

## **1. Macroeconomic Instability: To Be Continued?**

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### **Abstract/Summary**

*The bursting of the housing bubble placed the U.S. economy into a recession that has had major ramifications in the rest of the economy. This led to a major recession that the economy has had difficulty shaking. The agricultural economy took five years to right itself during the 1980s. The housing market has experienced declines for about 5 years. Does this begin to signal the end of the crisis? Have the major indicators changed? What are the signals moving forward?*

## Macroeconomic Instability: To Be Continued?

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## Conclusions from 2009 Risk and Profit

- Overall financial crisis that began in 2007 has been felt in economies around the globe
- More than a 30% loss in global equity
- Decline in consumer confidence
- Unemployment increases
- Credit crisis in non agricultural sector
- Has not really affected agricultural yet

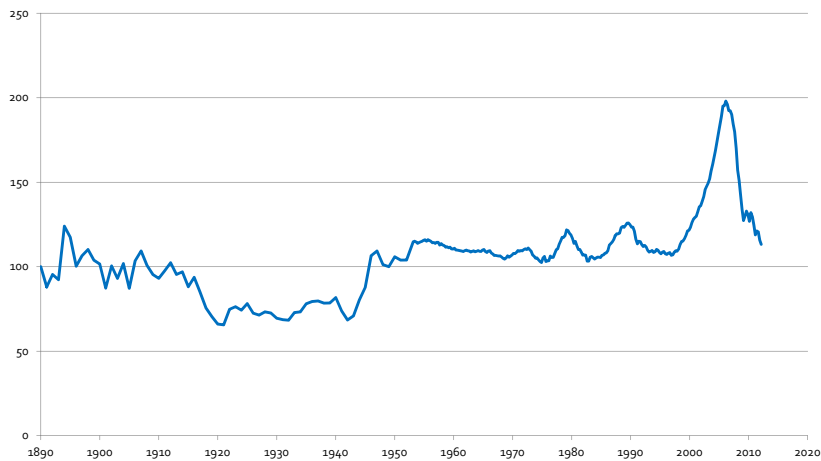
## How long before stability?

- Links to the farm crisis
- Land market took 5 years to work through
- Housing market nearing decline of 3 years
- May need to decline another 1 percent but will we over react?
- The agricultural land bubble was contained, the housing bubble was not
- Important differences

## Outline of Discussion

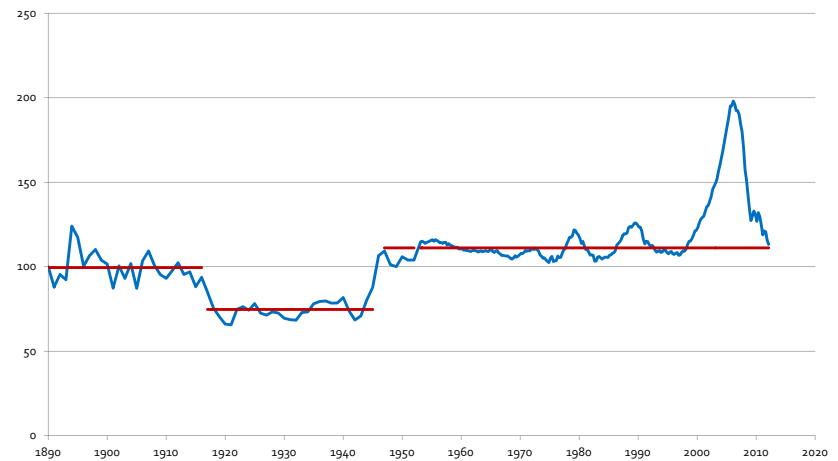
- Housing Market
- Economic Performance
  - Gross Domestic Product Growth
  - Stock Market Performance
- Interest and Inflation Rates
- Unemployment
- Global Performance

## Inflation Adjusted Housing Prices



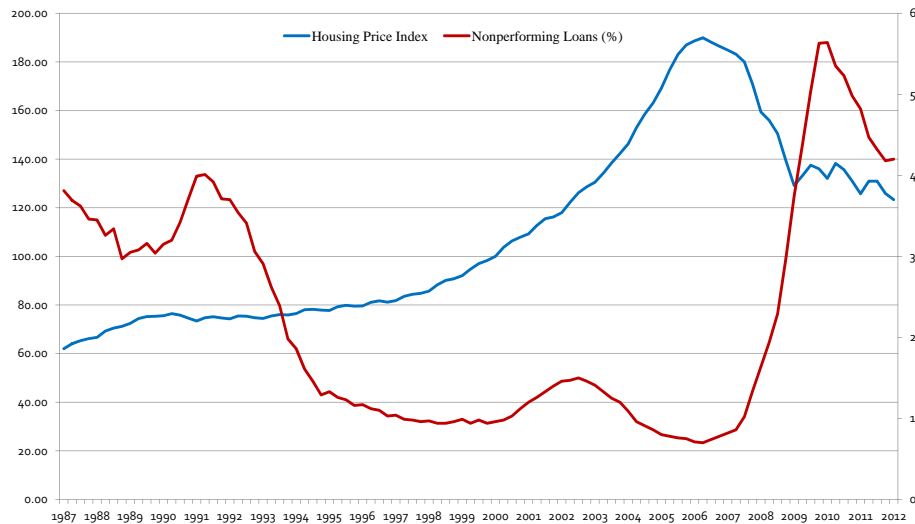
Source: Shiller

## Inflation Adjusted Housing Prices



Source: Shiller

## Housing Prices and Non-performing Loans



## Futures Market on Housing

- Case-Shiller Index traded by the CME group
- Expected Price Change in Housing Price

|                      | Expected Change in Housing Price (%) |
|----------------------|--------------------------------------|
| November 2012 – 2013 | 2.3%                                 |
| November 2013 – 2014 | 2.1%                                 |
| November 2014 – 2015 | 2.0%                                 |
| November 2015 – 2016 | 2.0%                                 |

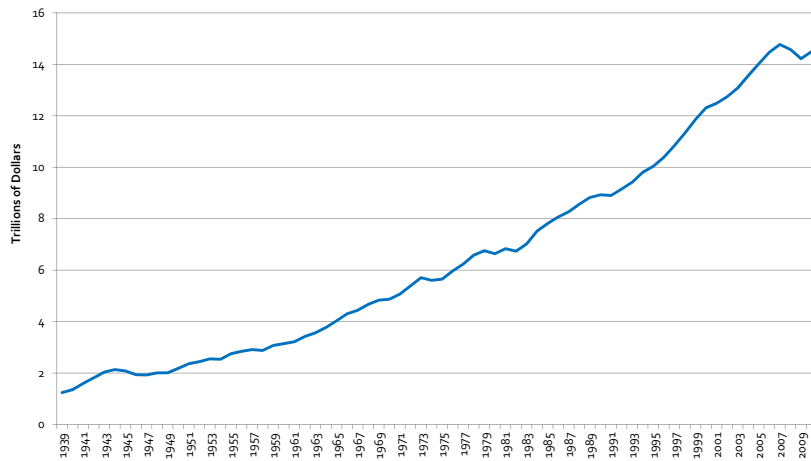
Source: CME Group 8/15/12

## Housing Summary

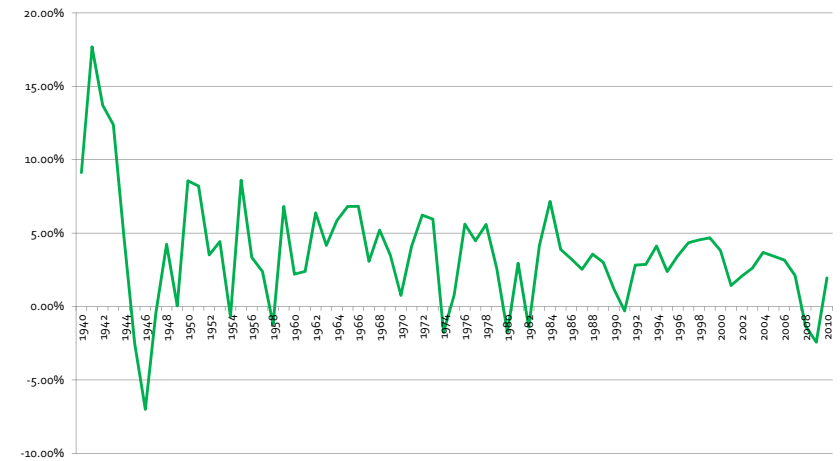
- The housing market appears to be back to a longer term real level
- There are a substantial amount of properties that need to be sold before the market will begin to increase above inflation
- Therefore, the market will likely remain sluggish increasing roughly at the price of inflation

## Economic Performance

## Inflation Adjusted U.S. GDP

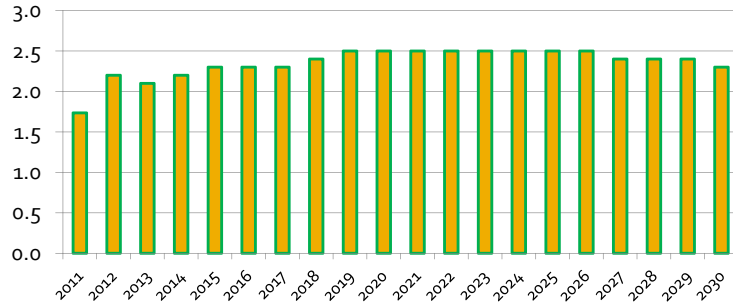


## Real GDP Growth



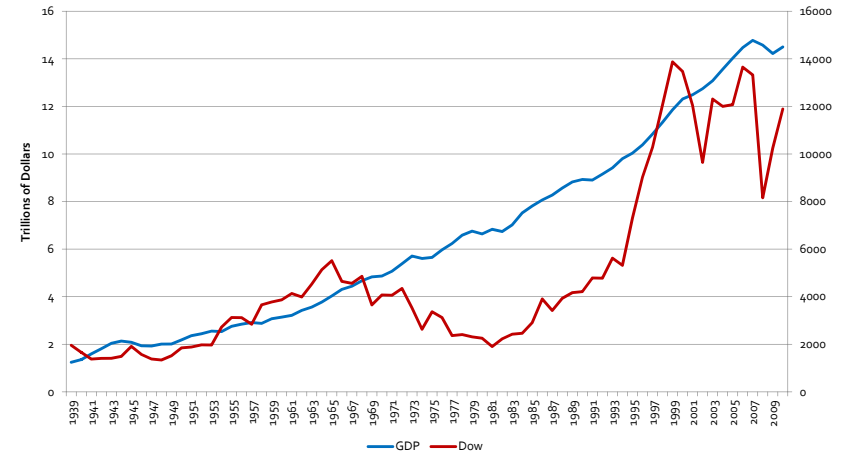
# GDP Summary

- GDP growth out of the latest recession has been slow
- Projections are that it will remain slow

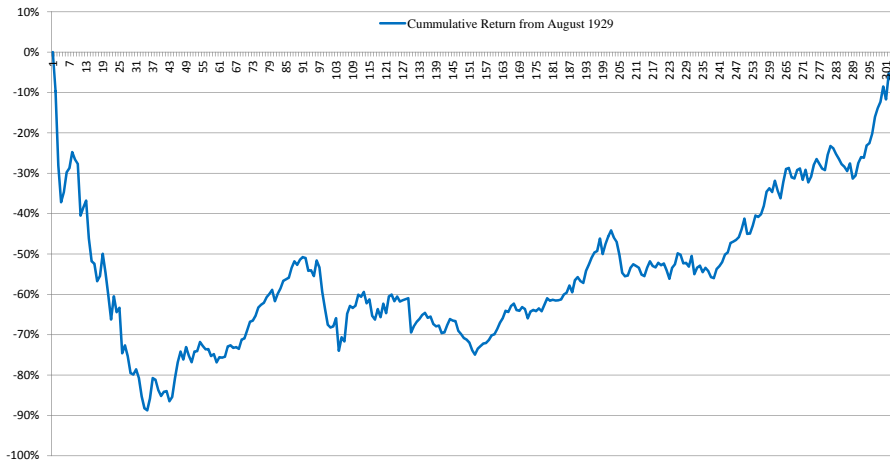


Source: Economic Intelligence Unit, *Economist*

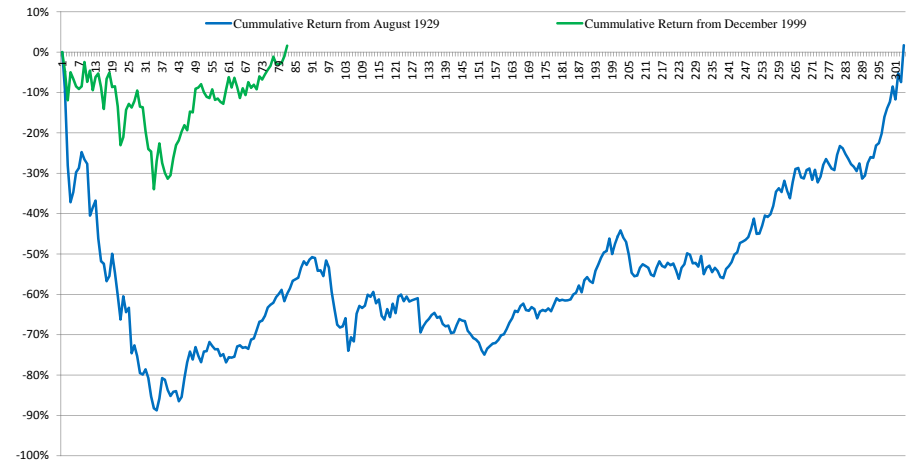
# Inflation Adjusted GDP and the Dow



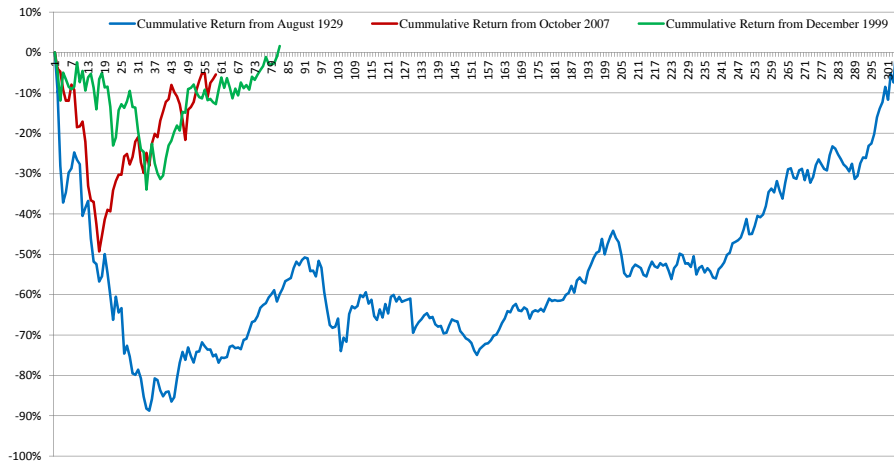
# Cumulative Market declines



# Cumulative Market declines



## Cumulative Market declines



## Futures Market on the S&P 500

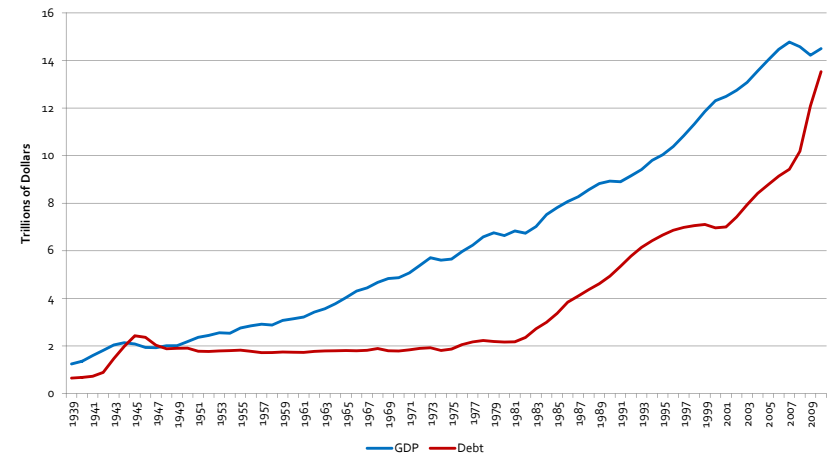
- S&P Futures Market Traded on the CME
- Expected Price Change in the S&P 500

|                      | Expected Change in S&P 500 (%) |
|----------------------|--------------------------------|
| December 2012 – 2013 | -1.8%                          |
| December 2013 – 2014 | -1.9%                          |
| December 2014 – 2015 | -1.0%                          |
| December 2015 – 2016 | -0.4%                          |

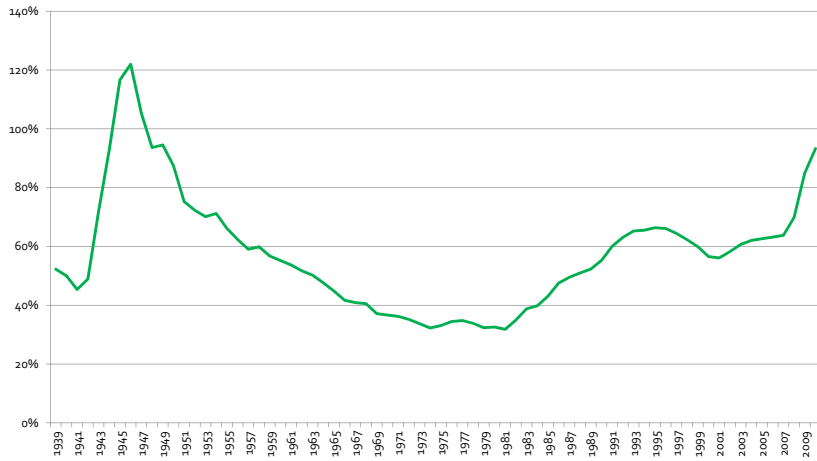
Source: CME Group 8/15/12

## Interest Rates

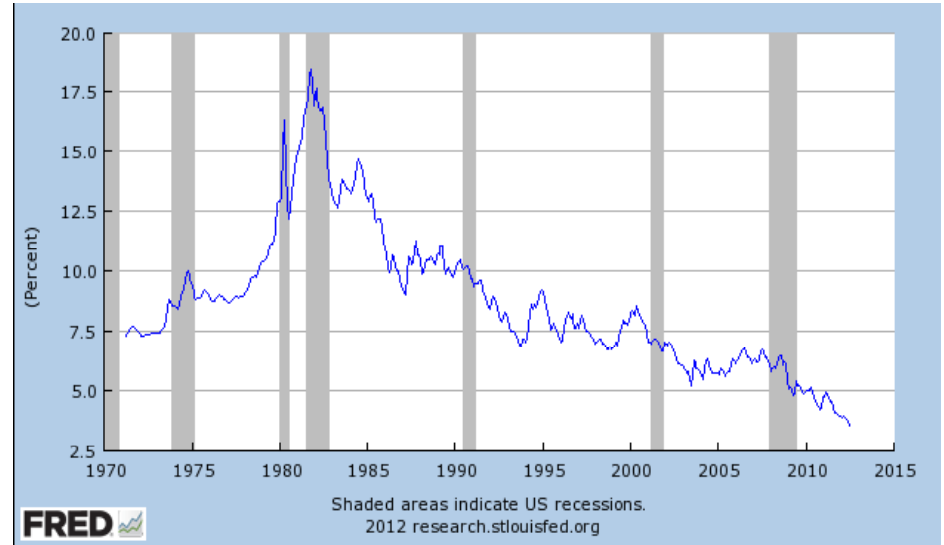
## Inflation Adjusted GDP and Debt



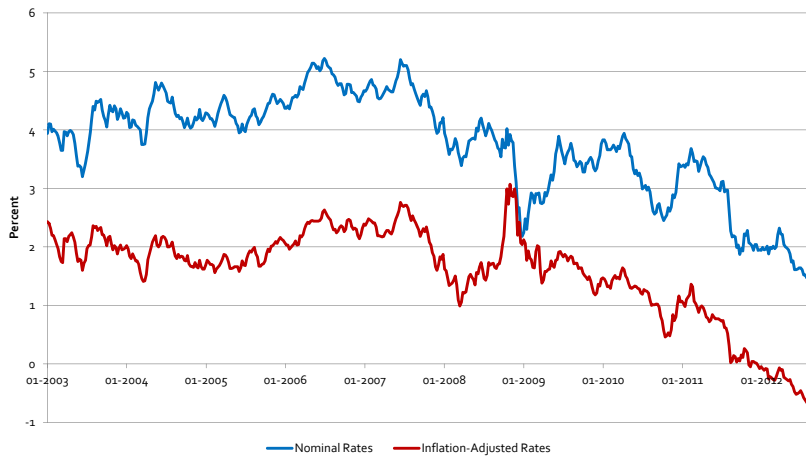
## National Debt Percentage of GDP



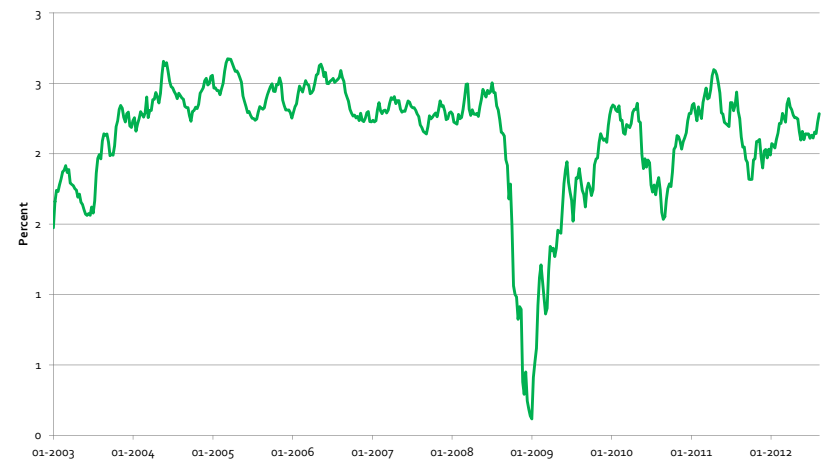
## 30 Year Conventional Mortgage Rate



## 10 Year Treasury and Tip Rates



## Implied 10 Year Inflation Rate



## Interest and Inflation Rates

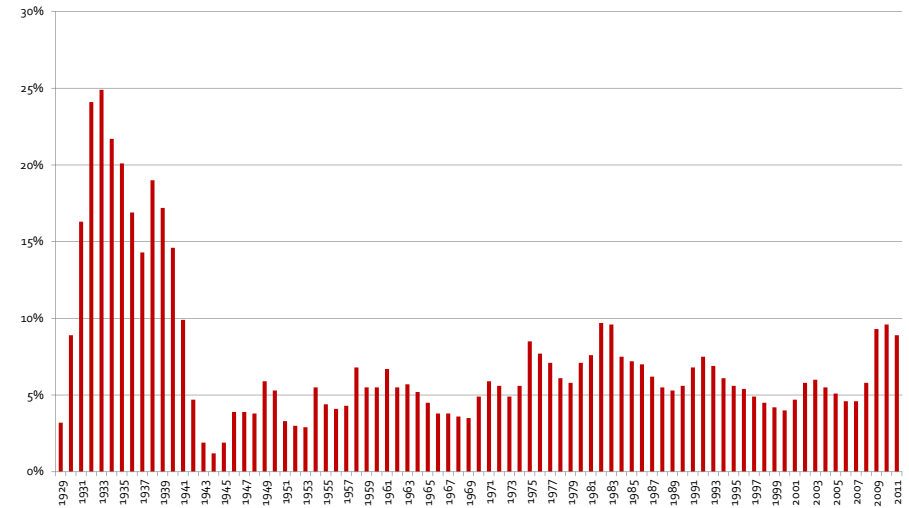
- Interest and Inflation Rate information as of August 10, 2012

|                          | 5 Year Rates | 2 <sup>nd</sup> 5 Years |
|--------------------------|--------------|-------------------------|
| Nominal Rates            | 0.71%        | 2.60%                   |
| Inflation-Adjusted Rates | -1.21%       | -0.03%                  |
| Pseudo Inflation Rates   | 1.94%        | 2.63%                   |

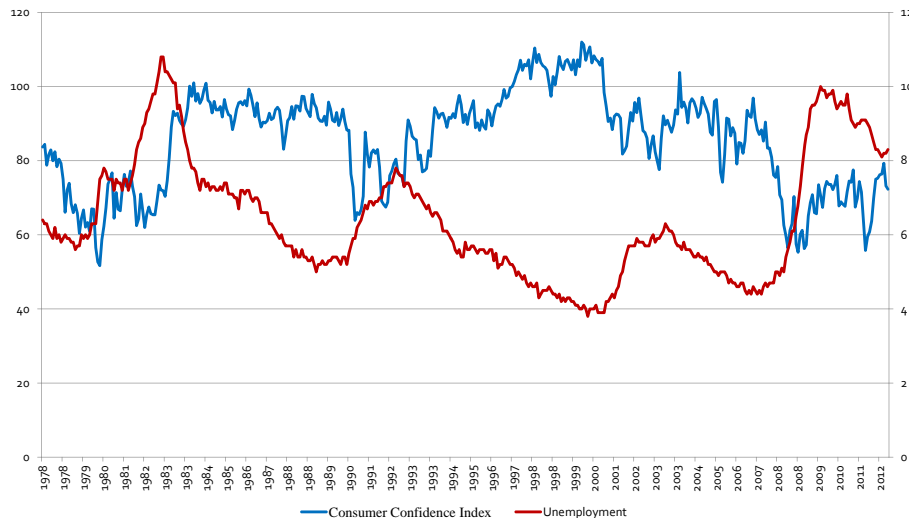
- Rates as of August 12, 2011

|                          | 5 Year Rates | 2 <sup>nd</sup> 5 Years |
|--------------------------|--------------|-------------------------|
| Nominal Rates            | 0.99%        | 3.57%                   |
| Inflation-Adjusted Rates | -0.84%       | 0.89%                   |
| Pseudo Inflation Rates   | 1.85%        | 2.66%                   |

## Annual U.S. Unemployment Rate



## Consumer Confidence and Unemployment



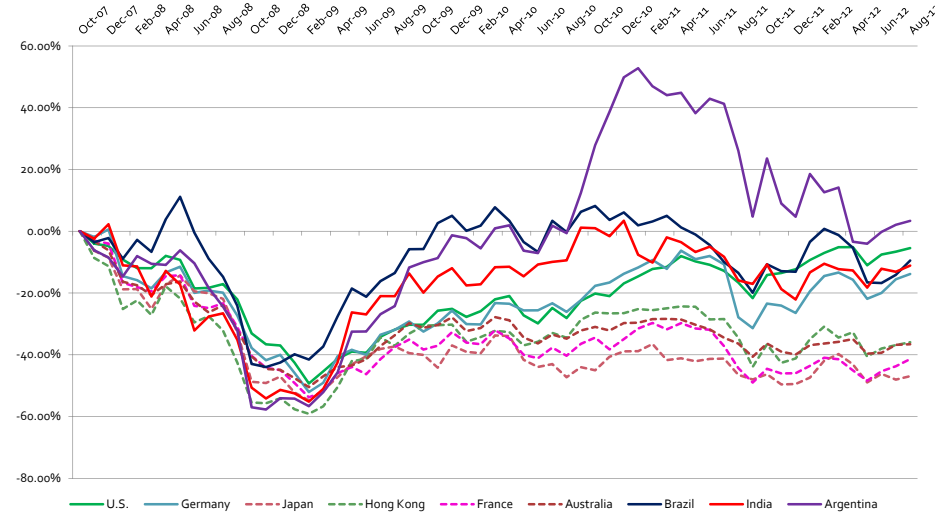
## Relationship Between Consumer Confidence and Unemployment

- Highest correlation with a 13 month lag
- Current month correlation is -0.57
- 13 month lag correlation is -0.78
- Expectation based on consumer confidence would be for an increase in unemployment for August and then a slight decrease through next May



# Global Effects

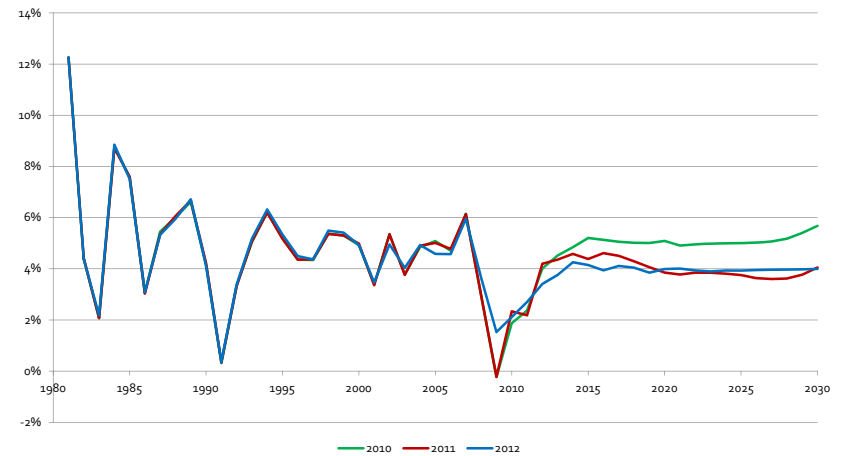
# Global Connectedness of Markets



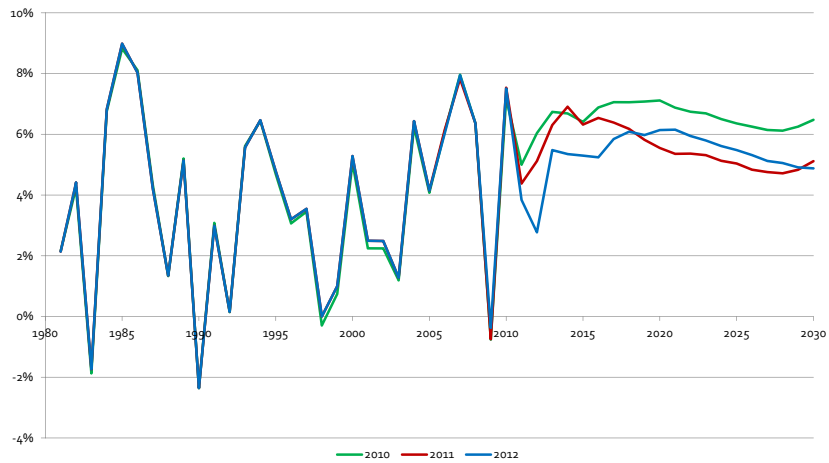
# Change in Forecasted Per Capita GDP Growth (2012-2030)

| Country       | 2010 Forecast | 2011 Forecast | 2012 Forecast |
|---------------|---------------|---------------|---------------|
| Australia     | 5.1%          | 4.0%          | 4.0%          |
| Brazil        | 6.5%          | 5.6%          | 5.5%          |
| China         | 8.4%          | 7.2%          | 7.2%          |
| France        | 4.6%          | 3.8%          | 3.7%          |
| India         | 8.4%          | 7.3%          | 7.3%          |
| Kenya         | 7.0%          | 5.7%          | 5.6%          |
| United States | 5.1%          | 3.9%          | 3.7%          |

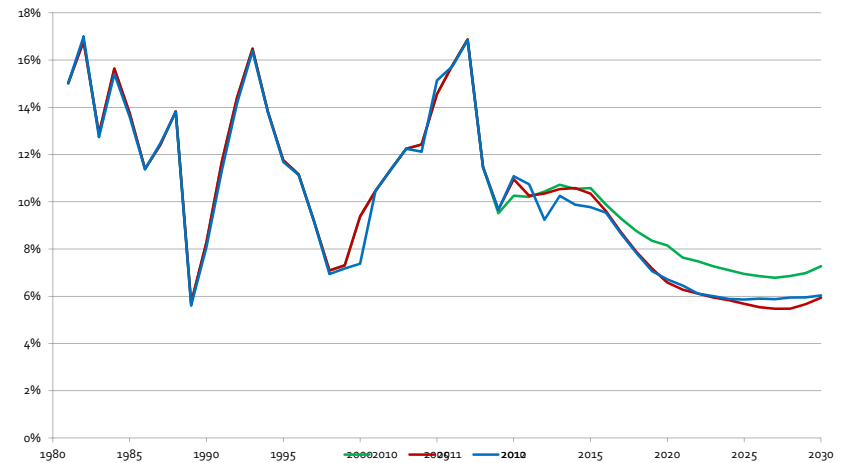
# Changing Per Capita GDP Forecasted Growth (Australia)



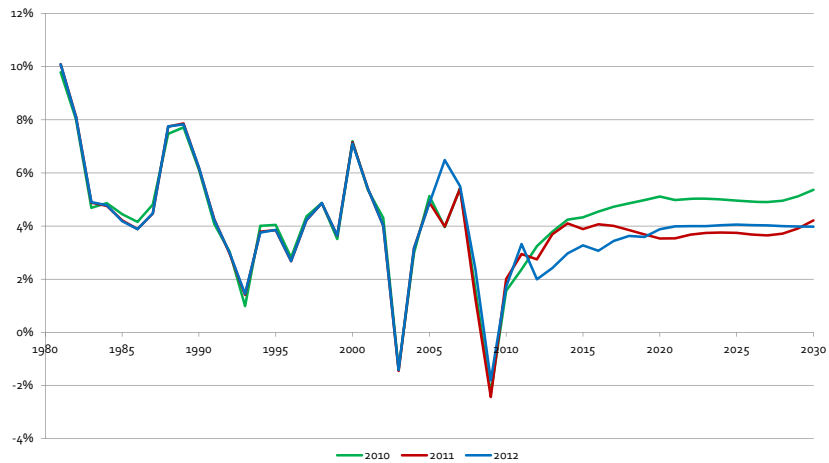
## Changing Per Capita GDP Forecasted Growth (Brazil)



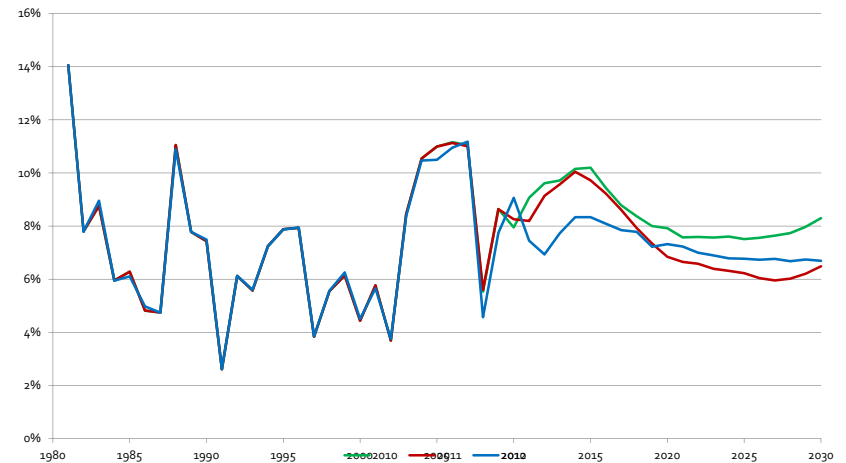
## Changing Per Capita GDP Forecasted Growth (China)



## Changing Per Capita GDP Forecasted Growth (France)



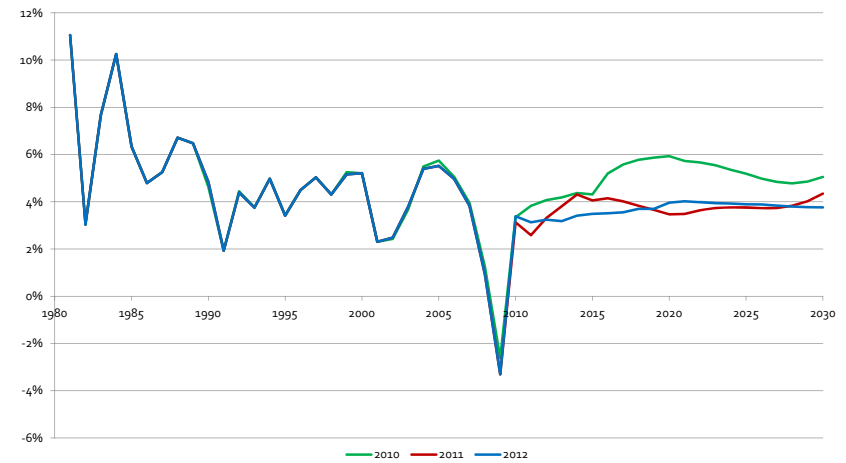
## Changing Per Capita GDP Forecasted Growth (India)



## Changing Per Capita GDP Forecasted Growth (Kenya)



## Changing Per Capita GDP Forecasted Growth (United States)



## Global Growth Conclusions

- Forecasted GDP growth estimates are slowing especially in the near term
- Slower GDP growth globally will not be positive for the U.S. economy or agriculture in particular

## How long before stability?

- Stability will be an elusive goal
- However
  - The housing market is closer to the bottom
  - Land market took 5 years to work through
  - Housing market nearing decline of 6 years
  - Probably starting to see less drag on that and other markets as debt issues are worked through
- Most projections suggest a sluggish economy over the next few years
- Path will not likely be as smooth as projections indicate
- European debt issues and India and China growth issues will be key