The Aftermath of the Housing Bubble

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Housing in America: Innovative Solutions to Address the Needs of Tomorrow

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Any opinions expressed here are my own and do not necessarily reflect those of others on the Federal Open Market Committee.

This talk

- Some remarks on current U.S. monetary policy.
- The burst of the housing bubble and its implications.
- Bottom line: We should expect and plan for slow adjustment in housing markets.

Current U.S. Monetary Policy

A global slowdown

- Financial markets are discussing a "global slowdown."
- The Euro-area unemployment rate has increased about one percentage point in the last year, to 11 percent.
- Chinese economic data has indicated slower growth than anticipated so far in 2012.
- The U.S. data has been mixed in recent weeks, but U.S. equity markets have been down—about 7 percent on the Wilshire 5000 in the last 30 days.

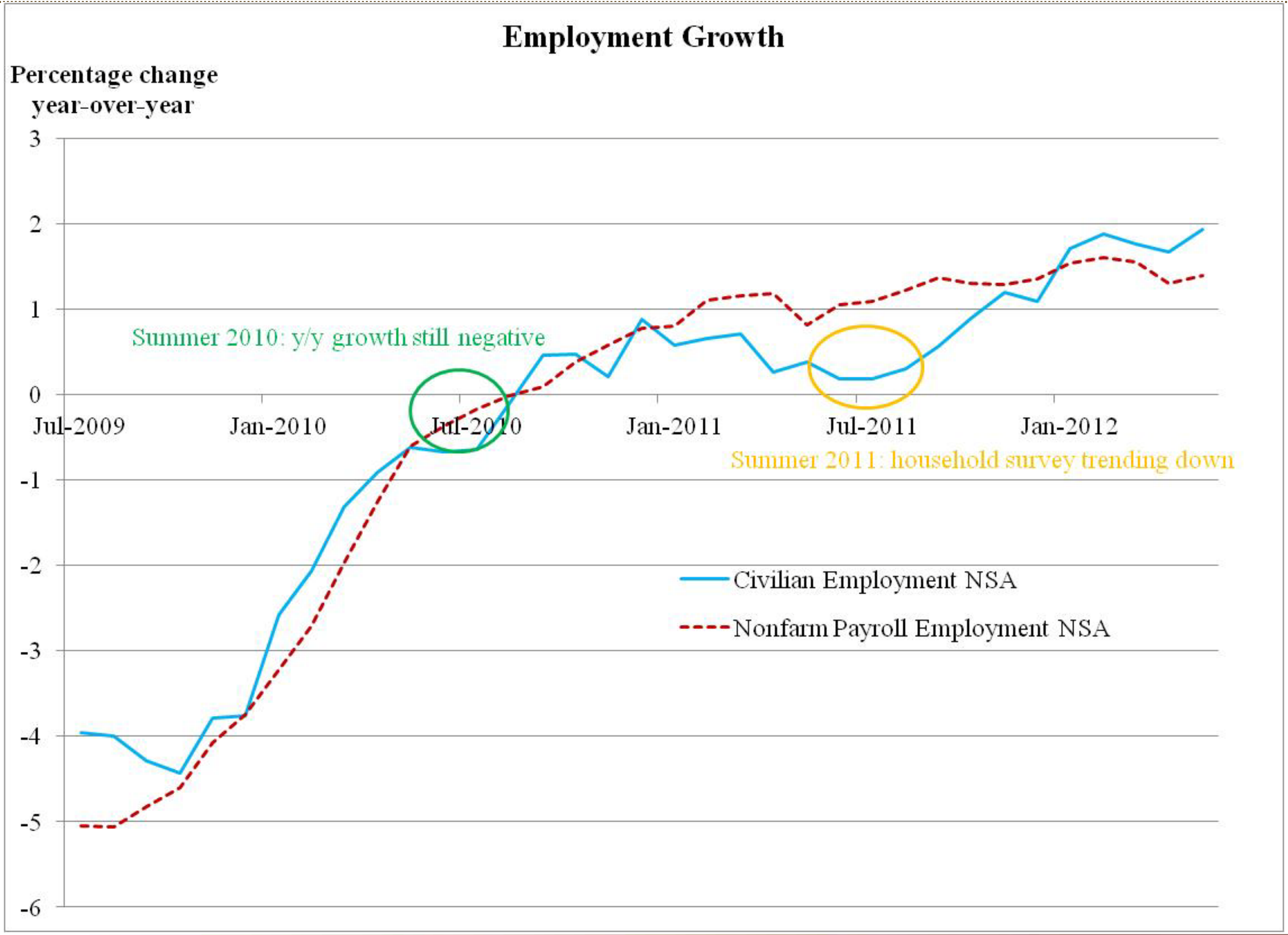
The U.S. economic outlook

- The outlook for 2012 has not changed significantly so far.
- Many expect current quarter real GDP growth will be stronger than in the first quarter.
- Most expect the second half of 2012 to be stronger than the first half.
- Note: Recession predictions made during the summer of 2011 did not materialize.

Labor market conditions

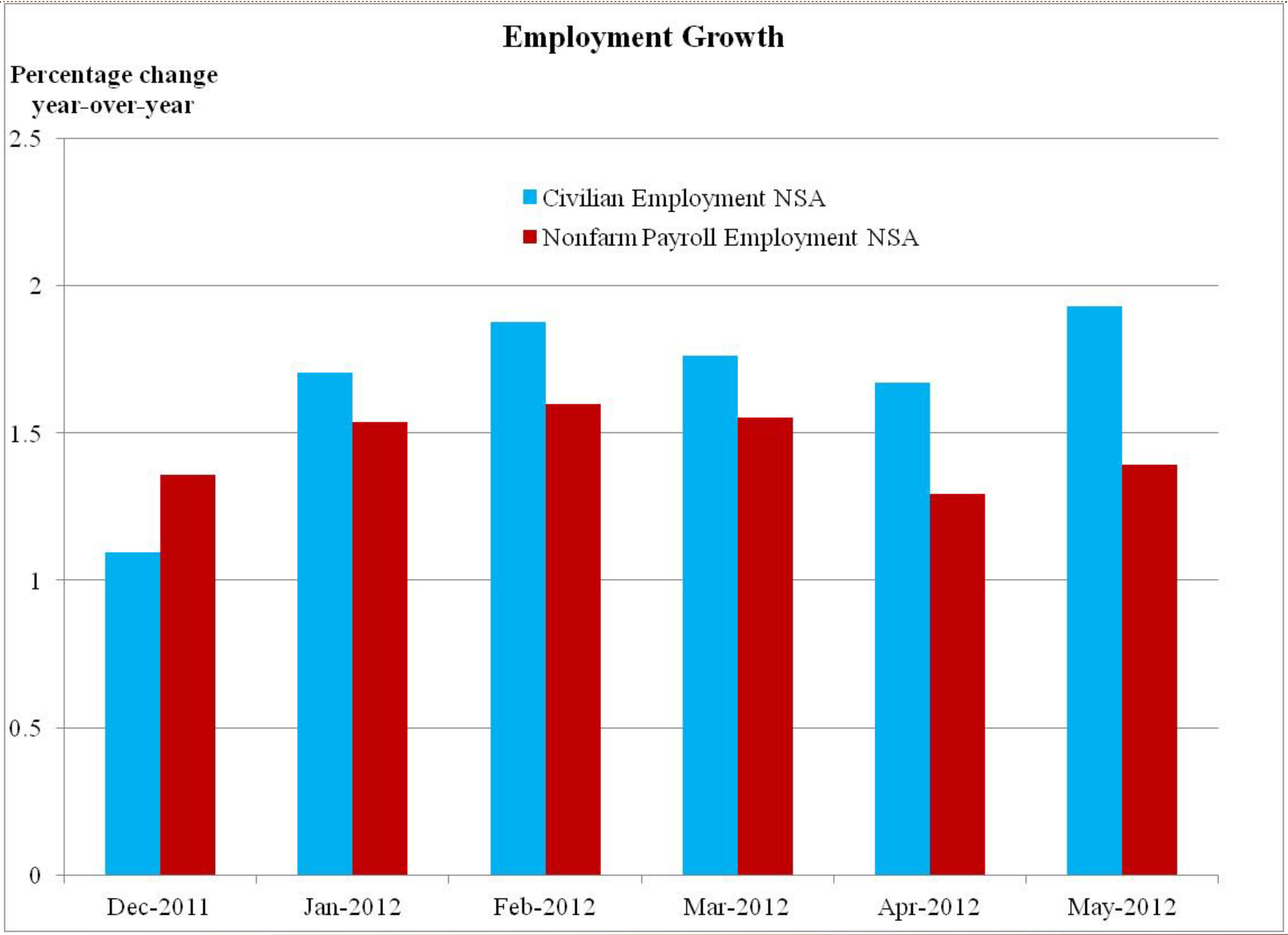
- The recent nonfarm payrolls report was disappointing, but not enough to substantially alter the contours of the U.S. outlook.
- Seasonal adjustment factors may be disturbing the normal interpretation of the data.
  - The nation actually added 789,000 to nonfarm payrolls last month, but seasonal adjustment reduced that to 69,000.
- Let's consider data that is not seasonally adjusted, and look at the percentage change from one year earlier.
- On this basis, 2012 is different from either 2010 or 2011.

U.S. employment



Source: Bureau of Labor Statistics. Last observation: May 2012.

U.S. employment

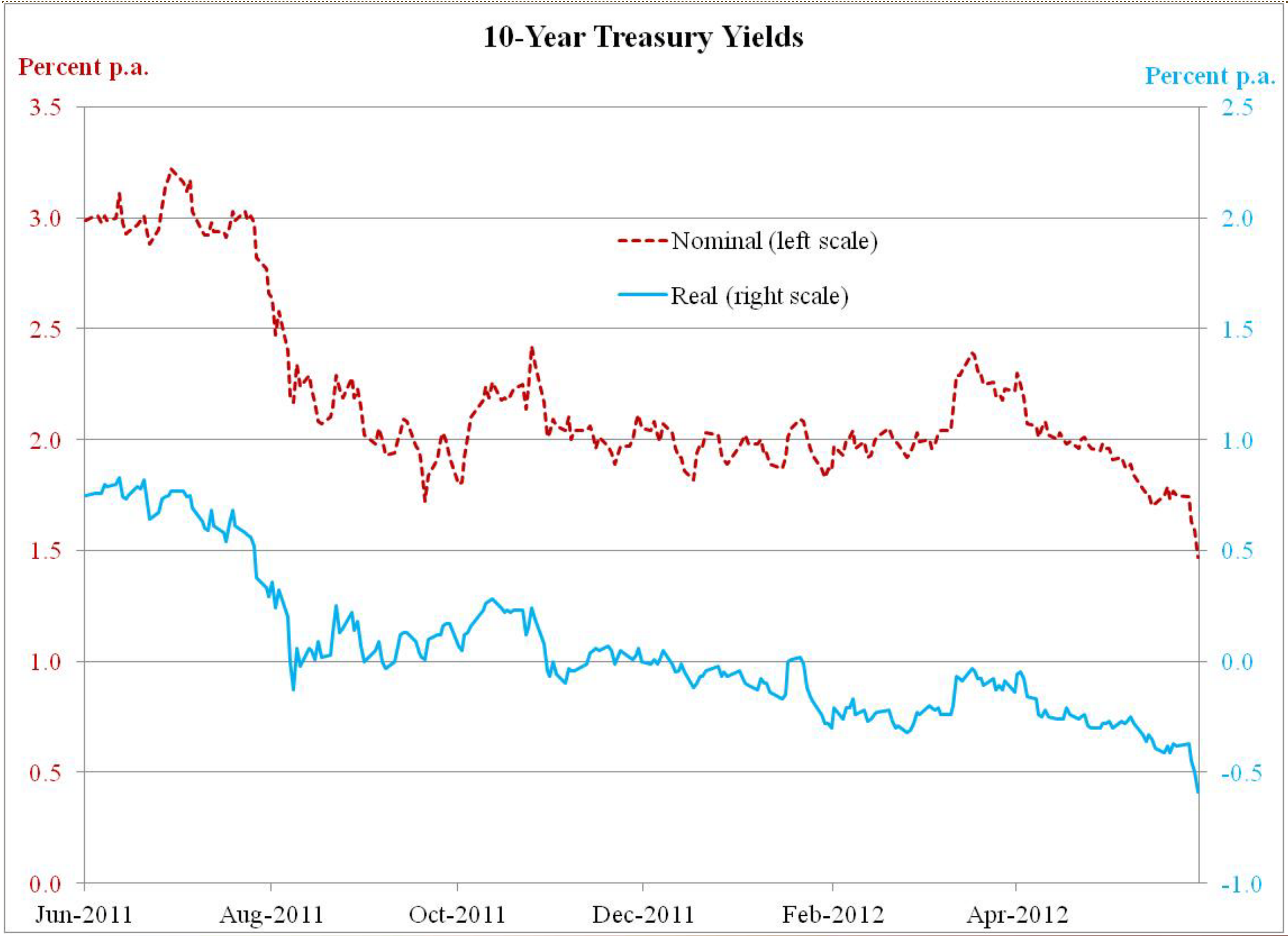


Source: Bureau of Labor Statistics. Last observation: May 2012.

Europe drives U.S. rates lower

- Both nominal and real interest rates have fallen substantially over the last year in the U.S.
- Benchmark nominal 10-year Treasury yields have fallen by 149 basis points.
- Real yields on 10-year TIPS have fallen by 133 basis points.
- The chart shows how yields have evolved over the last year.

U.S. Treasury yields



Source: Federal Reserve Board. Last observation: June 1, 2012.

The Fed reaction

- One possible FOMC strategy is to simply pocket the lower yields and continue to wait-and-see on the U.S. economic outlook.
  - Current policy is already very easy, as the policy rate remains near zero and the balance sheet remains large.

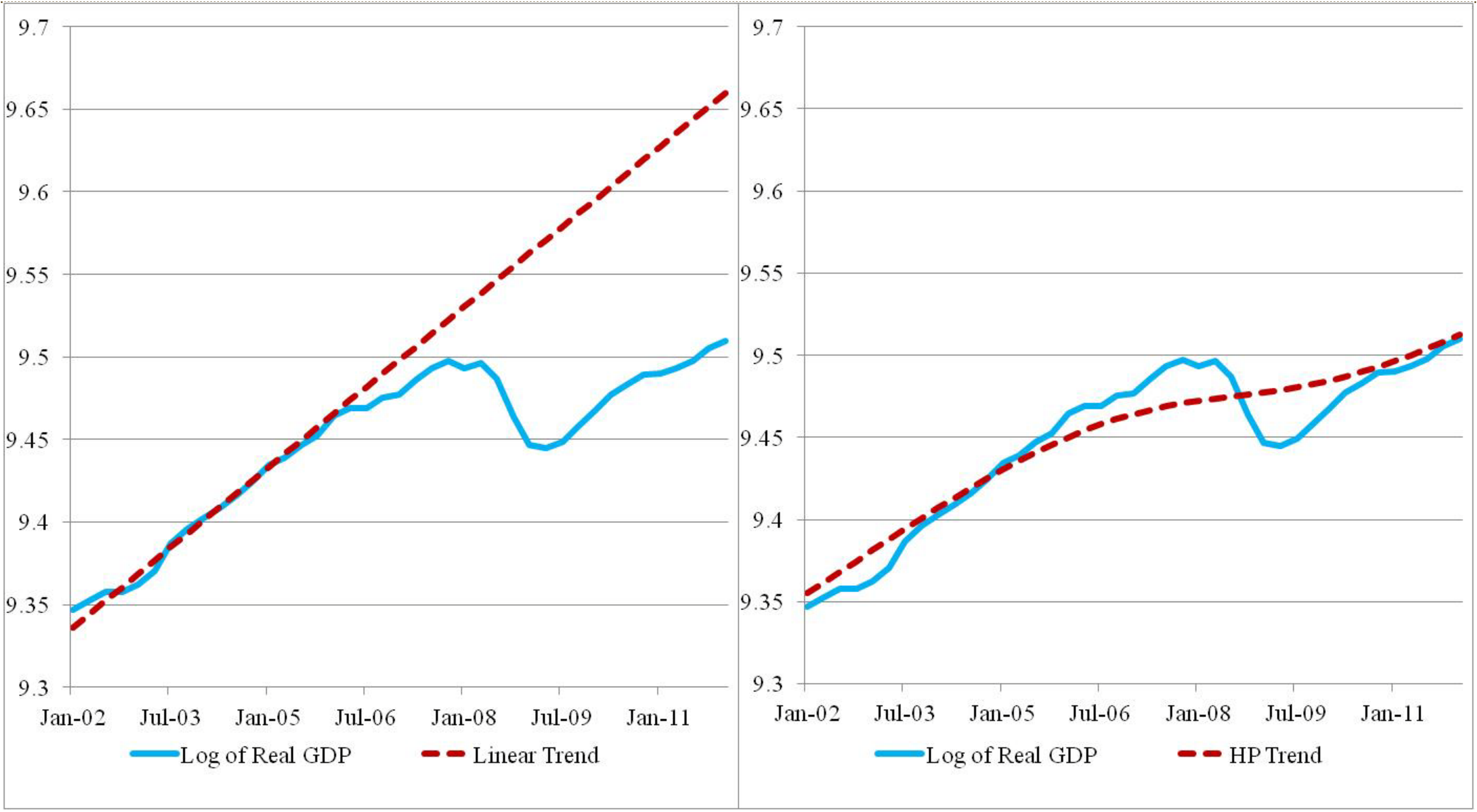
- The global problems are clearly being driven by continued turmoil in Europe.
  - A change in U.S. monetary policy at this juncture will not alter the situation in Europe.

U.S. Housing Markets

Collapse of a housing bubble

- Most components of U.S. GDP have recovered to or past their 2007 Q4 peak.
- The exception is investment related to real estate:
  - Nonresidential structures and residential investment.
- This suggests a collapse of a housing bubble.
- These components of GDP will take a long time to recover.
- It is therefore not reasonable to claim that the "output gap" is exceptionally large.

Decomposing real GDP



Source: Bureau of Economic Analysis and author's calculations. Last observation: Q1-2012.

The "large output gap" view

- The "large output gap" view (on the left in the chart) faces several difficulties.
  - It suggests GDP growth should be very rapid.
  - It suggests inflation should be much lower.
  - It suggests that the housing bubble did no lasting damage to the U.S. economy.

The "lower trend growth" view

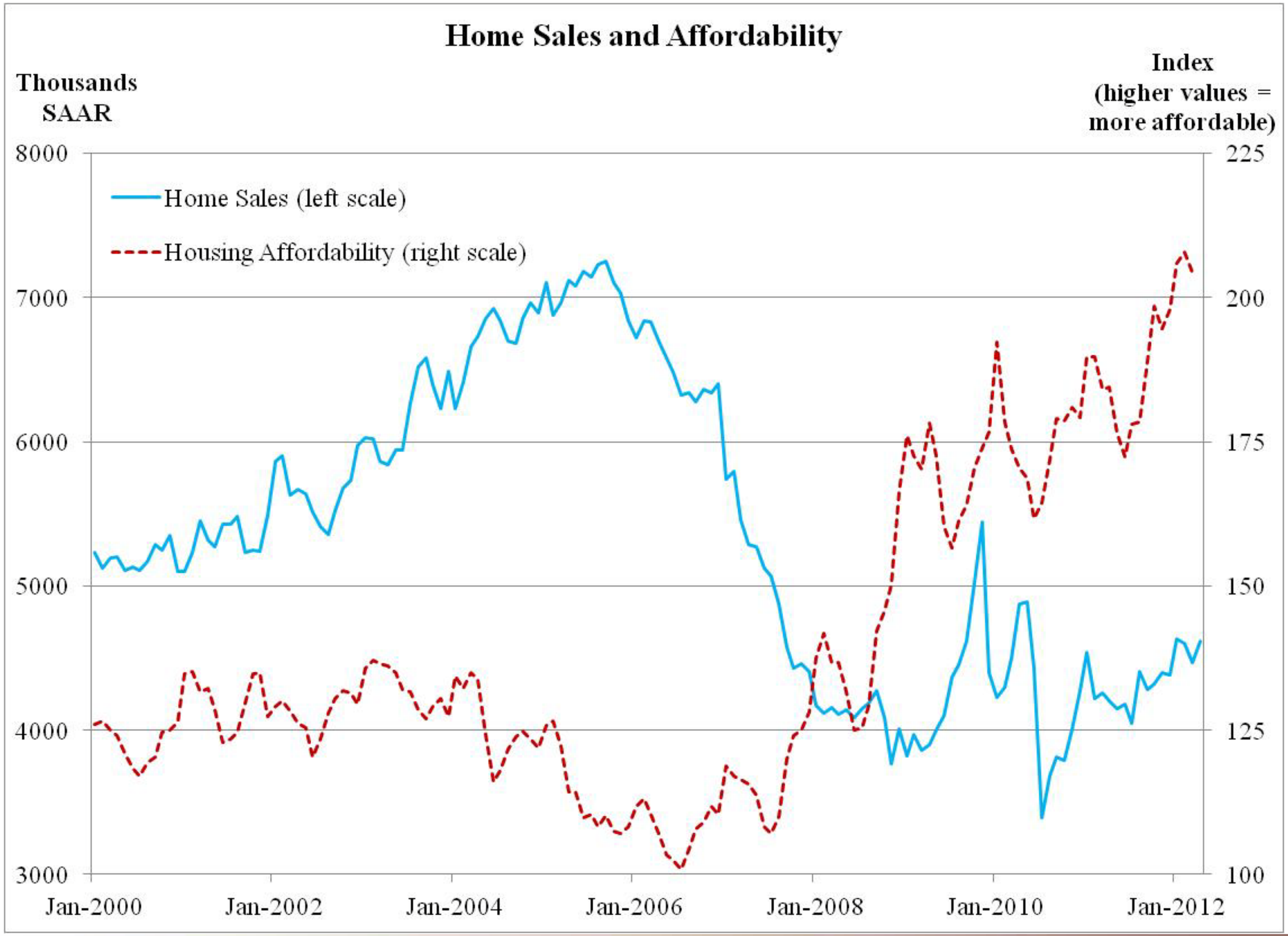
- The "lower trend growth" view (on the right in the chart) provides a more natural explanation of events:
  - We should expect relatively slow GDP growth.
  - Inflation can remain near the inflation target of 2 percent.
  - The housing bubble did lasting damage to the U.S. economy.

- In short, this view suggests that most of the business-cycle adjustment has already taken place, and that what remains is a slow rate of trend growth due to longer-term adjustment processes still taking place in real estate.

The aftermath of the housing bubble

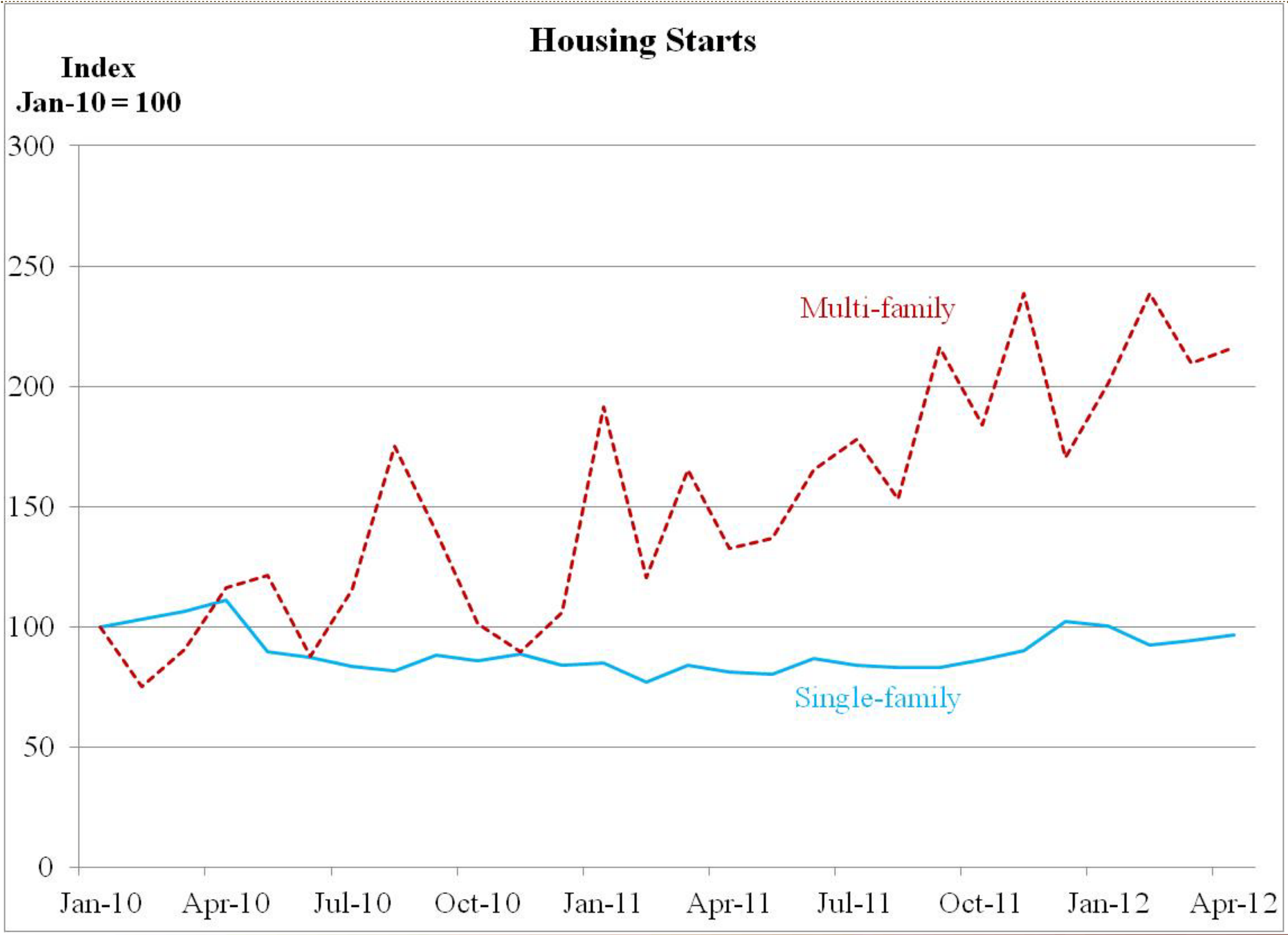
- It is neither feasible nor desirable to attempt to re-inflate the housing bubble.
  - The bubble did a lot of damage and should not be repeated.
- Policy should be directed to encouraging market-based adjustment as quickly as possible.
  - Allocating losses to one group or another is not helpful in a macroeconomic sense.
- The collapse of the housing bubble may have shifted preferences for home ownership.
  - In particular, the rent-versus-own decision has shifted decidedly in favor of renting.

Scaring off a generation of potential homeowners?



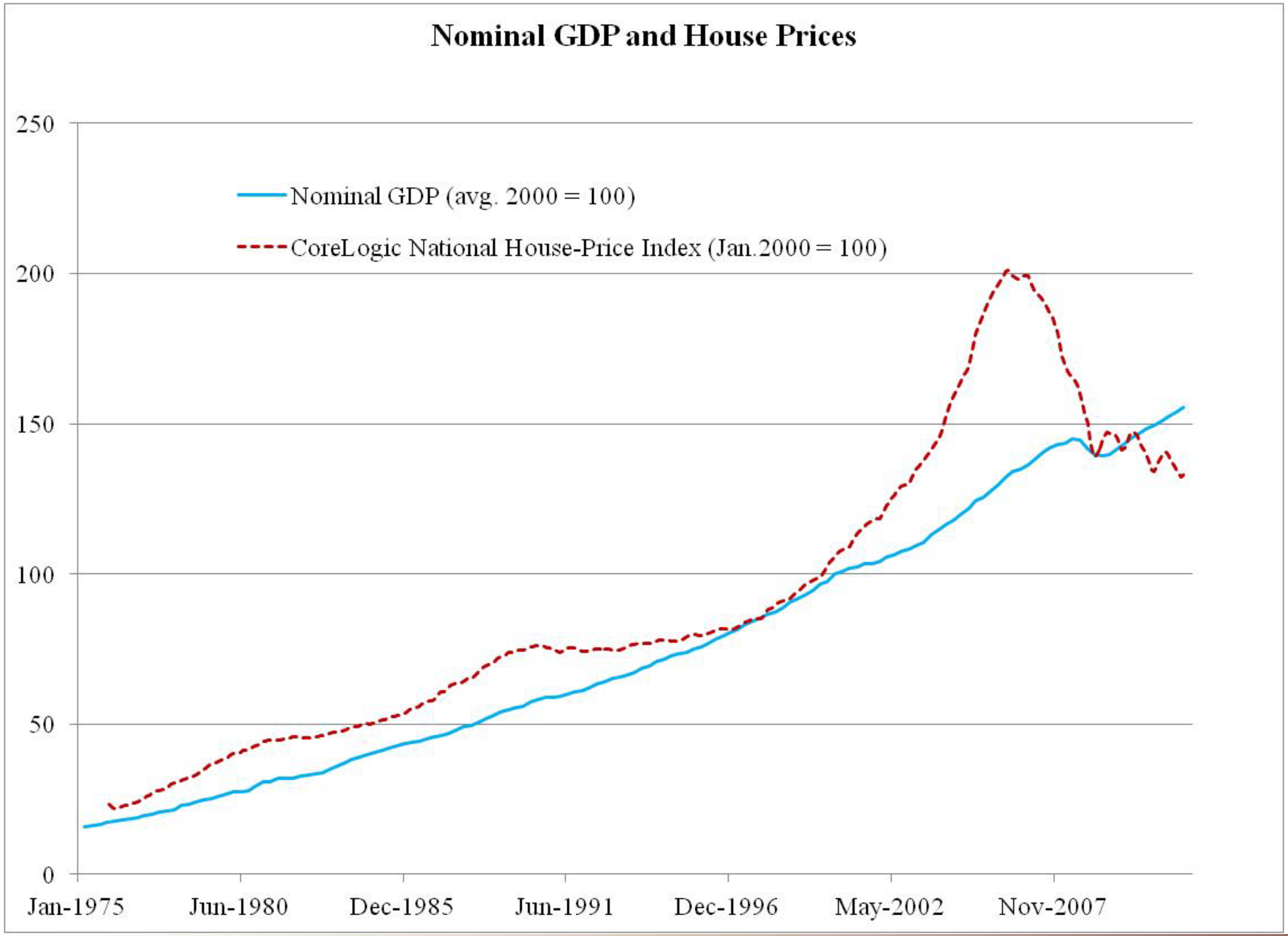
Source: National Association of Realtors. Last observation: April 2012 and March 2012.

Housing starts shift toward multi-family



Source: Census Bureau and author's calculations. Last observation: April 2012.

Prices close to the long-term trend value

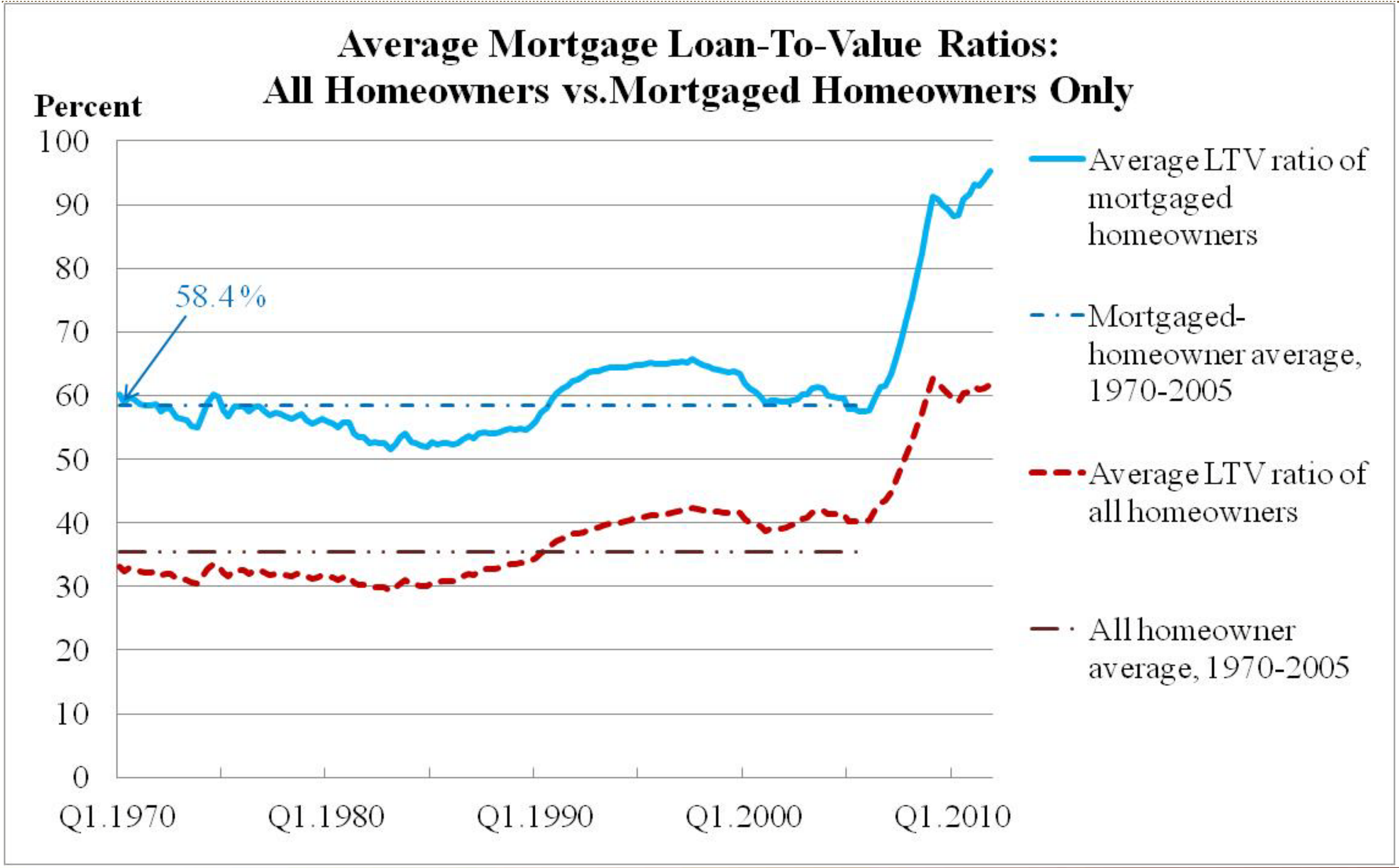


Source: Bureau of Economic Analysis and CoreLogic. Last observation: Q1-2012 and March 2012.

Too much debt

- The crisis has saddled U.S. households with much more debt than they intended to take on.
- This is the first U.S. recession in which deleveraging has played a key role.

Average LTV ratios remain far above historical norms



Source: Federal Reserve Flow of Funds Accounts *and* Survey of Consumer Finances; *author's calculations.*
Last observation: Q4-2011.

Too much debt

- Suppose we think of 58.4 percent as the "normal" loan-to-value ratio.
- U.S. homeowners have about $9.8 trillion in debt outstanding against $490 billion of equity.
- To get back to the normal LTV, households would have to pay down mortgage debt by about $3.8 trillion, about one-quarter of one year's GDP.
- This will take a long time. It is not a matter of business-cycle frequency adjustment.

Source: Federal Reserve Flow of Funds Accounts *and* Survey of Consumer Finances; *author's calculations.*
Last observation: Q4-2011.

Reducing high LTV ratios

Relationship between house-price appreciation and mortgage rate in reducing LTV from 90% to 60%				
How long does it take to cut LTV from 90% to 60%?		**Mortgage rate**		
		4%	**5%**	**6%**
Annual house-price appreciation	**0%**	15 years	15 years	17 years
	2%	10 years	10 years	11 years
	4%	7 years	7 years	8 years

Assumptions

- Fixed-rate, level-payment, fully amortizing mortgage.
- No partial prepayments.
- Simple annual house-price appreciation rates.

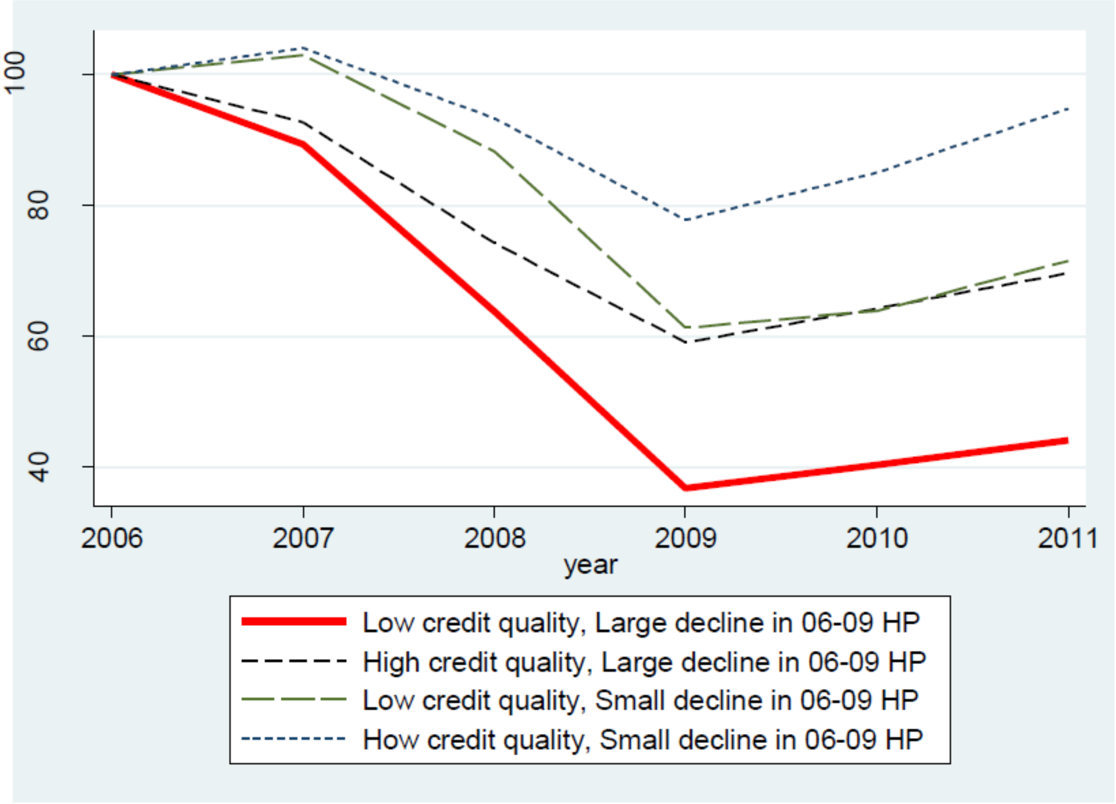
Some households are constrained

- Feroli, et al., (2012) suggest that some households may not be able to react normally to easy monetary policy.
- This is because they cannot borrow more against their home values.
- Evidence: States with the largest declines in home values have the weakest recoveries.
- Monetary policy may not be able to reach the constrained households.

See my "Comments on *Housing, Monetary Policy, and the Recovery* by Feroli, Harris, Sufi, and West." Given at the 2012 U.S. Monetary Policy Forum, Initiative on Global Markets, University of Chicago Booth School of Business.

Auto sales by state and credit quality

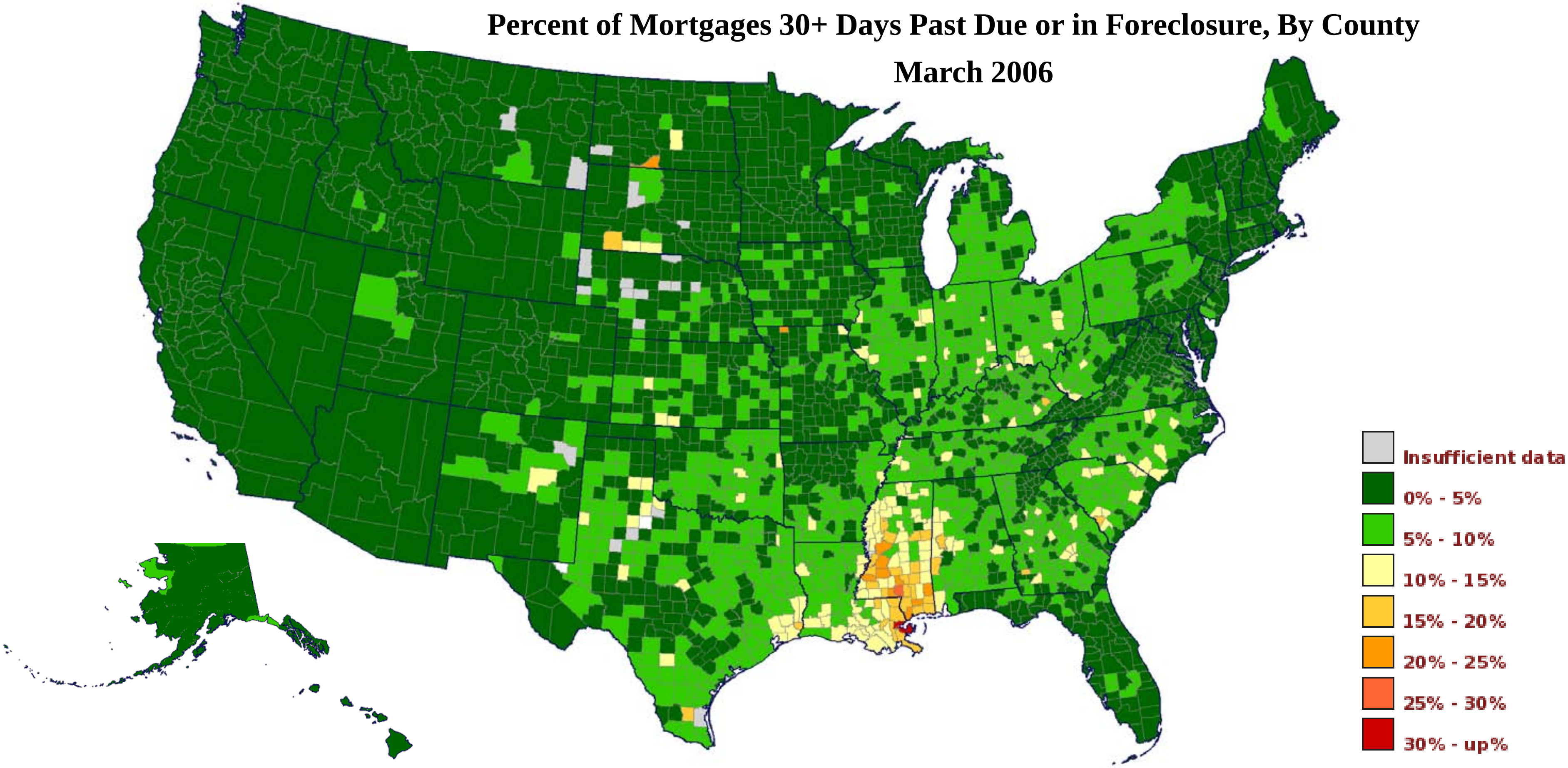
Chart 22: Auto Sales for High and Low Credit Quality within Large and Small House Price Decline States



Source: Feroli et al. (2012).

Geographic aspects of the housing bubble

At the peak, mortgage conditions pristine

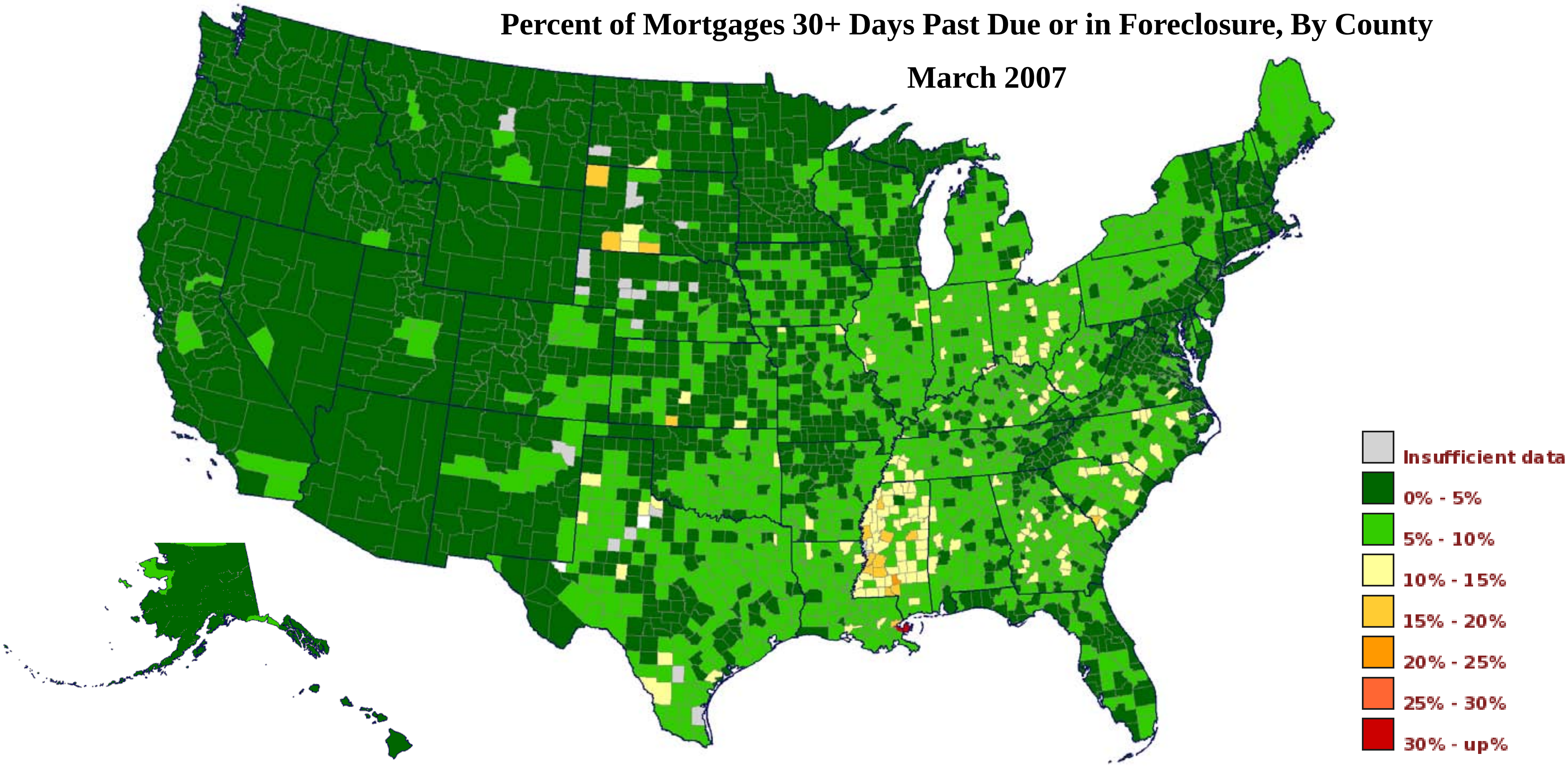


Source: Lender Processing Services.

Falling house prices, slowing economy

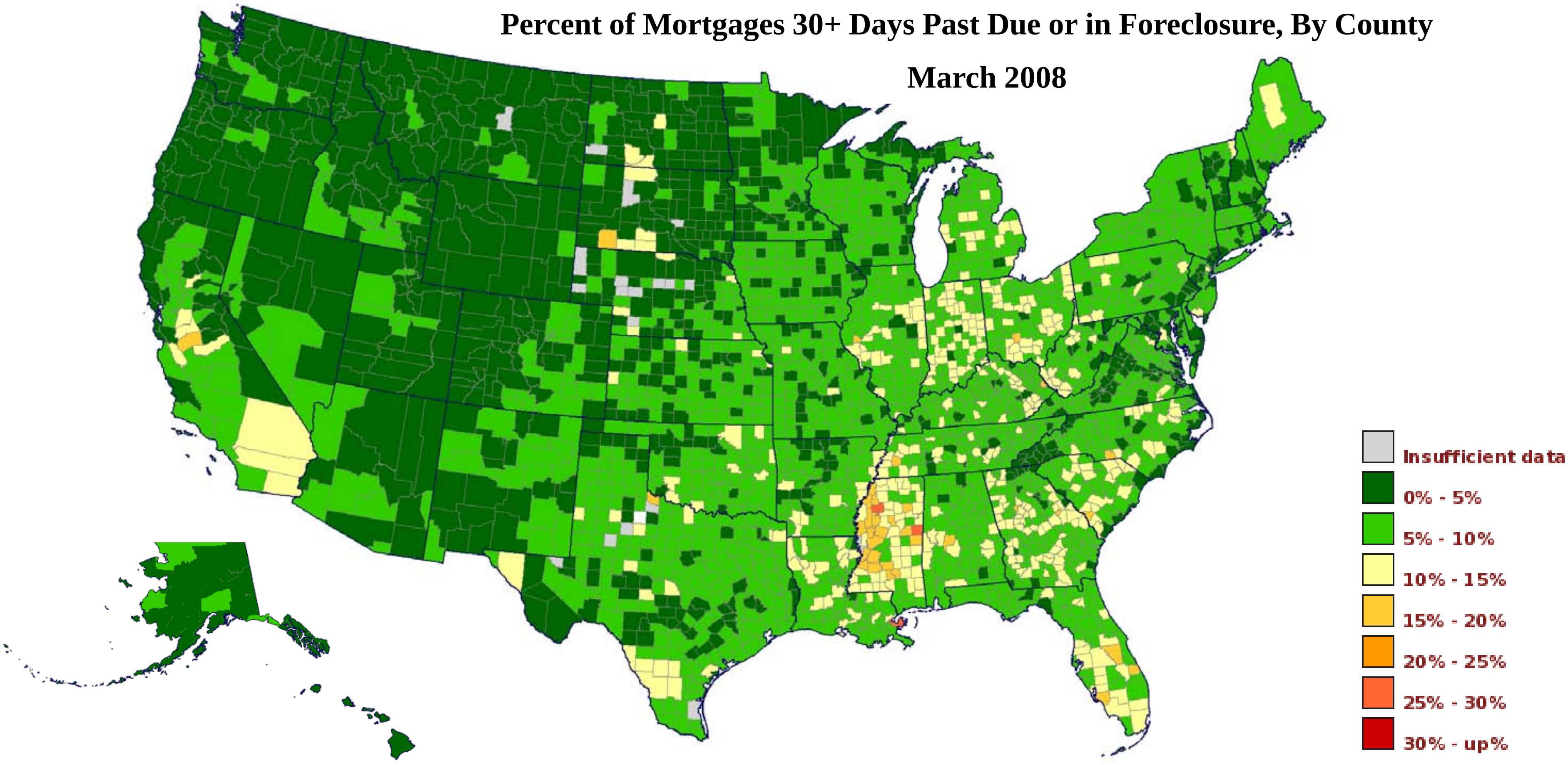
Percent of Mortgages 30+ Days Past Due or in Foreclosure, By County

March 2007



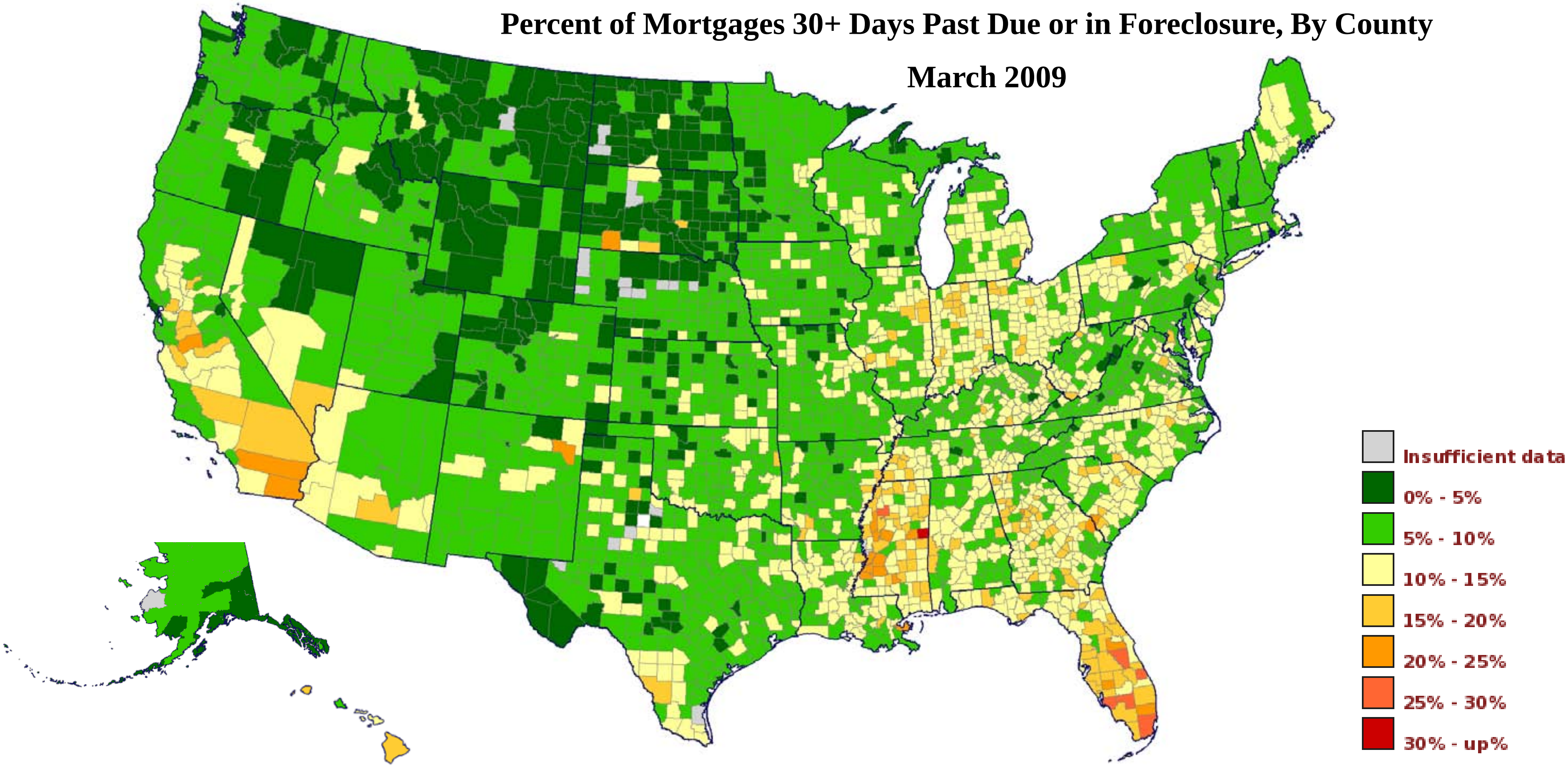
Source: Lender Processing Services.

Financial crisis is underway



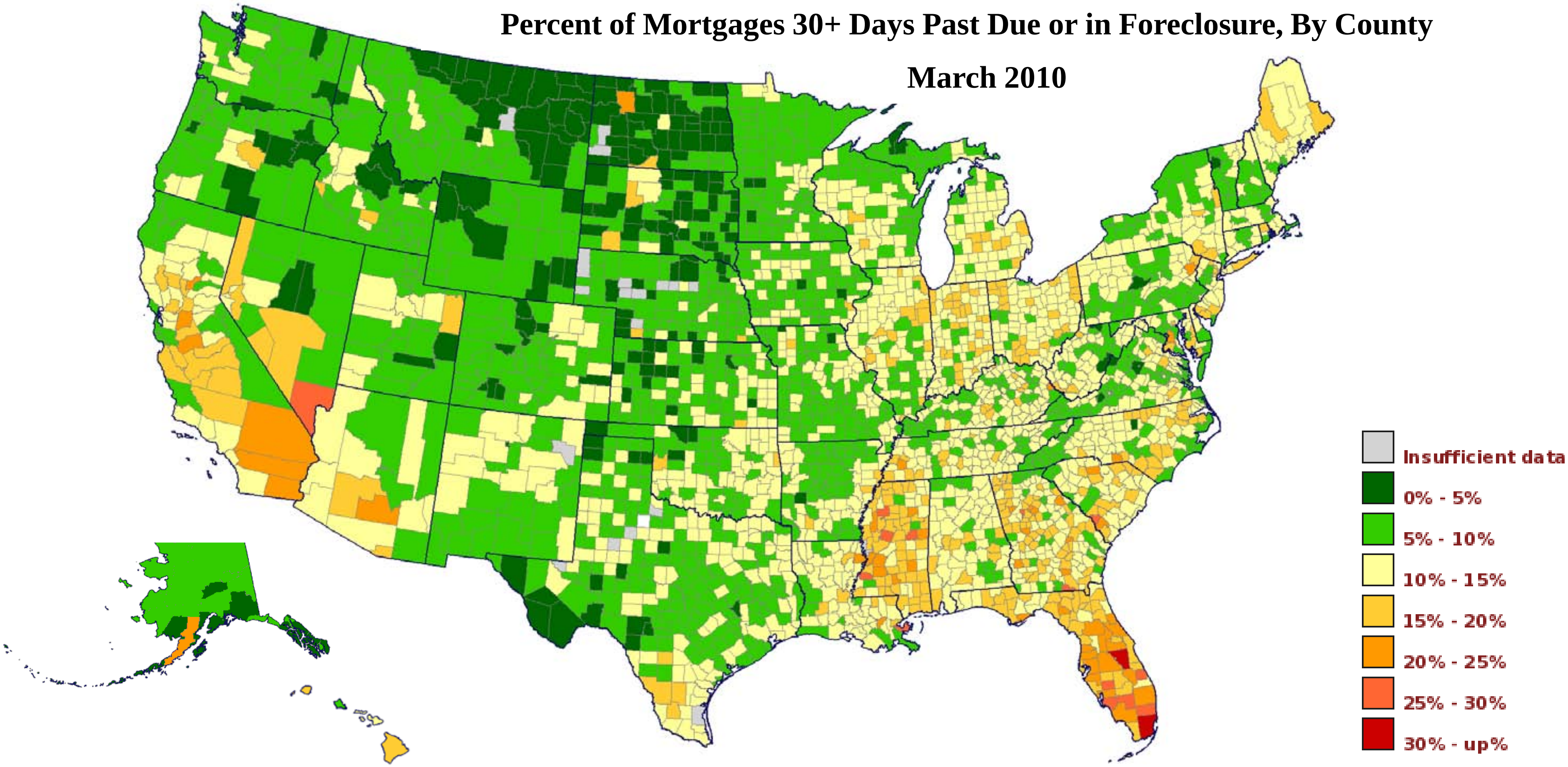
Source: Lender Processing Services.

Mortgage distress concentrated



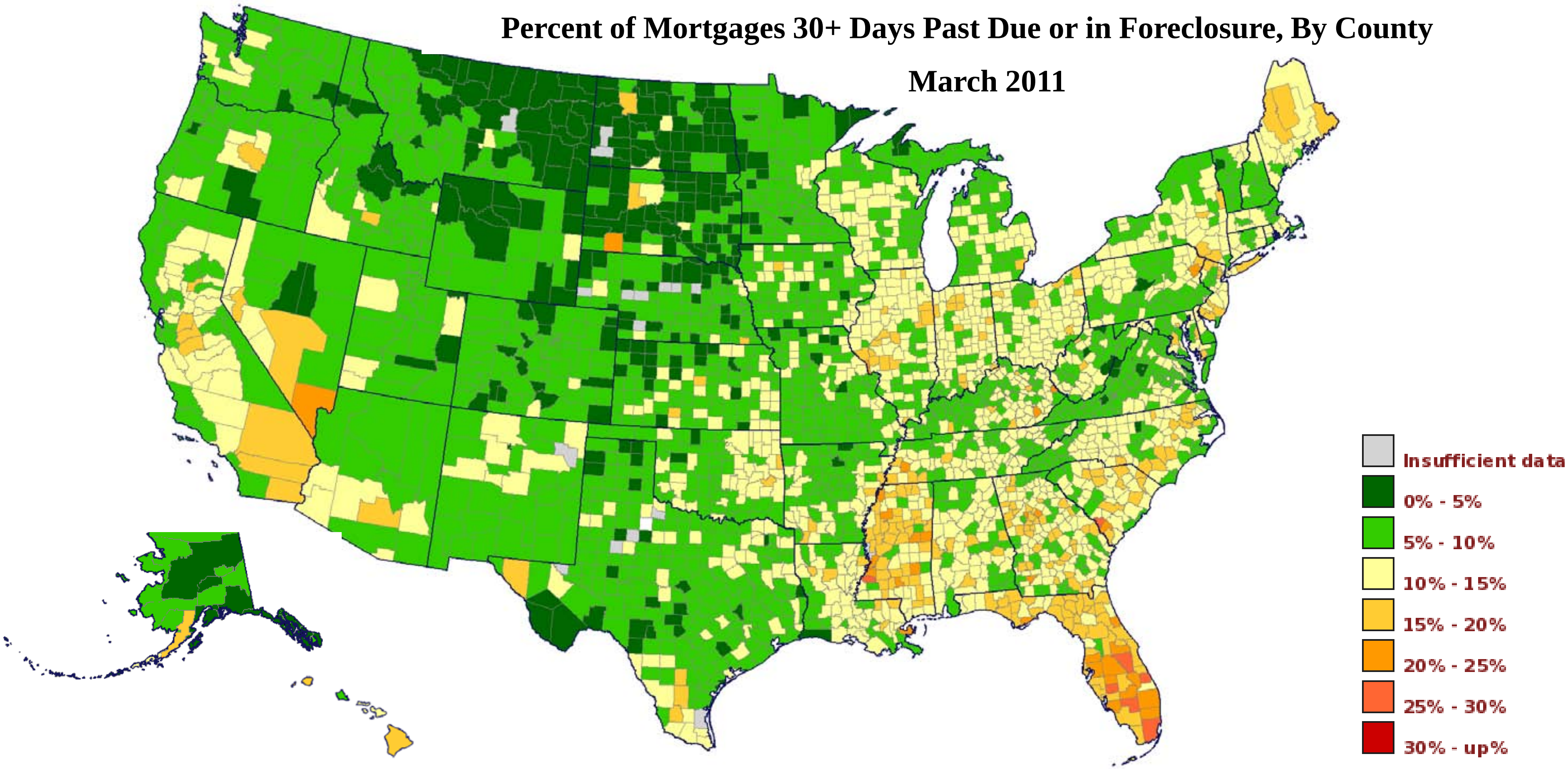
Source: Lender Processing Services.

Peak mortgage distress



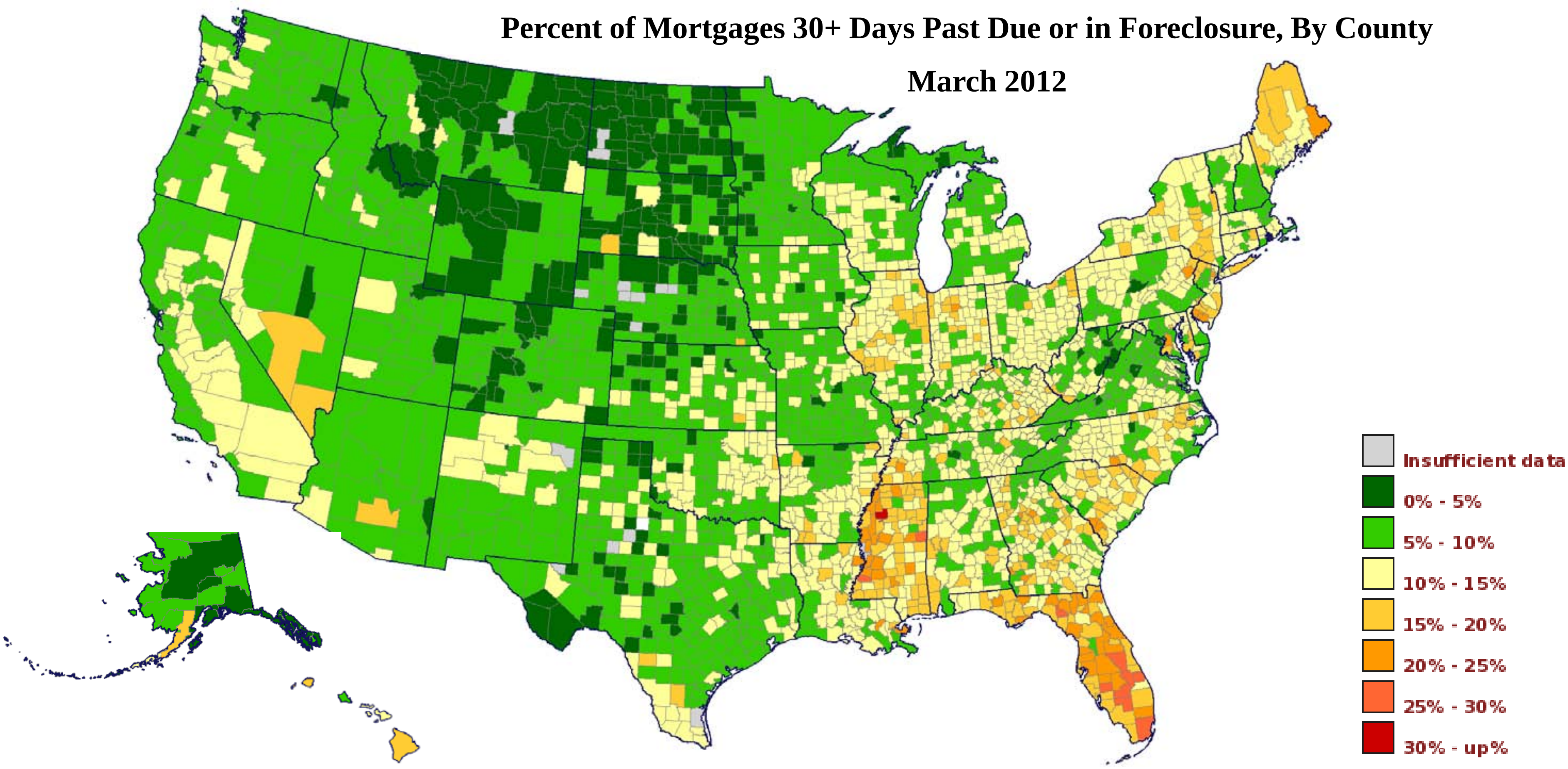
Source: Lender Processing Services.

Mortgage distress remains elevated



Source: Lender Processing Services.

Mortgage distress remains elevated

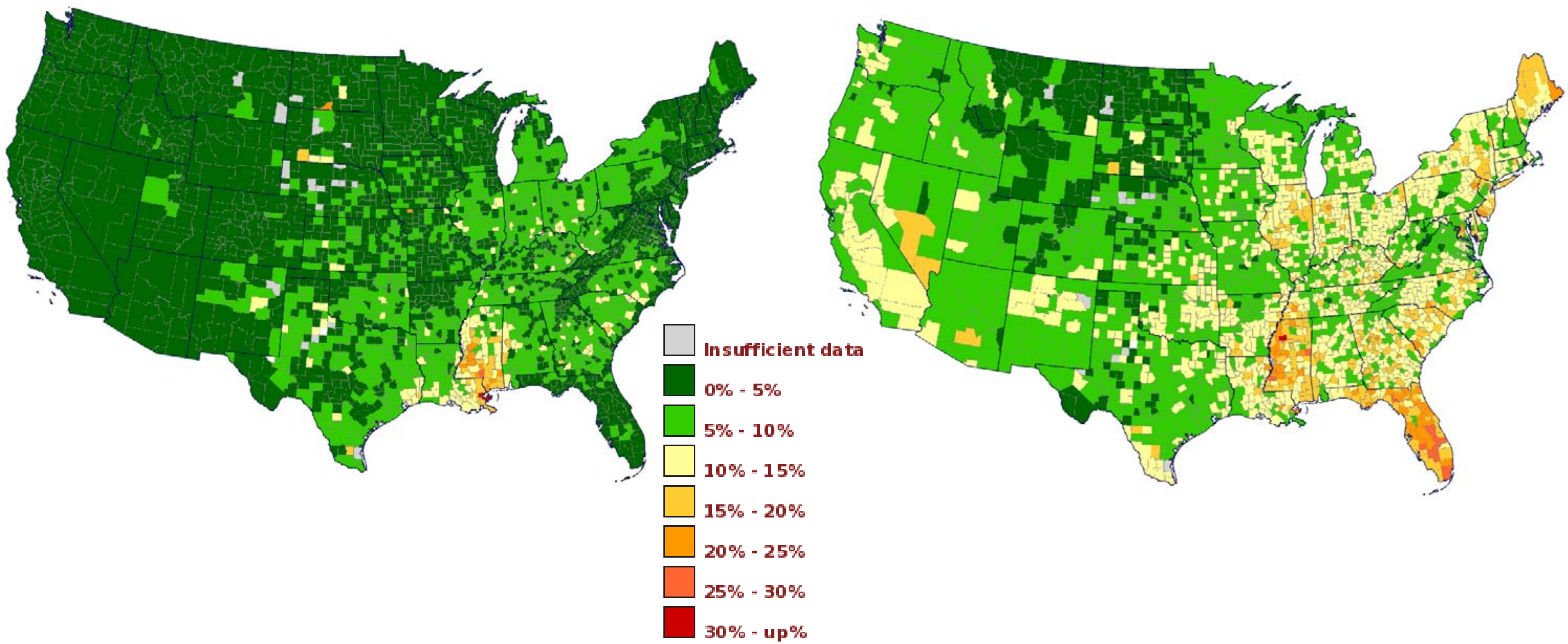


Source: Lender Processing Services.

Mortgage conditions remain distressed

Percent of Mortgages 30+ Days Past Due or in Foreclosure, By County

March 2006 **March 2012**



Source: Lender Processing Services.

Conclusions

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- The U.S. economy had a bubble in housing which collapsed.
- Recovery from this event is ongoing and will ultimately take many years.
- In particular, households are saddled with far too much mortgage debt compared with historical norms.
- Monetary policy has been ultra-easy during this period, but cannot reasonably encourage additional borrowing by households with too much debt.

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Federal Reserve Economic Data (FRED)
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