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# The Crash of 2008 and Its Aftermath

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Jack Marco  
Chairman/ Sr Consultant  
Marco Consulting Group

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# Outline

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- Part 1: 2008 Year in Review
- Part 2: 2009 Year in Review
- Part 3: 2010 First Half Year in Review
- Part 4: 2010 What Lies Ahead
- Part 5: How Pension Funds Suffered After 2008

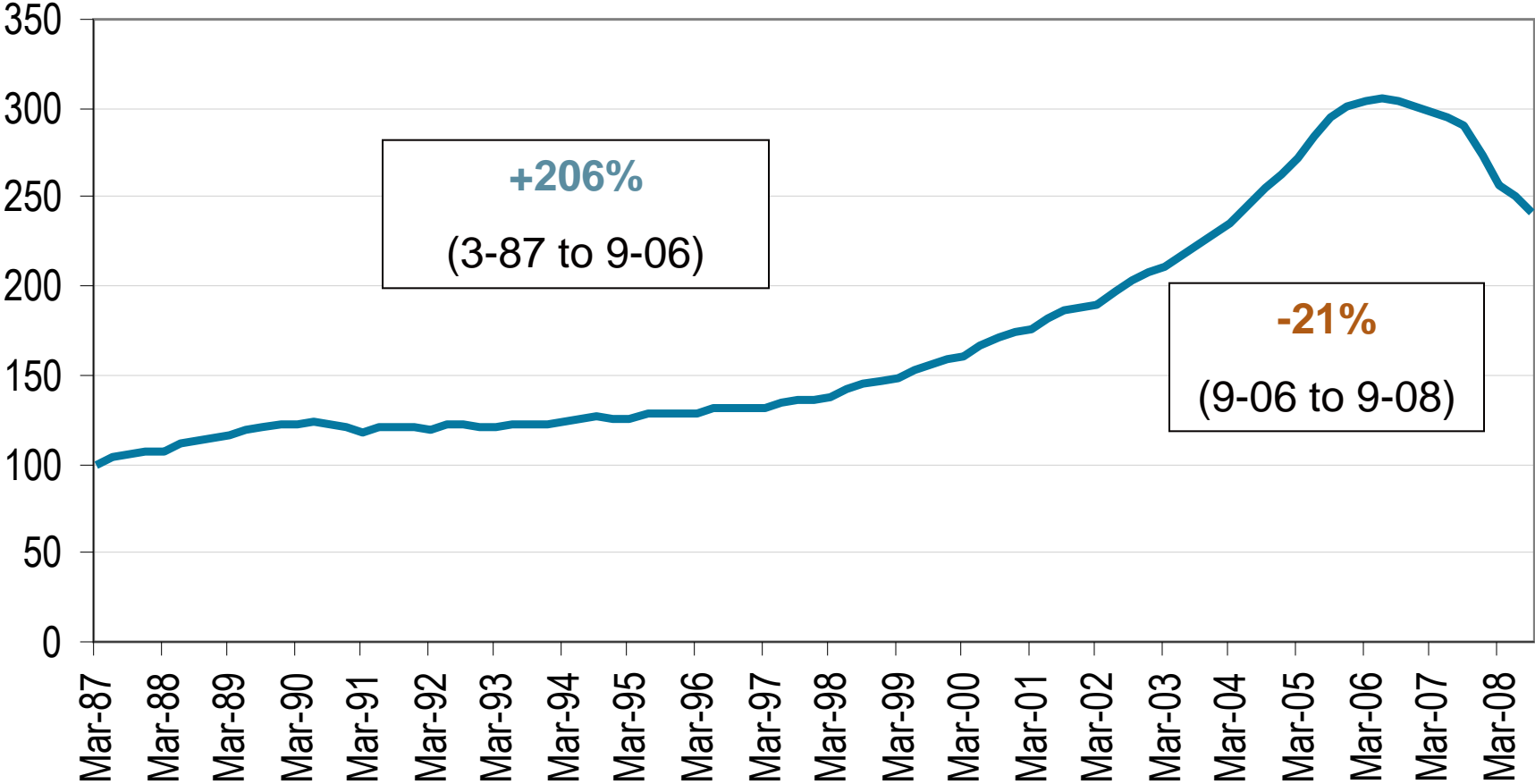


## 2008 Year in Review

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# Jump on the Housing Bandwagon

## S&P/Case-Shiller United States Home Price Index



Source: Bloomberg, 1987 index level set to 100



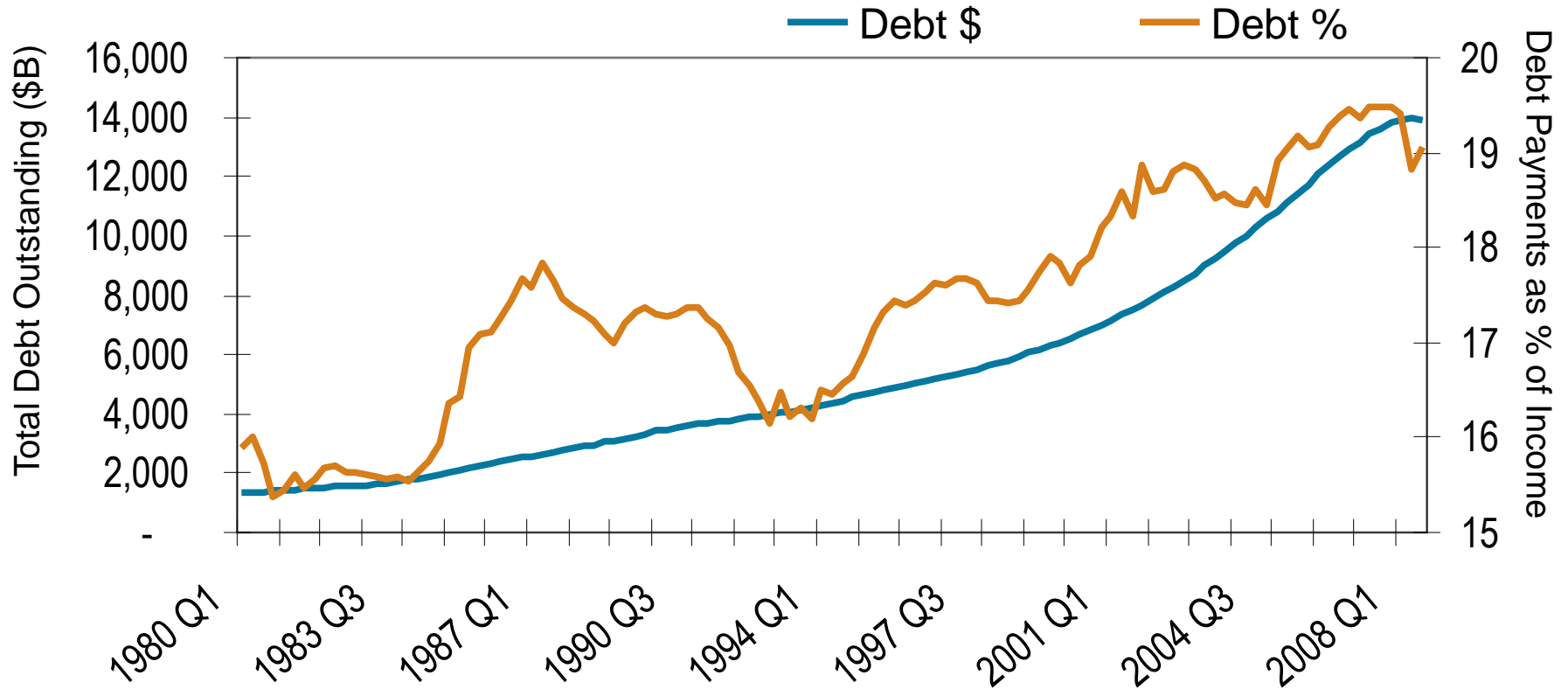
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# Homeowners...

...took on too much debt

## Household Debt



Source: Federal Reserve



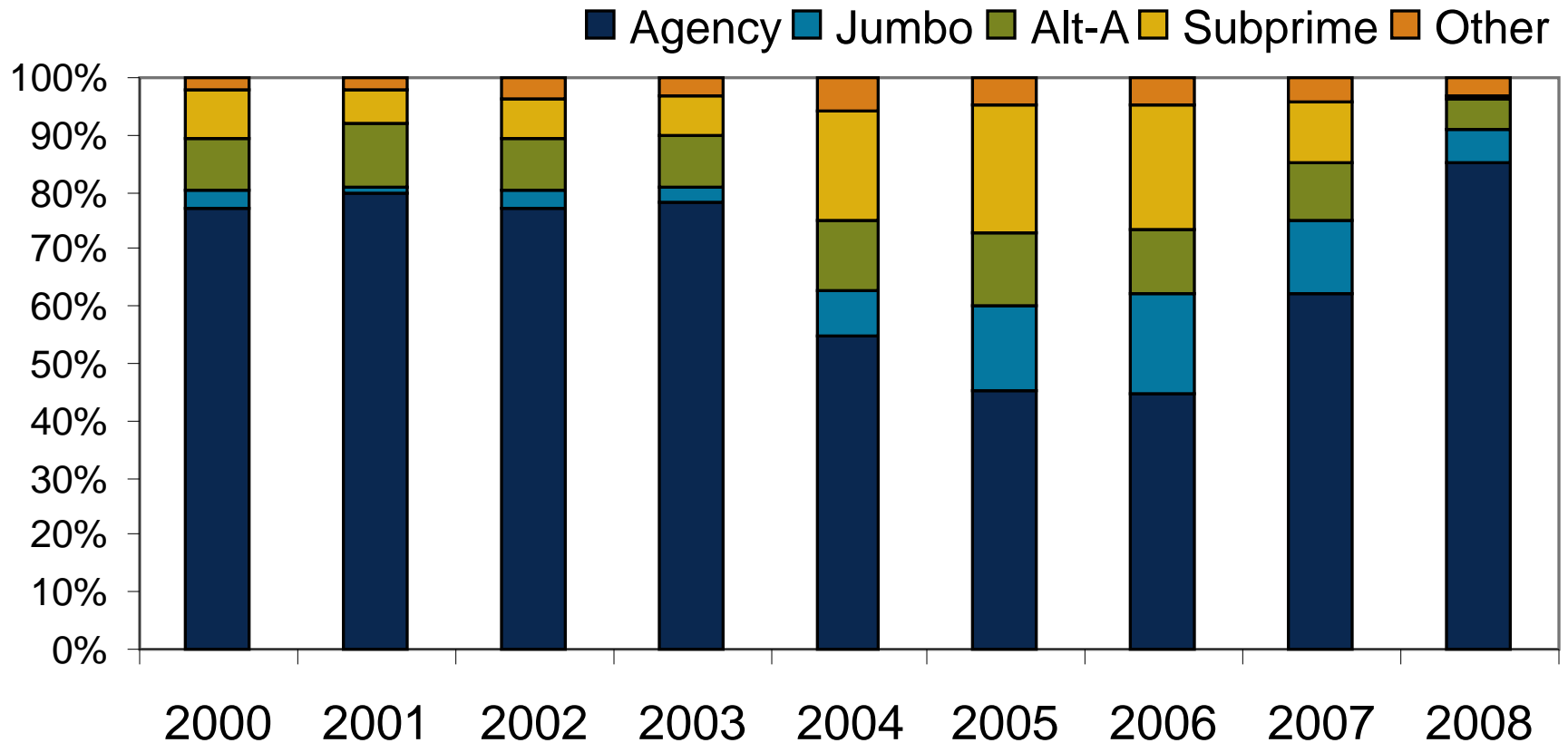
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# Mortgage Lenders...

...issued risky mortgages and quickly sold them

## Types of Mortgages Issued



Source: PIMCO, UBS (2000-2007), JPMorgan (2008)



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# Credit Freeze

- First Half of 2008
  - Overall lending slows
  - Lending frozen in risky areas (e.g., subprime, leveraged loans)
  - Belief that government will step in (Bear Stearns)
  
- Second Half of 2008
  - Lehman bankruptcy
  - Paralyzed by headlines
  - Lending frozen across the board (prime mortgages, corporate bonds, commercial paper, interbank lending)



# Headlines #1: Bankruptcy

LEHMAN BROTHERS



**Washington  
Mutual**

- Bankruptcy or similar failure
  - Lehman Brothers
  - FDIC seized 25 failed banks (IndyMac, Washington Mutual)
  - Retailers (Linens n' Things, Sharper Image)
  - Others (ATA Airlines, Icelandic banks)
- Reaction: Stocks ↓. Bonds ↓.



## Headlines #2: Government Assistance

- Temporary government protection
  - Bear Stearns: JPM purchase with Fed \$30 billion guarantee
  - Fannie Mae, Freddie Mac: conservatorship
  - AIG: \$152 billion rescue package (loans and investments)
  - Dozens of major banks: accept \$250 billion in government capital in exchange for preferred shares
  
- Reaction: Stocks ↓. Bonds stabilize or ↑.

BEAR  
STEARNS



# Headlines #3: Private Assistance

- Acquired or re-capitalized
  - Countrywide: acquired by Bank of America
  - Merrill Lynch: acquired by Bank of America
  - Morgan Stanley: \$9 billion investment from Mitsubishi UFJ
  - Goldman Sachs: \$5 billion investment from Buffet/Berkshire
  - GE: \$3 billion investment from Buffet, \$12 billion from others
  - Wachovia: acquired by Wells Fargo
  - National City: acquired by PNC Financial
- Reaction: Stocks ↑. Bonds ↑.



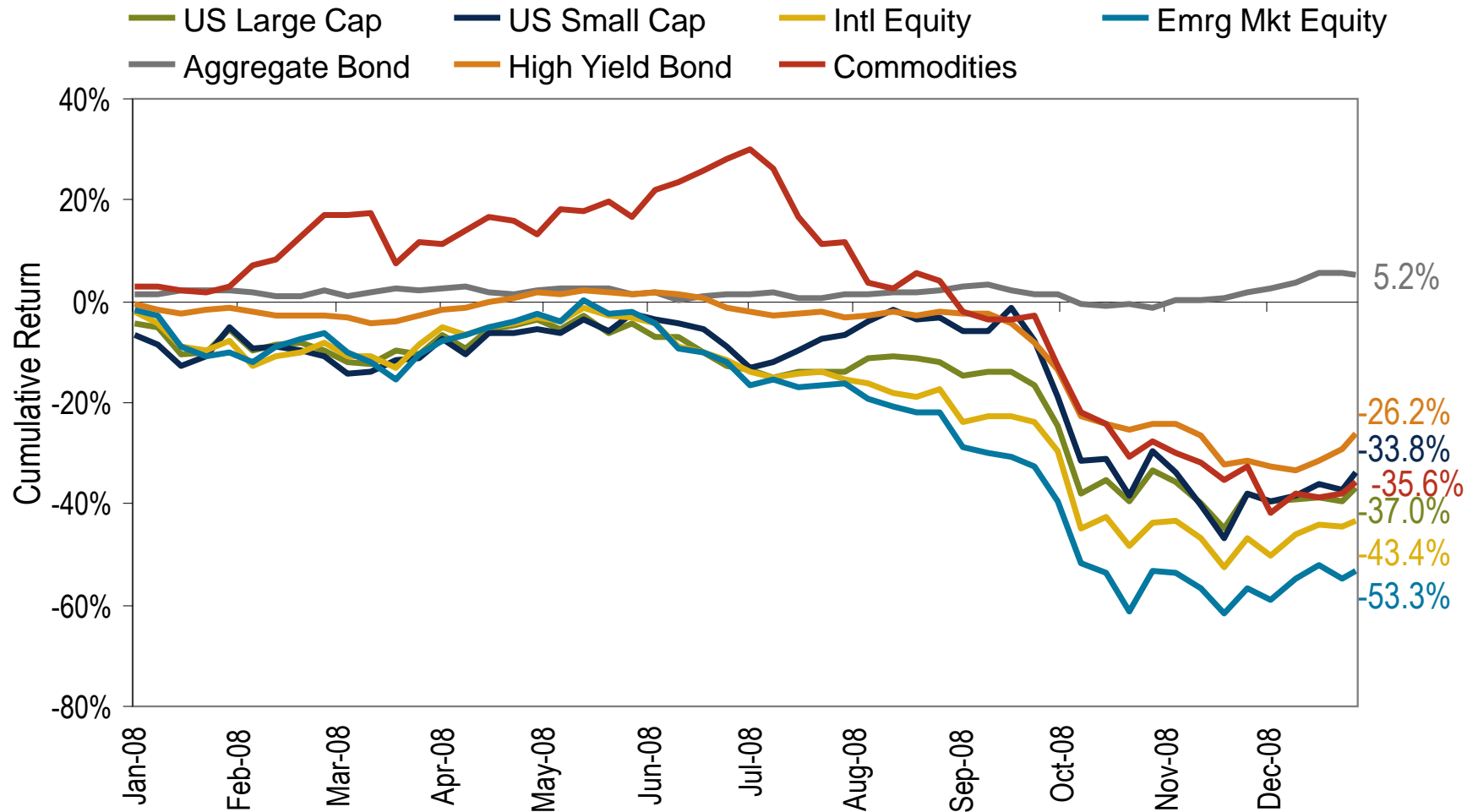
# Headlines #4: Bank Holding Companies

- Applied for federal bank charter
  - Morgan Stanley
  - Goldman Sachs
  - American Express
  - GMAC
- Benefits: collect retail deposits, FDIC guarantee on bank debt, access to Fed's discount window
- Trade-Offs: bank regulators, higher capital requirements



# Massive Sell-Offs

## Cumulative Returns in 2008



Source: Bloomberg

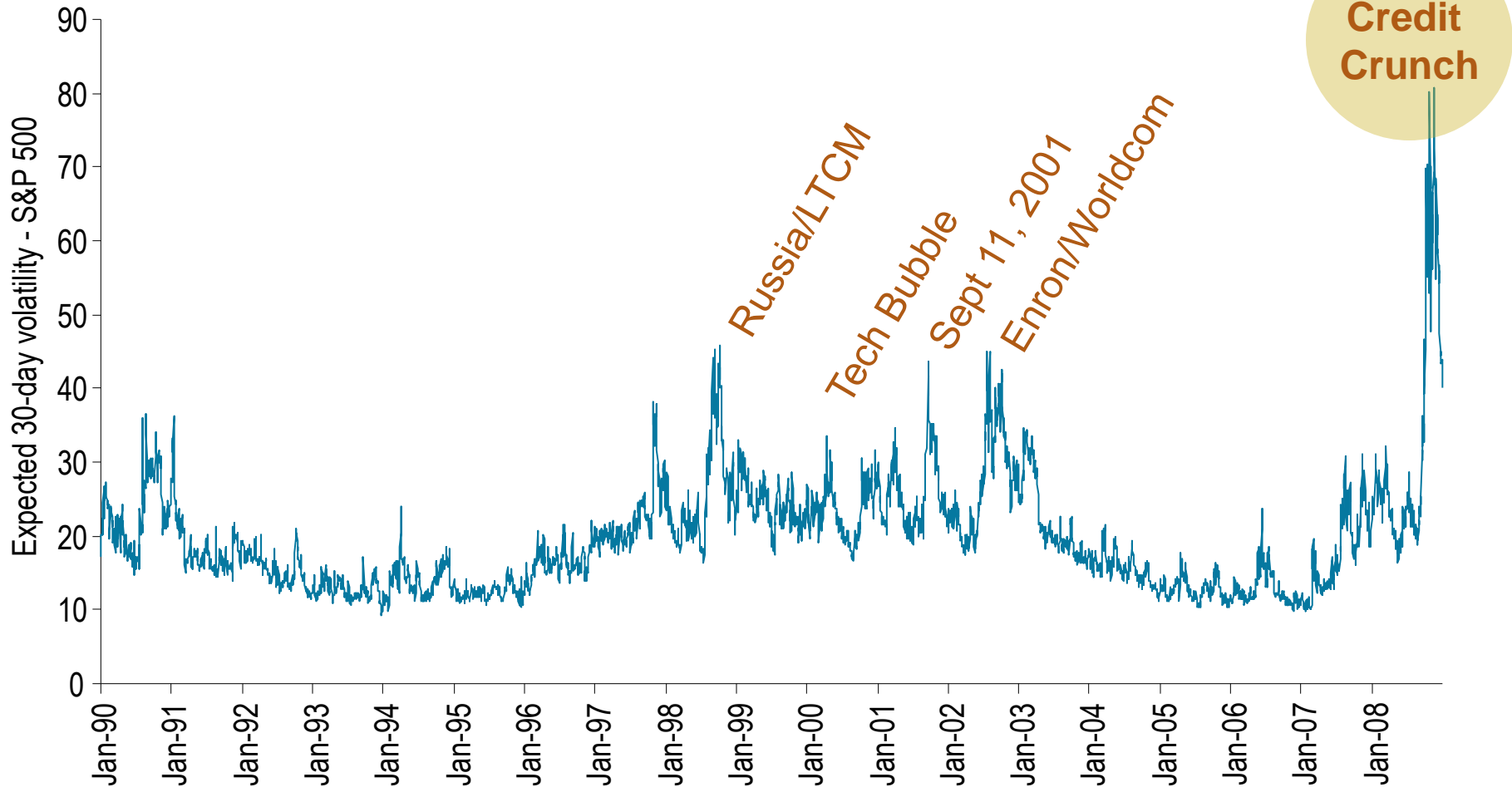


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# Record Highs for Volatility

## VIX Volatility Index



Source: CBOE



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# Flight to Quality

## Safety in U.S. Government assets

- U.S. dollar
- U.S. Treasuries

## Risk assets

- Sell anything with any level of risk
- Higher correlations across the board

Technical reaction, not fundamental



# Strength of U.S. Dollar

## Nominal Dollar Broad Index



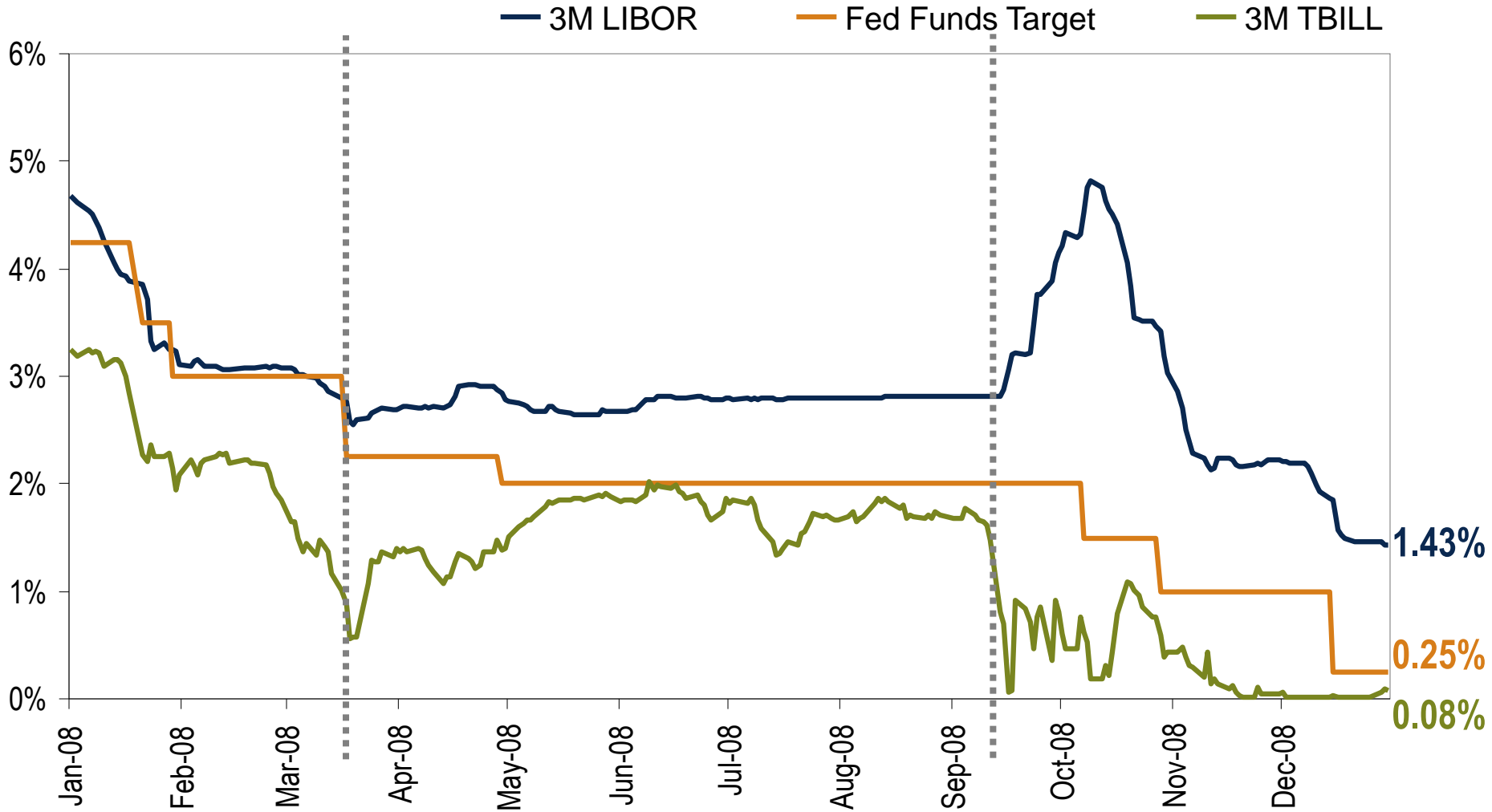
Source: Federal Reserve's trade-weighted US dollar index



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# Treasury Yields Pushed to Zero



Source: Bloomberg

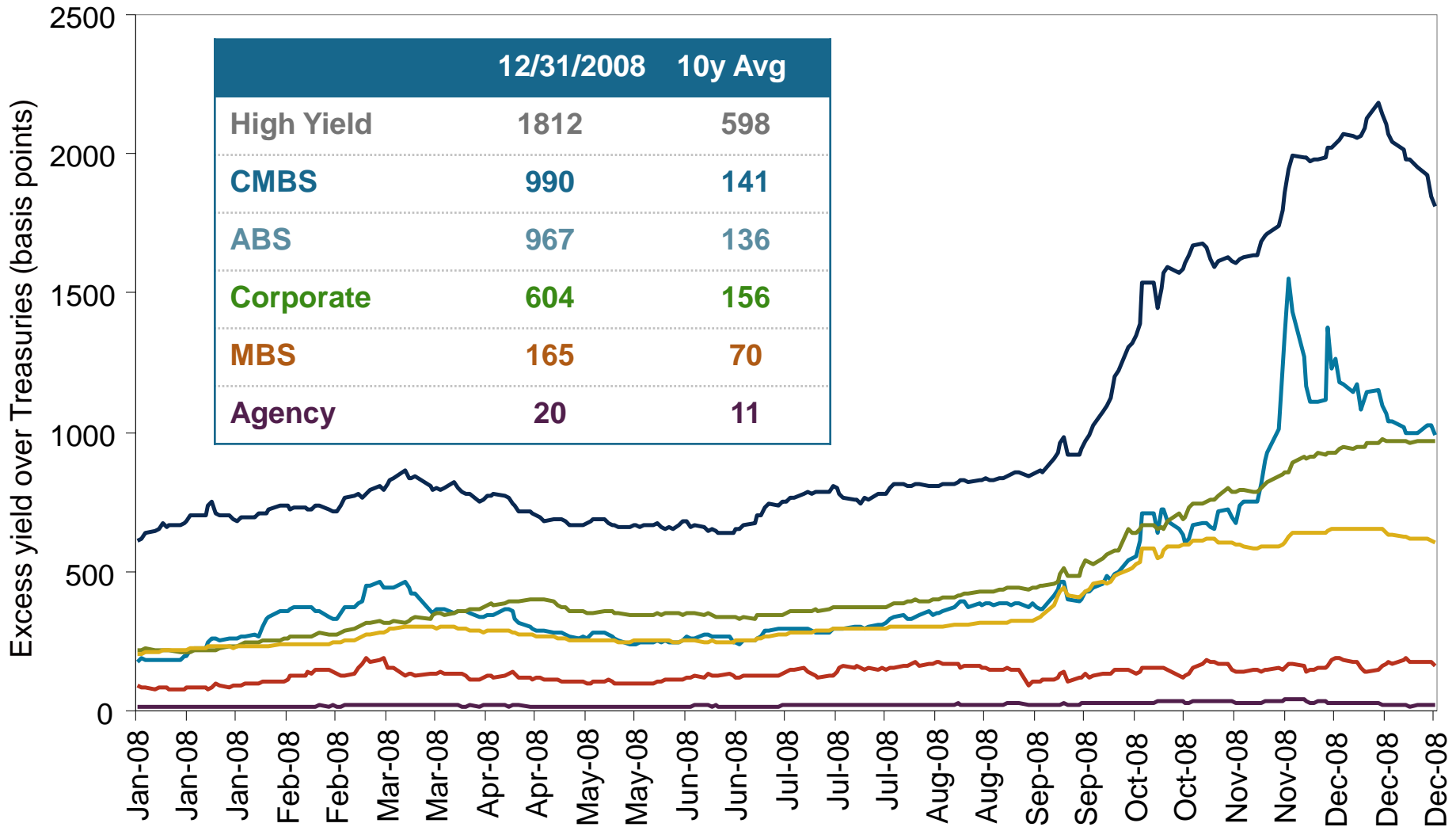


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# Demand Higher Yields from Risky Bonds



Source: Option-adjusted spreads on Merrill Lynch indexes through 12-31-08



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# Imagine a World Where...

- People can't get mortgages
- People can't get car or student loans
- Companies can't raise funds for new factories or new products
- Companies have to stash more cash to cover payroll or operating costs
- Banks don't want to lend to each other



# Government Intervention

- Buyer of last resort
- Lender of last resort
  
- U.S. Treasury
- U.S. Federal Reserve
- Foreign governments
- Foreign central banks



# U.S. Bail-Out: TARP

- \$700 billion Troubled Asset Relief Program (TARP)
- Run by the U.S. Treasury
- Waiting for Congress to release second installment of \$350 billion

Project	Amount (\$ billions)
Purchase shares of healthy banks	\$250
Buy AIG preferred shares	\$40
Fed program to guarantee ABS	\$20
Citigroup investment	\$25
Auto industry (GM, Chrysler, GMAC)	\$23
<b>Total</b>	<b>\$358</b>



# U.S. Bail-Out: Other Actions

Who	Action	Month Announced	Purpose
Fed	Lowered federal funds rate seven times	All Year	To encourage banks to lend
Fed	Opened discount window to lend to investment banks	March	To provide source for emergency funds
Fed	Currency swaps with 14 other central banks	Sept	To provide US dollars where supply is tight
Treasury	Money market insurance program	Sept	To guarantee safety of money market deposits
SEC	Banned short selling of select stocks	Sept	To temporarily ease downward price pressure
FDIC	Guaranteed newly issued senior bank debt	Oct	To promote liquidity
Fed	Buying 3-month commercial paper (highly rated, unsecured and asset-backed)	Oct	To provide funds to companies to continue operations
Fed	Buying \$600 billion in agency debt and agency MBS (Ginnie, Fannie, Freddie)	Nov	To lower mortgage rates
Fed	Lending up to \$200 billion, taking ABS (auto, credit card, student, and small biz loans) as collateral	Nov	To encourage banks to continue creating these loans



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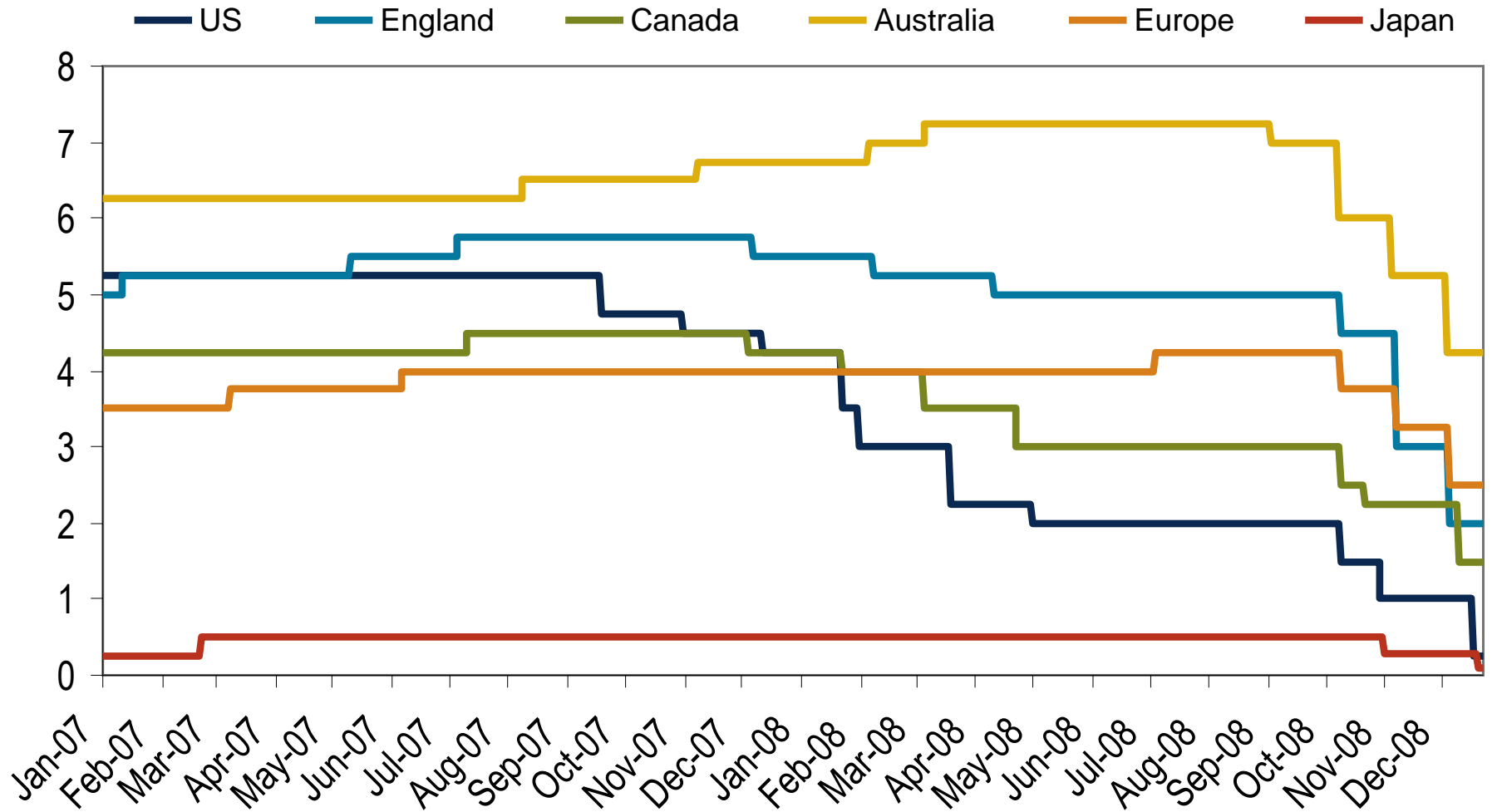
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# Central Banks Drop Rates

## Central Bank Interbank Lending Rates



Source: Bloomberg



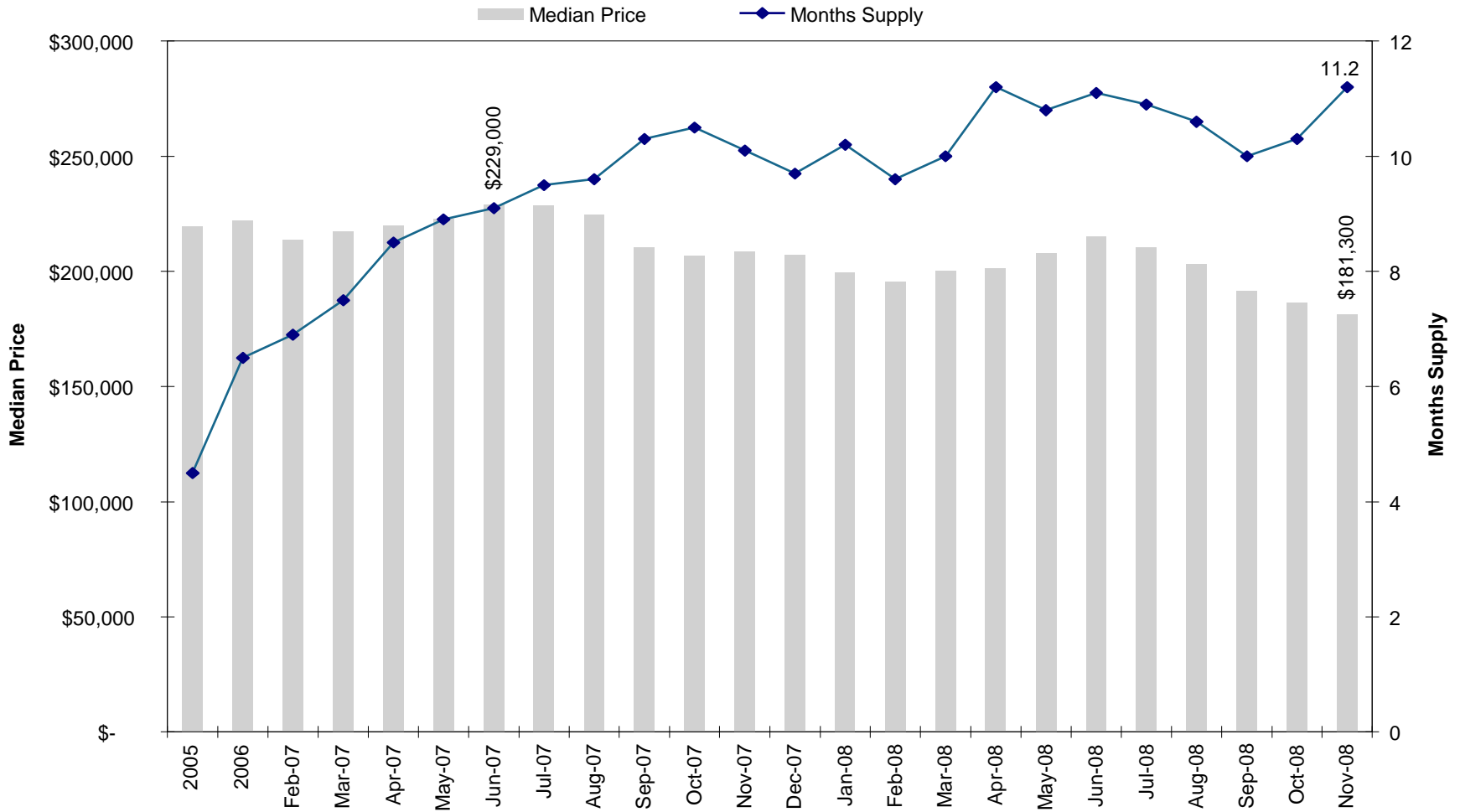
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# Concern 1: Housing

## Home Sales



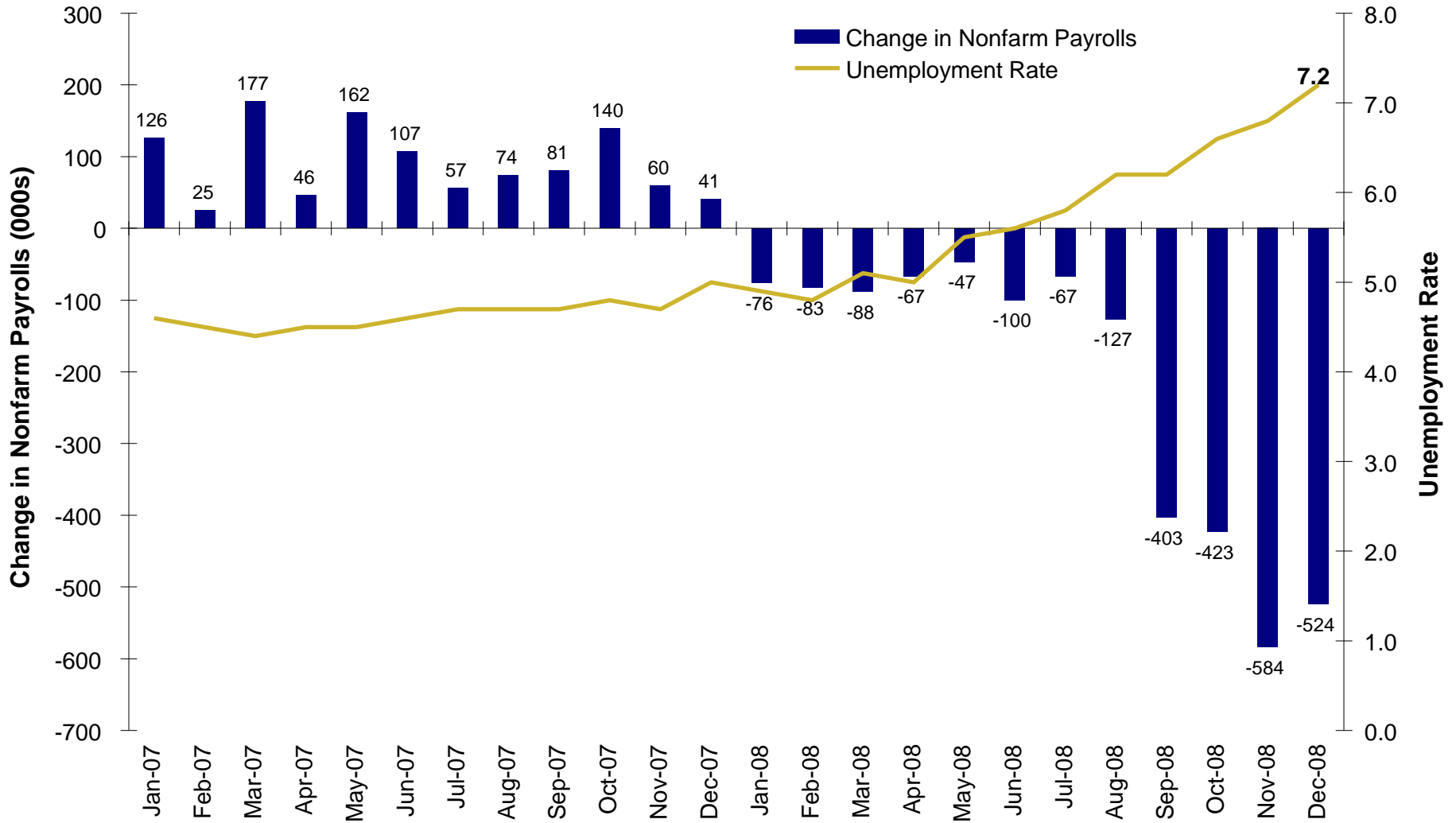
Source: National Association of Realtors



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# Concern 2: Economy and Unemployment



Source: Bureau of Economic Analysis



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# Hopeful Sign 1: Historical Recessions

Peak	Trough	Months	Peak	Trough	Months	
Sept. 1902	Aug. 1904	23	Nov. 1948	Oct. 1949	11	
May 1907	June 1908	13	July 1953	May 1954	10	
Jan. 1910	Jan. 1912	24	Aug. 1957	April 1958	8	
Jan. 1913	Dec. 1914	23	April 1960	Feb. 1961	10	
Aug. 1918	March 1919	7	Dec. 1969	Nov. 1970	11	
Jan. 1920	July 1921	18	Nov. 1973	March 1975	16	
May 1923	July 1924	14	Jan. 1980	July 1980	6	
Oct. 1926	Nov. 1927	13	July 1981	Nov. 1982	16	
Aug. 1929	March 1933	43	July 1990	March 1991	8	
May 1937	June 1938	13	March 2001	Nov. 2001	8	
Feb. 1945	Oct. 1945	8	December 2007			
					Average	14

Source: NBER



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# Hopeful Sign 2: Average Drawdowns

## S&P 500 Index Returns

Peak	Bottom	Duration	Decline
11/29/1968	5/26/1970	18 months	-36.1%
1/11/1973	10/3/1974	21 months	-48.2%
11/28/1980	8/12/1982	20 months	-27.1%
8/25/1987	12/4/1987	3 months	-33.5%
7/16/1990	10/11/1990	3 months	-19.9%
3/24/2000	10/9/2002	31 months	-49.1%

Average decline for prior 7 events -35.7%

Peak	Bottom	Duration	Decline
10/9/2007	11/20/08	13 months	-50.7%

- Average return for the 3 months following the bottom of a cycle: +13.9%
- Average return for the 12 months following the bottom of cycle: +34.9%
- Return from 11/20/08 to 12/31/08: +20.5%

Source: Attalus Capital, Morningstar



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# Hopeful Sign 3: Forecast

## MSNBC Year-End Economic Roundtable

	Forecast for GDP Growth				
	Q4 2008	Q1 2009	Q2 2009	Q3 2009	Q4 2009
Scott Anderson, Senior Economist, Wells Fargo	-5.6%	-3.8%	-0.5%	1.7%	2.2%
Nariman Behravesh, Chief Economist, IHS Global Insight	-6.5%	-4.0%	-0.7%	0.7%	1.4%
Michael Englund, Chief Economist, Action Economics	-6.5%	-3.0%	1.0%	2.0%	2.5%
Ethan Harris, Co-head, U.S. economics research, Barclays Capital	-4.5%	-4.5%	-1.0%	2.0%	3.0%
Jan Hatzius, Chief U.S. Economist, Goldman Sachs	-5.0%	-3.0%	-1.0%	1.0%	1.0%
Ed Leamer, Forecast Director, UCLA Anderson Business School	-4.1%	-3.4%	-0.8%	0.2%	1.0%
Mickey Levy, Chief Economist, Bank of America	-5.7%	-3.6%	-0.8%	2.1%	2.9%
Joel Naroff, President, Naroff Economic Advisors	-5.1%	-0.6%	1.1%	2.0%	4.8%
David Rosenberg, Chief North American Economist, Merrill Lynch	-4.5%	-4.2%	-3.3%	-0.8%	0.0%
John Silvia, Chief Economist, Wachovia Corp.	-5.9%	-3.4%	-1.8%	1.0%	1.9%
Diane Swonk, Chief Economist, Mesirow Financial	-6.3%	-3.0%	-0.8%	1.4%	1.9%
Lawrence Yun, Chief Economist, National Association of Realtors	-5.5%	-2.0%	-0.2%	1.4%	2.6%
<b>Consensus</b>	<b>-5.4%</b>	<b>-3.2%</b>	<b>-0.7%</b>	<b>1.2%</b>	<b>2.1%</b>

Source: MSNBC.com



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# Hopeful Sign 4: Government Actions

## Hooray!

- More jobs
- More infrastructure
- More stimulus checks
- More tax breaks
- Easier mortgages

## Challenges

- Higher taxes later or spending cuts elsewhere
- Infrastructure projects take time to get running
- Mortgage modifications can hurt bond investors
- Government spending can lead to:
  - weaker dollar
  - higher inflation
  - being more indebted to other nations



## **2009 Year in Review**

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# 2009: a Tale of Two Markets



Q1

- In early 2009, investors were still shell-shocked from 2008
- Credit markets still frozen
- Fear prevailed as investors kept money on the sidelines



Q2 to Q4

- “Green shoots” of economic recovery
- Investors begin risk-seeking typical of recoveries and market normalization
- Bargain-hunting activity increase as investors see oversold areas of market



# Early 2009 Headlines...



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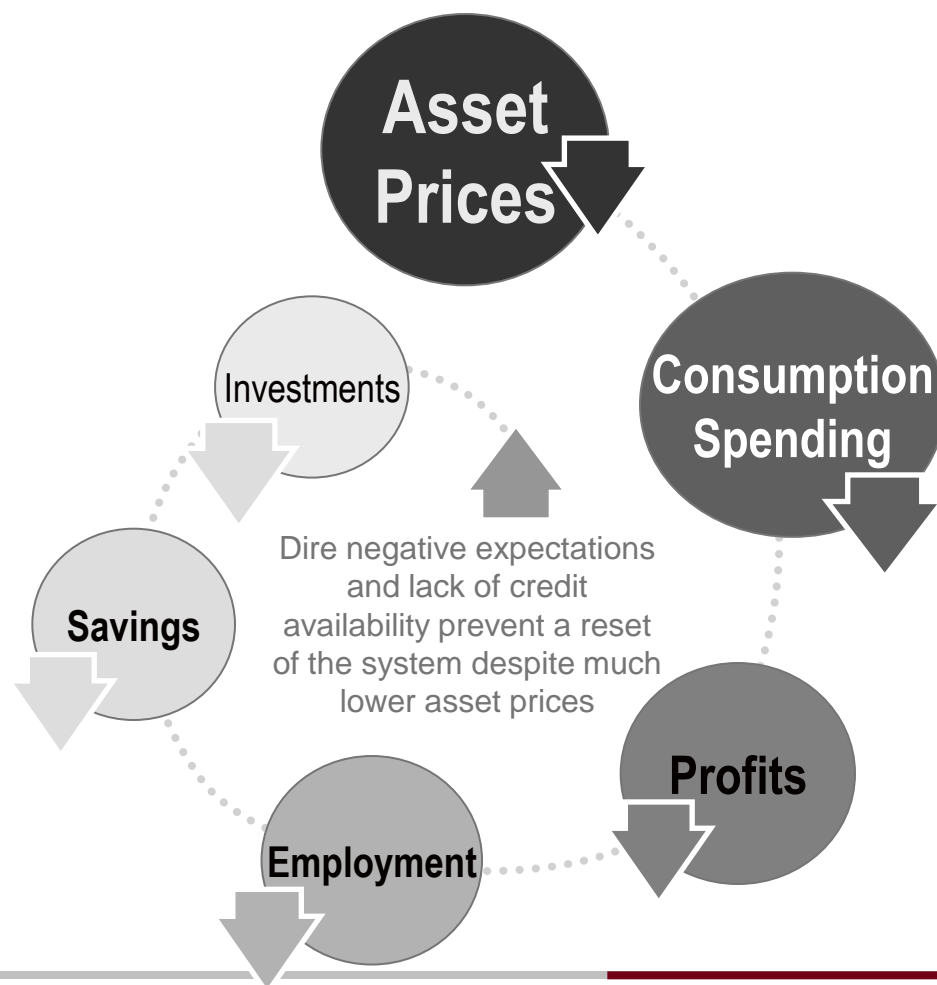


# In January, Things Were Still Unraveling...

## Characterized by:

- Market uncertainty: indicated by high volatility; search for market bottom
- Declining consumer spending and business investment
- Home prices in free fall
- Rising unemployment

## The Downward Economic Spiral



Source: PIMCO



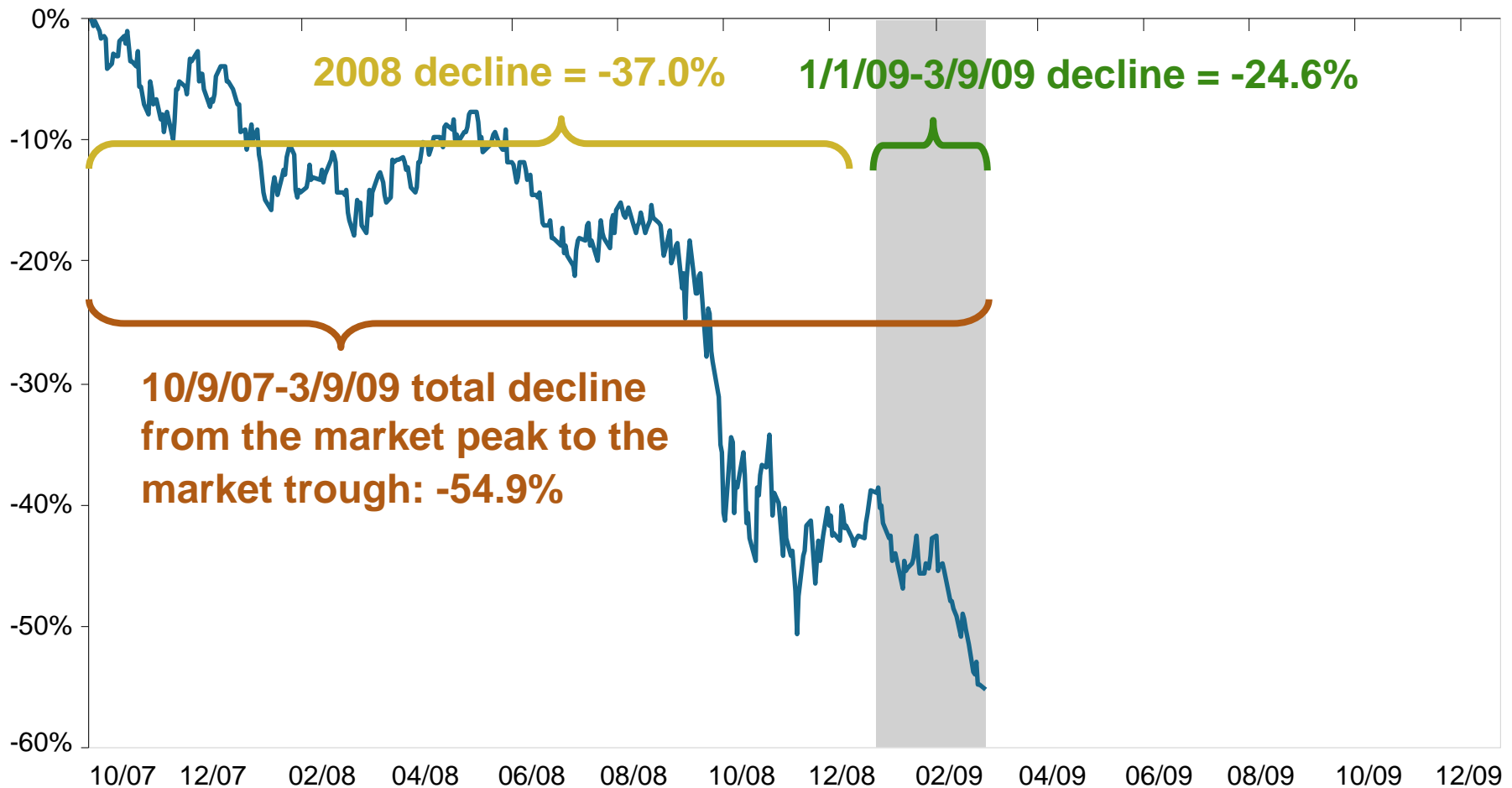
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# Equity Markets Continued Heading South...

## Cumulative Returns

10/9/2007 - 12/31/2009

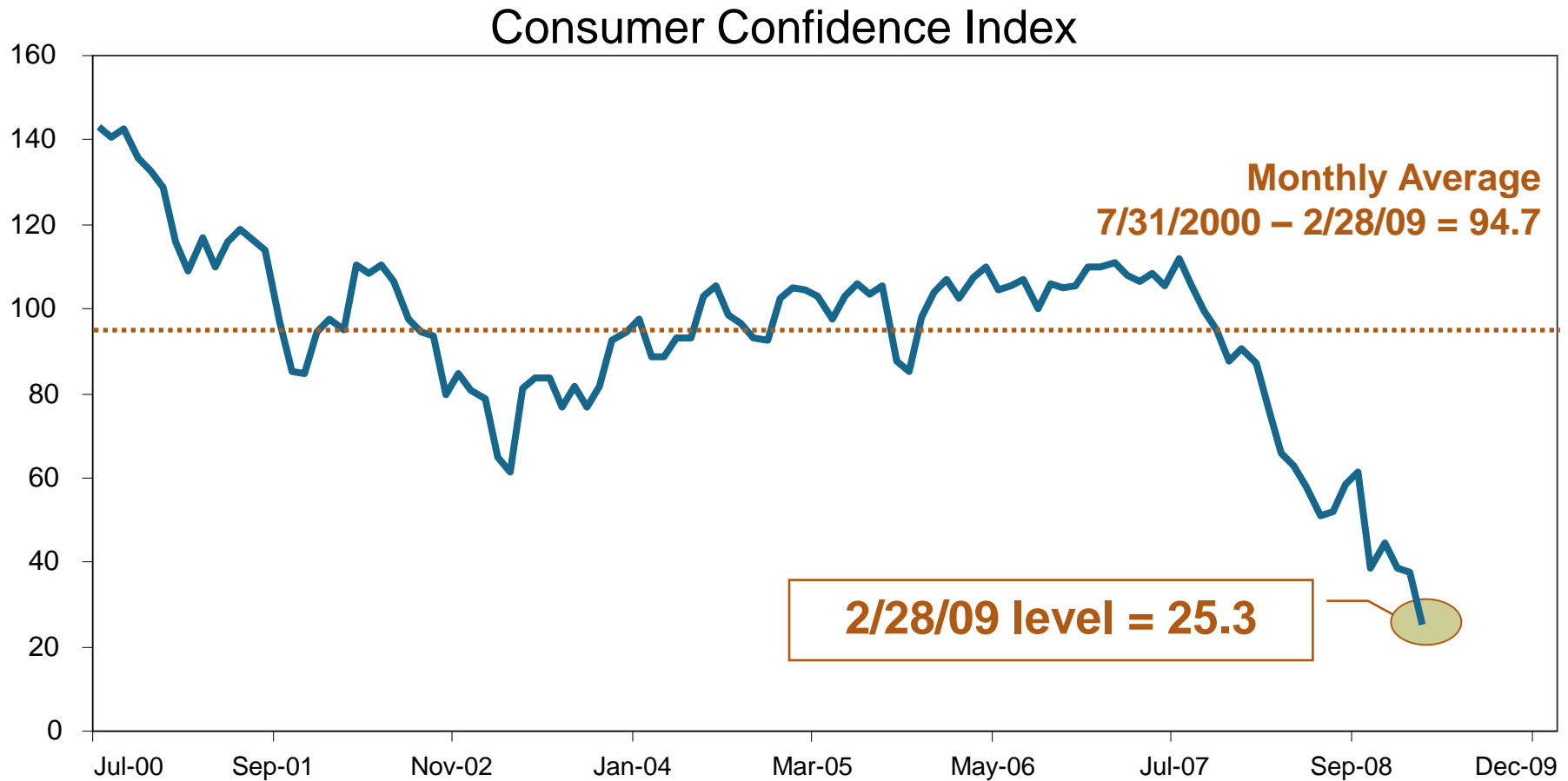


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# Consumer Confidence Went With the Markets

- Consumer confidence bottomed in February



Source: The Conference Board (via Bloomberg). Consumer Confidence Index through 2/28/2009.



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# Government Intervention in 2009

- **February 17:** \$787 billion government stimulus package enacted
- **February 18:** Obama announces plan to aid homeowners with mortgage payments
- **March 18:** Federal Reserve announces it will increase its balance sheet to purchase additional securities for the purpose of increasing liquidity in credit markets
- **March 23:** Treasury details Public Private Investment Program
- **June 24:** Bill with Cash for Clunkers provision signed into law



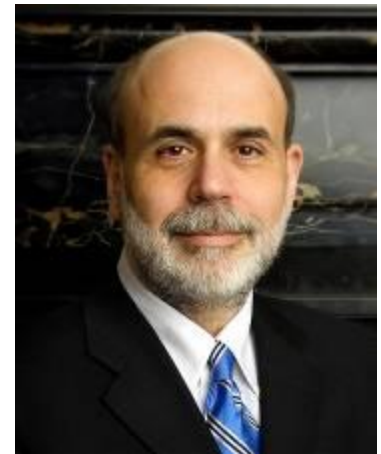
# “Green Shoots” Appeared in Late Q1



BusinessWeek cover, April 13, 2009. Bernanke photo from [www.federalreserve.gov](http://www.federalreserve.gov)

“**Green shoots**” is a term used colloquially to indicate signs of economic recovery during an economic downturn.

Federal Reserve Chairman, Ben Bernanke, made the first public use of the phrase by a Fed official in a March 15, 2009 interview with 60 Minutes

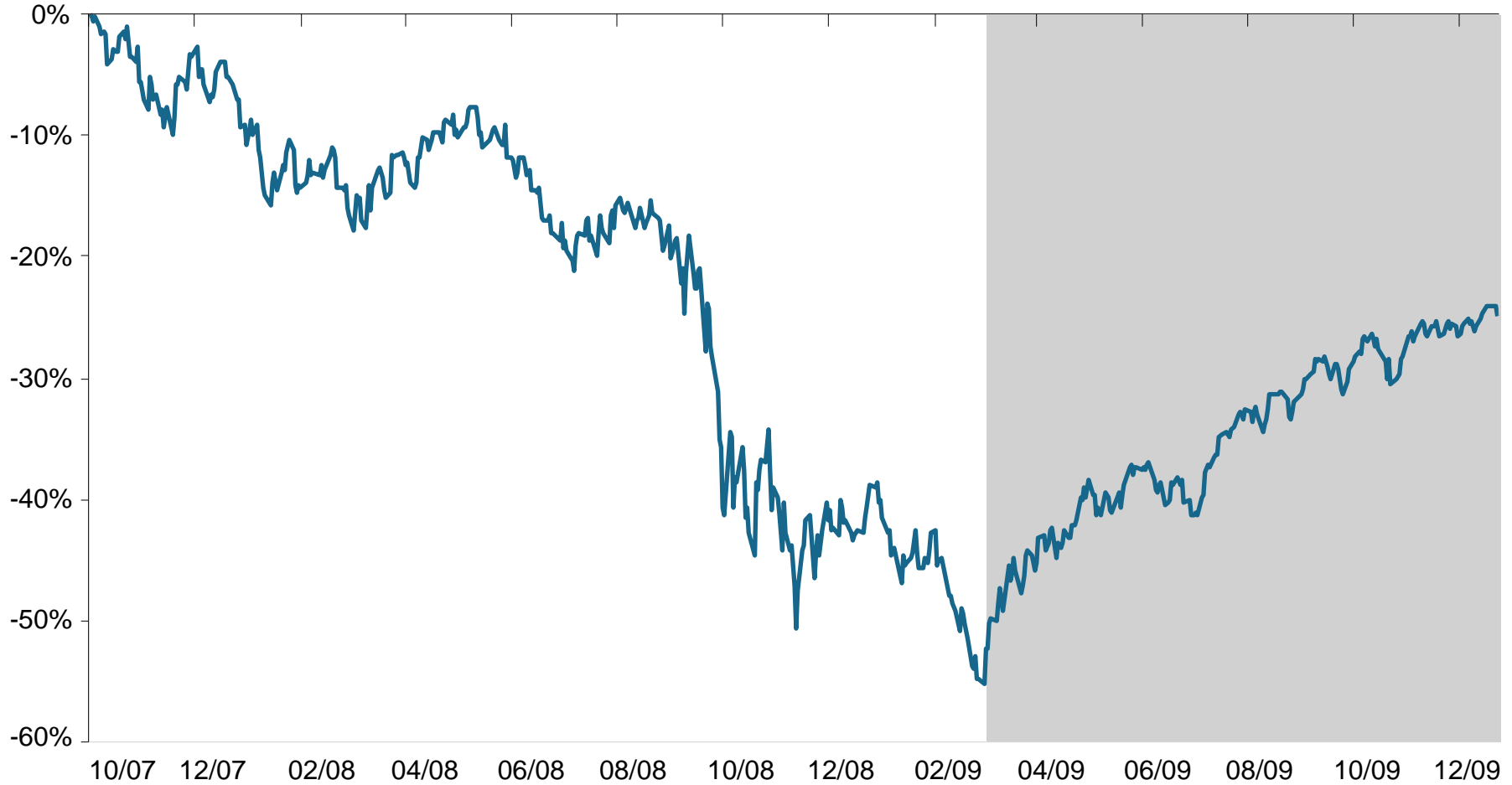


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# March 9th Market Turnaround

Cumulative Returns  
10/9/2007 - 12/31/2009



Source: Bloomberg, through 12/09

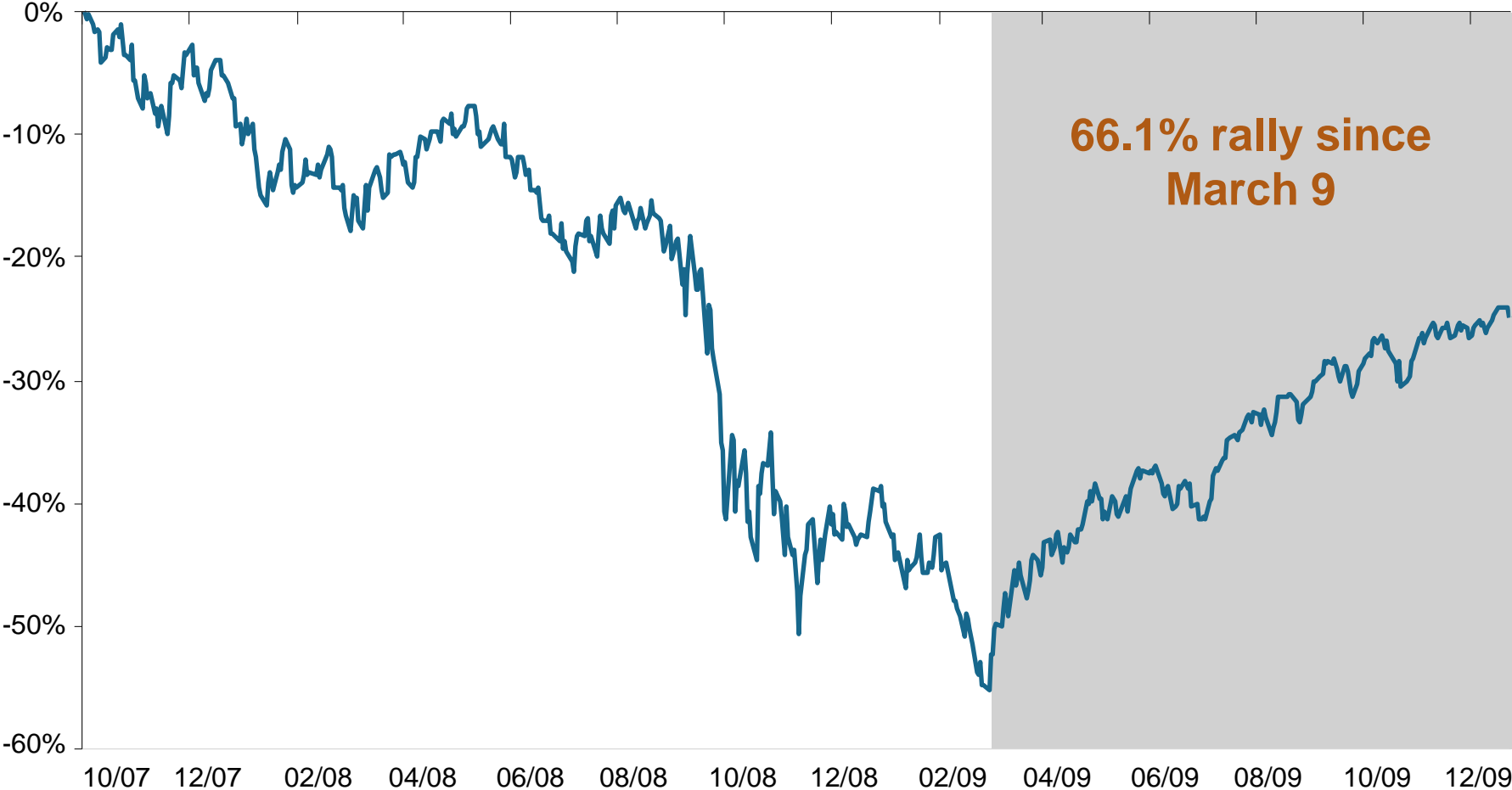


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# S&P 500 Rebounded 66% Since March Bottom

Cumulative Returns  
10/9/2007 - 12/31/2009



Source: Bloomberg, through 12/09



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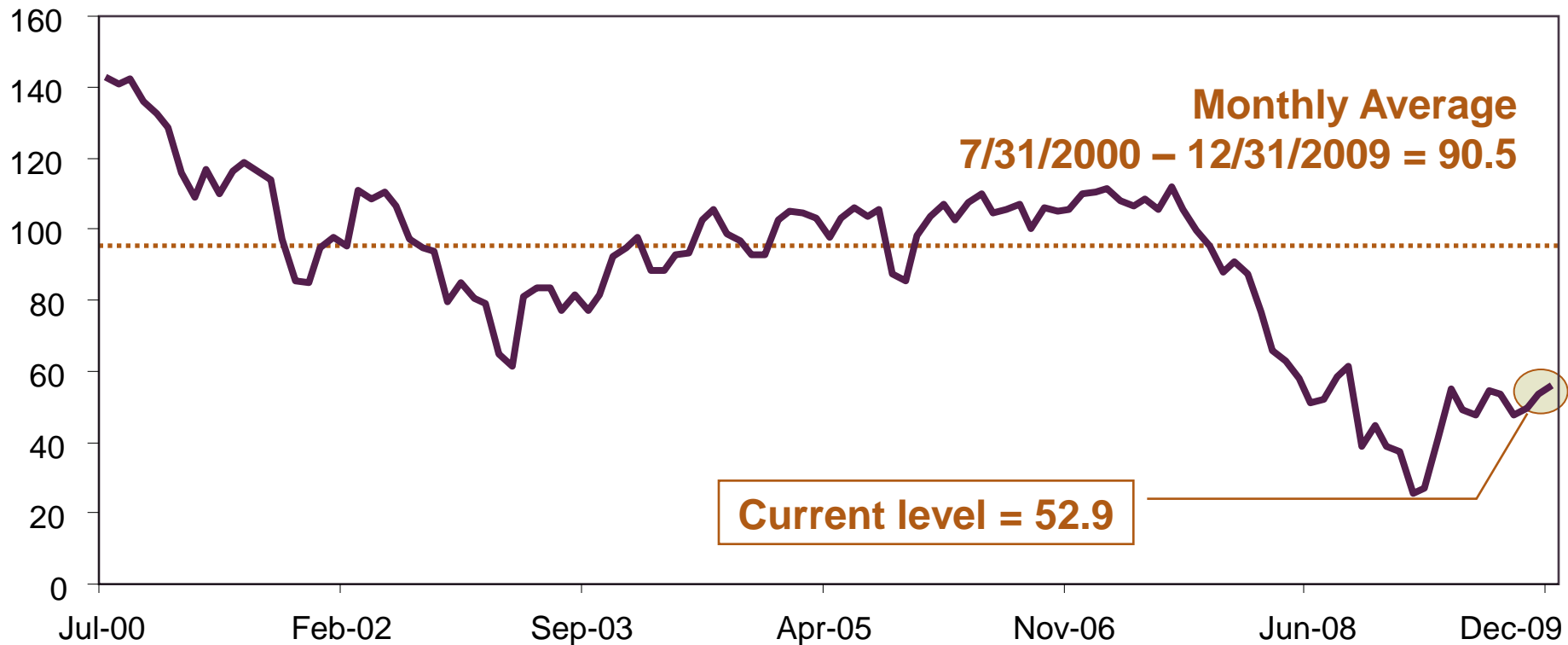




# Consumer Confidence Turned Up in March

- Consumer confidence rebounded March through May; flat in the third quarter
- Still well-below average

## Consumer Confidence Index



Source: The Conference Board (via Bloomberg). Consumer Confidence Index through 9/30/2009.



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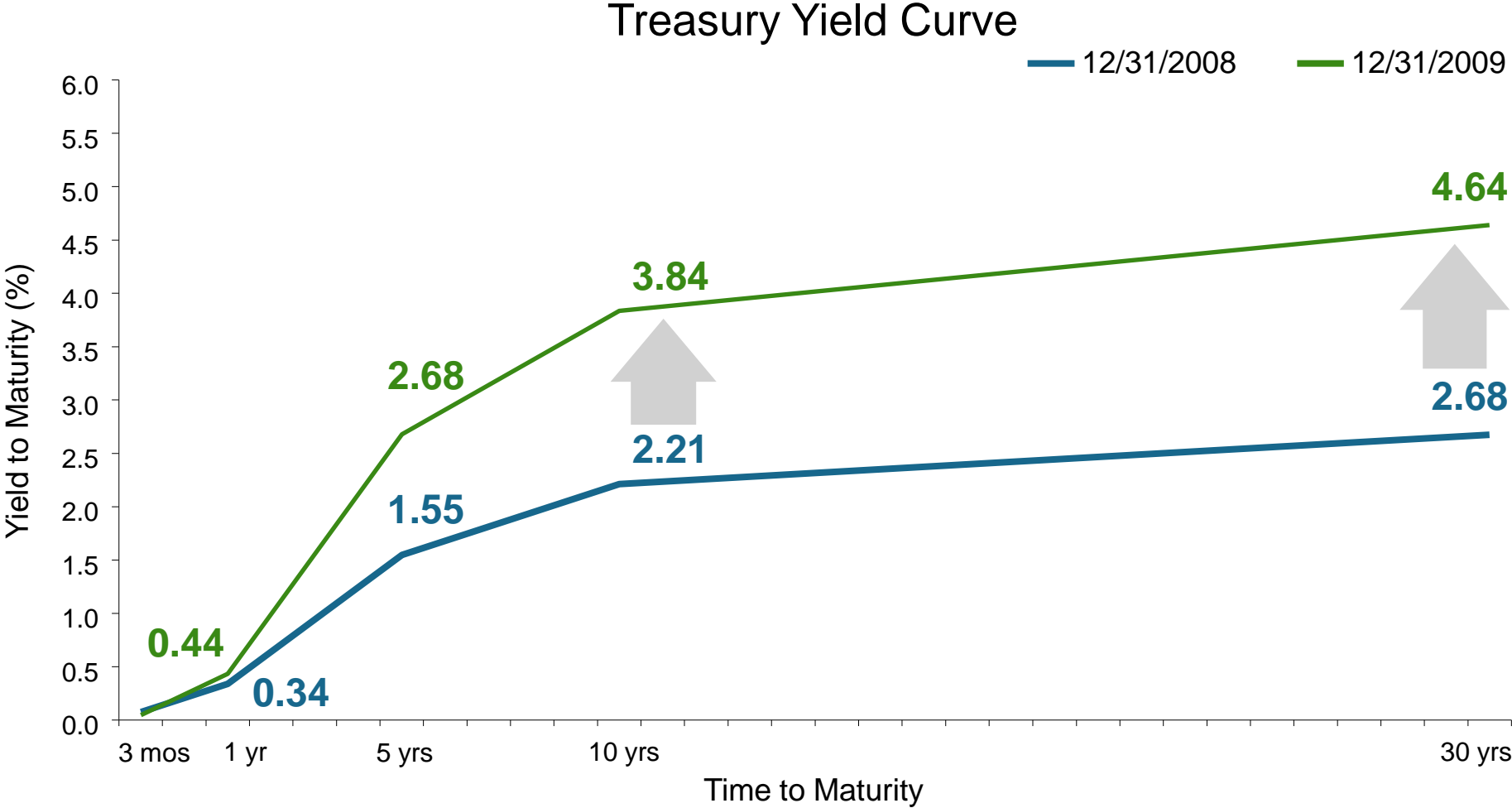


# End of the Recession

- Economists indicate recession officially over in mid-year 2009
  - Bernanke: “From a technical perspective the recession is likely over”
  - Former Fed staffer: “June was mostly likely the trough”
  - 41 of 51 economists surveyed by WSJ believe recession is over
- But things are still tentative...
  - Unemployment
  - Consumer spending
  - Credit creation
  - Housing prices
  - Government programs
- Where are we today and where are we going?

# Yield Curve Steepening Process Began

- Beginning of Year and End of Year Difference



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# In the U.S., GDP Growth Was Positive in Second Half but Negative for Full Year



Source: Morgan Stanley



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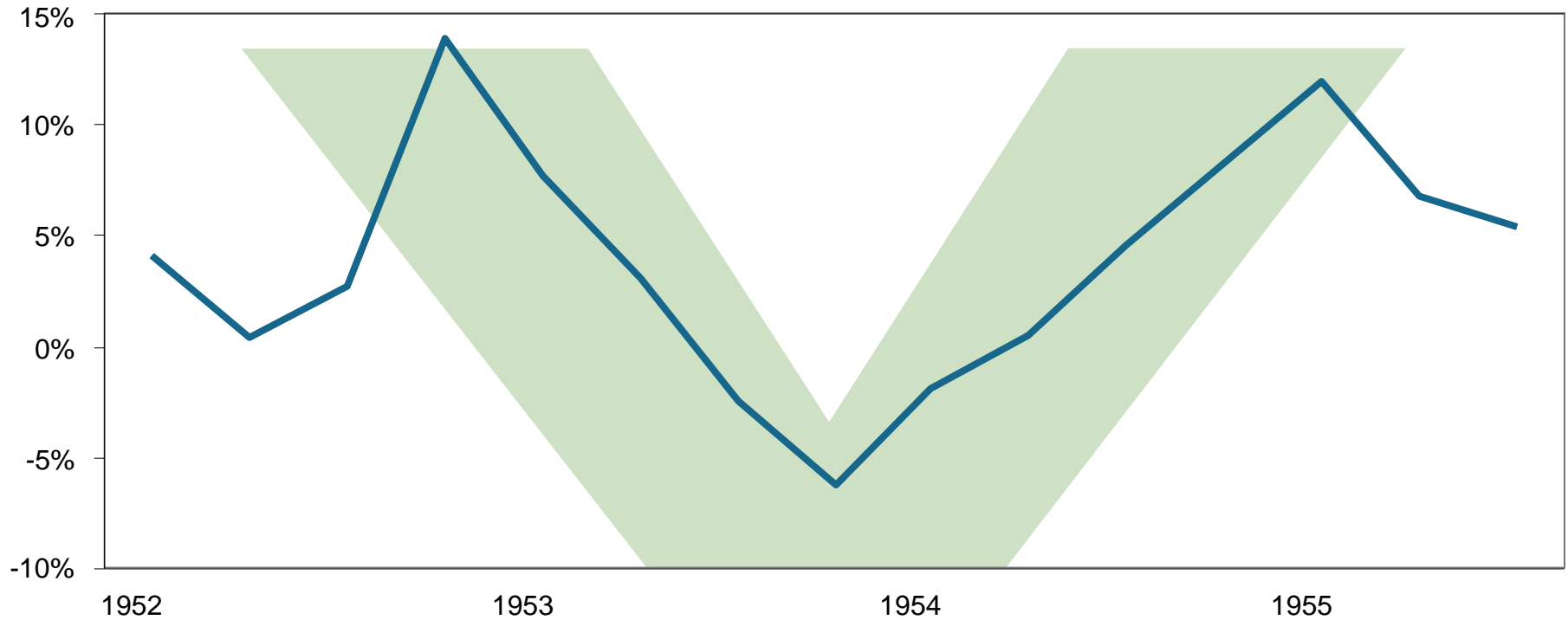
# Potential Shapes of the Economic Recovery

- Economic Alphabet Soup
  - V Shaped Recovery
  - U Shaped Recovery
  - W Shaped Recovery
  - L Shaped Recovery



# V-Shaped Recovery Example

## GDP Growth 1952-1955

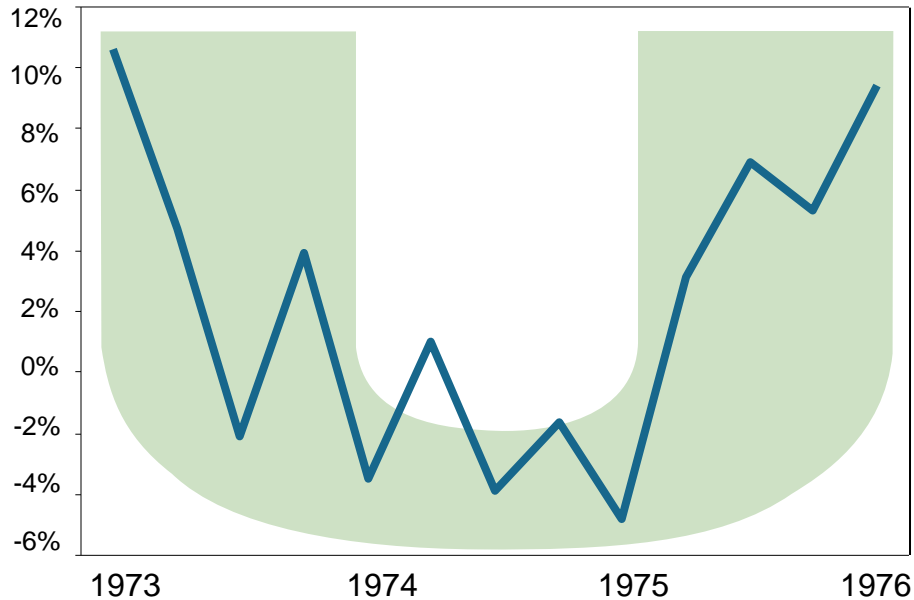


- **U.S. Recession of 1953**

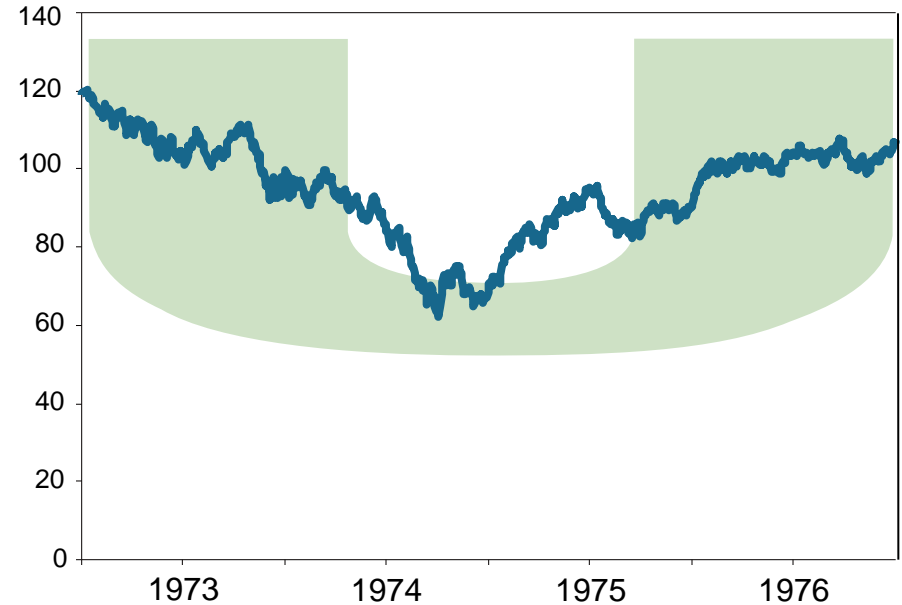
- GDP growth for this recession forms a classic v-shape

# U-Shaped Recovery Example

## GDP Growth 1973-1975



## S&P 500 Index 1973-1976

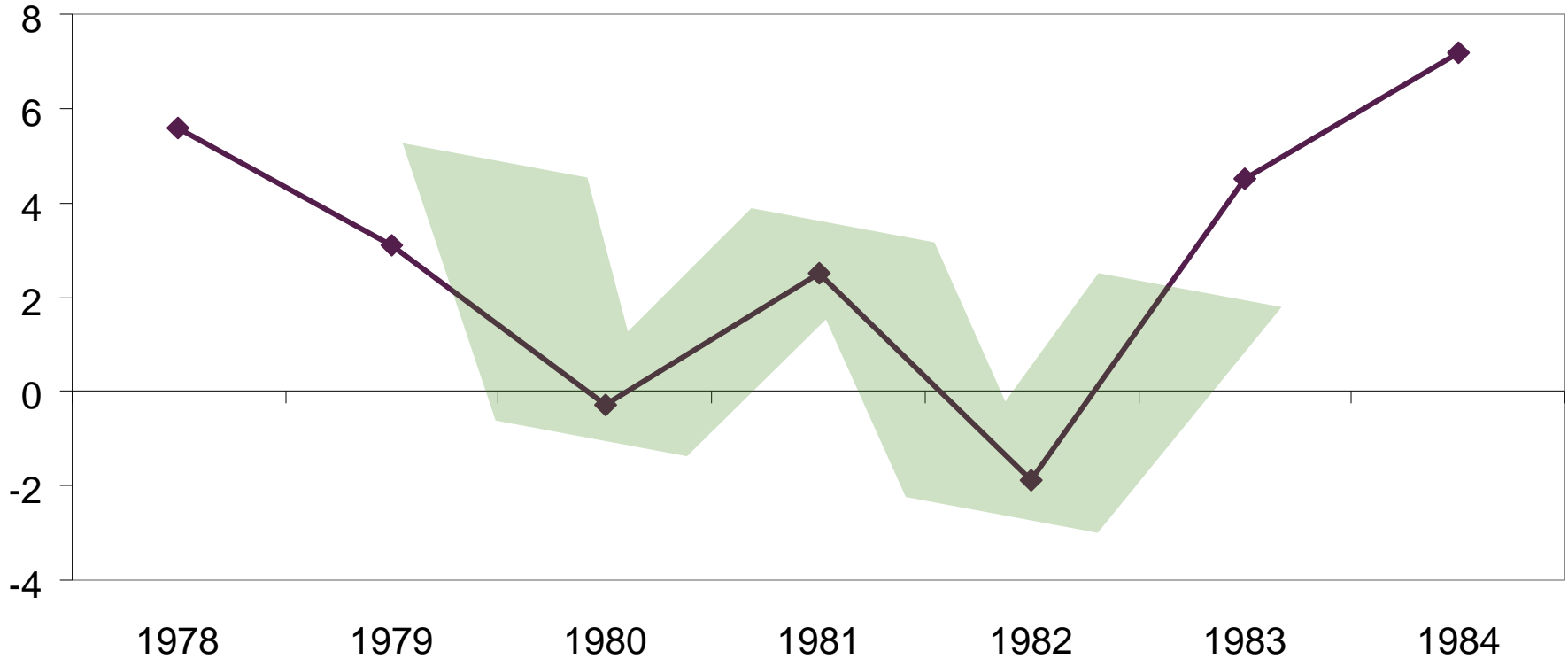


## ■ U.S. Recession of 1973-1975

- Recession is longer than a V-shaped recession with a less clearly-defined trough
- GDP may shrink for several quarters and only slowly return to trend growth

# W-Shaped Recovery Example

GDP Growth 1978-1983

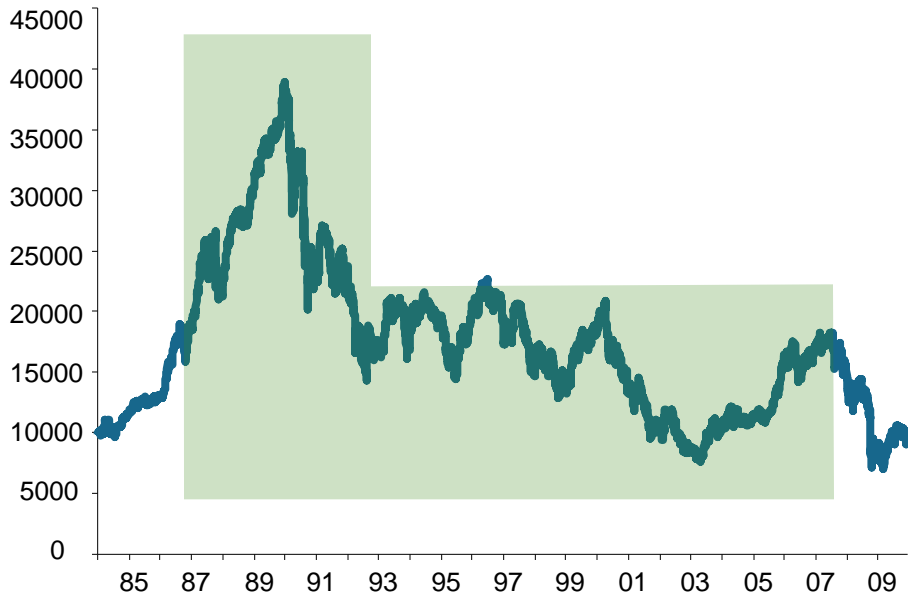


- **Early 1980s Recession in the U.S.**
  - Also called a “Double Dip” recession

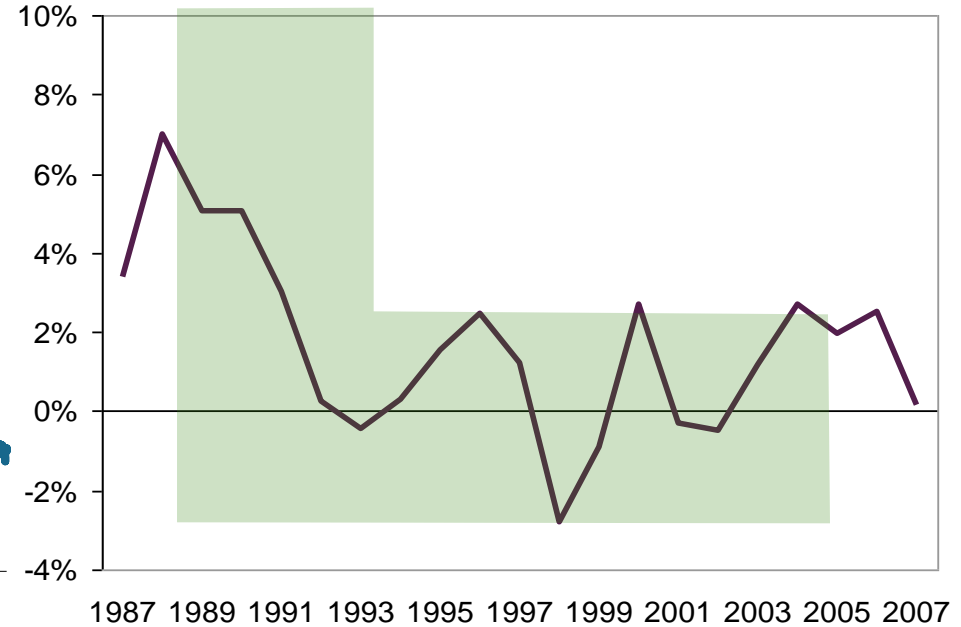


# L-Shaped Recovery Example

NIKKEI 225 (1984-2009)



GDP Growth in Japan 1987-2007



- Asset Price Bubble in Japan 1980s-1990s

Source: finance.yahoo.com. Penn World Tables



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# Key Themes in 2009



Unemployment



Consumer Spending



Credit Creation



Housing



Government Actions



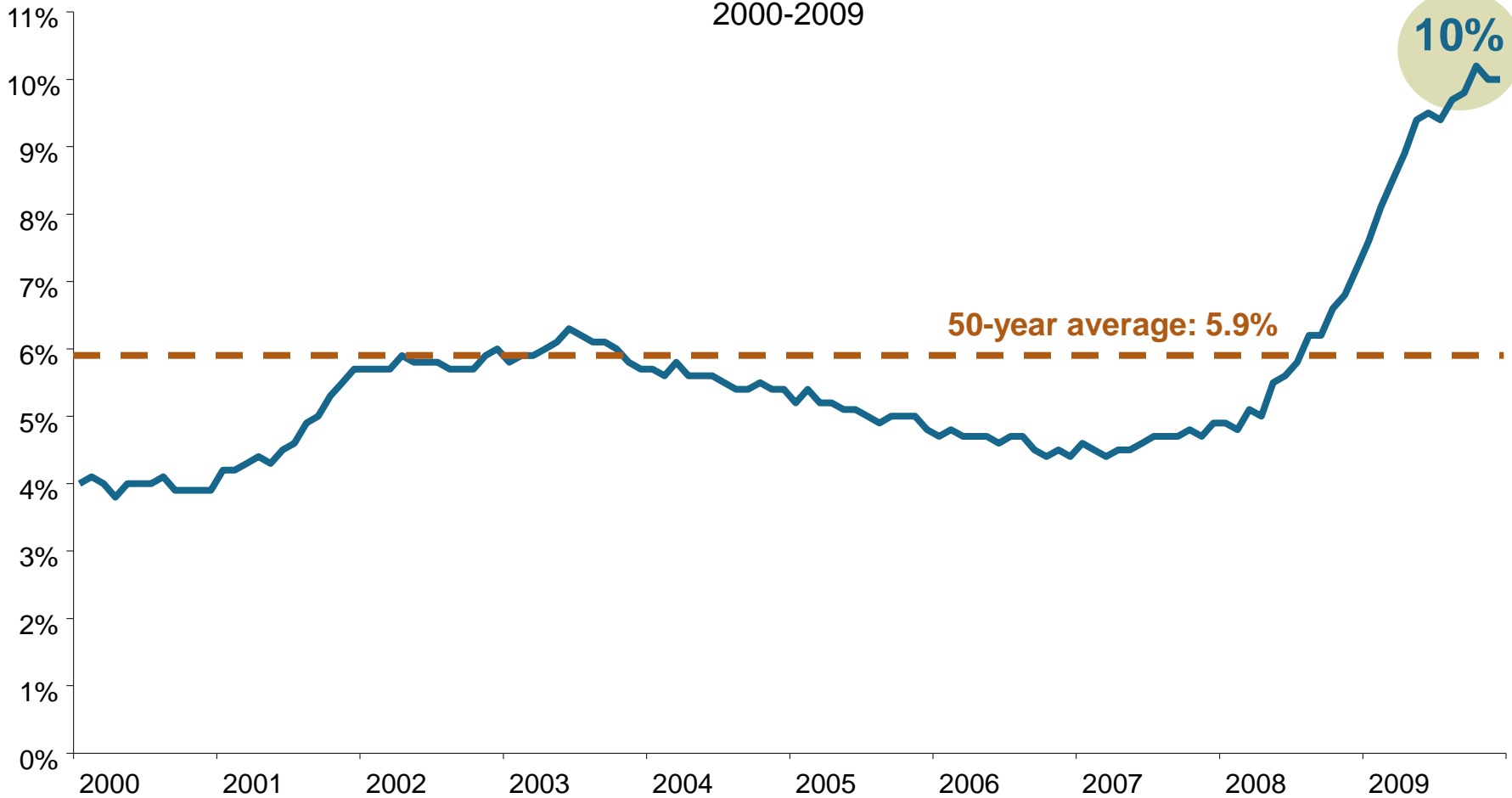
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# Unemployment



## Unemployment Rate 2000-2009



Source: Bureau of Labor Statistics



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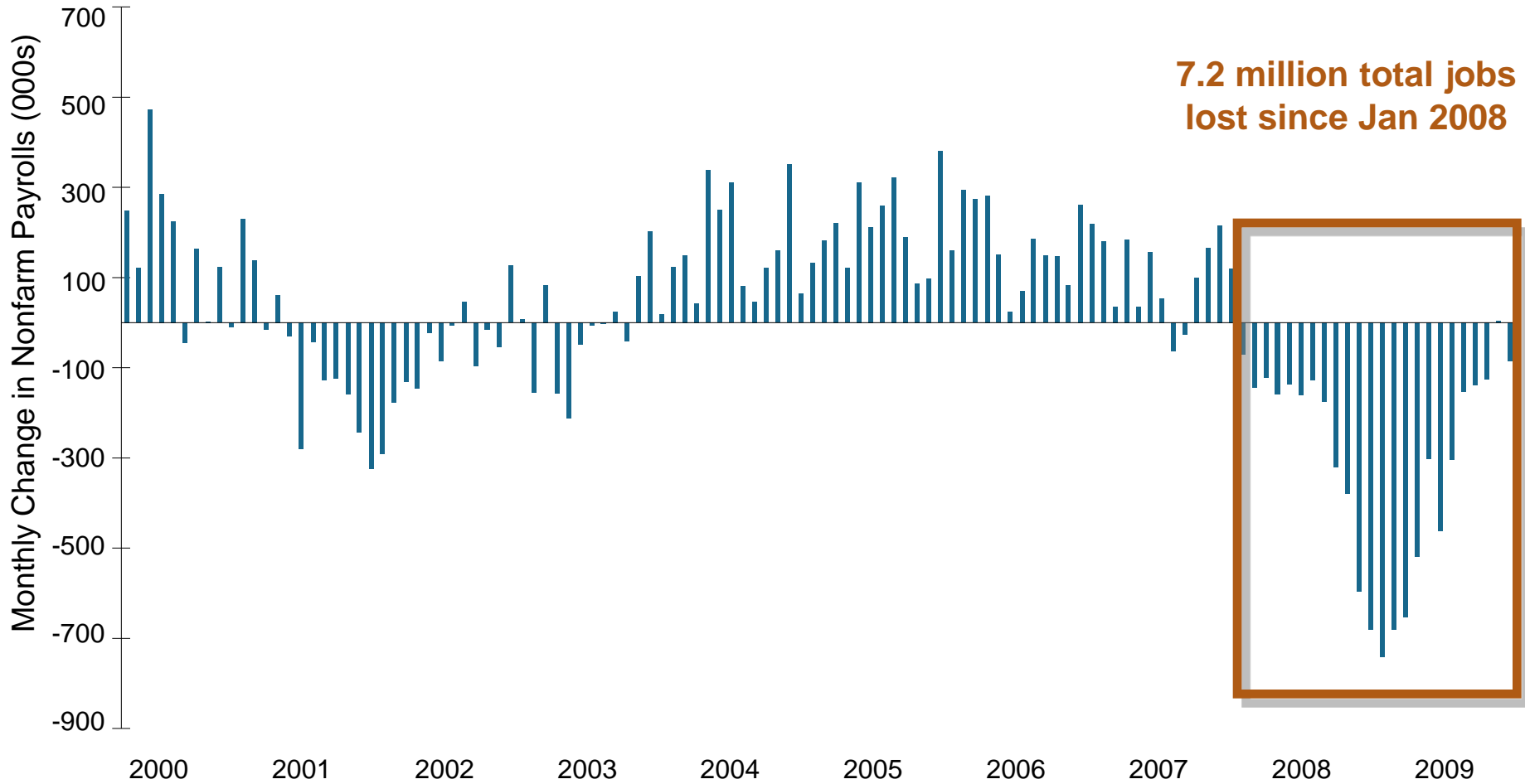
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# Unemployment



## Change in Nonfarm Payrolls



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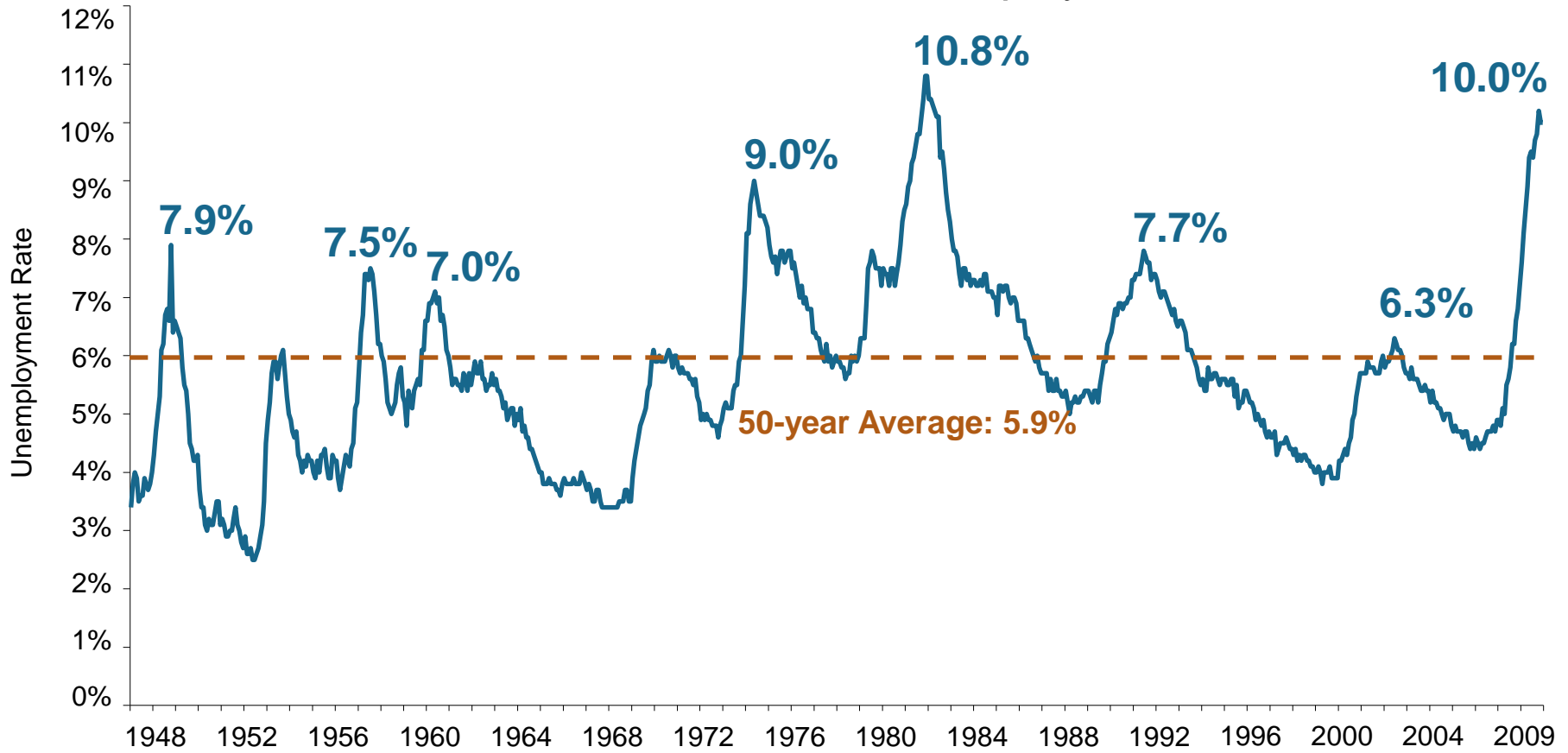


# Unemployment



- Second highest rate over last 60 years

## Historical Peaks in Unemployment



Source: Bureau of Labor Statistics



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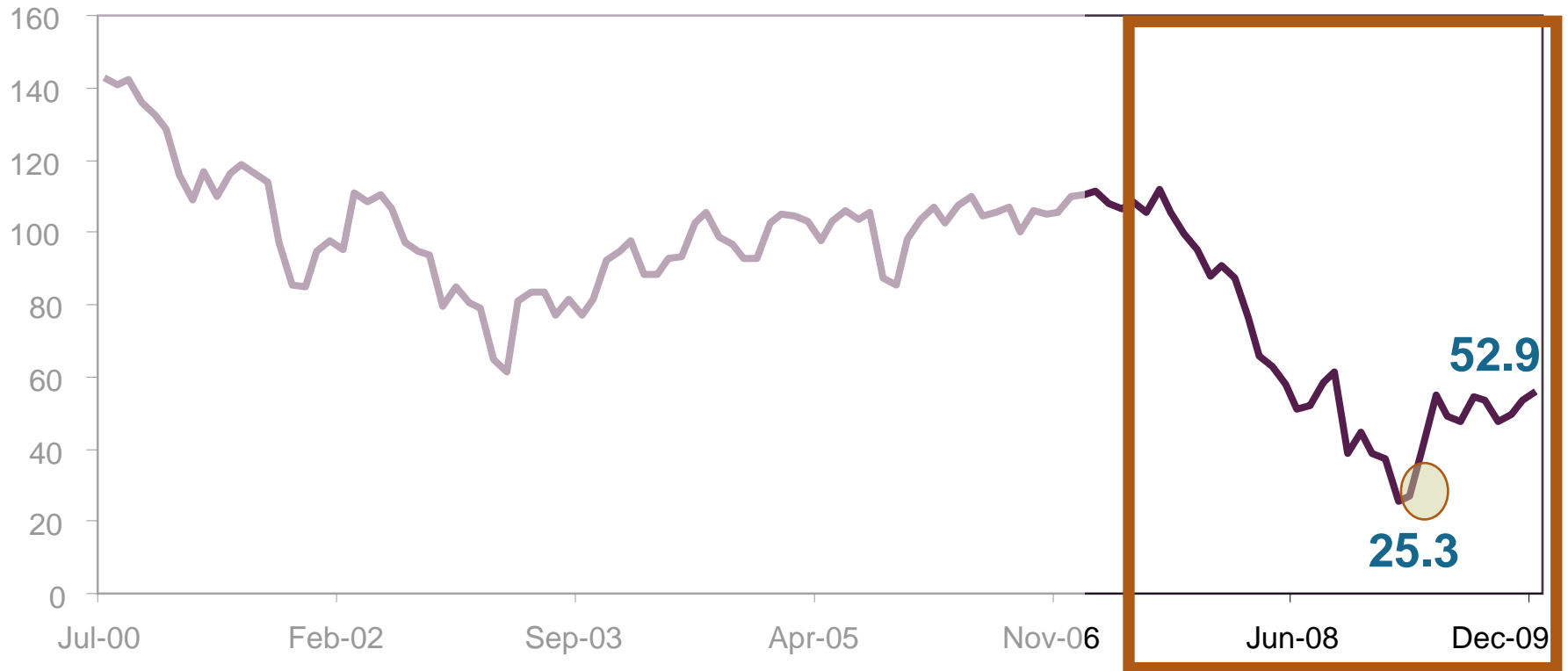


# Consumer Spending



- Consumer confidence bottomed in March
- A reading above 90 means the economy is on solid footing. Above 100 signals strong growth

## Consumer Confidence Index



Source: The Conference Board (via Bloomberg). Consumer Confidence Index through 10/31/2009.



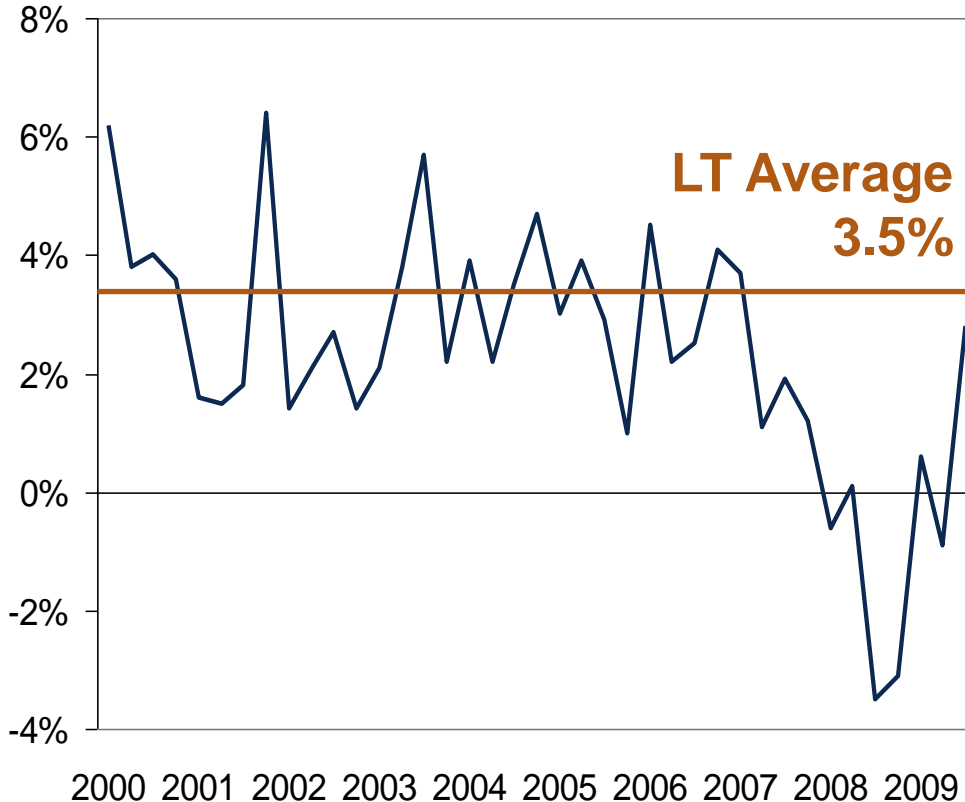
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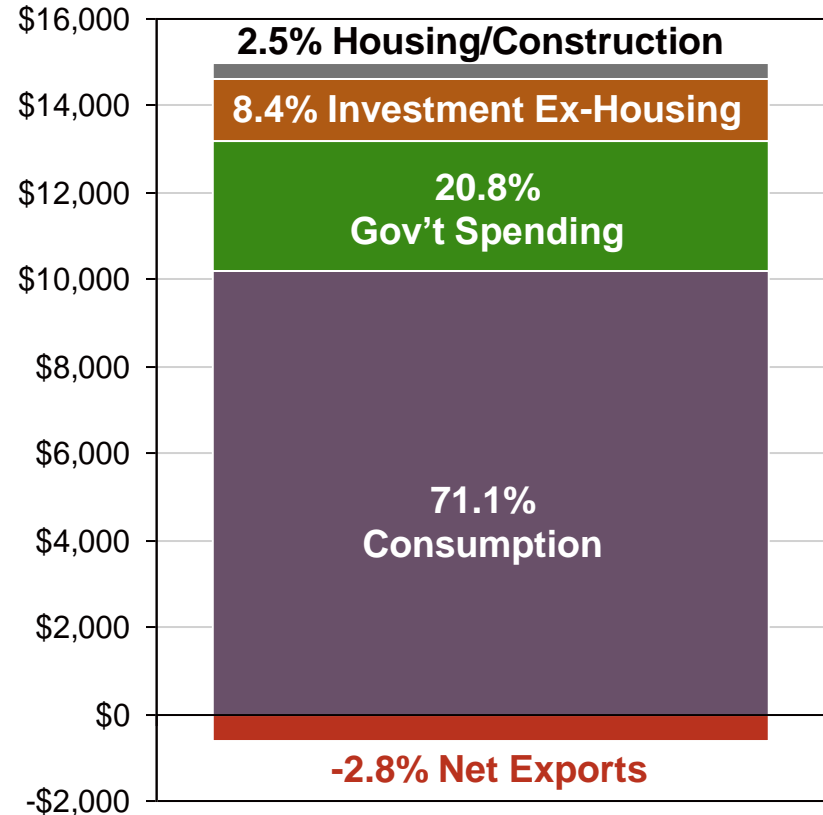
# Consumer Spending



Personal Consumption Expenditures Growth  
from 2000-2009



Components of GDP  
Billions, USD



Source: Commerce Department  
Source: BEA and JP Morgan Asset Management



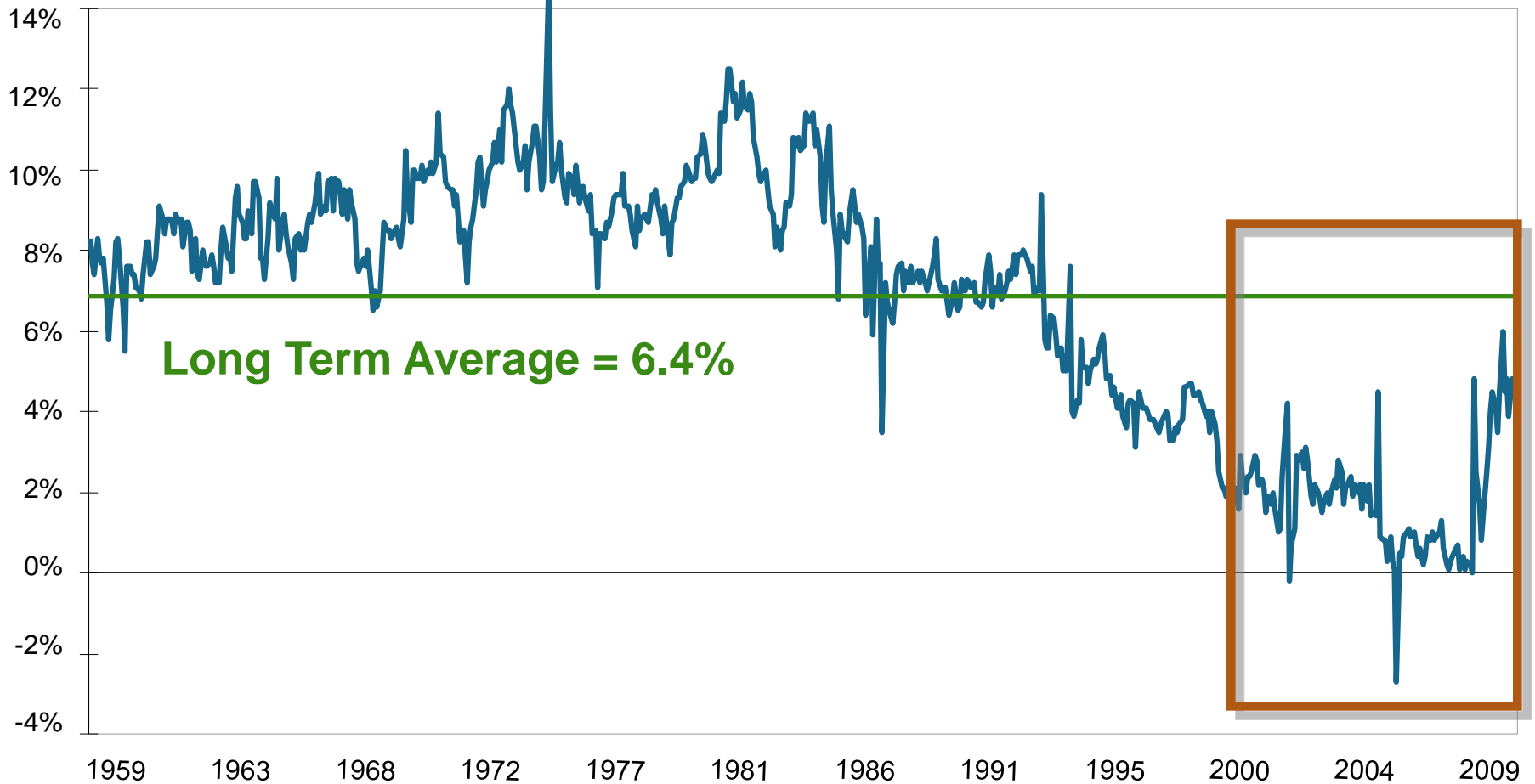
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# Consumer Savings



## U.S. Personal Savings Rate (1959-2009)



Consumer Spending Data Source: U.S. Department of Commerce Data as of 8/31/2009 Personal Savings Rate Data Source: St. Louis Federal Reserve Bank as of 11/30/2009



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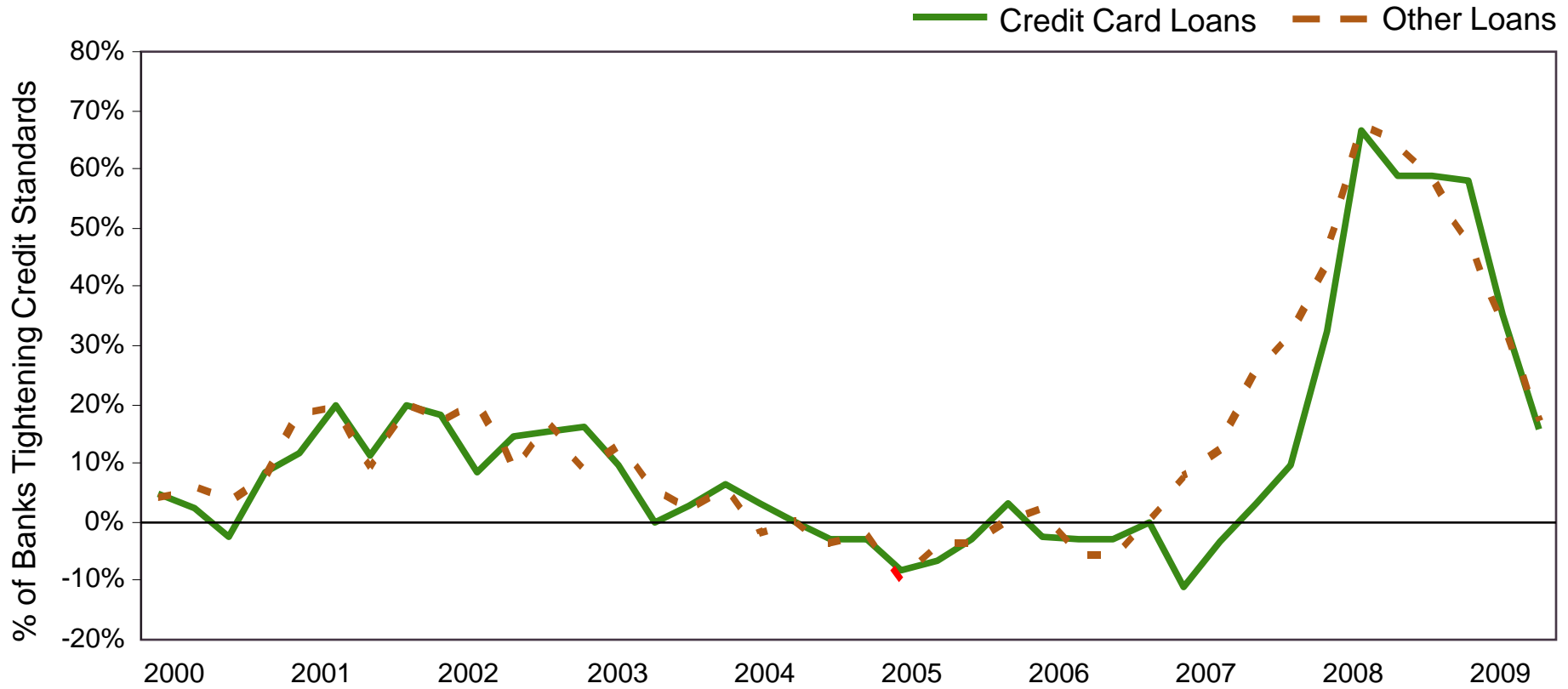


# Credit Creation



- Credit officers are still tightening their standards

## U.S. Consumer Credit Conditions



Source: Federal Reserve - Senior Loan Officer Survey



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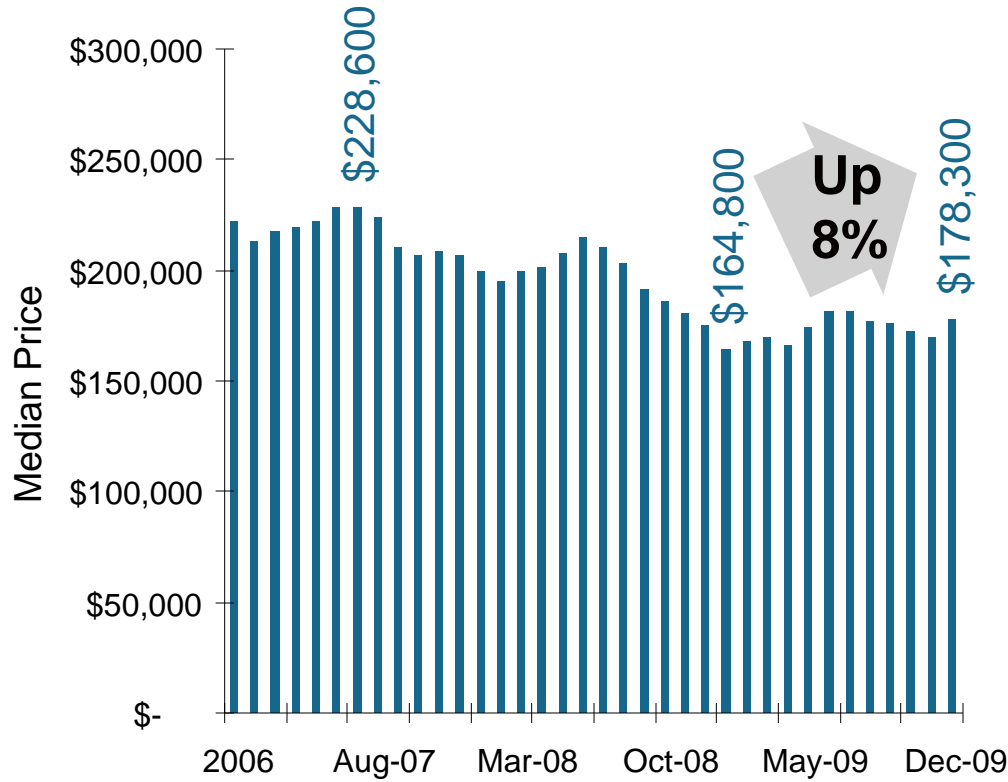


# Housing Market

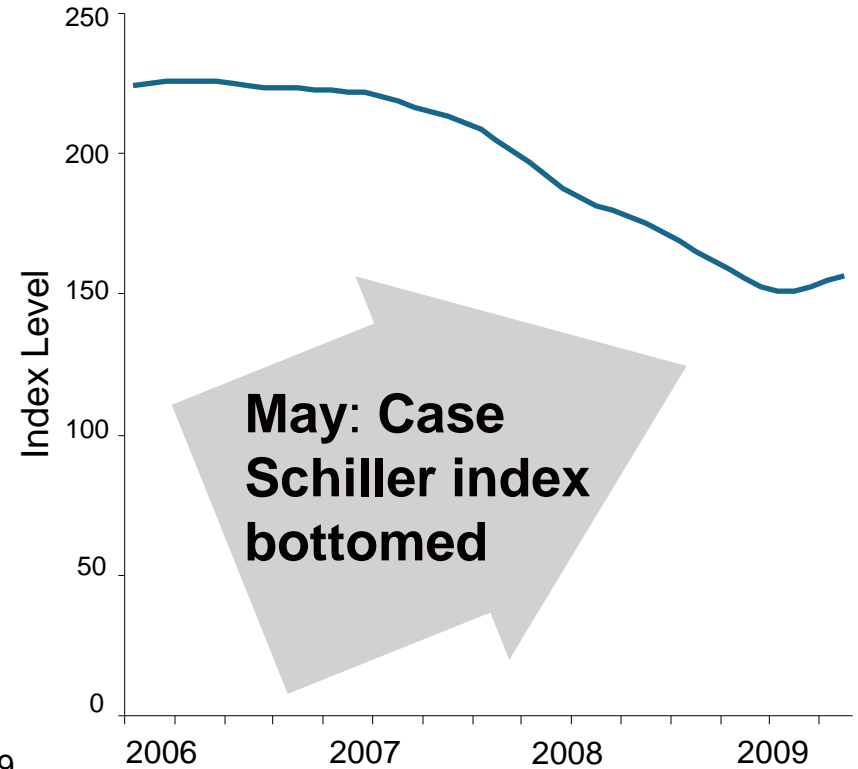


- Home prices may be stabilizing...

## NAR Median Home Price



## Case-Schiller Home Price Index



Source: National Association of Realtors, data through December 2009. Standard & Poor's Case Schiller Composite 10 Index, data October 2009



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# Government Actions



- ...but is the stabilization permanent?

Programs	Primary Sponsor	Impact
Home Buyer Tax Credit	Congress	\$11 billion in Tax Credits due to the extension
Increase in Conforming Balance Limits	Congress	Expands pool of borrowers eligible for GSE mortgages and reduces strain on jumbo non-conforming mortgage market
TARP funded HAMP modifications	Treasury	Monthly payment reductions and incentive payments will provide approx \$70 billion to borrowers over the next 5 years.
Agency Conduit Initiative	FHFA	Facilitate greater mortgage creation by smaller banks and non-bank loan originators
Easing of tax consequences relating to CMBS loan models	IRS	Makes it easier for operators of troubled properties to lower debt service payments
Easing of capital treatment related to bank CRE loan models	Regulators	Allows banks to refinance high LTV borrowers who can stay current on payments without a capital charge
CMBS TALF new issue	Federal Reserve	Lowers spreads on existing qualifying CMBS, helps channel money for new securitized Commercial Real Estate deals.
Support of State Housing Authorities	Treasury/ FHFA	Provides \$35 billion of financing to State Housing Authorities
Expansion of FHA mortgage book (via GNMA)	HUD	GNMA now provides 45% of new net issuance and over 50% of mortgages for new home purchasers
Expanded Tax Loss Carry Forward	Congress	\$33 billion in cash tax refunds

Bridgewater Daily Observations 11/24/2009



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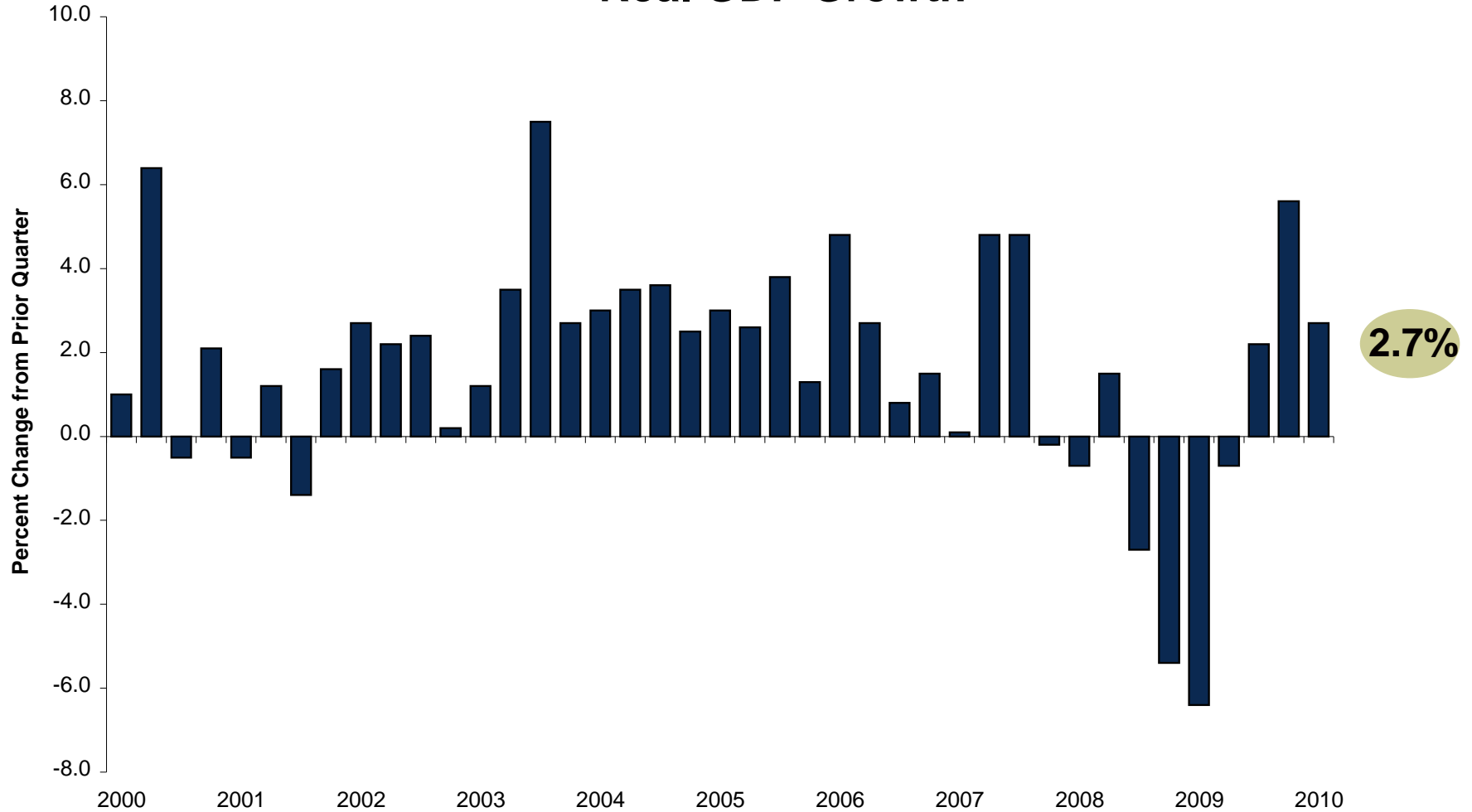


## **2010 First Half Year in Review**

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# GDP Increased 2.7% in the 1st Quarter of 2010

## Real GDP Growth



Source: BEA, annualized seasonally-adjusted quarter-to-quarter growth rates. Data through 3/31/2010.



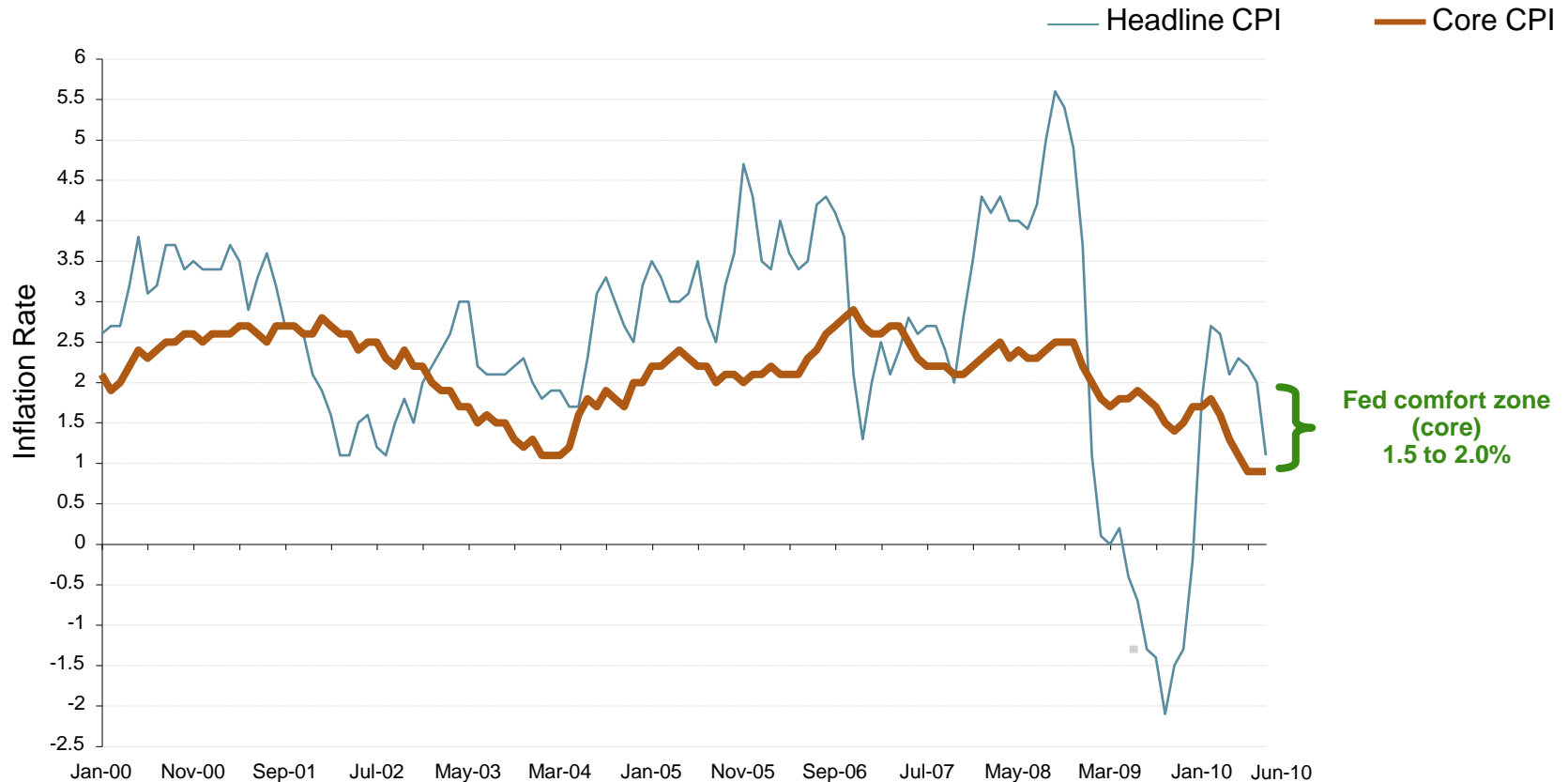
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# Consumer Price Index

- Core inflation is well below the Fed's comfort zone of 1.5-2.0%. Some economists are concerned about the threat of disinflation or deflation, a result of declining prices and spending.

## Consumer Price Index (y/y change)



Source: Bureau of Labor Statistics. Data through 6/30/2010.



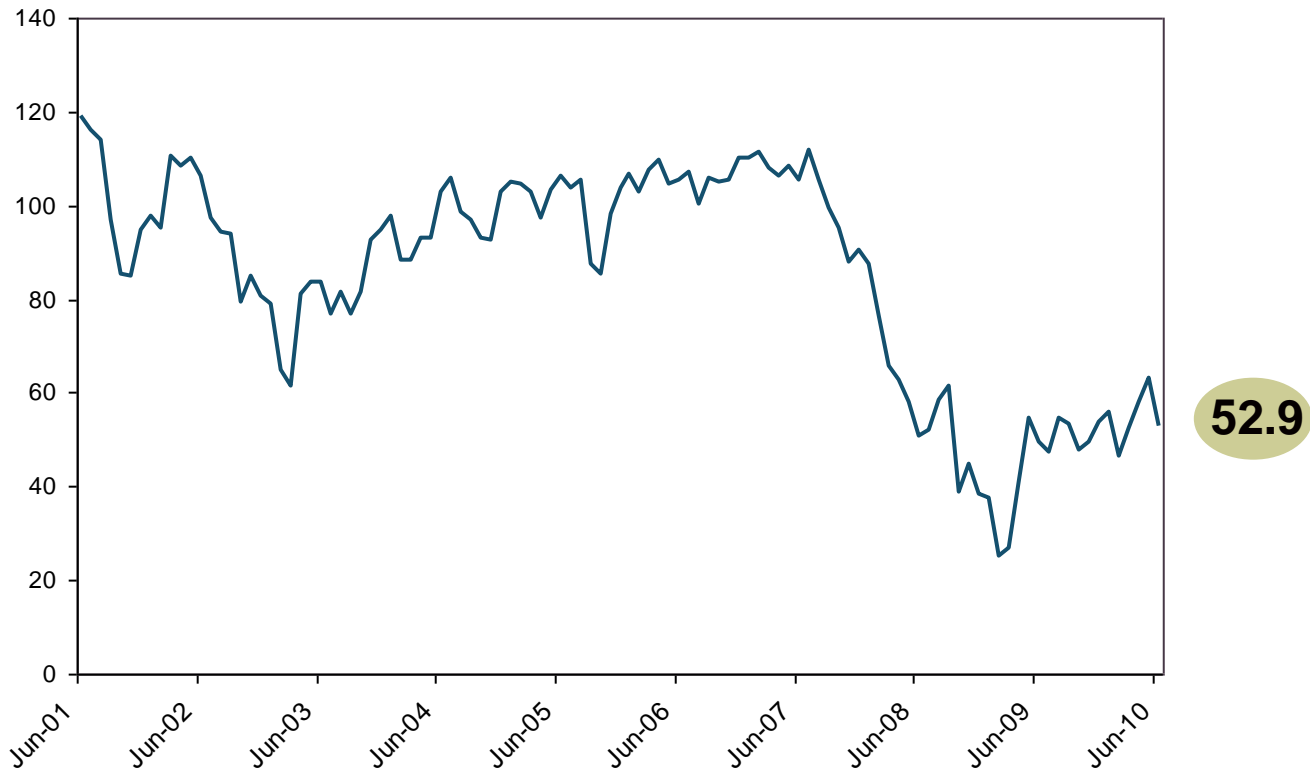
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# Consumer Confidence

- Despite the index reaching 63.3 in May, it quickly relapsed to 52.9 in June.
- A reading over 90 indicates that the economy is on solid footing. Above 100 signals strong growth.

## Consumer Confidence Index



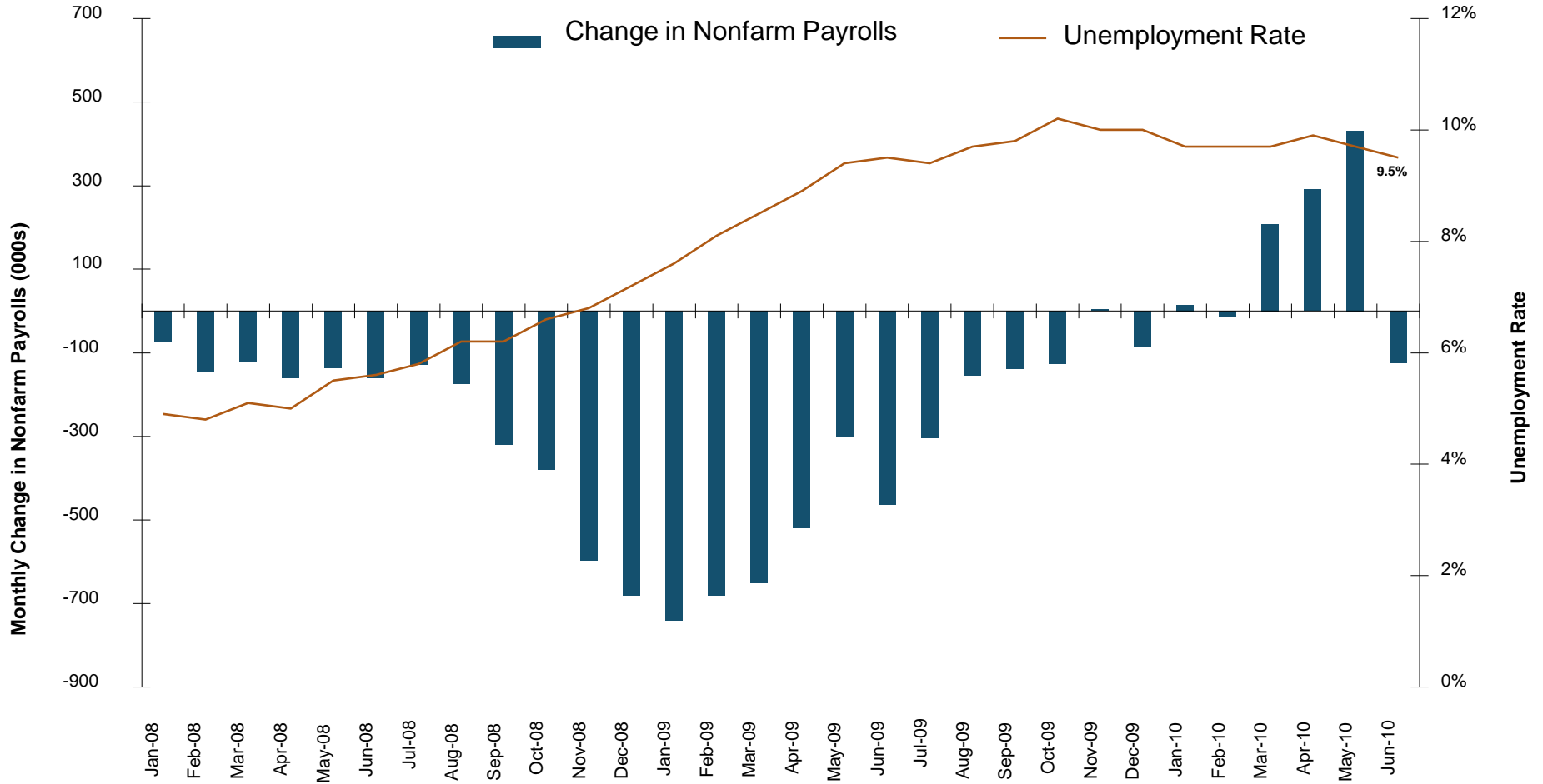
Source: The Conference Board. Consumer Confidence Index through 6/30/2010.



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# Unemployment



Source: Bureau of Labor Statistics. Data through 6/30/2010.



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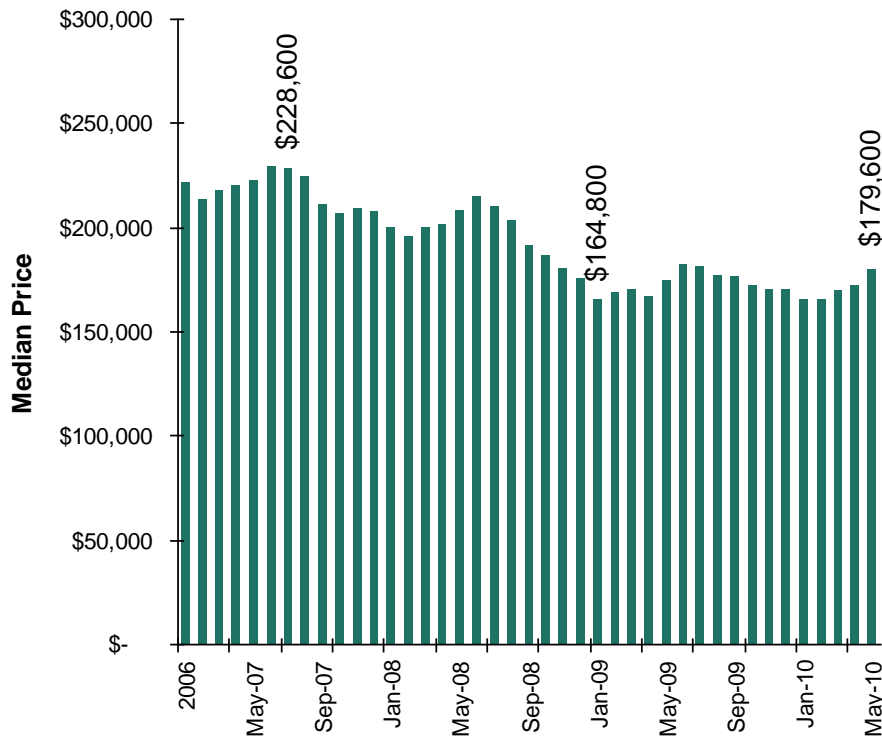




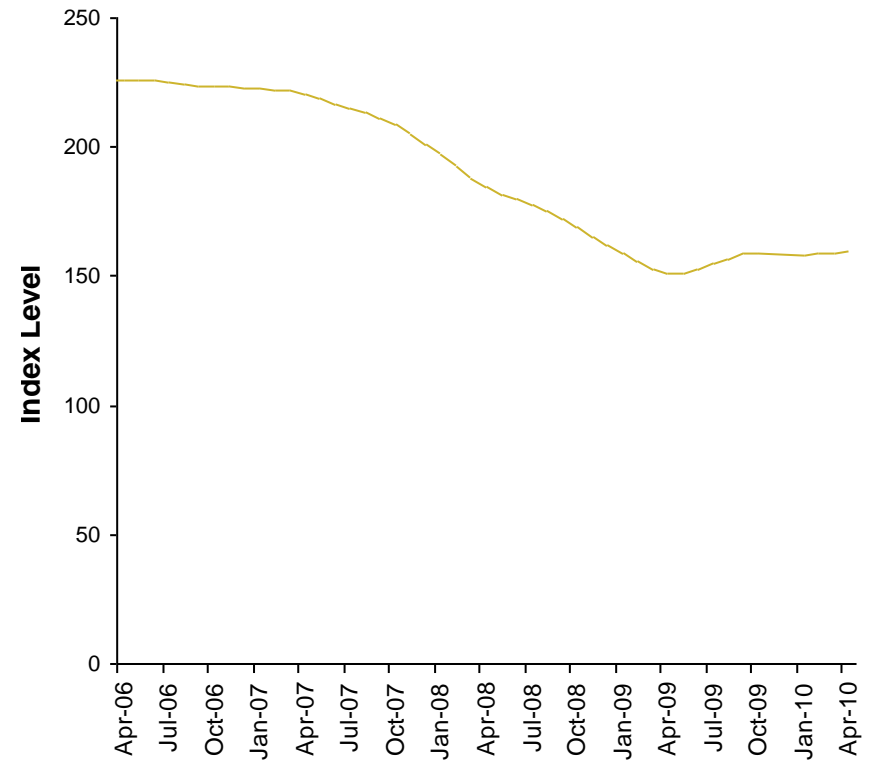
# Direction of Home Prices Remains Uncertain

- Although there has been a slight uptick in home prices we have yet to see a strong, consistent price rebound

NAR Median Home Price



Case-Shiller Home Price Index



Source: National Association of Realtors, data through May 2010.  
Standard & Poor's Case Shiller Composite 10 Index, data through May 2010.

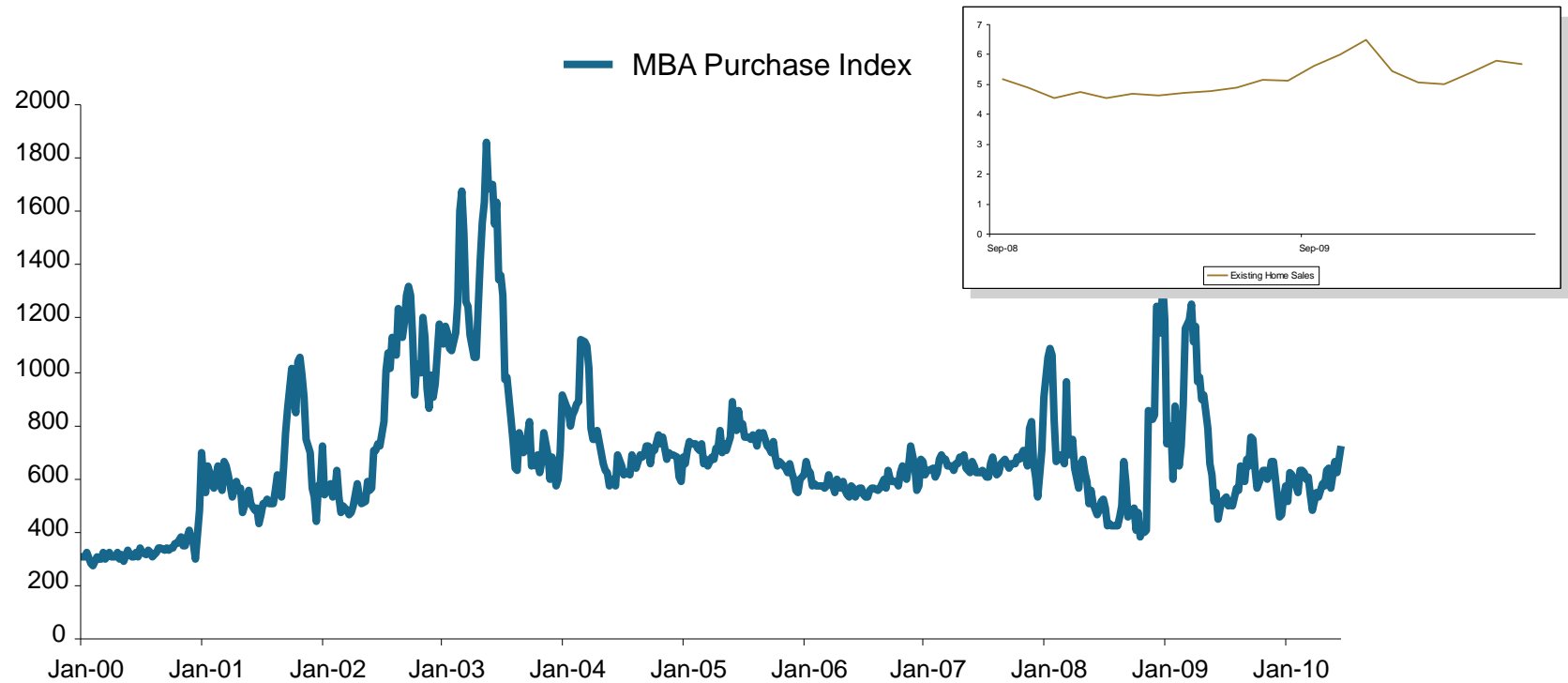


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# Direction of Home Sales Remains Uncertain

- Mortgage Bankers' Association Purchase Index, which measures the volume of mortgage loan applications, rose 34.5% during Q2
- Index rose despite the tax credit program expiring in April for the second time (the first deadline was in October 2009)



Source: Bloomberg. Data through 6/30/2010.

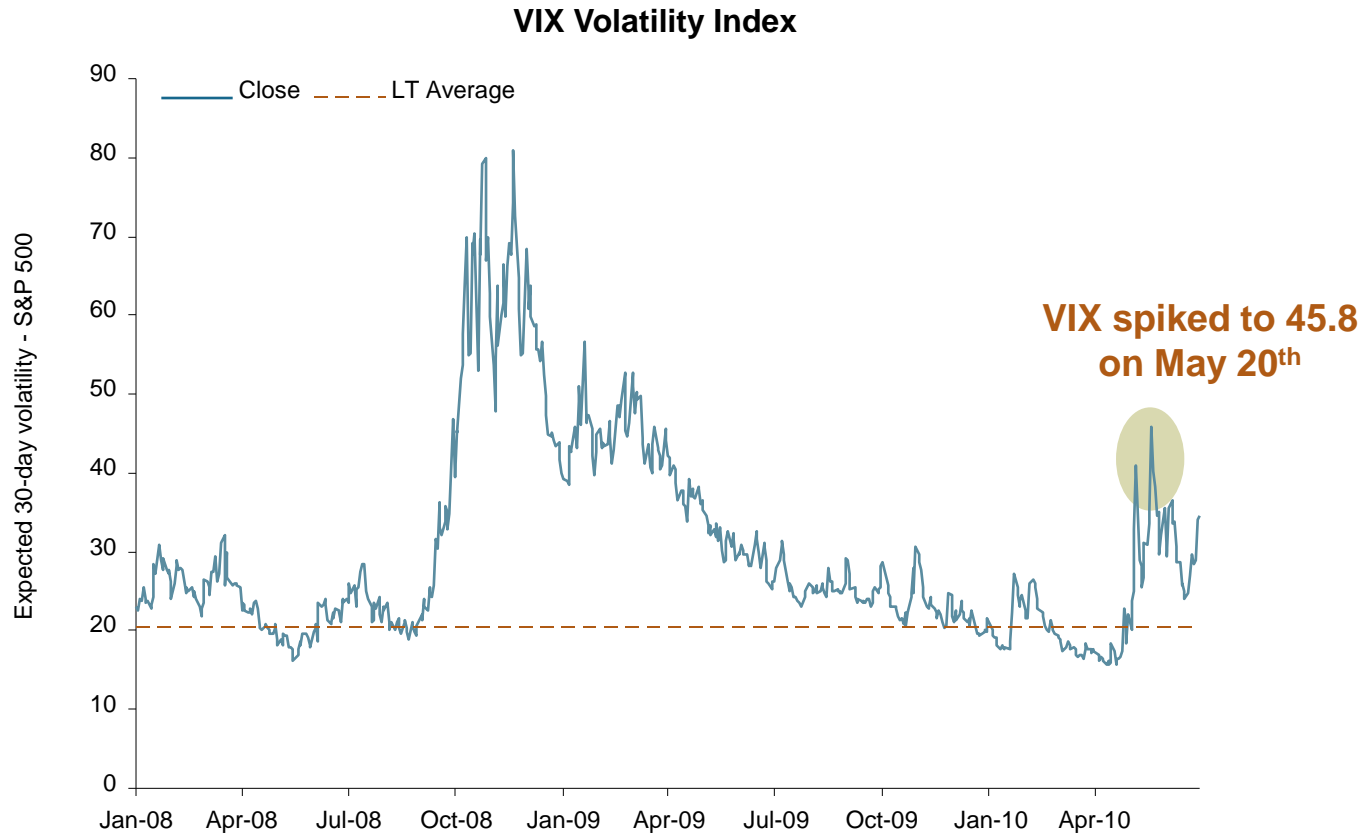


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# Equity Market Volatility Peaks

- In May, the VIX, which shows the market's expectation of 30-day volatility, rose to heights not seen since the financial crisis.



Source: VIX Index, Data through 6/30/2010.



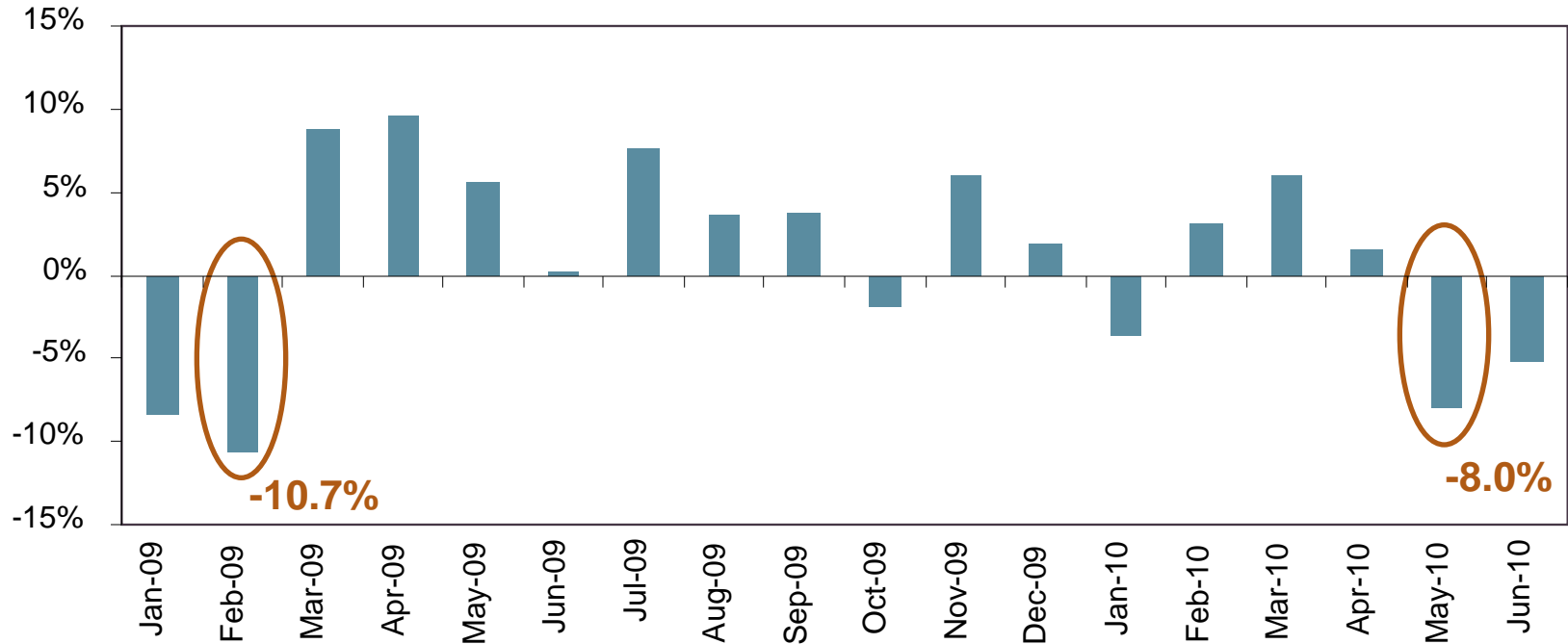
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# S&P Posts Worst Performance Since 4Q08

- After showing signs of recovery in 1Q10, stocks retreated in the 2nd quarter with the S&P 500 falling 12%
- May performance was the worst drawdown since the depths of the financial crisis

S&P 500 Monthly Returns, January 2009 - June 2010



Source: Bloomberg, through 6/30/2010.

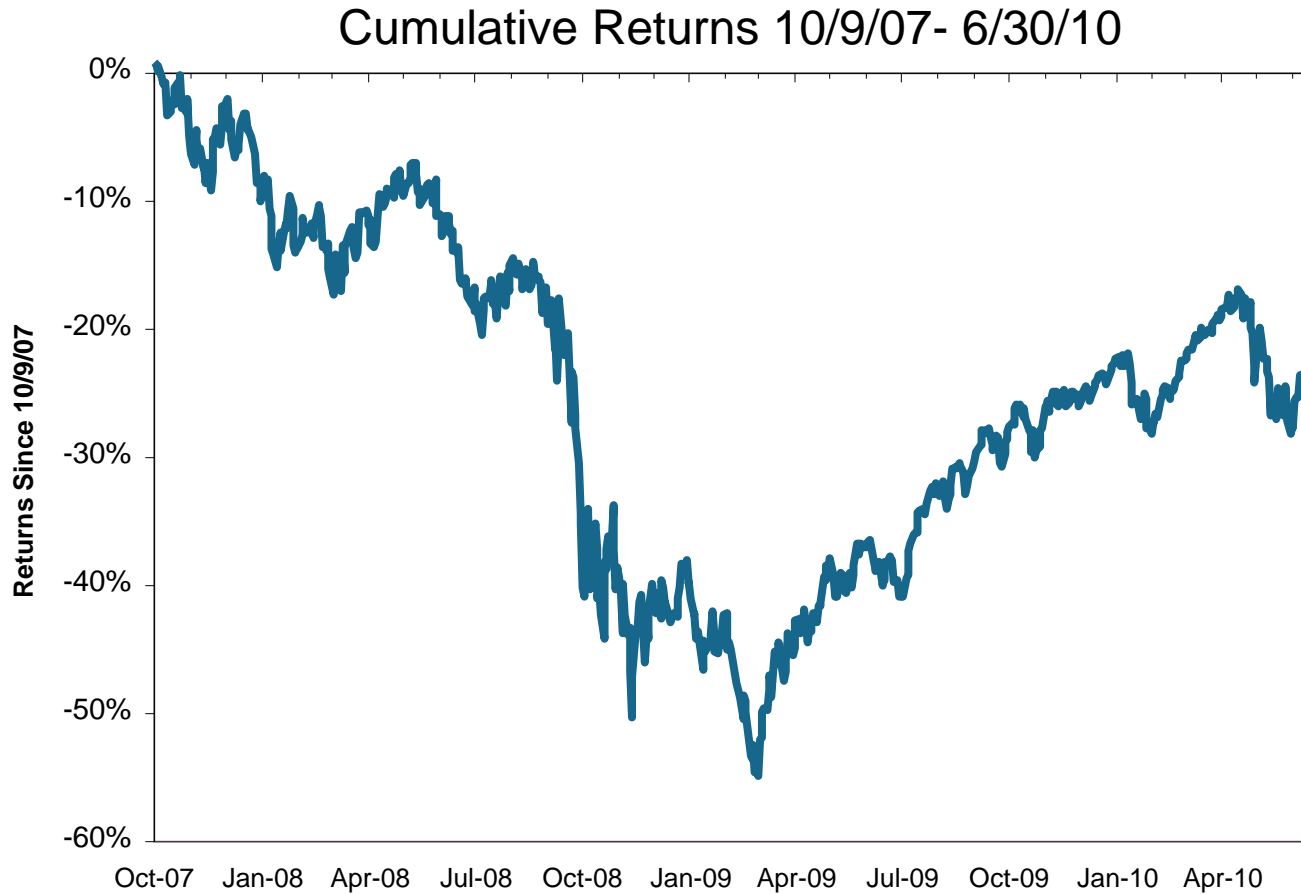


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# Returns Since the Peak, 10/9/07 – 6/30/10

- Equity market lost some of its gains from 1Q10 during the second quarter



Source: Bloomberg, through 6/30/2010.

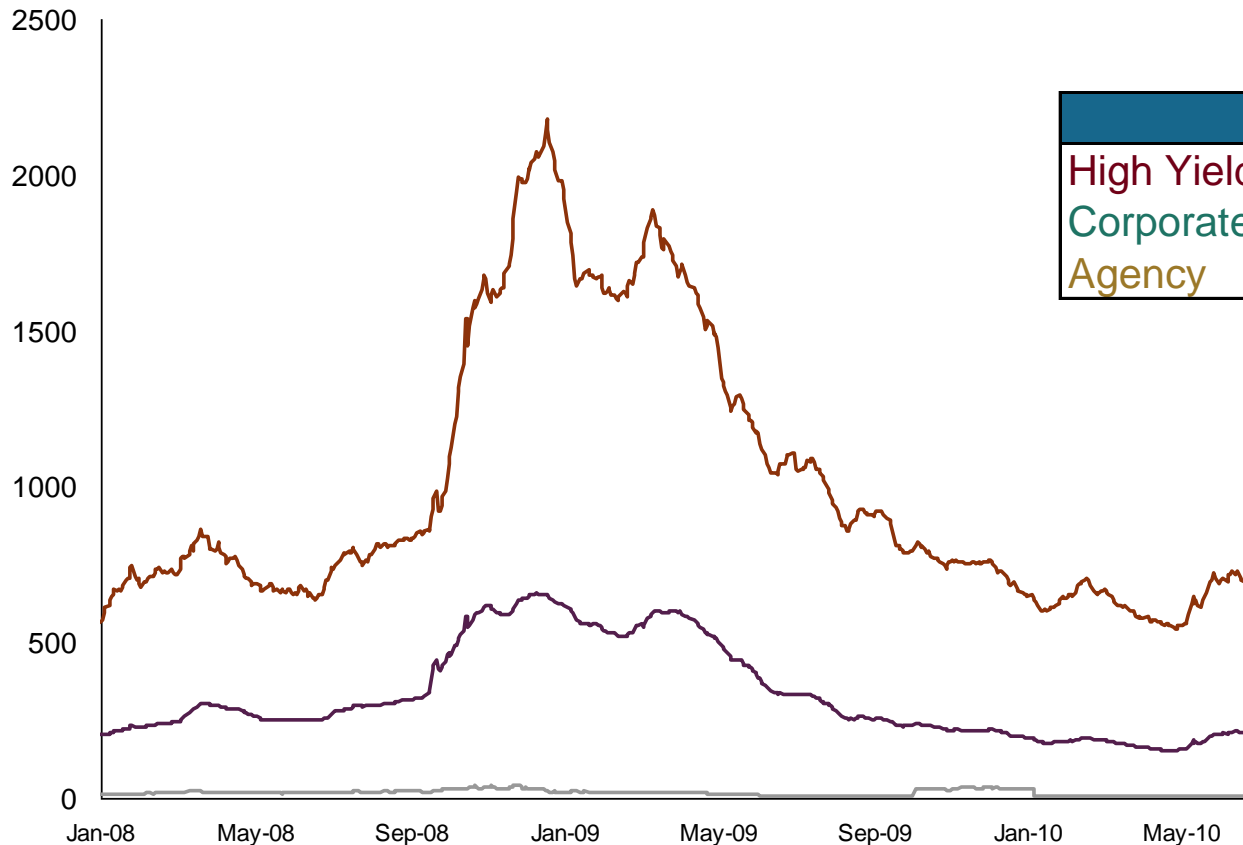


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# Bond Spreads in 2Q10

- Spreads widened in the second quarter, particularly in high yield, reflecting investors' aversion to risky assets



	6/30/10	Peak	LT Avg
High Yield	713	2182	654
Corporate	209	656	181
Agency	4	42	14

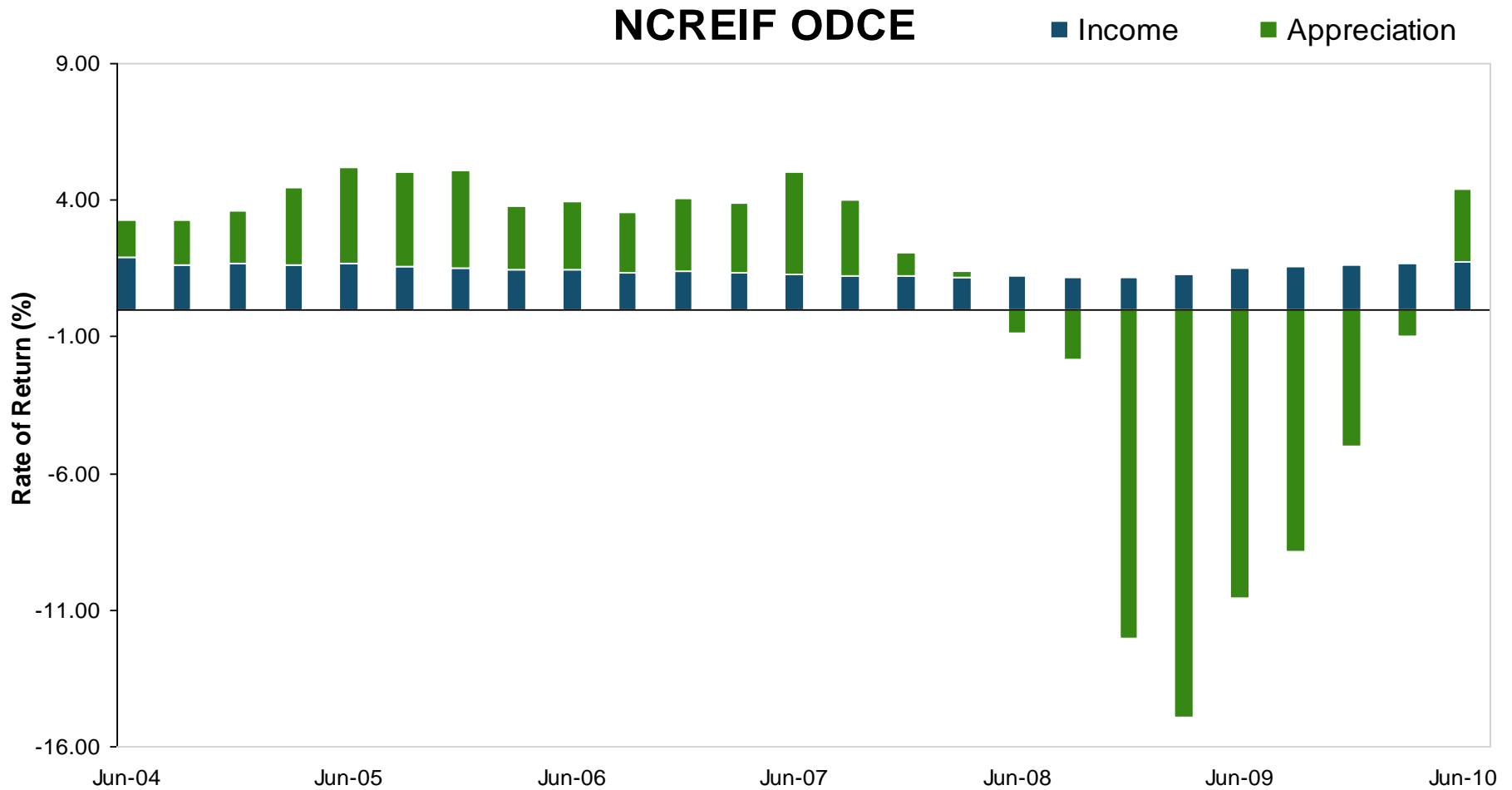
Source: Bloomberg (Monthly data). Data through 6/30/2010.



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# Real Estate in Q2



Source: NCREIF Open-End Diversified Core (ODCE). Data through 6/30/2010\*.

\*Q2 preliminary data



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## 2010 What Lies Ahead

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# What is the “New Normal”?



**De-Leveraging**



**De-Globalization**



**Re-Regulation**

- The world is being transformed by “DDR”
  - D: Old model for encouraging home ownership is dead
  - D: Global leadership has changed with China growing faster than others
  - R: The invisible hand of free enterprise is being replaced by government

Source: PIMCO – William Gross Investment Outlook September 2009

# What is the “New Normal”?

- De-Leveraging: Global interest rates will remain low for extended periods of time
- De-Globalization: Asia and Asian-connected economies (Australia, Brazil) will dominate future global growth
- Re-Regulation: Investors should continue to anticipate government policies

Source: PIMCO – William Gross Investment Outlook September 2009



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# Summary of U.S. GDP Forecasts For 2010

Economist / Institution	Forecast
Goldman Sachs	2.7%
Blackstone	3%
JP Morgan	3.5%
IMF	1.5%
Mesirow Financial	2-4%
Schroeders	recovery of an "L" or "W" shape
Fed Governors Survey	2.5-3.5%

**Average Estimate**  
2.7%

**Average GDP growth following a recession: 6 - 8%**



# Key Themes to Watch in 2010



Unemployment



Consumer Spending



Credit Creation



Housing



Government Actions



Inflation



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# Unemployment: Some Improvement Expected



- Unemployment forecasts
  - Federal Reserve
    - 2010: 9.3%-9.7%
    - 2011: 8.2%-8.6%
    - 2012: 6.8%-7.5%
  
- For a significant decline in unemployment rate, the U.S. needs real GDP growth of over 5% in 2010
  
- While official unemployment is 10%, if you add the “underemployed” (part time workers who would like to have full time jobs), the number is closer to 17.5%

Sources: Okun's Law; Blackstone



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# Consumer: Still Needs to De-Lever



25%

- Percentage of U.S. households that are underwater on their mortgages
  - High debt levels and debt service payments, coupled with rising unemployment and the legacy of the housing collapse, mean that a very large number of households are in no condition to buy homes or to increase spending through borrowing

Source: American CoreLogic



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# Housing: Recovery Needs to Take Place



## 5.3 million

- Number of US households tied to mortgages that are at least 20% higher than their home's value

## 2011

- Year that JP Morgan expects US home prices to hit rock bottom

Source: American CoreLogic



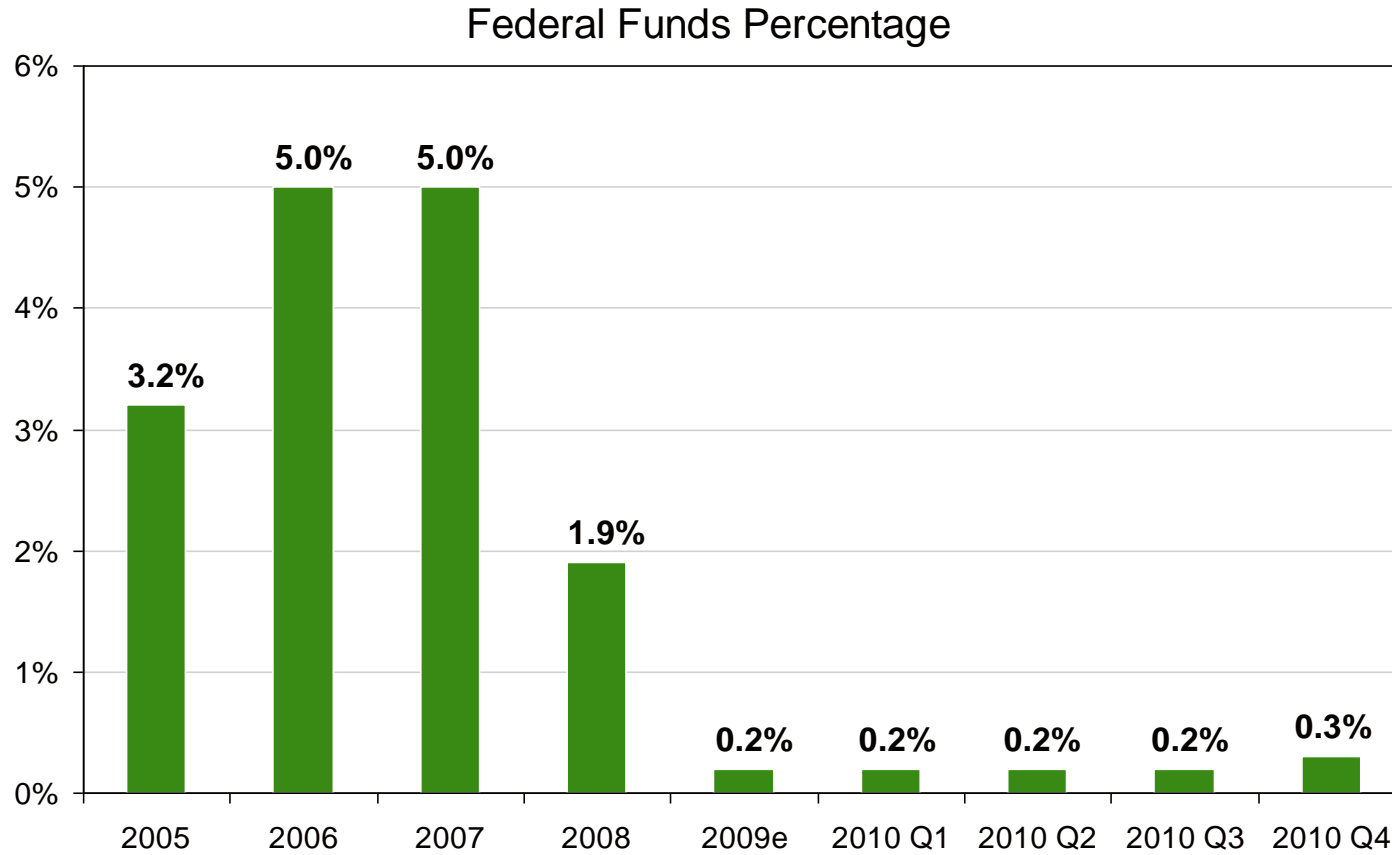
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# Government Actions



- Fed to maintain low interest rates



Source: Federal Reserve Board / Mesirov Financial Estimates



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# Credit Creation

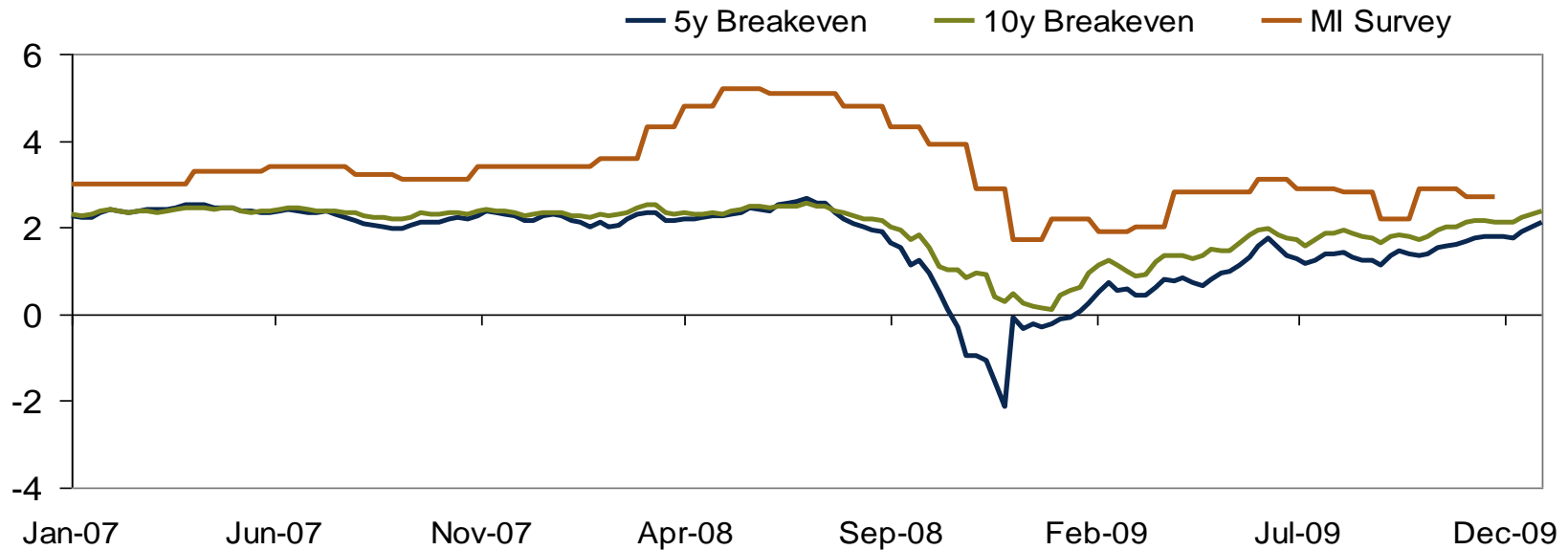


- Access to credit is primary risk to growth
  - Lending by banks remains constrained
  - Retailers are feeling the squeeze, as regulators are curtailing their issuance of “pre-approved” lines of credit at the cash register
  - Small business owners have had difficulty in securing credit to run their businesses

# Inflation



## Inflation Expectations



- Core Inflation Is Expected To Remain Muted In 2010
  - High unemployment will likely hold nominal wages in check
  - Overhang of vacant homes will keep rents from rising, which will hold the housing component of the Consumer Price Index in check
  - Inflation remains more of a medium-term (3-5 year) than near-term threat

Source: Federal Reserve



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# Summary

- Recovery has started
- Economy is on a path to growth: path is still uncertain
- Key factors to watch include:



**De-Leveraging**



**De-Globalization**



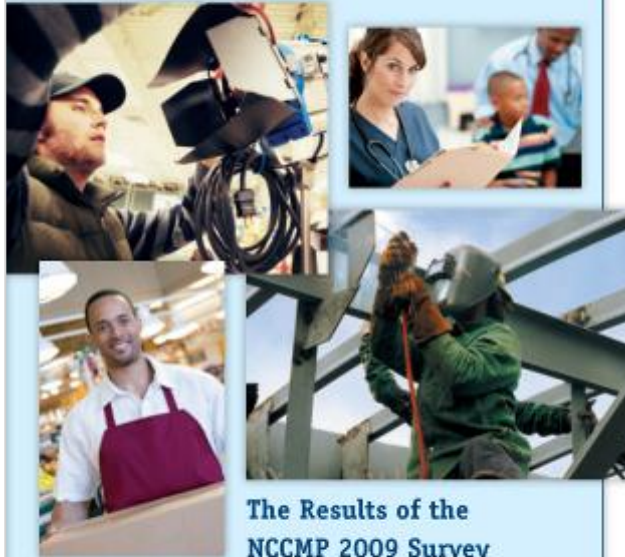
**Re-Regulation**

## How Pension Funds Suffered After 2008

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# Results of the NCCMP 2009 Survey of the Funded Status of Multiemployer Defined Benefit Plans

## Multiemployer Pension Plans: Main Street's Invisible Victims of the Great Recession of 2008



The Results of the  
NCCMP 2009 Survey  
of the Funded Status of  
Multiemployer Defined  
Benefit Plans



[www.nccmp.org](http://www.nccmp.org)

Randy G. DeFrehn ■ Joshua Shapiro

### Zone Status

PPA created the concept of zones to classify the funding strength of multiemployer pension plans. The traffic light analogy of these "Zones" was developed as shorthand for the technical categories referenced in the Pension Protection Act.

- Green Zone – Plans that are considered healthy
- Yellow Zone – Plans that are considered endangered
- Red Zone – Plans that are considered critical

Charts 17 and 18 illustrate the effect that the financial crisis had on the plans that responded to the survey. The status of plans that PPA considered healthy declined from 76% when the PPA funded percentage rules were first enacted in 2005, to 20% in 2009. So too was the impact on the PPA funded percentage rules, on the unattached actuarial value of assets. Chart 18 illustrates the impact due to the fact that the market losses have not yet been fully recognized in the PPA zone determinations.

As demonstrated by Chart 17, only 76% of the plans that responded to the survey reported their 2008 PPA zone status as green, reflecting the relative health of those plans and the seriousness with which the impending crisis was assessed. The funding shortfalls caused by the prior underpayment of contributions were assumed from 2005 – 2008.

Chart 17  
Breakdown of 2008 Zone Status

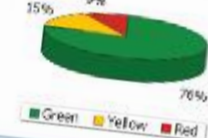
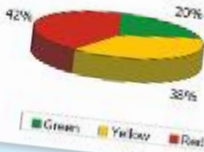


Chart 18 shows a striking decline in plans that were green from 2006 to 2009, with only 20% of plans reporting their 2009 zone status as green, and 42% that were yellow. The plans reporting their zone status as red:

Chart 18  
Breakdown of 2009 Zone Status



# Results of the NCCMP 2009 Survey of the Funded Status of Multiemployer Defined Benefit Plans

- **Green:** Healthy plans
- **Yellow:** Endangered plans
- **Red:** Critical plans

## 2008

Over 75% of the plans that responded to the survey reported their 2008 PPA zone status as green reflecting the relative health of these plans and the seriousness with which the bargaining parties addressed the funding disruption caused by the first historic market contraction which occurred from 2000 – 2002.



## 2009

A striking decline in green zone plans from 2008 to 2009, with only 20% of plans reporting their 2009 zone status as green, and more than 40% of the plans reporting their zone status as red.