

# Macroeconomic Risks for Farmer Cooperatives

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Cooperatives for Tomorrow  
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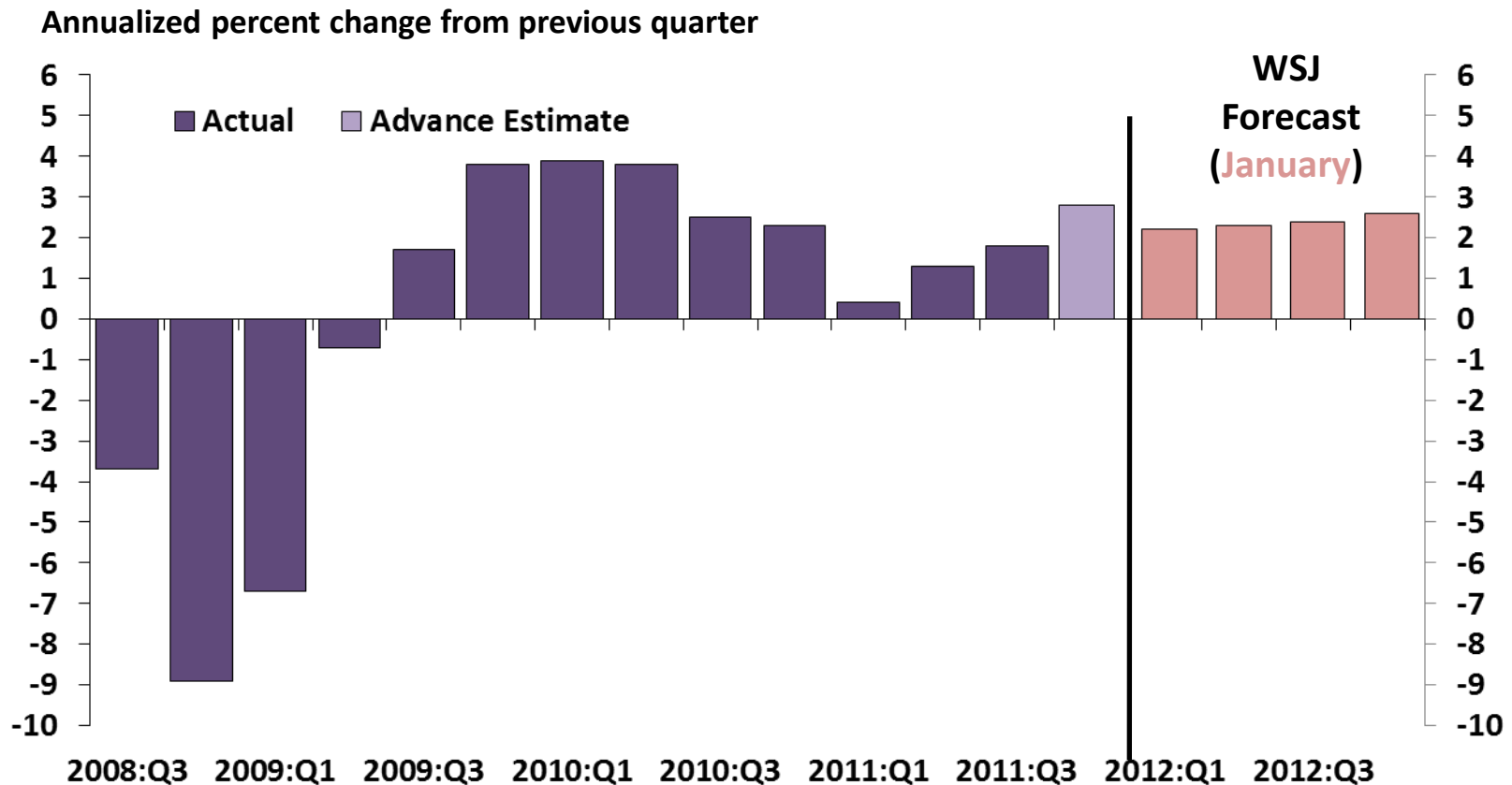
# Macroeconomic Risks

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- While there are many macro and global factors that can affect your farmer cooperative, I'm going to focus on four that could build on each other:
  1. Interest Rates – The Good (low), The Bad (low) and The Ugly (surging)
  2. Inflation
  3. Crop prices
  4. Farmland Values

# Growth improved in the 4<sup>th</sup> quarter of 2011, but is it sustainable as forecasters project?

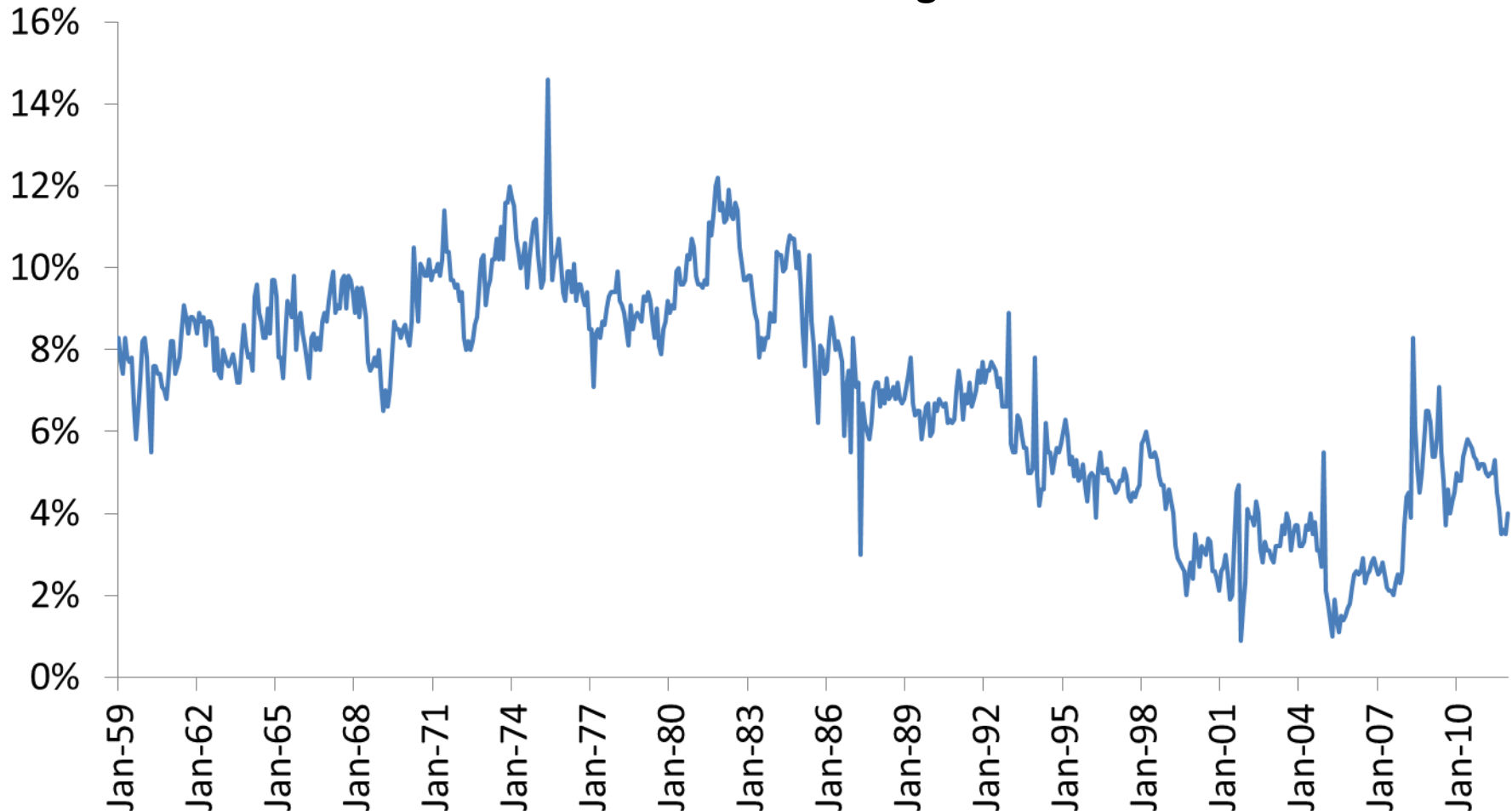
## Real GDP Growth



Source: Bureau of Economic Analysis and Wall Street Journal January 2012 Forecast Survey (Average)

# Recent growth, however, came at the expense of savings...

**U.S. Personal Savings Rate**

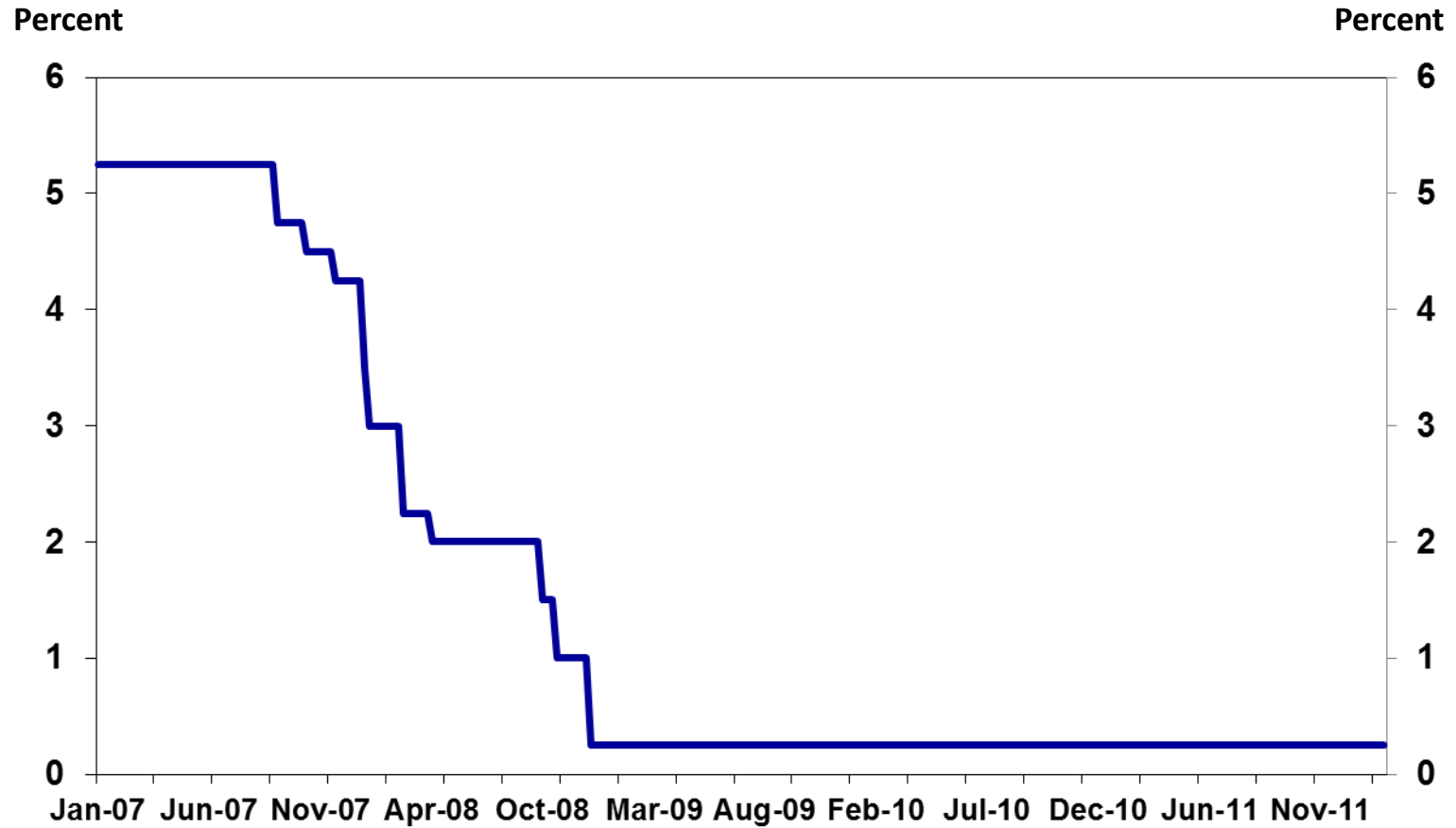


Source: Federal Reserve Bank of St. Louis

...but when interest rates are at or near zero,  
what incentive do consumers have to save?

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### Fed Funds Rate (Upper Bound)



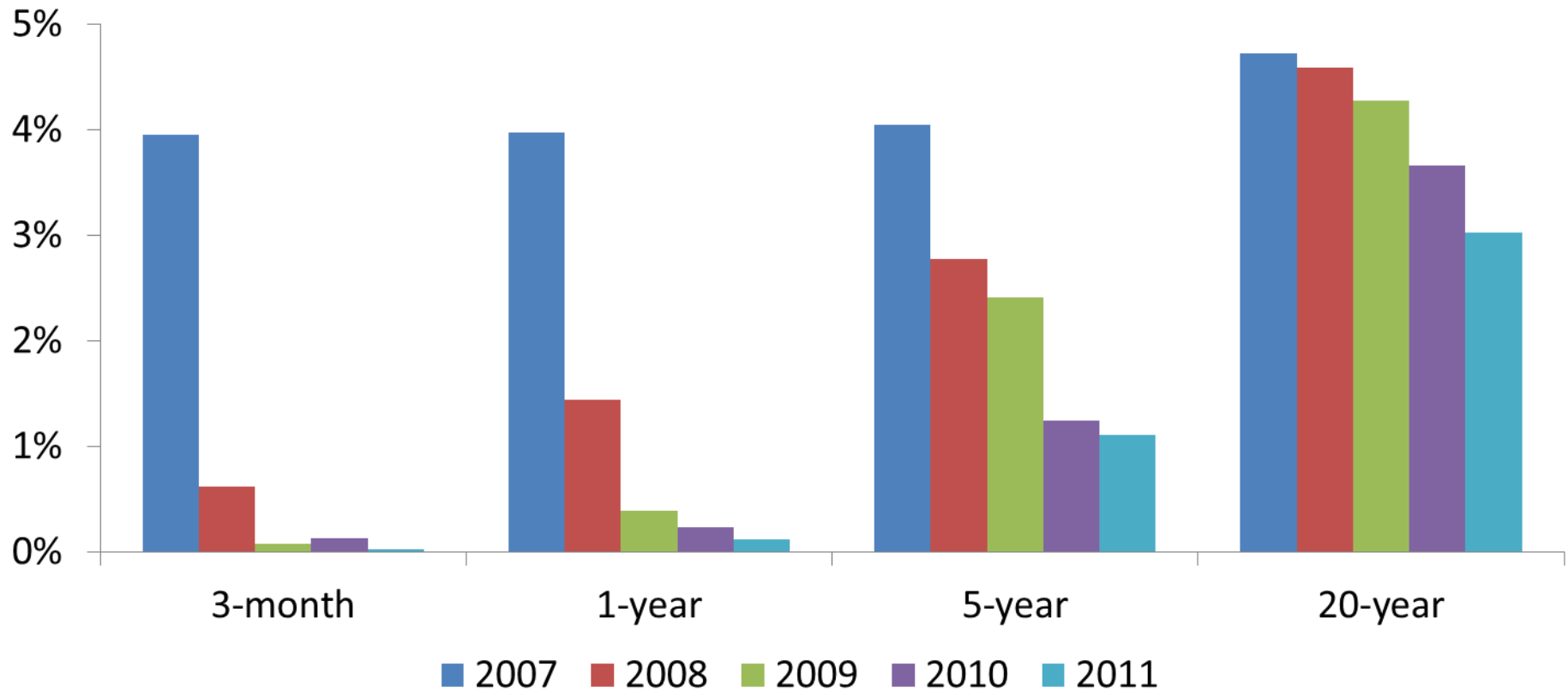
Source: Federal Reserve Board of Governors

# **INTEREST RATES – THE GOOD, THE BAD AND THE UGLY**

# Low interest rates have pushed down the cost of borrowing.

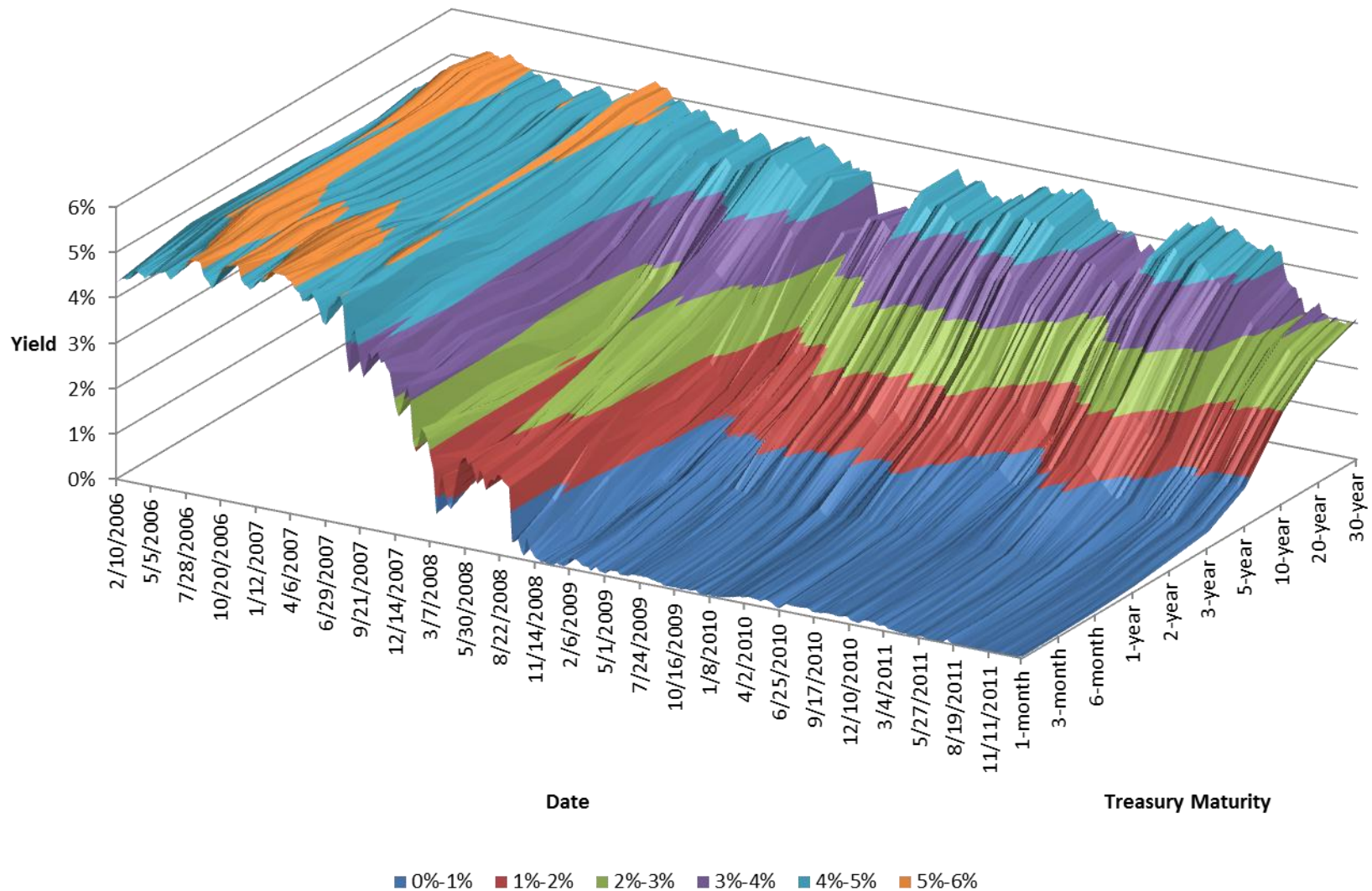
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## Yield on U.S. Treasury Securities



Source: Federal Reserve Board of Governors

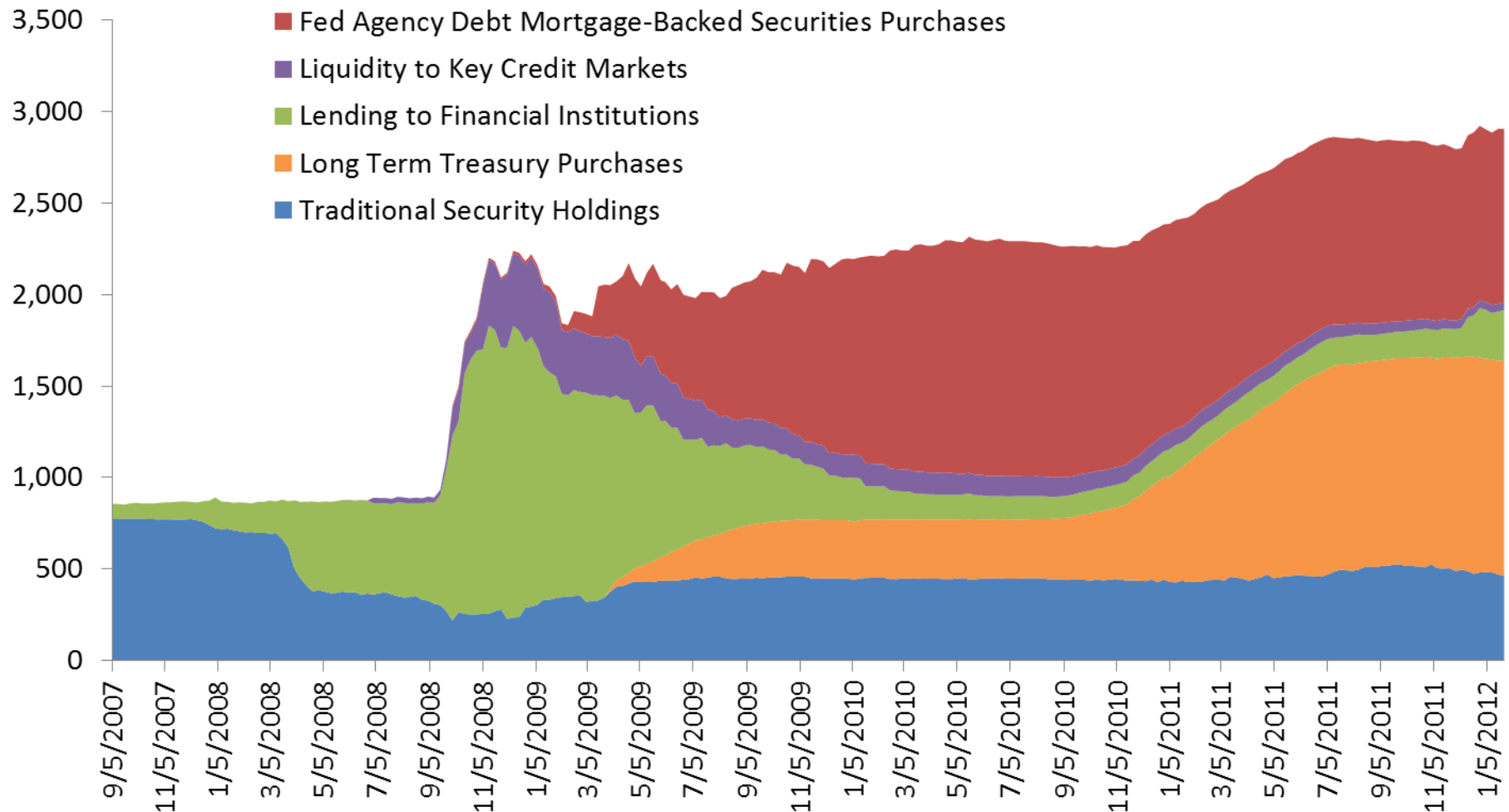
# When the Fed is at the zero bound, can the “long-end” of the yield curve remain low?





# How does the Fed return to a more “normal” balance sheet?

Billion Dollars



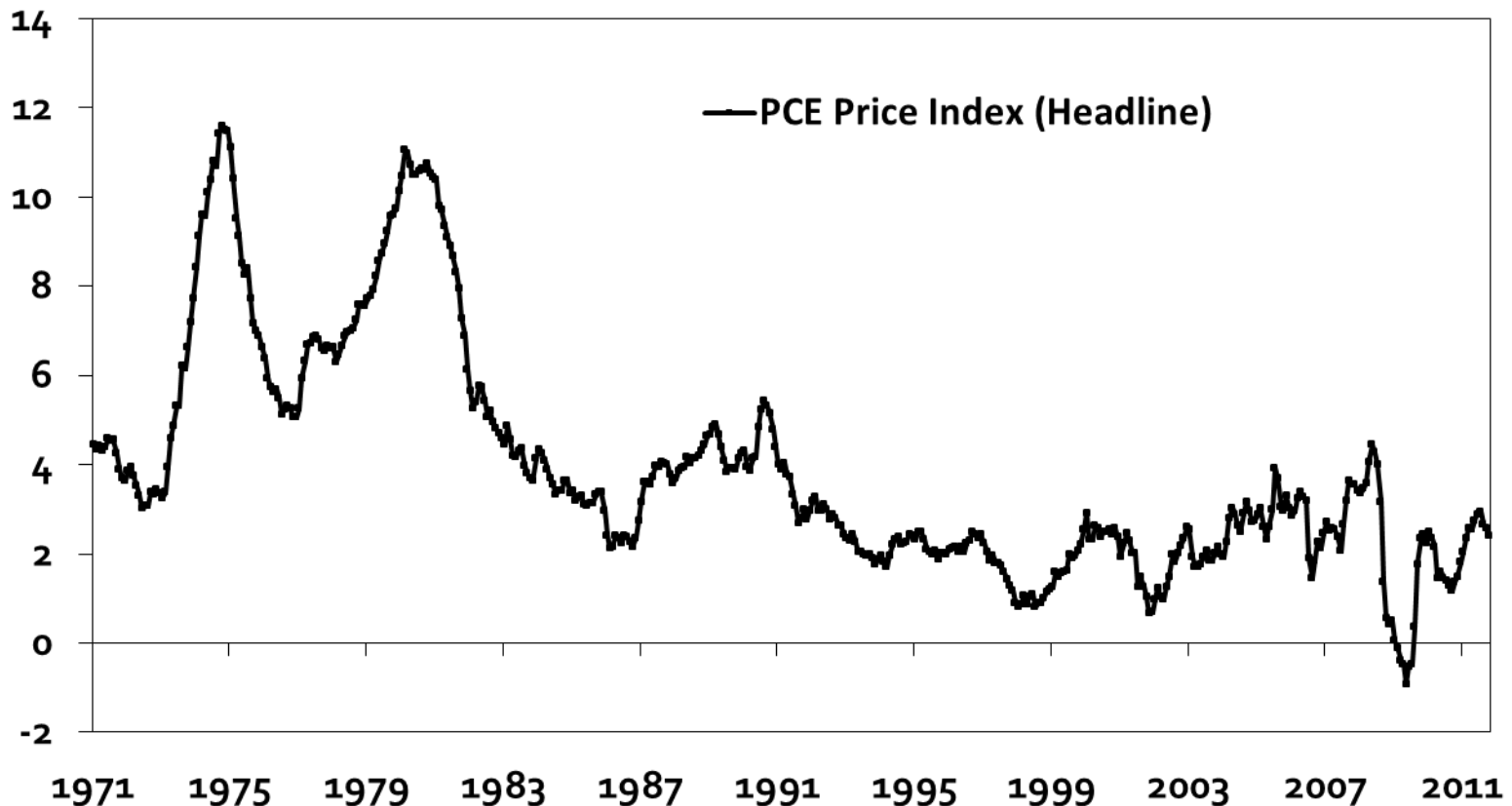
Source: Federal Reserve Bank of Cleveland

# Today, inflation remains well below the levels experienced during the 1970s and 1980s.

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## Personal Consumption Expenditures Price Index

Percent change from previous year



Source: Bureau of Economic Analysis

To understand the current environment for inflation, it is helpful to pull a page from Econ 101.

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A rapid rise in inflation occurs when **too much money** *is chasing* **too few goods**.

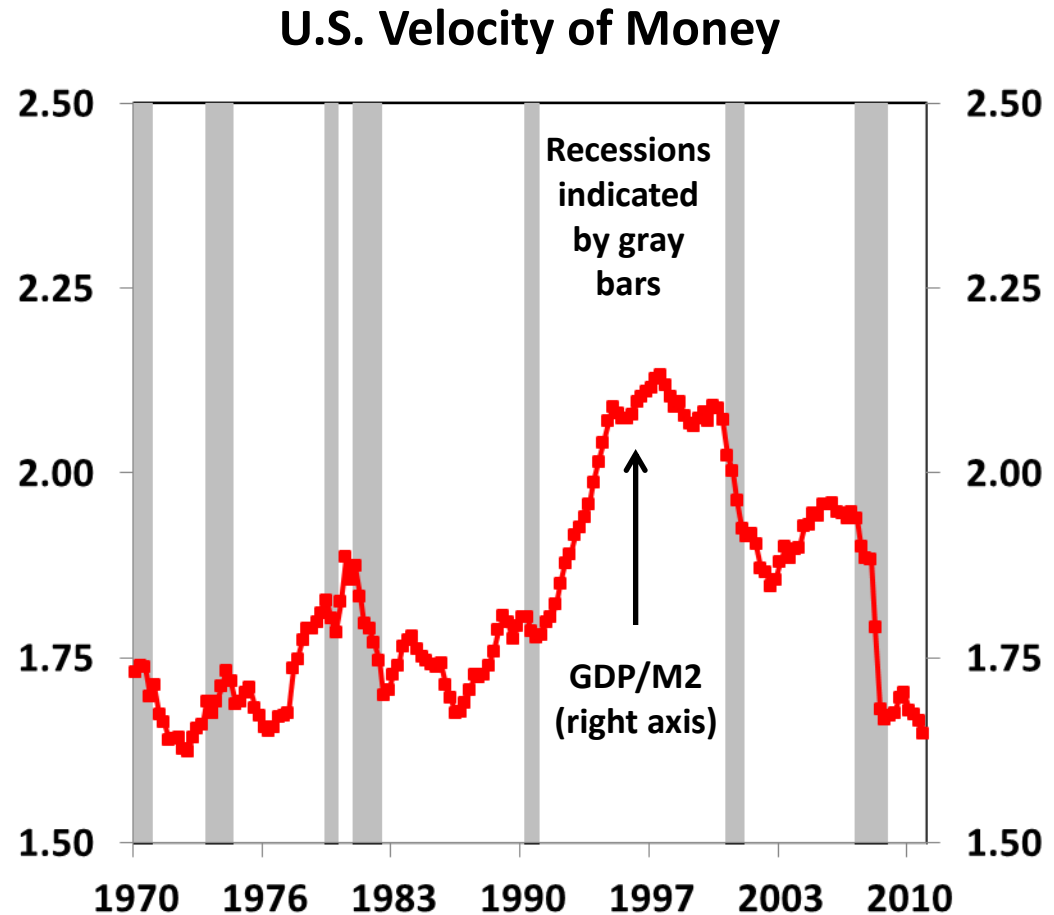
### Quantity Theory of Money

$$Price = \frac{Money * Velocity}{Quantity\ of\ Goods} = \frac{M * V}{Q}$$

So, for rapid price inflation:  $\frac{M \uparrow * V \uparrow}{Q \downarrow}$

# Why is inflation low? Velocity has plummeted.

- One way to measure velocity is by calculating the ratio of gross domestic product (GDP) to money (M2).
- This ratio is essentially a turnover ratio of how quickly money is turned into output.
- Today, velocity is very low. So, what will it take to raise velocity, and when might this happen?



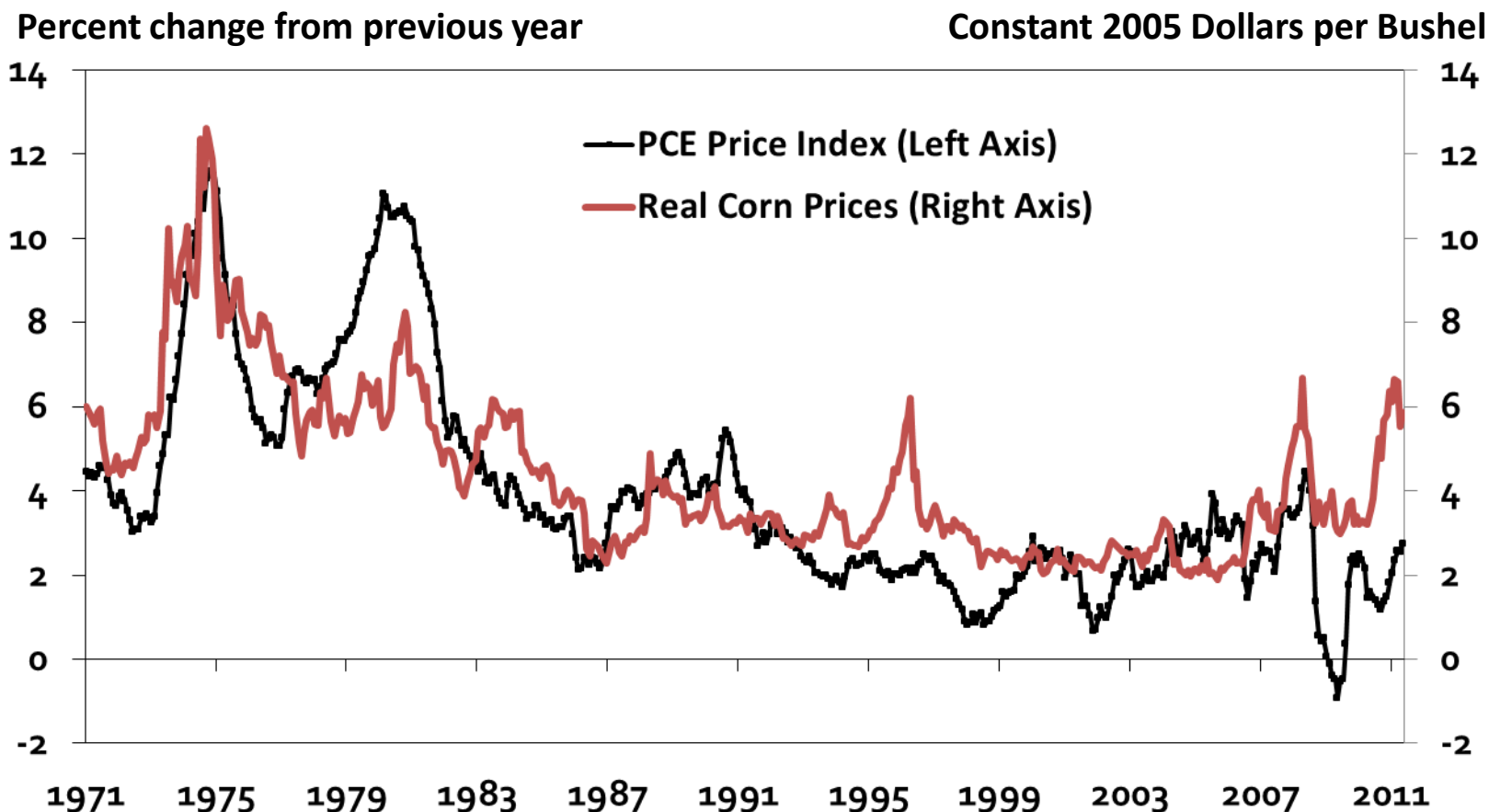
Source: BEA and Federal Reserve Board of Governors

# POTENTIAL IMPACT OF “THE UGLY”

# During the 1970s, inflation and real crop prices were very high.

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## Personal Consumption Expenditures Price Index



Source: Bureau of Economic Analysis and Chicago Board of Trade

# How might crop prices respond to a pick up in velocity?

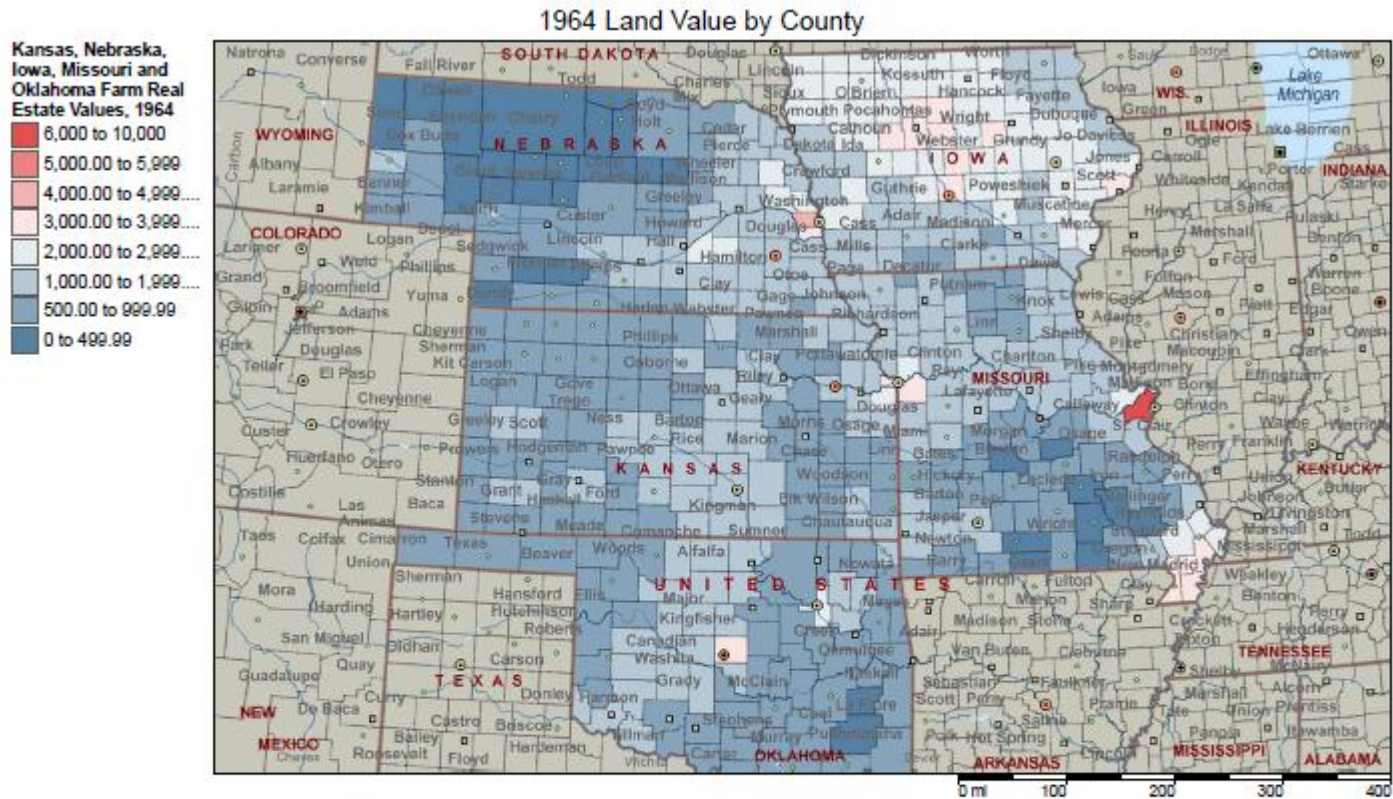
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- Based on some of my working research:
  - Steep rise, possibly like the real prices experienced in 1970s...doubling
  - Then, prices would likely plummet as the market searches for equilibrium
  - Bottom line, there would likely be more volatility with potentially bigger swings in crop prices.
- The Federal Reserve's exit strategy is key
  - How did the Fed combat inflation in the late 1970s?

# **FARMLAND VALUES ARE A BELLWETHER FOR THE FINANCIAL HEALTH OF AGRICULTURE**

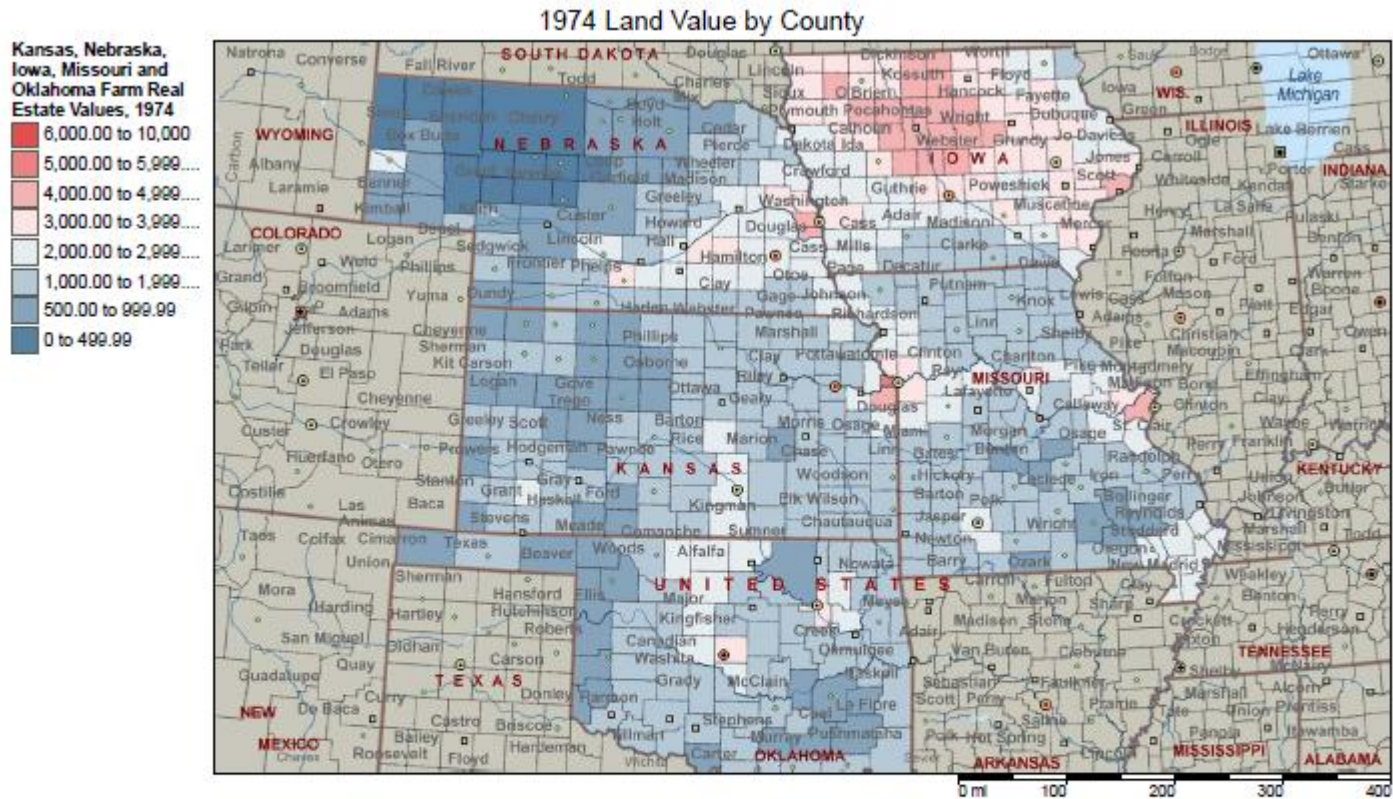


# After World War II, farmland values started to heat up as new technology was adopted.



Data is inflation adjusted farmland values from U.S. Agricultural Census. Farmland values are in constant 2011 dollars.

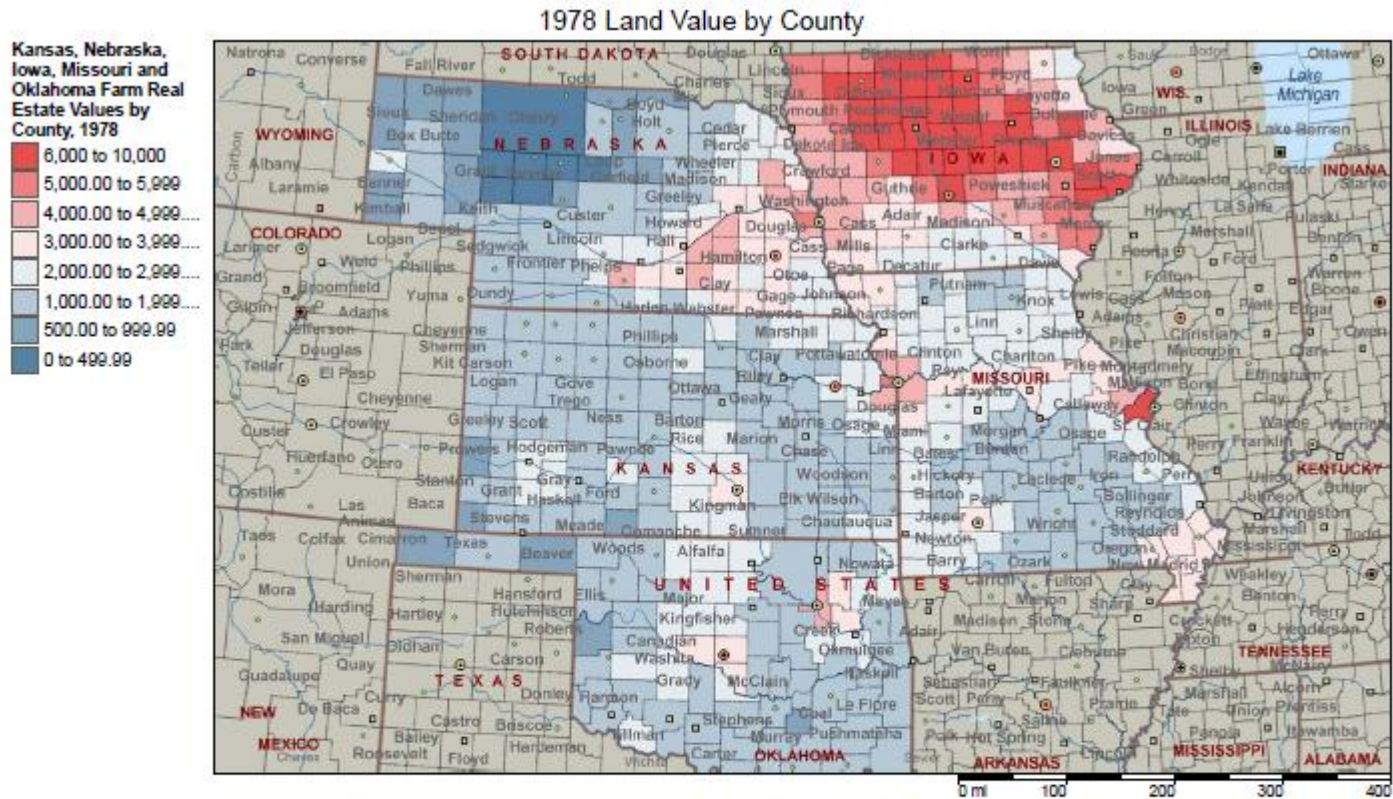
# New export markets and easy credit lit a fire under the farmland value market, especially in the corn belt.



Data is inflation adjusted farmland values from U.S. Agricultural Census. Farmland values are in constant 2011 dollars.

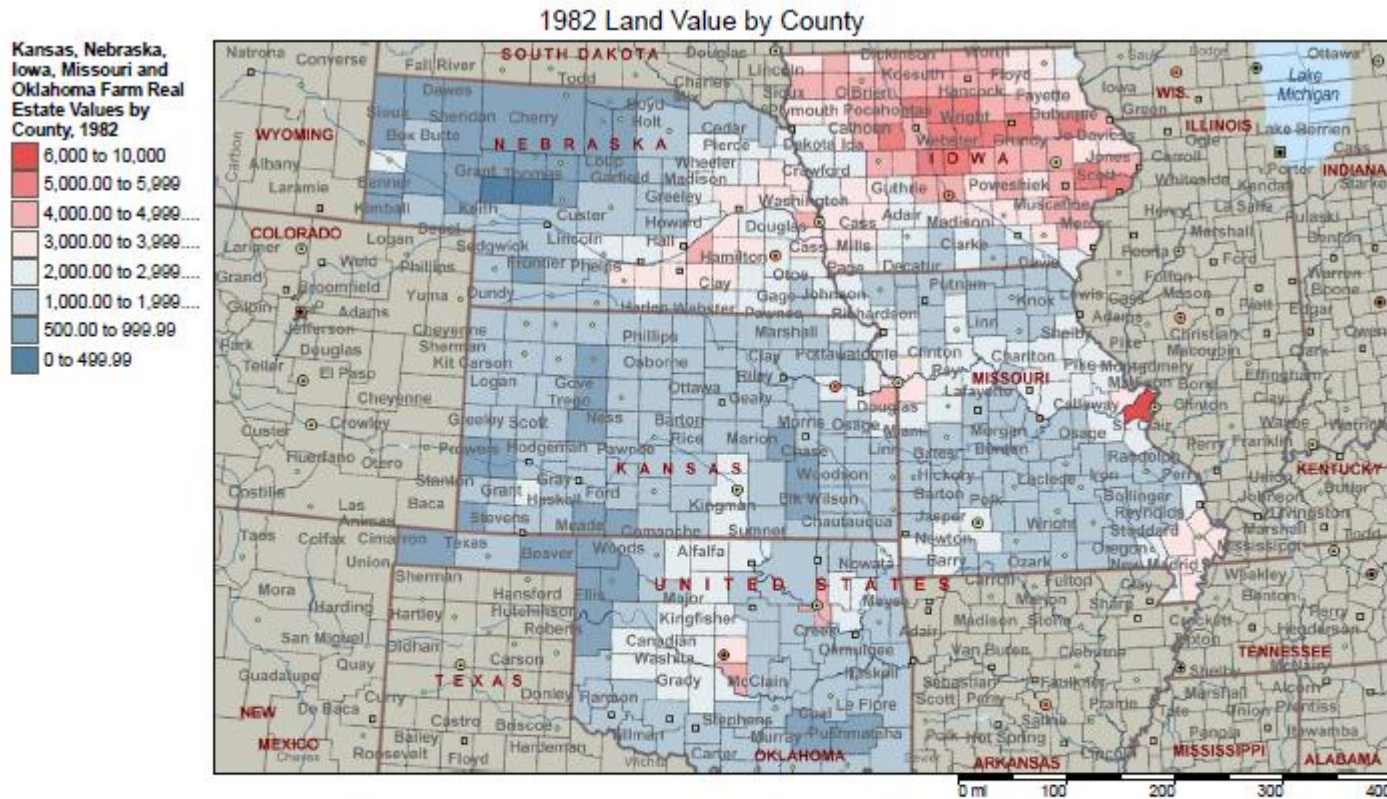


# By 1978, Iowa farmland values were on “fire” and it was spreading throughout the region.



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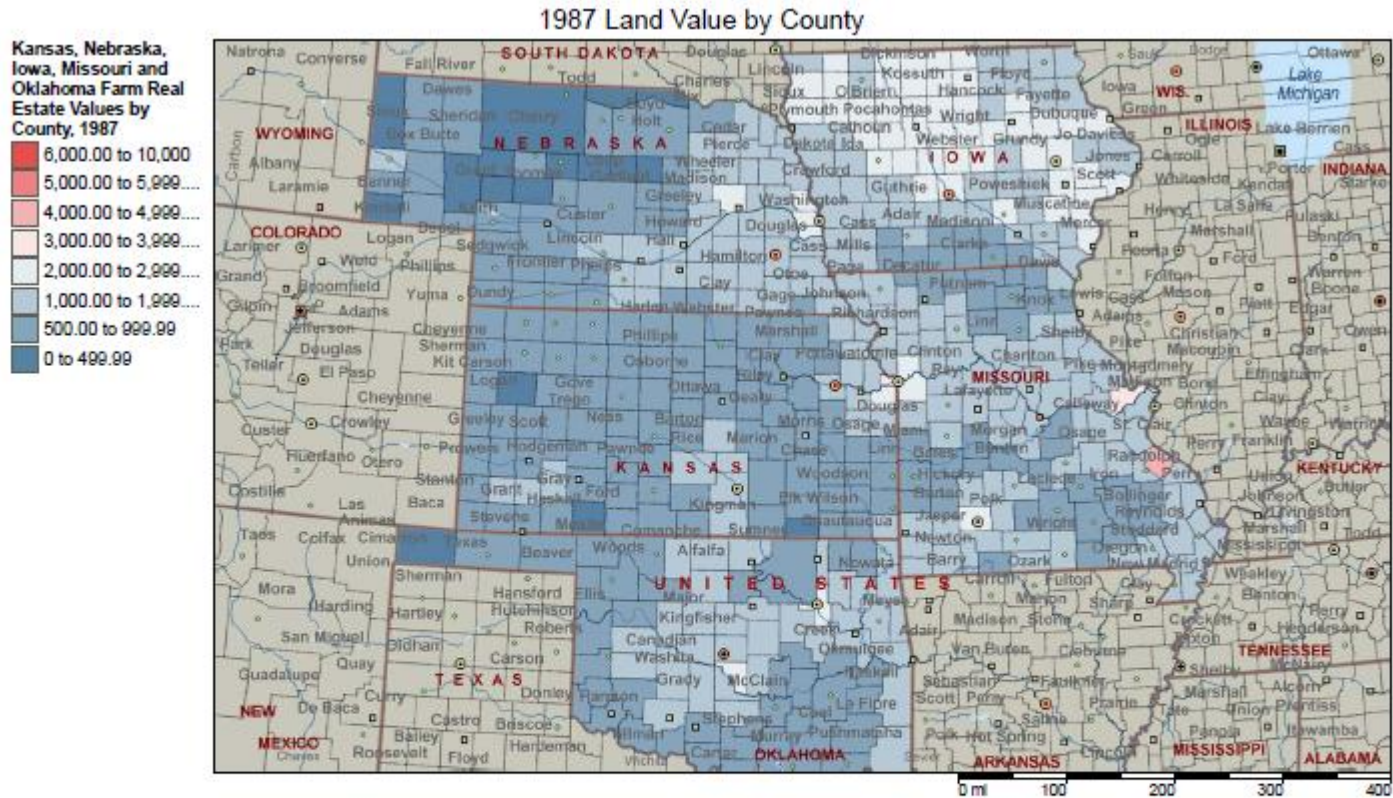
# The start of the 1980s farm debt crisis began to cool the flame surrounding farmland values.



Data is inflation adjusted farmland values from U.S. Agricultural Census. Farmland values are in constant 2011 dollars.



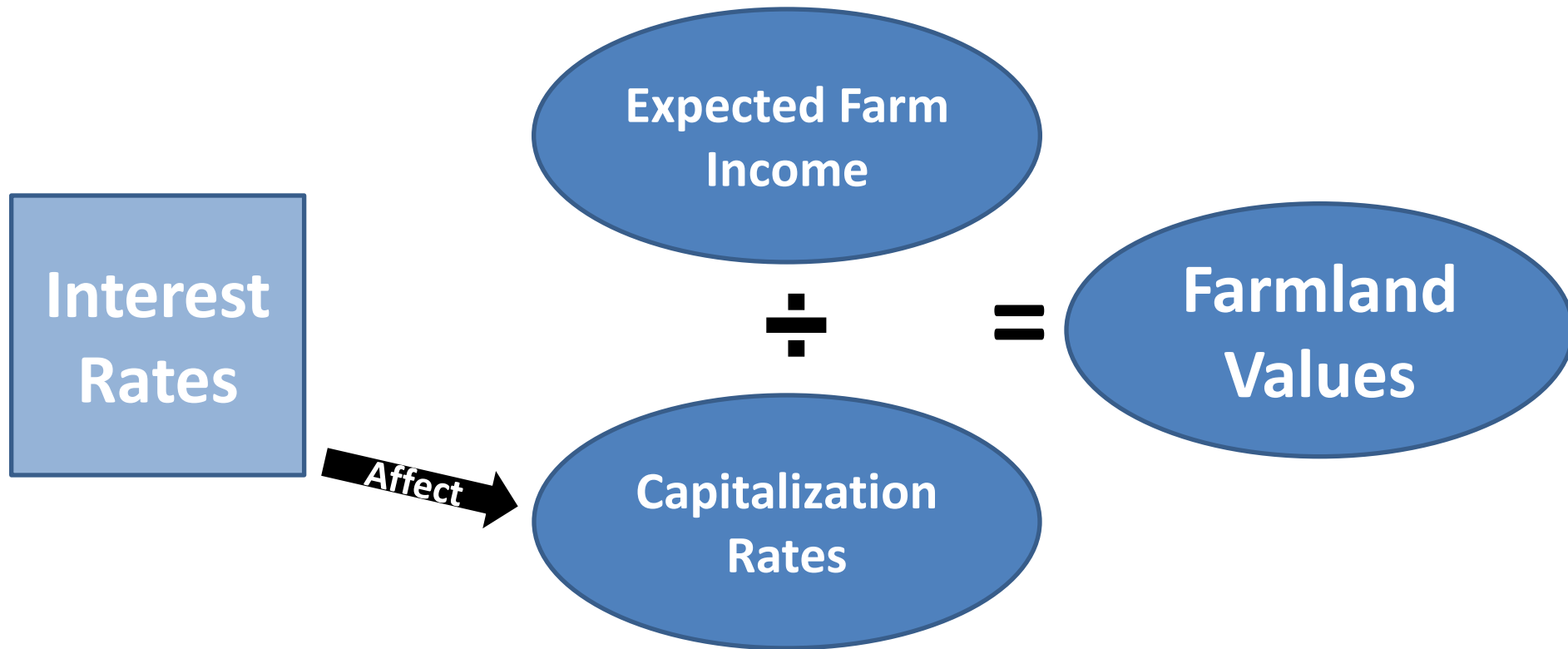
# By 1987, the “fire” was out.



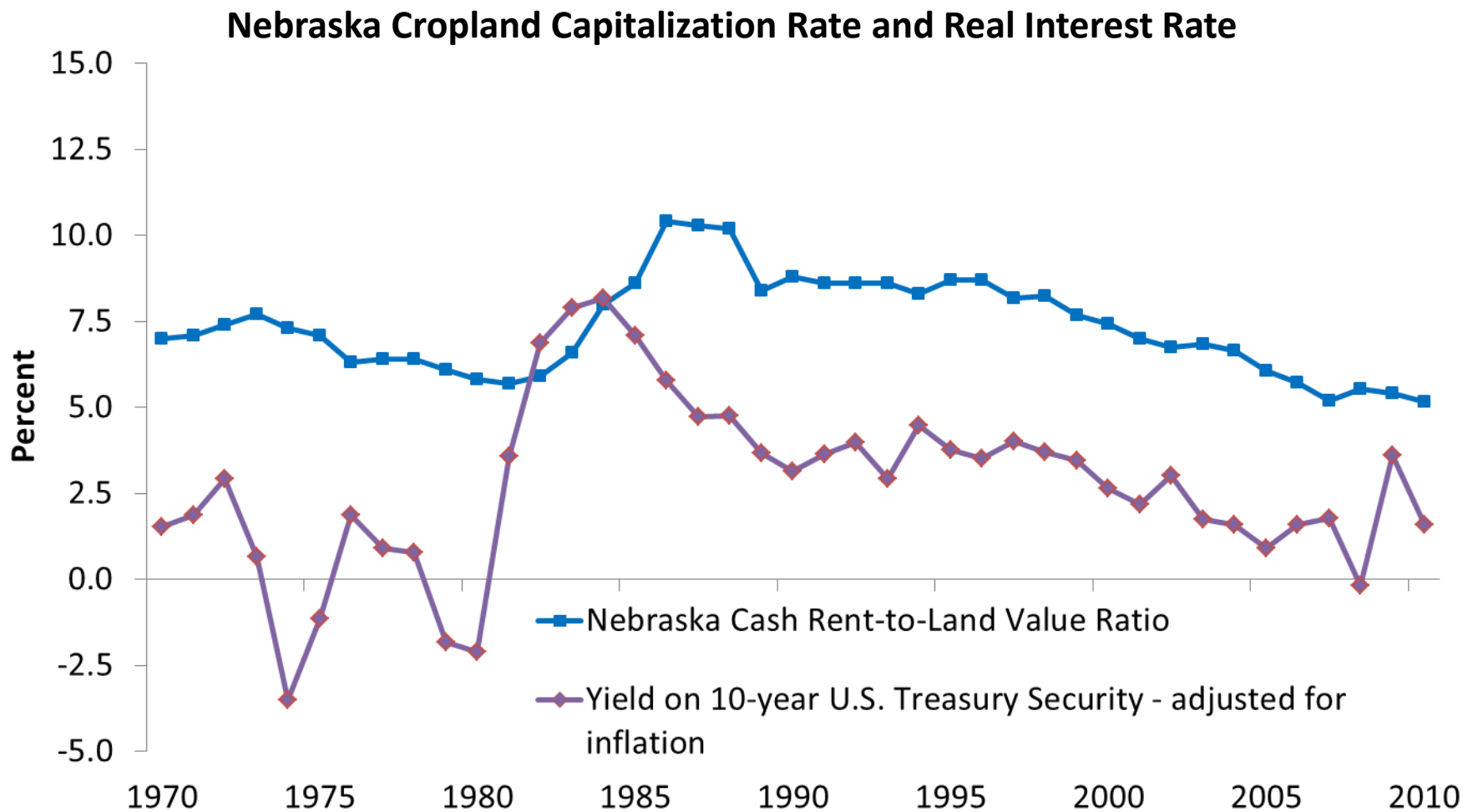
Data is inflation adjusted farmland values from U.S. Agricultural Census. Farmland values are in constant 2011 dollars.

While debt is not fueling the recent surge in farmland values today, ultra low interest rates are playing a significant role.

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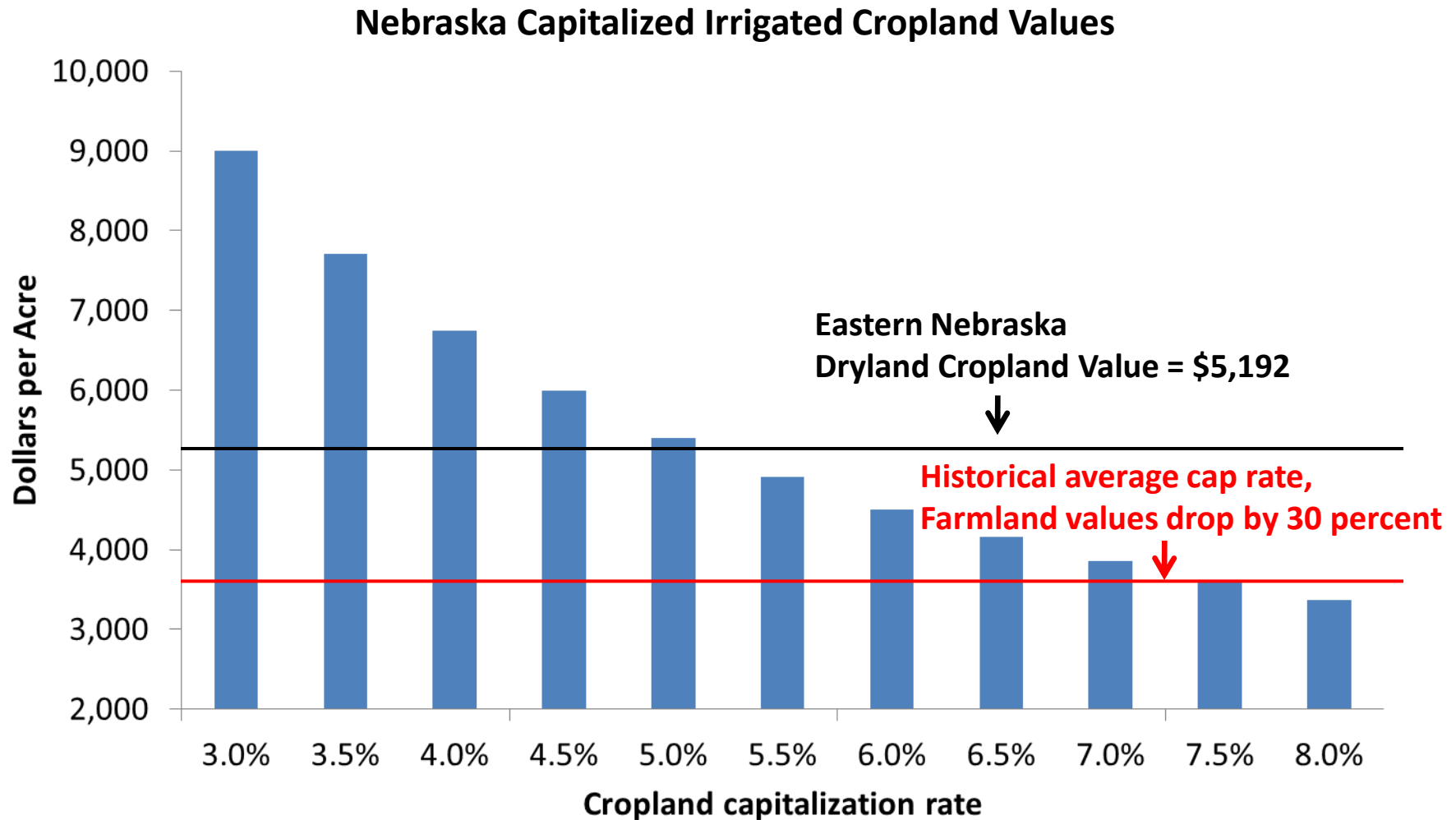


# Capitalization rates and real interest rates tend to move together.



Sources: USDA , Federal Reserve and BLS

# Historically low capitalization rates help support current Nebraska cropland values.

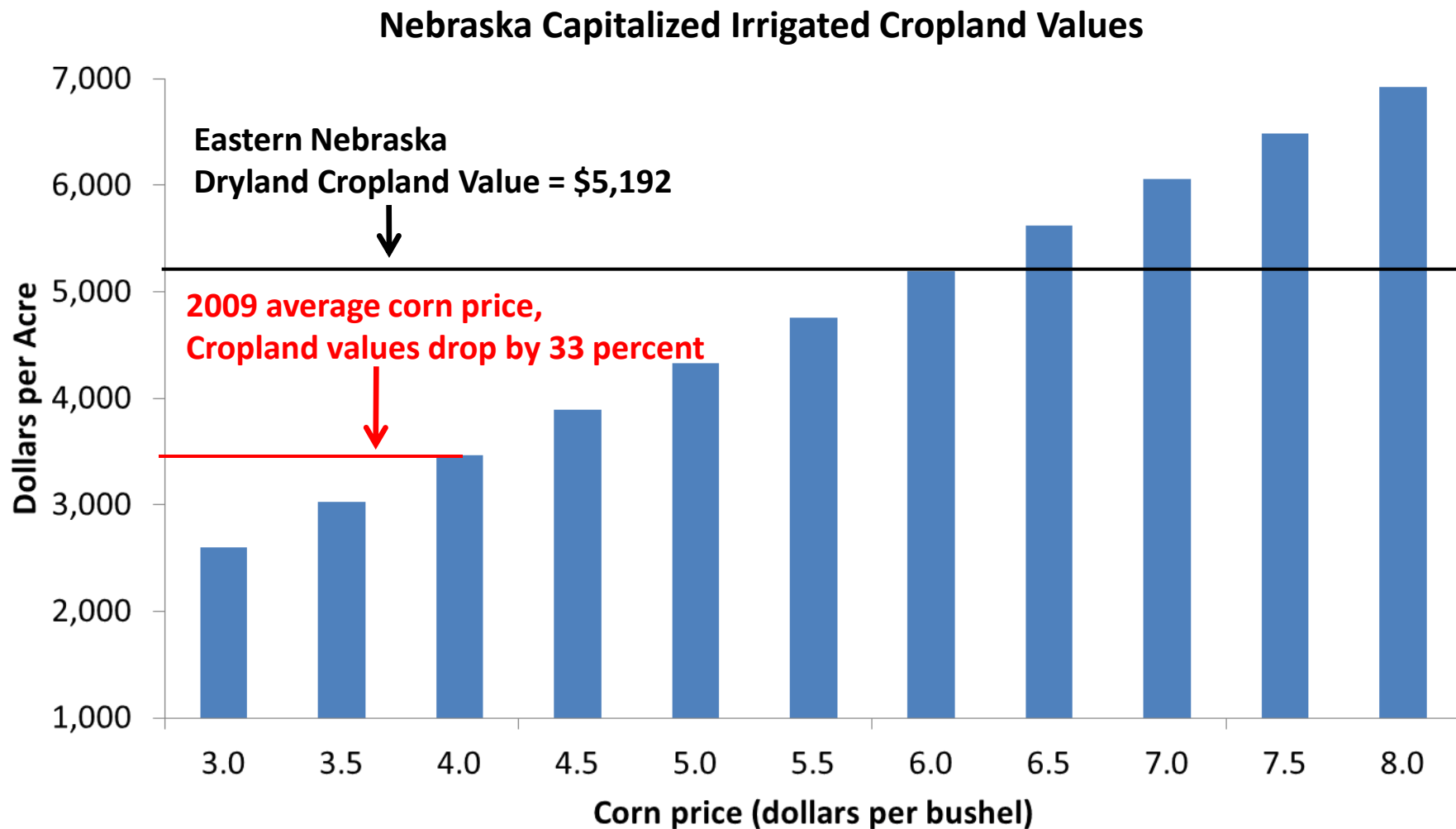


Authors' calculations based on UNL Corn Budget and Nebraska Farm Real Estate Market Highlights.

Assumed 225 bushels per acre, a corn price of \$6.00 per bushel, and 20% of gross revenues capitalized into land.

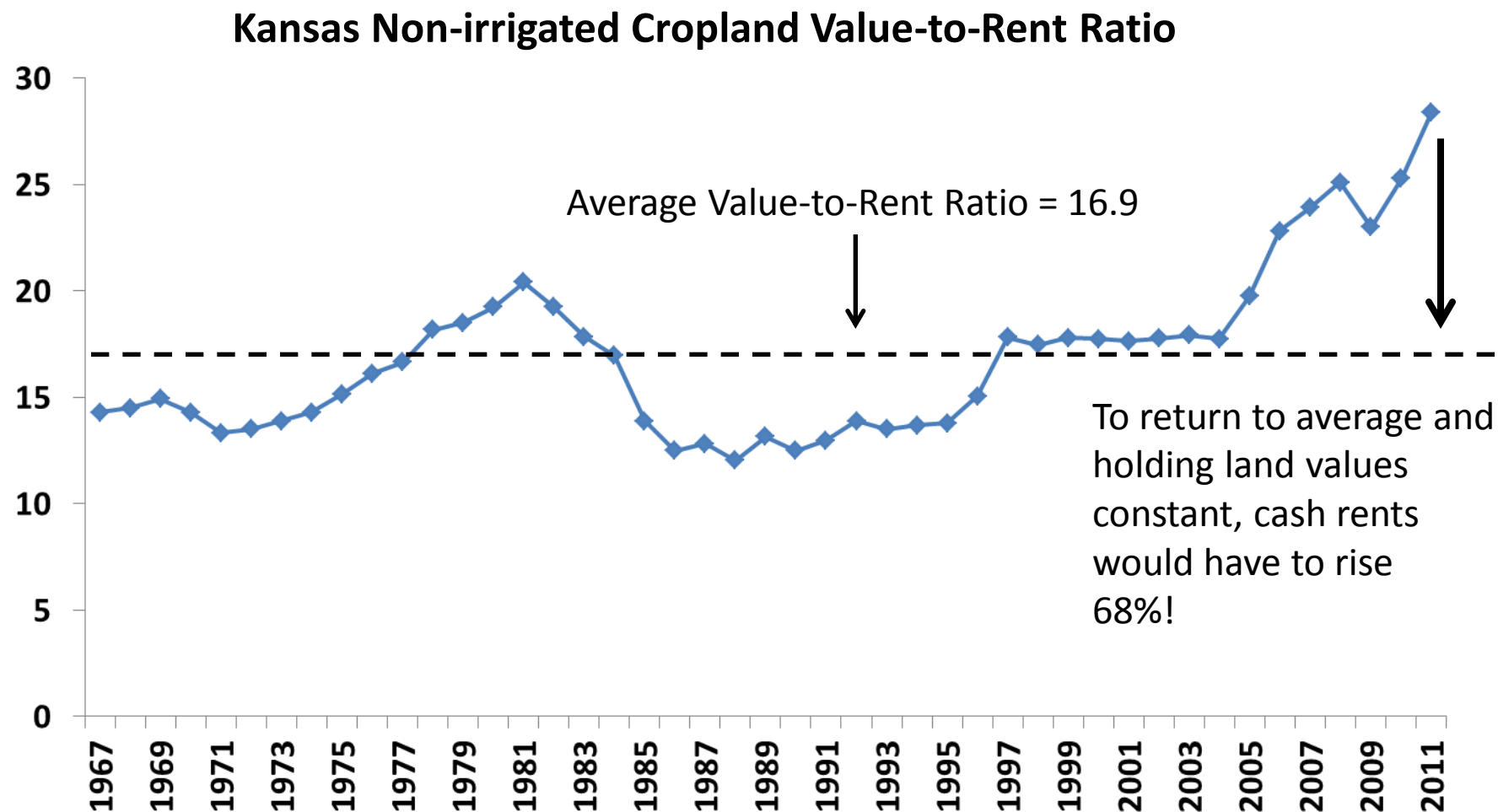


# At a historical average cap rate and today's corn prices, current Nebraska cropland values are reasonable.



Authors' calculations based on UNL Corn Budget and Nebraska Farm Real Estate Market Highlights.  
Assumed 225 bushels per acre, 20% of gross revenues capitalized into land, and cap rate of 5.2%.

# Could cash rents rise?



Source: USDA, NASS

# What are the implications of the economic outlook for farmer cooperatives?

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- Expectations of the economic outlook are already reflected in current prices and yields
- Make sure your revenue and asset growth outlook is reasonable
  - Difficult in today's volatile climate
- Manage volatility to the best of your ability
  - Lock in margins, fix interest rates, hold working capital, help your members mitigate their risk
- Seize opportunities when they are available
  - New employee talent pool for agriculture is big right now

# Thank you.

## Questions?

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