The Financial Crisis and Economic Recession: What Happened and What's Ahead?

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The views expressed in this presentation are the views of Julie Stackhouse and not necessarily the views of the Federal Reserve Bank of St. Louis or the Federal Reserve System.

Looking back…

The financial crisis that gripped the United States last fall was unprecedented in type and magnitude. It began with an asset bubble in housing, expanded into the subprime mortgage crisis, escalated into a severe freeze-up of the interbank lending market, and culminated in intervention by the United States and other industrialized countries to rescue their banking systems.

Congressional Oversight Report on the Troubled Asset Relief Program, December 9, 2009

What were thought to be independent events created the "perfect storm."

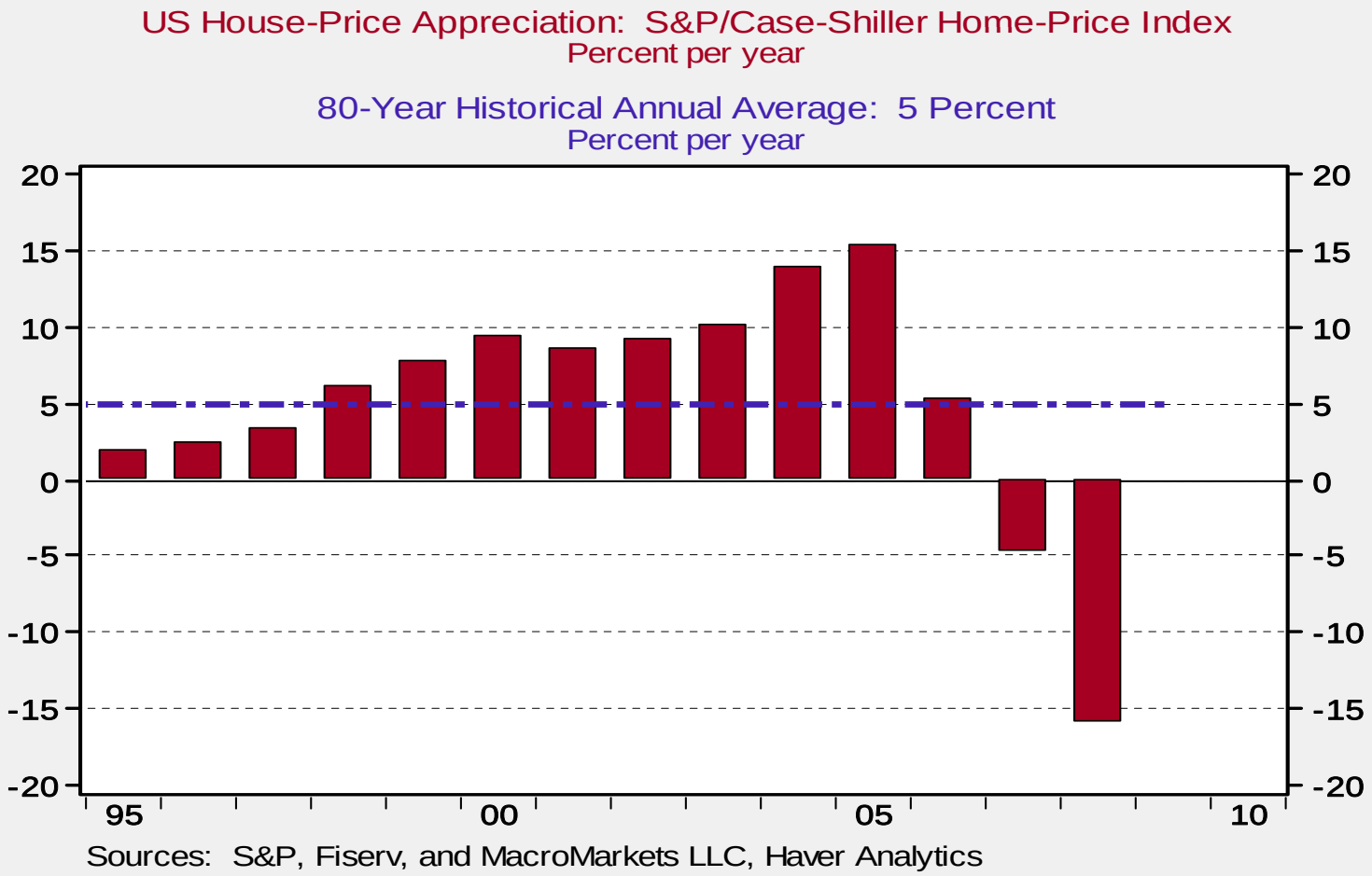
Large amounts of international capital flowed into our financial markets, resulting in low long-term interest rates.

Low rates combined with excess liquidity led to a bubble in housing prices and boom in the credit markets.

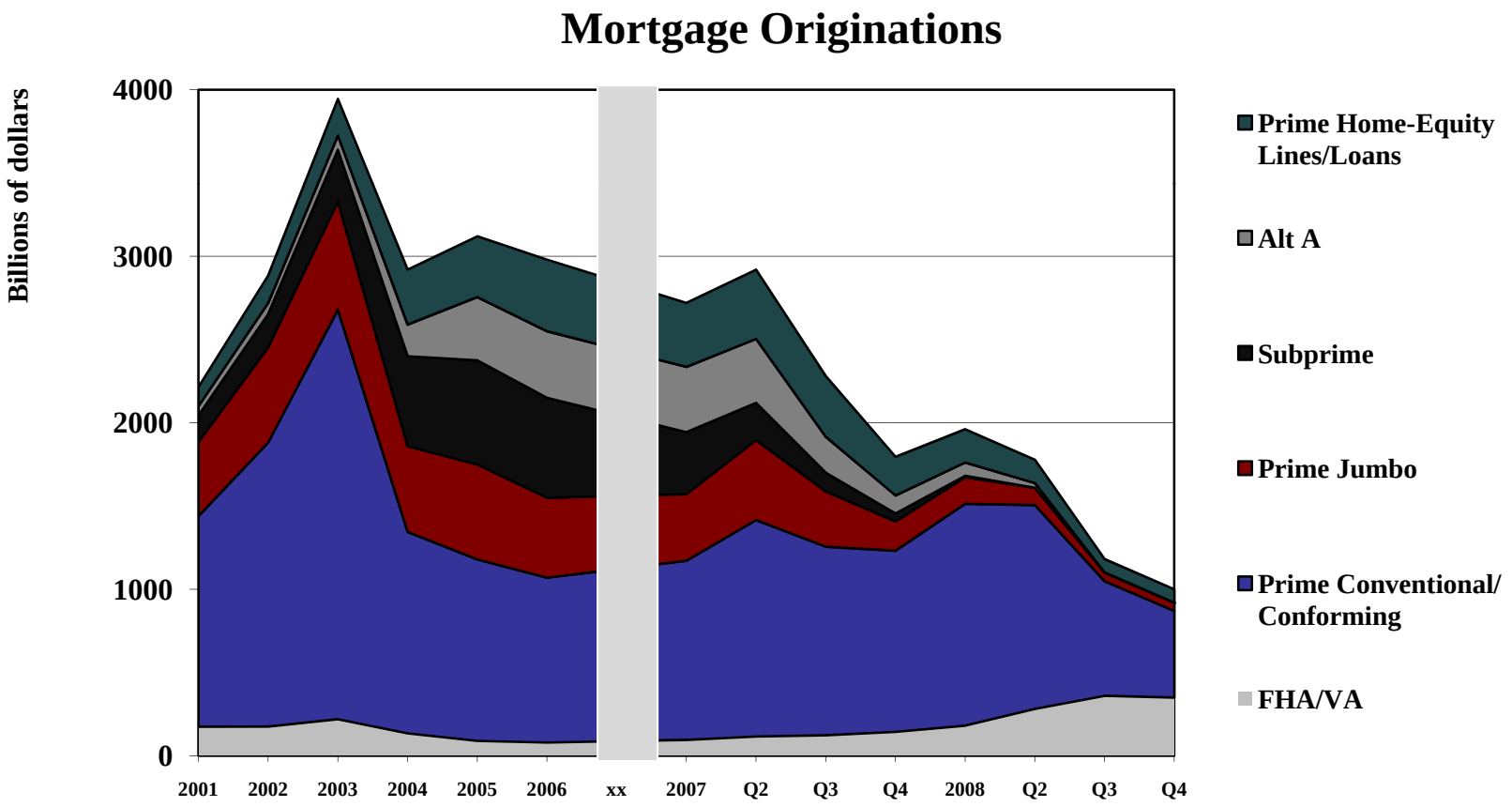
With so much liquidity, credit standards eased.

The issues were masked by transformation of underlying mortgages in complex structured financial products that were underestimated or misunderstood by investors and by credit ratings agencies and sold outside of the financial system.

For about 7 years, housing prices increased at well above historical averages.

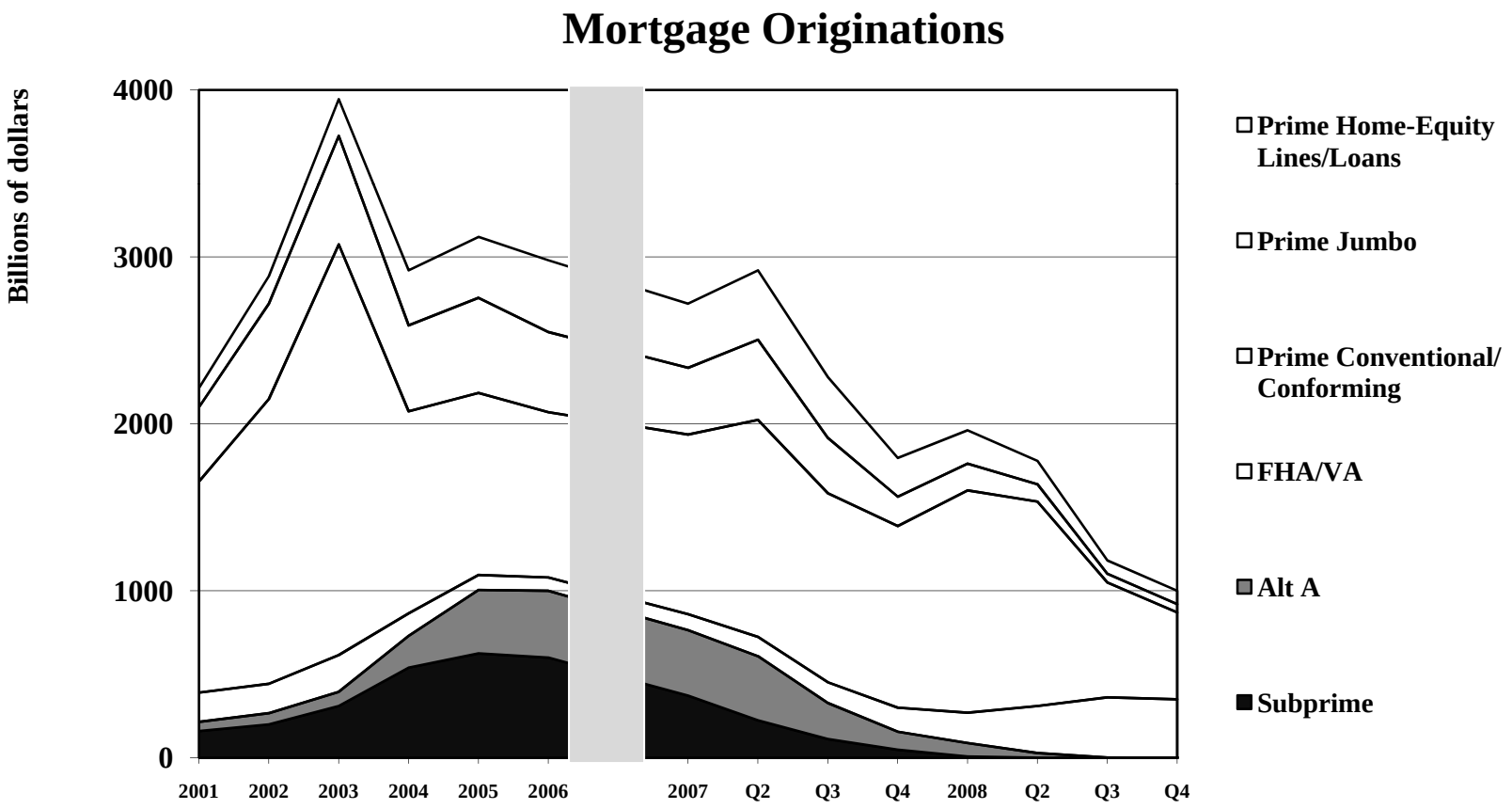


Favorable mortgage rates made it easier to purchase a home.



Quarterly figures for 2007 and 2008 expressed at an annual rate.
Source: *Inside Mortgage Finance*, Jan. 30, 2009.

And new nontraditional mortgage products made it easier for less creditworthy individuals to get a mortgage.



Quarterly figures for 2007 and 2008 expressed at an annual rate.
Source: *Inside Mortgage Finance*, Jan. 30, 2009.

The nontraditional mortgage products were high risk.

	Subprime Mortgages – 2005-2006 Vintages
> 78%	Subprime mortgages with adjustable rates (including hybrids)
40%	Subprime mortgages with reduced documentation
98%	Combined loan-to-value ratio
55%	Share of subprime mortgages that were cash-out refinances
90%	Share of subprime mortgages originated through broker or wholesale channel

Sources: Mortgage Bankers Association, Loan Performance Corp.

Adding to the complexity, these "nontraditional" mortgage loans were taken by investment companies and transformed into securities.

What is a security?

- A security is created when many individual assets are pooled together and sold to investors in the financial markets.
- The income from the assets making up the security produces cash for the investor.
- Investors may sell the securities to other investors.

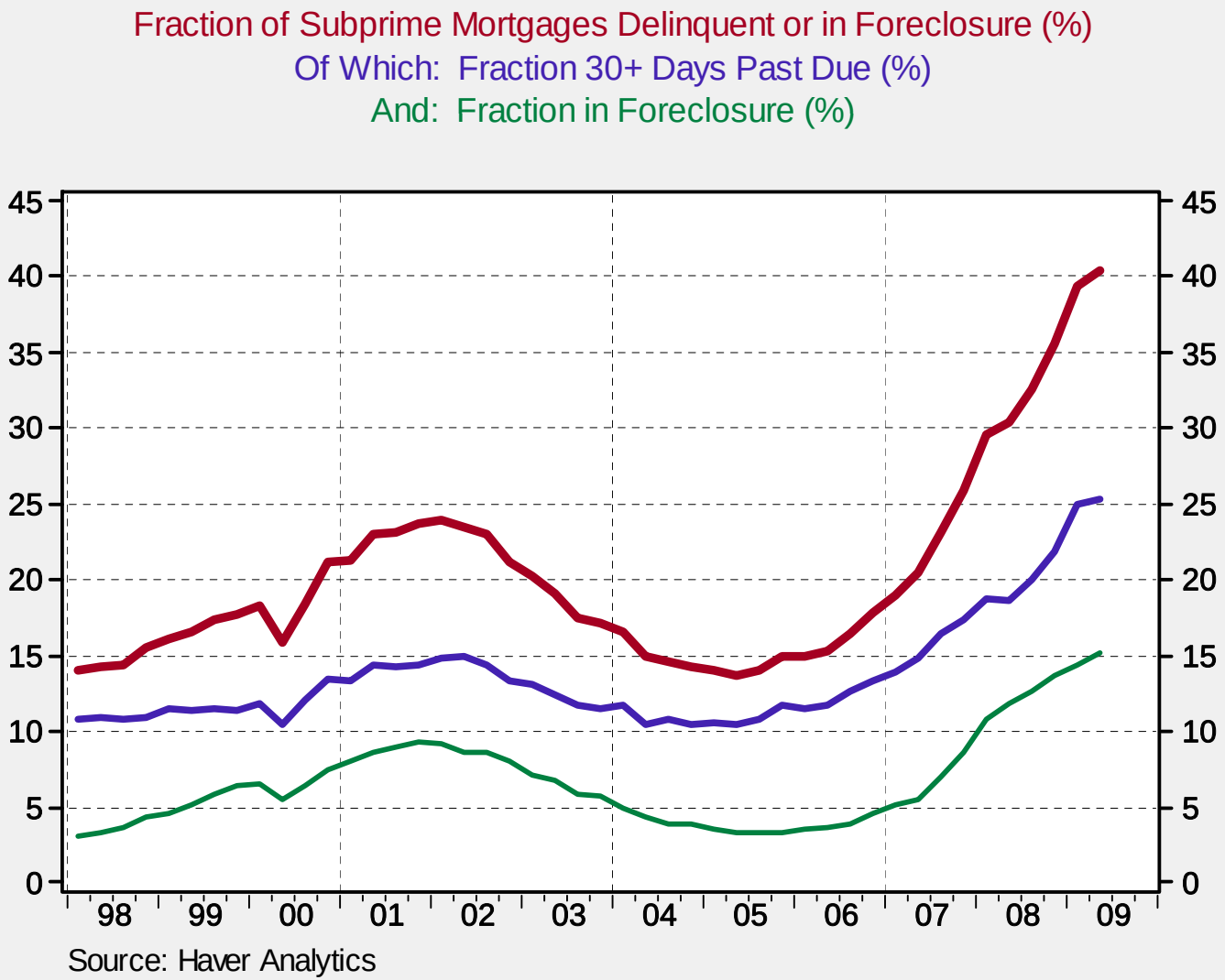
Subprime mortgages were typically transformed into "mortgage-backed securities"

- Sometimes, the mortgages were broken into pieces and packaged with other similar mortgage pieces. These were called "collateralized mortgage obligations."
- And sometimes, other assets or enhancements were added to the collateralized mortgage obligation to create a "collateralized debt obligation."

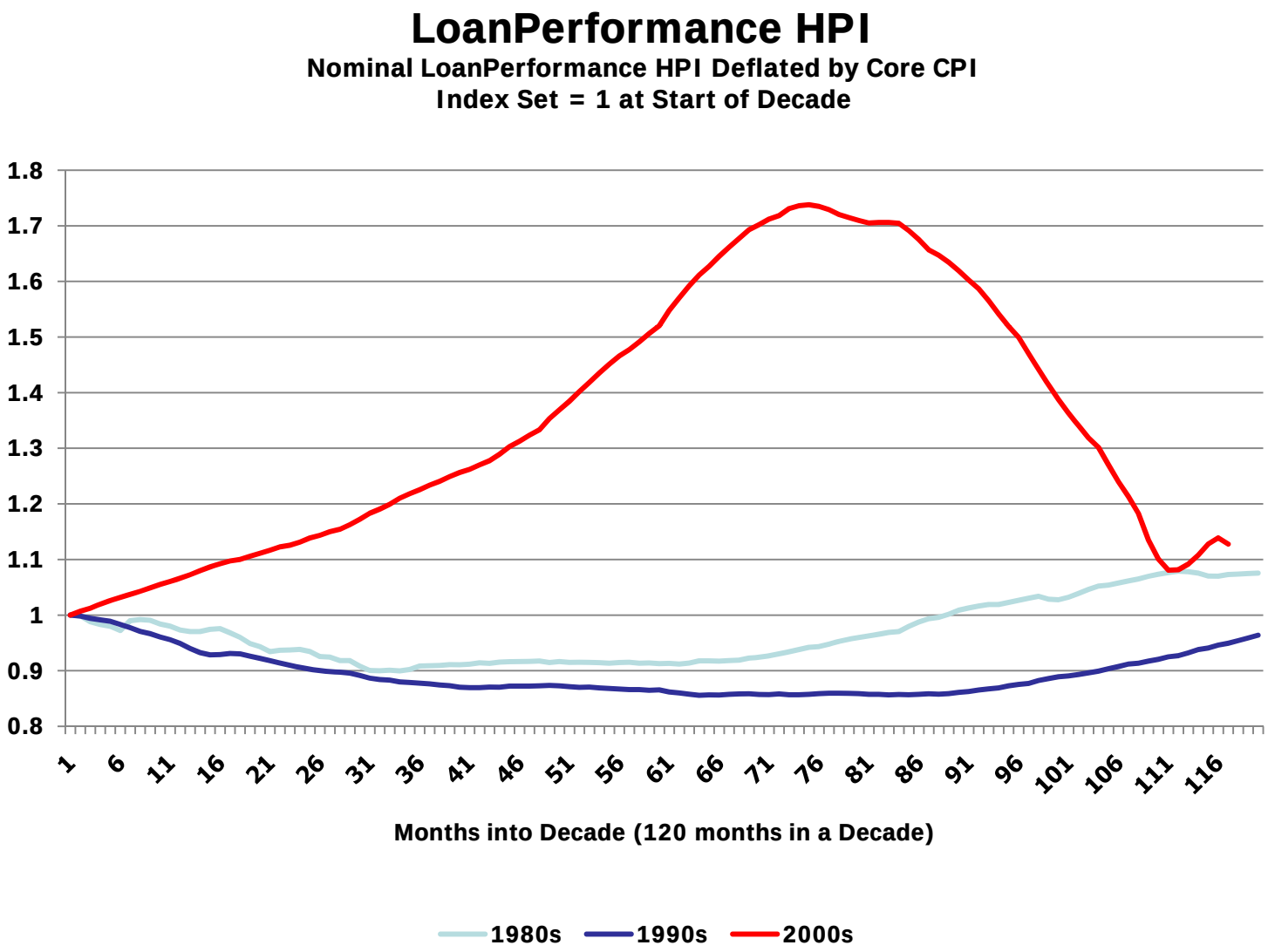
The U.S. "spread the risk"

- The securities were sold to investors around the world.

As housing prices reversed, there was no ability to refinance and the volume of "bad" mortgages grew.



House prices have declined precipitously nationwide.



Housing markets in the “sand states” have been hit the hardest.

Geographic Area	Peak to Present Decline	When the Market Peaked
Boston	18.41	November 2005
Chicago	26.76	February 2007
Denver	11.11	March 2006
Los Angeles	40.92	April 2006
Las Vegas	51.85	April 2006
Miami	47.82	December 2006
New York City	20.87	May 2006
San Diego	42.21	March 2006
San Francisco	45.57	March 2006
Washington, D.C.	33.25	March 2006

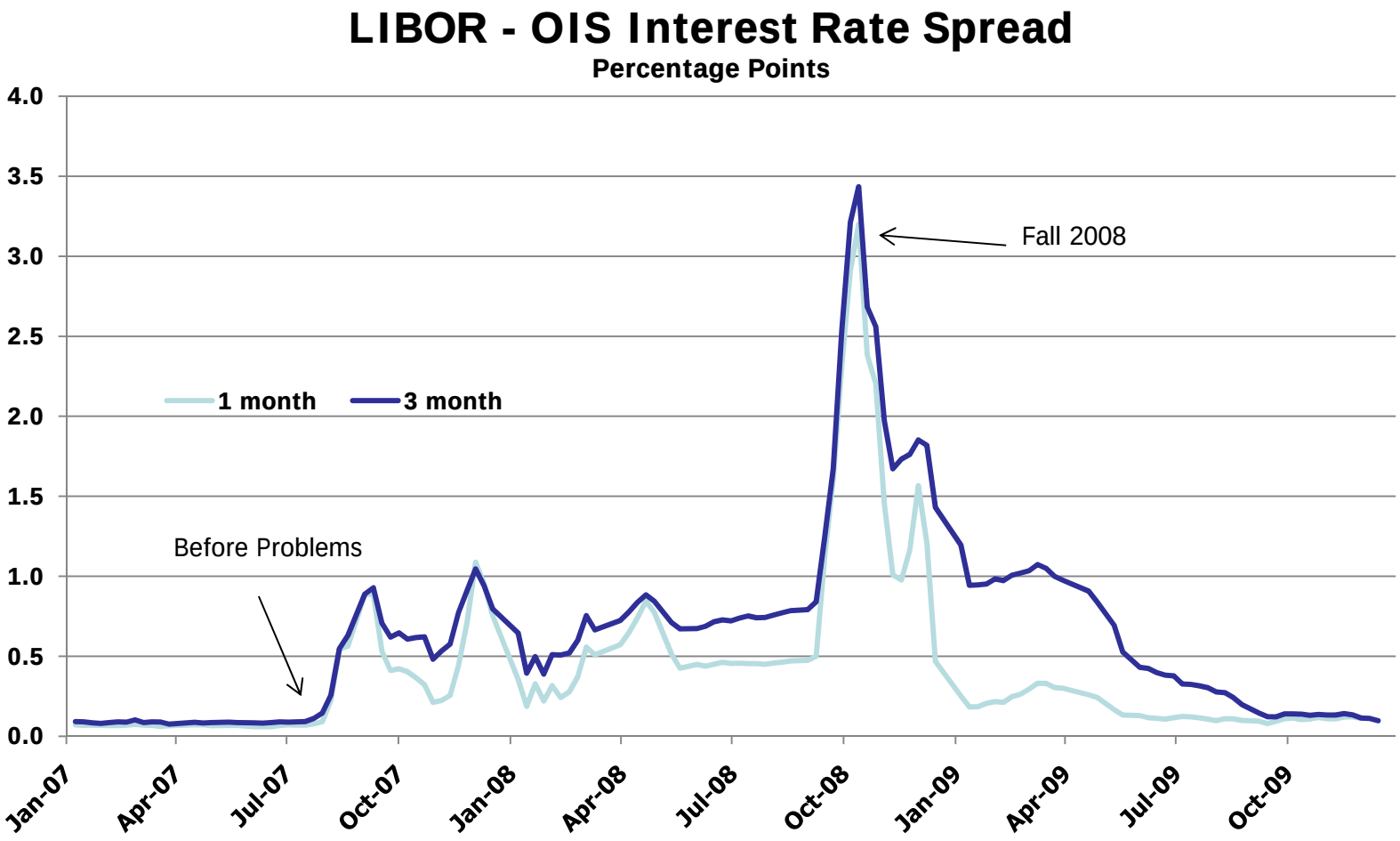
Source: Case Schiller

The unexpected and rapid losses fed a crisis in financial markets.

Fear in the financial markets, which had been building, evolved into a full-blown panic in September 2008. During a remarkable 19-day stretch, the federal government took over the two largest players in the mortgage market, allowed a large investment bank to go bankrupt, bailed out one of the world's largest insurance companies, and steered a major financial institution through the largest bank failure in U.S. history.

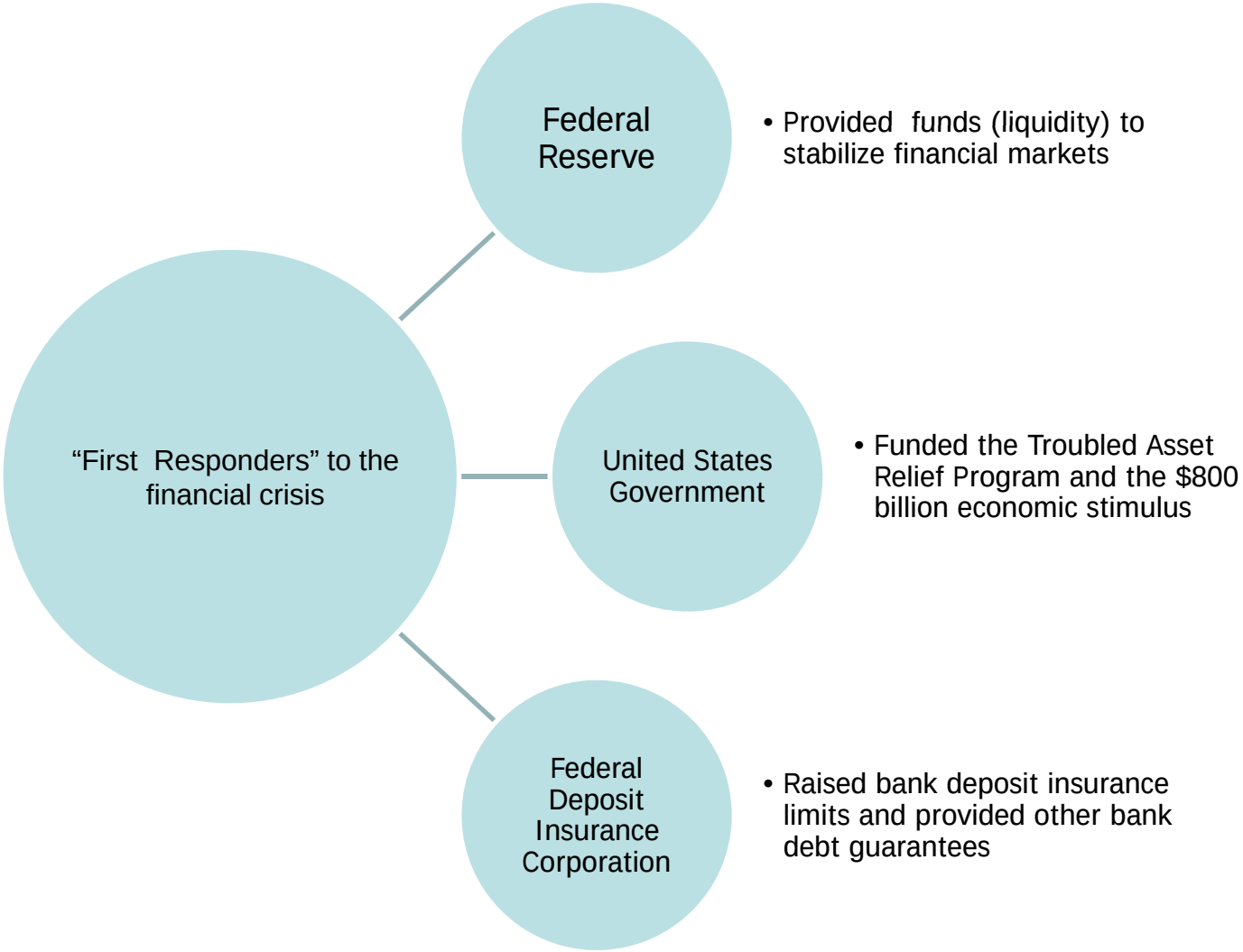
Congressional Oversight Report on the Troubled Asset Relief Program, December 9, 2009

The country faced a financial crisis.



Sources: British Bankers' Association, Reuters, Haver Analytics

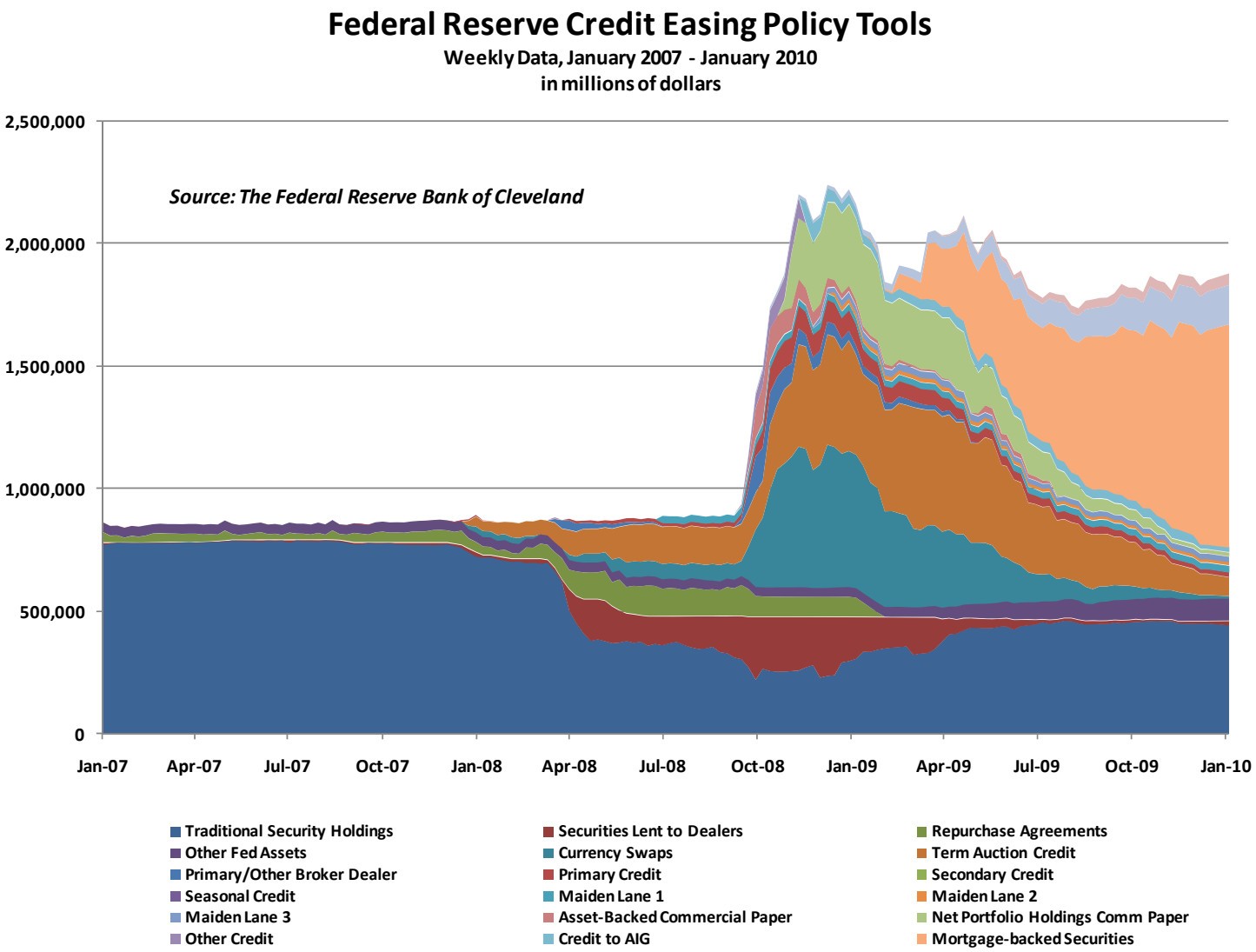
The Federal Reserve, the U.S. Government, and the Federal Deposit Insurance Corporation all responded.



The Federal Reserve provided funds to keep financial markets functioning. That's our job.

Financial Institution Facilities	*Lender*	*Current Rate*
Primary Credit	District Reserve Banks	Federal Funds plus 25 basis points
Secondary Credit	District Reserve Banks	Primary Credit rate plus 50 basis points
Seasonal Credit	District Reserve Banks	Published
Term Auction Facility	District Reserve Banks	Set at auction
Section 13(3) Facilities	***Lender***	***Date of Facility***
JPMC/Bear Stearns	FRB New York	March 16, 2008
Primary Dealer Credit Facility	FRB New York	March 17, 2008
AIG	FRB New York	September 16, 2008/November 10, 2008
AIG– Residential Mortgage-Backed Securities Facility	FRB New York	November 10, 2008
AIG- Collateralized Debt Obligations Facility	FRB New York	November 10, 2008
AMLF - Asset-Backed Commercial Paper Money Market Mutual Fund Lending Facility	FRB Boston	September 19, 2008
CPFF- Commercial Paper Funding Facility	FRB New York	October 7, 2008
MMIFF – Money Market Investor Funding Facility	FRB New York	October 21, 2008
TALF – Term Asset-Backed Securities Loan Facility	FRB New York	November 25, 2008

A picture of the Fed's actions.



Congress responded with the Troubled Asset Relief Program.

Utilization of TARP Funds	January 13, 2010
Capital Purchase Program (CPP) - $204.9 billion less $121.9 billion repaid less $4.0 billion in warrant proceeds (690 institutions initially)	$83.0 billion
Capital Assistance Program (CAP)	$0
Consumer and Business Lending Initiative (Super TALF)	$20 billion in TALF LLC
Public-Private Investment Program (P-PIP) – Legacy Assets	$30.0 billion (less $200 million repaid)
Targeted Investment Program (TIP) – Citi, BofA	$40.0 billion
Asset Guarantee Program - Citi	$5 billion; agreement terminated on 12/23/09
Auto Industry/Auto Supplier Program – GM, GMAC, and Chrysler	$84.8 billion invested $3.2 billion repaid
AIG Investment Program (formerly referred to as Systemically Significant Failing Institutions)	$69.8 billion
Home Affordable Modification Program (HAMP)	103 servicers; incentive caps of $35.5 billion

Source: www.financialstability.gov

The Federal Deposit Insurance Corporation responded with higher levels of insurance.

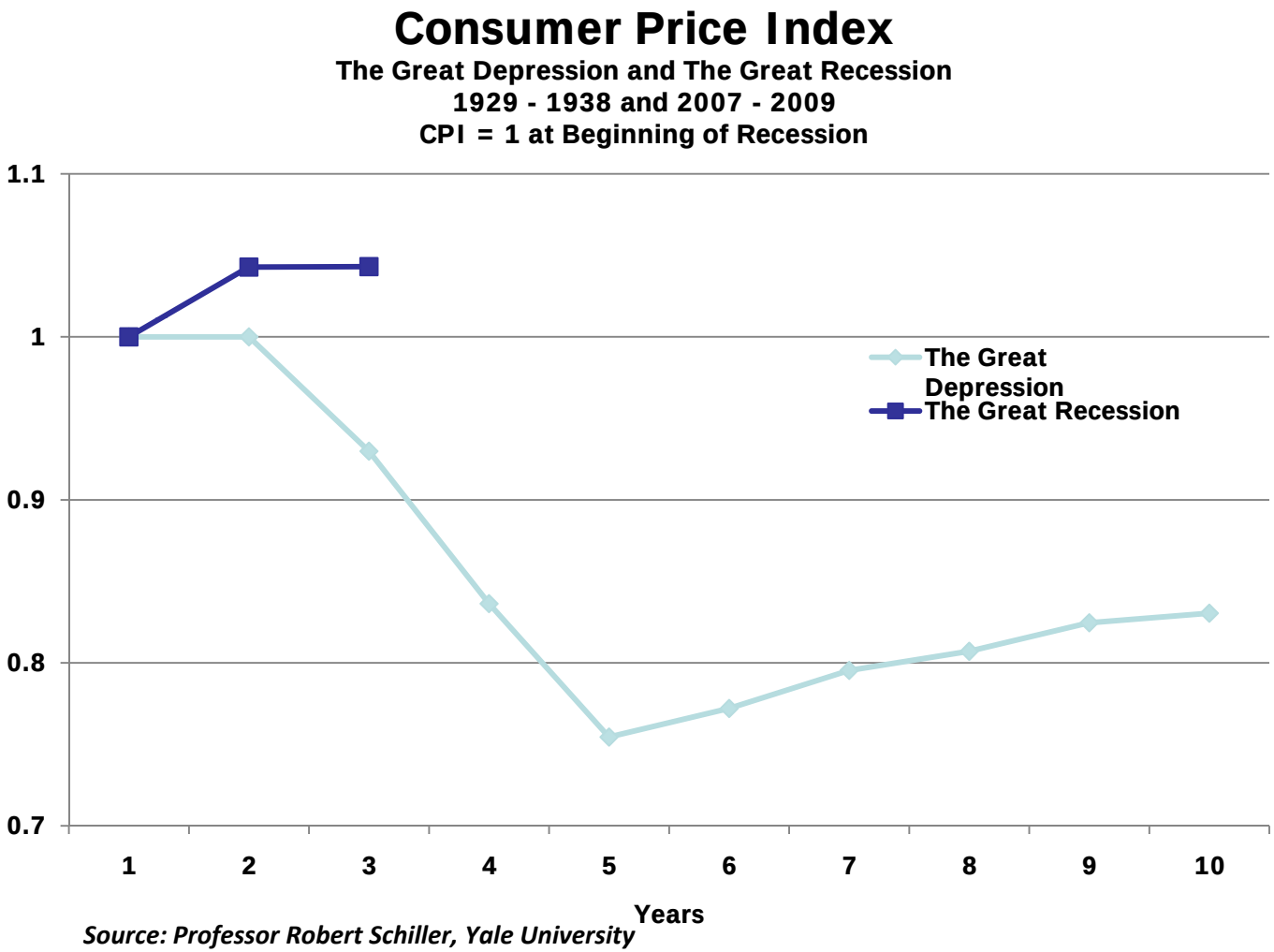
Federal Deposit Insurance coverage increased to $250,000 per owner through December 31, 2013 (Beginning May 2008)

Banks also had the option to pay a fee to participate in two other temporary programs beginning November 2008:

- Full insurance of noninterest demand accounts in excess of $250,000
- Guarantee of certain newly-issued senior unsecured debt of banking organizations

Separate from the FDIC program, the Treasury temporarily guaranteed participating money market mutual funds until September 19, 2009

A "Second Great Depression" was avoided.

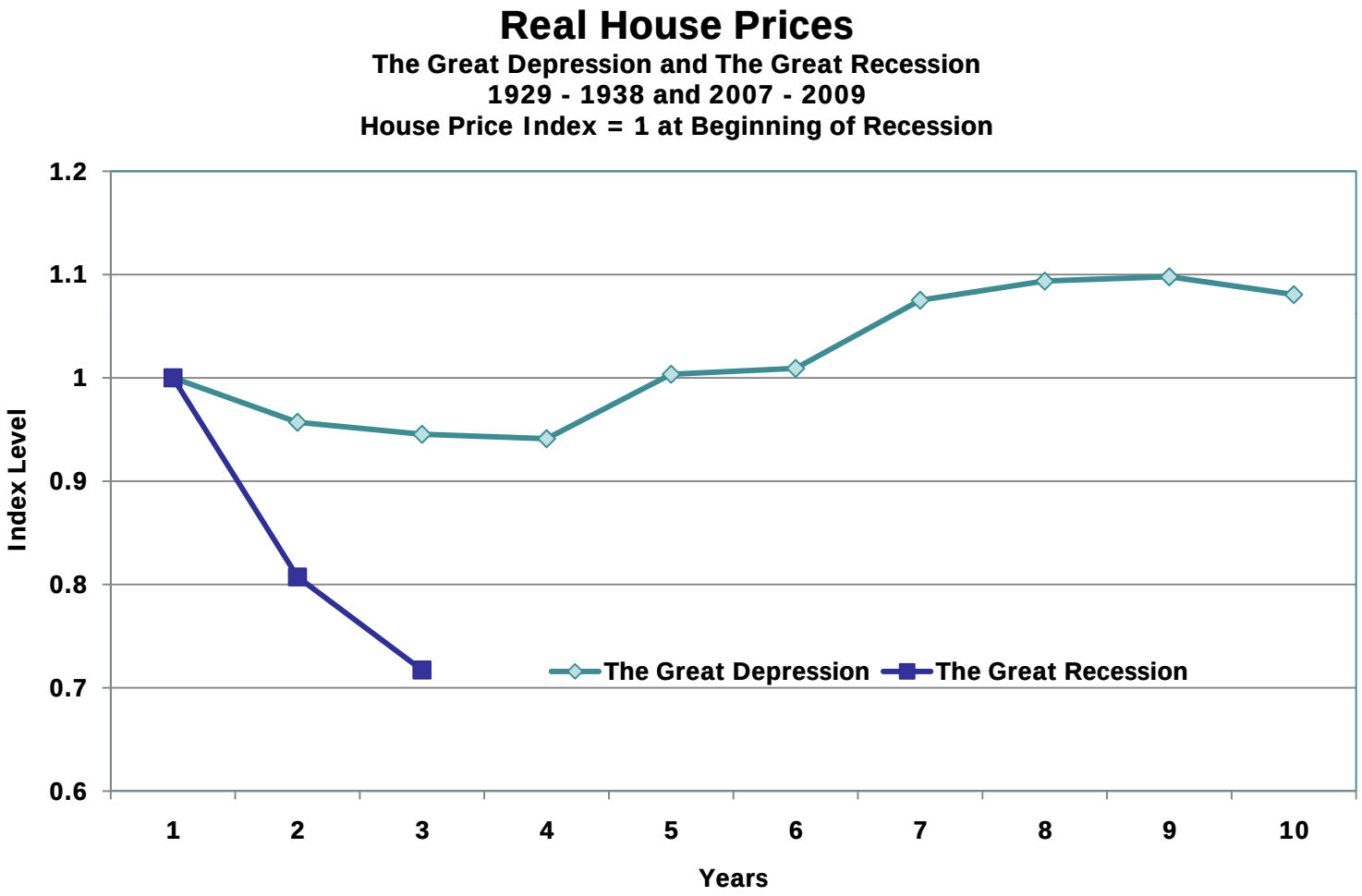


Source: Professor Robert Schiller, Yale University

Unemployment has hit double digits but stayed below depression level highs and below its 1982 peak,

Gray bars indicate recessions

...but house prices have declined more severely than during the Great Depression.



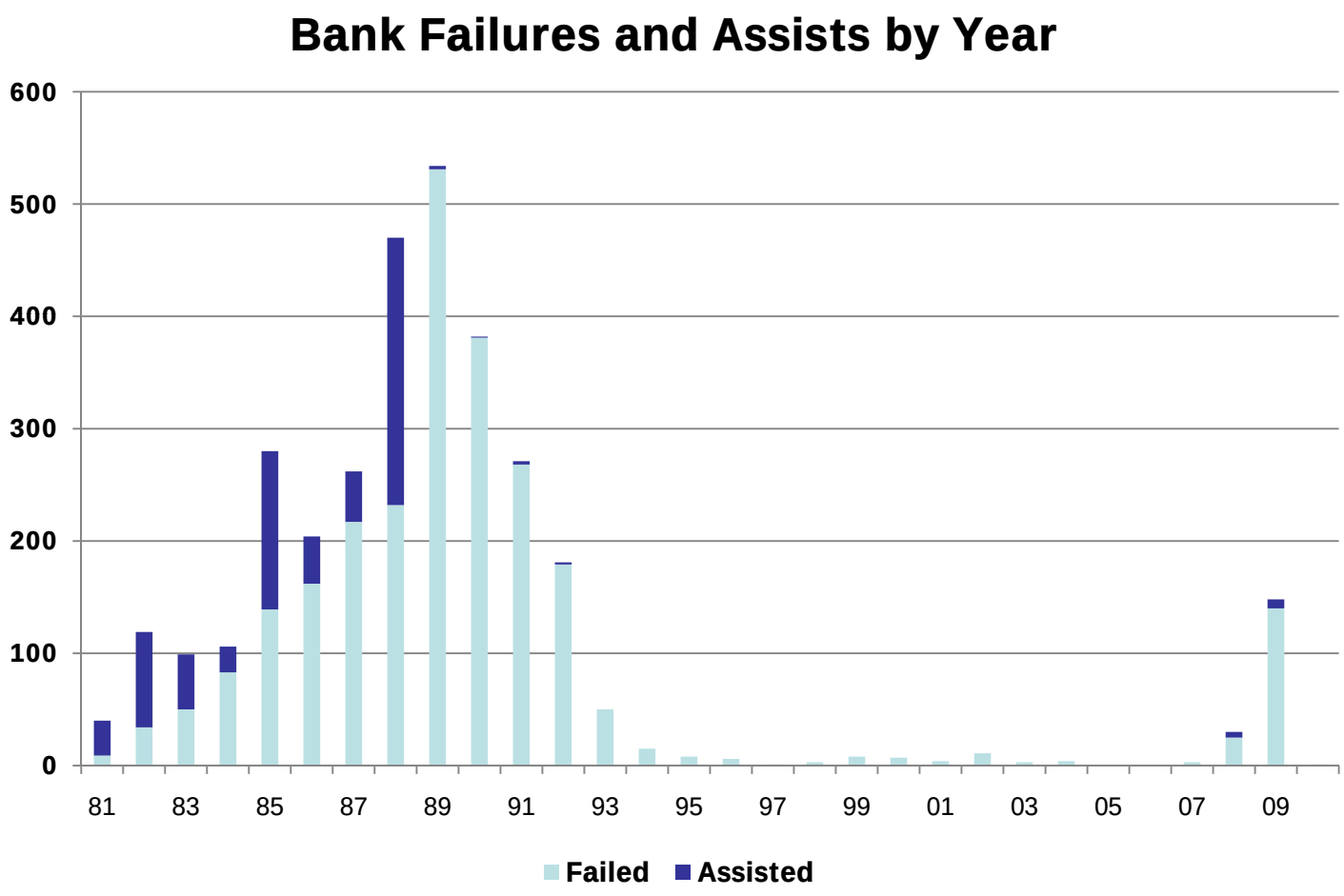
Source: Professor Robert Schiller, Yale University

The cost to the world has been significant.

	Outstanding	*Implied Cumulative Loss Rate*	Implied Losses
Loans (originated by U.S. domiciled banks)	Billions of $	*(Percent)*	Billions of $
Residential mortgage	2,981	***7.7***	**230**
Commercial mortgage	1,114	***9.0***	**100**
Consumer	1,115	***17.5***	**195**
Corporate	1,104	***6.6***	**72**
Foreign	1,745	***3.3***	**57**
Total for loans	8,059	***8.1***	**654**
Securities (originated by U.S. domiciled banks)			
Residential mortgage	1,495	***12.7***	**189**
Commercial mortgage	196	***32.0***	**63**
Consumer	142	***0.0***	**0**
Corporate	1,115	***4.3***	**48**
Governments	580	***0.0***	**0**
Foreign	975	***7.3***	**71**
Total for securities	4,502	***8.2***	**371**
Total for loans and securities	12,561	***8.2***	**1,025**

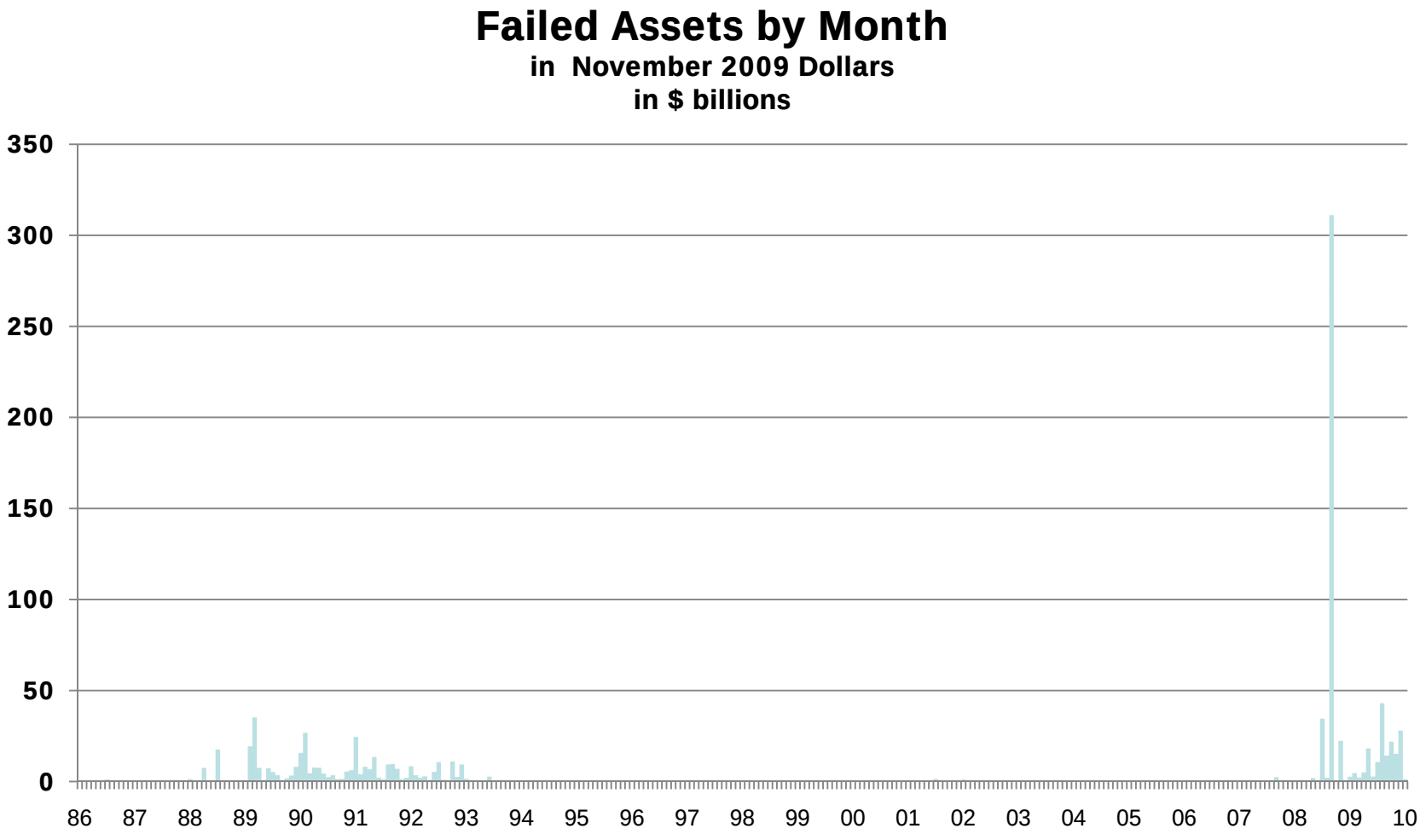
Source: International Monetary Fund

.....and the banking system has suffered tremendously.



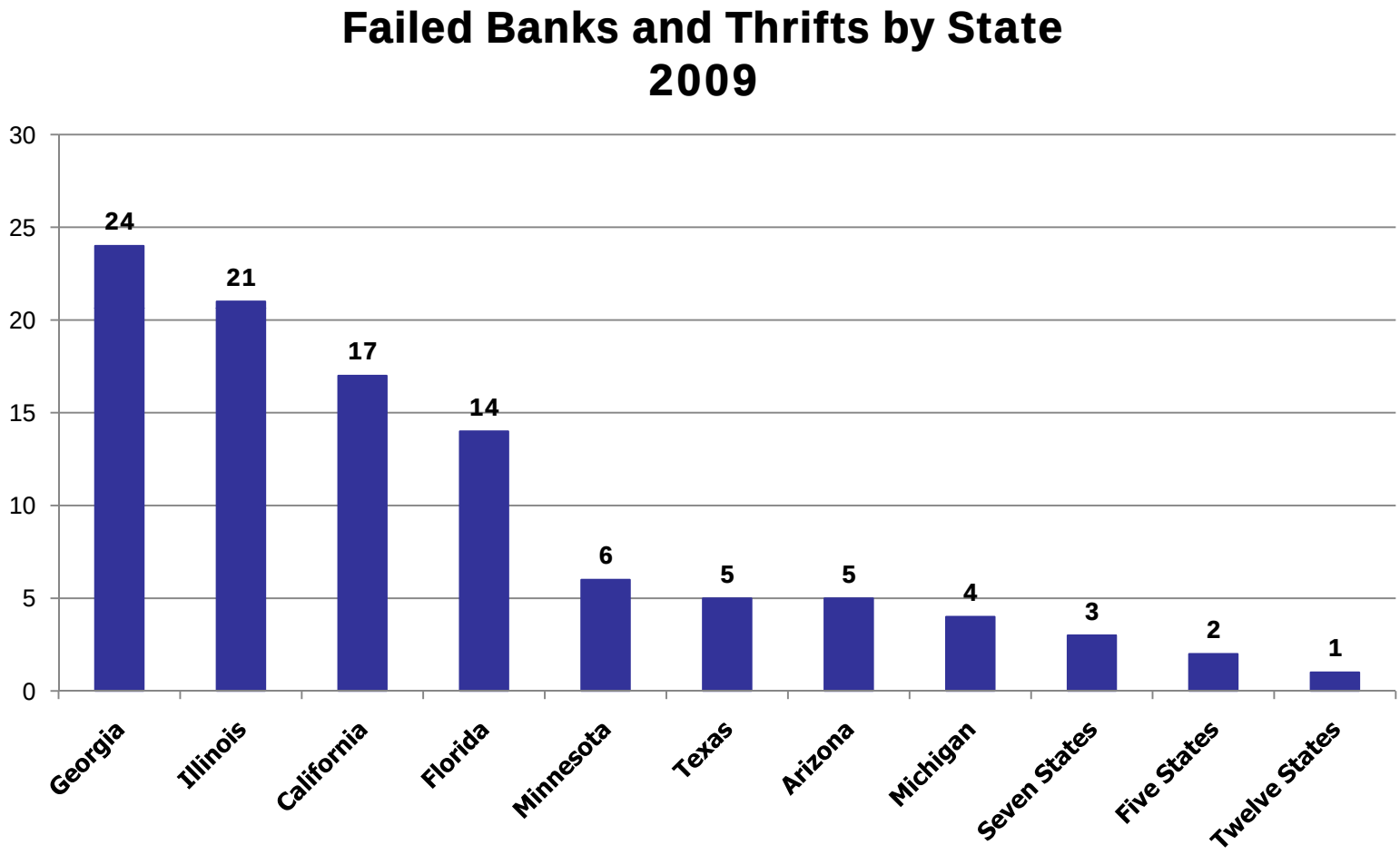
Source: FDIC (4 failures so far in 2010)

When put into constant terms, it appears that assets of failed banks will exceed the 1980s.



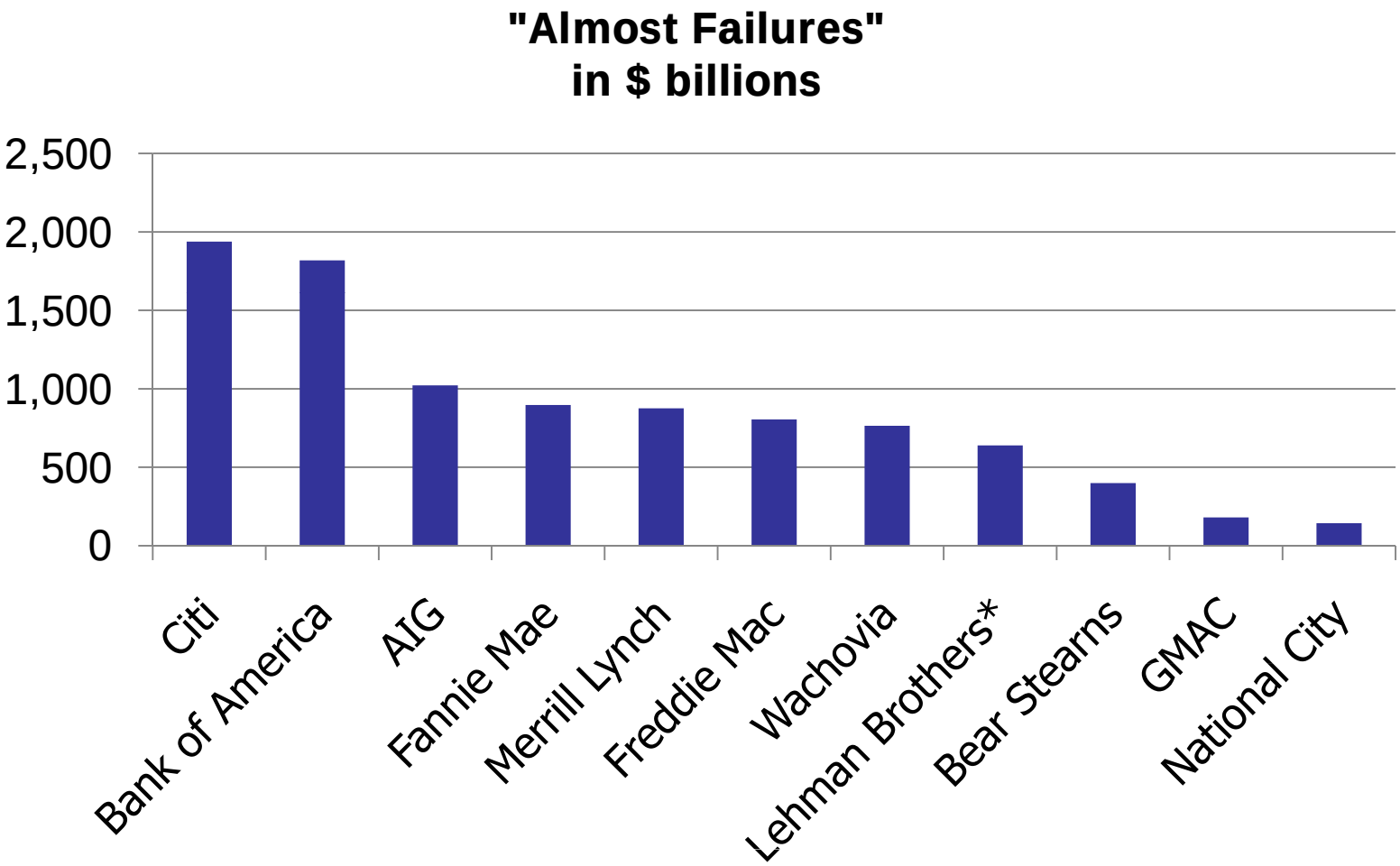
Source: FDIC (current as of 1/11/10)

Illinois has been hard-hit.



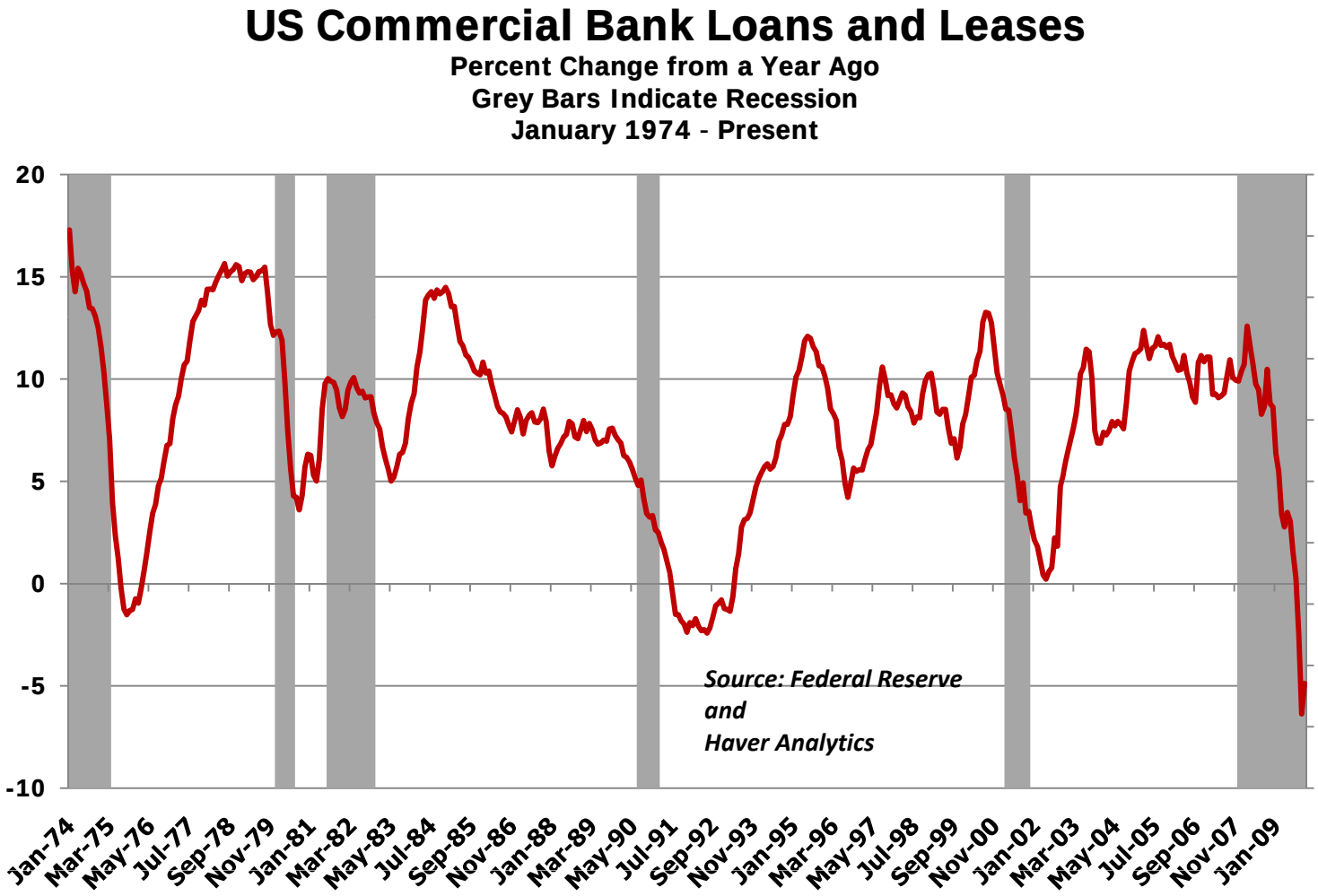
Source: FDIC, data as of 1/11/2010

FDIC statistics tell only part of the story.



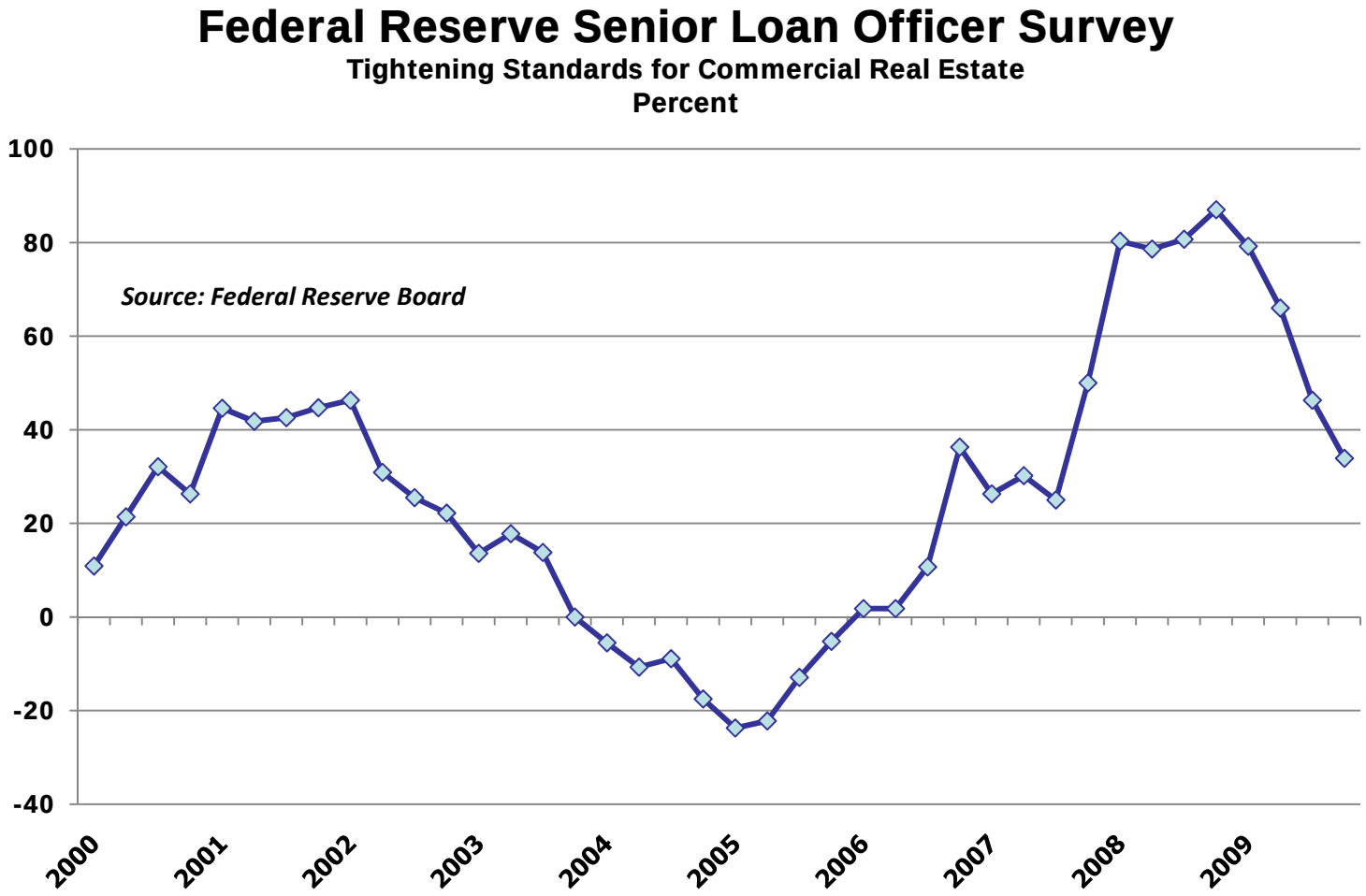
** Lehman Brothers did file for bankruptcy in Sept. 2008*

Weak financial institutions, more "normal" credit standards, and a recession have affected bank lending.

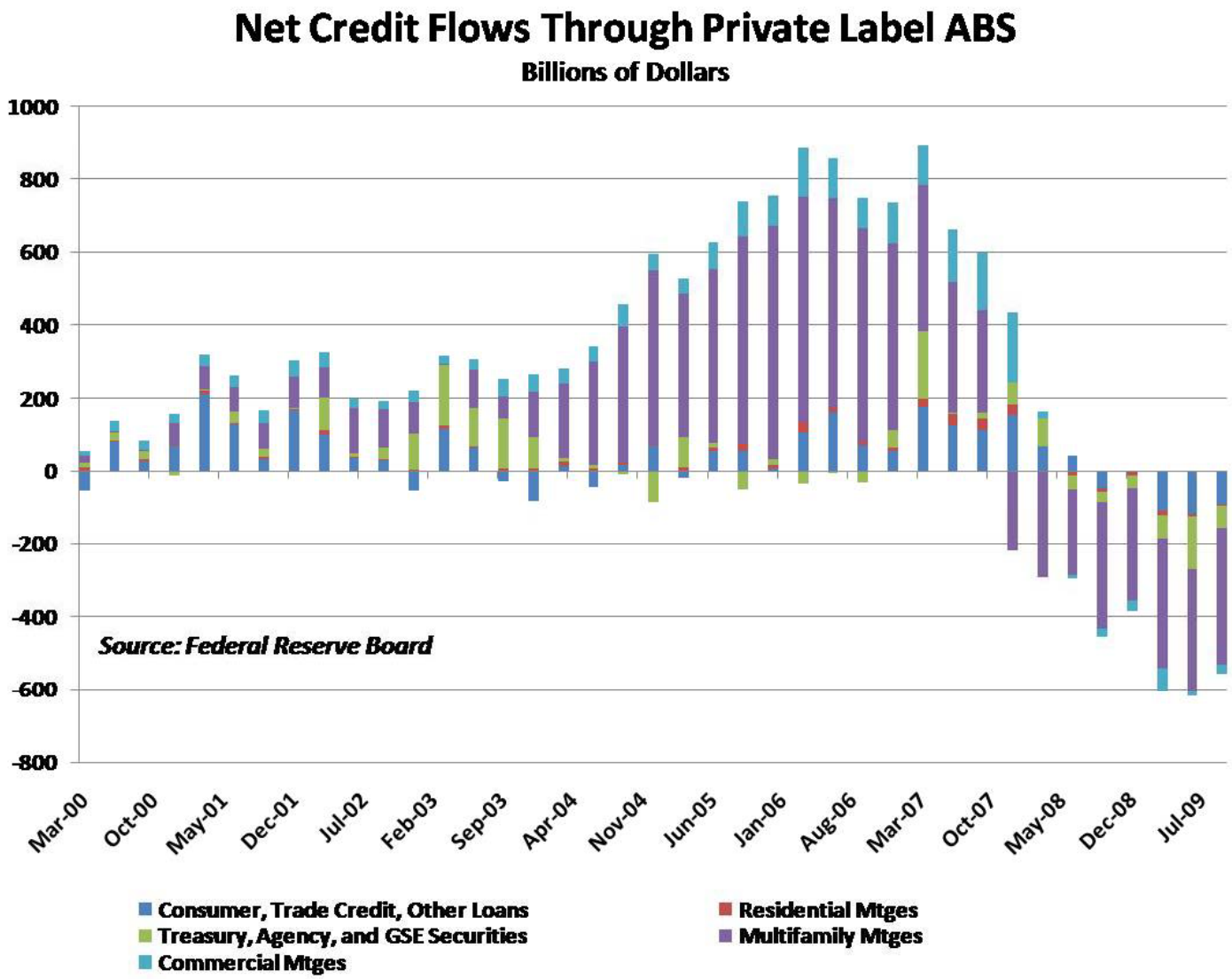


Source: Federal Reserve Board. Monthly data through January 2009.

Many healthy banks continue to lend, but have tightened their lending standards.



Lending via the "shadow banking system" (especially the subprime mortgage market) has changed dramatically.



Source: Federal Reserve *Flow of Funds Accounts*, Second Quarter 2009.

Where does the economy stand today?

Though we won't know for sure until later this month, it appears that the U.S. economy experienced rapid growth over the last three months of 2009.

- It might have been the best performance in several years

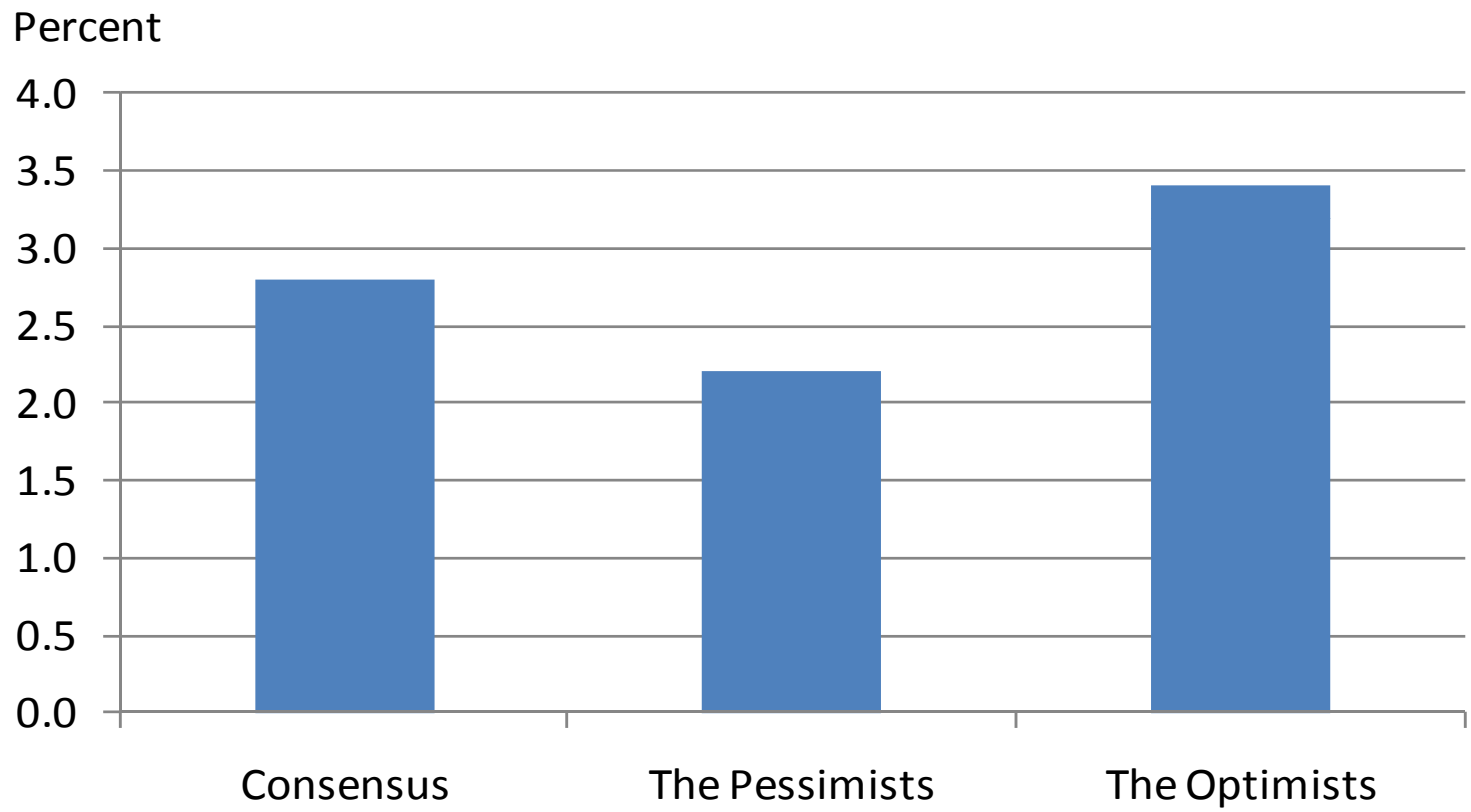
As of yet, though, job growth remains negative and the unemployment rate stands at 10%

- With industry spare capacity quite high, it appears that many firms are comfortable boosting production and sales with their existing work force and equipment. Over time, that should change: More hiring and more investment.

The general consensus of forecasters is that the economy will continue to strengthen in 2010, and that inflation will remain relatively low and stable.

- While the outlook appears much brighter than this time last year, there are still some worries—both about the strength of the economy, and whether inflation will remain calm.

The forecasters' view of real GDP growth

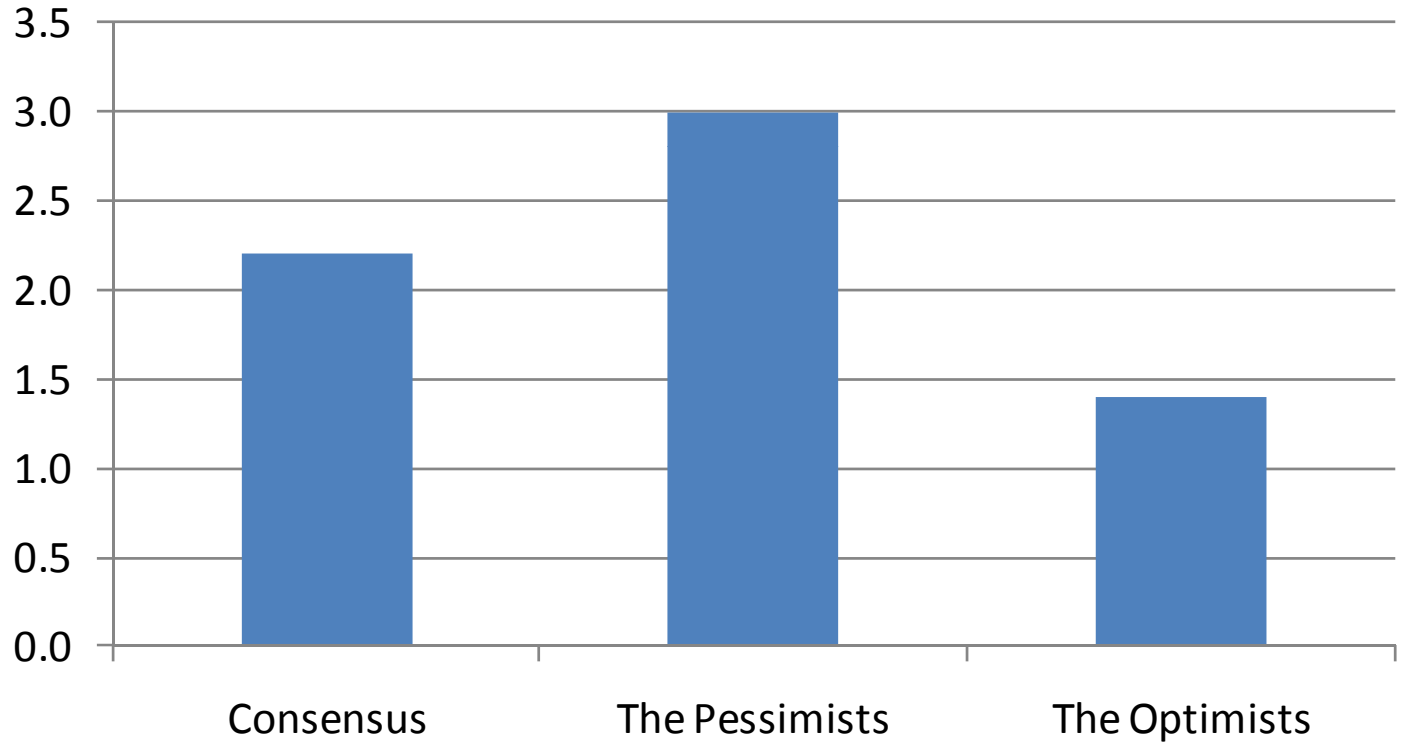


SOURCE: Blue Chip Economic Indicators, January 2010.

What about inflation?

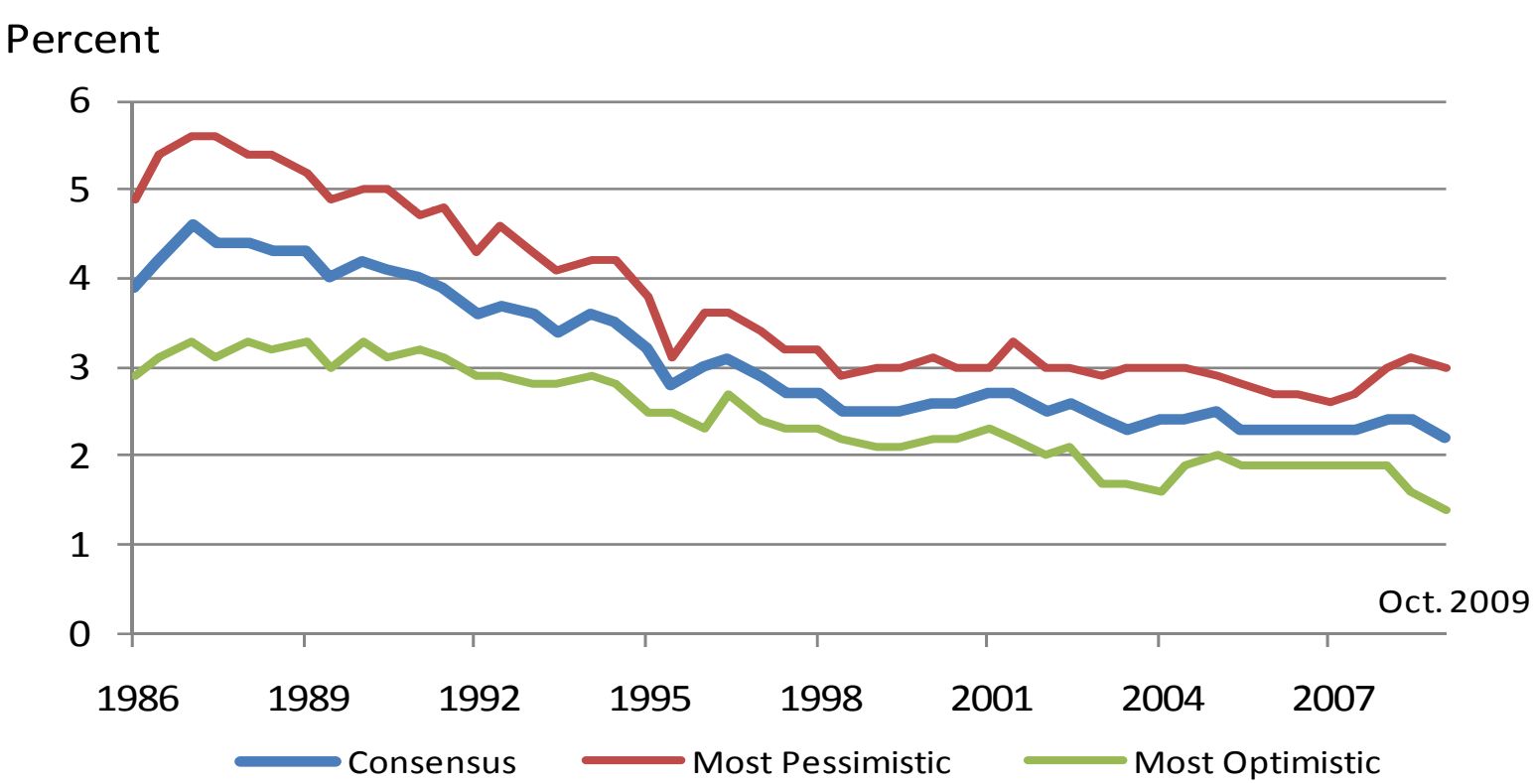
How Much do Forecasters Disagree About the Direction of Inflation Over the Next Five Years

Percent



SOURCE: Blue Chip Economic Indicators, October 2009.

Differences of opinion always exist.



SOURCE: Blue Chip Economic Indicators, various issues

The outlook in words.

- An economy in transition

  - Rebalancing the economy from consumption and housing to business investment and exports

  - Many expect a multi-year transition

- Fiscal uncertainties weigh on the outlook

  - Large budget deficit

  - Future direction of economic and regulatory policies

- At present, inflation expectations appear contained.

Questions?