



# **U.S. AGRICULTURE: What Goes Up Must Come ...**

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**October 7, 2008**

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

# U.S. Agriculture

- Today's Outline:
  - A Booming Farm Economy
  - Land Values Surge
  - Is the Boom Sustainable?
  - Will Farm Debt Remain in Check?



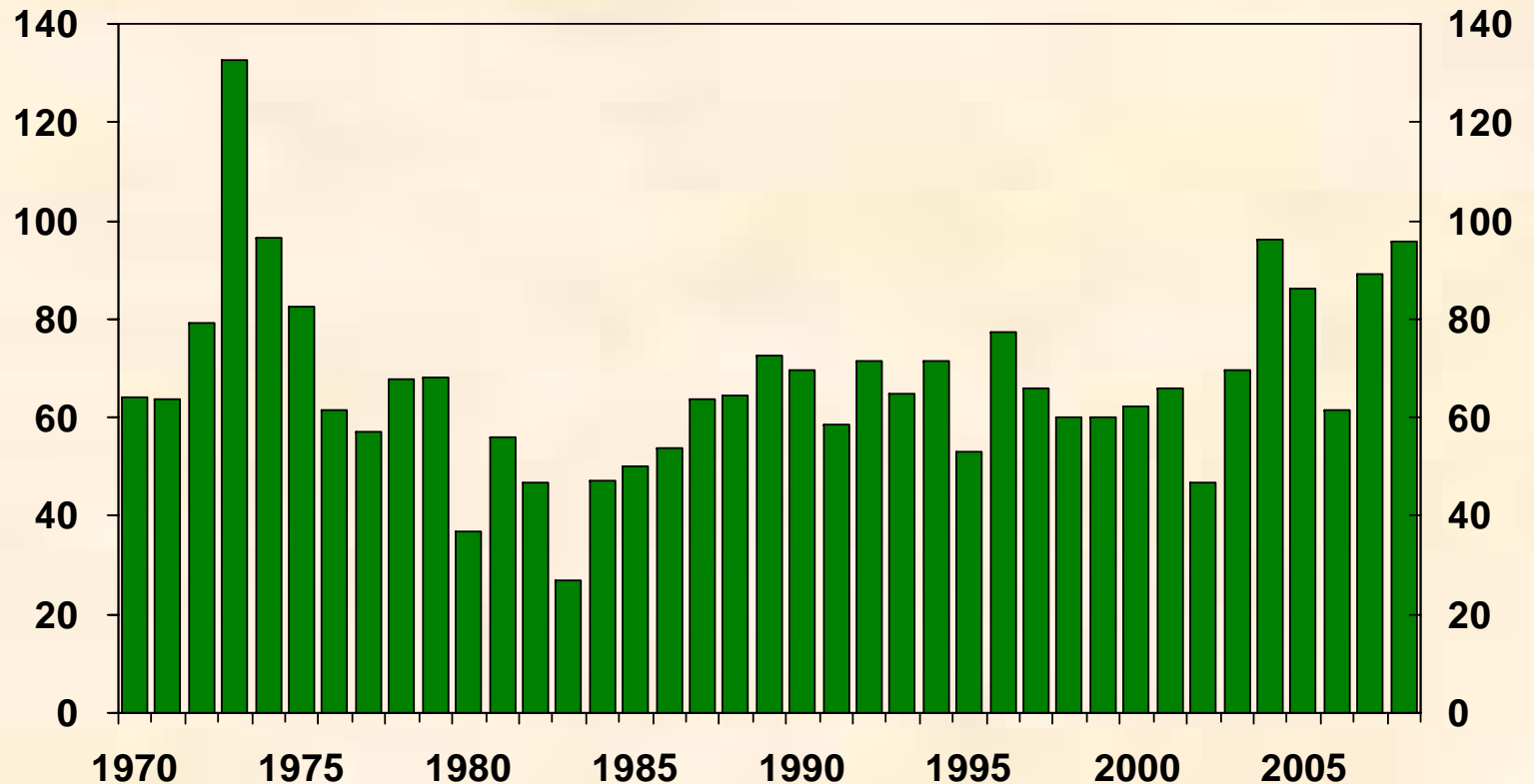
Photos courtesy of USDA



# The Farm Economy is Booming.

## *U.S. Real Net Farm Income*

Billions of Dollars (2008=100)



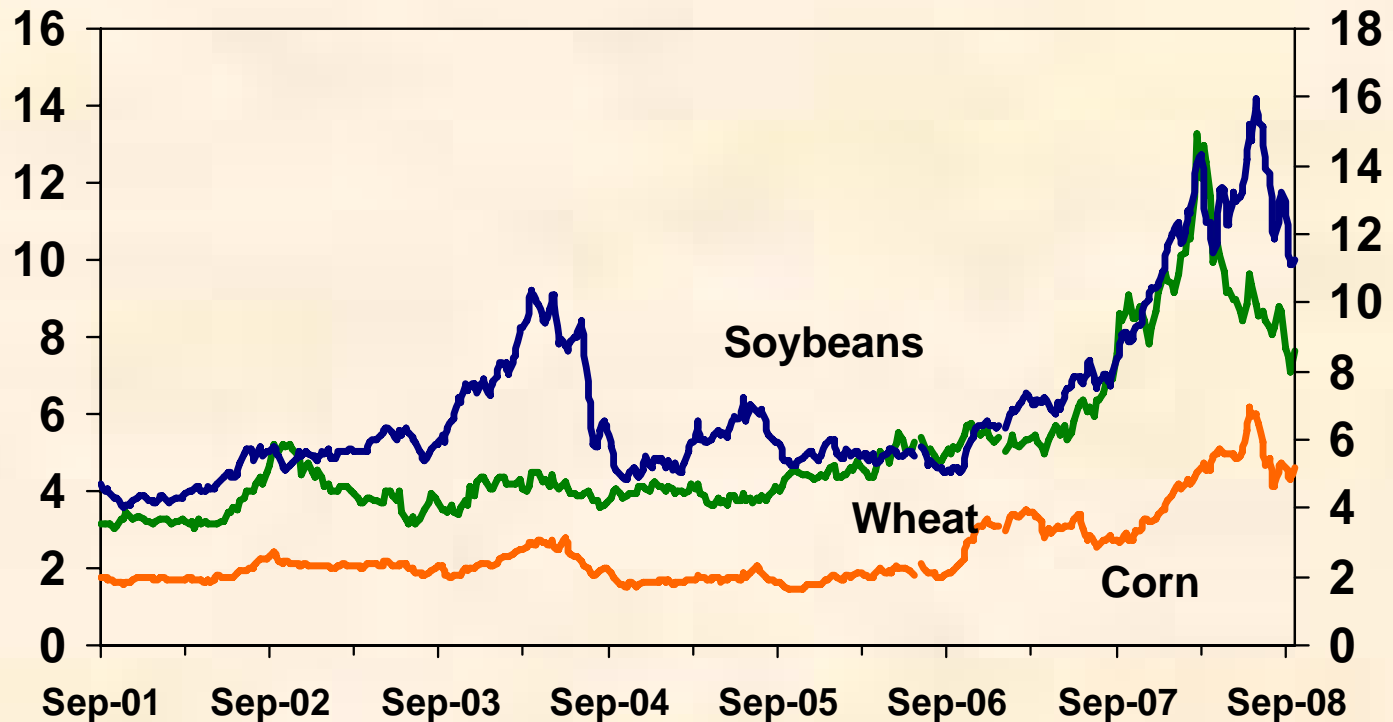
Source: USDA



# Crop Prices Surged With Strong Demand And Shorter Global Supplies

## U.S. Crop Prices

Dollars per bushel



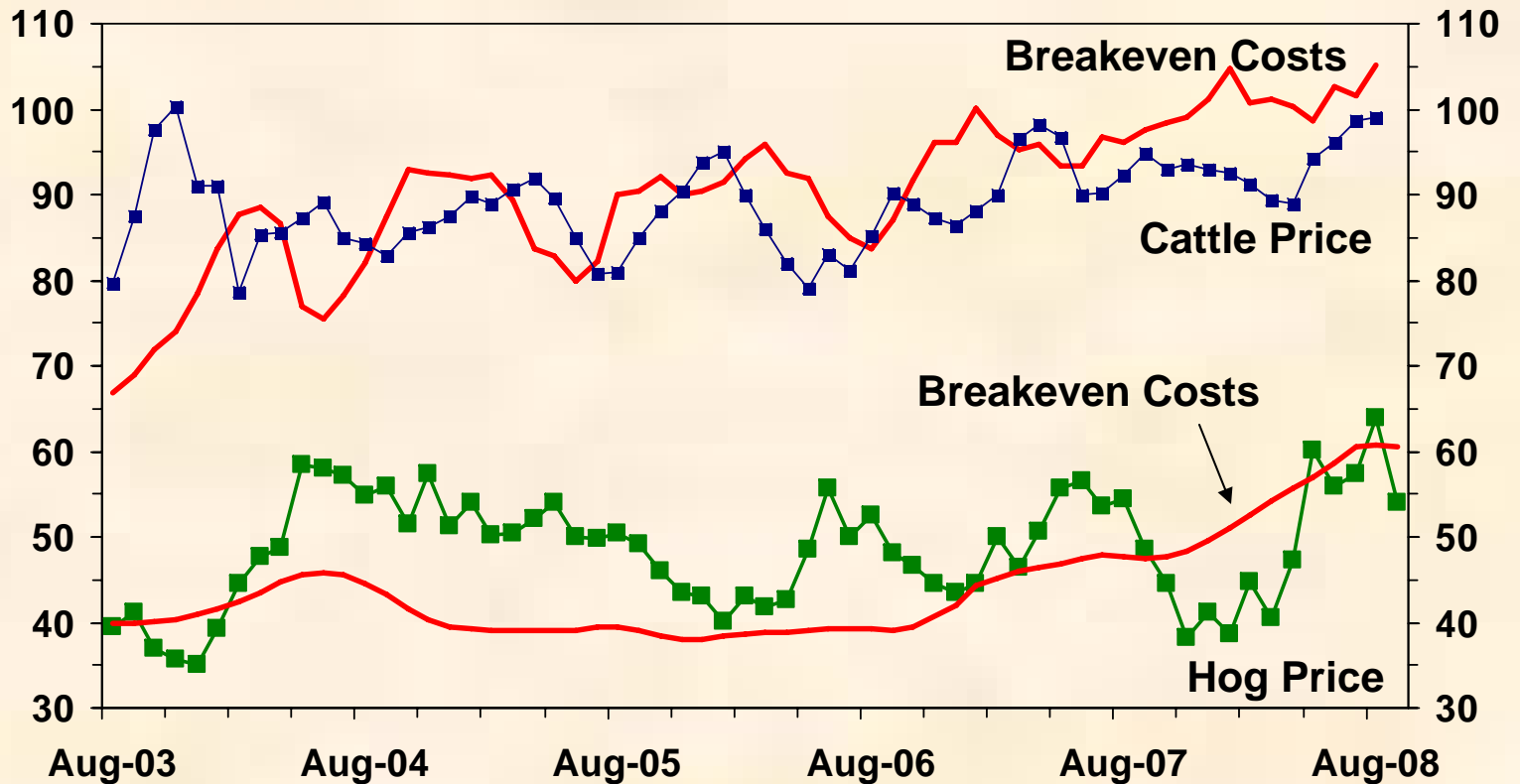
Source: Wall Street Journal



# Tough Times in the Cattle Industry

## U.S. Livestock Prices and Breakeven Costs

Dollars per hundredweight



Source: USDA and Iowa State University



Photos courtesy of USDA

# The Agricultural Outlook

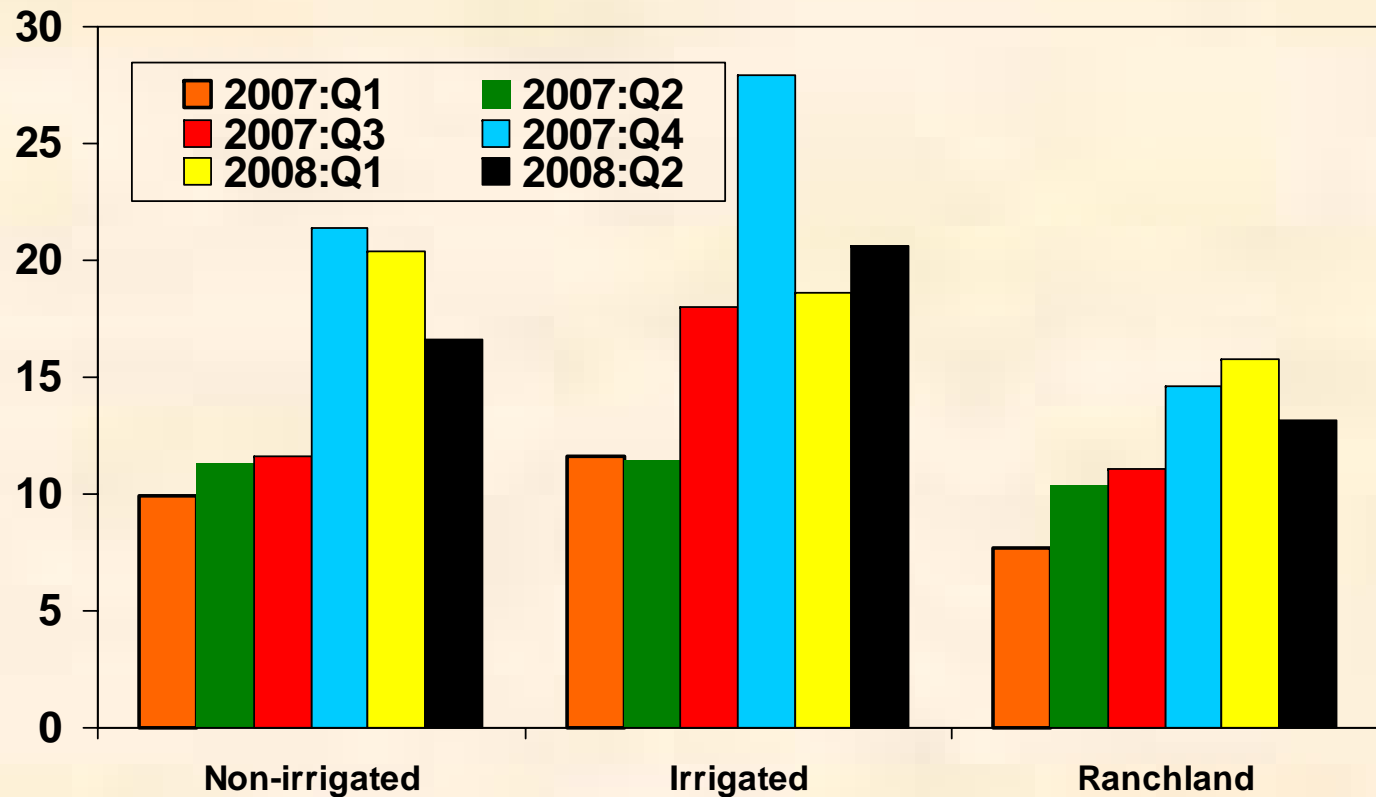
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# Kansas' Farmland Values Surge

## Kansas Farmland Values

Percent change from year ago

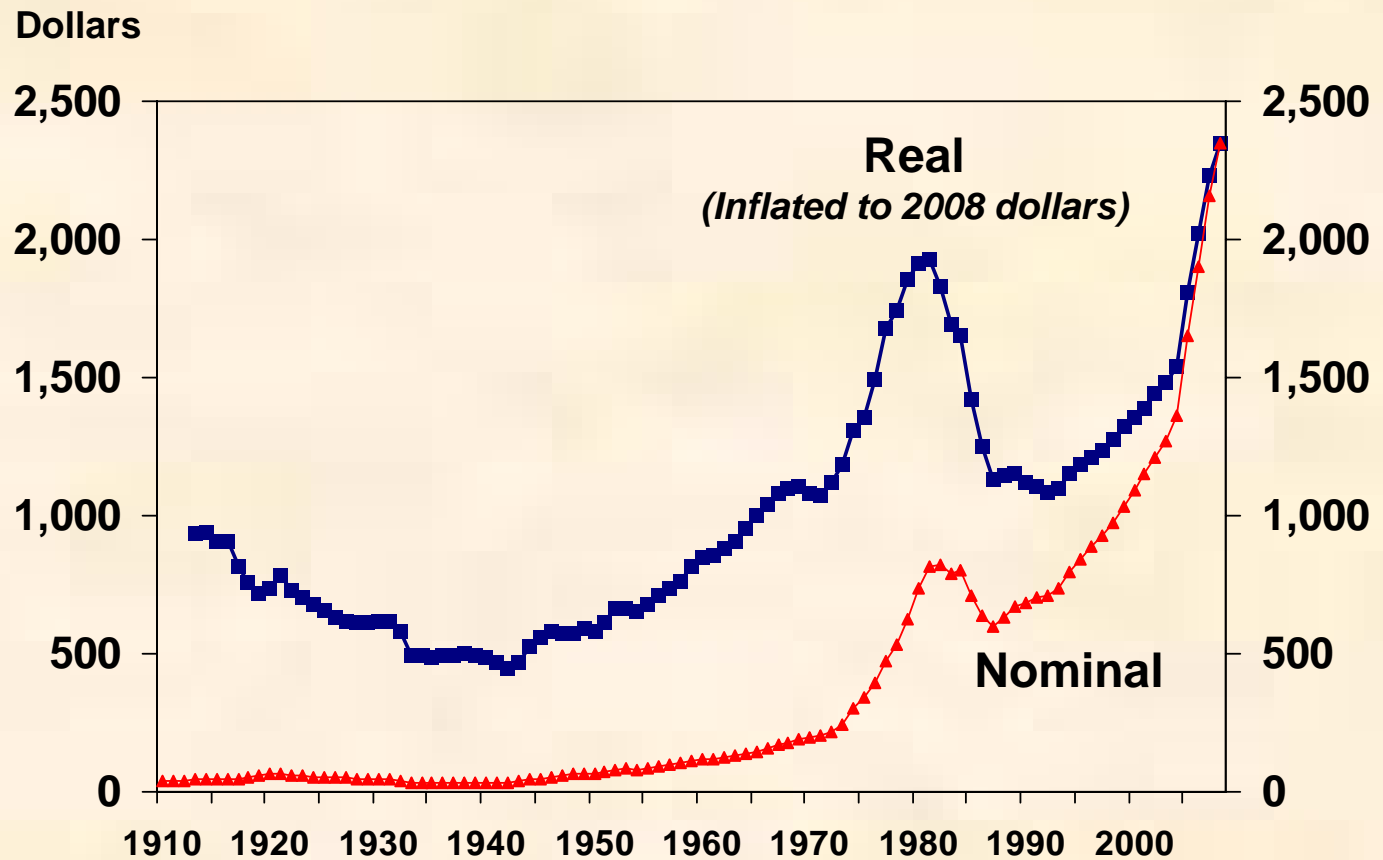


Source: Federal Reserve Bank of Kansas City



# On a national basis, real farmland values have topped the 1980s highs.

## U.S. Farmland Values



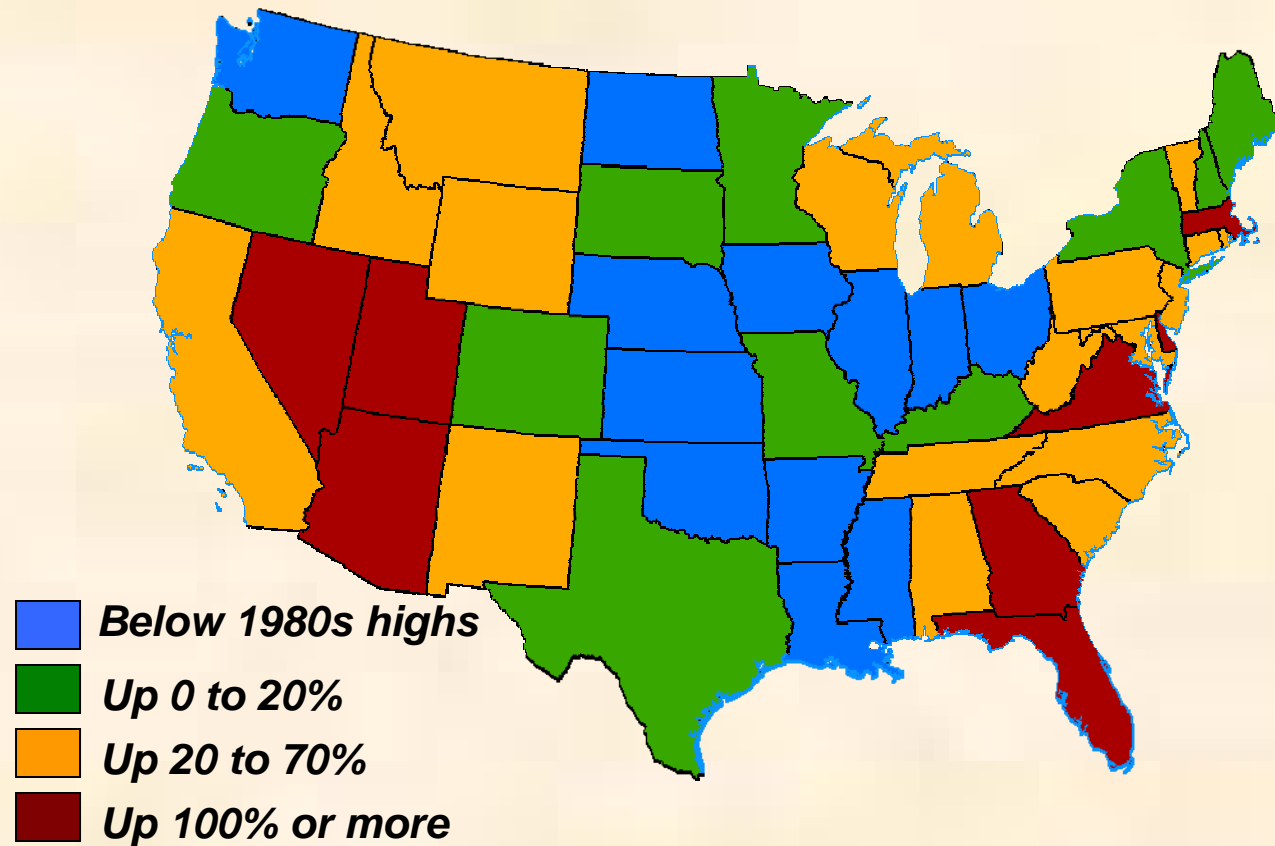
Source: USDA





# Kansas, however, has not topped 1980s highs.

**Real Farmland Value Gains  
(Percent change from 1980s highs to 2008)**



Source: USDA



Photos courtesy of USDA

# The Agricultural Outlook

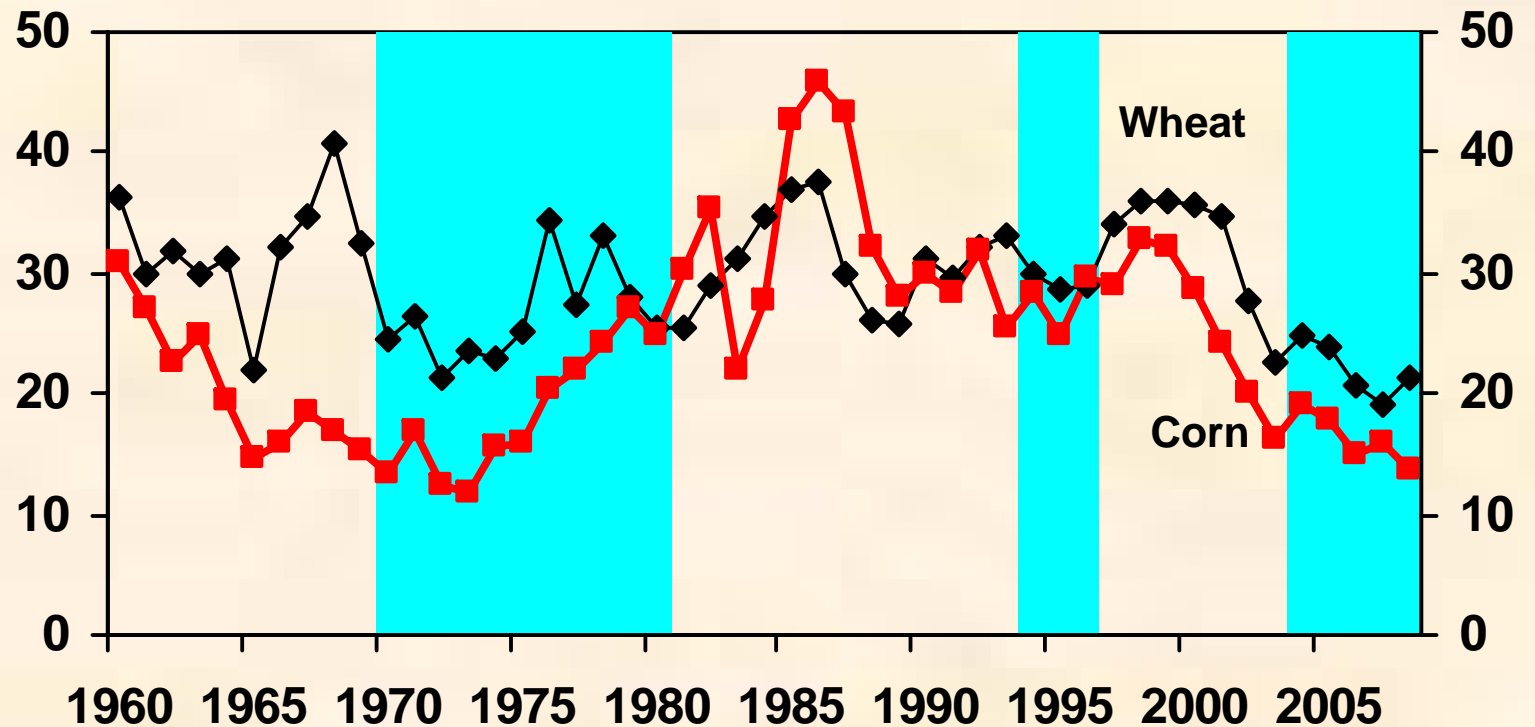
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# World Grain Inventories Have Fallen to Record Lows.

## World Grain Stocks to Use Ratio

Percent of annual use



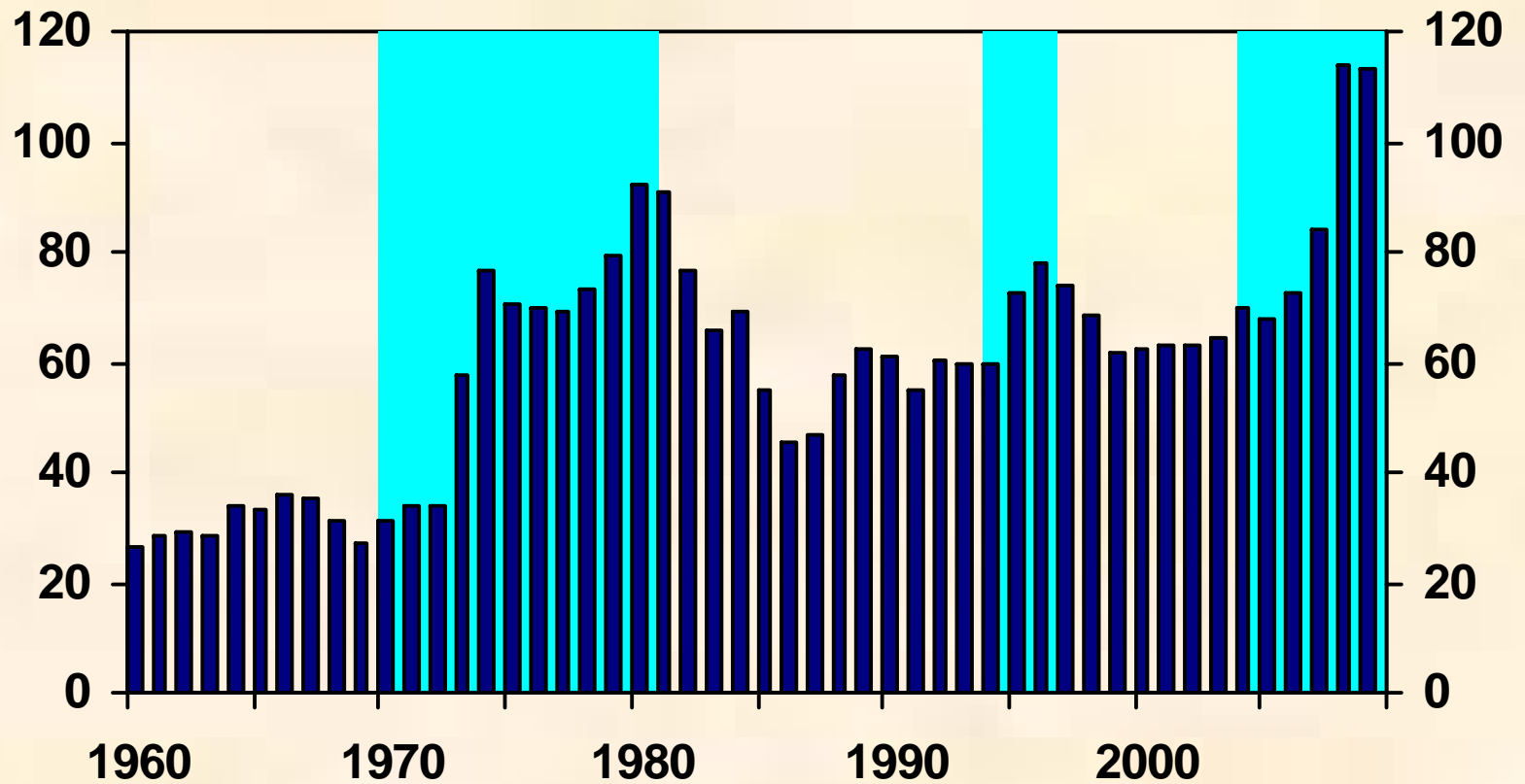
Source: USDA



# Agricultural Exports Have Surged . . .

## U.S. Agricultural Exports

Billion dollars (2008=100)



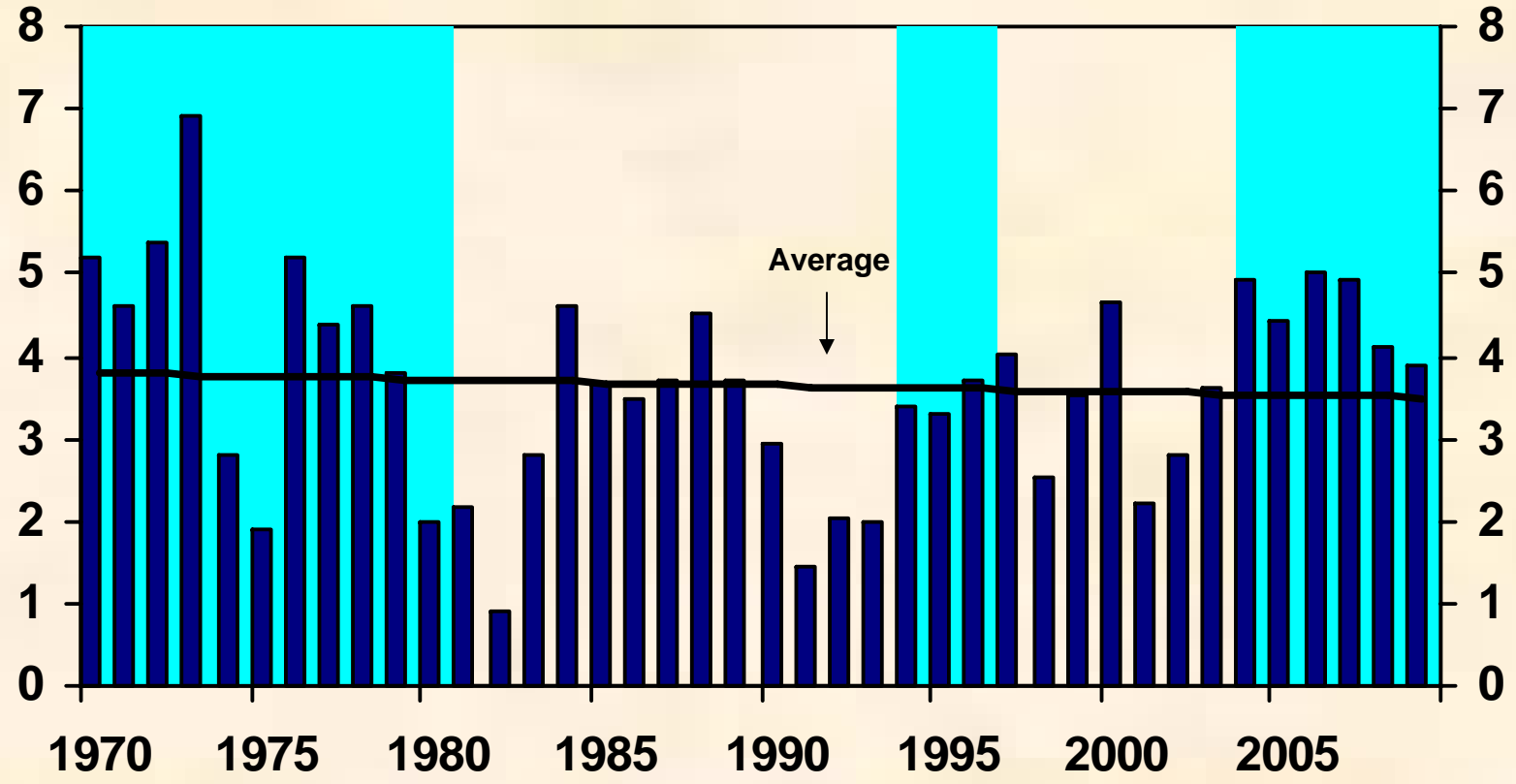
Source: USDA



# With Stronger World Incomes . . .

## World GDP Growth

Percent change

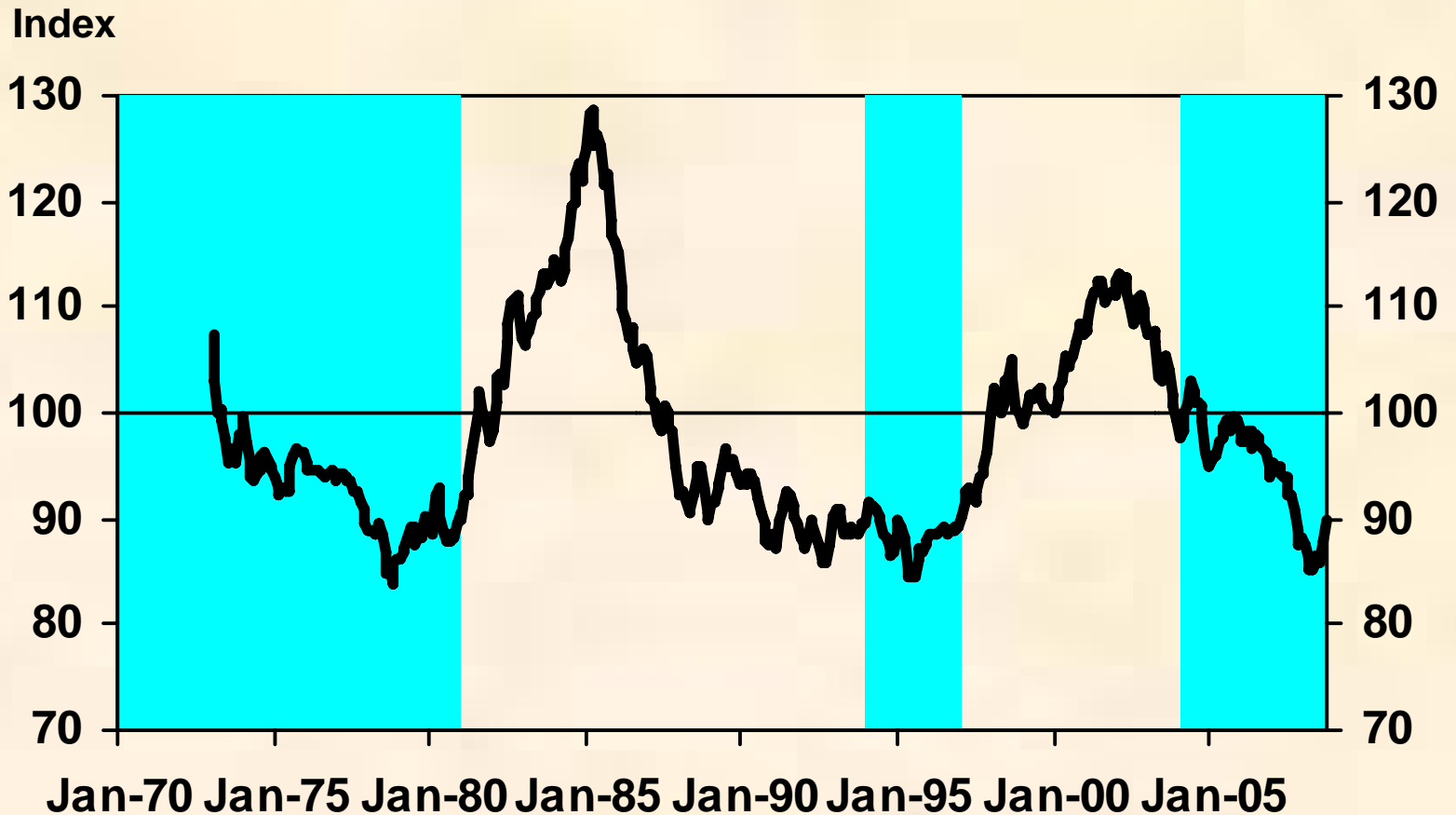


Source: International Monetary Fund



# And a Weak Dollar.

## Value of U.S. Dollar

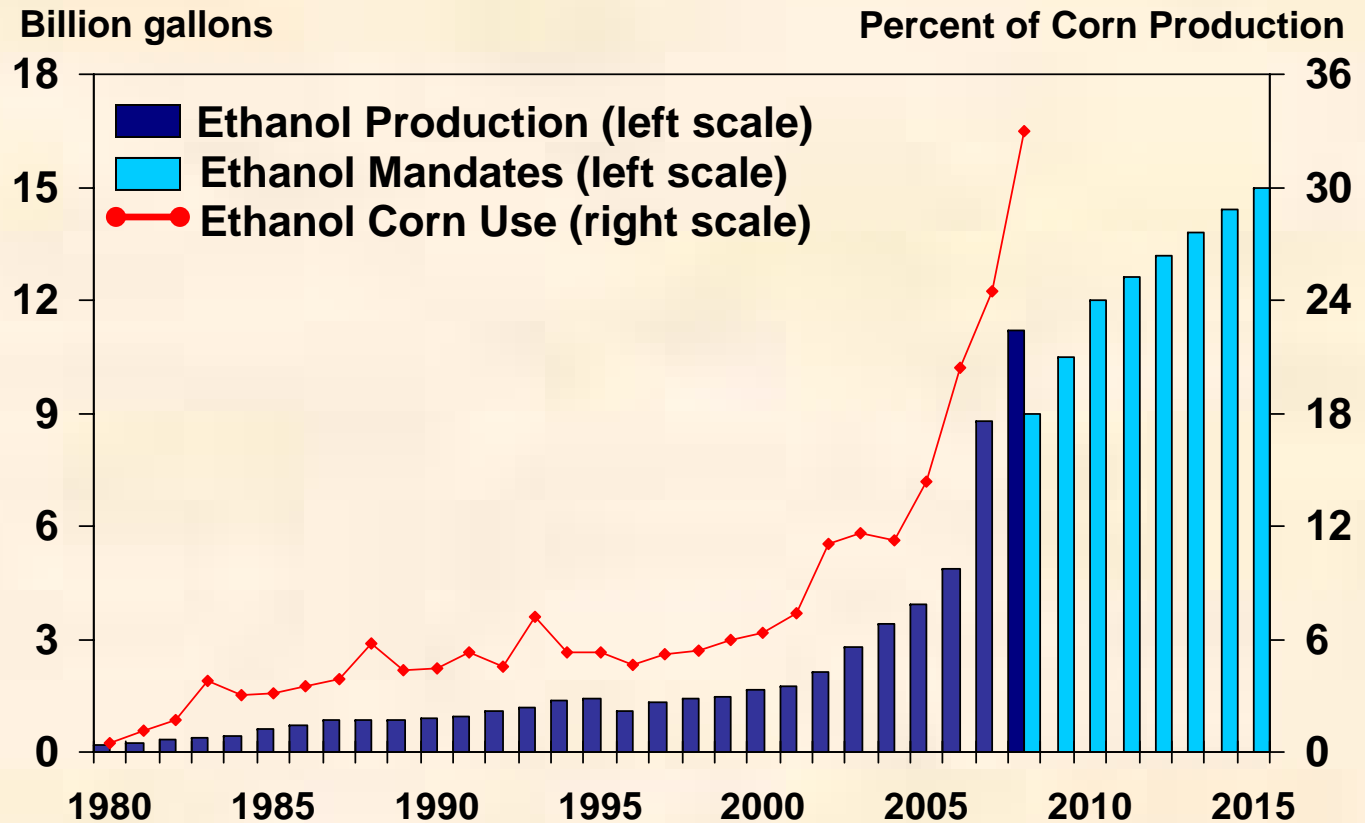


Source: Federal Reserve Board of Governors



# Has Ethanol Reached its Limit?

## U.S. Ethanol Production, Mandates, and Corn Use



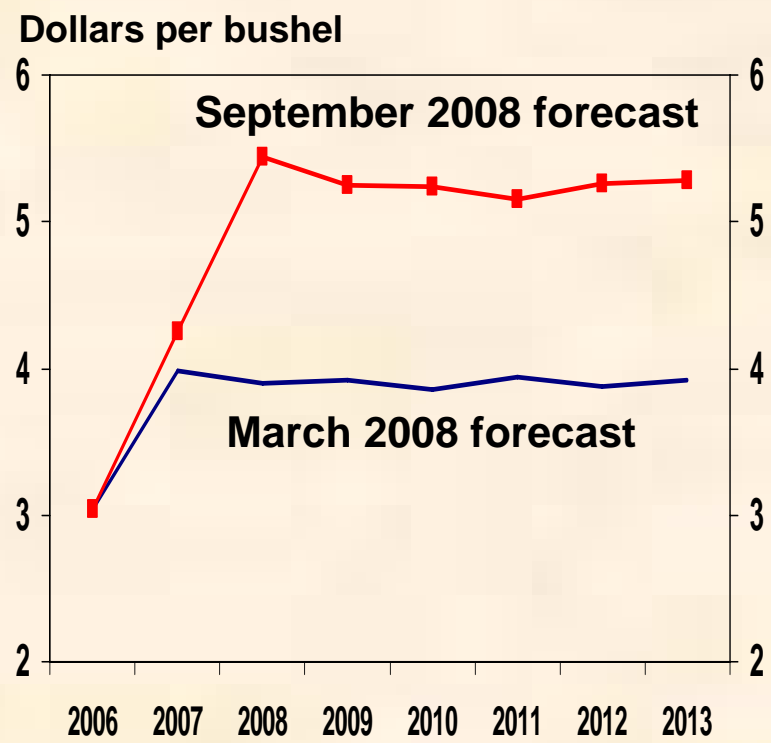
Source: USDA and Renewable Fuels Association



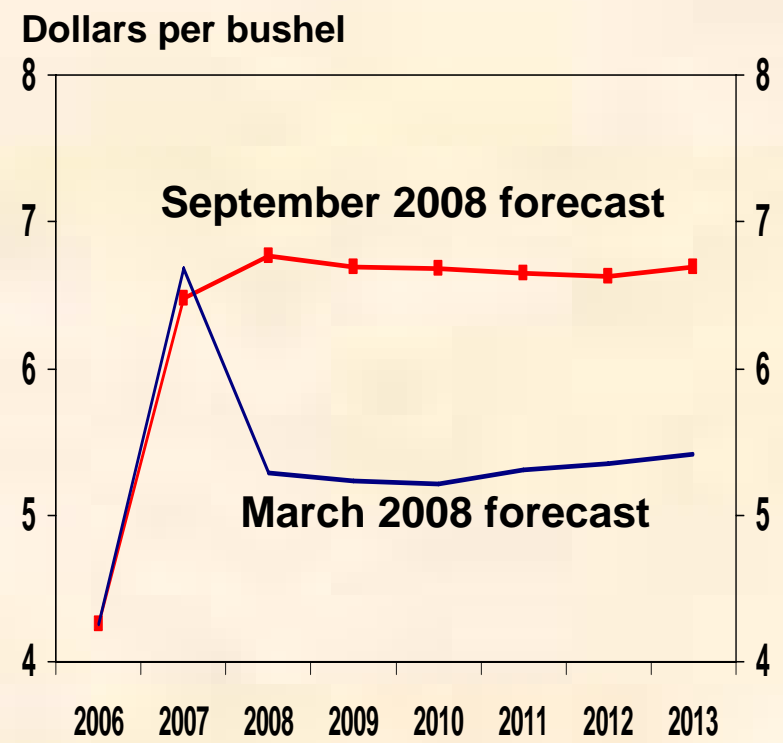
# The Outlook for Crop Prices has Strengthened in 2008

## Corn and Wheat Price Forecasts

**Corn Price**



**Wheat Price**



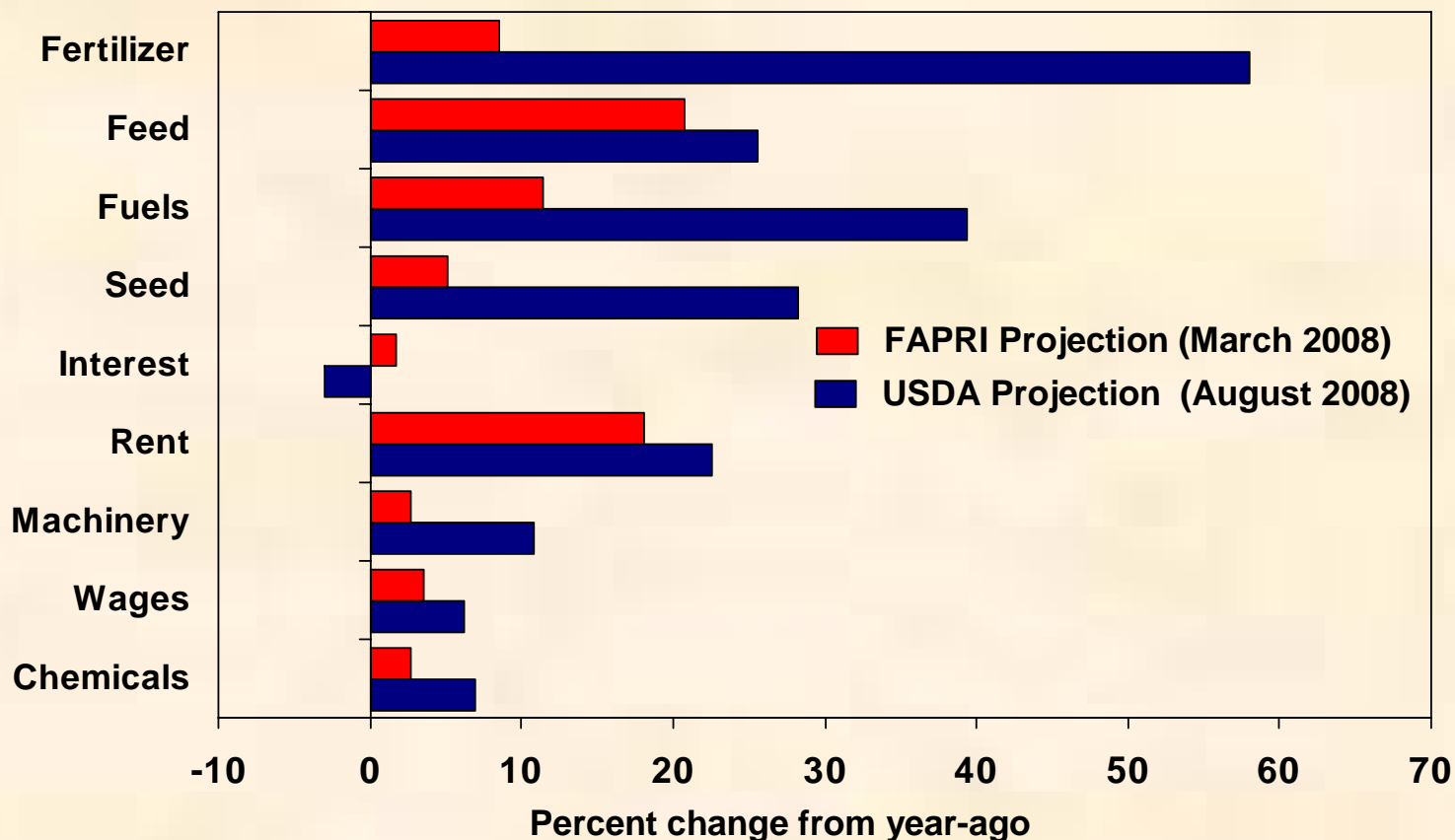
Source: FAPRI





# Farm input costs surged beyond expectations.

## 2008 Farm Input Costs



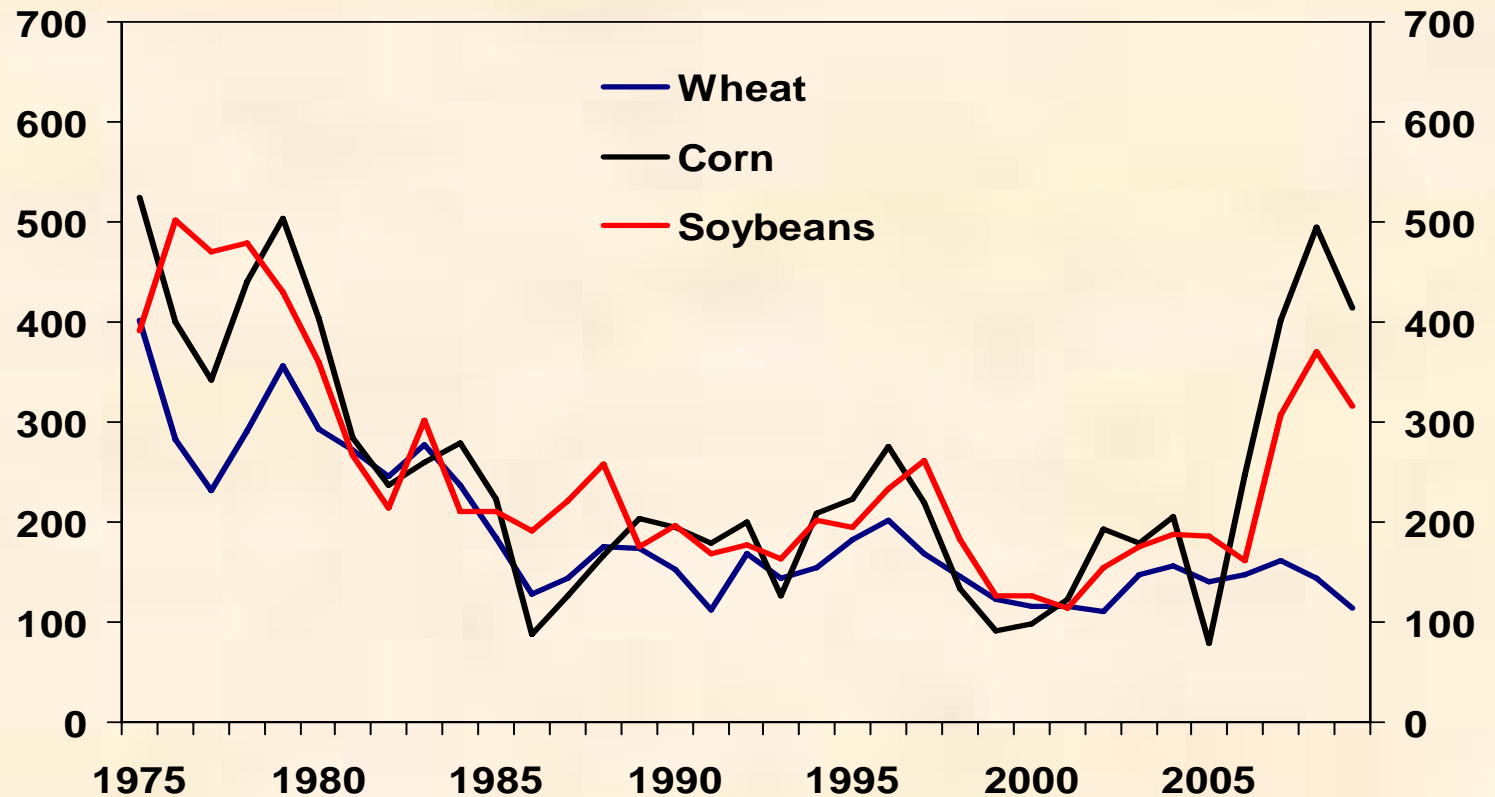
Source: USDA and FAPRI



# Market returns have jumped sharply for corn and soybeans.

## *Market returns to Crop Production (less variable or operating costs)*

Dollars per acre (2007=100)



Calculations based on USDA cost and returns data.

# Net returns will vary with commodity prices and input costs.

## *Net Returns to Land from U.S. Corn Production (Dollars per acre – average 2009 to 2013)*

	Corn Price (Dollars per bushel)		
<b>2009 Production Cost Increase (Percent)</b>	<b>\$4.00</b>	<b>\$5.25</b>	<b>\$7.00</b>
5.5% (USDA baseline)	\$129	\$328	\$610
15%	\$83	\$283	\$564
30% (Actual 2008 increase)	\$10	\$210	\$491

Calculations based on USDA cost of production forecasts for 2007 through 2009 and FAPRI yield projections through 2013. Returns exclude government payments.

# Net returns will vary with commodity prices and input costs.

## *Net Returns to Land from U.S. Wheat Production (Dollars per acre – average 2009 to 2013)*

	Wheat Price (Dollars per bushel)		
<b>2009 Production Cost Increase (Percent)</b>	<b>\$6.00</b>	<b>\$6.70</b>	<b>\$8.00</b>
4.5% (USDA baseline)	\$11	\$42	\$99
15%	---	\$16	\$73
25% (Actual 2008 increase)	---	---	\$48

Calculations based on USDA cost of production forecasts for 2007 through 2009 and FAPRI yield projections through 2013. Returns exclude government payments.



Photos courtesy of USDA

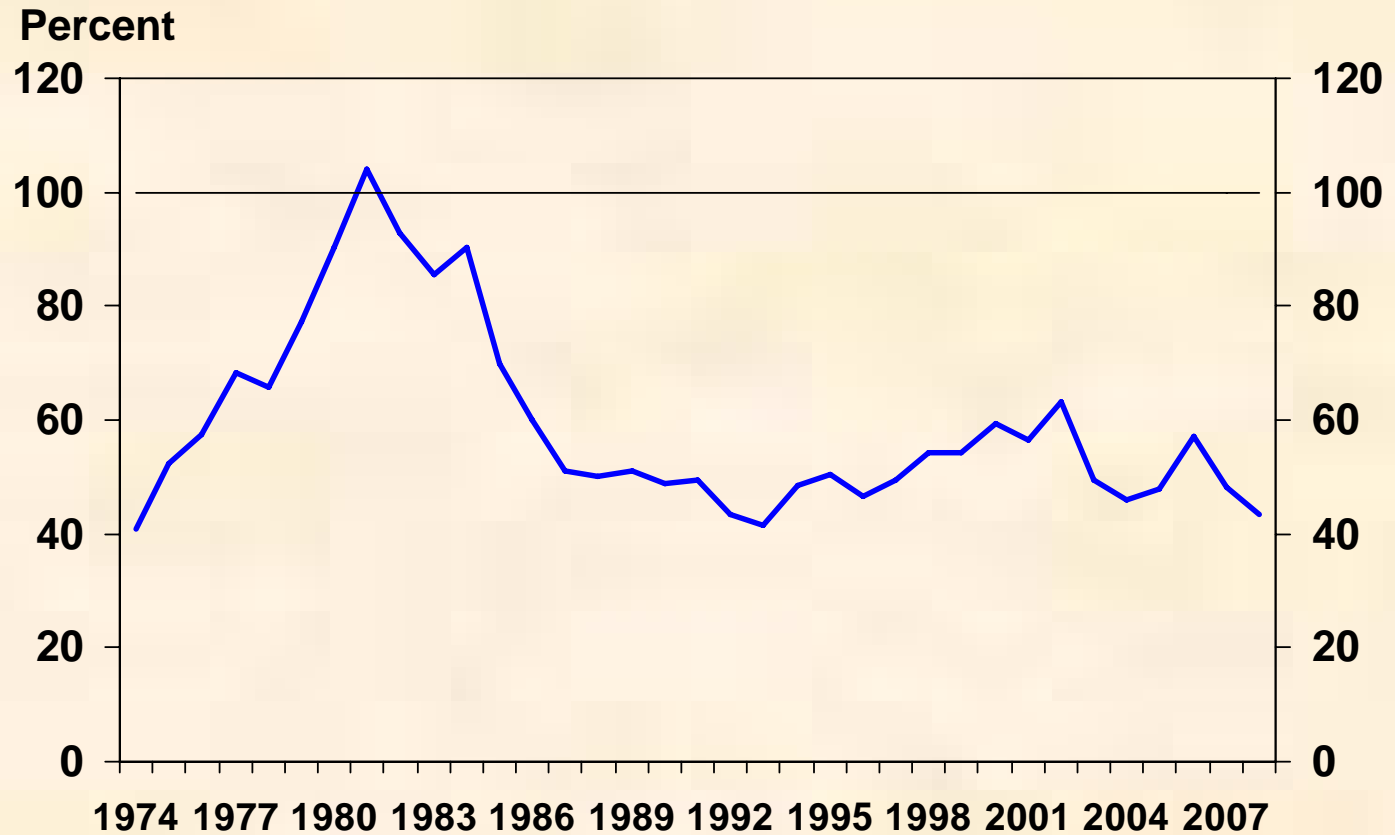
# The Agricultural Outlook

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# Debt ratios have reached record lows.

## *Debt Repayment Capacity Utilization\**



Source: USDA

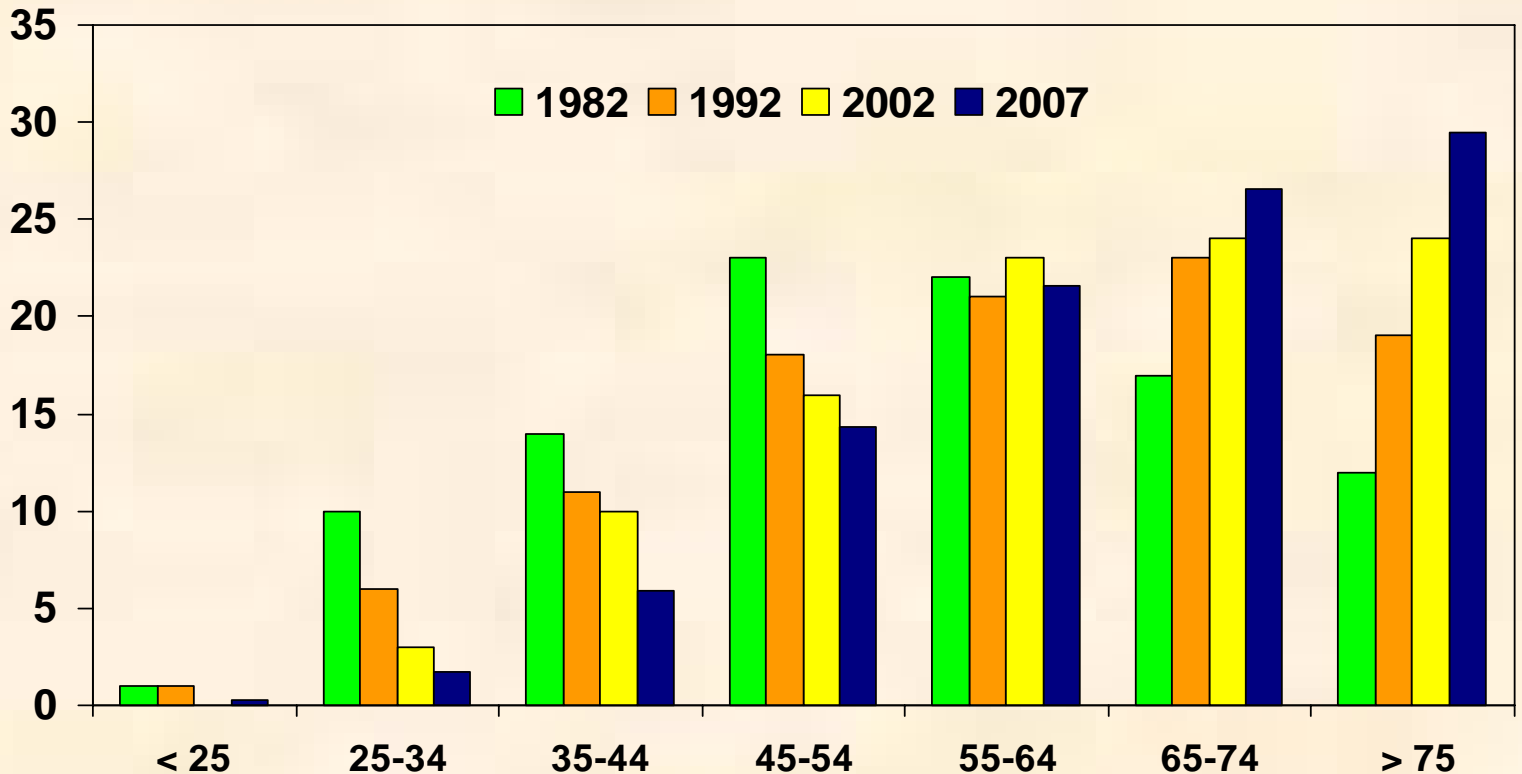
\*Actual debt divided by debt that could be repaid from current income



# Farmland is increasingly owned by older people.

## *Distribution of Iowa Farmland by Age of Owner*

Percent



Source: Iowa State University

# Conclusions

- **Land values boom with rising farm income.**
- **Have farmland values peaked?**
  - Rising input costs trim margins.
  - Ethanol and exports present demand risks.
  - What is the global supply response to high prices?
- **Will debt levels remain low even with thinner margins?**
- **Agriculture is a boom and bust industry.**



Photos courtesy of USDA