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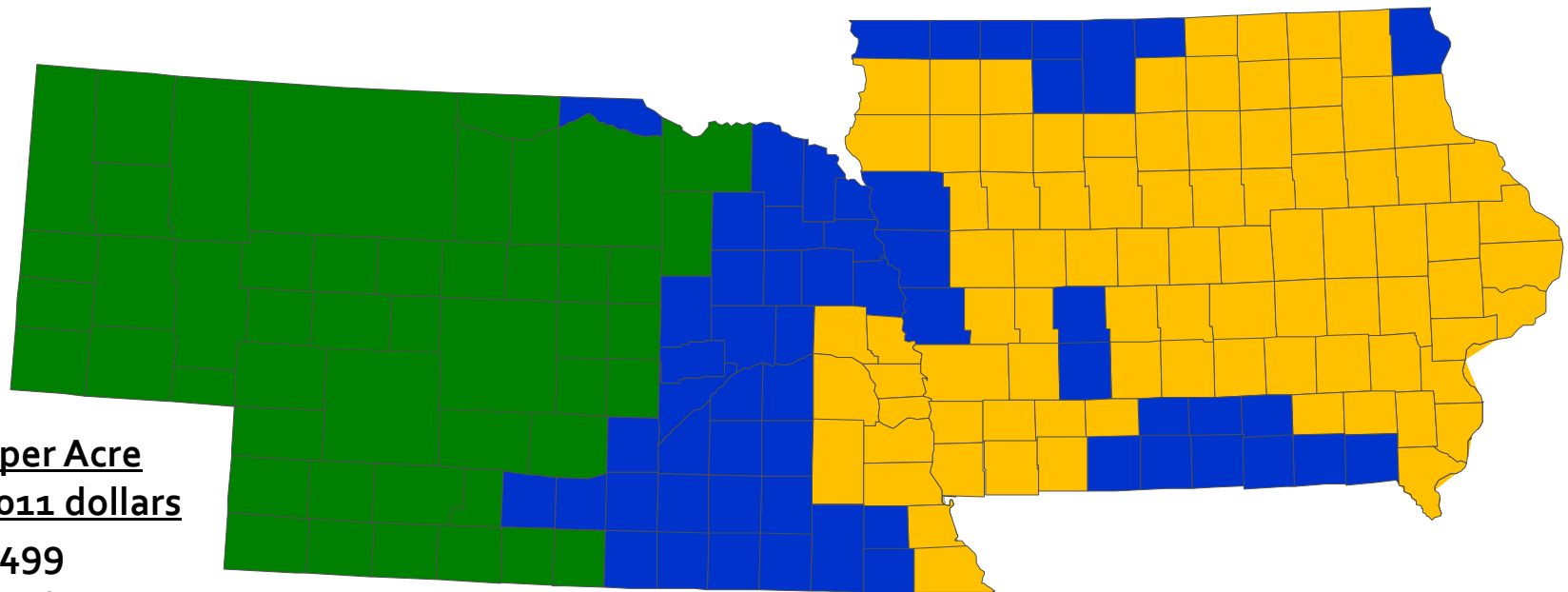
Is This Time Different?



The views expressed are those of the author and do not necessarily reflect the opinions of the Federal Reserve Bank of Kansas City or the Federal Reserve System.

A Farm Boom starting in 1900.

Nebraska and Iowa Farm Real Estate Values 1900



\$Dollars per Acre
Constant 2011 dollars

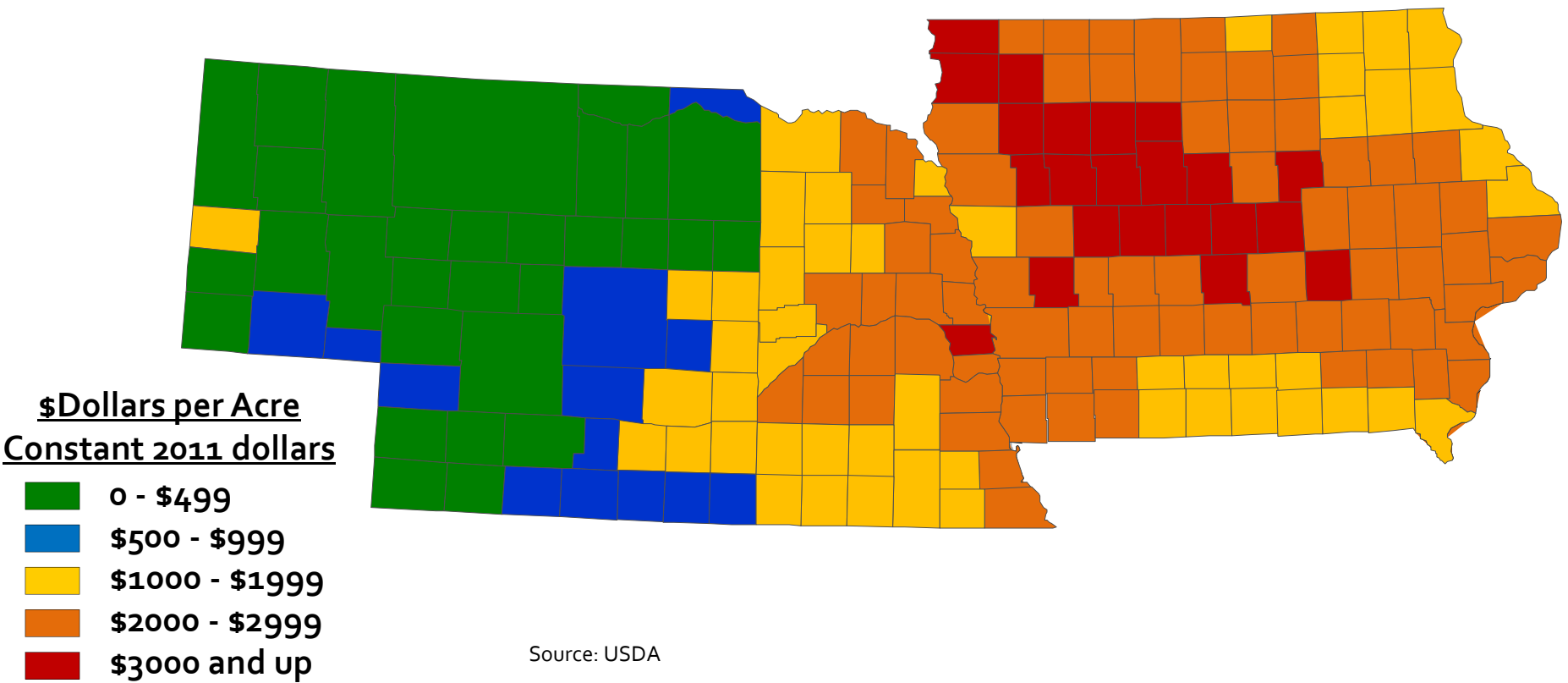
-  0 - \$499
-  \$500 - \$999
-  \$1000 - \$1999
-  \$2000 - \$2999
-  \$3000 and up

Source: USDA



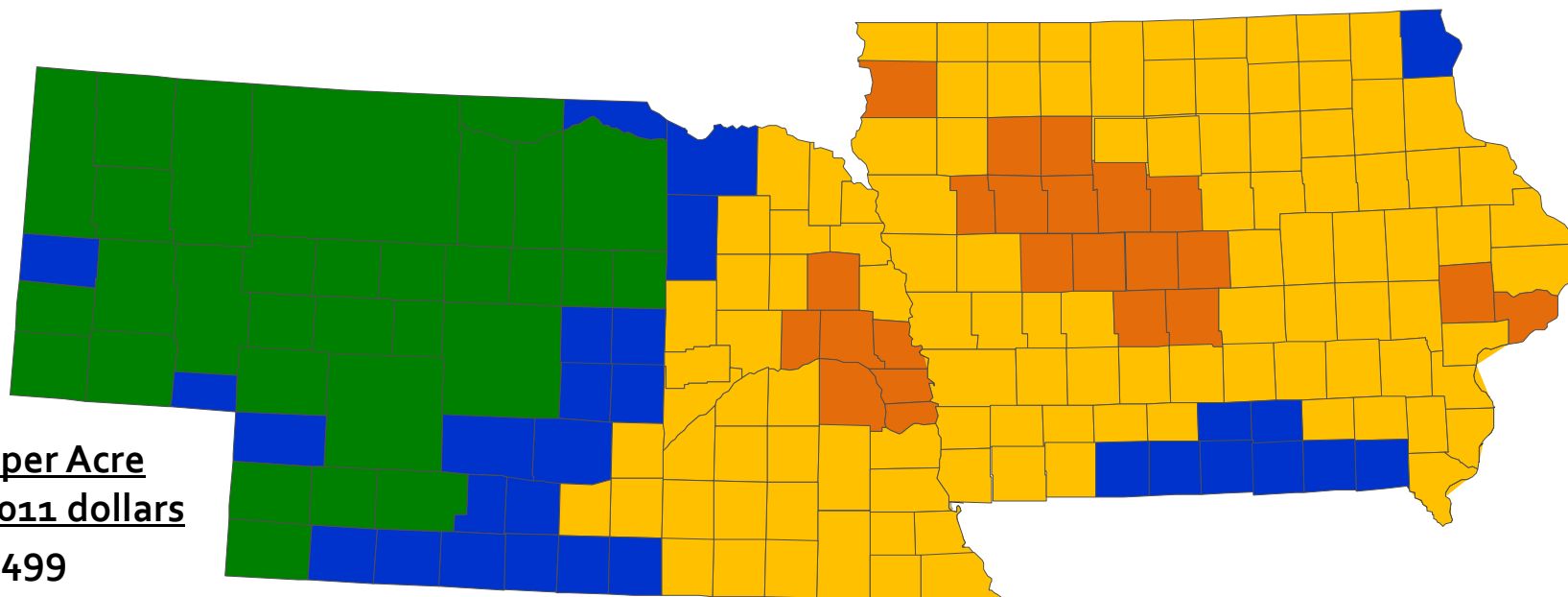
WWI and the "Golden Era for Agriculture" boost farmland values.

Nebraska and Iowa Farm Real Estate Values 1920



Farmland value decline during the "Roaring 20s"

Nebraska and Iowa Farm Real Estate Values 1930



\$Dollars per Acre
Constant 2011 dollars

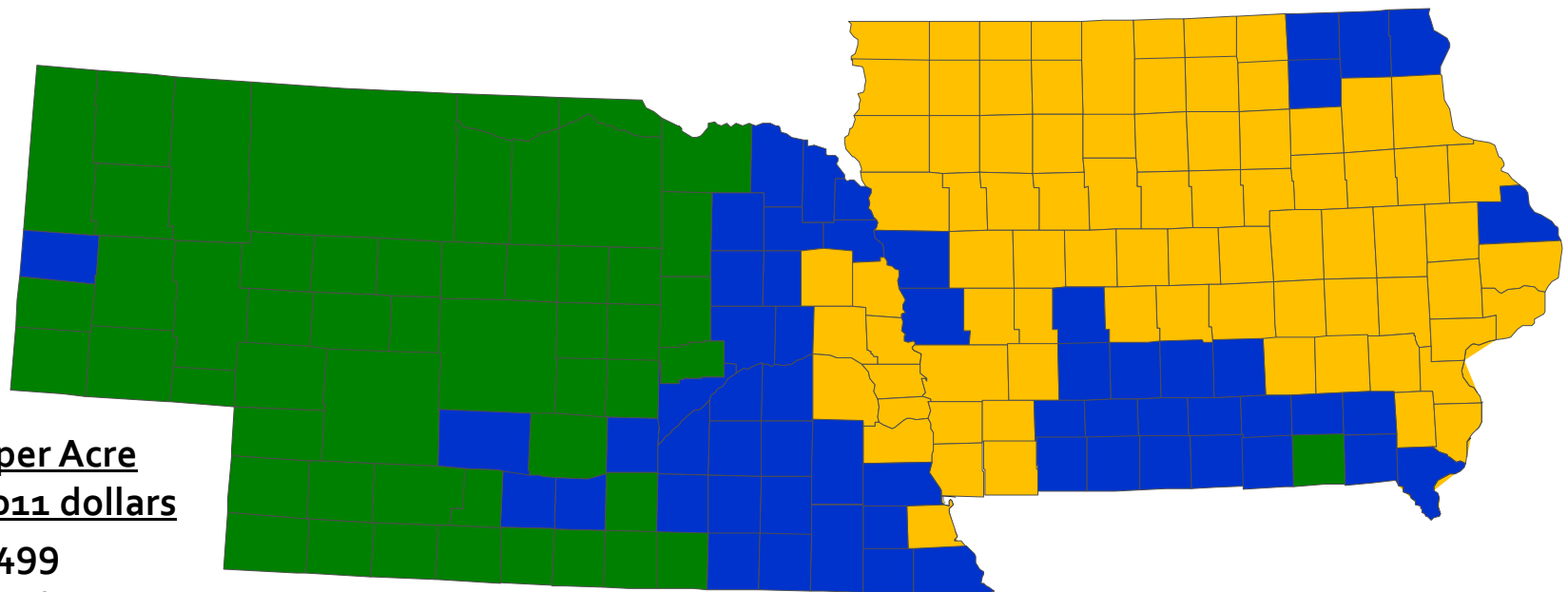
- 0 - \$499
- \$500 - \$999
- \$1000 - \$1999
- \$2000 - \$2999
- \$3000 and up

Source: USDA



The Great Depression pushed down farmland values further.

Nebraska and Iowa Farm Real Estate Values 1940



\$Dollars per Acre
Constant 2011 dollars

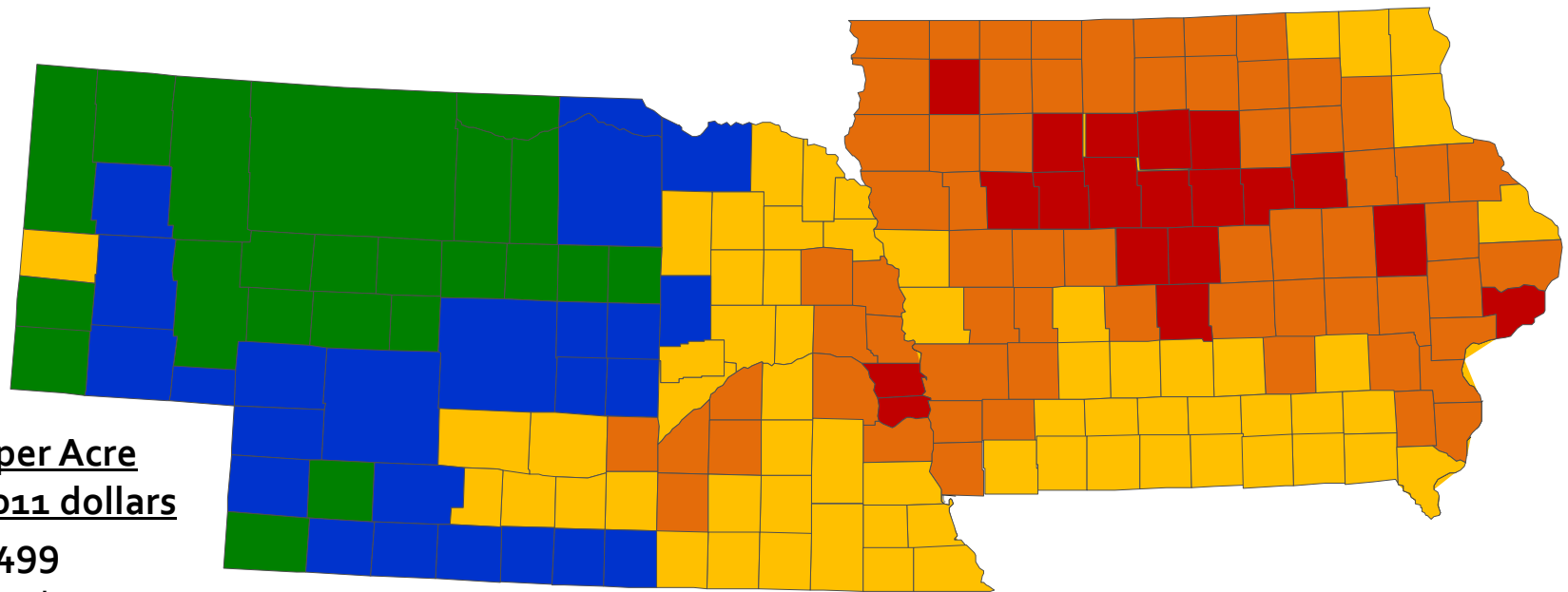
- 0 - \$499
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- \$2000 - \$2999
- \$3000 and up

Source: USDA



Enhanced productivity lifts farmland values during the 1950s and 1960s.

Nebraska and Iowa Farm Real Estate Values 1969



\$Dollars per Acre
Constant 2011 dollars

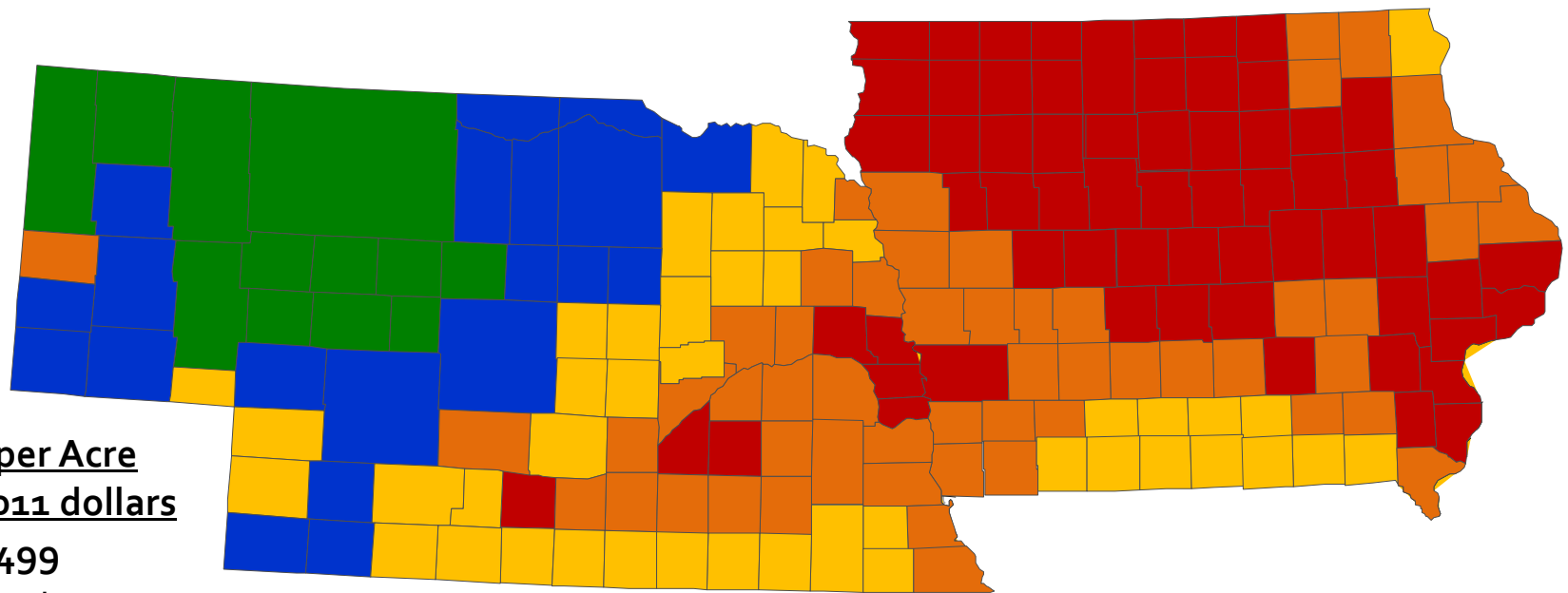
- 0 - \$499
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- \$2000 - \$2999
- \$3000 and up

Source: USDA



The Russian grain deal sparks the farm real estate boom.

Nebraska and Iowa Farm Real Estate Values 1974



\$Dollars per Acre
Constant 2011 dollars

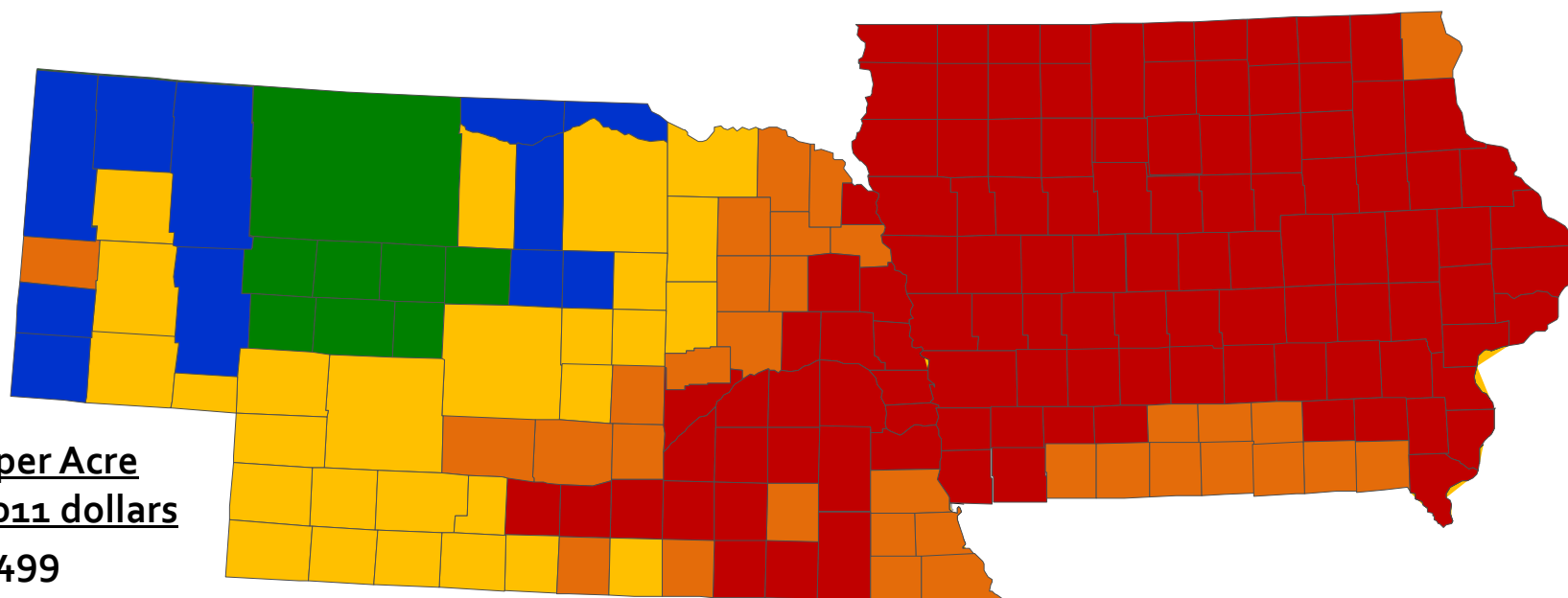
- 0 - \$499
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- \$3000 and up

Source: USDA



By the late 1970s, farmland values were blazing "hot".

Nebraska and Iowa Farm Real Estate Values 1978



\$Dollars per Acre
Constant 2011 dollars

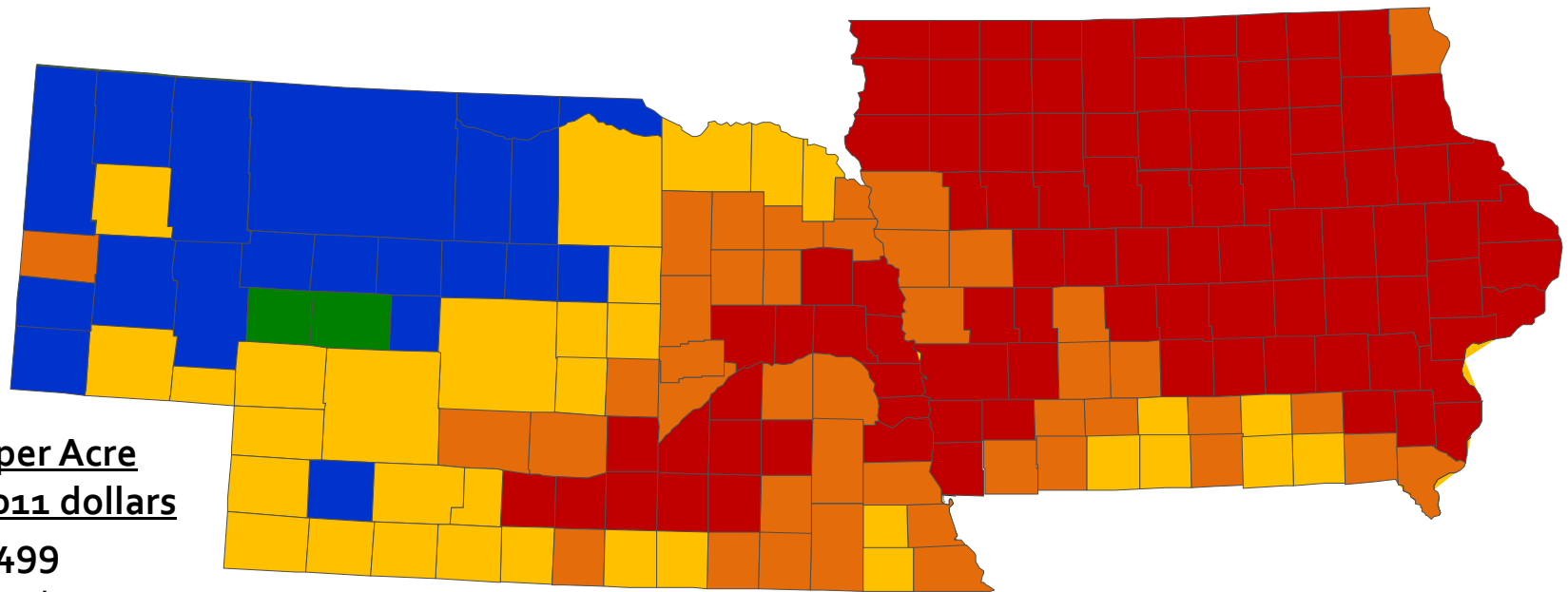
- 0 - \$499
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- \$2000 - \$2999
- \$3000 and up

Source: USDA



Higher interest rates and a trade restrictions begin to cool land values.

Nebraska and Iowa Farm Real Estate Values 1982



\$Dollars per Acre
Constant 2011 dollars

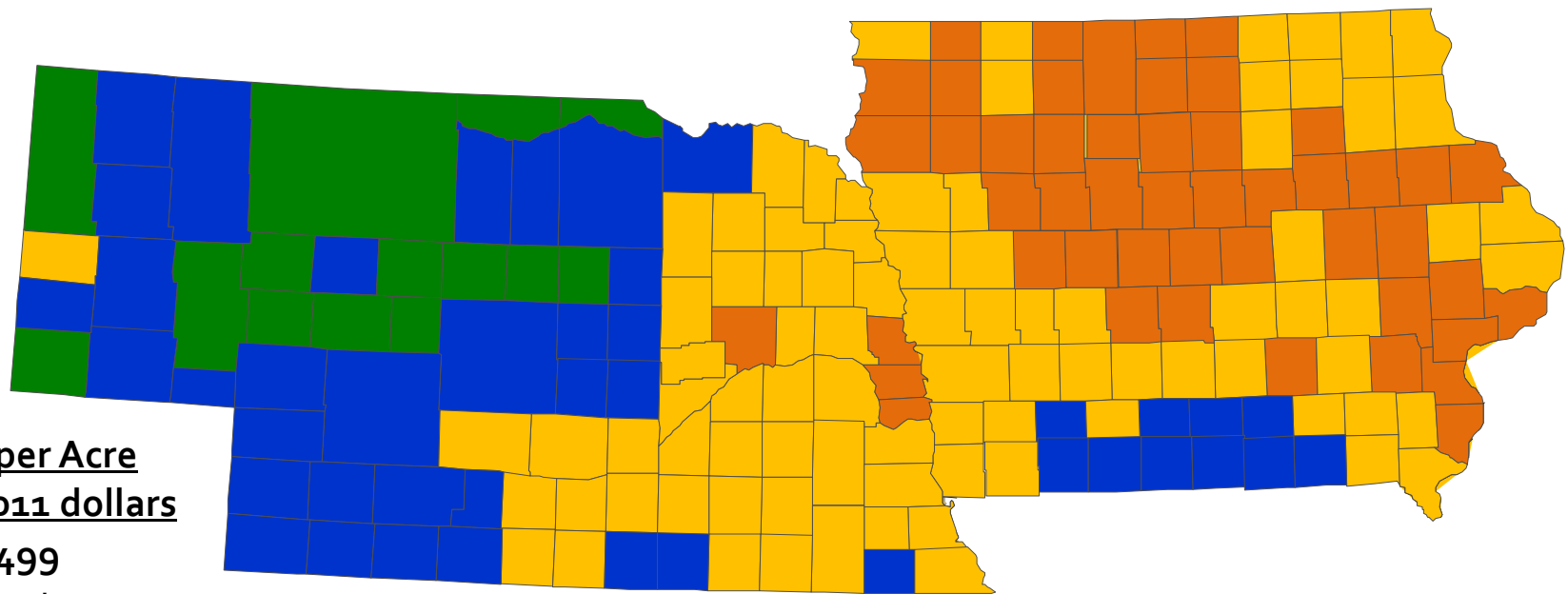
- 0 - \$499
- \$500 - \$999
- \$1000 - \$1999
- \$2000 - \$2999
- \$3000 and up

Source: USDA



At the end of the crisis land values are almost back to 1969 levels.

Nebraska and Iowa Farm Real Estate Values 1987



\$Dollars per Acre
Constant 2011 dollars

- 0 - \$499
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- \$3000 and up

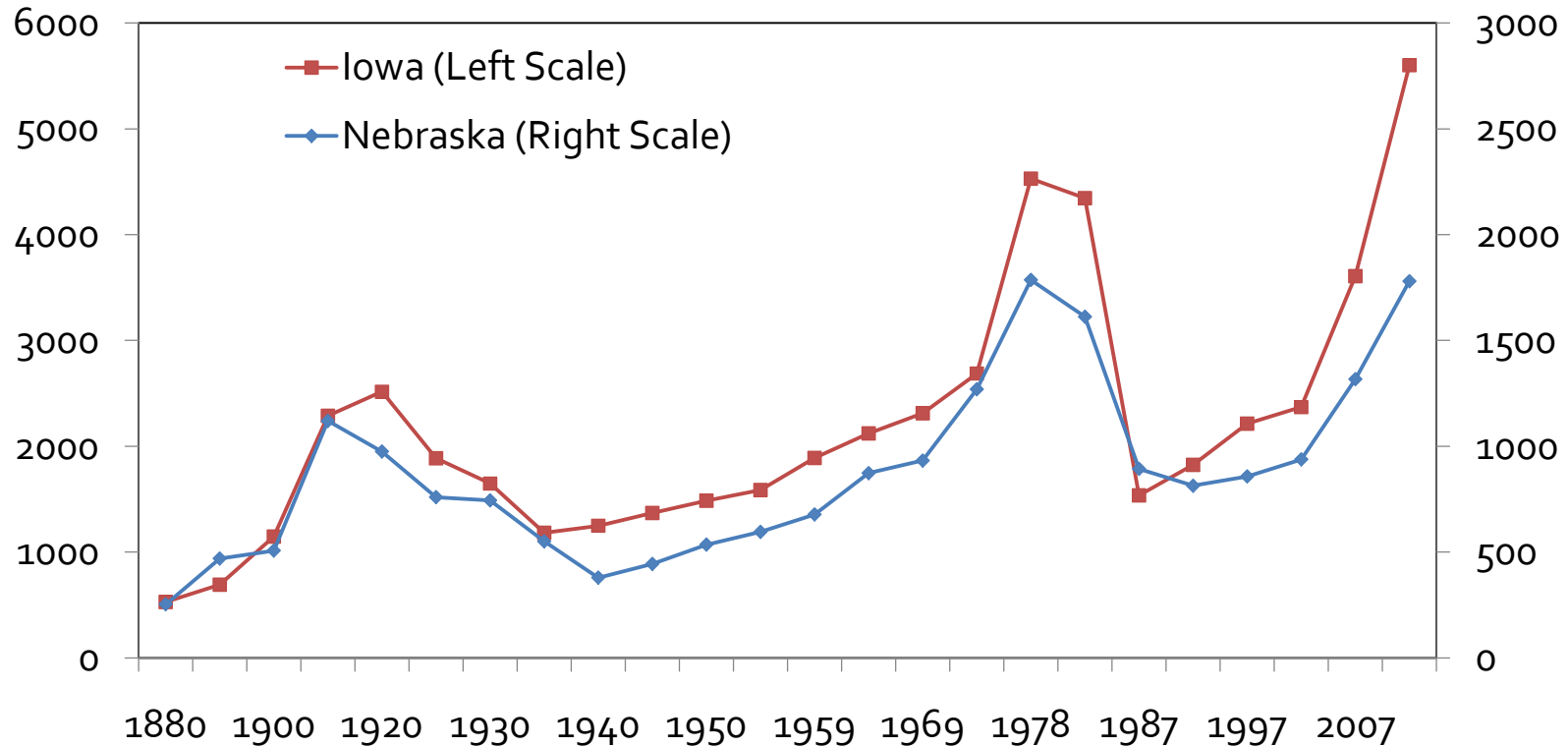
Source: USDA



Is agriculture set up for another correction?

Nebraska and Iowa Farm Real Estate Values

Dollars per acre (Constant 2011 dollars)



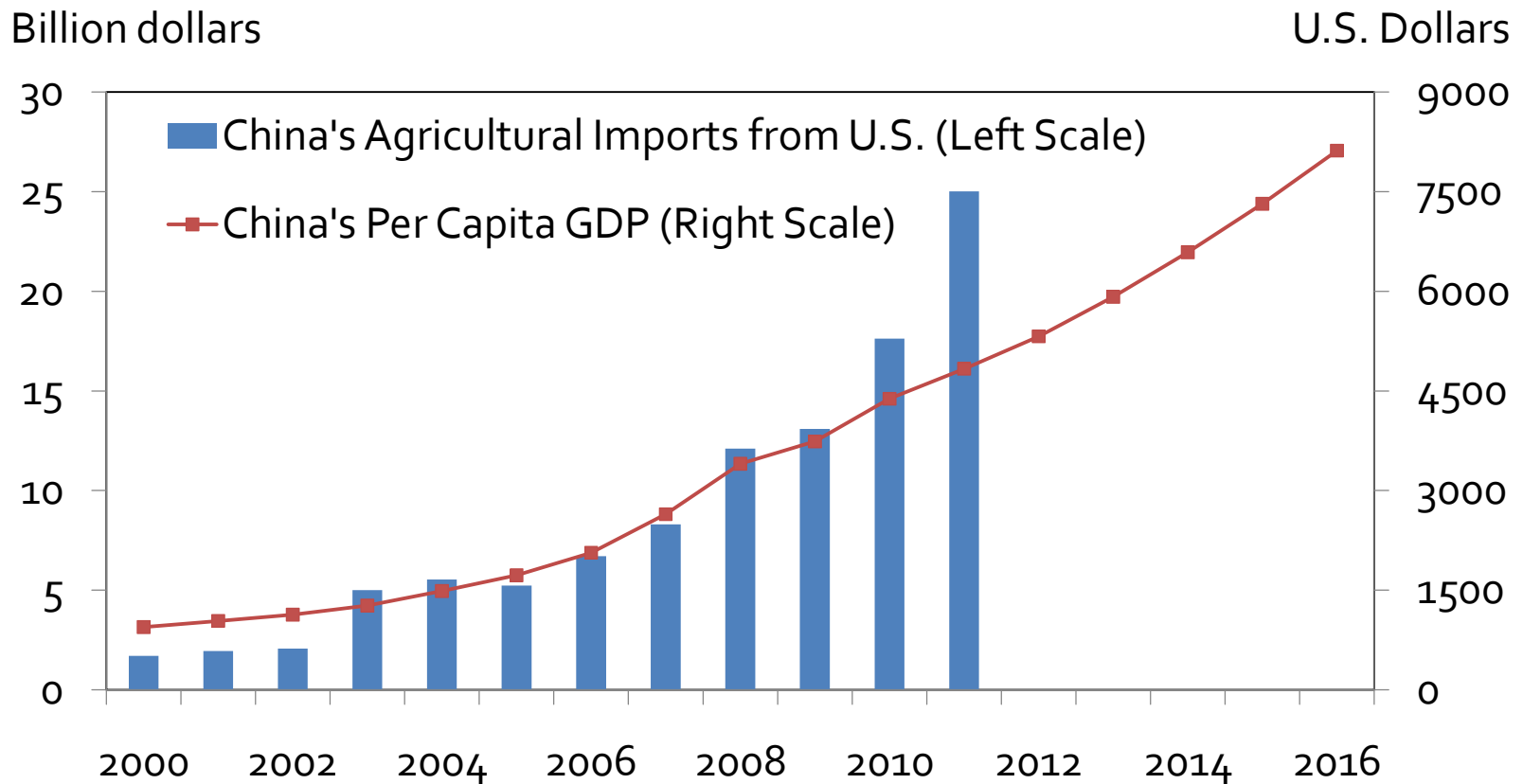
The Drivers of Farm Booms/Busts

- Demand Shocks
 - Short-term demand viewed as long-term
 - 1910s – World War I
 - 1970s – Russian grain deal
 - 2000s – Exports (China) & Ethanol
- What are the Risks?
 - Slower growth in emerging countries
 - Elimination of the RFS mandate



As the #1 U.S. export market, China's economic development will drive U.S. agricultural demand.

China's GDP Growth and Ag Imports from U.S.

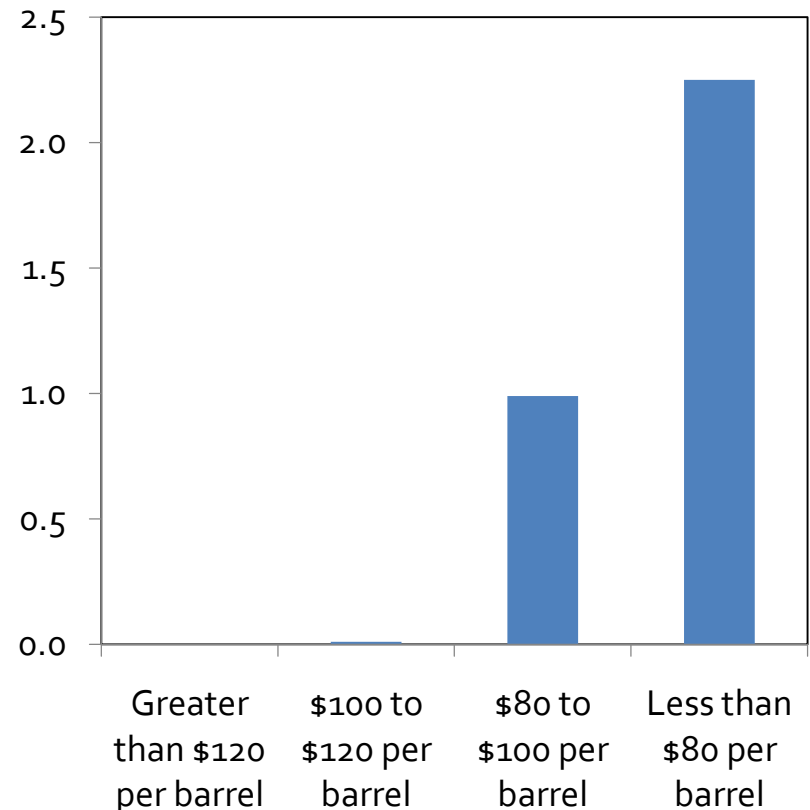


Ethanol policy is about the mandate.

- The blenders' credit is a mechanism to entice corn-based ethanol production to meet the mandate.
- Due to high sugar prices, the corn-based ethanol is price competitive and ethanol production is above the mandate.
- The subsidy does not affect profitability.
- When crude oil is less than \$100 per barrel, the mandate is needed to drive ethanol production.

Drop in Corn Price from Eliminating the Mandate

Dollars per bushel



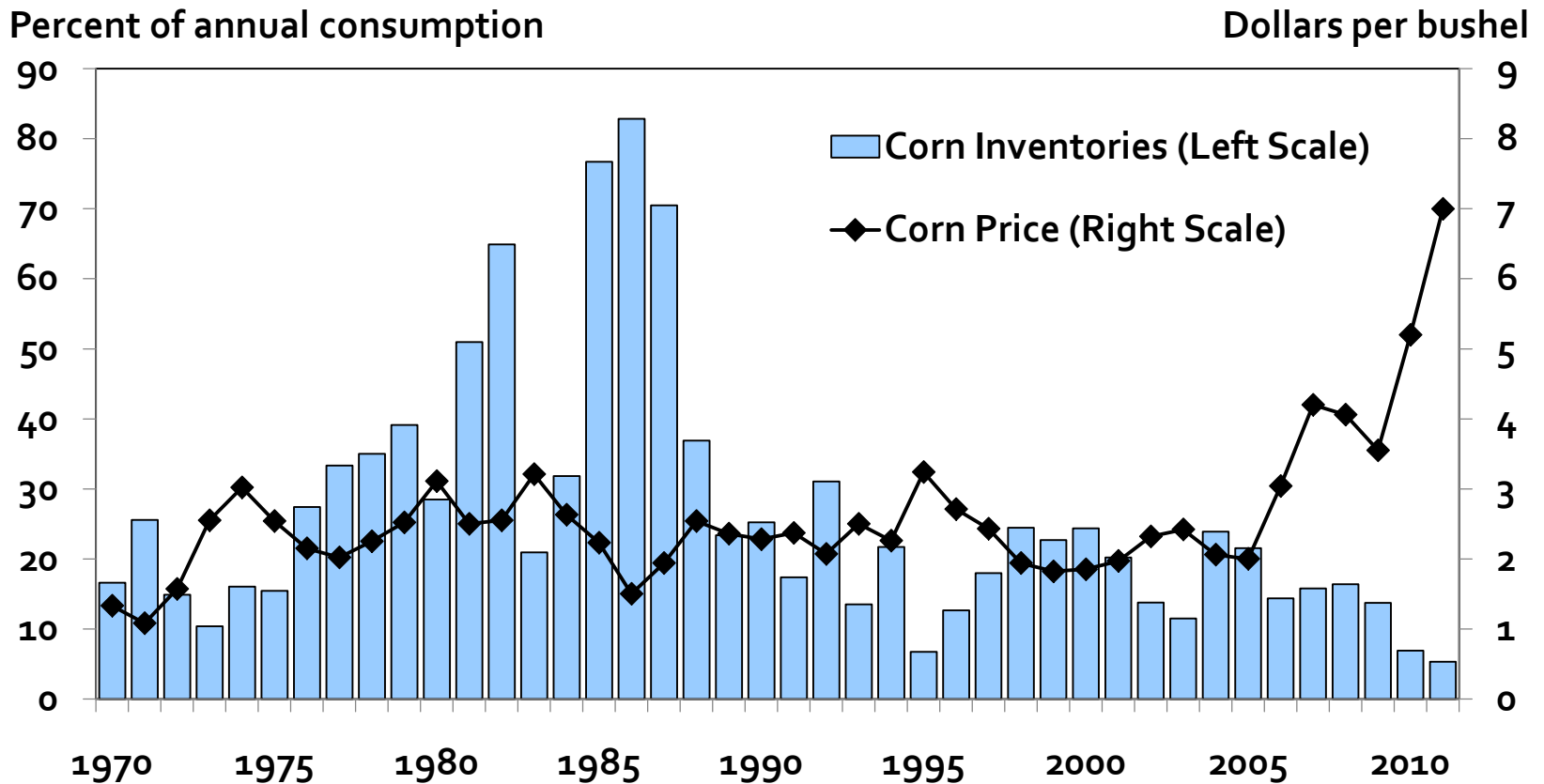
The Drivers of Farm Booms/Busts

- Supply Shocks
 - *Farmer's Produce Themselves Out of Prosperity*
 - Technological change: supply outpaces demand
 - 1920s – Tractors
 - 1970s – Green Revolution
 - 2000s – Bio-technology
- What are the Risks?
 - Can the promises of bio-tech actually be delivered?



Strong demand and tight supplies underpin high agricultural prices.

U.S. Corn Prices and Inventories



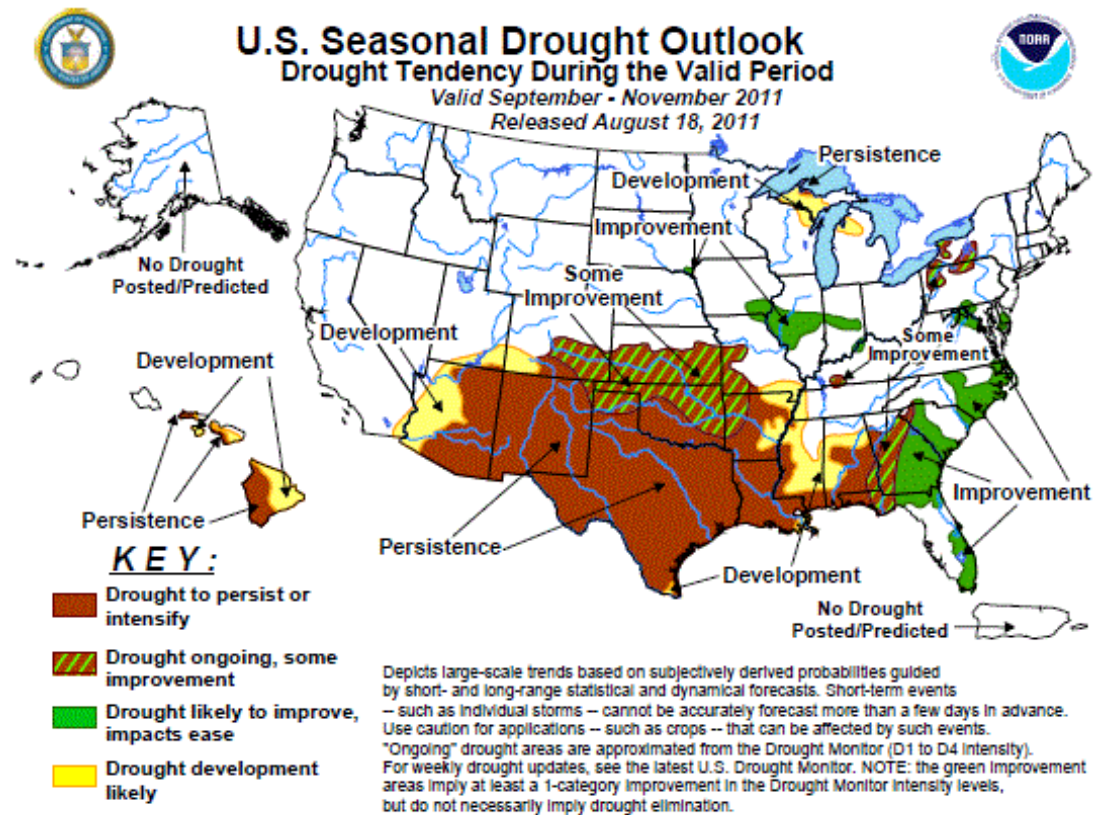
Source: USDA



How will La Nina affect U.S. weather?

During winter months, a La Nina episode tends to ...

- 1) Lead to dry conditions in southern Plains,
- 2) Intensify the Atlantic hurricane season, which will increase precipitation in the Southeast U.S.



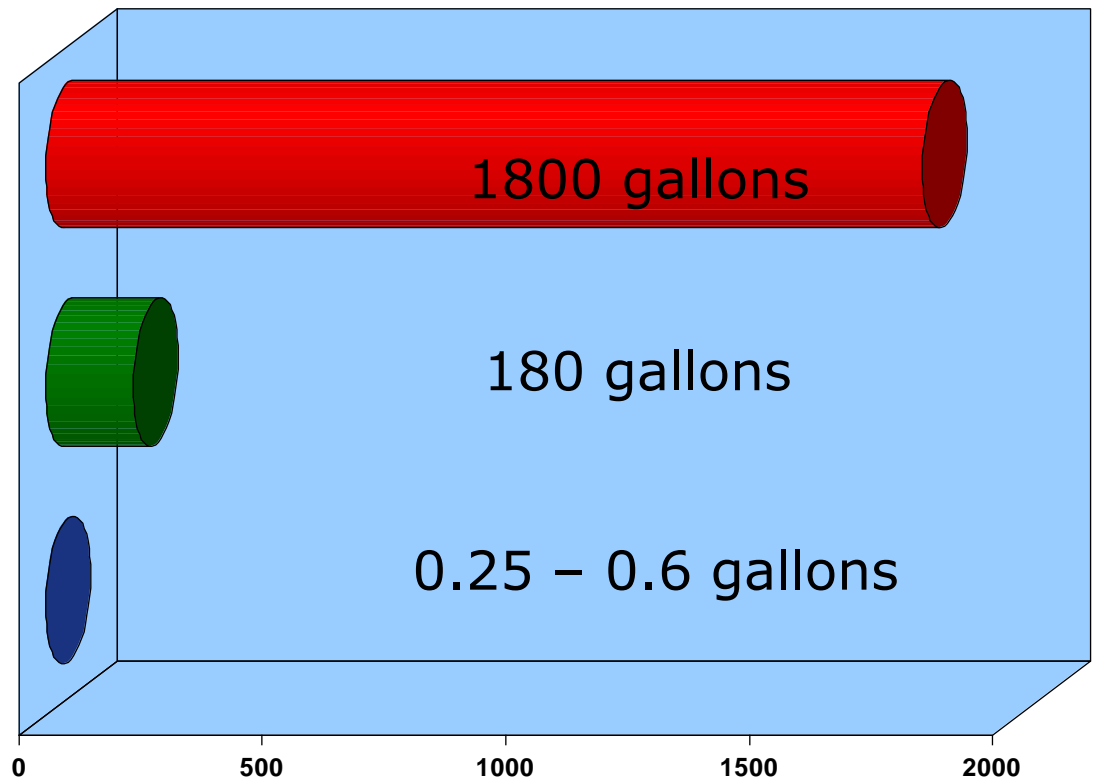
Growing Water Resource Constraints

Amount of water required for:

One pound of beef

One pound of wheat

Daily drinking requirements

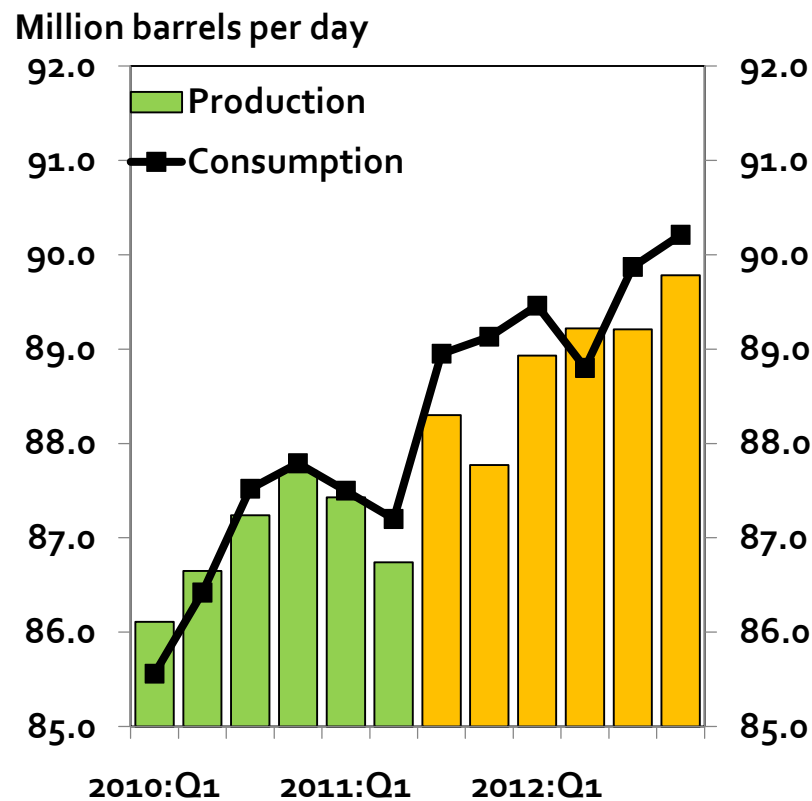
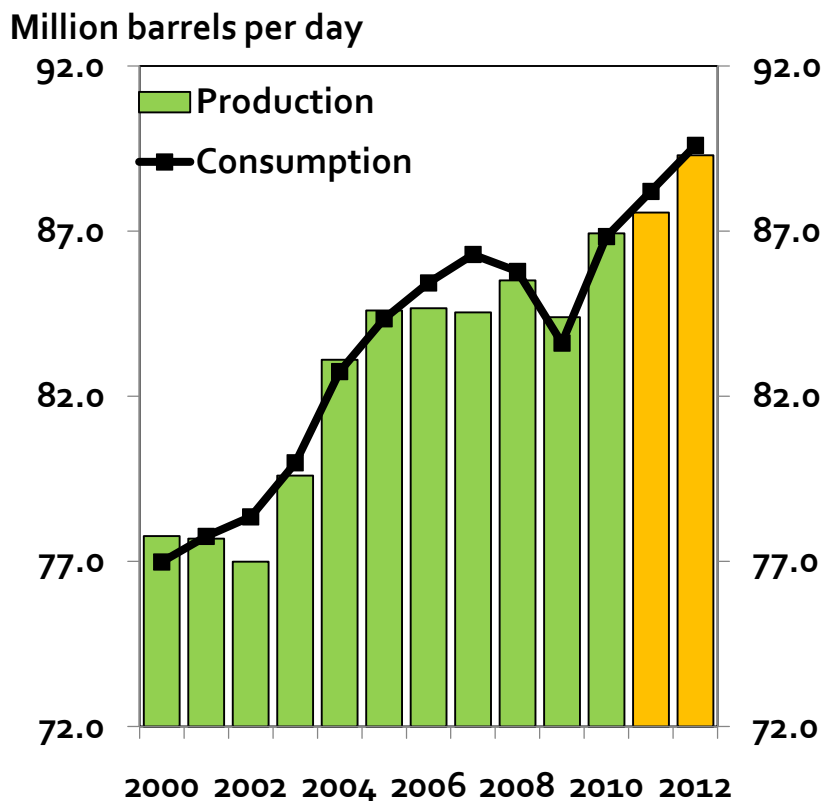


Source: UN-Water and FAO



If forecasts hold, world energy consumption could outstrip production.

World Crude Oil Production and Consumption



Source: Energy Information Administration
EIA Forecasts for 2011 and 2012 data.



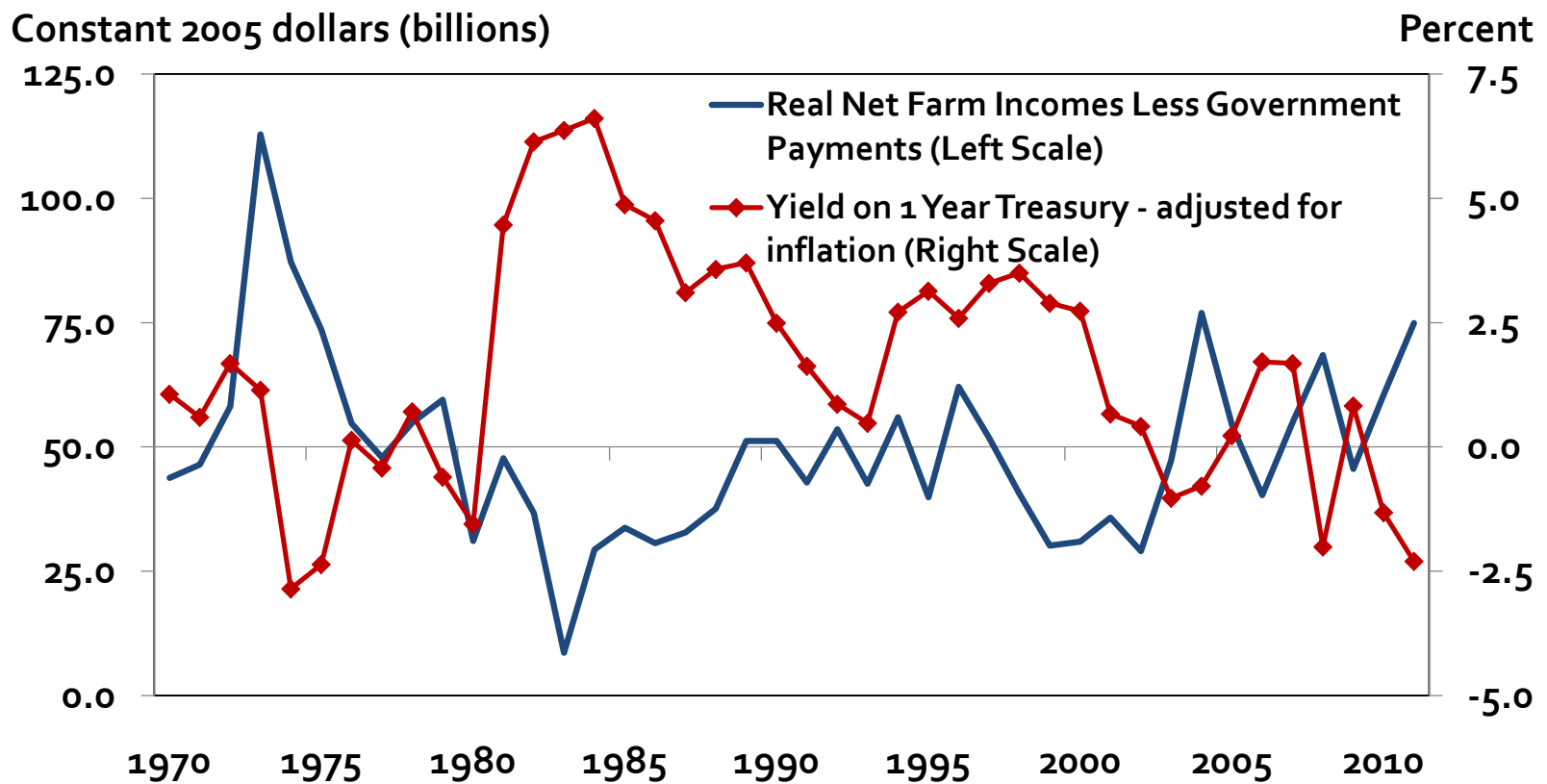
The Drivers of Farm Booms/Busts

- Interest rates
 - Interest rates shape cap rates and land values
 - Low interest rates associated with high farm incomes
 - 1970s – Low real rates and farm boom
 - 1980s – High real rates and farm bust
 - 1990s – High real rates and lower farm incomes
 - 2000s – Low real rate and higher farm incomes
 - 2010s ??



Farm incomes rise in low interest rate environments.

Farm Incomes and Interest Rates



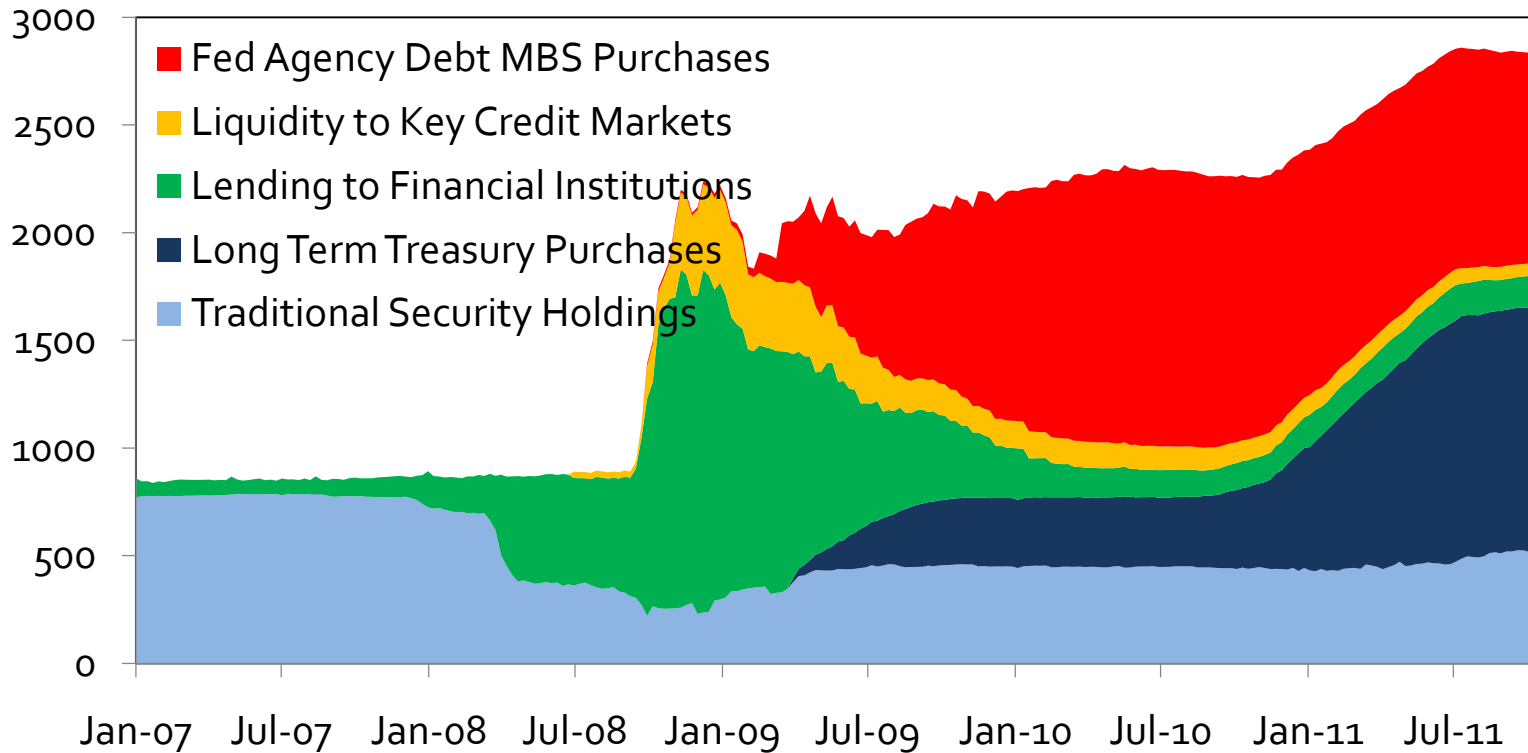
Source: Henderson and Briggeman (2011), "What are the Risks in Today's Farmland Market?" *Main Street Economist*, Issue 1.



What is the Impact of "Operation Twist"?

Federal Reserve Balance Sheet: Assets

Billion Dollars

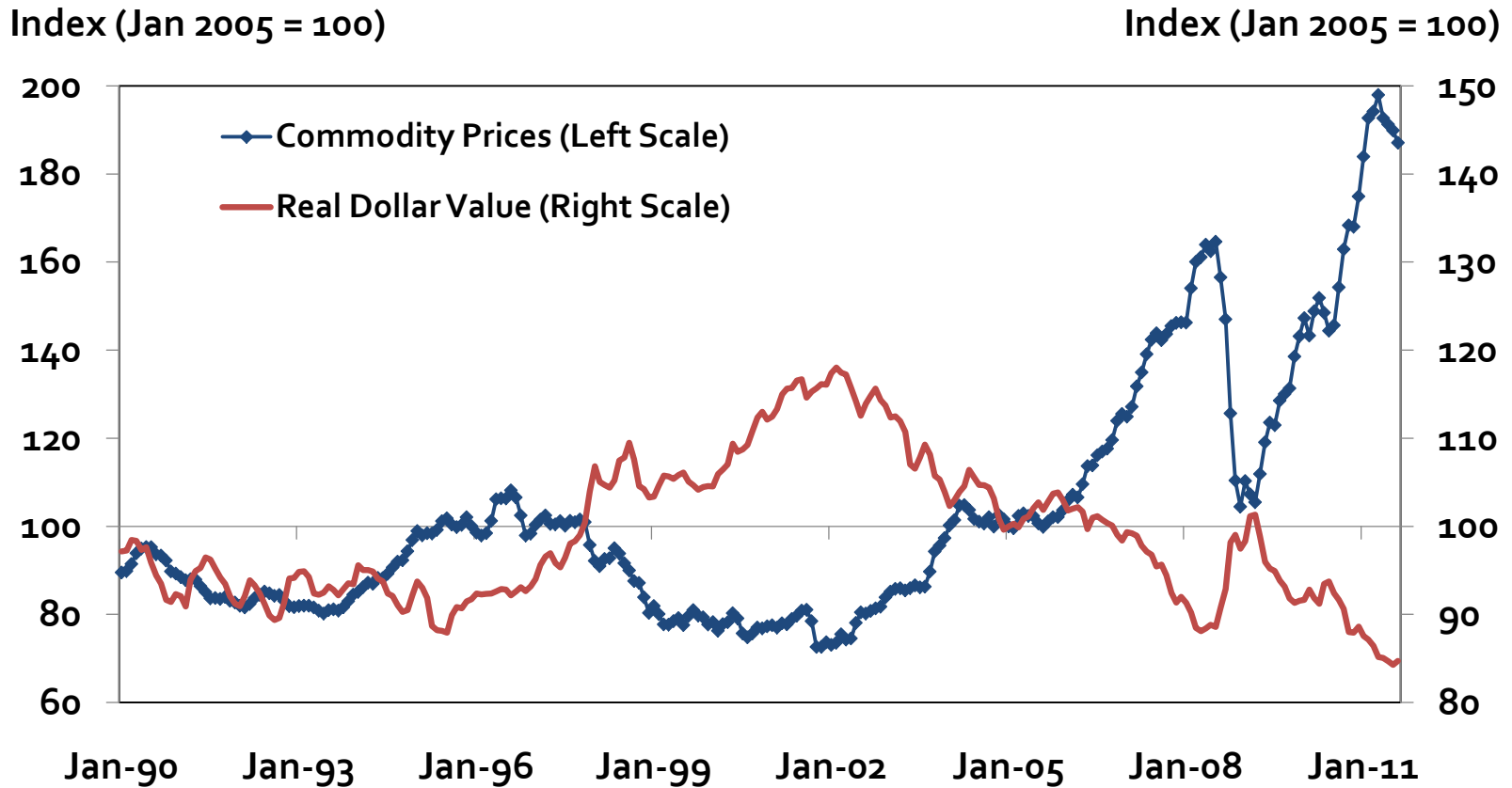


Source: Federal Reserve Bank of Cleveland



A weak dollar supports high commodity prices.

Commodity Prices and the Value of the Dollar



Source: Commodity Research Bureau and Federal Reserve Board of Governors

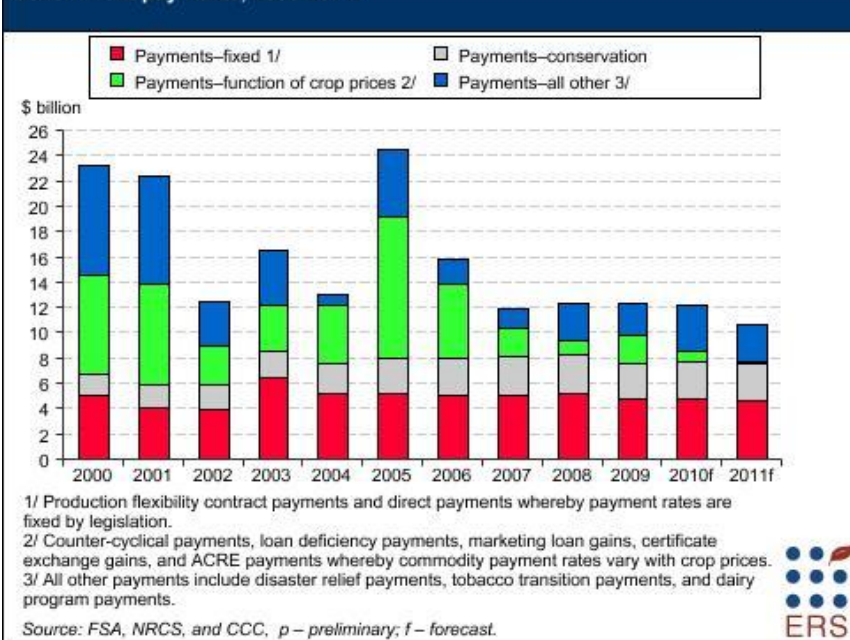


Sovereign Debt

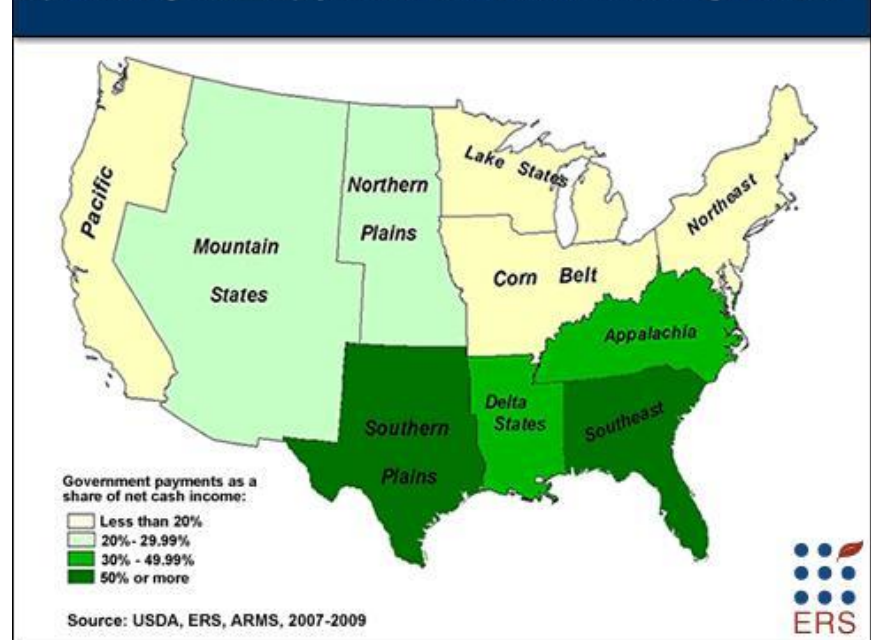
Will the Farm Bill be evolutionary or revolutionary?

- Traditionally, Farm Bills are evolutionary.
- Will federal government debt issues lead to a revolutionary Farm Bill in 2012?
- Will farmers get to keep direct payments?
- What is the safety net going forward – crop insurance?

Government payments, 2000-2011f



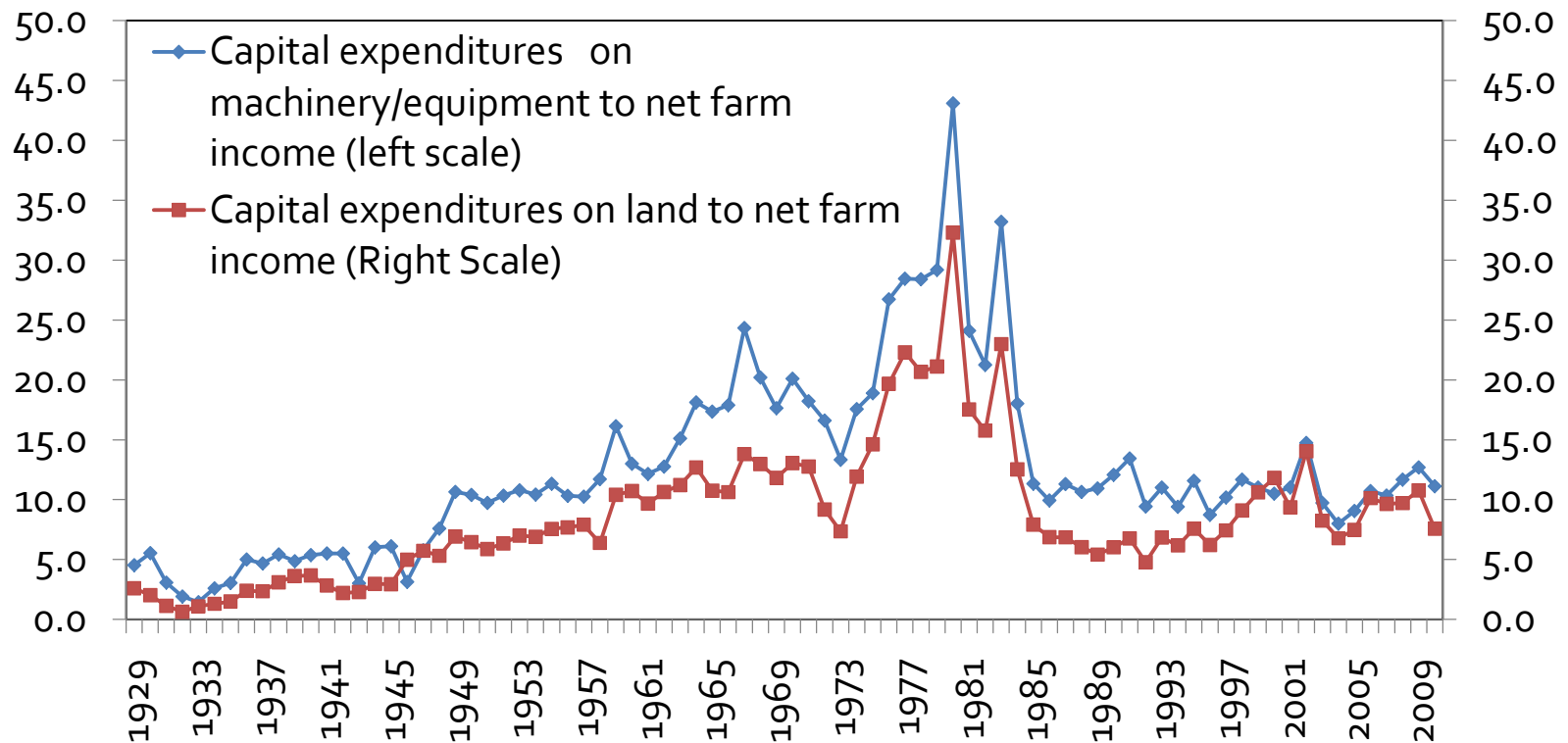
Importance of government payments to net cash farm income, average 2007-2009



How will farmers respond to booming profits and low interest rates?

U.S. Farm Capital Expenditures

Ratio of Capital Expenditures to Net Farm Income



Source: USDA



For More Information on The Nebraska Economy and Rural America

www.kansascityfed.org/omaha

