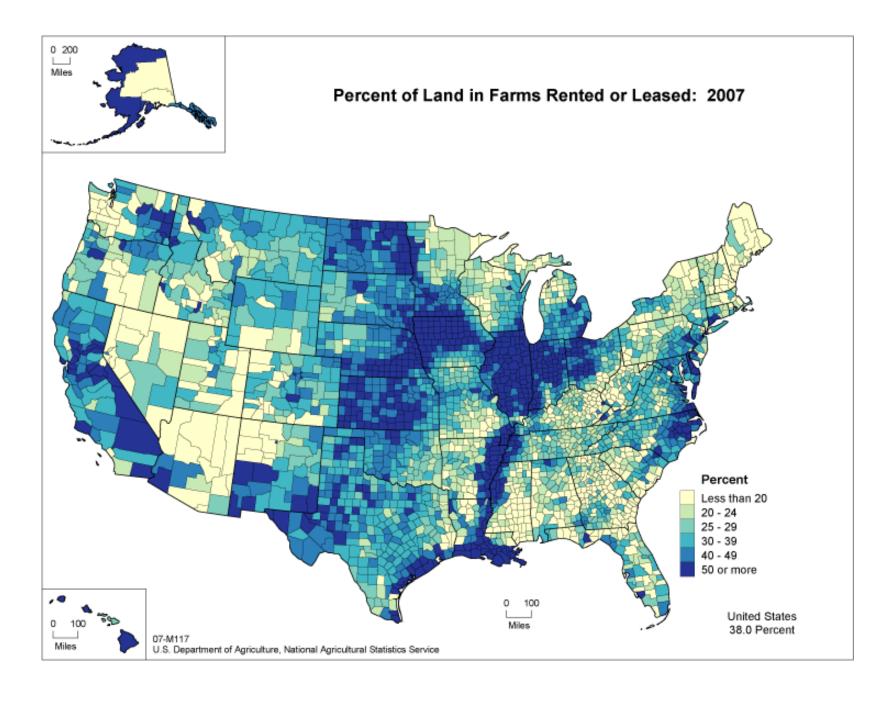
#### Farmland Leases: Tales, Types, and Trends

November 27, 2012 Federal Reserve Bank of Chicago David Oppedahl
Business Economist
312-322-6122
david.oppedahl@chi.frb.org

#### Why the interest in farmland leases?

- Widespread and evolving practice in Midwest
- Source of income for farmland owners
- Affects profitability and cash flow of farms
- Lagging relationship of cash rents with farmland values
- Impact on lending institutions via loans



#### Sources of income from farmland leasing

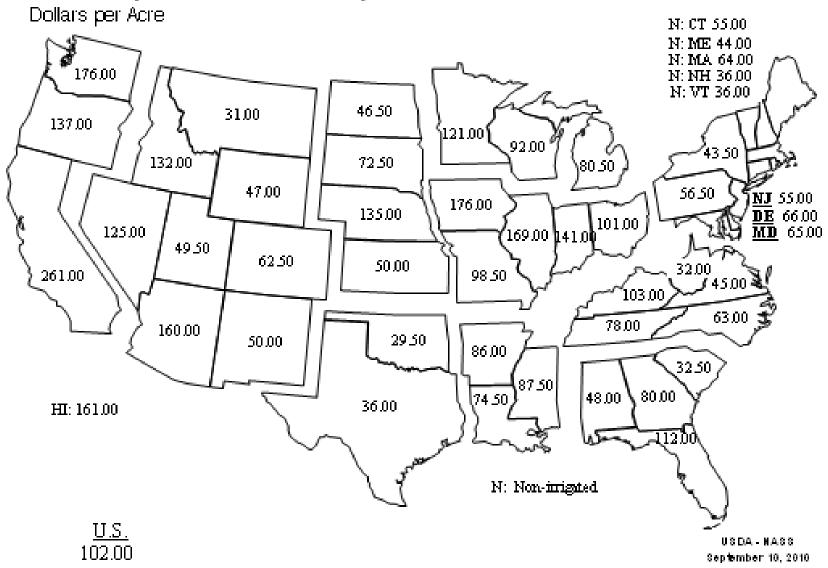
- Cropland
  - Non-irrigated
  - Irrigated
- Pastures
- Energy production
  - Wind
  - Gas and oil





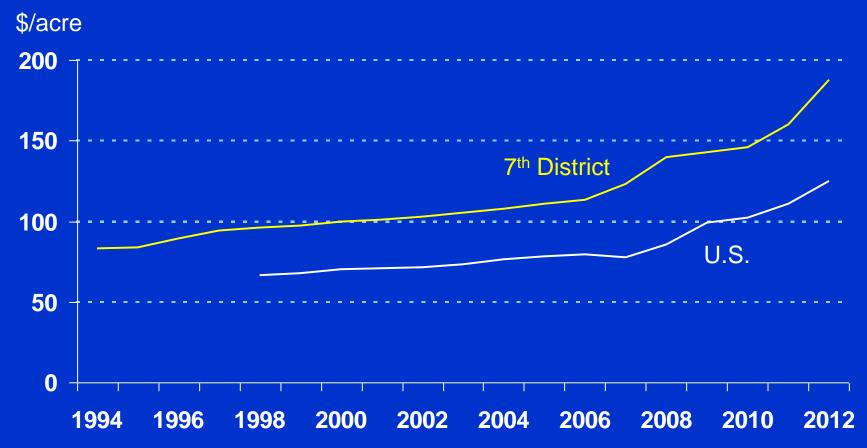
Recreational uses: hunting, fishing, etc.

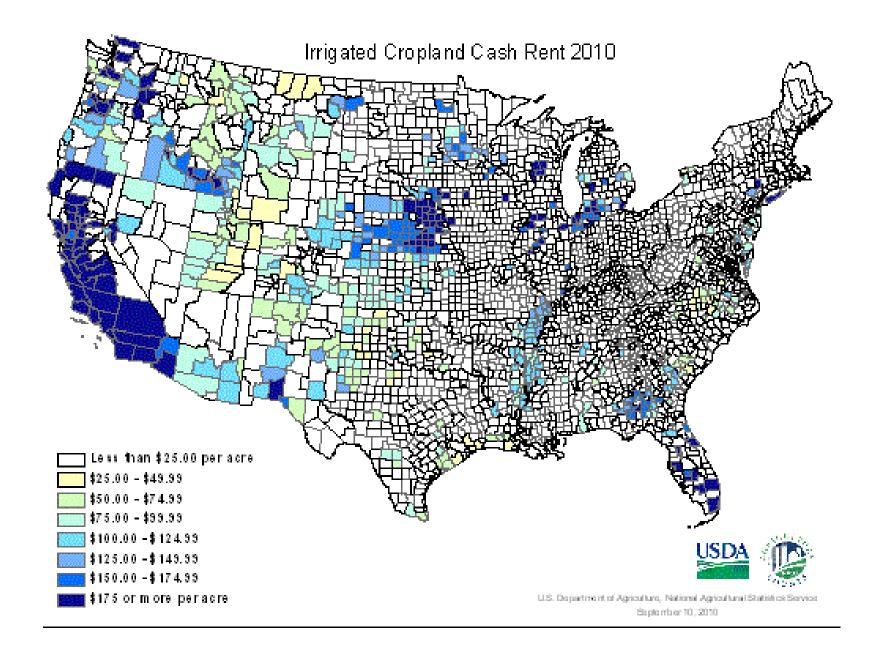
#### 2010 Cropland Cash Rent by State

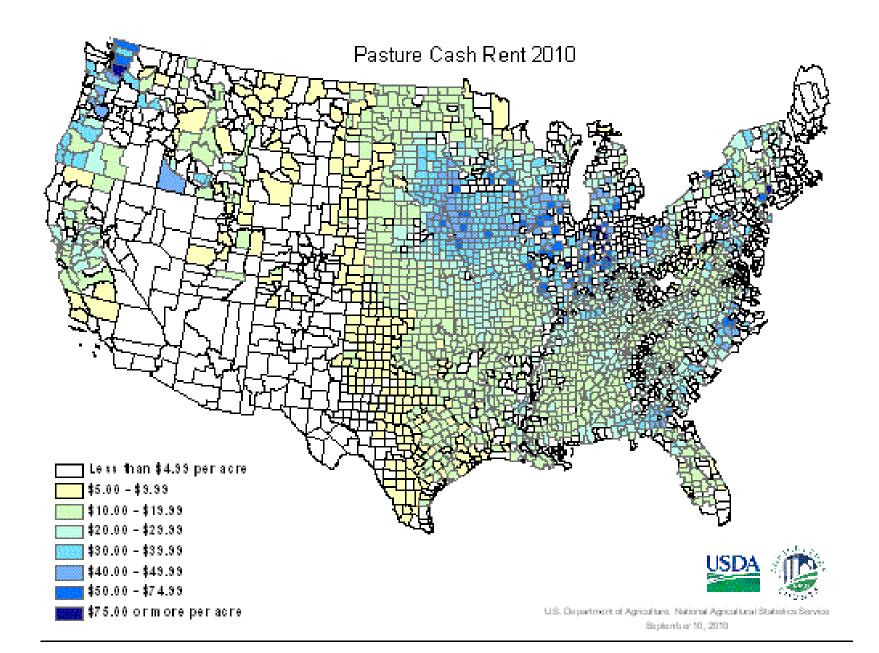


# Farmland cash rents for the U.S. and for the Seventh Federal Reserve District

(weighted by acres from USDA data)



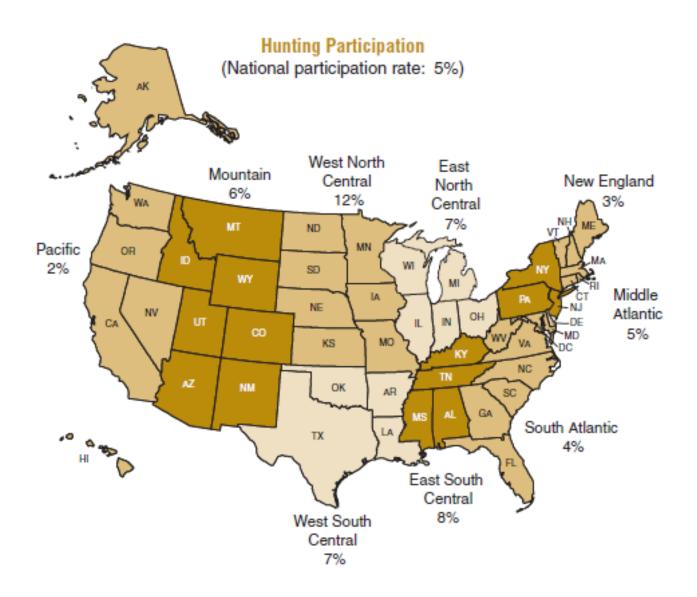




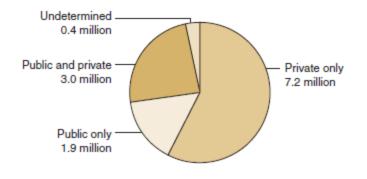
#### 2010 Pasture Cash Rent by State

Dollars per Acre





#### **People Hunting on Public and Private Lands**



| lotal | Hunting | Expenditures |
|-------|---------|--------------|
| Total | bunting | ovnonditures |

| Total hunting expenditures          | \$22.9 billion |
|-------------------------------------|----------------|
| Total trip-related expenditures     | \$6.7 billion  |
| Food and lodging                    | 2.8 billion    |
| Transportation                      | 2.7 billion    |
| Other trip costs                    | 1.2 billion    |
|                                     |                |
| Total equipment expenditures        | \$10.7 billion |
| Hunting equipment                   | 5.4 billion    |
| Auxiliary equipment                 | 1.3 billion    |
| Special equipment                   | 4.0 billion    |
|                                     |                |
| Total other hunting expenditures    | \$5.5 billion  |
| Magazines, books                    | 0.1 billion    |
| Membership dues and contributions   | 0.3 billion    |
| Land leasing and ownership          | 4.4 billion    |
| Licenses, stamps, tags, and permits | 0.7 billion    |
|                                     |                |

Source: Table 17.

# Plus almost \$400 million in private land use fees

(in other trip costs)

\$22 0 billion

#### Factors affecting farmland rental rates

- Farmland values
- Commodity prices



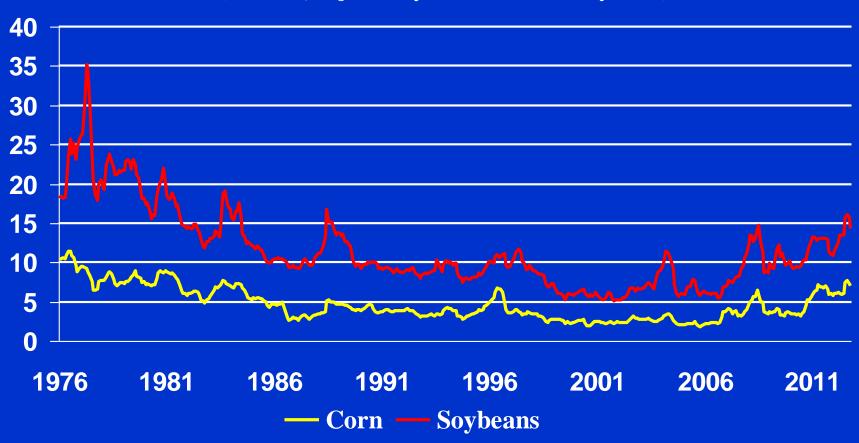
- Location and pool of renters
- Interest rates
- Government programs
- Capital investment in structures
- Demand for other uses of land
- Environmental issues
- Inflation, other site characteristics, trade



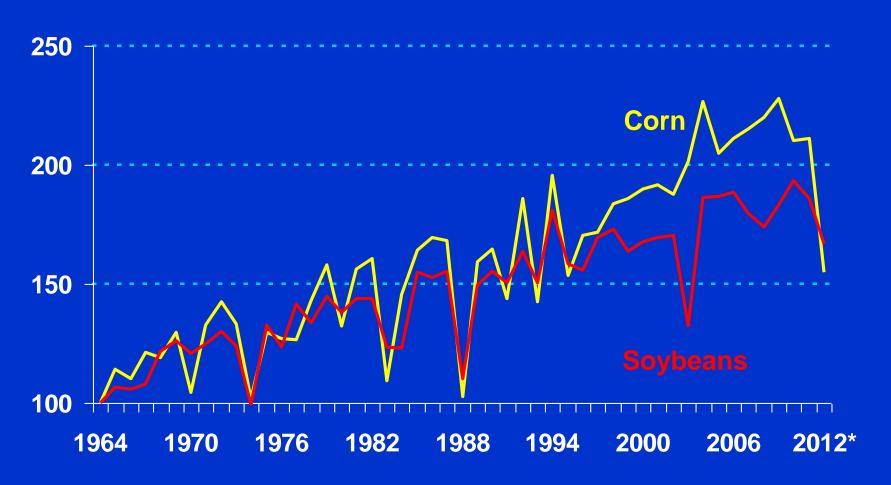


#### Real Crop Prices

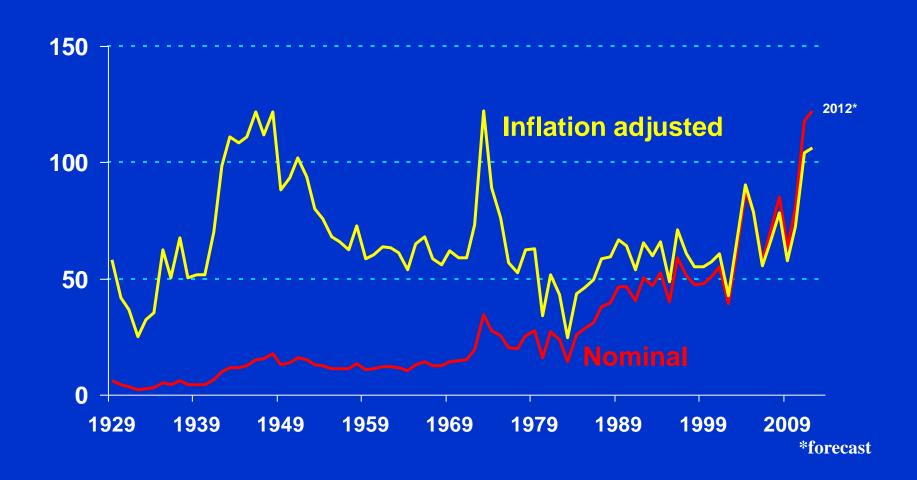
(\$/bushel, adjusted by CPI-U for January 2010)



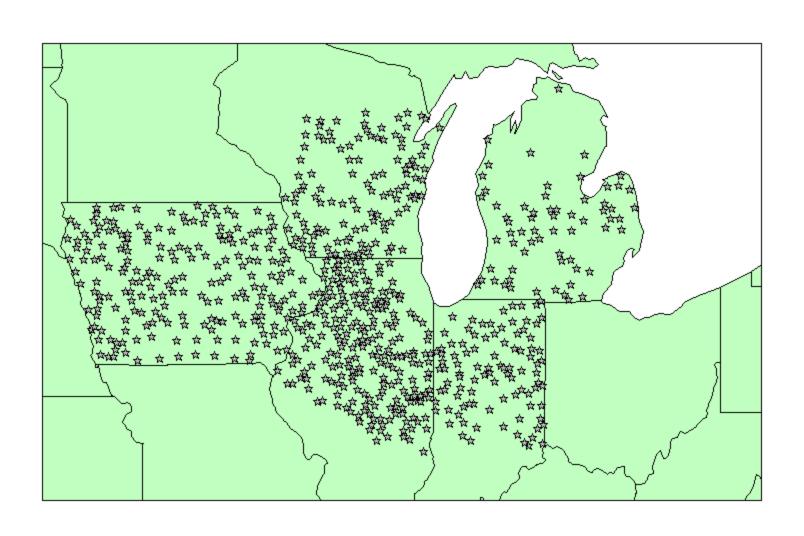
# 7th District Crop Yield Indexes (1964=100)



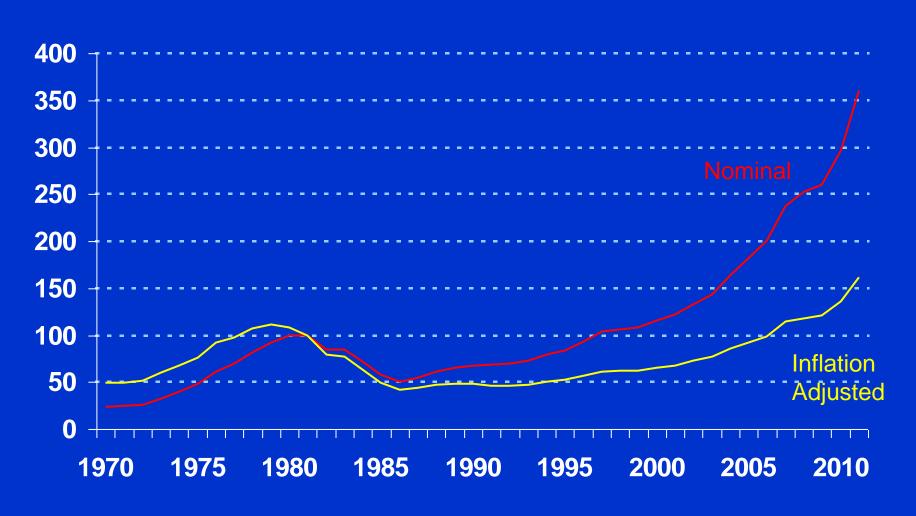
U.S. Net Farm Income (billion dollars, 2005 \$ for inflation adjustment)



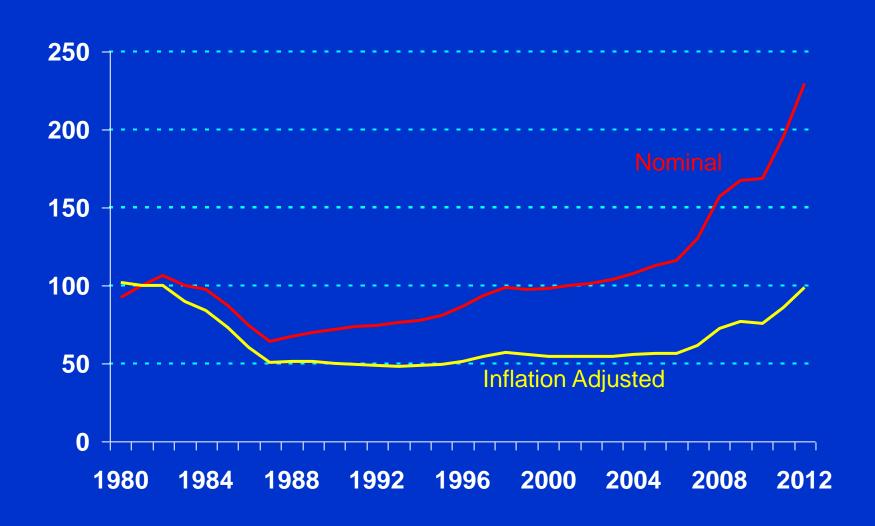
# **Banks in 7th District Land Value** and Credit Conditions Survey



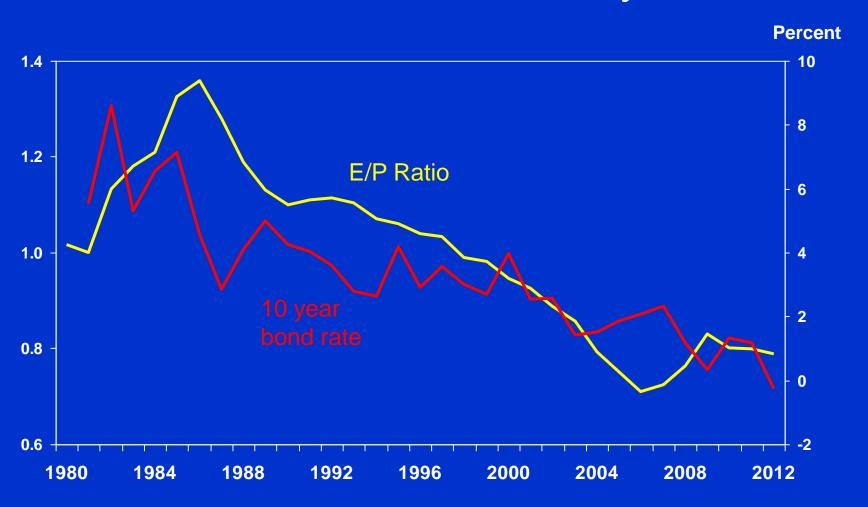
### Index of Seventh District farmland values (1981=100)



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



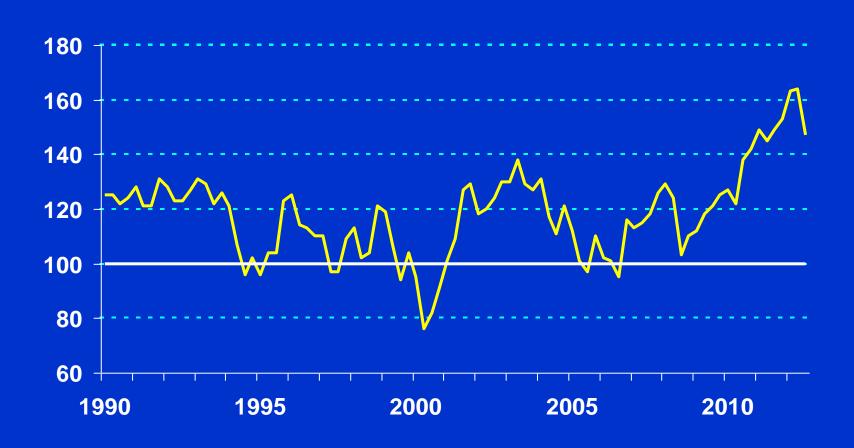
# 7th District Earnings to Price Ratio (left axis, 1981=1) vs. Real Return on 10 Year Treasury Bonds



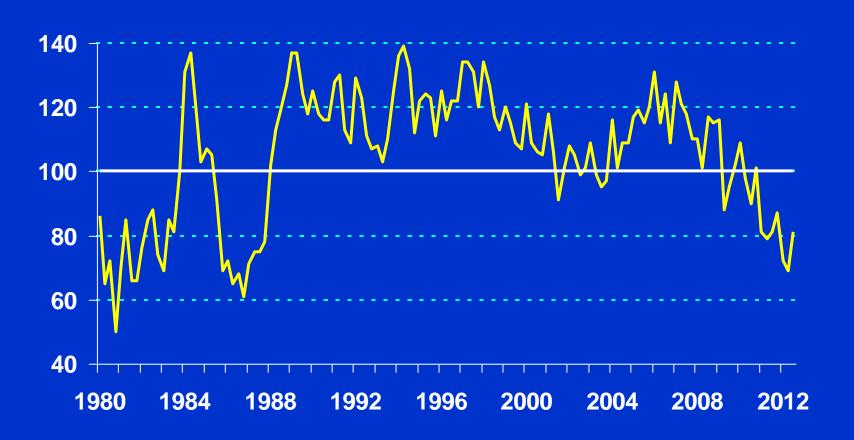
#### Interest rates charged on new farm loans in the Seventh Federal Reserve District



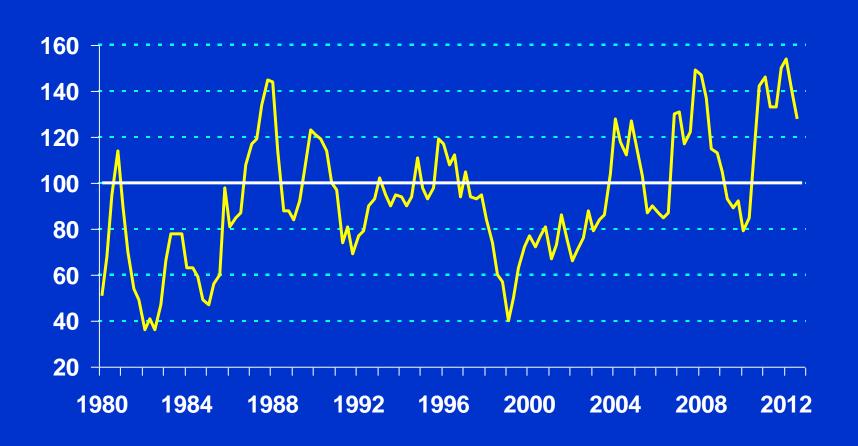
### Index of funds availability for the Seventh Federal Reserve District



# 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



#### http://www.chicagofed.org

