



AGRICULTURAL OUTLOOK: Ethanol, Food Prices & More

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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.



Photos courtesy of USDA

The Agricultural Outlook

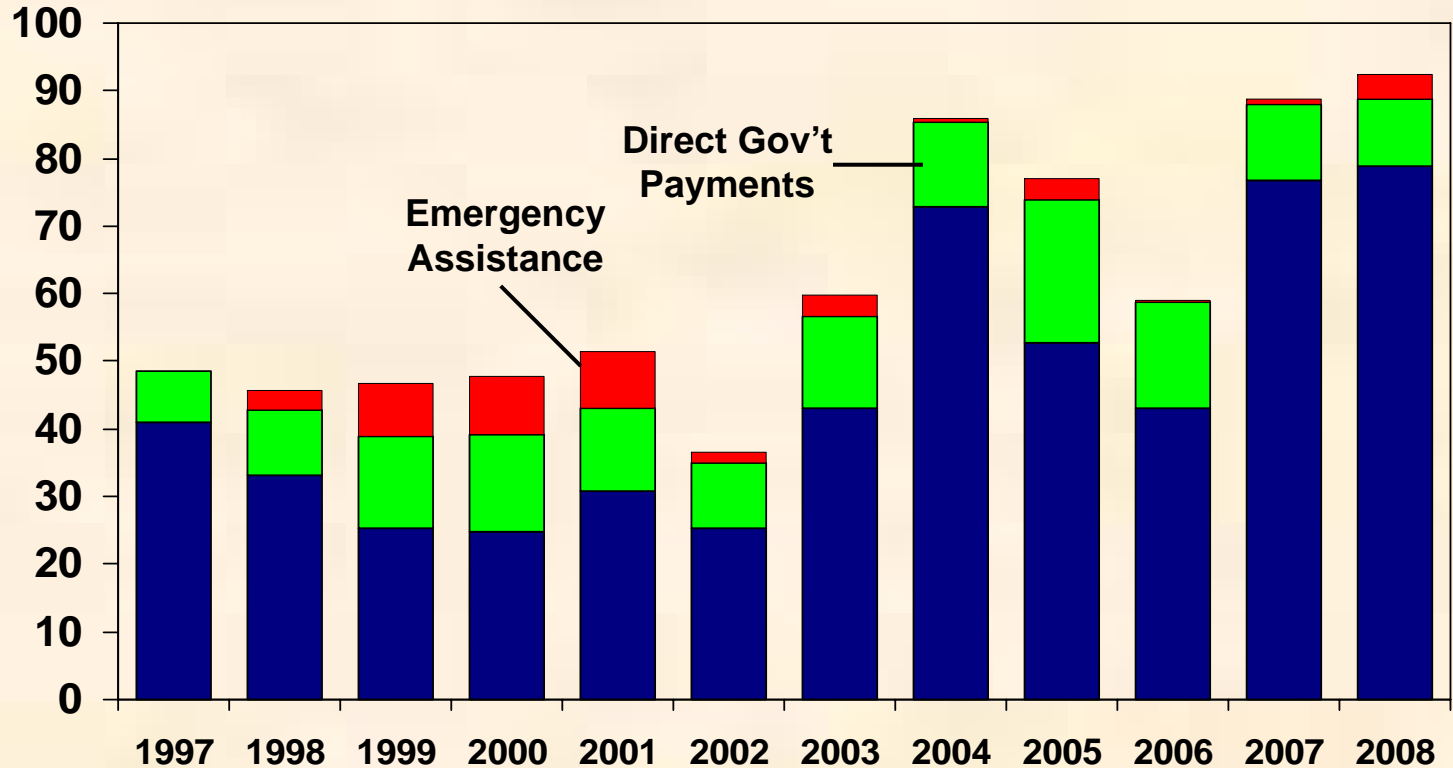
- Today's Outline:
 - Record Crop Prices do not Lift all Boats
 - Ethanol: Is the Party Over?
 - Food prices: Who's to Blame?
 - A 1970s Déjà vu?
 - Long-run challenges



The Farm Economy is Booming

U.S. Net Farm Income

Billion dollars



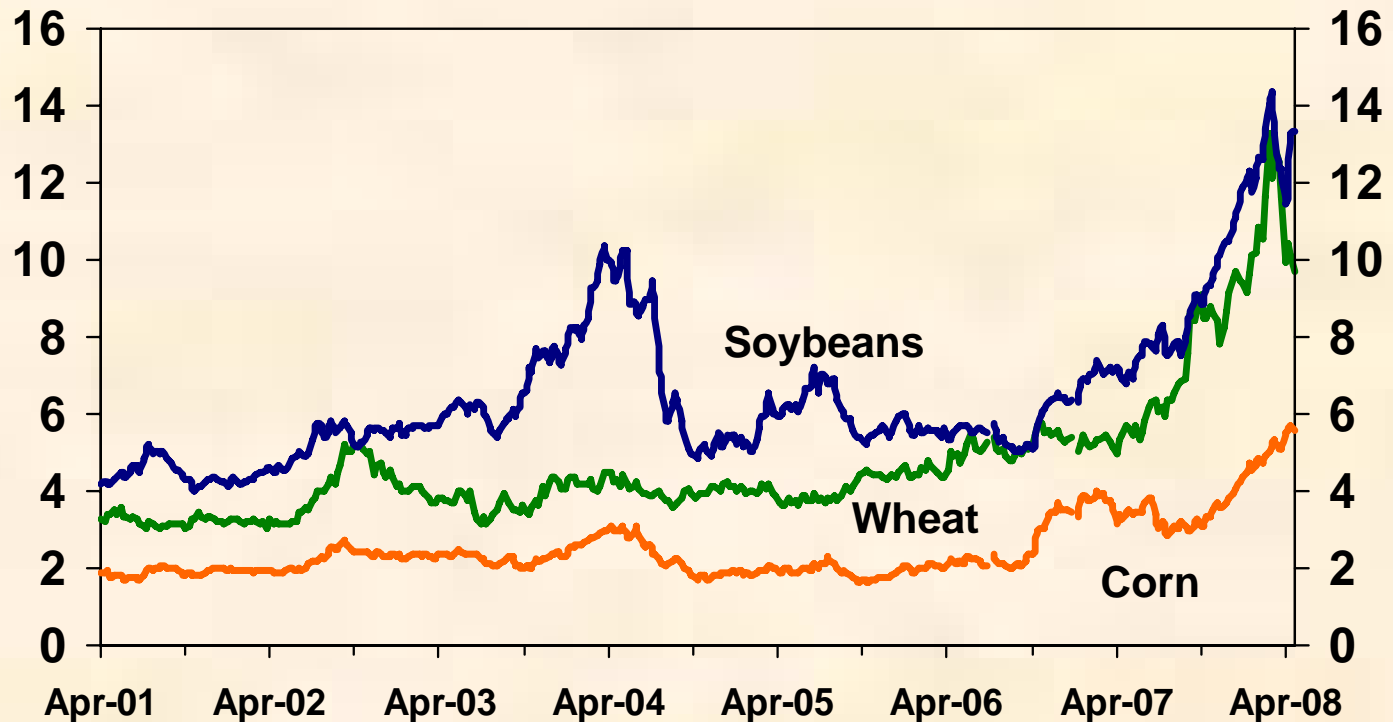
Source: USDA



Crop Prices Are Surging With Strong Demand And Shorter Global Supplies

U.S. Crop Prices

Dollars per bushel



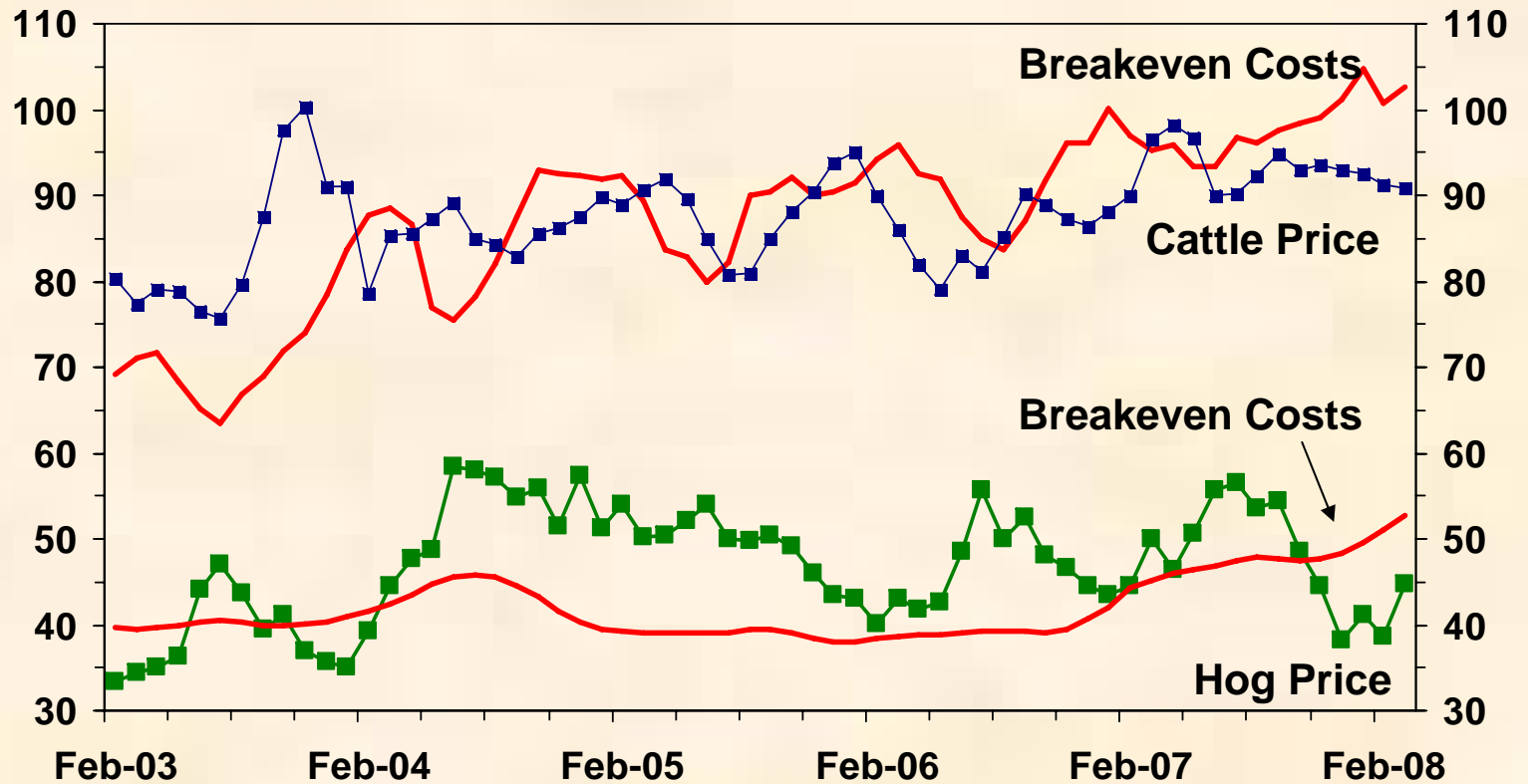
Source: Wall Street Journal



Tough Times in the Cattle Industry

U.S. Livestock Prices and Breakeven Costs

Dollars per hundredweight

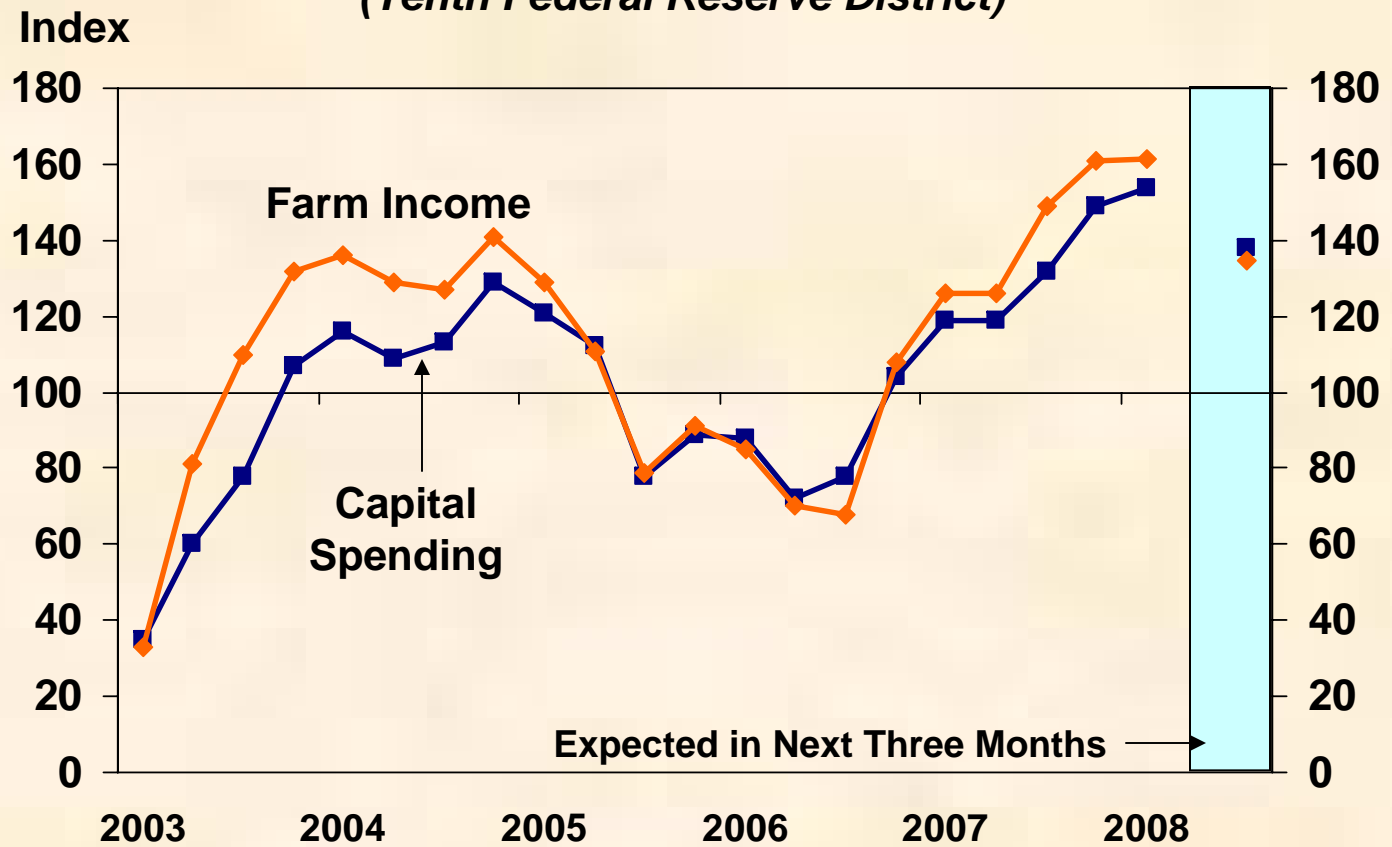


Source: USDA and Iowa State University



Rising Incomes Fuel Farm Capital Spending

Farm Income and Capital Spending
(Tenth Federal Reserve District)



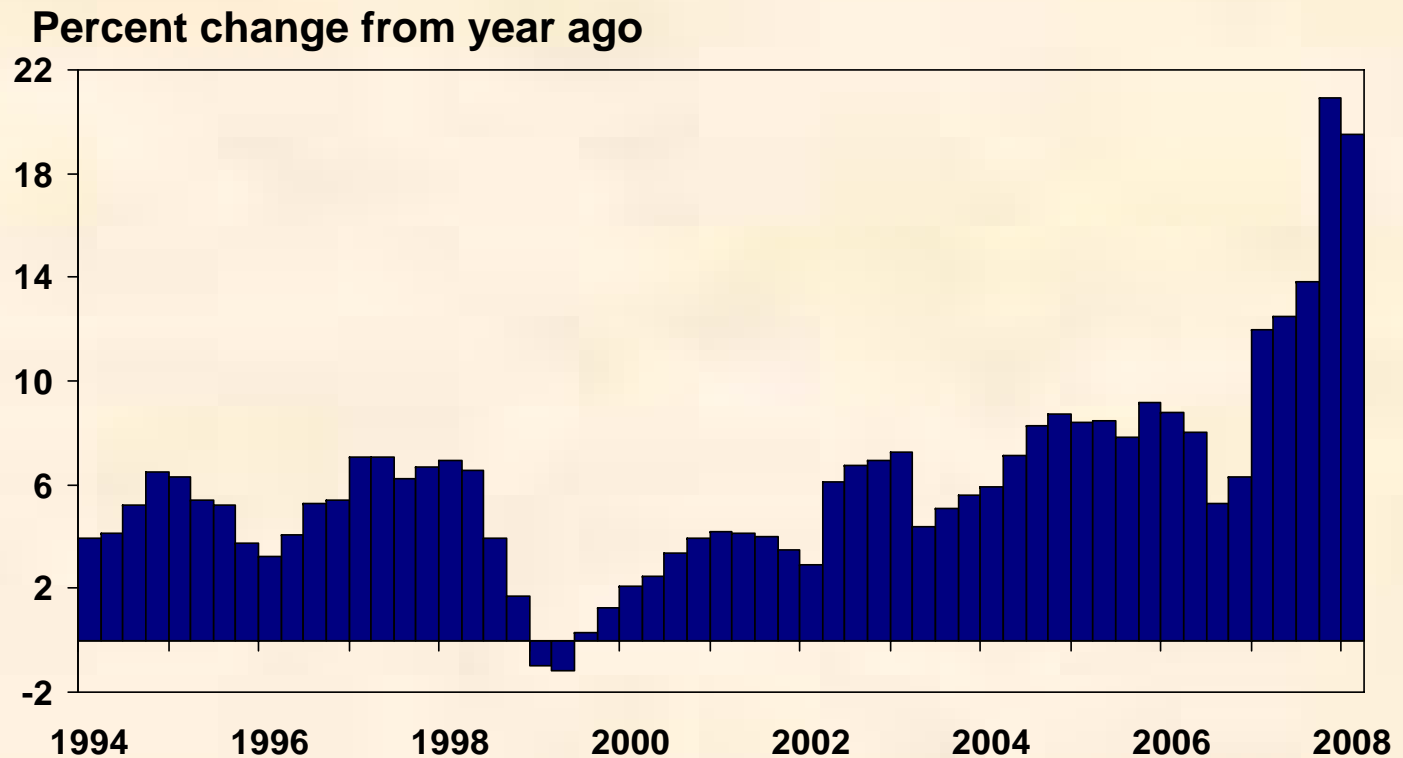
Source: Federal Reserve Bank of Kansas City



Photos courtesy of USDA

Land Value Growth Has Surged In The Great Plains

Non-Irrigated Land Values (Tenth Federal Reserve District)



Source: Federal Reserve Bank of Kansas City

Note: the Tenth Federal Reserve District covers the states of Nebraska, Kansas, Oklahoma, Wyoming, Colorado, western Missouri, and Northern New Mexico.



Photos courtesy of USDA

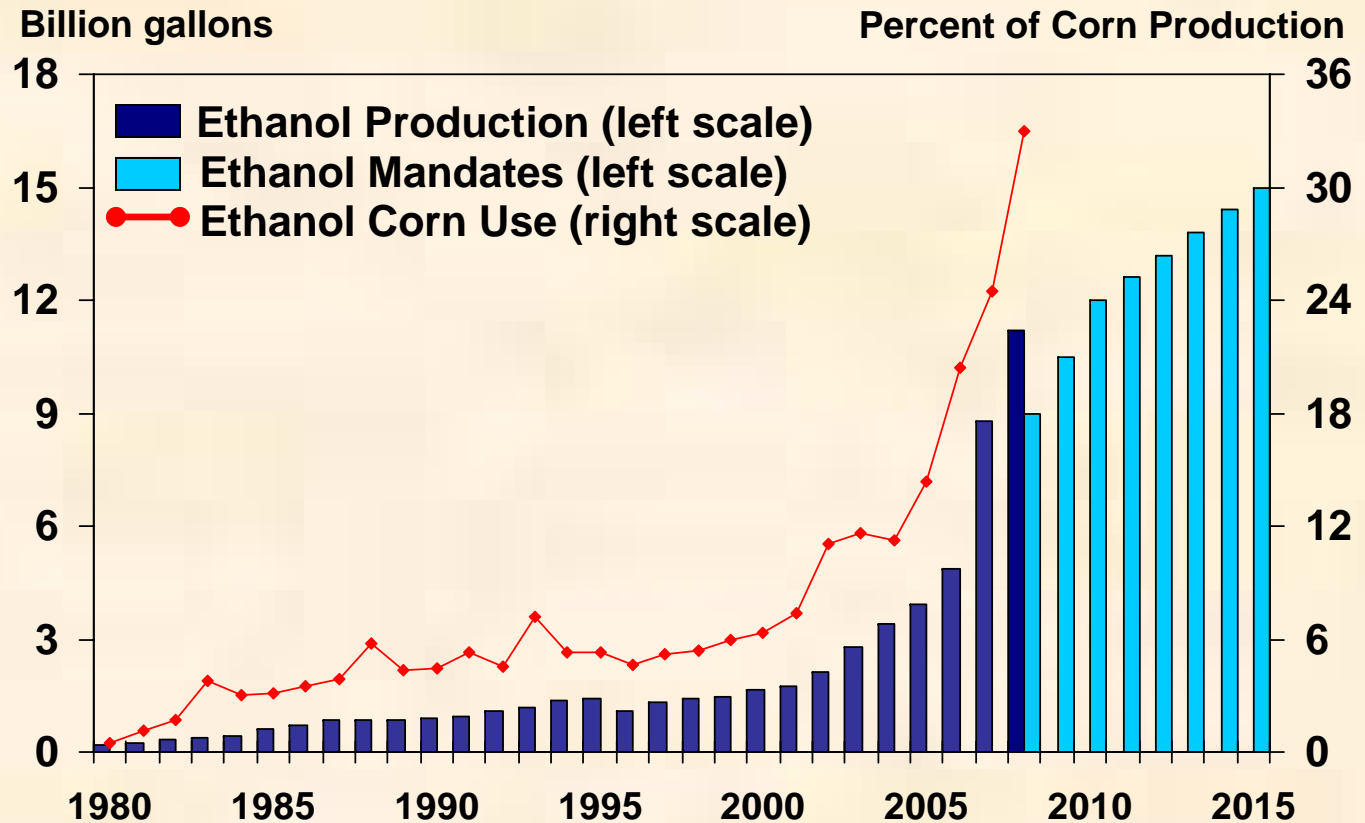
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A 15 Billion Gallon Wall?

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

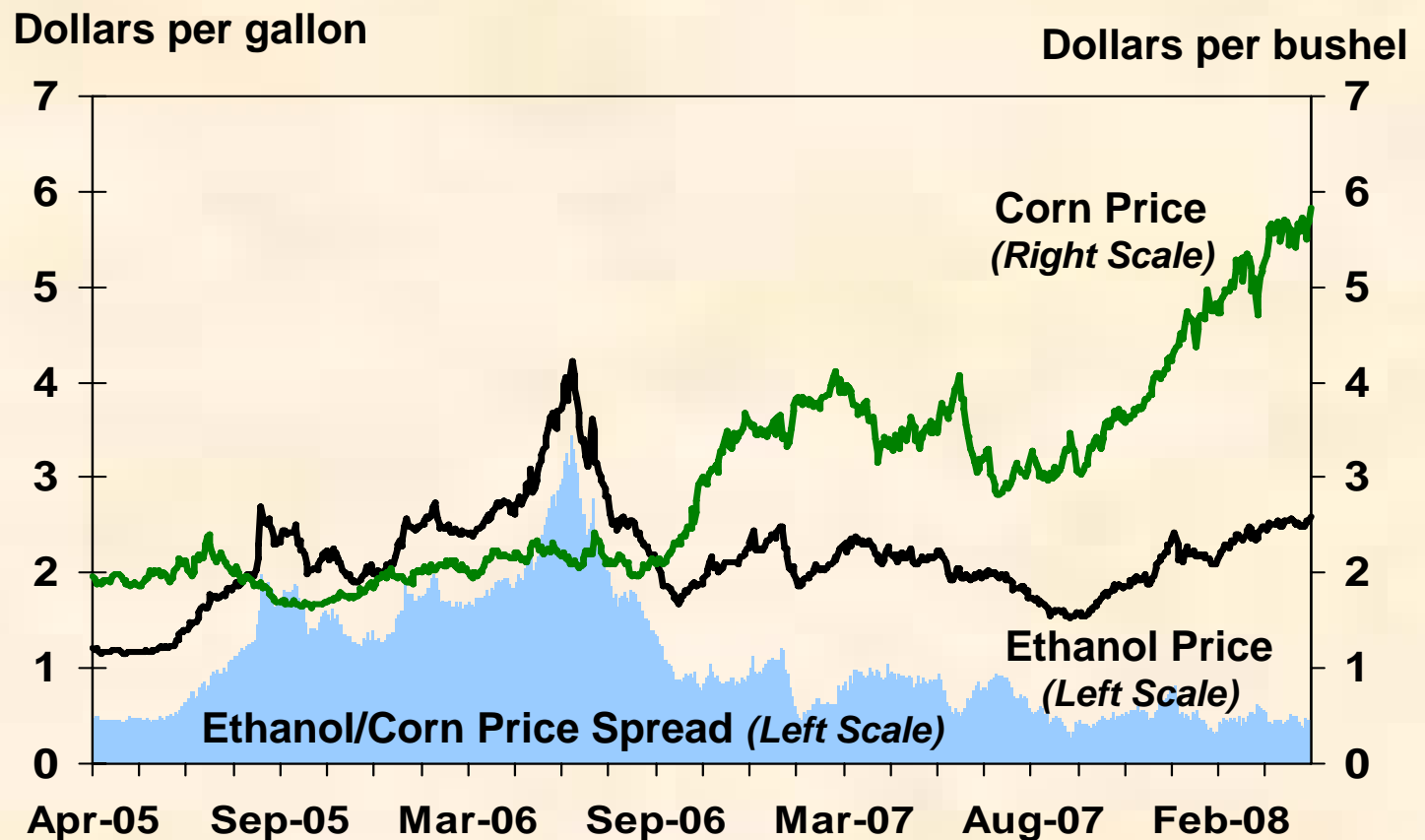


Source: USDA and Renewable Fuels Association



Ethanol: Is The Party Over?

Ethanol and Corn Prices



Spread is equal to ethanol price – (corn price/2.7 gallons per bushel)



Photos courtesy of USDA

The Agricultural Outlook

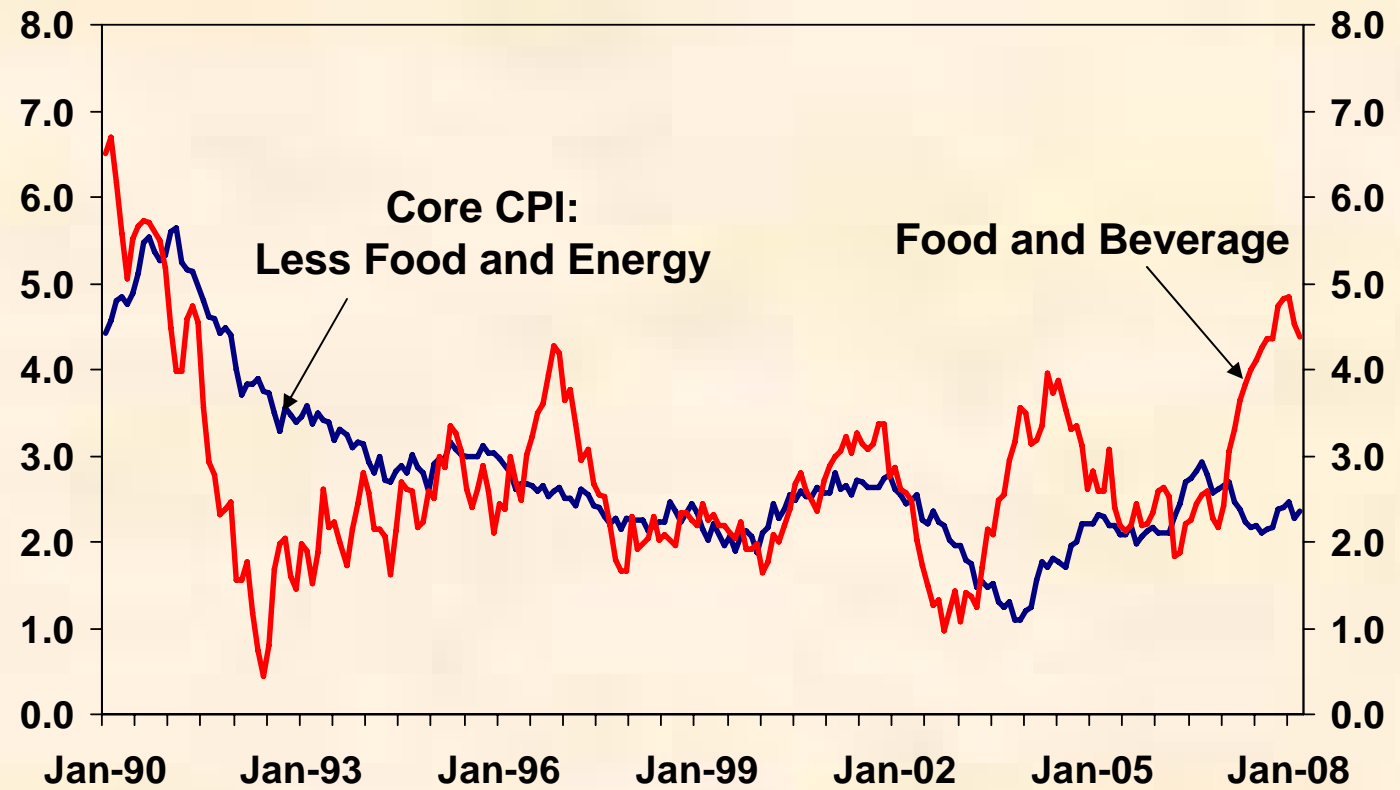
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Food Prices Have Surged.

Consumer Price Inflation

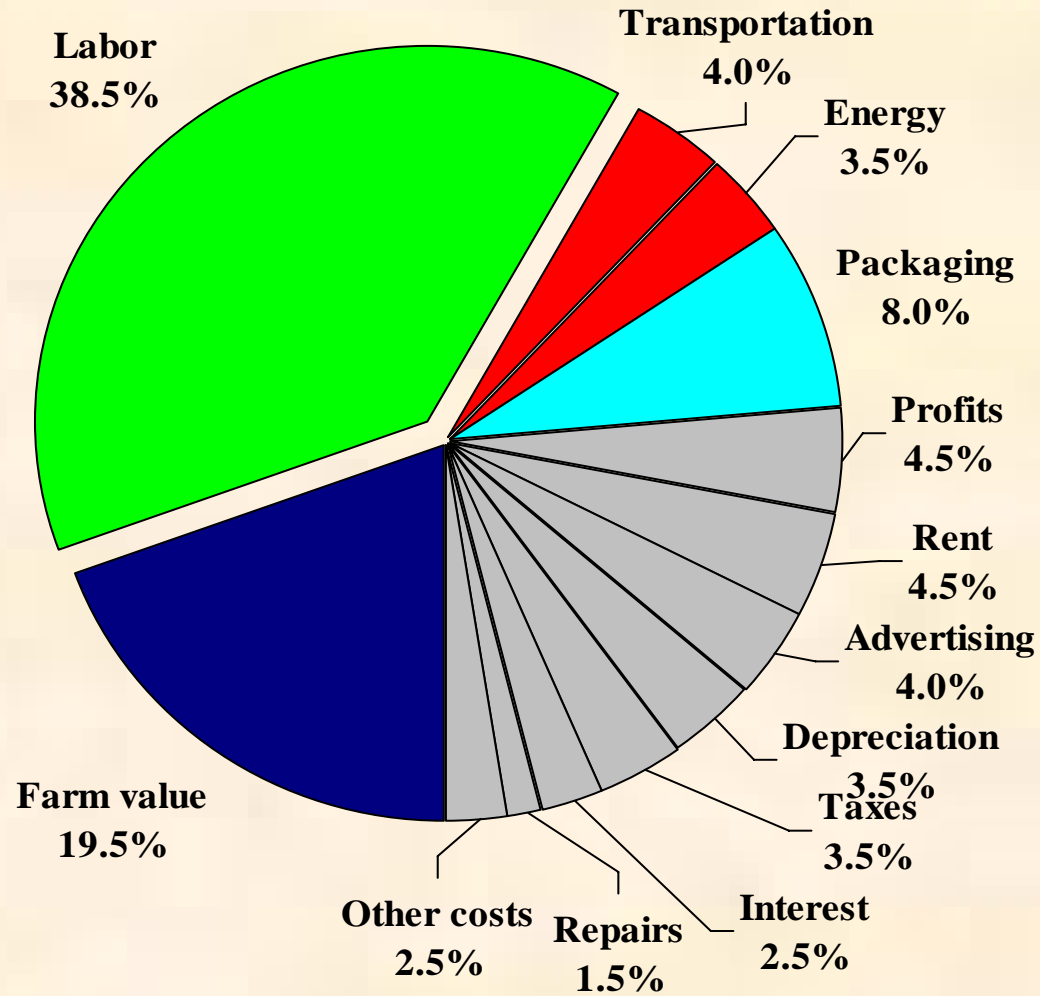
Annual percent change



Source: Bureau of Labor Statistics



Price Components of U.S. Retail Foods (2005)



Source: USDA



Photos courtesy of USDA

The Agricultural Outlook

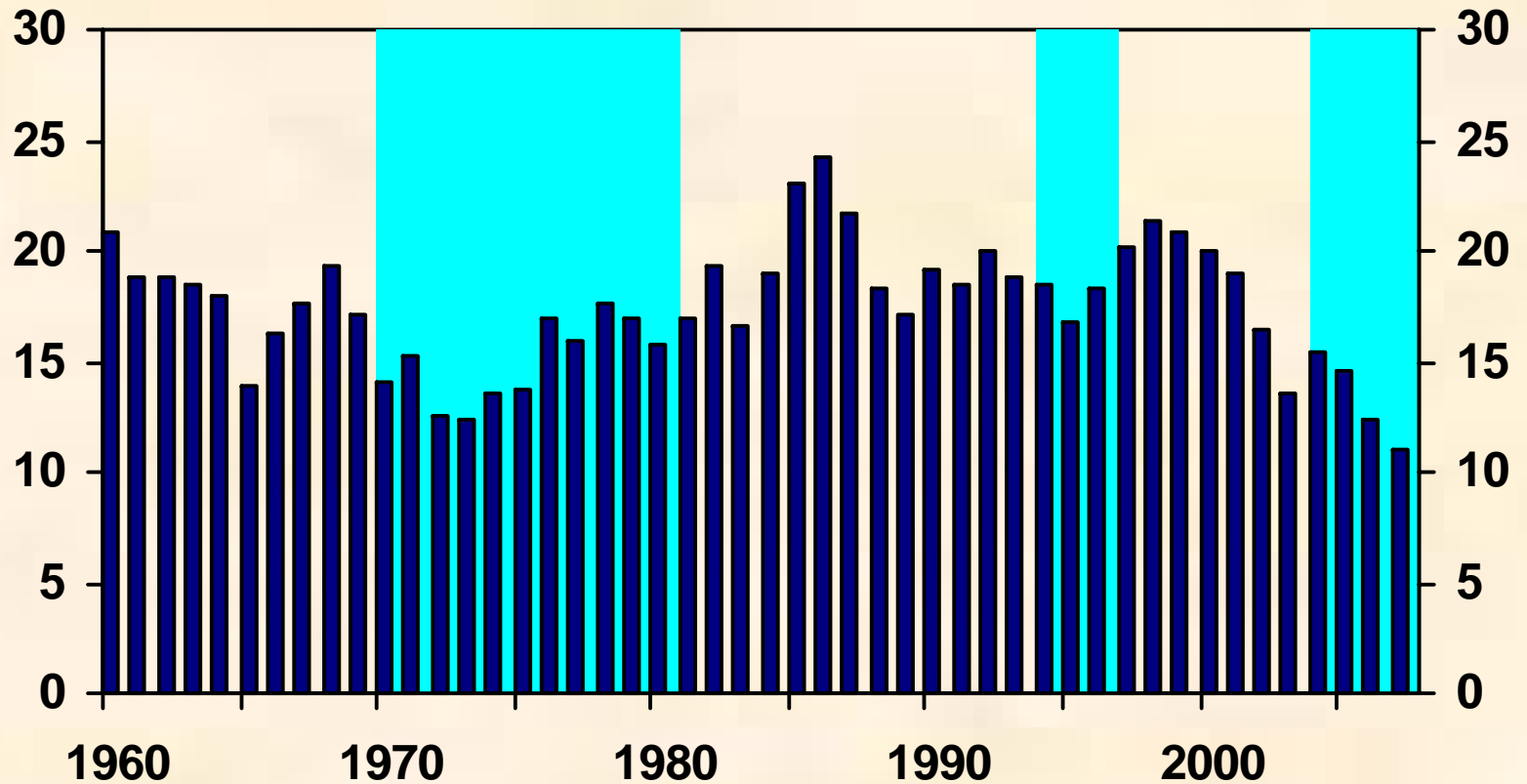
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World Grain Inventories Have Fallen to Record Lows.

World Grain Stocks to Use Ratio

Percent of annual use



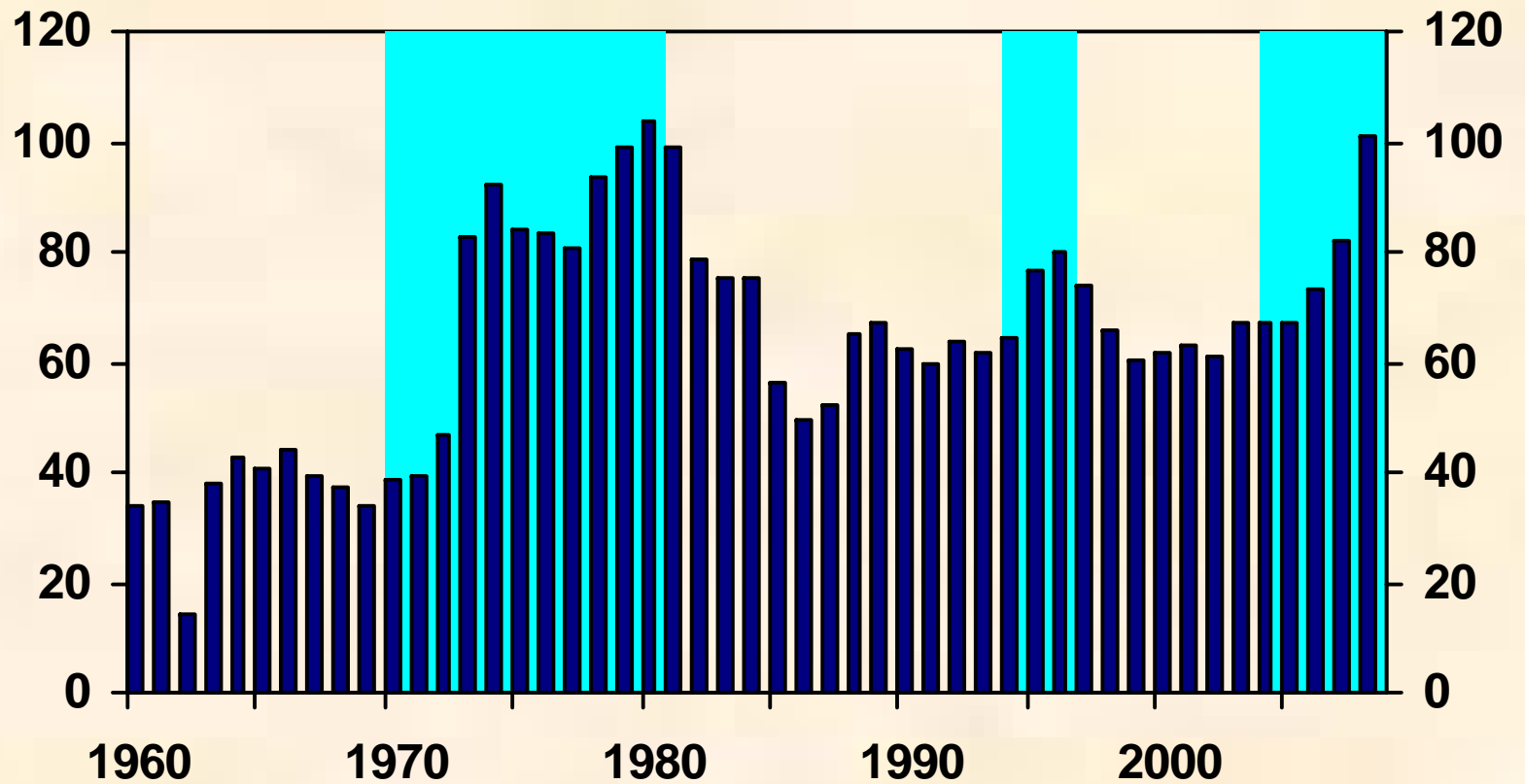
Source: USDA



U.S. Real Agricultural Exports Have Surged . . .

U.S. Ag Exports

Billion dollars (2007=100)



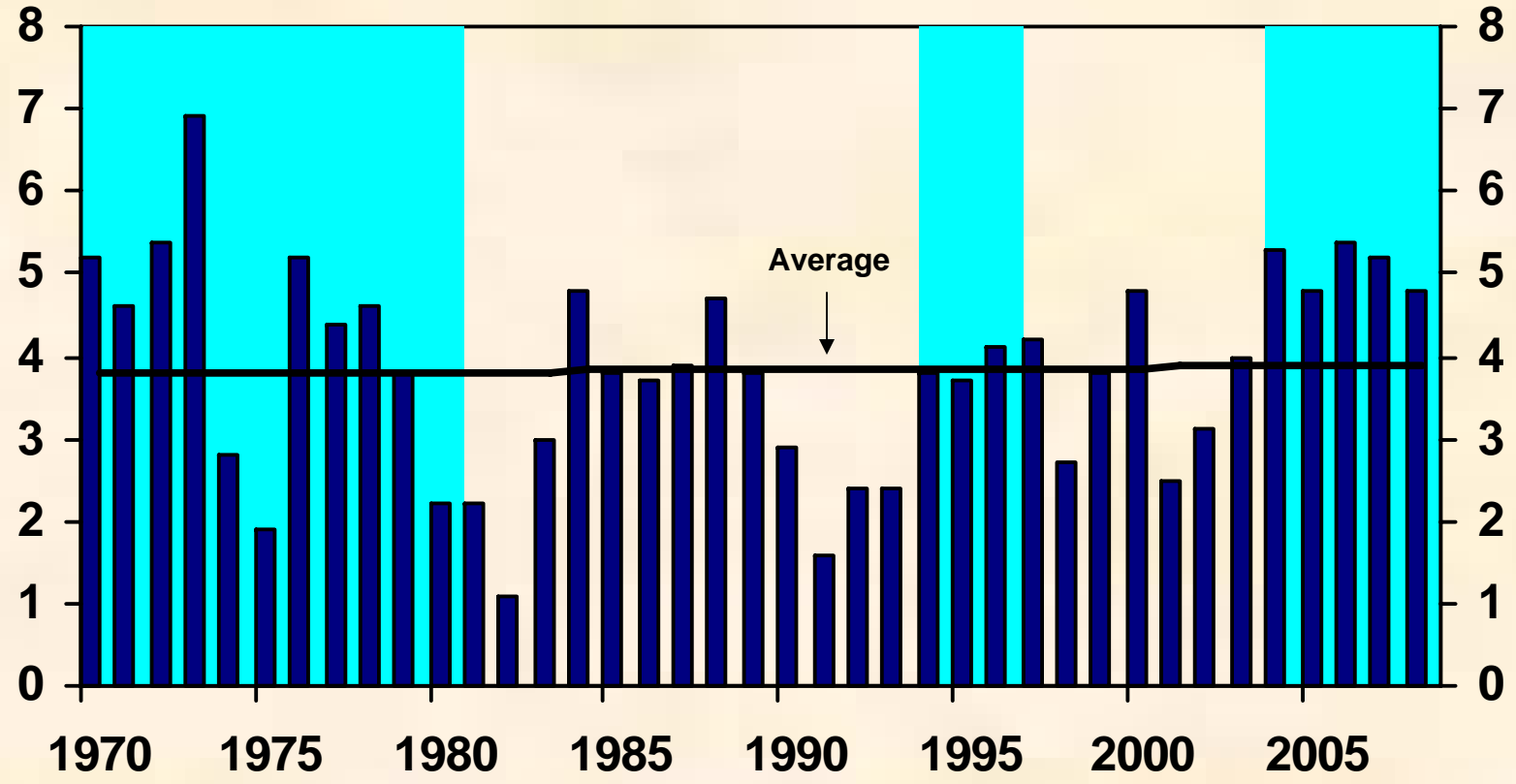
Source: USDA



With Stronger World Incomes . . .

World GDP Growth

Percent change

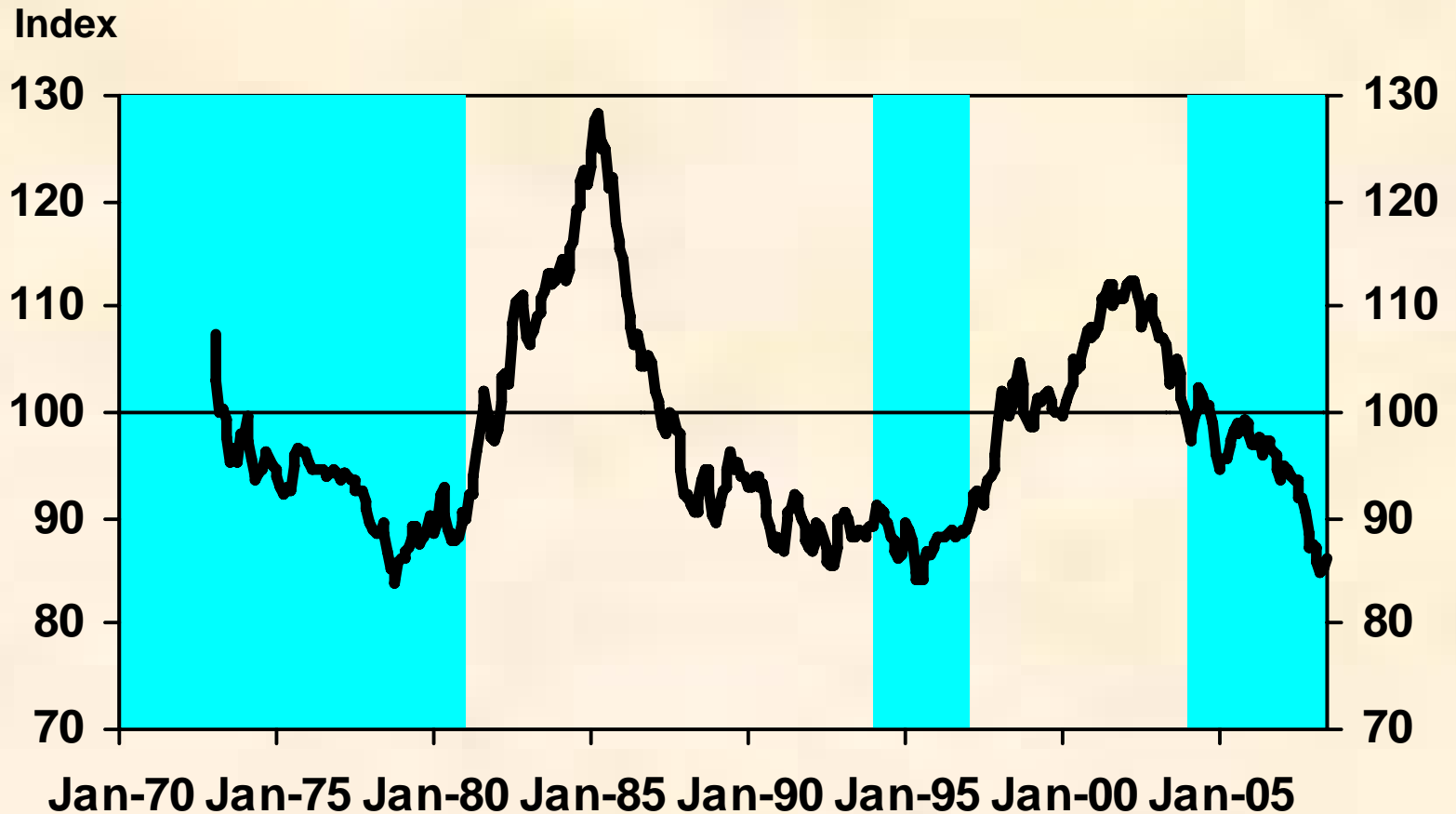


Source: International Monetary Fund



And a Weak Dollar.

Value of U.S. Dollar



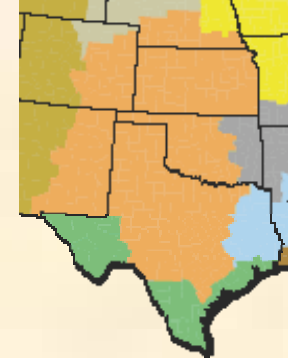
Source: Federal Reserve Board of Governors



Photos courtesy of USDA

Are These Gains Rational?

Prairie Gateway



Returns to Wheat Production

	2007	2008	2009
Total Costs per acre (excluding land)	\$179	\$186	\$192
Total Revenue per acre	\$216	\$243	\$281
<i>Price (dollars per bushel)*</i>	6.55	7.35	8.53
Yield (bushel per acre)	33	33	33
Returns to Land (dollars per acre)	\$37	\$ 57	\$ 89

Calculations based on USDA data and futures prices

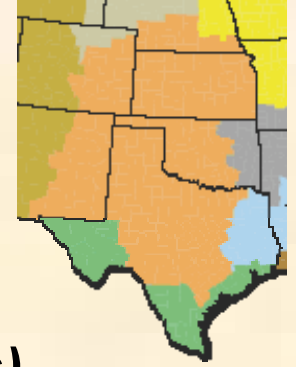
Capitalized value at 5.5% cap rate **\$675** **\$1028** **\$1627**



Photos courtesy of USDA

Are These Gains Rational?

Prairie Gateway



Returns to Wheat Production (2009 Scenarios)

	2009	2009	2009
Total Costs per acre (excluding land)	\$192	\$192	\$192
Total Revenue per acre	\$281	216	192
<i>Price (dollars per bushel)</i>	8.53	6.55	5.83
Yield (bushel per acre)	33	33	33
Returns to Land (dollars per acre)	\$ 89	\$24	\$ 0
Capitalized value at 5.5% cap rate	\$1627	\$439	Ugly



Photos courtesy of USDA

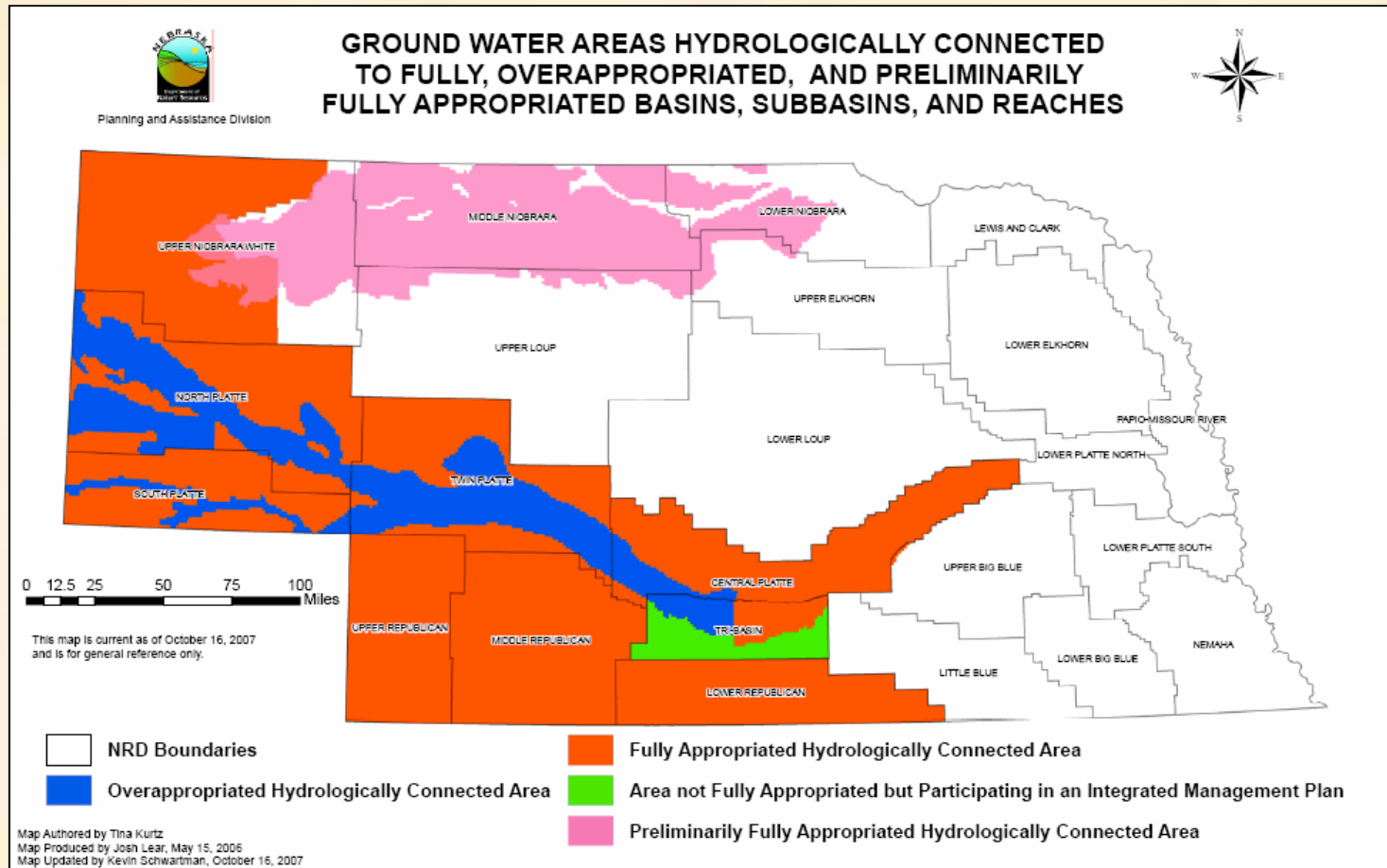
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Photos courtesy of USDA

Water Wars: A Thing of the Future?

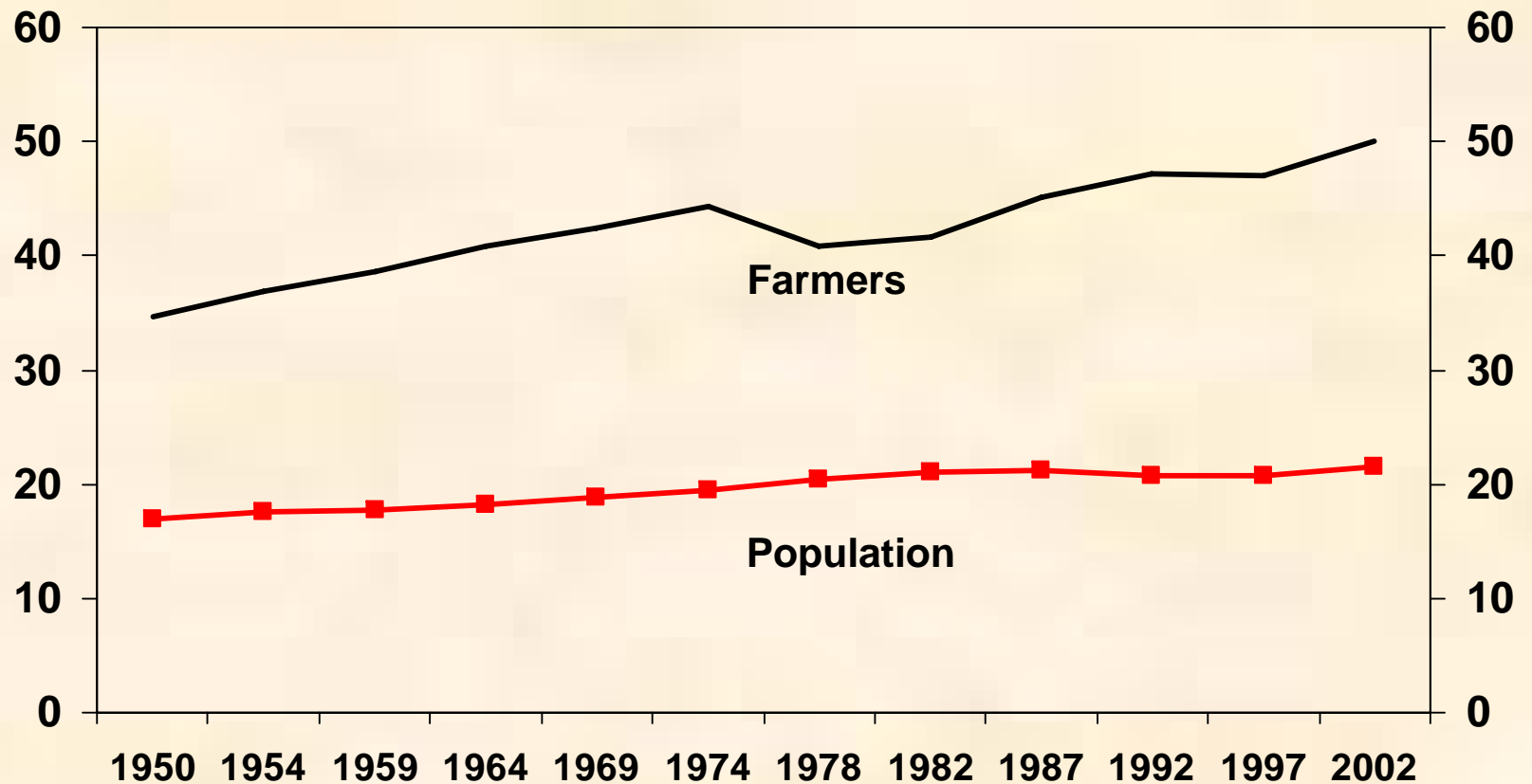


Where Will Agriculture's Next Generation of Leaders Emerge?

U.S. Age Demographics

Percent 55 or older

Percent 55 or older



Source: USDA, ERS

FEDERAL RESERVE BANK OF KANSAS CITY
Regional, Public, and Community Affairs

Photos courtesy of USDA

Conclusions

- **Rising Crop Prices**
 - **Good for Farmers**
 - **Bad for Livestock**
- **A Shake-Out in the Ethanol Industry**
 - **Energy, Ethanol, Exports will Drive Food Prices Higher in 2008**
- **A 1970's Déjà vu?**
- **Water and Demographics are Two of the Biggest Challenges for Agriculture**



Photos courtesy of USDA