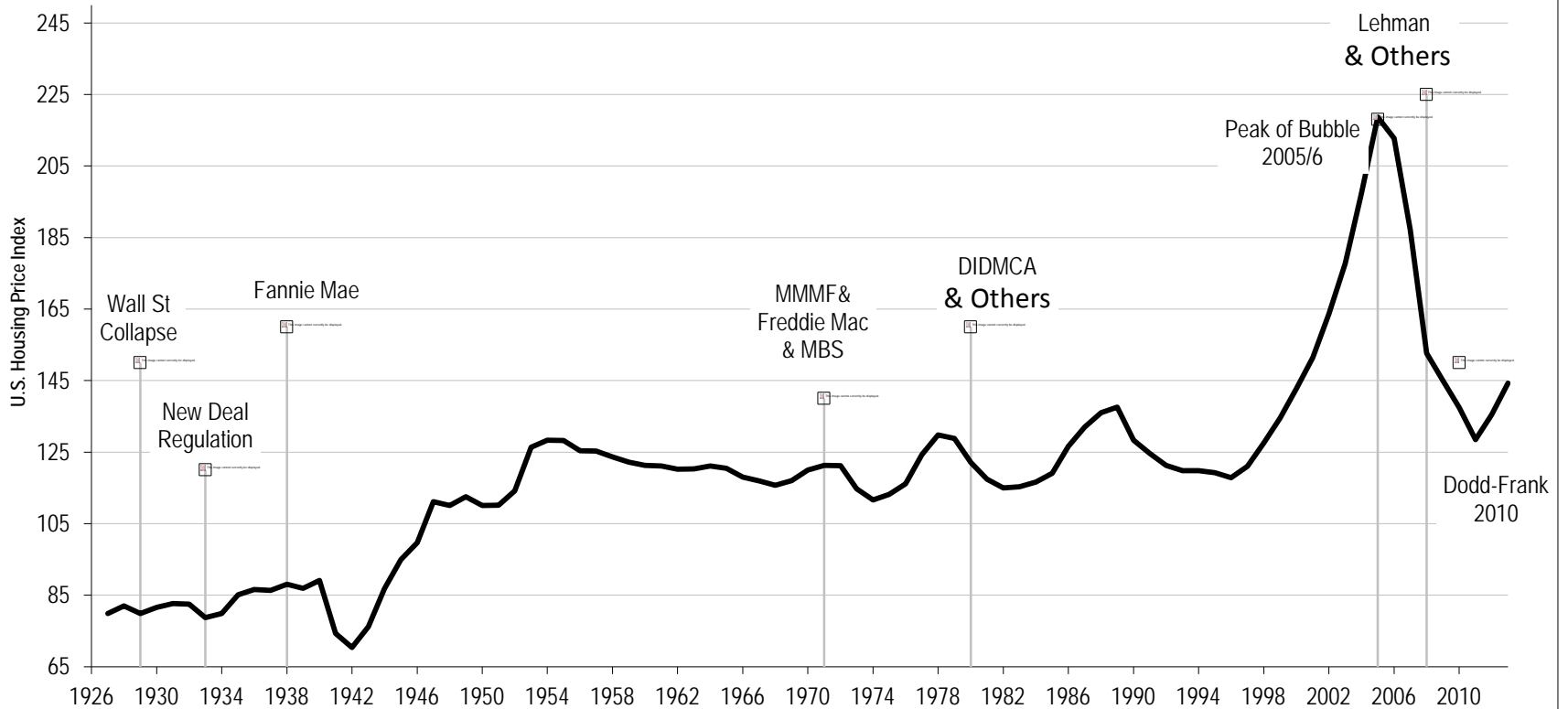


Tennessee Advisory Commission on Intergovernmental Relations

January 30-31, 2014



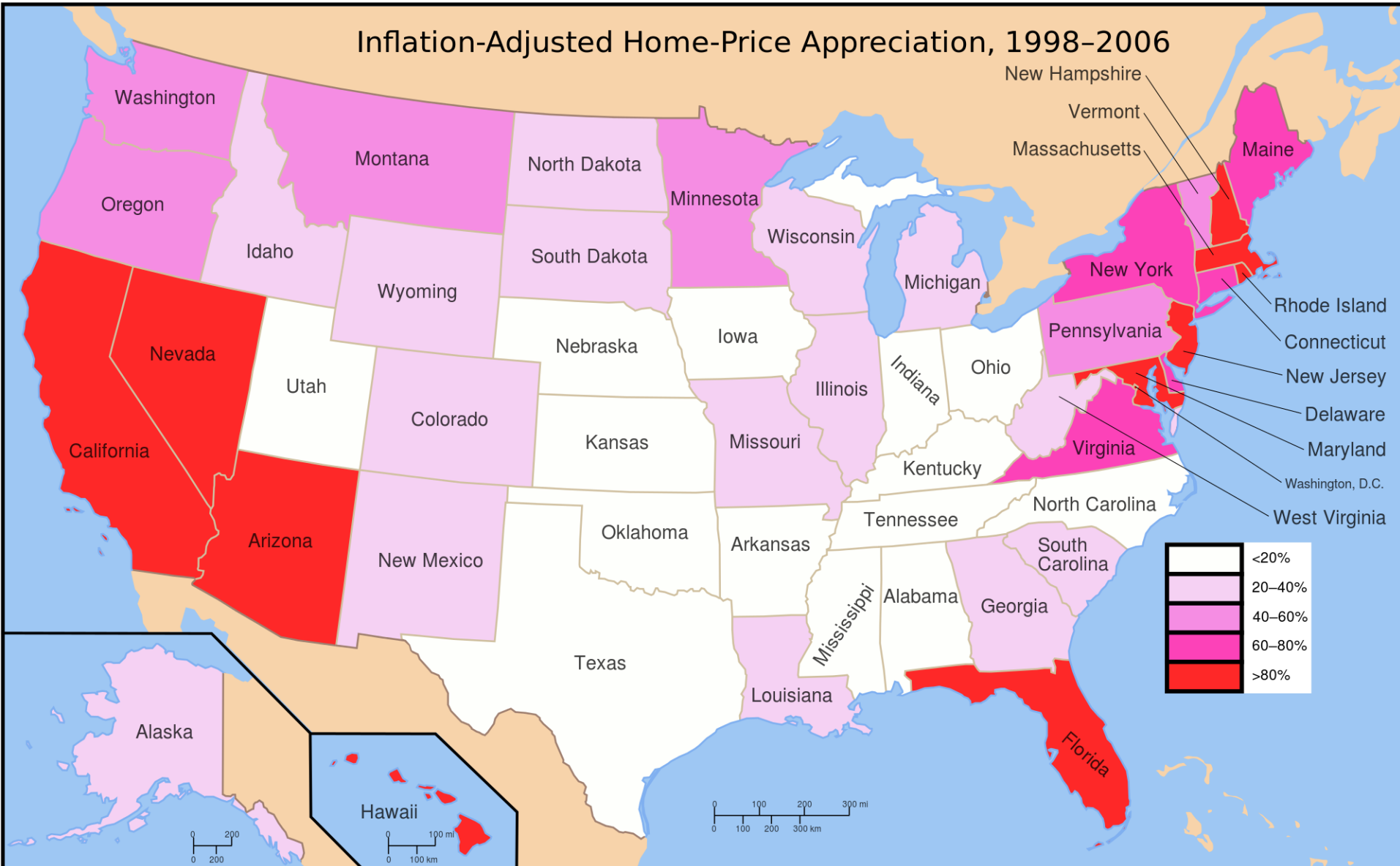
Inflation-Adjusted Housing Prices



Source: data from Robert Shiller book "Irrational Exuberance"

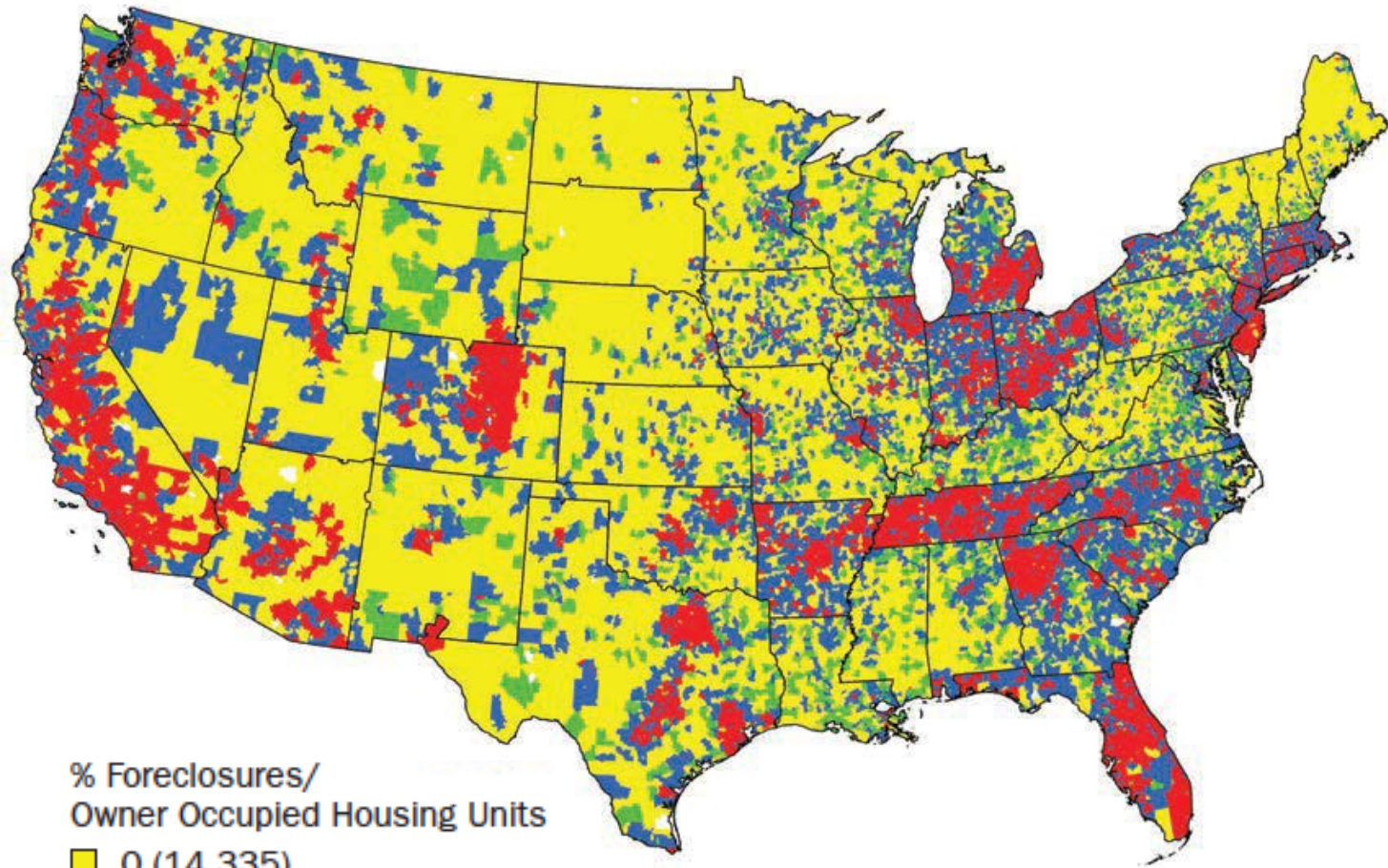


Inflation-Adjusted Home-Price Appreciation, 1998–2006



Source:
http://en.wikipedia.org/wiki/File:USA_home_appreciation_1998_2006.svg

Total Foreclosures Nationwide as Percent of Owner-occupied Housing Units, by 5-digit Zip Code Level, 2006–2011

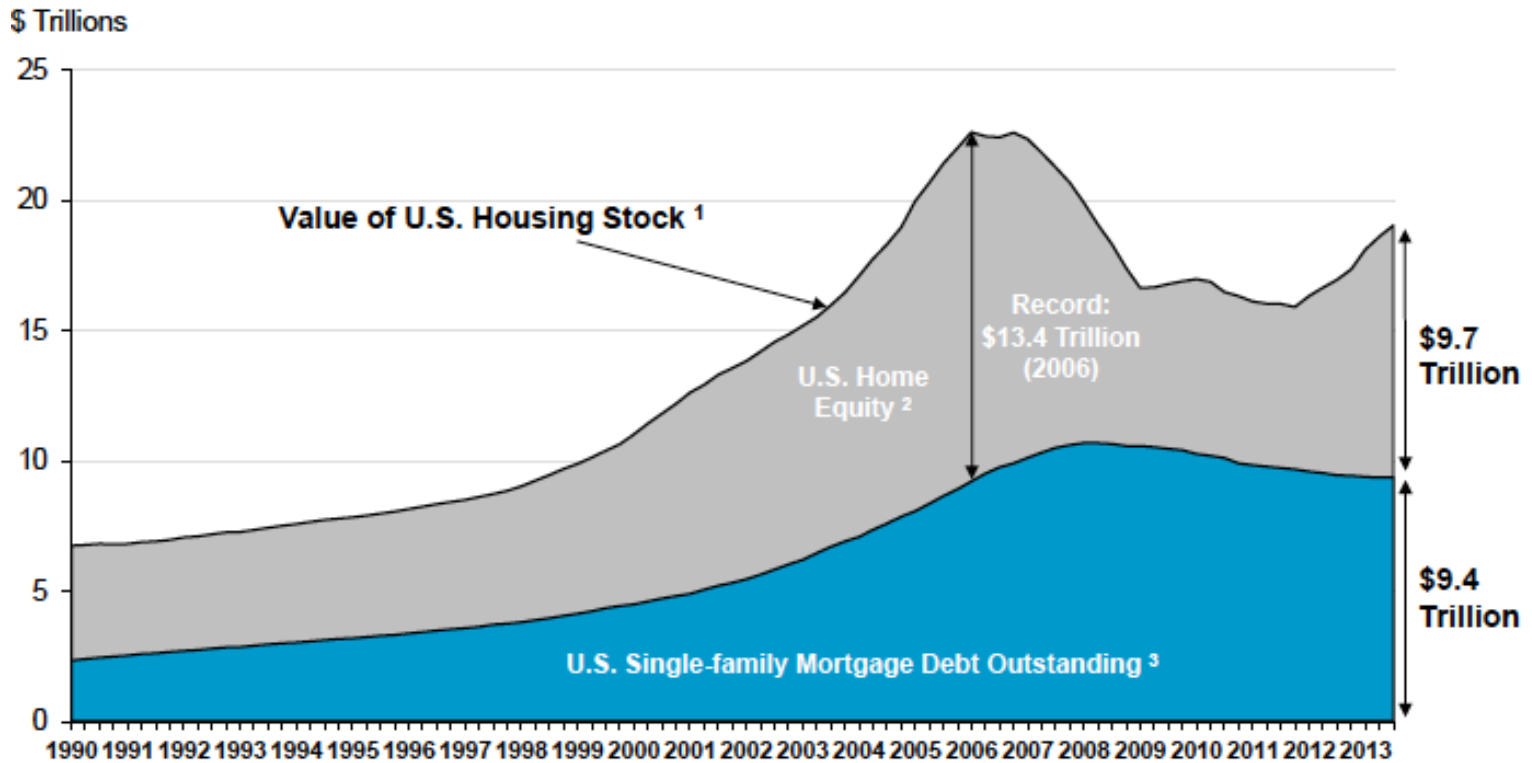


% Foreclosures/
Owner Occupied Housing Units

- 0 (14,335)
- 0 to 0.09 (1,566)
- 0.09 to 0.80 (7,828)
- 0.80 and above (7,865)

Source: Lincoln Institute of Land Policy

U.S. single-family mortgage debt in relation to total value of housing stock



¹ Value of U.S. housing stock: Federal Reserve Board's Flow of Funds Accounts, December 9, 2013, Table B.100 (line #51). This figure includes homes with and without underlying mortgages.

² U.S. home equity is the difference between the value of the U.S. housing stock and the amount of U.S. single-family mortgage debt outstanding.

³ U.S. single-family mortgage debt outstanding: Federal Reserve Board's Flow of Funds Accounts, December 9, 2013, Table L.100 (line #29).

Source: Federal Reserve Board's Flow of Funds Accounts. Data as of September 30, 2013.

S&P 500 Stock Price Index (SP500)
Source: S&P Dow Jones Indices LLC



Shaded areas indicate US recessions.
2014 research.stlouisfed.org



Reasons For Bubble in Real Estate

1. Dot-Com bubble of 1997-2000 driven by fast growth of internet and web-related businesses that resulted in fast rise in stock prices that fueled expectations of continued rise in stock prices.
2. Dot-Com market collapse partly soured investors in equities and they sought safety in real estate.
3. FED actions during 2000-2001 recession that reduced interest rates.
4. Growing contagious belief in forever-rising real estate prices by households and investors. “Irrational Exuberance.”
5. Willingness of GSEs and private financial businesses to purchase and pool growing volume of originations.
6. Congressional action pushing or encouraging lenders and GSEs to make available loans to marginal borrowers in order to raise home ownership rates among low and moderate-income households.



Participants in the Real Estate-Related Financial Disaster of 2007/2008

1. Borrowers: Households and Investors
2. Originators: Entity originating mortgage
3. Servicers: Institution servicing the mortgage
4. Securitizers: Entities pooling mortgages into mortgage-backed securities (MBS) or more complicated securities (CDOs, synthetic CDOs). Includes GSEs, private financial businesses.
5. Investors: Pension funds, financial institutions, GSEs, other countries, state and local governments.
6. Trustees (MBS): Parties responsible for representing the interest of MBS investors.
7. Taxpayers (when everything goes awry): Federal Reserve, US Treasury, TARP, and various federal and state programs after the bottom fell out.

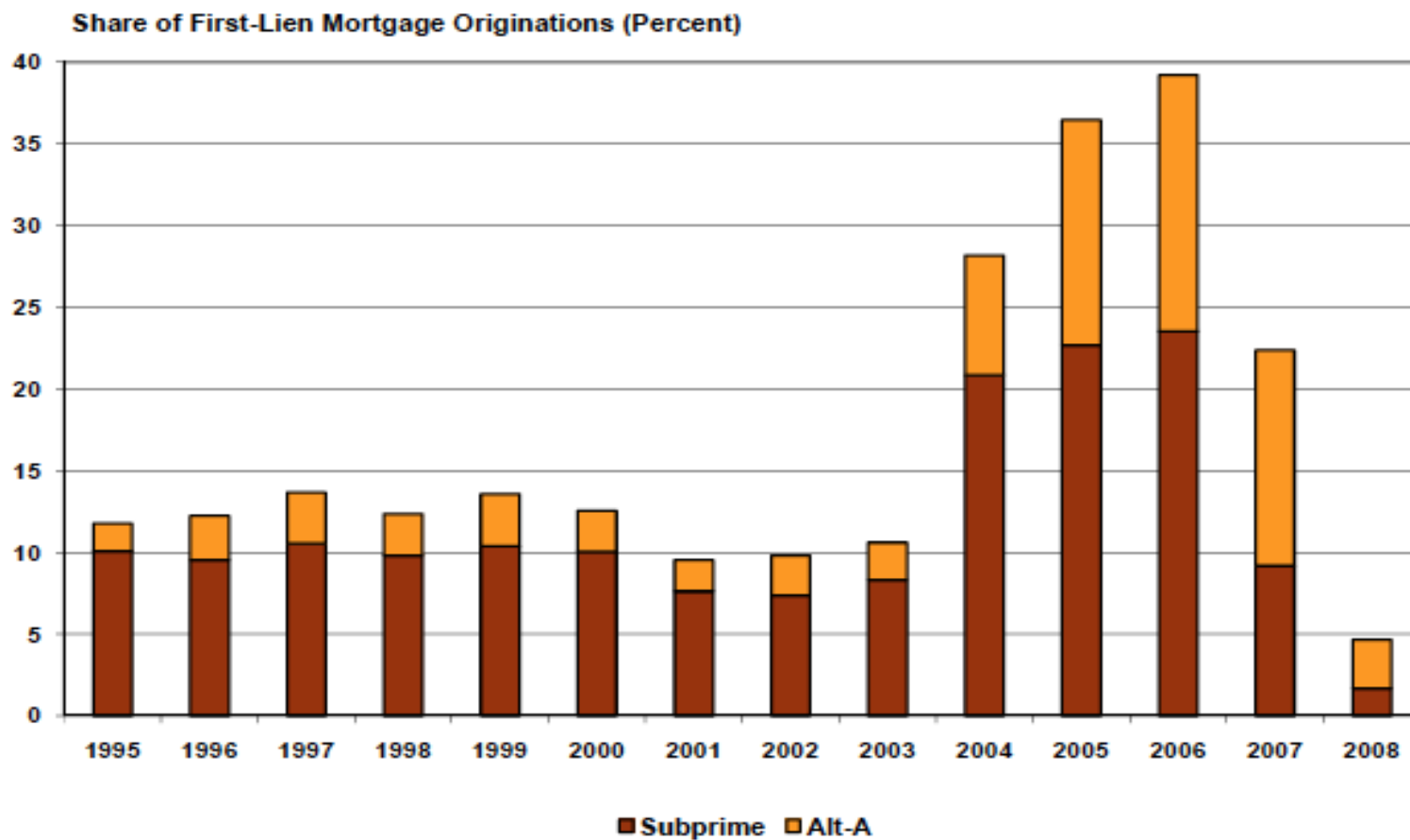


Problems

1. Various levels of ignorance and greed by many of the participants.
2. A contagious belief that home prices could never decline by most of the participants, even up to the inevitable collapse.
3. Excessive number of subprime or high cost mortgages with and without proper documentation especially after 2003: almost destined to fail.
4. No or poor regulation of financial institutions (especially non-depository financial institutions) resulting in various forms of excesses including risky and highly-leverage borrowing, shadowy financial arrangements and markets.



Figure 1-3. Nonprime Lending Soared in the 2000s



Source: Inside Mortgage Finance, *2009 Mortgage Market Statistical Annual*.

Financial Institution Transformations in 2008

Type of Institution		Assets		Transformation
		2007	2009	
Investment Banks	Goldman Sachs	\$1.12 trillion	\$849 billion	Became a commercial bank
	Morgan Stanley	\$1.05 trillion	\$771 billion	Became a commercial bank
	Merrill Lynch	\$1.02 trillion	----	Merged into BOA
	Lehman Brothers	\$691 billion	----	Bankrupt
	Bear Sterns	\$395 billion	----	Bought by JP Morgan
Commercial Banks	BOA	\$1.72 trillion	\$2.2 trillion	Bailed out
	Citigroup	\$2.19 trillion	\$1.86 trillion	Bailed out
	JP Morgan Chase	\$1.56 trillion	\$2.03 trillion	Acquired Bear Sterns & WaMu
	Wachovia	\$738 billion	----	Failed; bought by Wells Fargo
	Wells Fargo	\$575 billion	\$1.24 trillion	Bought Wachovia
Others	AIG	\$1.06 trillion	\$848 billion	Nationalized
	Fannie Mae	\$883 billion	\$869 billion	Conservatorship
	Freddie Mac	\$794 billion	\$842 billion	Conservatorship
	WaMu	\$328 billion	----	Failed; assets purchased by JP Morgan

Source: Alan Blinder "After the Music Stopped"

Note: "Bailed out" refers to some action by FED, FDIC, Treasury, or all three to provide liquidity aid to troubled financial institutions.

Reasons for Slow Resolutions and Modifications of Real Estate Problems

1. Servicers overwhelmed by volume of defaults. Highly efficient in originating mortgages; not equipped to handle high volume of defaults.
2. Servicers constrained by agreements with securitizers.
3. Some of the participants were parts of the same enterprise.
4. Senior (1st) mortgage debt entailed conflicts with junior (2nd or 3rd liens) real estate debt.
5. Bankruptcy proceedings slowed down process, especially in Tennessee.

