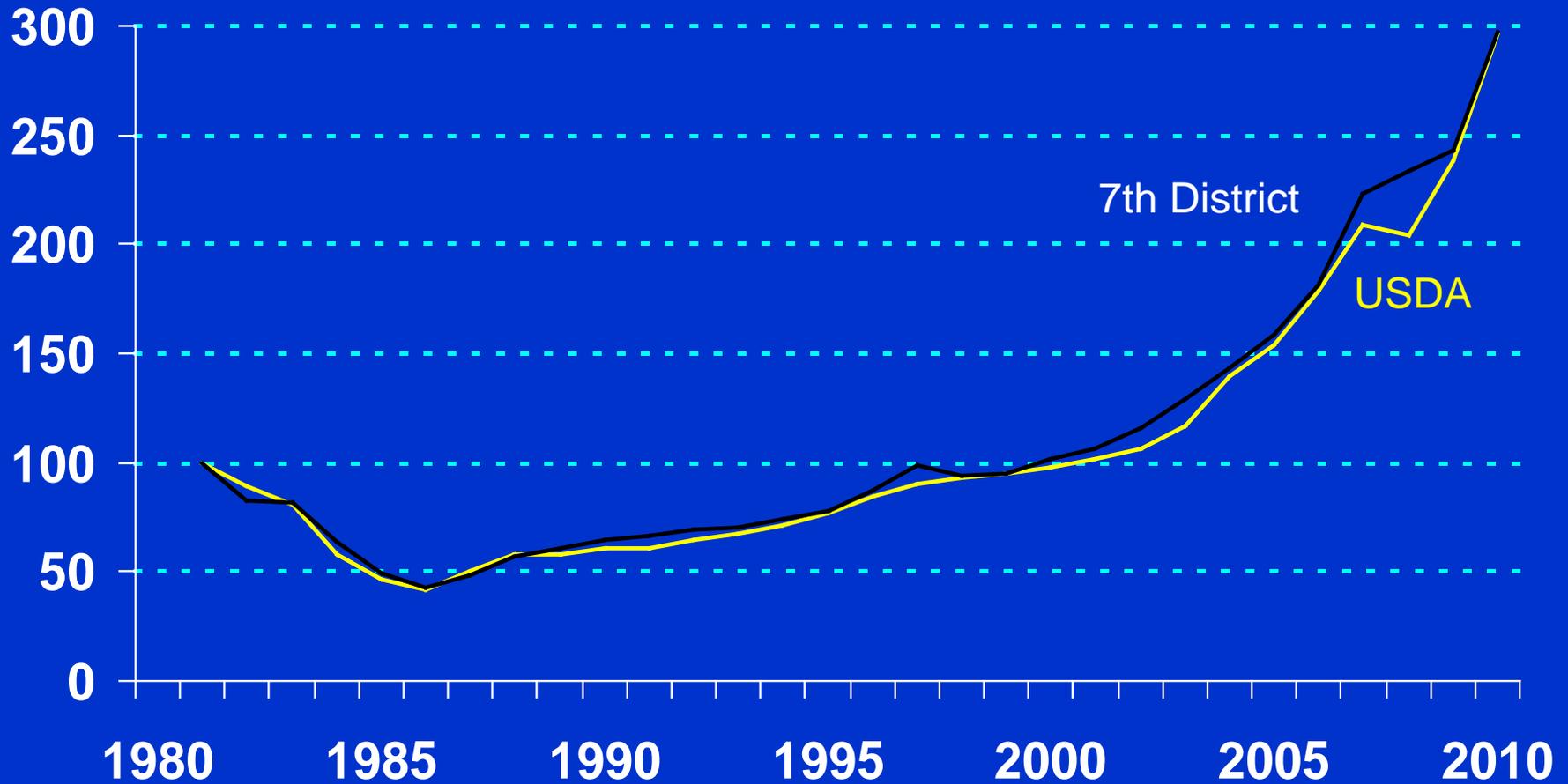
Indexes of Seventh District and USDA Farmland Values for Illinois (1981=100)



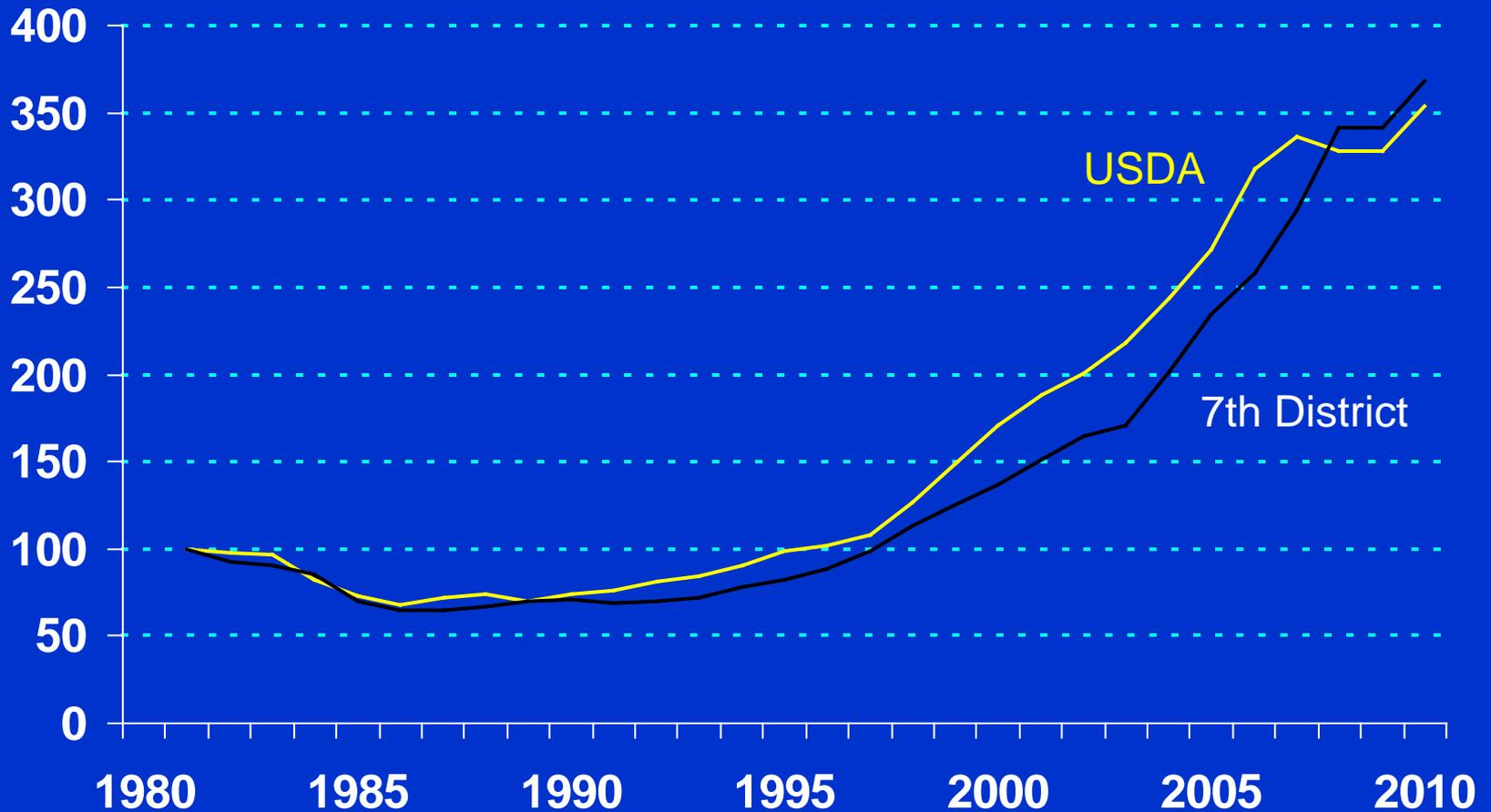
Indexes of Seventh District and USDA Farmland Values for Indiana (1981=100)



*Indexes of Seventh District and USDA
Farmland Values for Iowa (1981=100)*



Indexes of Seventh District and USDA Farmland Values for Wisconsin (1981=100)



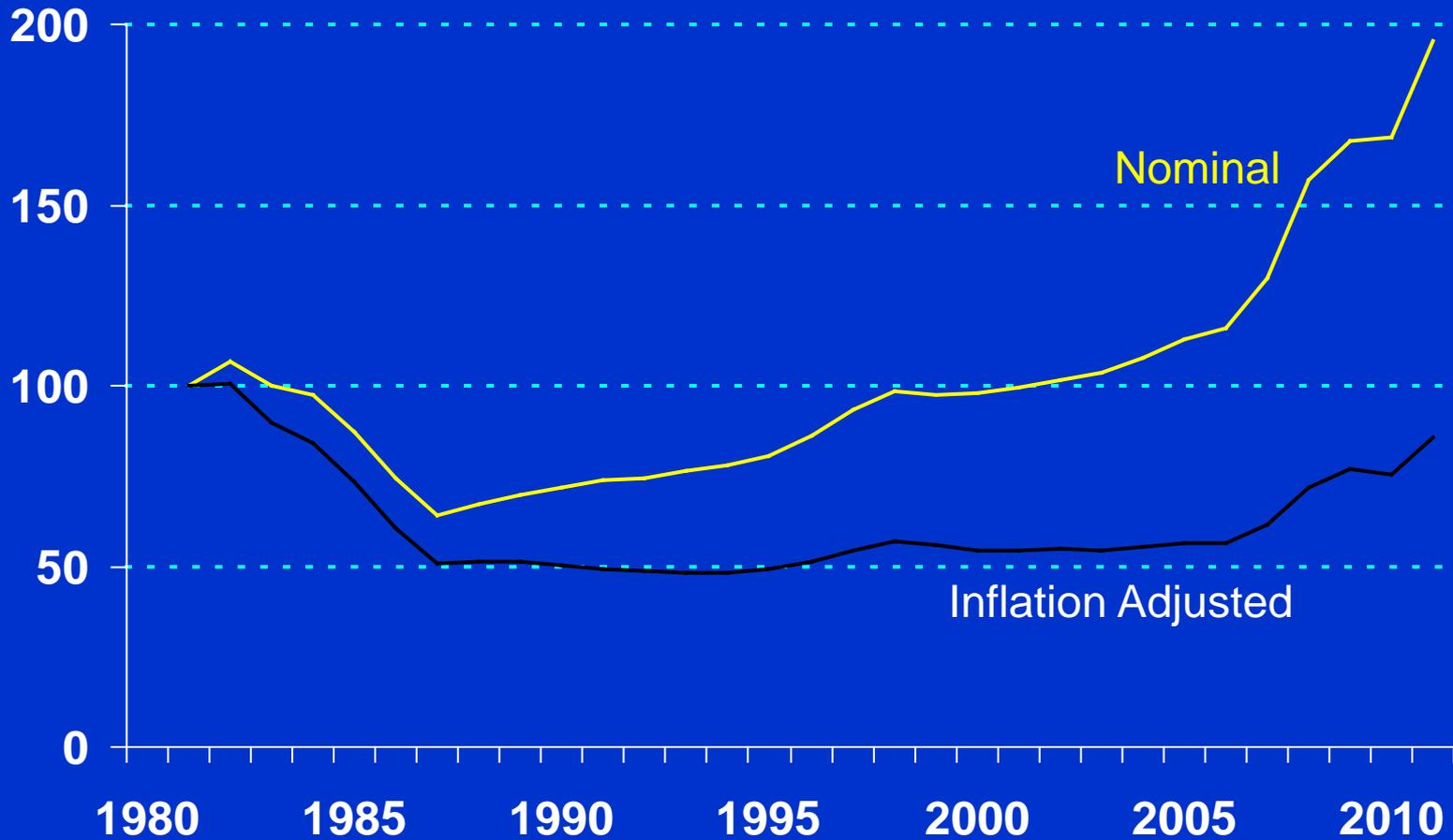
What factors affect farmland values?

- **Expected net returns**
- **Interest rates**

- **Government programs**
- **Capital investment in structures**
- **Non-farm demand**

- **Inflation, lending policies, other investments, speculation, technology, trade, site characteristics, environmental issues**

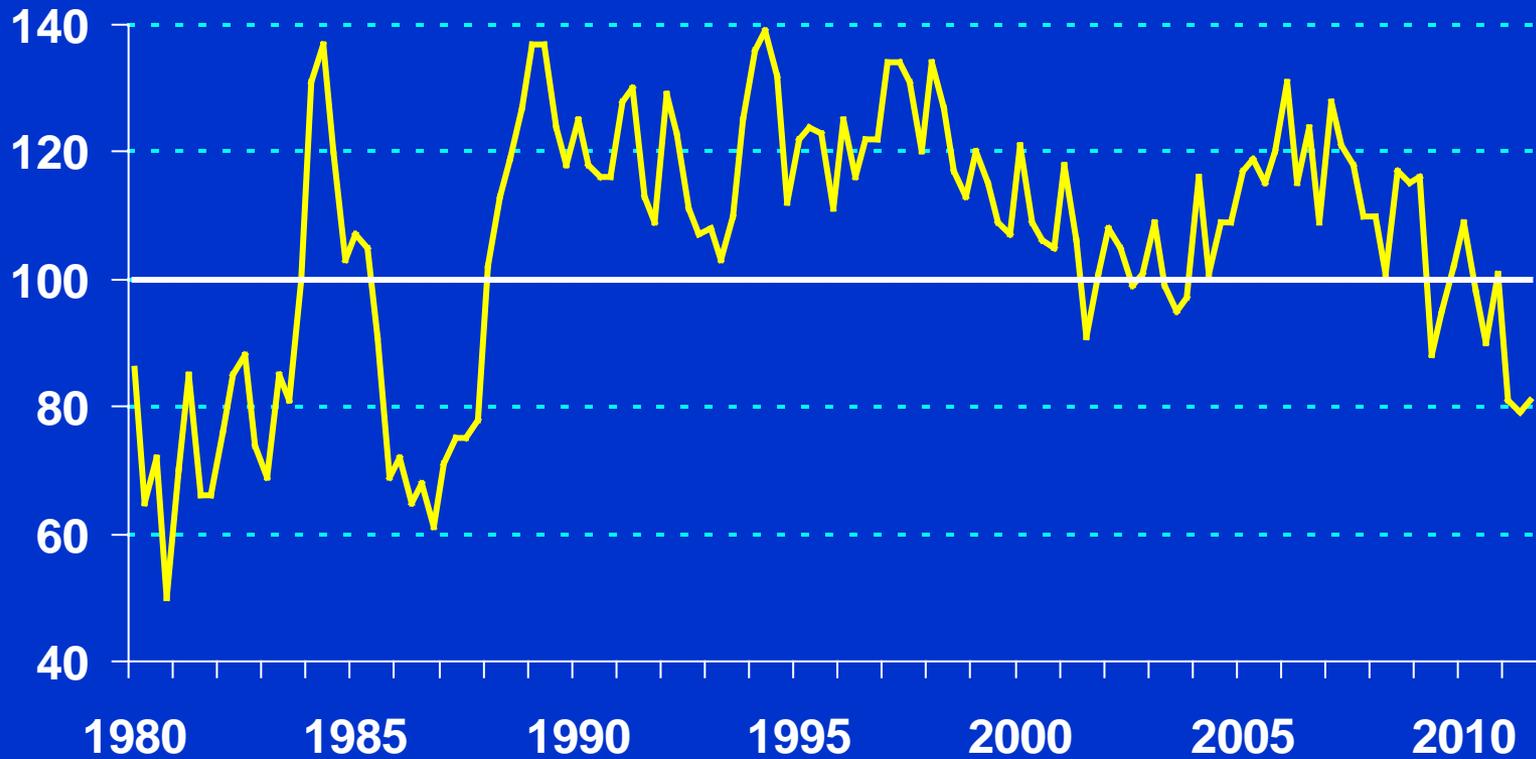
Index of Seventh District Cash Rents Nominal vs. Inflation Adjusted (1981=100)



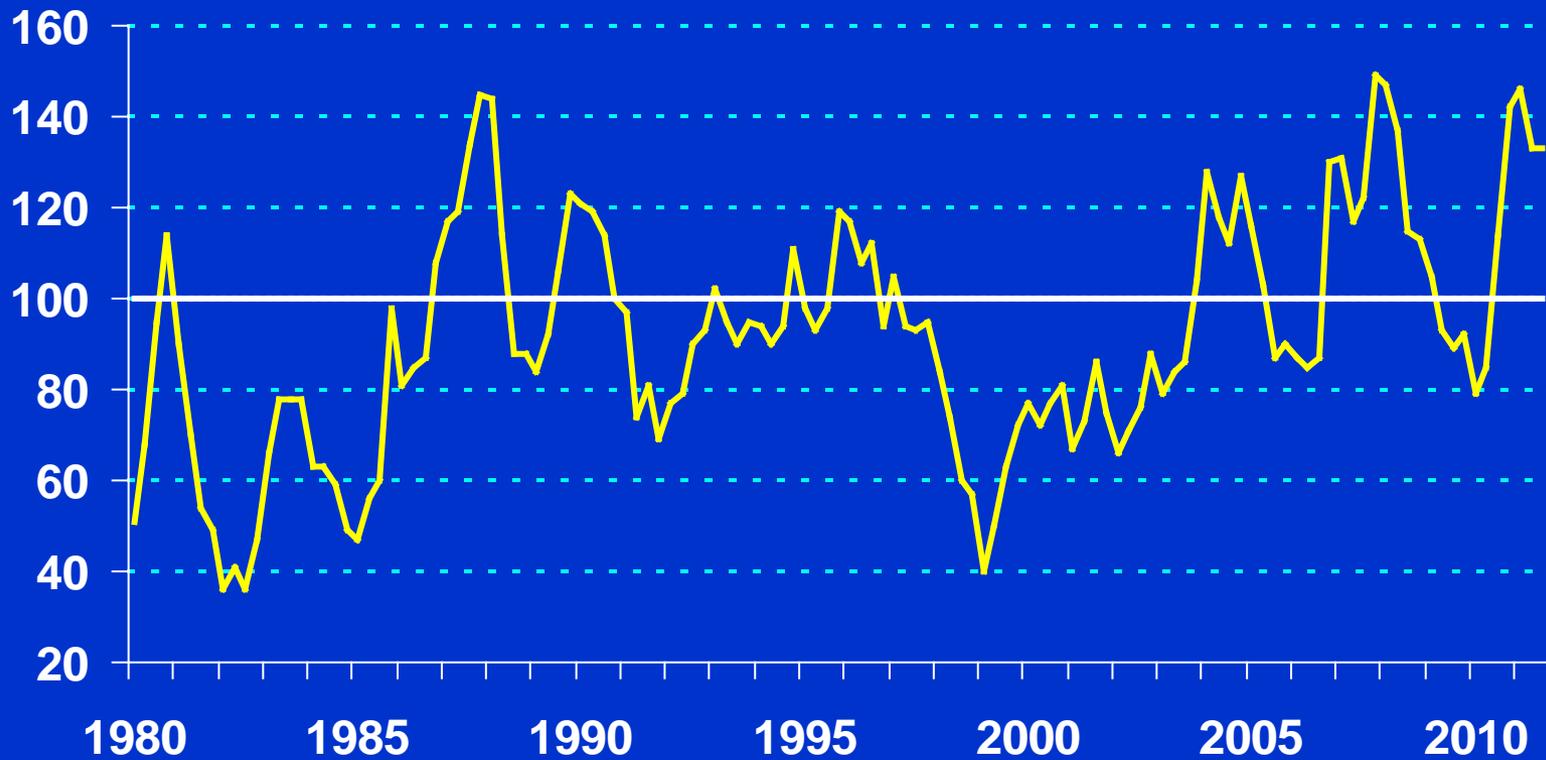
Financial indicators for the farm sector

- **Net farm income is higher for 2011**
- **Farm program spending going lower**
- **Farm balance sheets in stronger shape**
- **Interest rates are relatively low**
- **Credit conditions improved in recent years**
 - **Fewer loan renewals and extensions**
 - **Only 2% of 7th District agricultural loans with “major” or “severe” repayment problems**

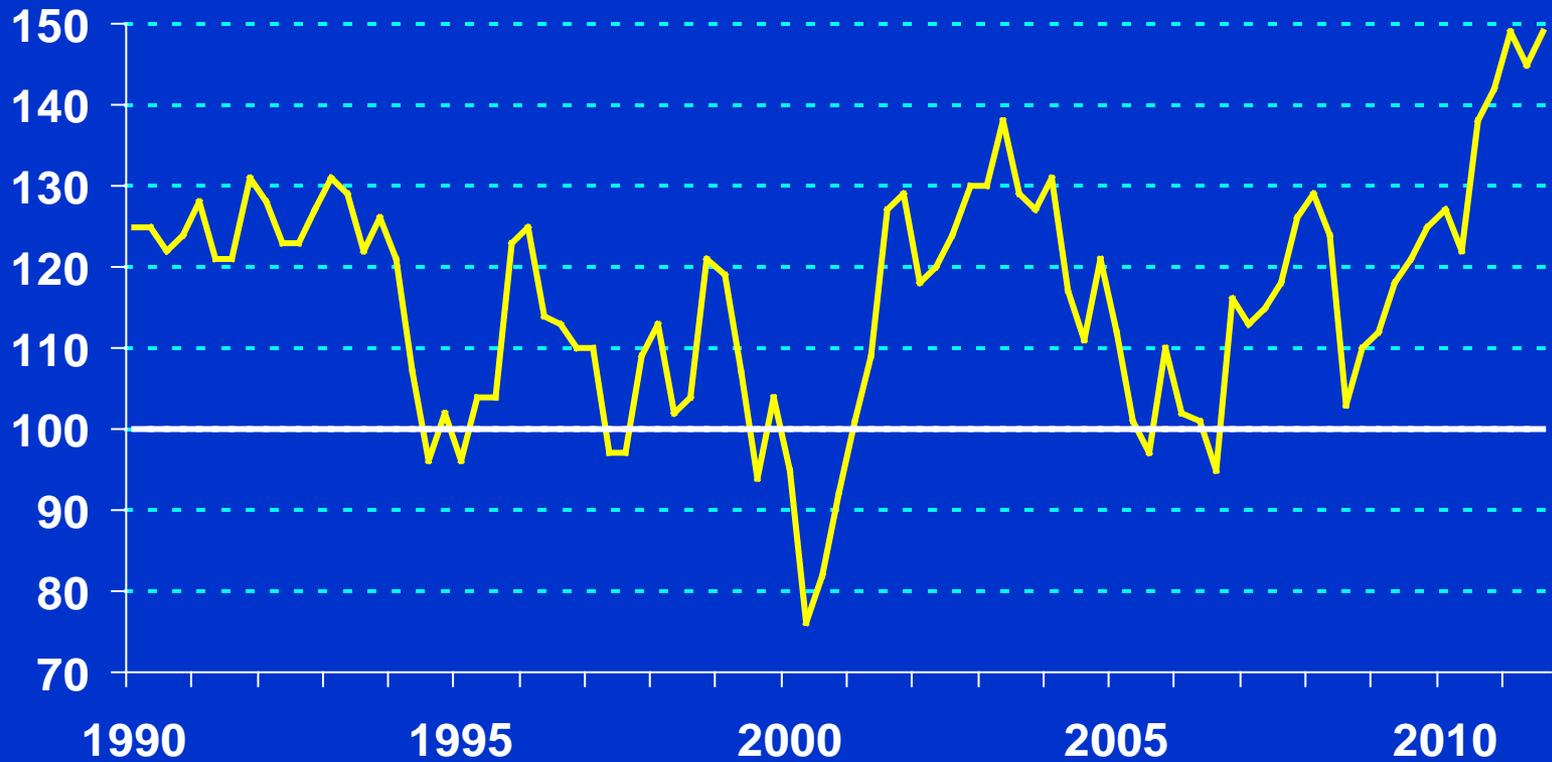
***Index of agricultural loan demand for the Seventh
Federal Reserve District (excluding real estate)***



Index of agricultural loan repayment rates for the Seventh Federal Reserve District



Index of funds availability for the Seventh Federal Reserve District



Interest rates charged on new farm loans in the Seventh Federal Reserve District

