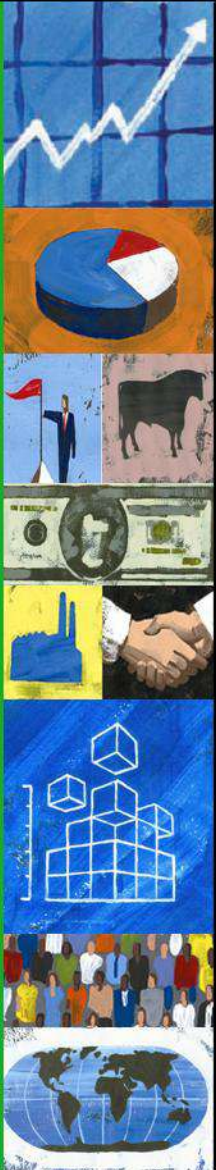


The Economic Crisis of 2008

Cause and Aftermath



- *U.S. housing policies are the root cause of the current financial crisis. Other players-- “greedy” investment bankers; foolish investors; imprudent bankers; incompetent rating agencies; irresponsible housing speculators; shortsighted homeowners; and predatory mortgage brokers, lenders, and borrowers--all played a part, but they were only following the economic incentives that government policy laid out for them.*
-
- Peter J. Wallison

Key Events Leading up to the Crisis

- Housing price **increase** during 2000-2005, followed by a leveling off and then a sharp drop in housing prices
- **Increase** in the **default** and **foreclosure rates** beginning in the second half of 2006
- Collapse of major investment banks in 2008
- 2008 collapse of stock prices

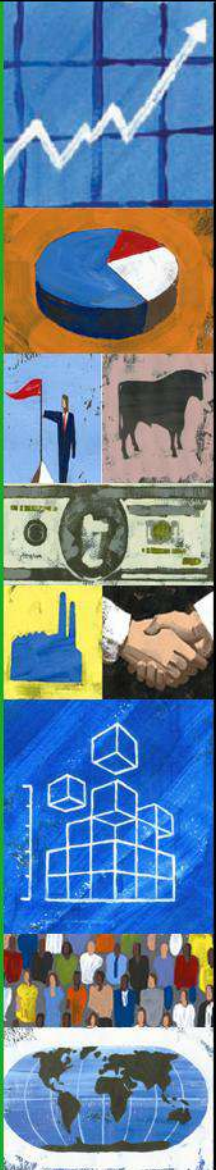
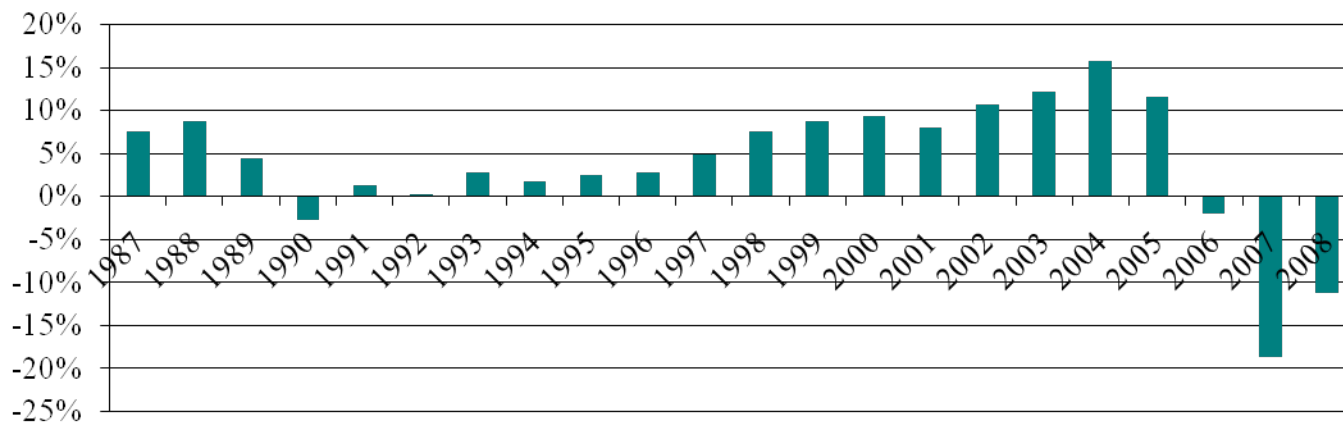


Exhibit 1: House Price Change

- Housing prices were relatively stable during the 1990s, but they began to rise toward the end of the decade.
- Between January 2002 and mid-year 2006, housing prices increased by a whopping 87 percent.
- The boom had turned to a bust, and the housing price declines continued throughout 2007 and 2008.
- By the third quarter of 2008, housing prices were approximately 25 percent below their 2006 peak.

Annual Existing House Price Change

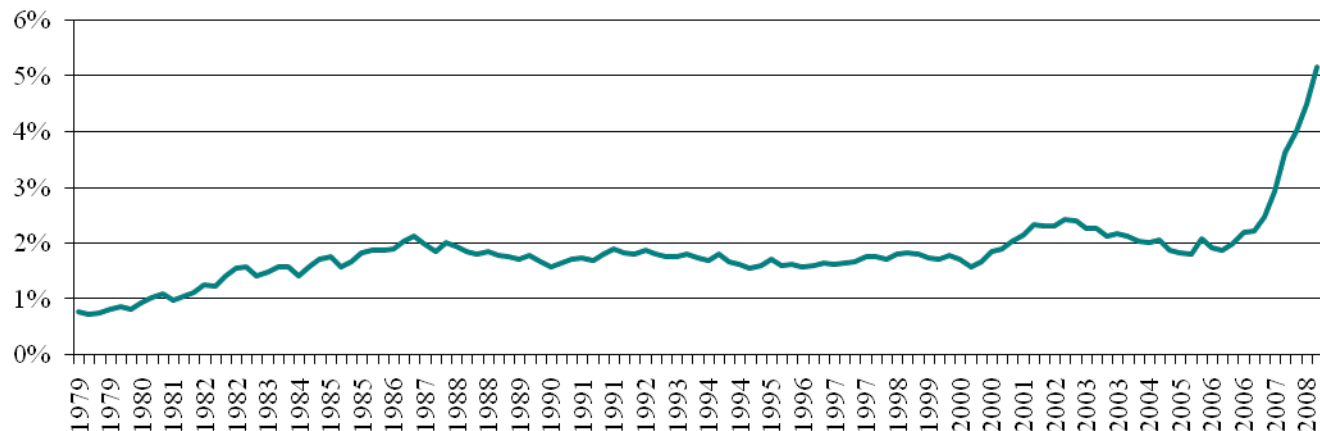


Source: www.standardandpoors.com, S and P Case-Schiller Housing Price Index.

Exhibit 2a: Default Rate

- The default rate fluctuated, within a narrow range, around 2 percent prior to 2006.
- It increased only slightly during the recessions of 1982, 1990, and 2001.
- The rate began increasing sharply during the second half of 2006
- It reached 5.2 percent during the third quarter of 2008.

Default Rate



Source: www.mbaa.org, *National Delinquency Survey*.



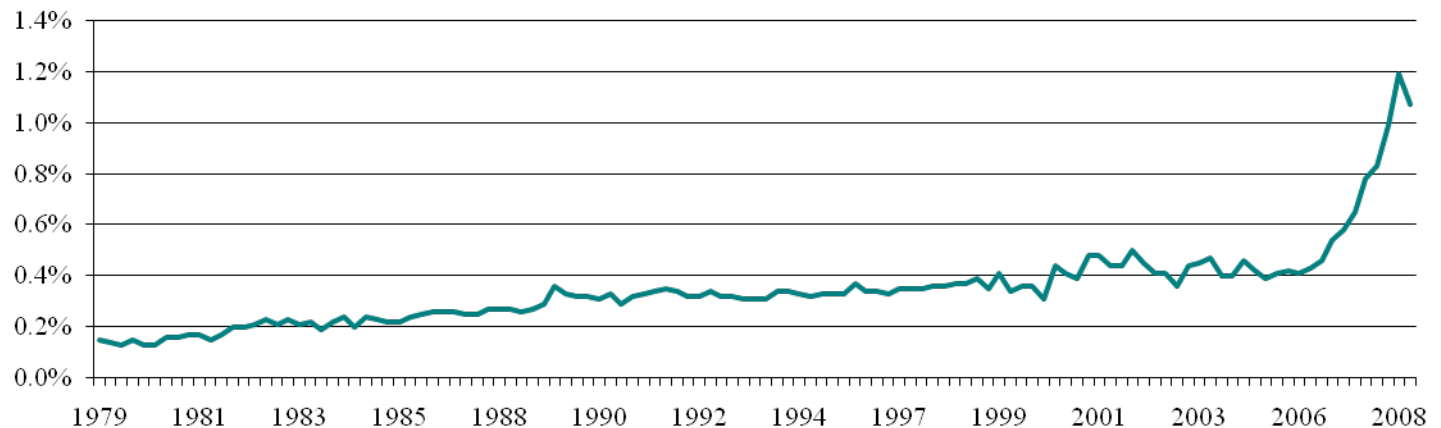
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Exhibit 2b: Foreclosure Rate

- The mortgage foreclosure rate followed a path similar to the default rate.
- The foreclosure rate was low and relatively steady prior to mid-year 2006, at which time it increased sharply and moved to the highest level in decades.

Foreclosure Rate

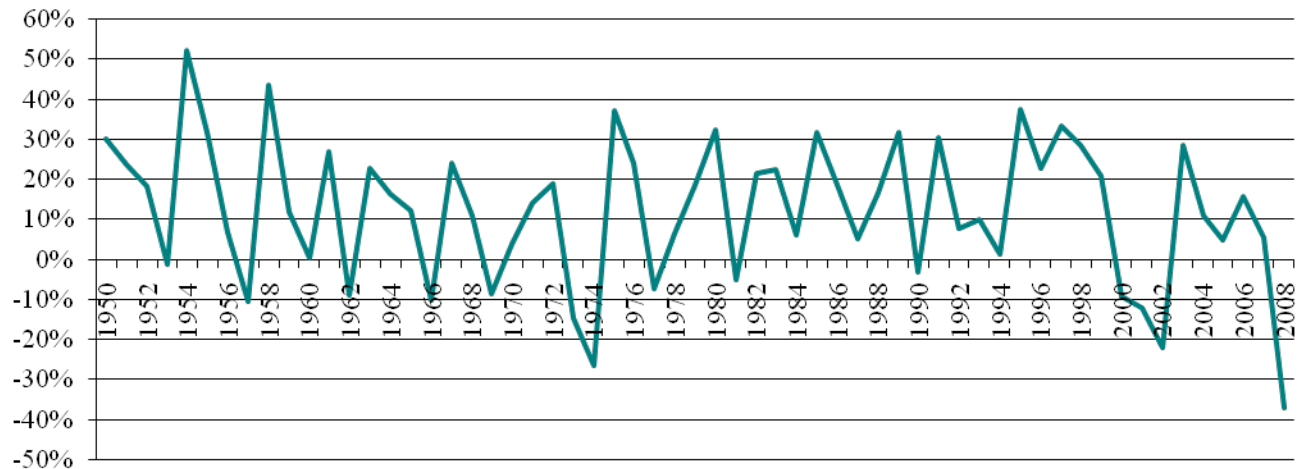


Source: www.mbaa.org, *National Delinquency Survey*.

Exhibit 3: Stock Market Returns

- As of mid-December of 2008, stock returns were down by 37 percent since the beginning of the year.
- This is nearly twice the magnitude of any year since 1950.
- This collapse eroded the wealth and endangered the retirement savings of many Americans.

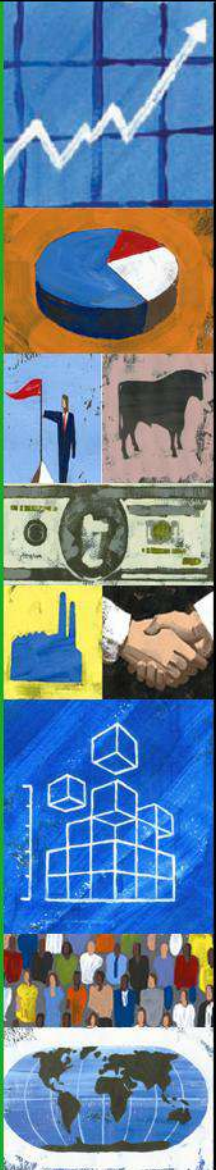
S and P 500 Total Return



Source: www.standardandpoors.com

Key Questions About the Crisis of 2008

- Why did housing prices rise rapidly and then fall?
- Why did the mortgage default and housing foreclosure rates begin to increase?
- Why are the recent default and foreclosure rates so much higher than at any time during the 1980s and 1990s?
- Why did investment banks like Bear Stearns and Lehman Brothers run into financial troubles so quickly?
- Four factors provide the answers to all of these questions.



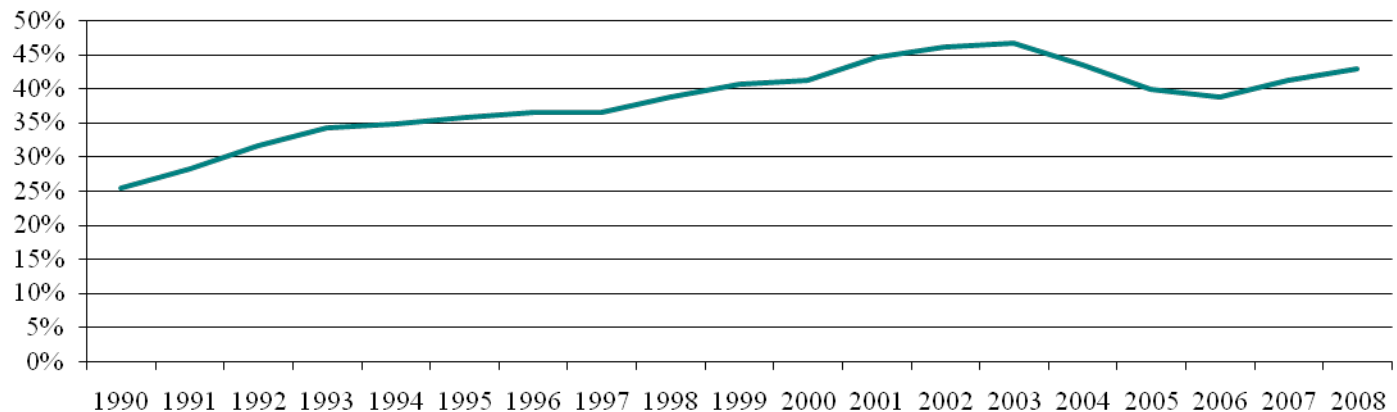
What Caused the Crisis of 2008?

- **Factor 1:** Beginning in the mid-1990s, government regulations began to change the conventional lending standards.
 - Fannie Mae and Freddie Mac hold a huge share of American mortgages.
 - Beginning in 1995, HUD regulations required Fannie Mae and Freddie Mac to increase their holdings of loans to low and moderate income borrowers.
 - HUD regulations imposed in 1999 required Fannie and Freddie to accept more loans with little or no down payment.
 - 1995 regulations stemming from an extension of the Community Reinvestment Act required banks to extend loans in proportion to the share of minority population in their market area. Conventional lending standards were reduced to meet these goals.

Exhibit 4: Fannie Mae/Freddie Mac Share

- The share of all mortgages held by Fannie Mae and Freddie Mac rose from 25 percent in 1990 to 45 percent in 2001.
- Their share has fluctuated modestly around 45 percent since 2001.

Freddie Mac/Fannie Mae Share of Outstanding Mortgages



Source: Office of Federal housing Enterprise Oversight, www.ofheo.gov.



[Jump to first page](#)



What Caused the Crisis of 2008?

- **Factor 2:** The Fed's manipulation of interest rates during 2002-2006
 - Fed's prolonged **Low-Interest Rate Policy of 2002-2004** increased demand for, and price of, housing.
 - The low short-term interest rates made adjustable rate loans with low down payments highly attractive.
 - As the Fed pushed short-term interest rates upward in **2005-2006**, adjustable rates were soon reset, monthly payment on these loans increased, housing prices began to fall, and **defaults soared**.

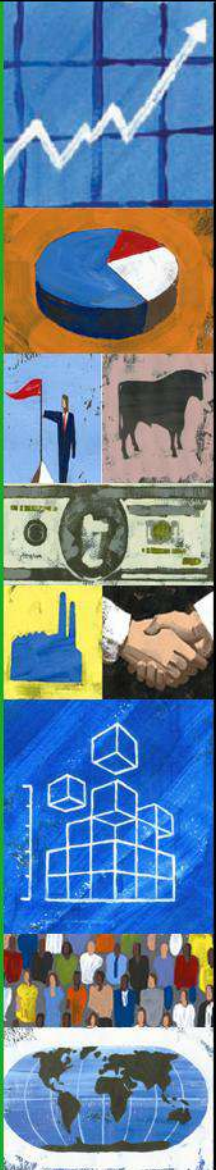
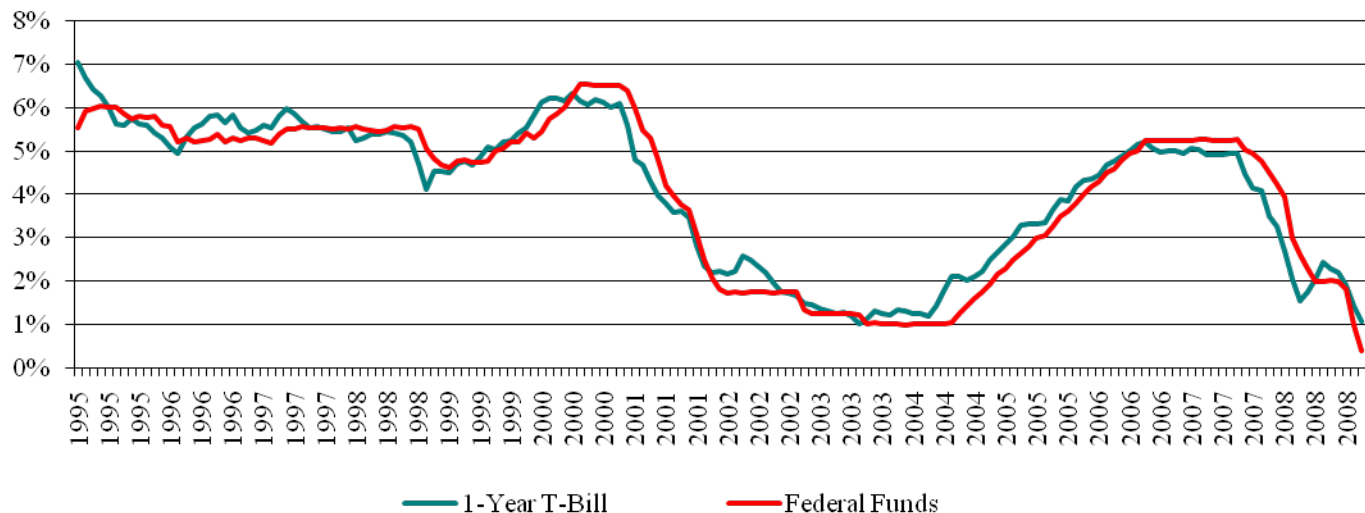


Exhibit 5: Short-Term Interest Rates

- The Fed injected additional reserves and kept short-term interest rates at 2% or less throughout 2002-2004.
- Due to rising inflation in 2005, the Fed pushed interest rates upward.
- Interest rates on adjustable rate mortgages rose and the default rate began to increase rapidly.

Federal Funds Rate and 1-Year T-Bill Rate



Source: www.federalreserve.gov and www.economagic.com

What Caused the Crisis of 2008?

- **Factor 3:** An SEC Rule change adopted in April 2004 led to highly leveraged lending practices by **investment banks** and **their quick demise** when default rates increased.
 - The rule favored lending for residential housing.
 - Loans for residential housing could be leveraged by as much as 25 to 1, and as much as 60 to 1, when bundled together and financed with securities.
 - Based on historical default rates, mortgage loans for residential housing were thought to be safe. But this was no longer true because regulations had seriously eroded the lending standards and the low interest rates of 2002-2004 had increased the share of ARM loans with little or no down payment.
 - When default rates increased in 2006 and 2007, the highly leveraged investment banks soon collapsed.

What Caused the Crisis of 2008?

- **Factor 4:** Doubling of the Debt/Income Ratio of Households since the mid-1980s.
 - The debt-to-income ratio of households was generally between 45 and 60 percent for several decades prior to the mid 1980s. By 2007, the debt-to-income ratio of households had increased to 135 percent.
 - Interest on household debt also increased substantially.
 - Because interest on housing loans was tax deductible, households had an incentive to wrap more of their debt into housing loans.
 - The heavy indebtedness of households meant they had no leeway to deal with unexpected expenses or rising mortgage payments.

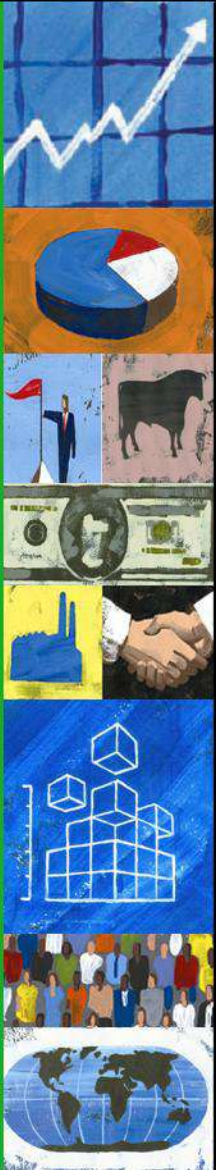
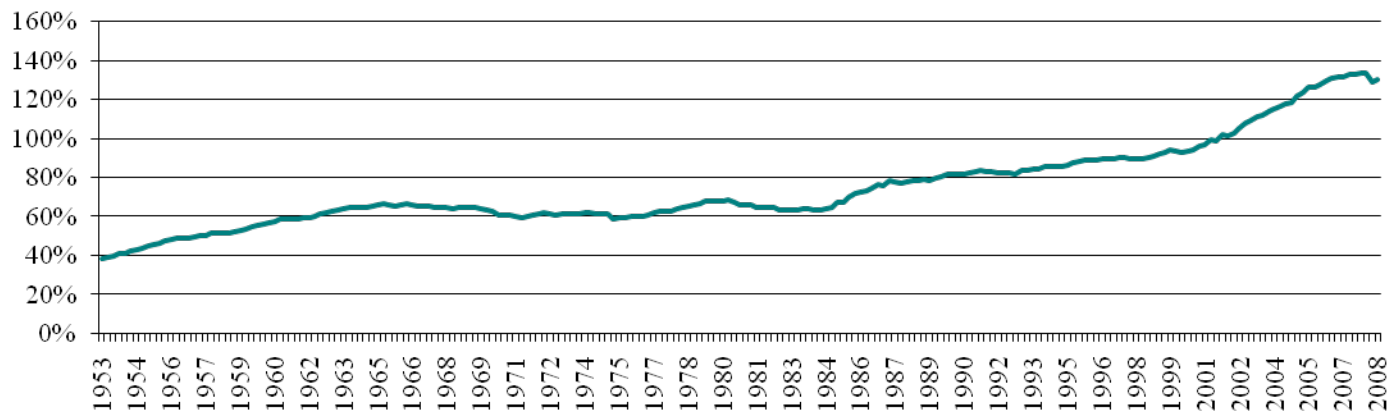


Exhibit 6a: Household Debt as a Share of Income

- Between 1950-1980, household debt as a share of disposable (after-tax) income ranged from 40 percent to 60 percent.
- However, since the early 1980s, the debt-to-income ratio of households has been climbing at an alarming rate.
- It reached 135 percent in 2007, more than twice the level of the mid-1980s.

Household Debt to Disposable Personal Income Ratio

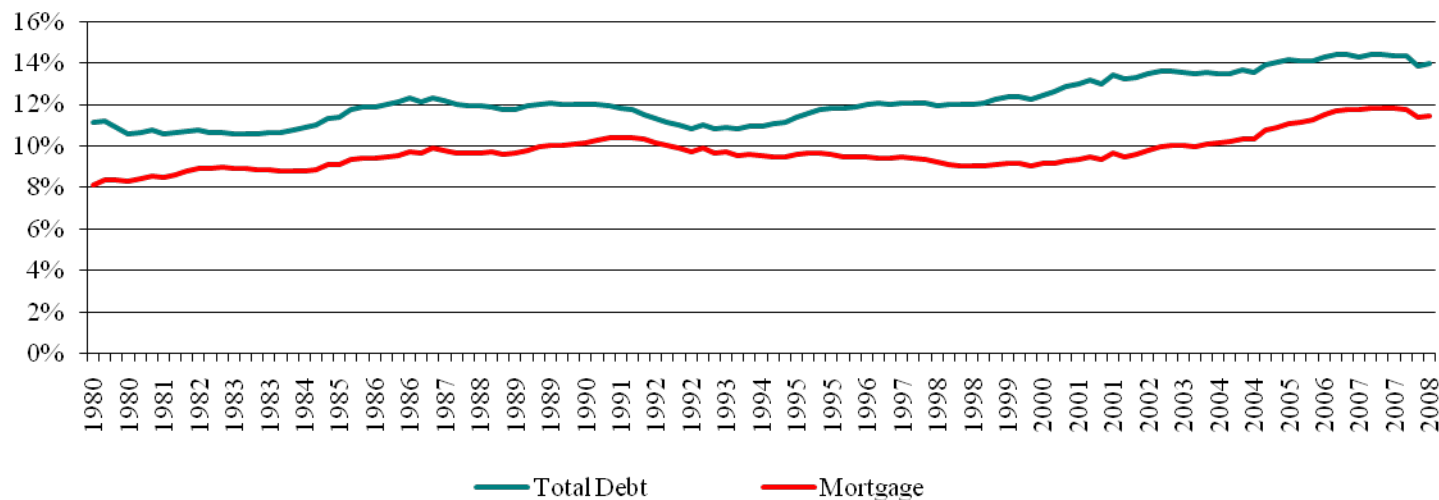


Source: www.economagic.com

Exhibit 6b: Debt Payments as a Share of Income

- Today, interest payments consume nearly 15 percent of the after-tax income of American households, up from about 10 percent in the early 1980s.

Debt Payments to Disposable Personal Income Ratios

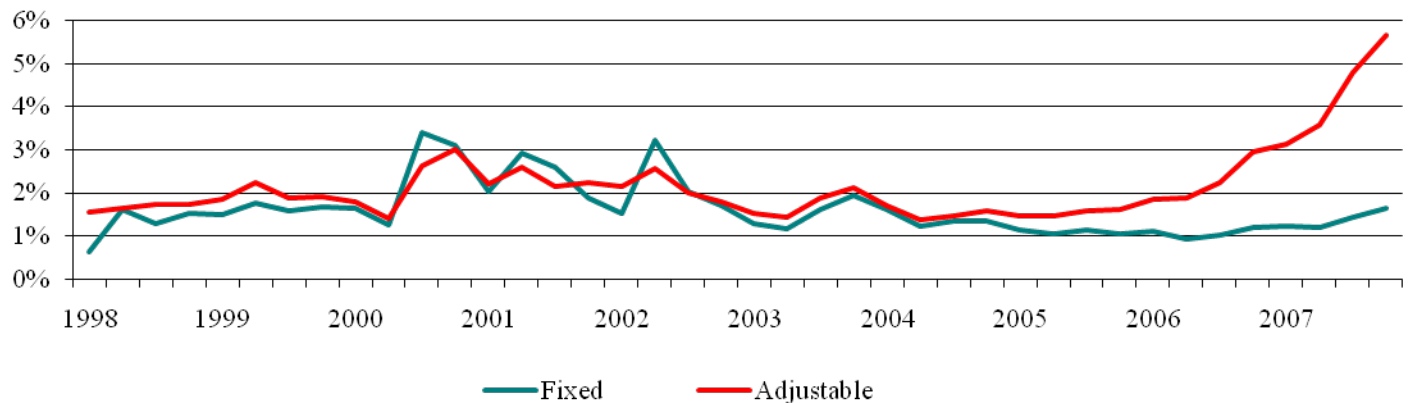


Source: www.economagic.com

Exhibit 7a: Foreclosure Rates on Subprime

- Compared to their prime borrower counterparts, the foreclosure rate for subprime borrowers is approximately 10 times higher for fixed rate mortgages and 7 times higher for adjustable rate mortgages.
- There was no trend in the foreclosure rate prior to 2006 for adjustable rate or fixed rate mortgages.
- Starting in 2006, there was a sharp increase in the adjustable rate mortgage foreclosure rate.

Exhibit 7a: Foreclosure Rates on Subprime Mortgages

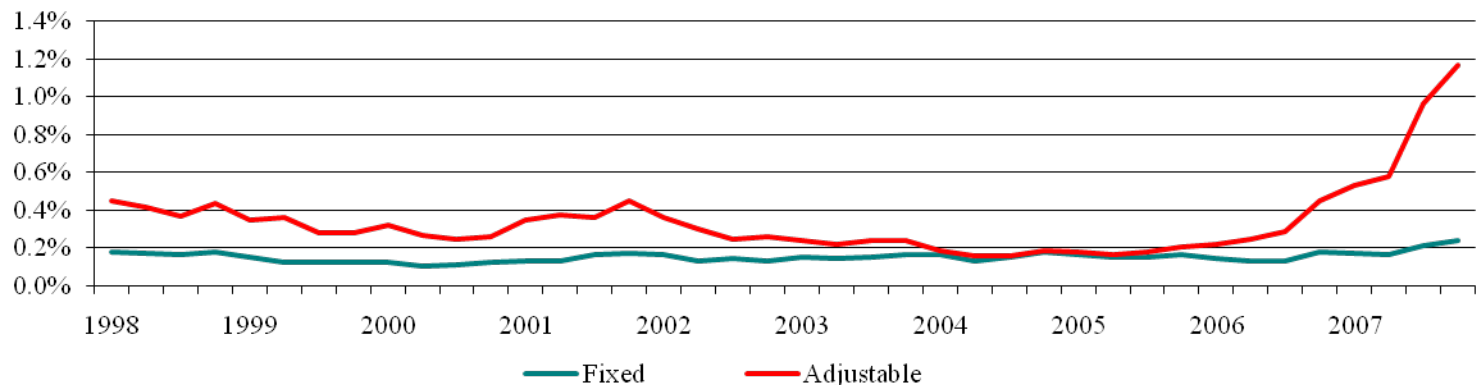


Source: Liebowitz, Stan J., "Anatomy of a Train Wreck: Causes of the Mortgage Meltdown," Ch. 13 in Randall G. Holcombe and Benjamin Powell, eds, *Housing America: Building Out of a Crisis* (New Brunswick, NJ: Transaction Publishers, 2009 (forthcoming). We would like to thank Professor Liebowitz for making this data available to us.

Exhibit 7b: Foreclosure Rates on Prime

- While the foreclosure rate on fixed rate mortgages was relatively constant, the foreclosures on adjustable rate mortgages began to soar in the second half of 2006.
- This was true for both prime and subprime loans.

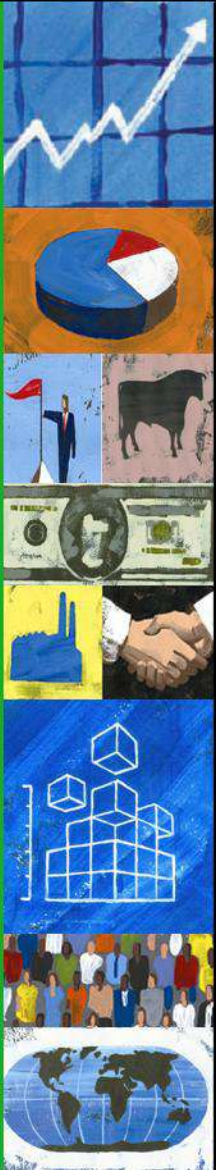
Exhibit 7b: Foreclosure Rates on Prime Mortgages



Source: Liebowitz, Stan J., "Anatomy of a Train Wreck: Causes of the Mortgage Meltdown," Ch. 13 in Randall G. Holcombe and Benjamin Powell, eds, *Housing America: Building Out of a Crisis* (New Brunswick, NJ: Transaction Publishers, 2009 (forthcoming)). We would to thank Professor Liebowitz for making this data available to us.

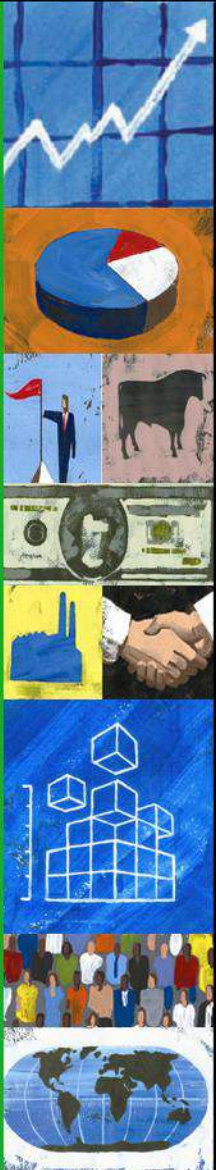
Fixed vs. Variable Rate Mortgages

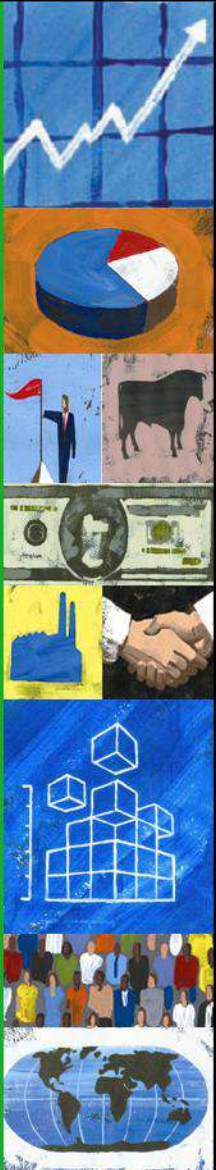
- Default and foreclosure rates on **fixed** interest rate mortgages did not rise much in 2007 and 2008. This was true for loans to both prime and sub-prime borrowers.
- In contrast, the default and foreclosure rates on **adjustable rate mortgages** soared during 2007 and 2008 for both prime and sub-prime borrowers.
- The combination of lower lending standards, adjustable rate loans, and the Fed's interest rate policies of 2002-2006 was disastrous.
- Incentives matter and perverse incentives created the crisis of 2008.



Key Questions About the Crisis of 2008

- Why did housing prices rise rapidly and then fall?
- Why did the mortgage default and housing foreclosure rates begin to increase?
- Why are the recent default and foreclosure rates so much higher than at any time during the 1980s and 1990s?
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End