

# What Lies Beyond the Credit Crunch

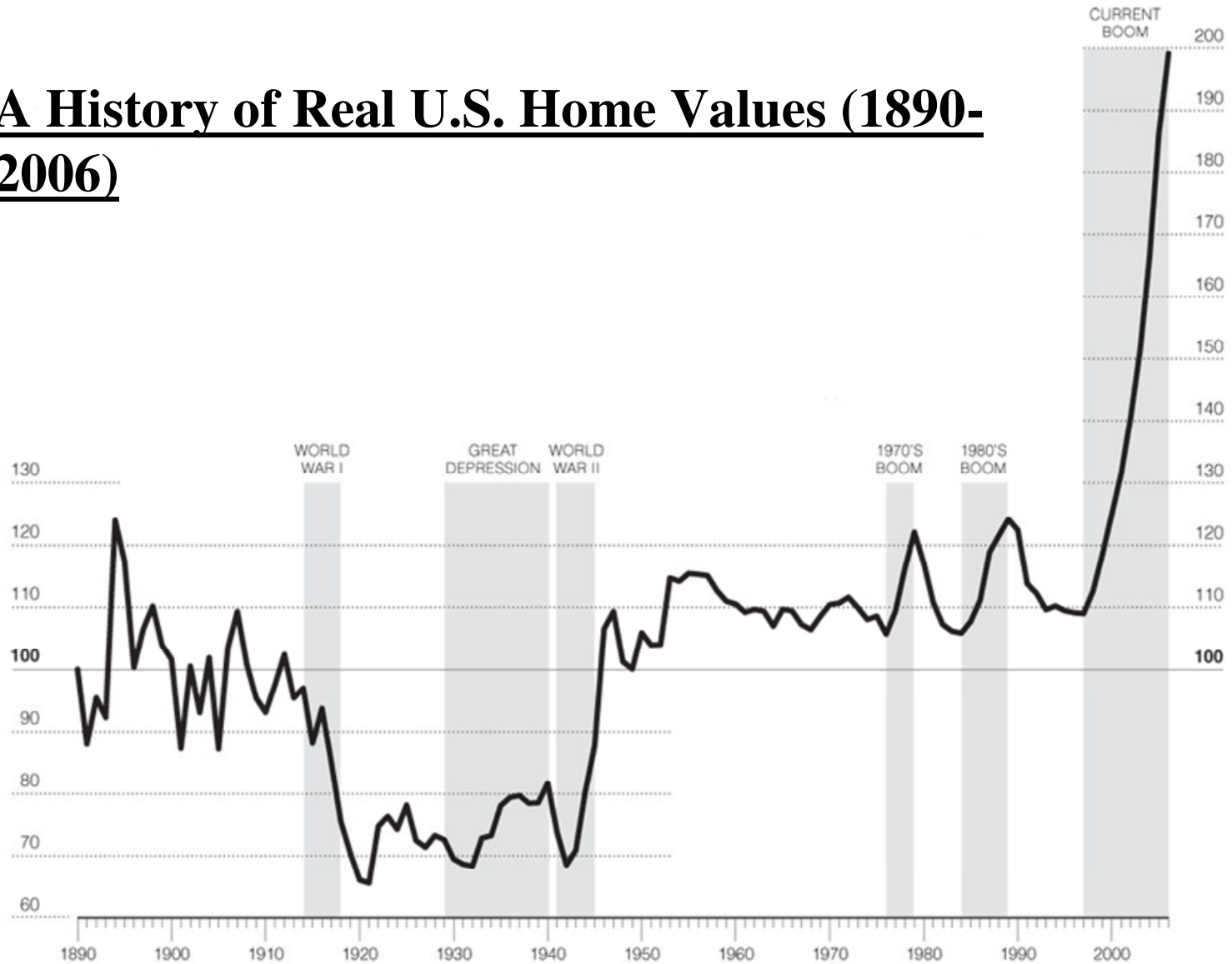
December 17, 2007

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Resident Fellow

## Housing Price Bubble and Leverage

1. Between 2000 and 2006 U.S. real home prices increased by around 80 percent, which has no precedent in the U.S. over the past 100 years
2. The ratio of home prices to incomes suggests home prices are presently 15-30 percent overvalued
3. Mortgage lending standards declined precipitously thereby contributing to the bubble
4. Speculative activity in housing was rampant
5. Consumers have become over-leveraged

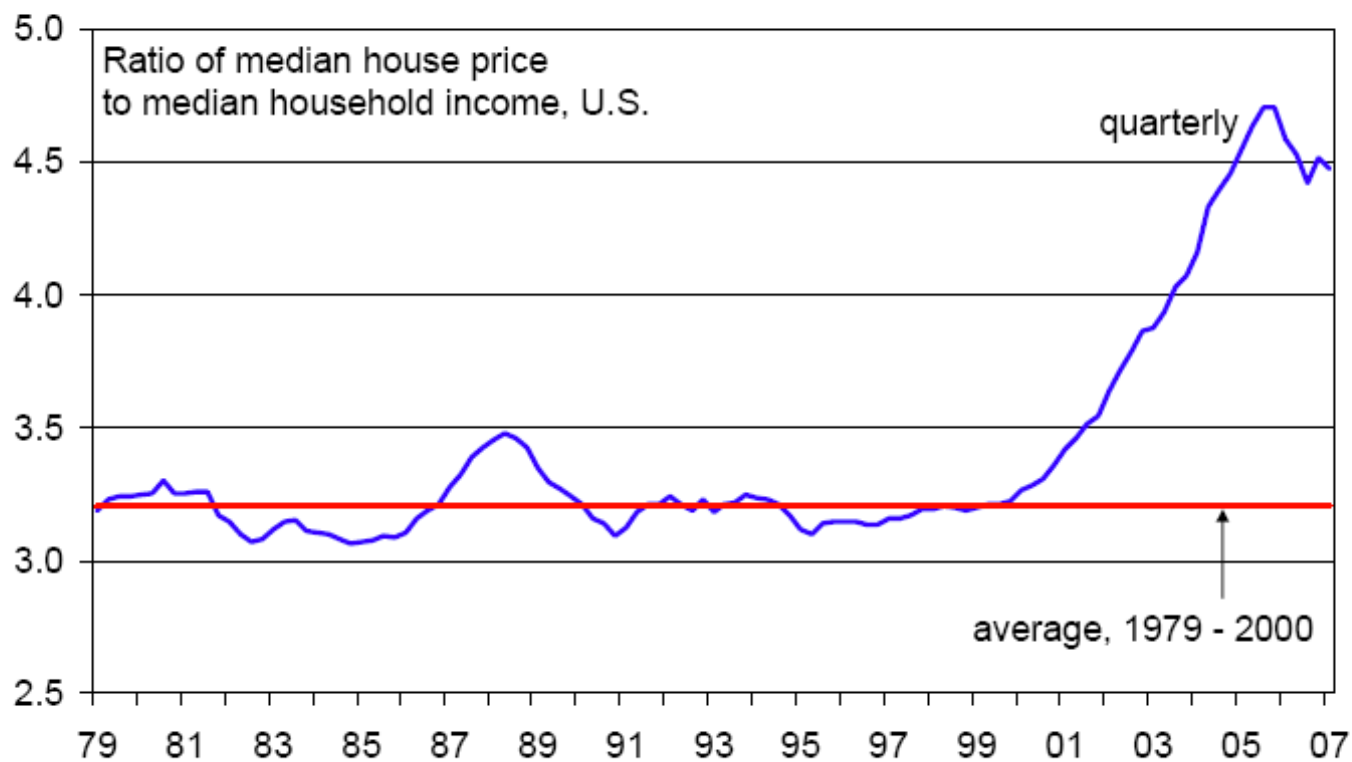
# A History of Real U.S. Home Values (1890-2006)



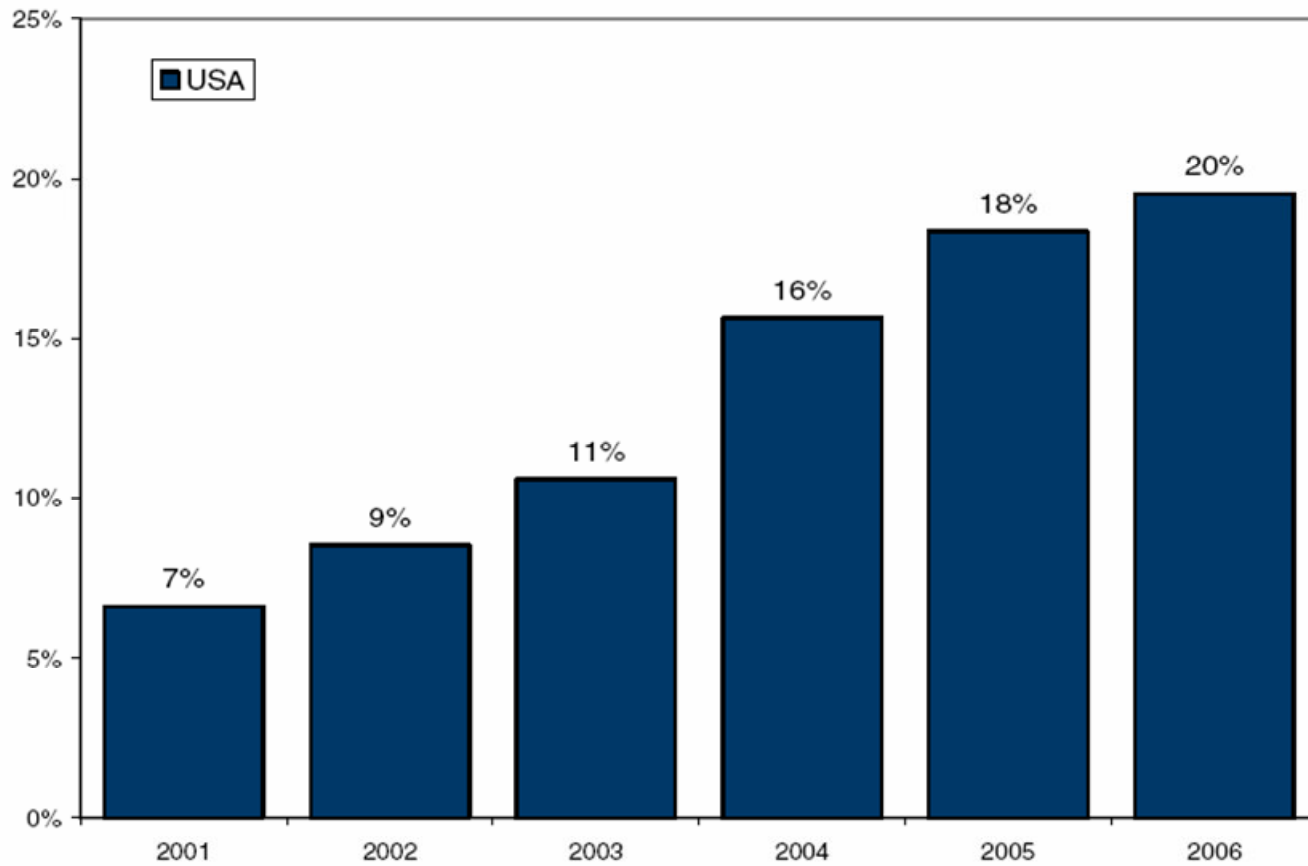
Source: "Irrational Exuberance," 2nd Edition, 2006, by Robert J. Shiller

Bill Marsh/The New York Times

## Affordability Went Bust During The Housing Boom



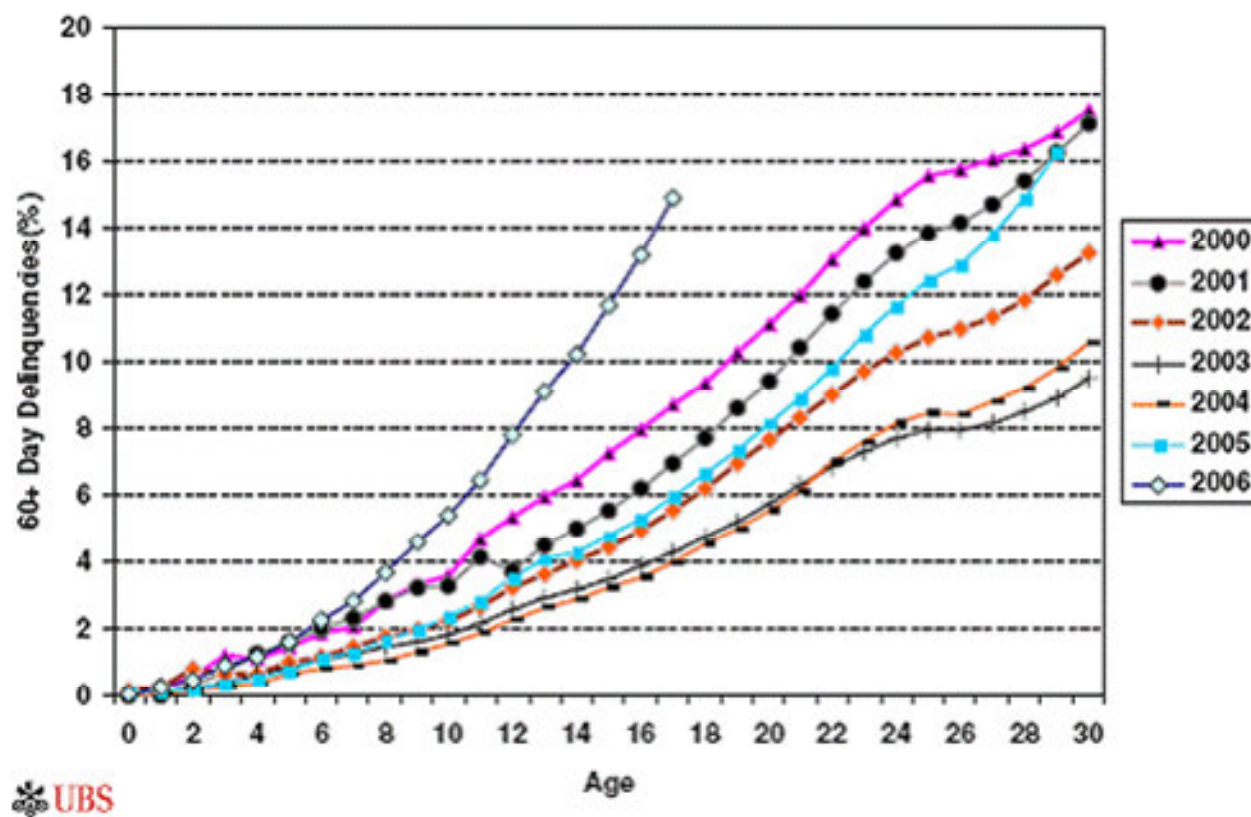
Subprime Share of Securitized Purchase Mortgage Originations, 2001-2006



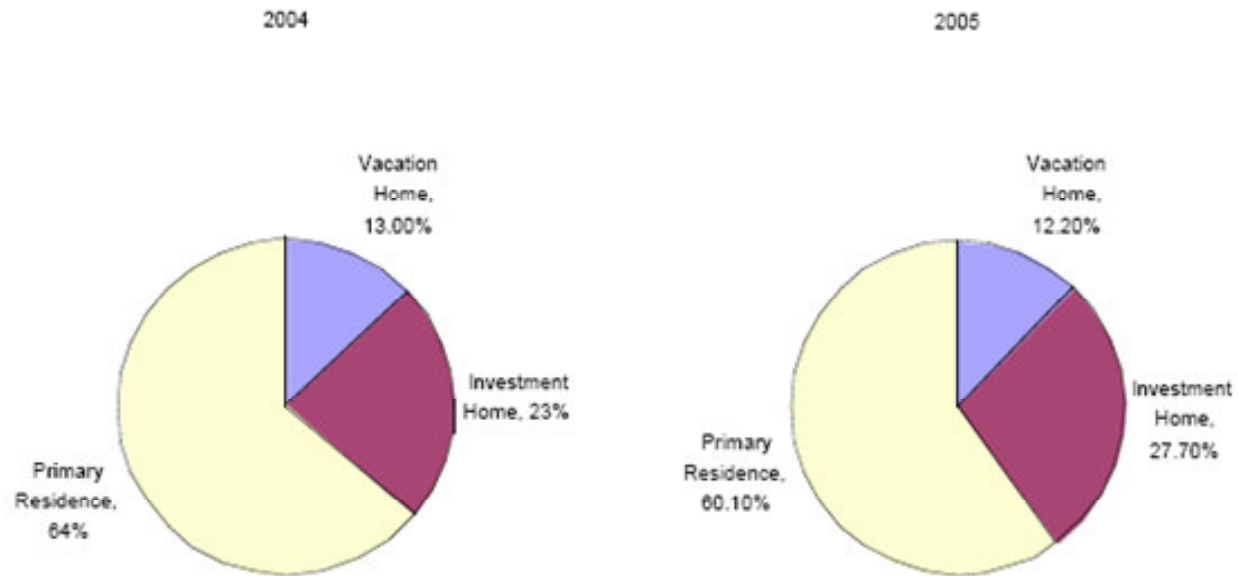
Source: Loan Performance, Credit Suisse U.S. Mortgage Strategy, Credit Suisse estimates.

## Subprime 2006: The Worst Ever!

2006 Delinq= 2 x Historical Norm

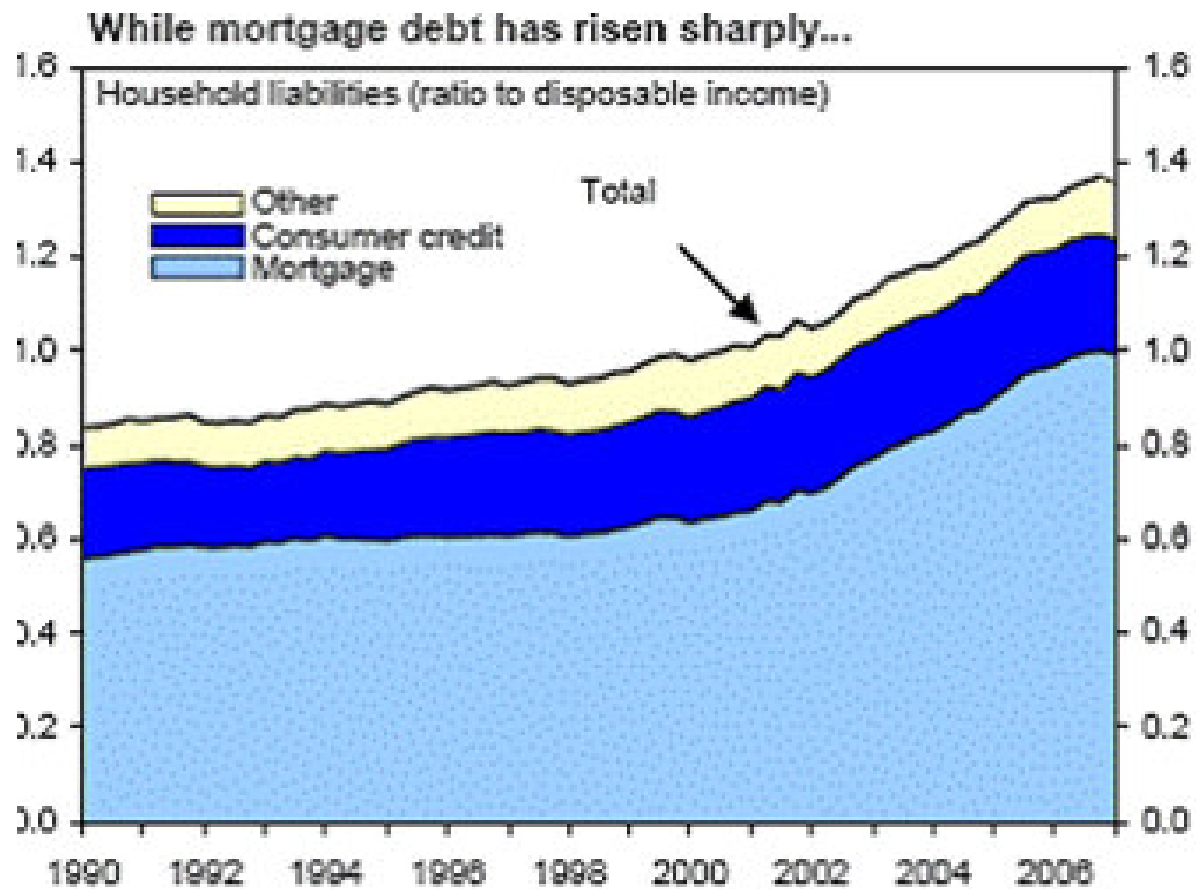


## INVESTMENT HOMES SHARE OF TOTAL HOMES PURCHASED

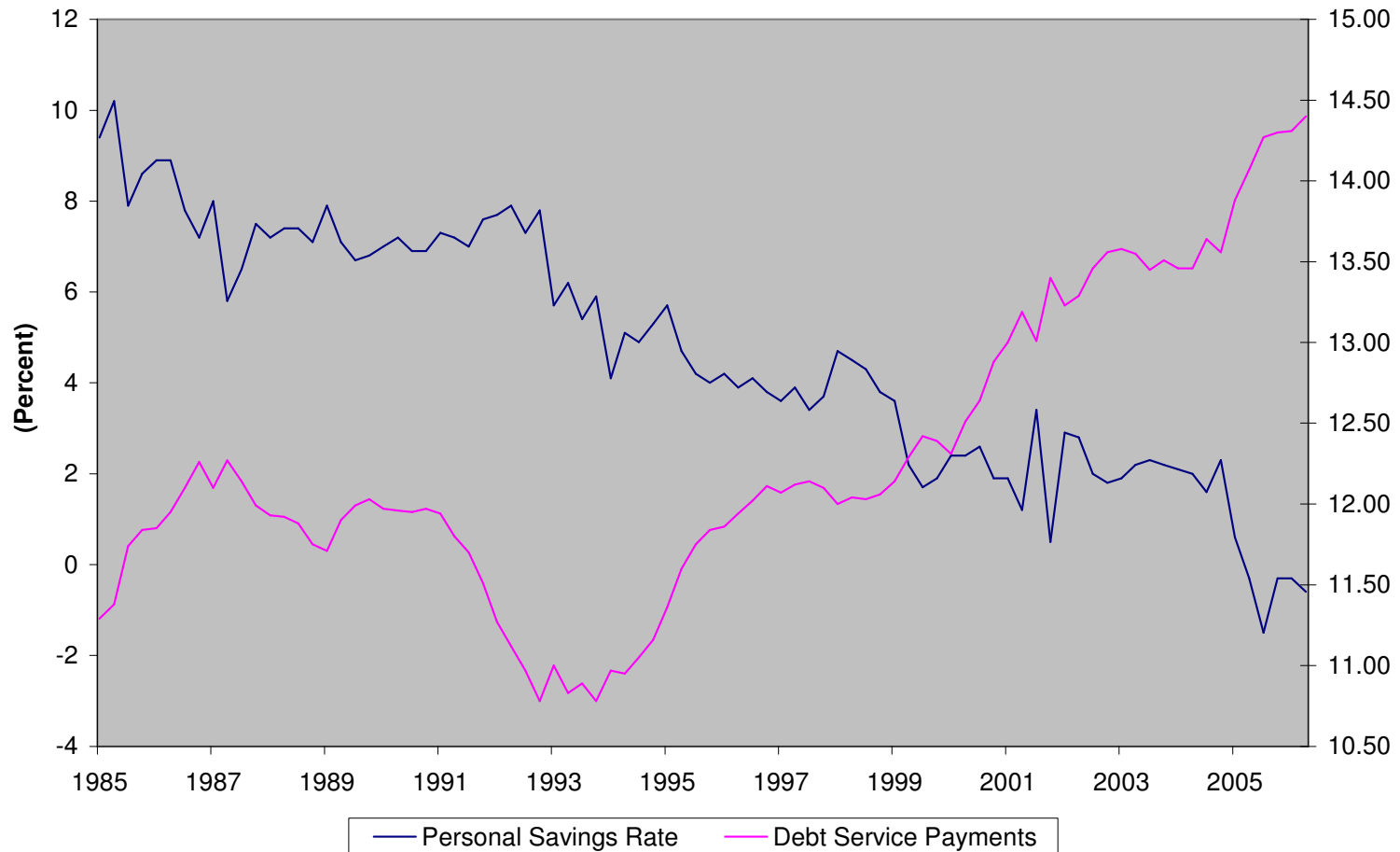


Source: National Association of Realtors

## Household Debt has Ballooned



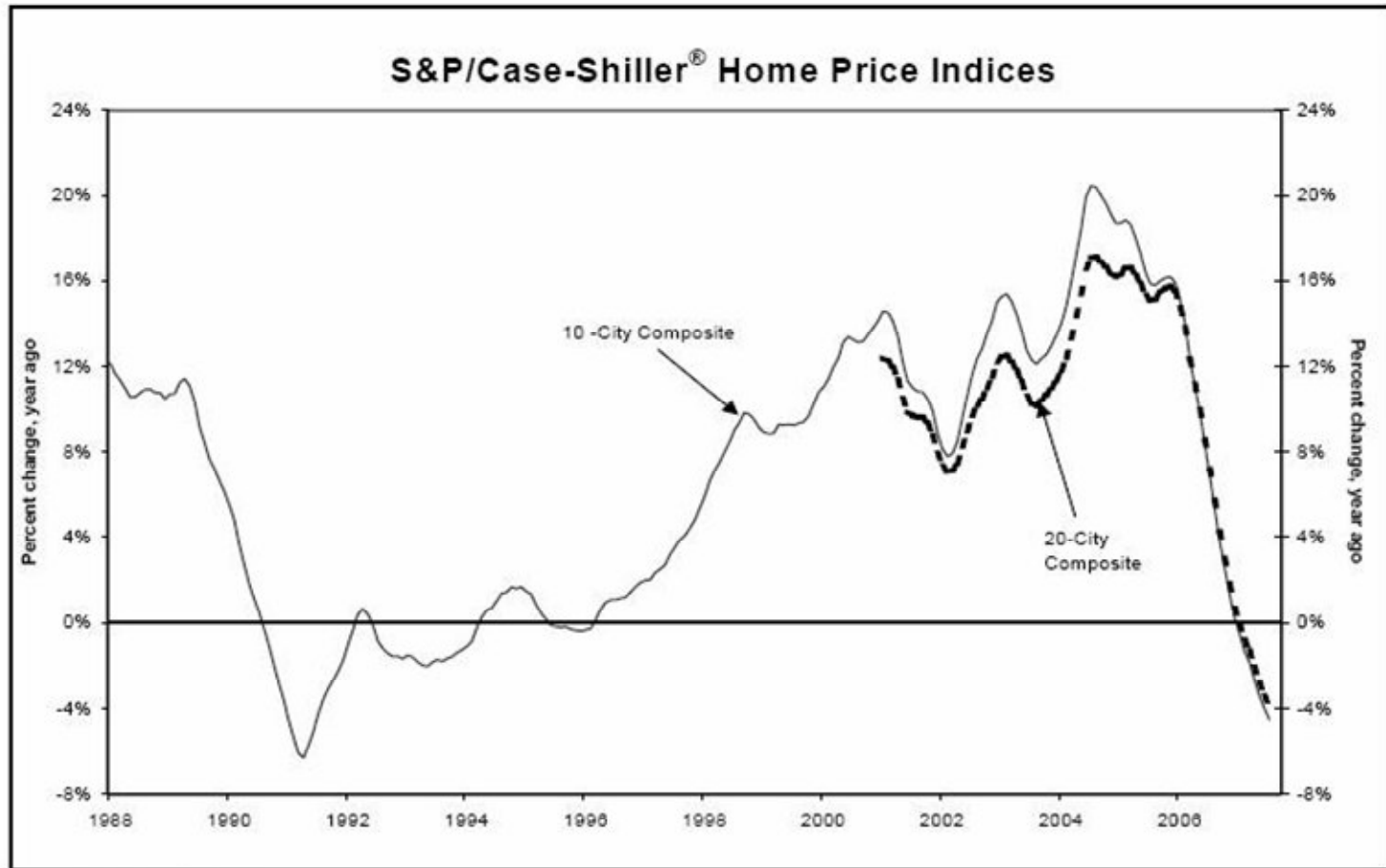
## U.S. Household Savings and Debt Service Payments % of disposable personal income

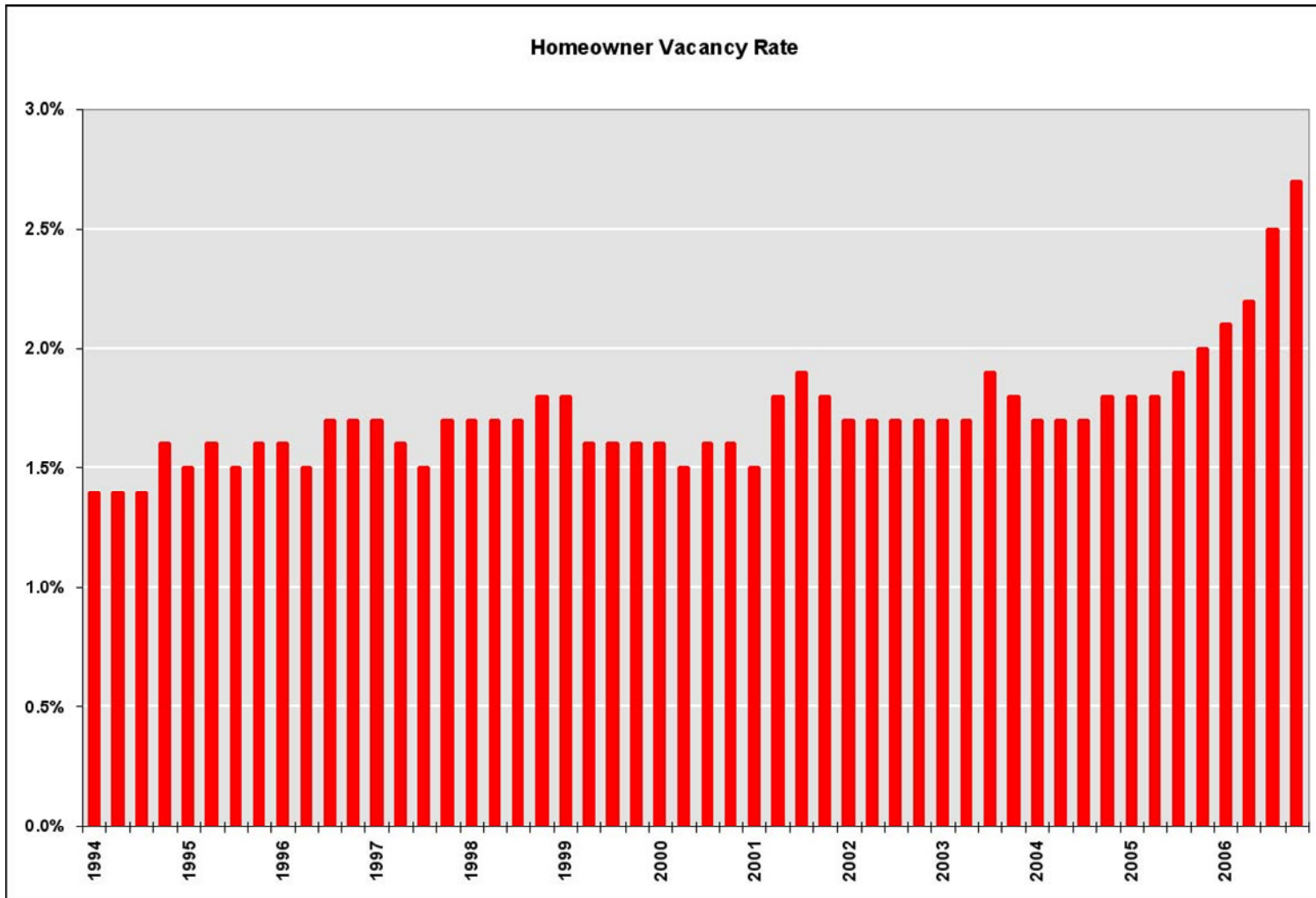


Source: Federal Reserve

## Outlook for Home Prices

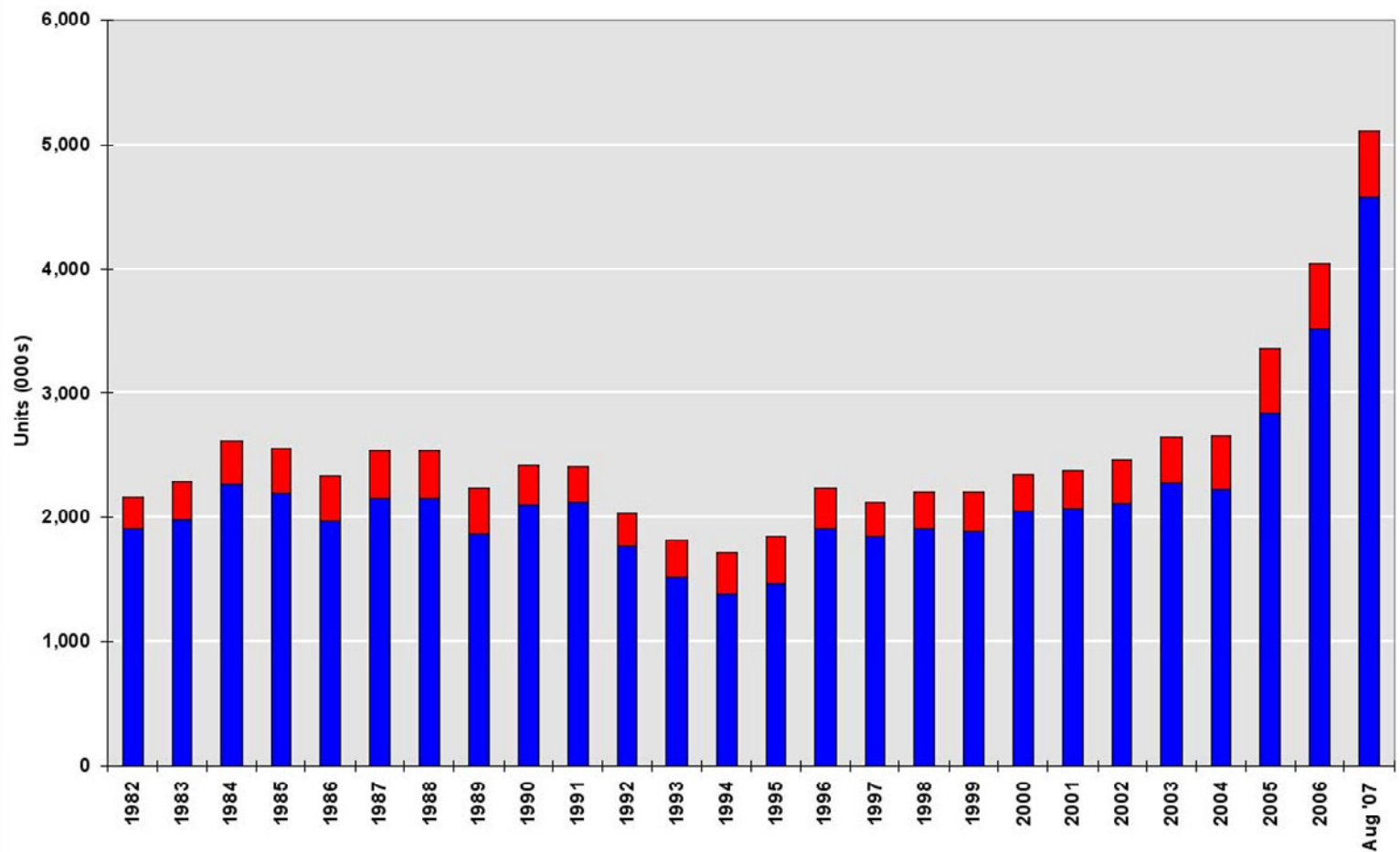
1. Home prices at the national level are already declining
2. The housing market is presently in a situation of chronic oversupply
3. Adjustable Rate Mortgages are due to reset at a high rate in 2008
4. Mortgage lending conditions have dramatically tightened
5. Future prices suggest price declines in major U.S. cities of between 10-15 percent over the next two years.





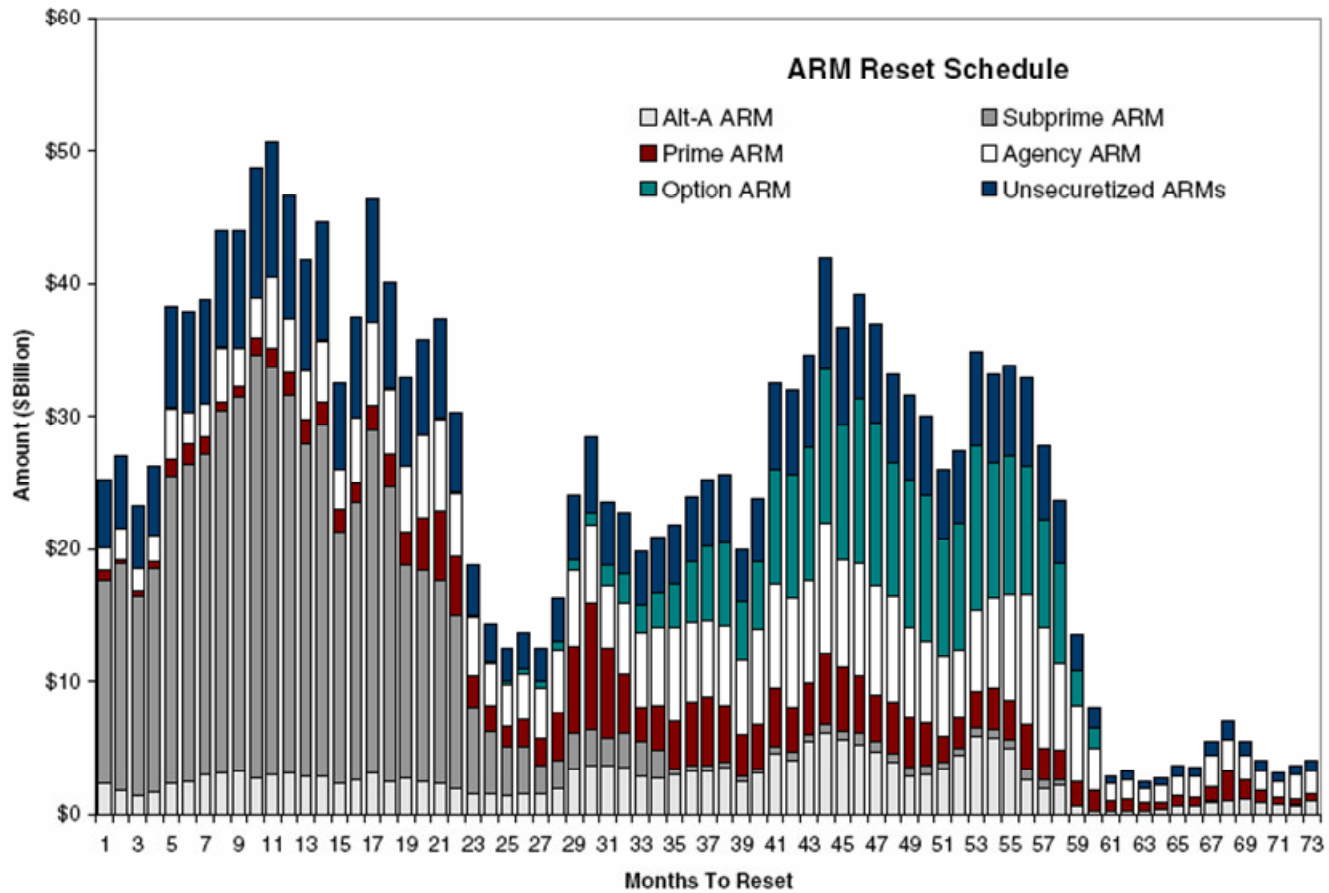
Housing: Total Inventory For Sale

Existing Homes New Homes



<http://calculatedrisk.blogspot.com/>

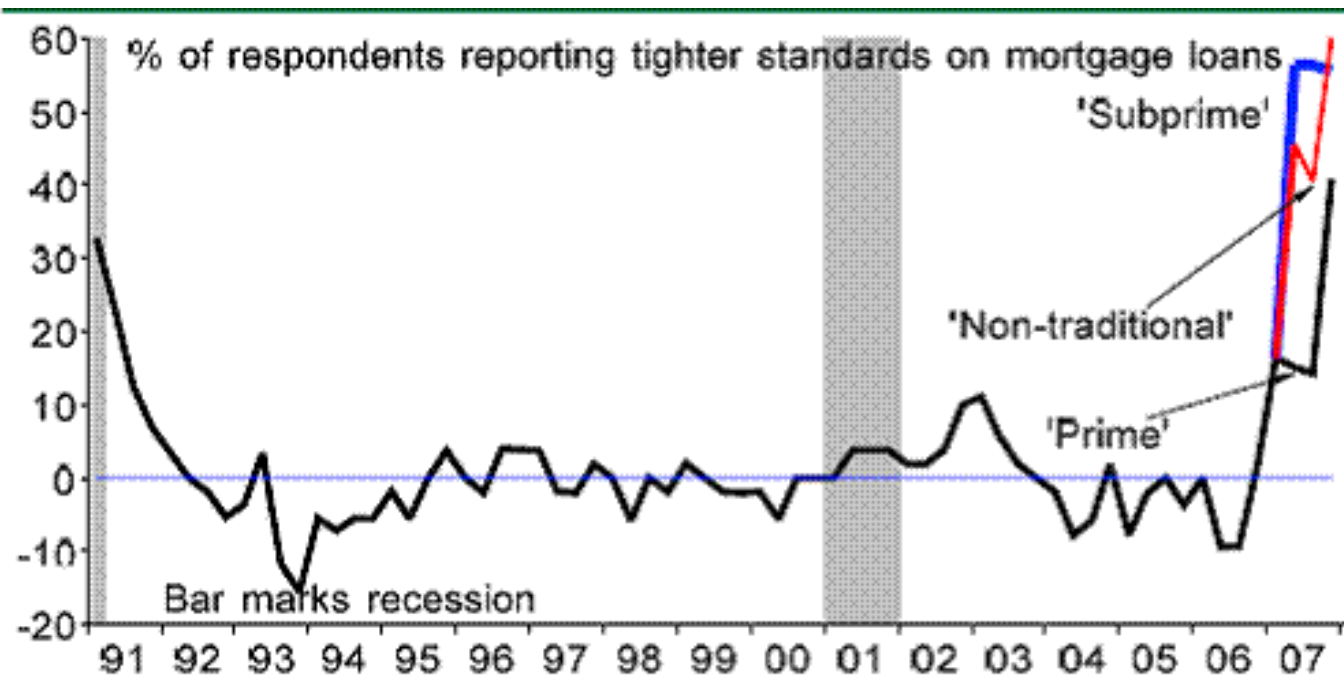
## Adjustable Rate Mortgage Reset Schedule



Note: Data as of January 2007.

Source: Credit Suisse Fixed Income U.S. Mortgage Strategy.

## Mortgage Lending Conditions are Tightening



Source: Reuters EcoWin Pro

### House price Declines Implied by Case-Schiller Future Contracts

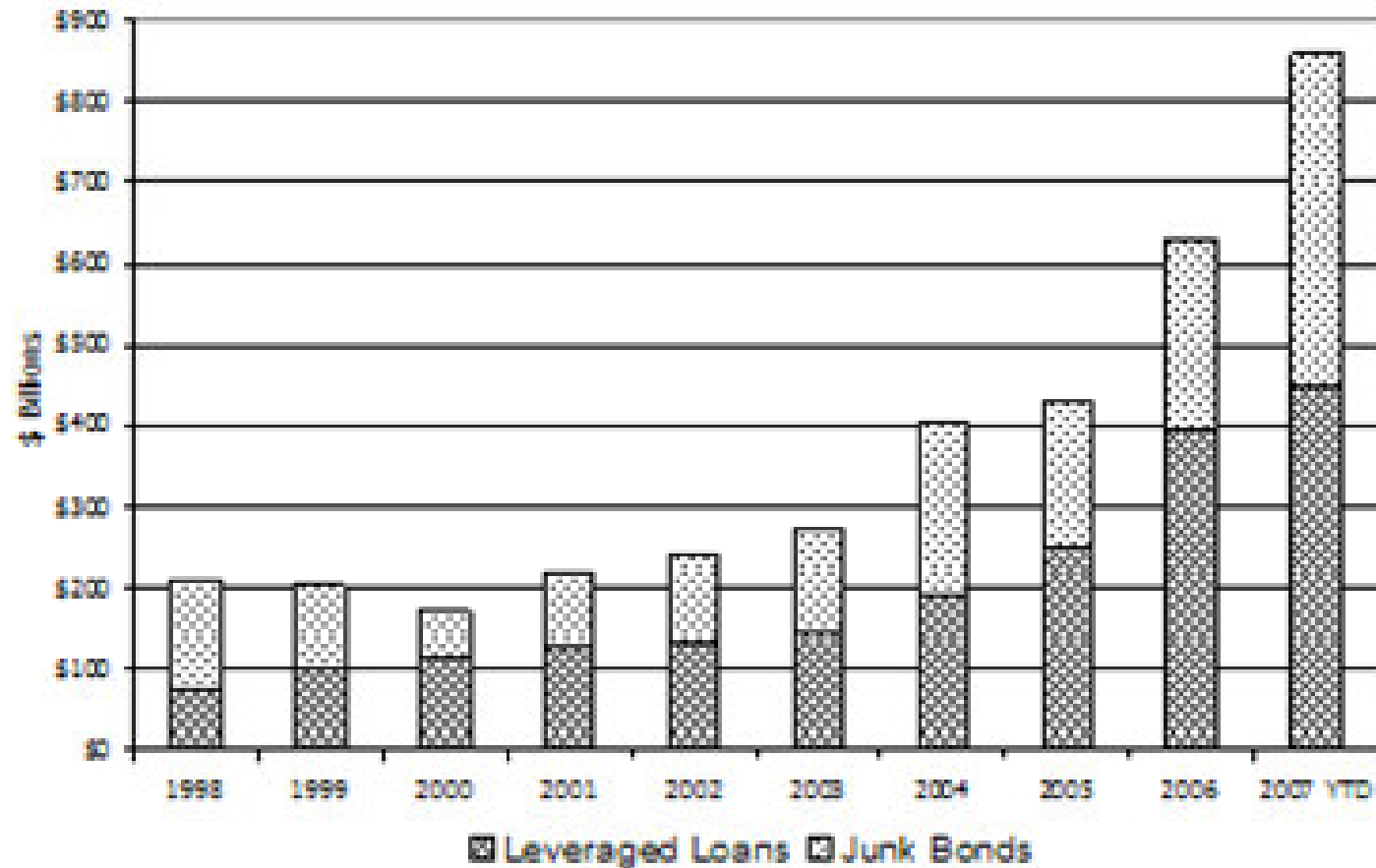
CUMULATIVE % CHANGE IN HOME PRICES, NOVEMBER-NOVEMBER				
CITY	2007-2008	2007-2009	2007-2010	2007-2011
<b>Boston</b>	-6.28%	-11.56%	-13.31%	-11.20%
<b>Chicago</b>	-3.90%	-6.09%	-7.55%	-5.61%
<b>Denver</b>	-6.52%	-12.45%	-15.91%	-13.89%
<b>Las Vegas</b>	-8.18%	-13.43%	-15.02%	-15.68%
<b>Los Angeles</b>	-8.71%	-12.95%	-13.42%	-12.48%
<b>Miami</b>	-13.79%	-18.03%	-26.77%	-23.80%
<b>New York</b>	-7.21%	-11.77%	-11.29%	-10.80%
<b>San Diego</b>	-6.29%	-11.86%	-14.10%	-16.08%
<b>San Francisco</b>	-6.62%	-15.04%	-21.05%	-24.83%
<b>Washington, DC</b>	-8.16%	-11.23%	-12.71%	-13.76%

Data as of December 12, 2007. Note that these contracts cover prices with a two-month lag, and that they average prices over three months, so the November 2007 contract actually covers prices from July-September 2007.

## Excessive Lending and Risk Taking was not confined to housing

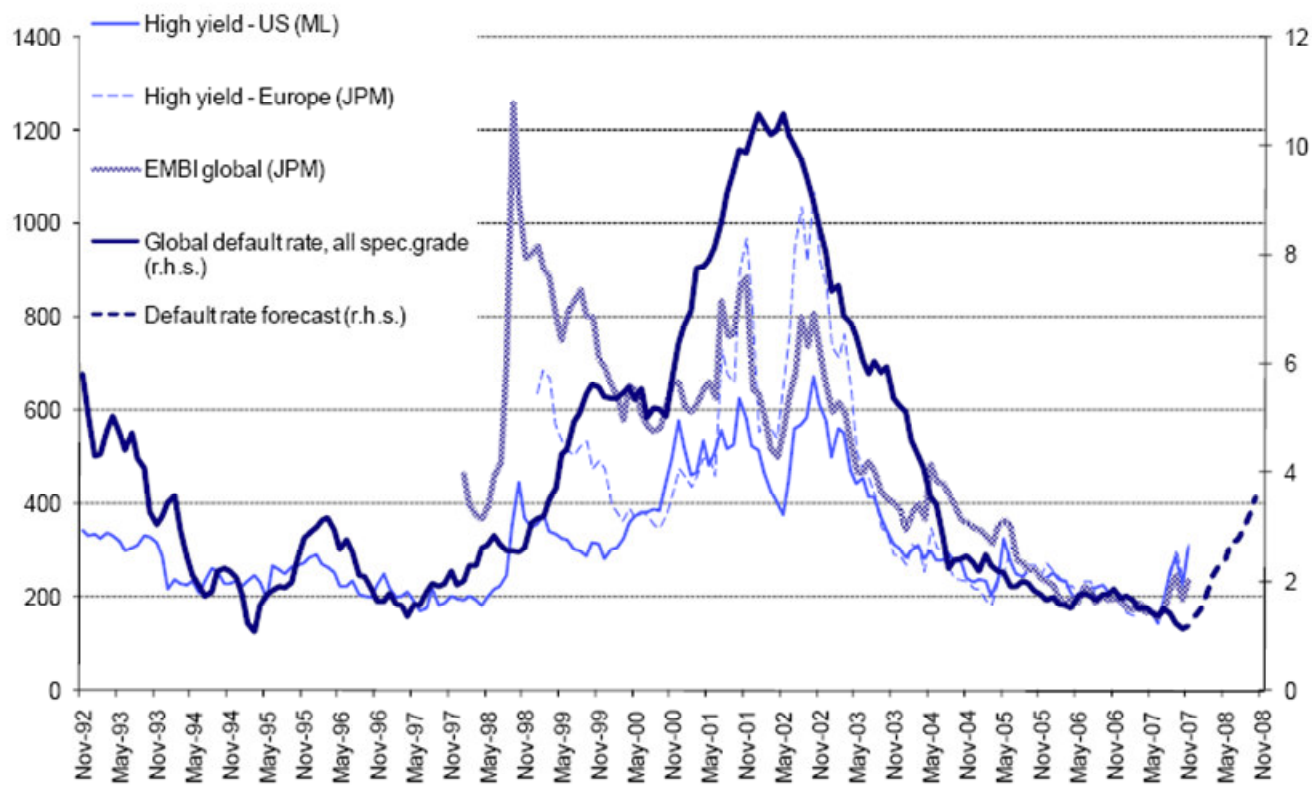
- Sub-prime lending practices characterized credit card, auto loans, and home equity lending.
- Leveraged lending and junk bond markets ballooned
- Lending spreads were dramatically compressed
- Counterparty risk increased dramatically as the credit derivative market exploded

## Leveraged Loan & Junk Bond Markets



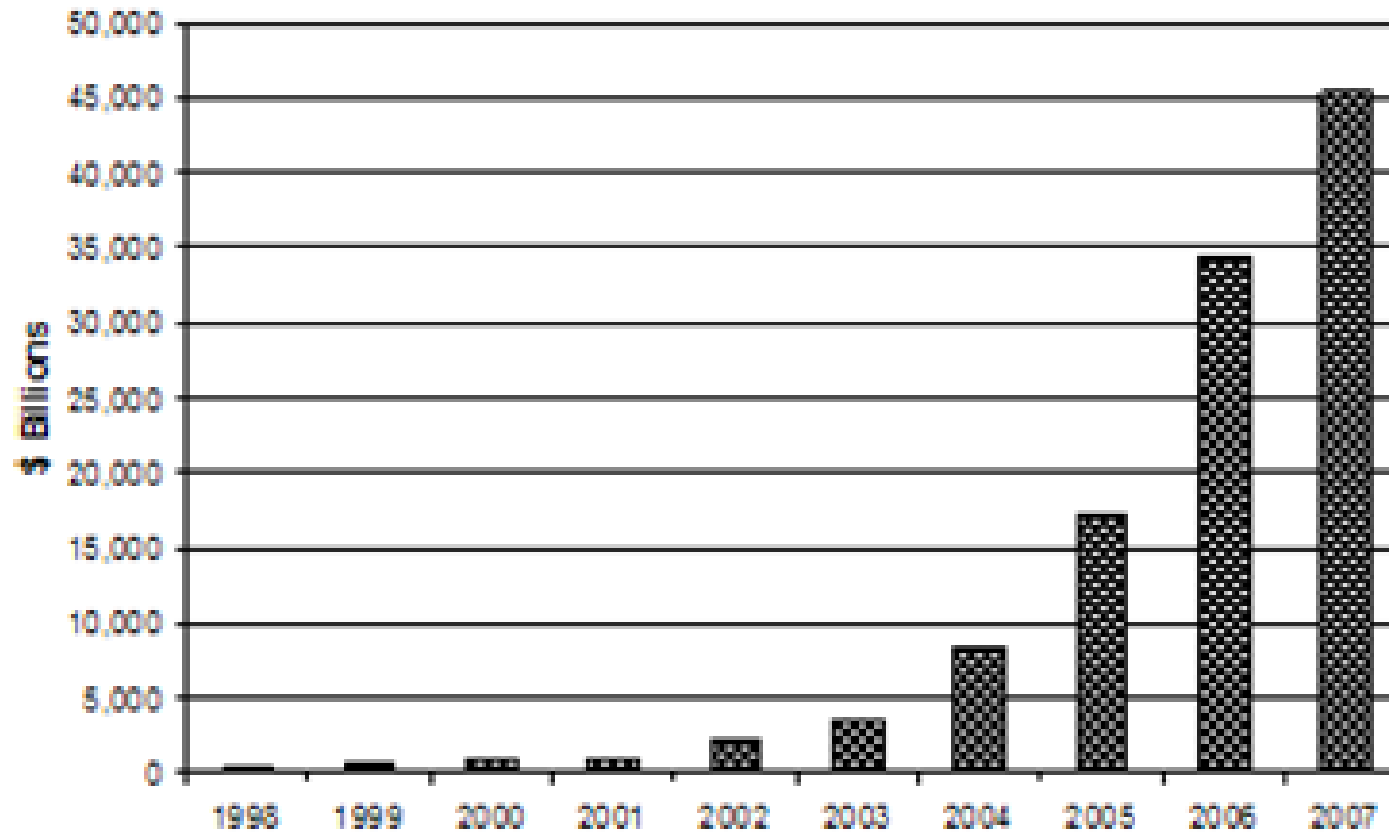
Source: Markit.com Reuters 18

**Figure 3. High-yield and emerging market bond spreads vs. default rates**



Source: Thomson Financial Datastream.

## Notional Amount of Outstanding Credit Derivatives



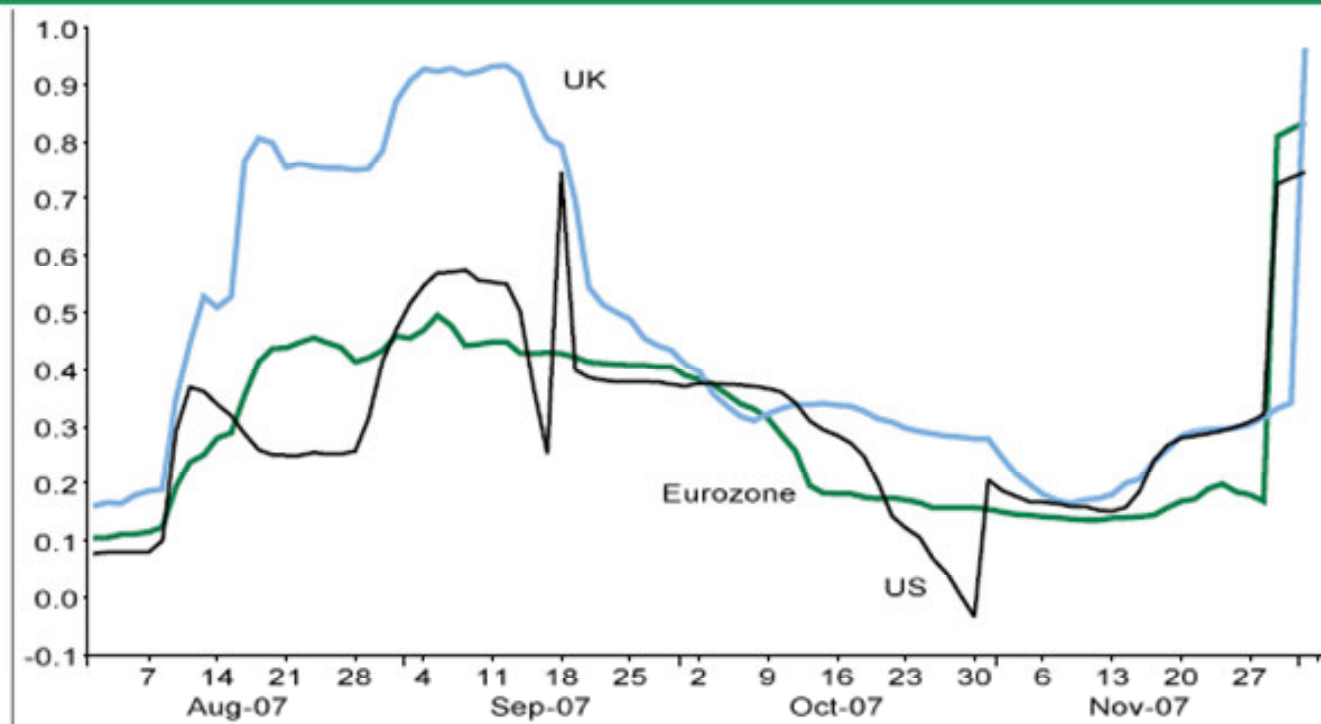
Source: BBA ISDA

## A Major Credit Crunch

- The spread between bank lending rates and policy rates is as wide as it was in August 2007
- The current credit crunch is very much worse than the 1998 LTCM crisis
- Credit conditions are being tightened for both mortgage and non-mortgage lending
- Securitization has led to a lack of transparency that is causing markets to seize up
- Large Off-Balance Sheet Bank activity is compounding the credit crunch

*N.B. All data to the close of business yesterday*

**Chart : 1m Libor – Policy Rate Spreads**

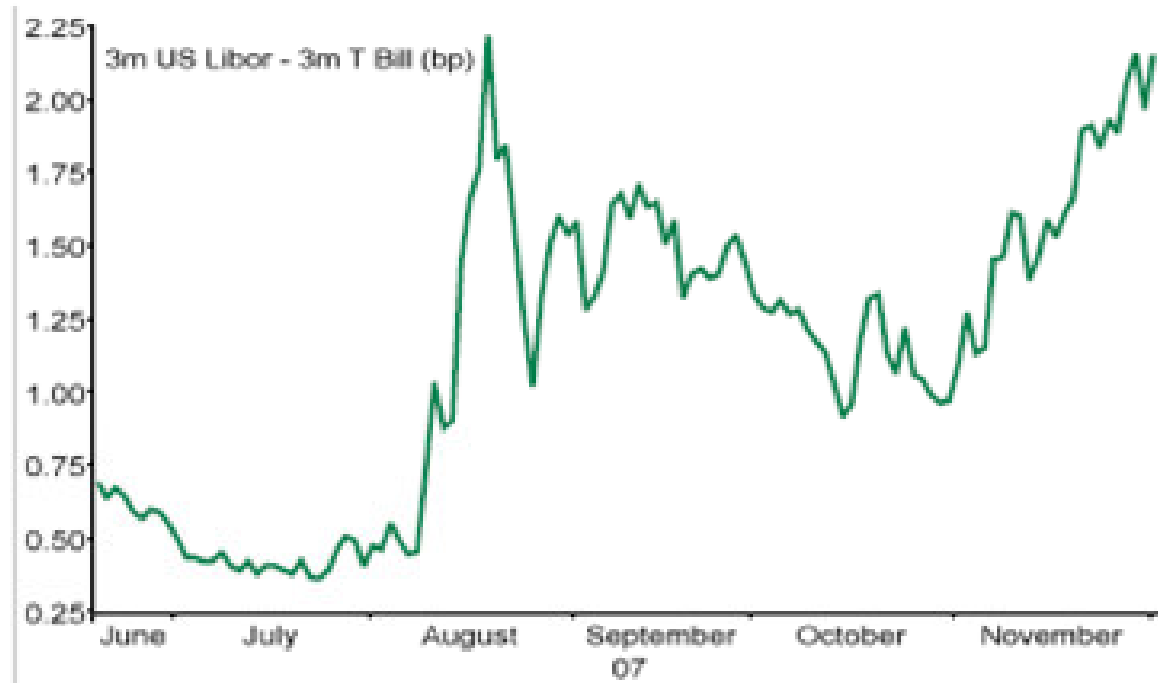


Source: Reuters EcoWin Pro

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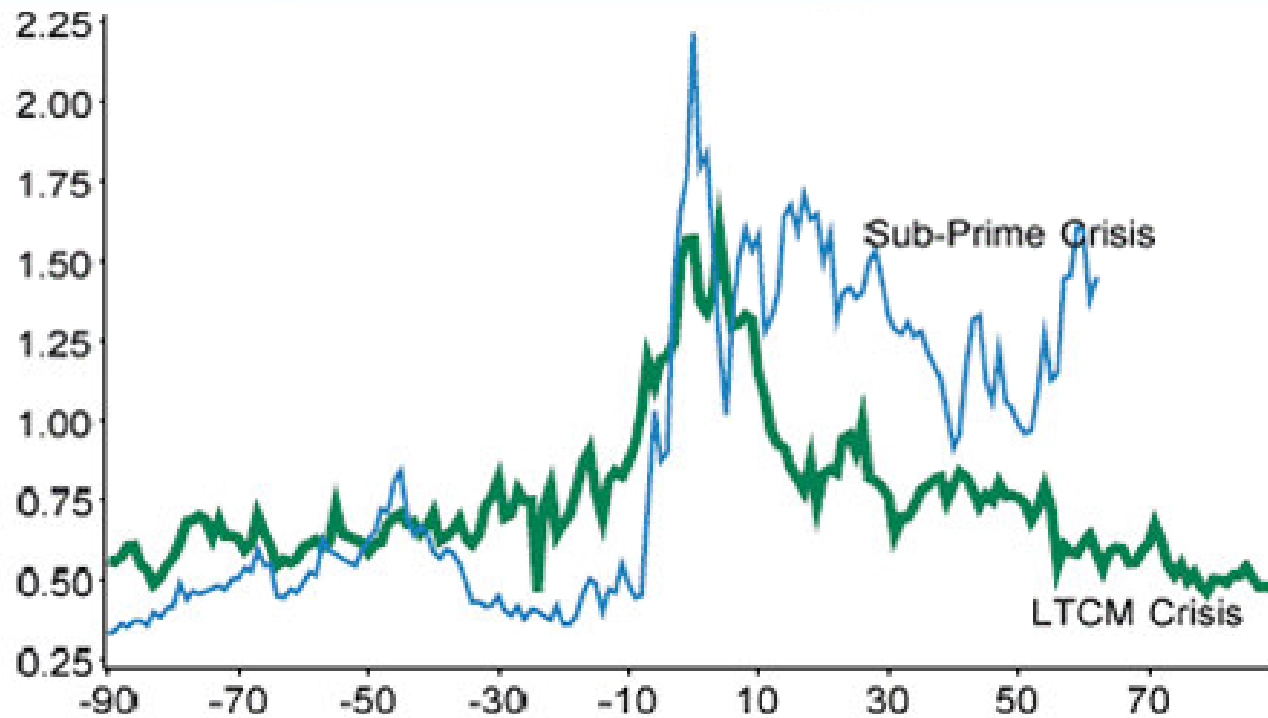
## 2: 3m Libor – 3m T-Bill

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Source: Reuters EcoWin Pro

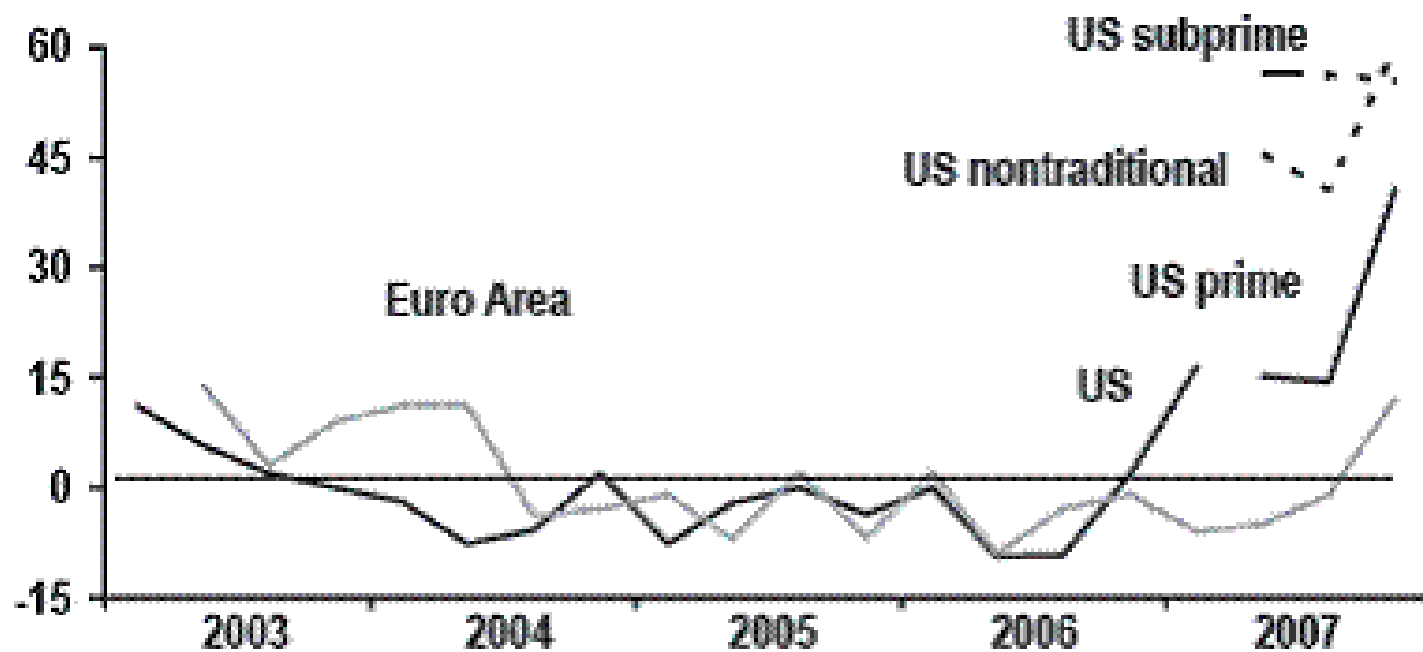
Chart 2: USD 3m LIBOR – T-Bill



Source: Reuters EcoWin Pro

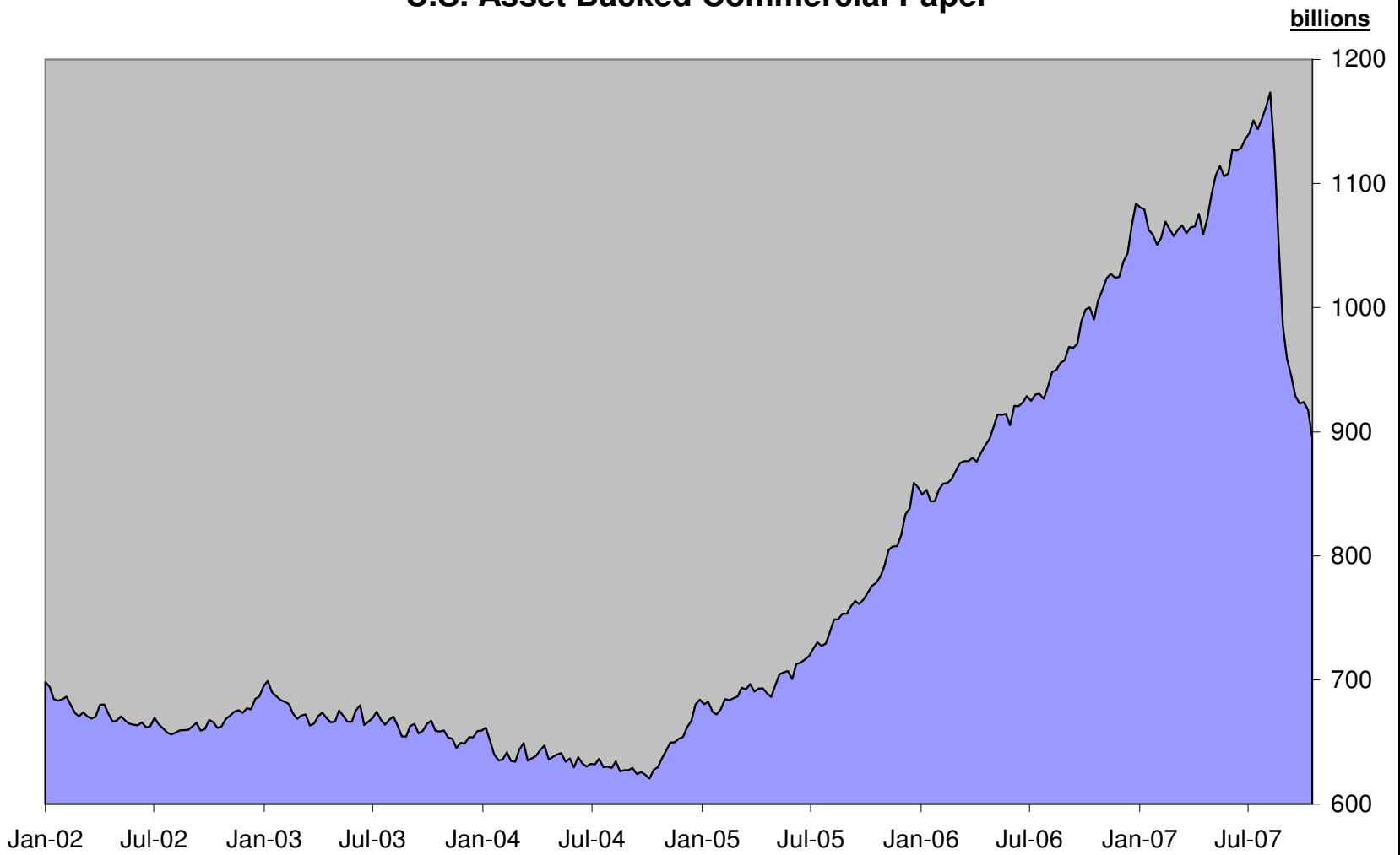
## Credit standards for home mortgages

Net percentage tightening



Beginning in 2Q07, the mortgage lending standards question asked explicitly about each type of mortgage.

# U.S. Asset Backed Commercial Paper



Source: Bloomberg