

Bubble Troubles: Asset Bubbles, Stock Market, Land Values and Interest Rates

Kansas Society of Farm Managers and Rural
Appraisers
February 24, 2011

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Concerns of the Day!

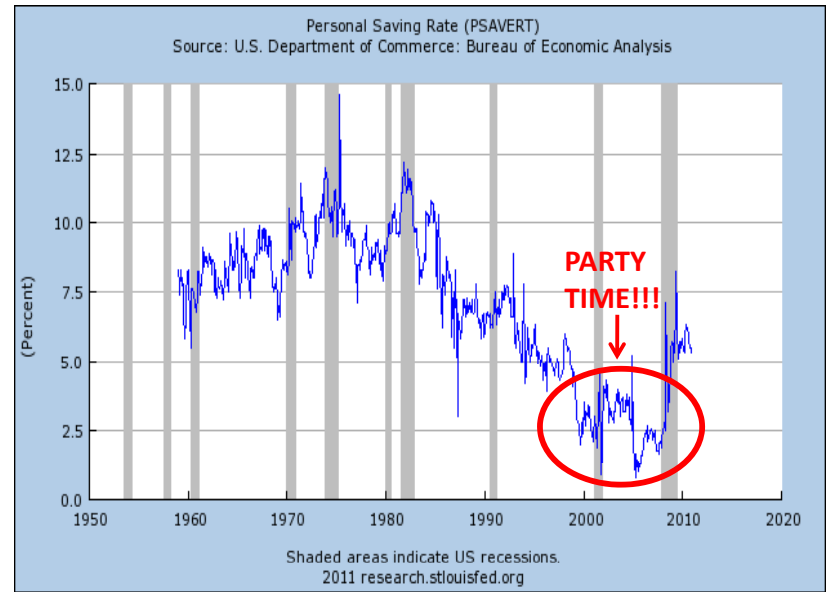
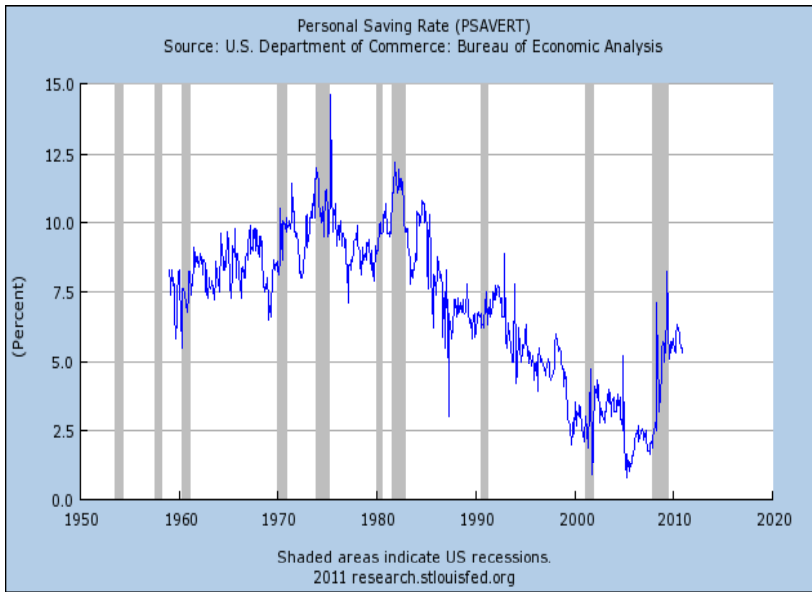
- Political Uncertainty
- Economic Uncertainty

Economy has been **turbulent**

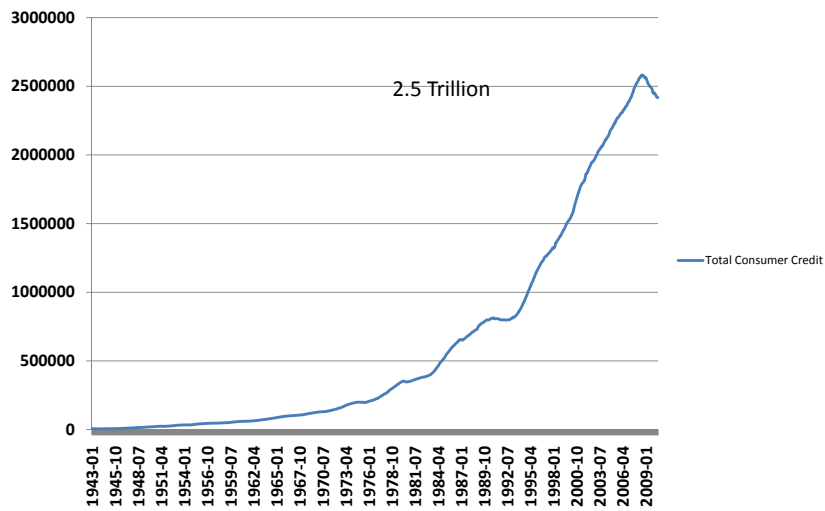
- Financial Meltdown (almost)
- Recession
- Housing Market Bubble
- Stock Market (low on March 9, 2009), flash crash
- Commodity Markets
- Gold Market
- Debt problems in other Countries
- 12% of banks at risk of failing, highest rate in 18 years

U. S. Economy

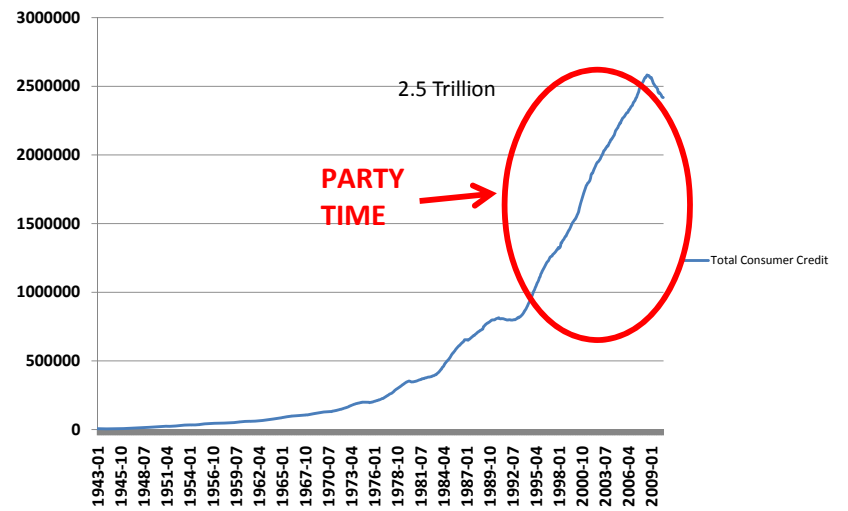
- Consumer behavior is very important to the economy
- Consumer ***confidence*** is very important to the economy
- Drives 70% of the US economy
- Look at recent consumer behavior including saving and borrowing



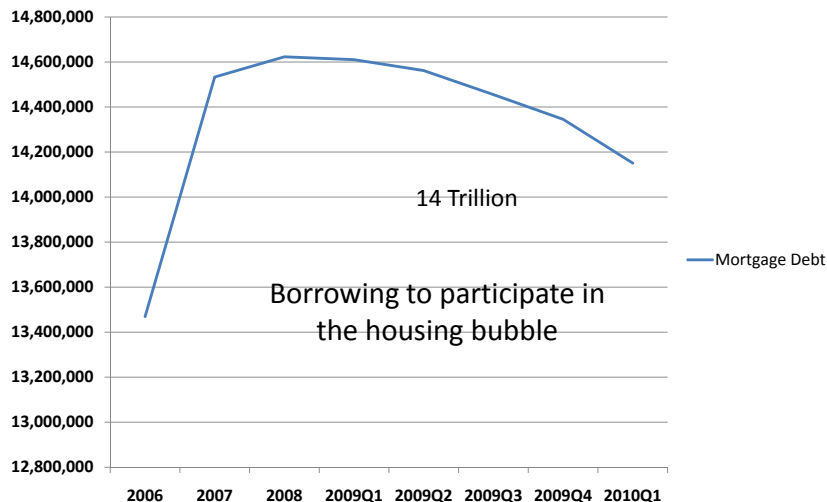
Total Consumer Credit



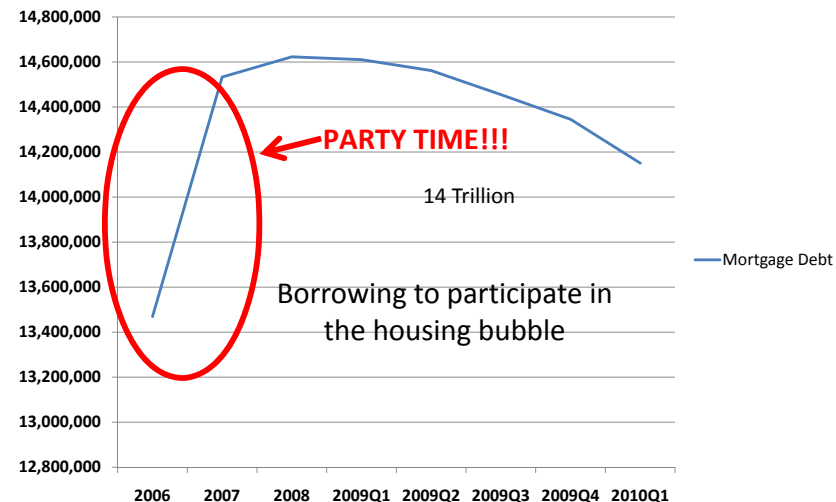
Total Consumer Credit



Mortgage Debt



Mortgage Debt

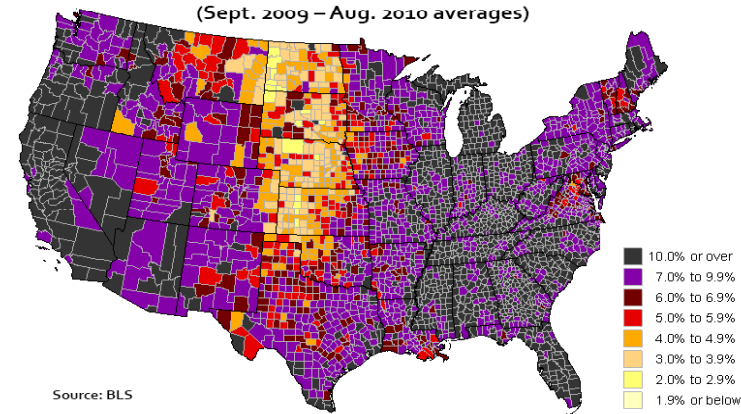


U. S. Economy

- Low saving rates leading up to the crash— increased savings since the crash
- Consumer debt grew prior to the crash— now paying it down
- Mortgage debt grew prior to the crash— now paying it down
- In addition, unemployment is a drag on the economy

Economic conditions are about jobs, jobs, or the lack of jobs.

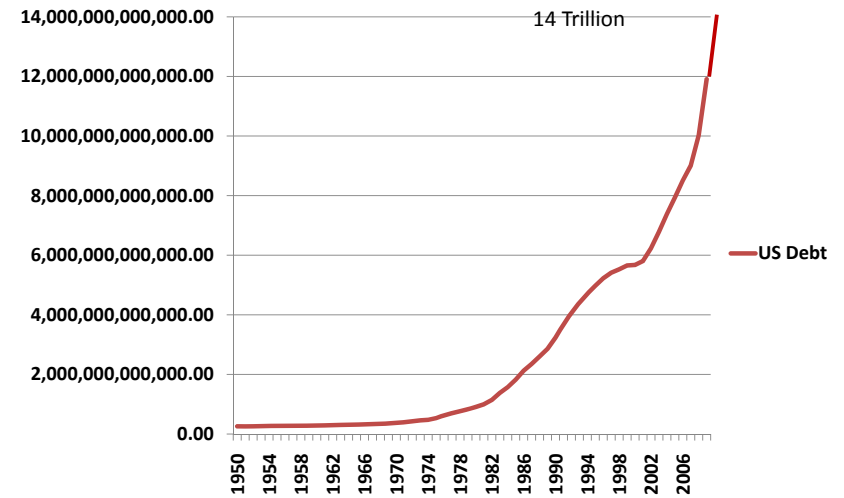
Unemployment Rates
(Sept. 2009 – Aug. 2010 averages)



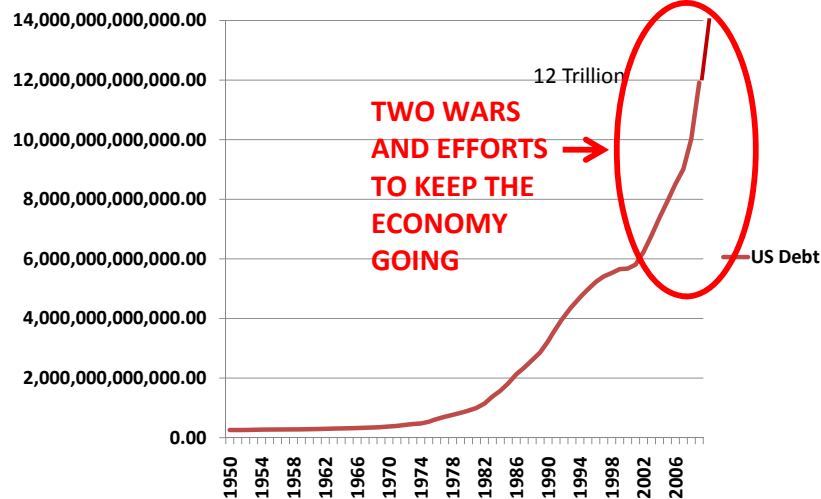
U. S. Economy

- Robust **prior to the crash** due to low savings and debt increases—It was a great Party!
- Is struggling now as consumers save more and reduce debt
- Struggling due to unemployment
- Consumers not growing the economy fast enough—so what is government doing?
- Government debt has increased in effort to keep economy going

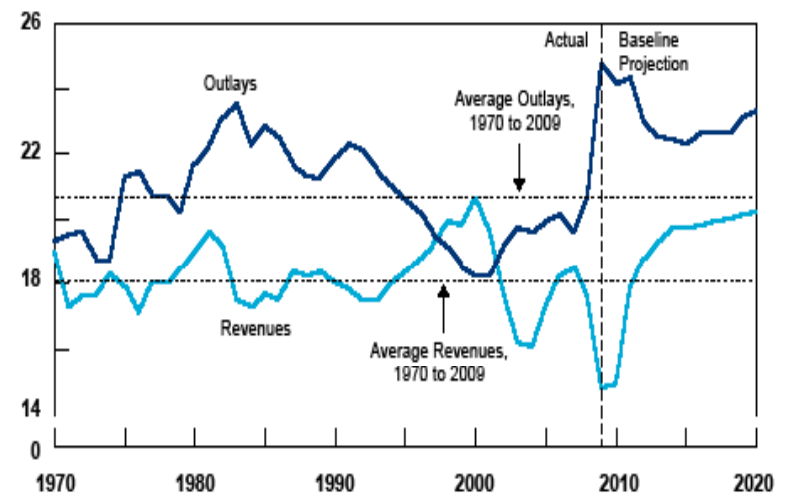
Federal Government Debt



Federal Government Debt



Outlays and Revenues



U. S. Economy

- Would you shoot it????

U. S. Economy

- SOMEONE, SOMETIME IS GOING TO HAVE TO PAY FOR THE PARTY!!!!!!!!!!!!!!!!!!!!
- WE ARE STILL TRYING TO GET BACK TO ECONOMIC ACTIVITY (THE PARTY YEARS) THAT WAS NOT SUSTAINABLE!!!!!!!!!!!!!!!!!!!!

Role of Government????

- Answer influenced by how well people believe “the market” works
- Since Ronald Reagan in the 80’s
 - Less government
 - More market oriented
- Major Change with Obama administration

Why the issue is so hot

- Economy about died
- Economy is still receiving “stimulants”
- Had a large number of “asset bubbles”
- Asset bubbles are indicative of a market that does not always work well

Why the issue is so hot

- Research using brain imaging provides evidence that we are not as rational as economists like to assume

Result of all this

- People are questioning and debating how well markets work and how much regulation and assistance should come from the government
 - Financial regulation
 - Debate about asset bubbles

Asset Bubbles

- Definition: trade in high volumes at prices that are considerably at variance with intrinsic values—Wikipedia
- Some economists deny that they exist
 - They believe that markets are “rational”

“Efficient Market Hypothesis”

- Some economists believe in the “efficient market hypothesis”
- Simplified-- this means the market is always right

Problem for those who believe in “Efficient Market Hypothesis”

- We have had a lot of bubbles
- They happen in the stock market on average about every 7 years
- Just went through the Dot Com Bubble, and the housing bubble, and many remember the land bubble in the 80’s

Identifying Bubbles

- Hard to identify
- Often conclusively identified only in retrospect—when prices drop radically— after *bubble crash* or *bubble burst*

What Causes Bubbles?

- There is no widely accepted theory to explain why bubbles occur
- But, they do occur under a wide range of conditions
- Occur without uncertainty, speculation or irrational behavior
- Bubbles occur even in highly predictable experimental markets, even with managers and professional traders
 - No uncertainty, and easy to calculate returns

What Causes Bubbles?

- Can occur even if participants are trying to behave rationally
- Can most easily be explained if we include emotions that influence markets

What Causes Bubbles?

- Both boom and bust are due to **positive** feedback mechanism
 - Price gets high and people bid it higher
 - Price gets low and people quit buying and it gets lower
- Typically stable prices exist under **negative** feedback mechanism
 - Price gets higher-- we buy less
 - Price gets lower-- we buy more

Possible causes of Bubbles

- Excessive liquidity
- Low interest rates
 - Both of the above at the same time!!! Investors leverage their capital and invest in equities and real estate
 - “Too much money chasing too few assets, causing them to appreciate excessively beyond their fundamentals to an unsustainable level”

Possible causes of Bubbles

- Behavioral Factors
 - Greater fool theory
 - Extrapolation—technical analysis
 - Herding
 - Emotions

Why this Housing Bubble Was Difficult

- We bought this bubble with debt
- Some bubbles are bought with cash
- We have to work down the debt before the economy recovers
 - Imagine the impact of increases in rates
 - Imagine the impact of a deflationary environment

Land Market

- Not liquid
- Not heavily traded
- Not homogeneous—each parcel of land is distinct

Certainly does not move as fast

In theory, dependent on income and interest rates

Land values

- Land Value per Acre* =

Income per Acre

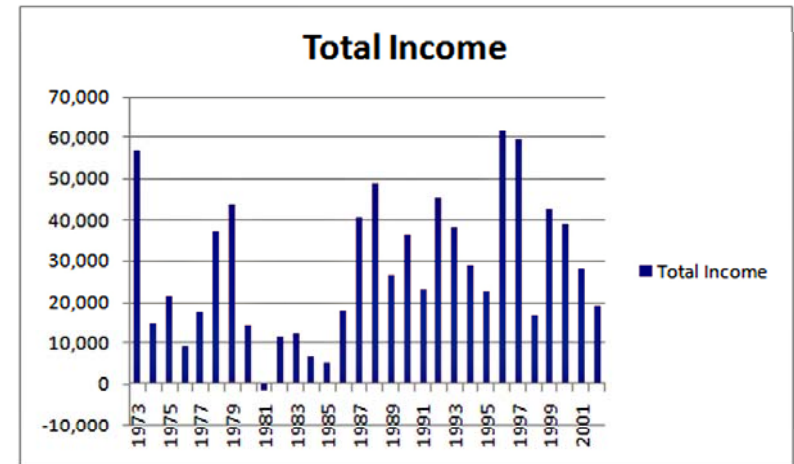
Interest Rate

* This formula gives value from the use of the land.

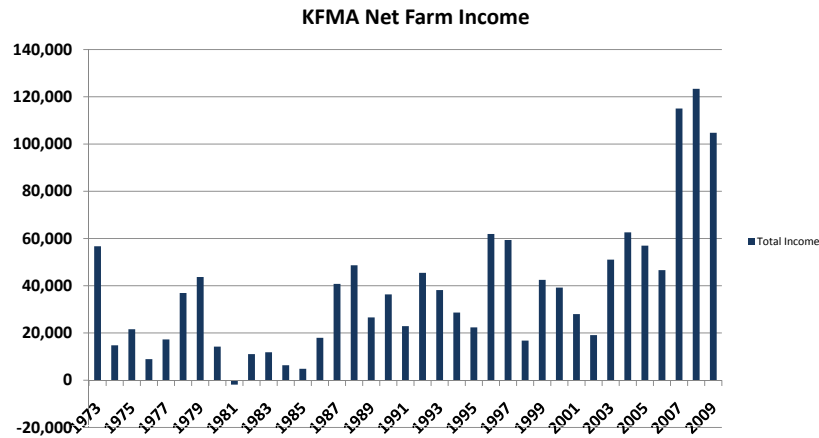
Land Values

- Depend, in theory, on income and interest rates
- Income relationship:
 - Income goes up, land value goes up
 - Income goes down, land value goes down

KFMA Net Farm Income



KFMA Net Farm Income



Farm Incomes

- “Economic profits” do not last long in a competitive market
- “Economic profits” destroyed by:
 - Falling output prices due to increases in production
 - Increased costs
 - Production costs
 - Land prices/rents
 - Number of producers

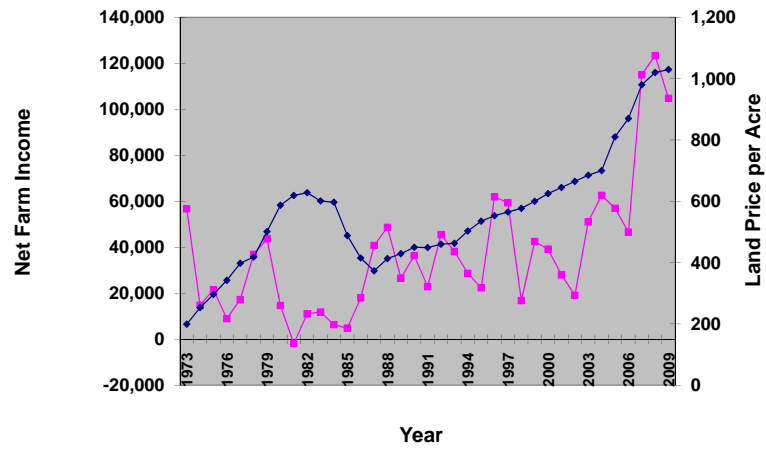
Farm Incomes

- Does the world have enough extra capacity to destroy economic profits in agriculture?

Historical Farm Income Patterns

- Before Freedom to farm
 - Excess capacity in U. S. agriculture just waiting for the opportunity
- After Freedom to farm
 - U. S. agriculture became more efficient with less capacity to expand rapidly
 - Ethanol production takes about 40% of the corn
 - World agriculture not been able to ruin it yet

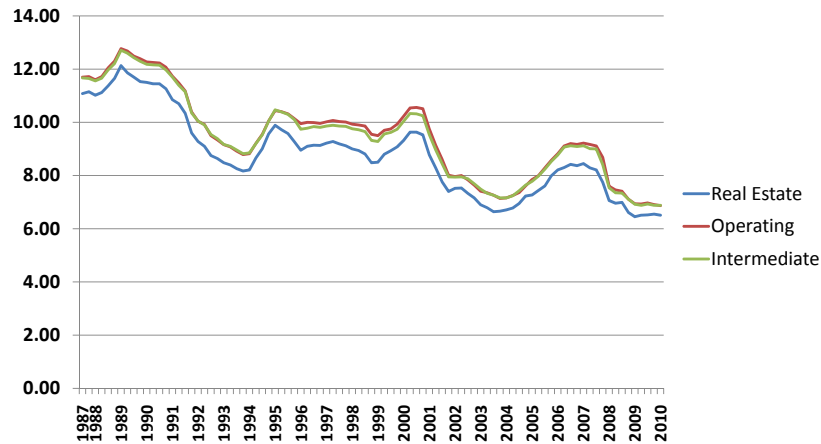
Net Farm Income and Land Prices



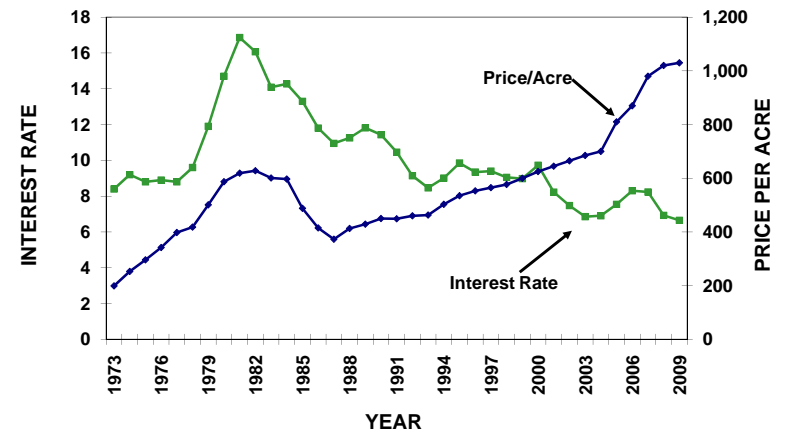
Land Values

- Depend, in theory, on income and rates
- Rate relationship:
 - Rates go down, land value goes up
 - Rates go up, land value goes down

Interest Rates In Kansas Kansas City Federal Reserve Bank



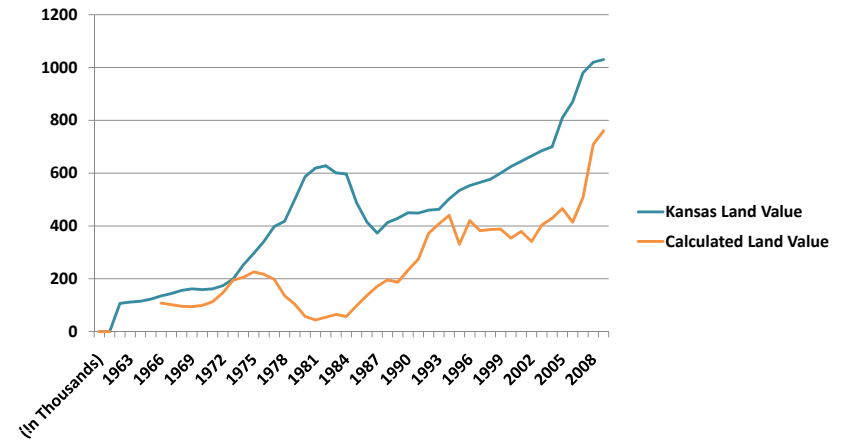
INTEREST RATES AND KANSAS LAND VALUES



Lessons from History

- Markets can do whatever they want
- BUT, the farther they get from the fundamentals, the greater the risk of a correction

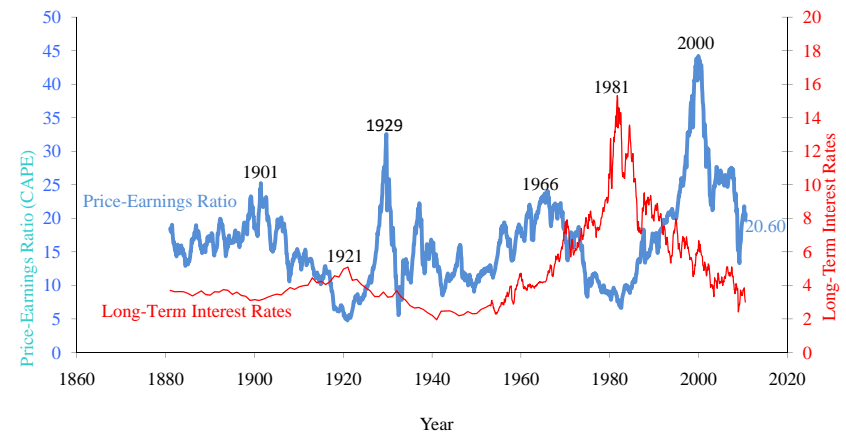
Actual and Calculated Land Values



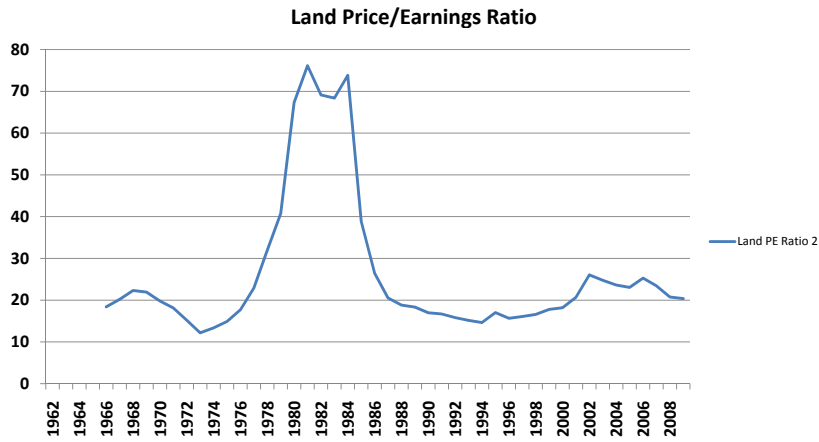
What we learn from the stock market

- PE Ratio= Price per share/ Earnings per share

S and P P/E Ratio and Rates



Land P/E ratio



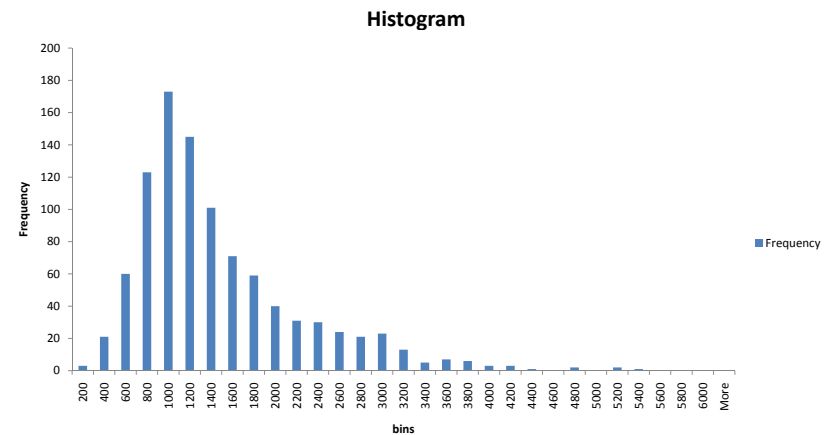
Issues to Address

- Hard to get data for
 - Current prices
 - Current farm incomes
- Change is so rapid
- Used Sales data to look some at current situation

2010 KSFMRA Sales Data

- 968 sales after adjusting for improvements (if estimated), dropping those with less than 70 acres, and dropping commercial sales
- Average Price per Acre \$1,265
- Substantial Range in Prices

Histogram of Land Prices



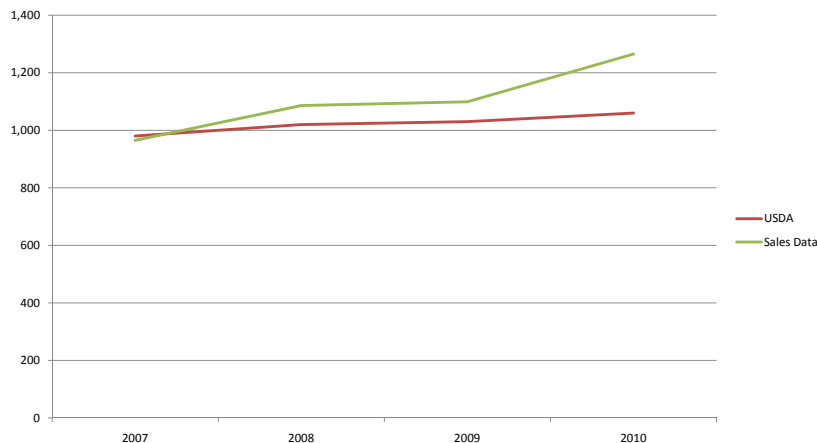
2010 FSFMRA Land Sales Data

	# sales	Total Acres	Total \$'s	Price/A
First Quarter	239	55,051	70,735,928	1,285
Second Quarter	271	56,090	62,953,227	1,122
Third Quarter	189	37,410	46,423,110	1,241
Fourth Quarter	265	135,047	178,646,808	1,323

Comparing USDA and Sales Data

Year	USDA	% Increase	Sales Data	% Increase
2007	980	----	965	----
2008	1,020	4.1%	1,086	12.5%
2009	1,030	1.0%	1,099	1.2%
2010	1,060	2.9%	1,265	15.1%

Comparing USDA and Sales Data



Summary

- The economy is going to have a rough period for some time
- Agriculture is a great place to be!!!!!!!!!!
- Land values are pretty high, but are **probably** justified at current interest rates and recent farm income levels

Summary

- Creation of a land value bubble probably deterred recently by:
 - Crash in the rest of the economy—reduced off farm interest for recreational purposes
 - Increase in credit standards due to financial disaster
 - Great uncertainty in the economy
- But, we are not done yet!!!!
 - Increased off farm investor interest in land
 - Still have low interest rates
 - Lots of liquidity and high farm incomes

Summary

- Land prices could look more like a bubble if fundamentals change
 - Farm incomes return to longer term averages
 - Interest rates increase
 - But, if land is where people are storing wealth, it is not as serious as if they are borrowing heavily to purchase land

Questions/Comments/Share Your View