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The Great Recession is Over
But Our Great Expectations Have Become Modest

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CENTRAL AMERICA

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Brown Brothers Harriman & Co.

Business Lines

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Established 1818

39 General Partners

4,000 Employees

14 Global Offices

10 Limited Partners

49 Managing Directors

Wealth Management & Trust Services
\$45 Billion Total Assets Under Management

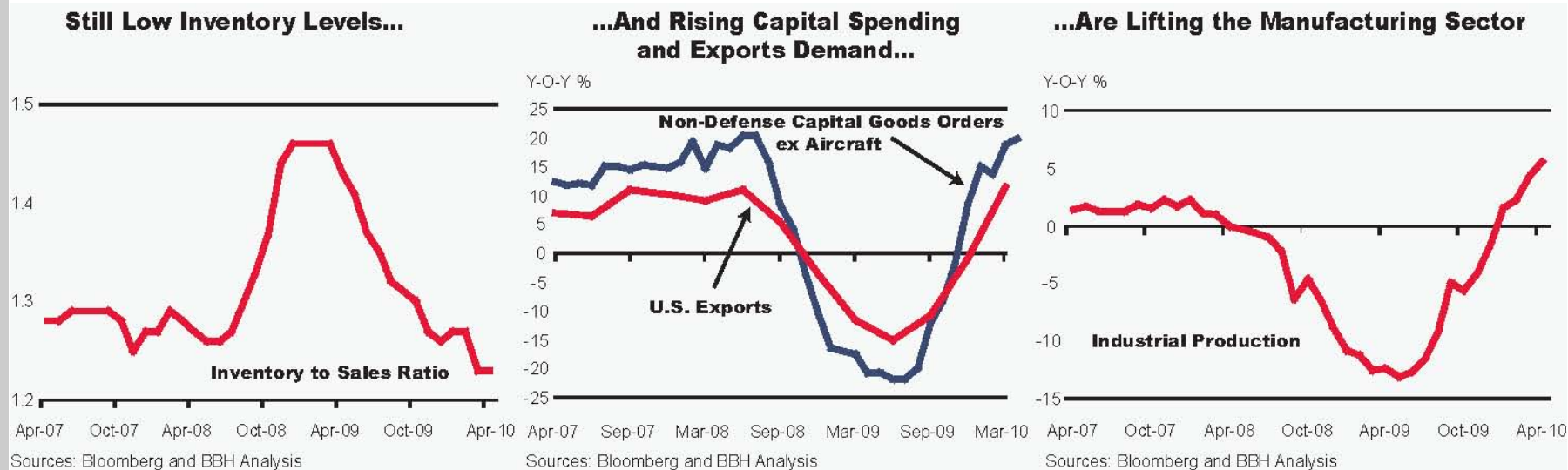
Banking & Advisory
Credit and M&A Advisory Services

Investor Services & Markets
\$2.0 Trillion Total Assets in Custody

Overview, Agenda and Goals

- The Recovery Has Moderated Considerably; Why?
- The Wake of the Recession Is Persistent; Why?
- Perhaps This Recession Was Different; Why?
- Recovery Faces Three Mighty Headwinds; What Are They?
- What Levers Has the Government Pulled?
- What on Earth is Quantitative Easing?
- Deflation or Inflation; What's it Going to Be?
- A Common Theme: Uncertainty

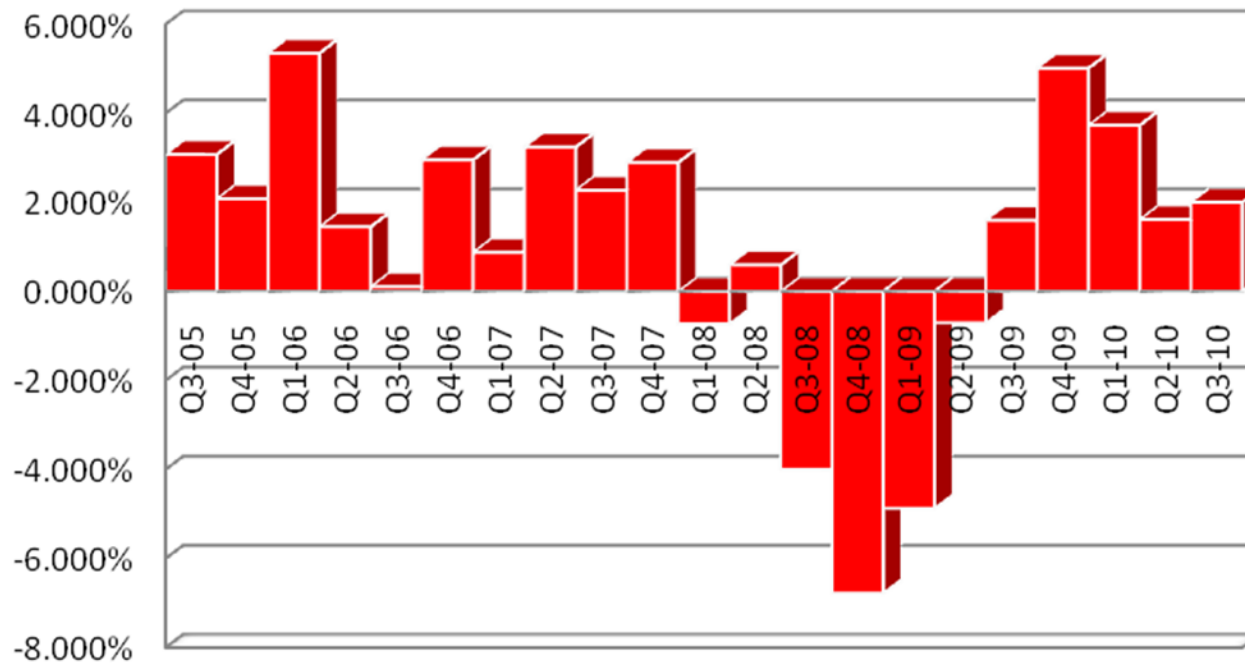
What Drove GDP in Q4-09 & Q1-10?



- NBER, “The recession that began in December of 2007 ended in June of 2009.”
- Three Facets to the Recovery
- There Are Some Sources of Strength
- Institute for Supply Management Index Consistently Strong
- But, Does the Recovery Have Legs?

The Recovery Has Lost Momentum

Quarterly Annualized Real GDP Growth



A Recession is a Recession...Or Is It?

P&L Recession

- More common
- Shock to system or monetary policy causes
- Inventory builds up; production cut back; layoffs commence
- Leads to recession
- Conventional policy tools
- Inventory normalizes; hiring picks up; production increases
- Growth resumes

Balance Sheet Recession

- Less Common
- Excessive debt and leverage
- Sudden reduction in asset values
- Conventional policy tools incomplete
- Toxicity works its way through the system
- Bad capital needs to be bled out
- Fixed assets harder to monetize

Headwind Number One - Consumers

We Have Met the Enemy, and He is Us

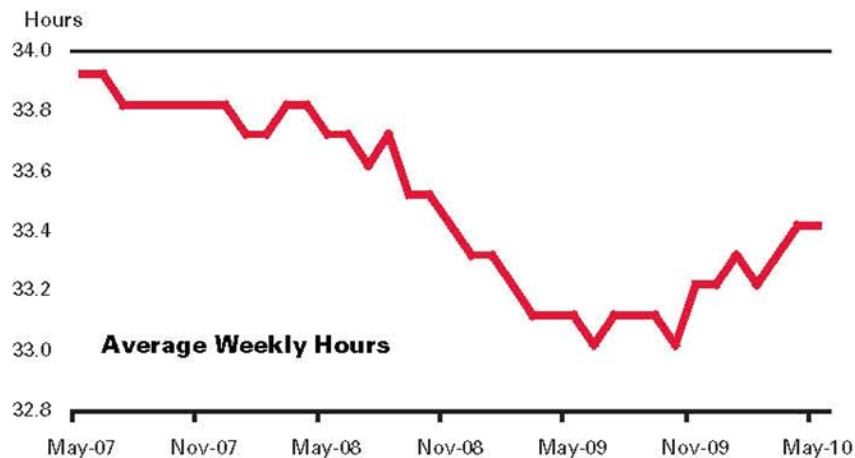
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- Where are we?
 - Growth has stalled
 - This recession may be different than recessions past
- A jobless recovery...so far
- Labor markets are making consumers nervous
- What money they have is being “redirected”

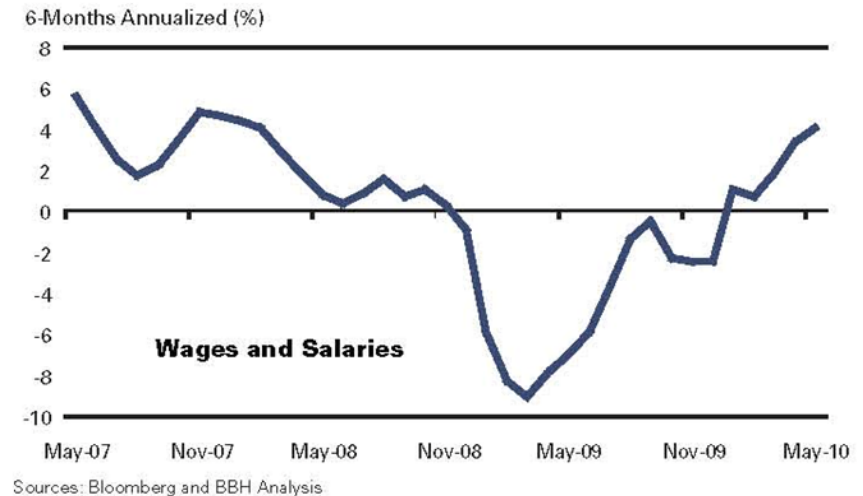


Employment Growth is Tepid...

Employment Dynamics Improving With Rising Hours Worked...



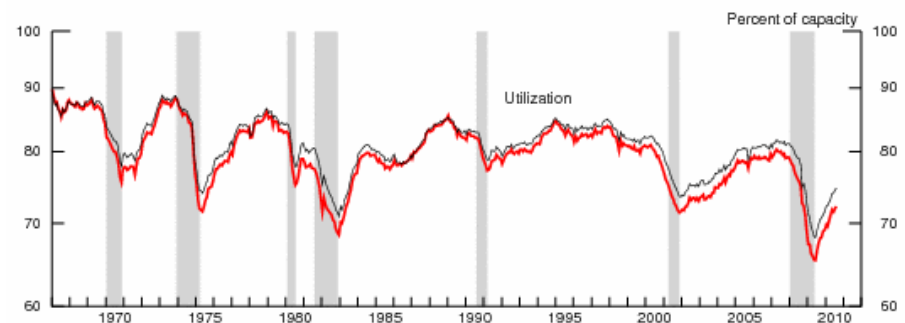
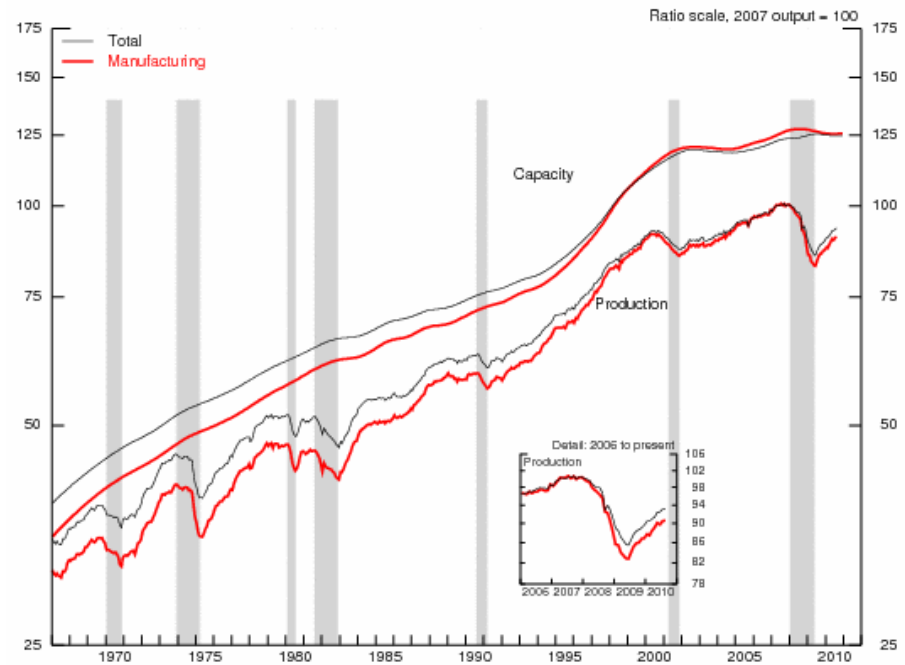
...Lifting Household Incomes



- Eight million jobs lost in this recession, workers also saw a reduction in hours, more so than in previous recessions
- First trigger employers pull is existing workers who had hours reduced

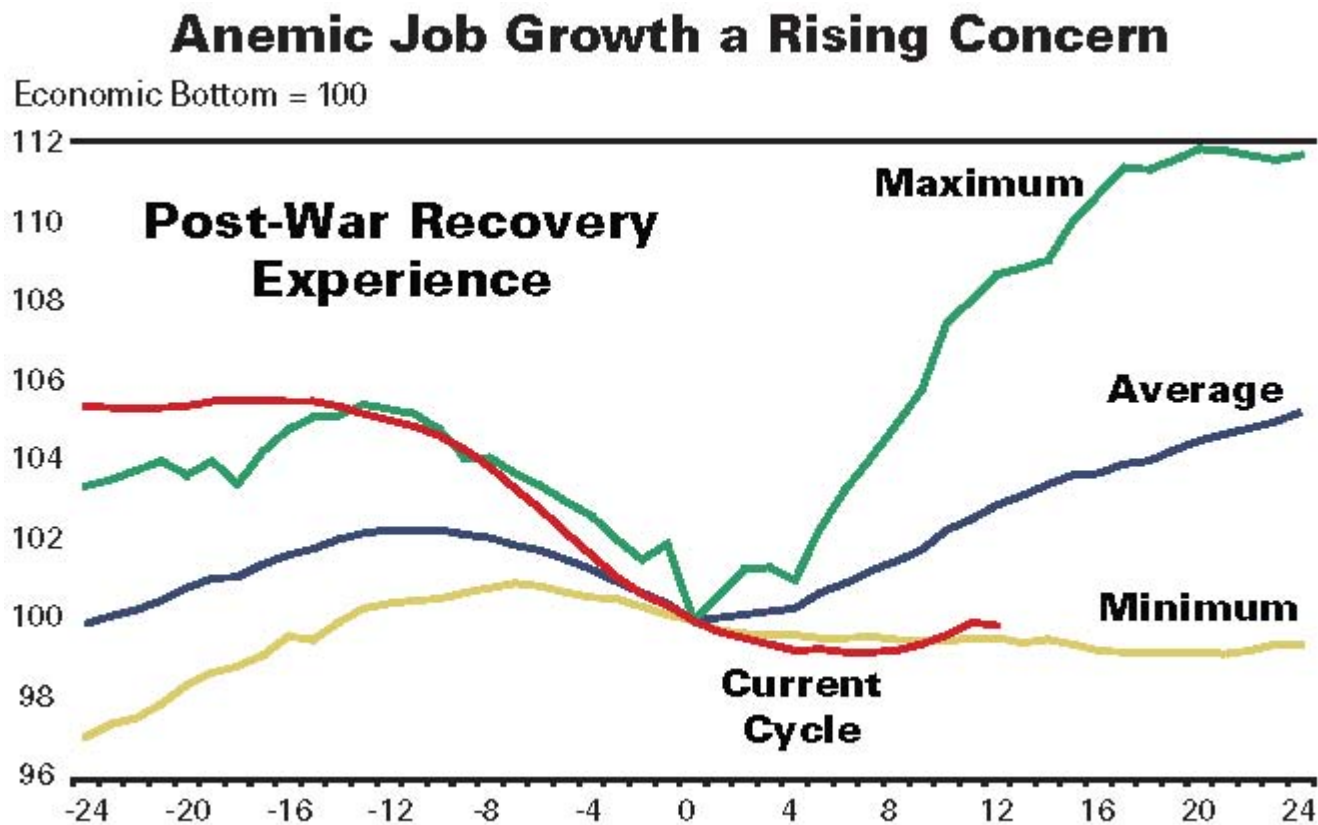
...And There is Still Excess Capacity...

- Little incentive to begin hiring
- Two sides to the labor equation
 - Inputs (new hires)
 - Outputs (more productivity)
- Productivity has risen
- Ample capacity
- Why hire now?



...So Job Growth will Remain Anemic...

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Sources: Bureau of Labor Statistics and BBH Analysis

...And Wages Will Remain Stagnant

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- “Lost Decade for Family Income”

- WSJ, 17 September 2010
- Median household income fell 4.8% between 2000 and 2009
- Rose 1.9% in 1970s

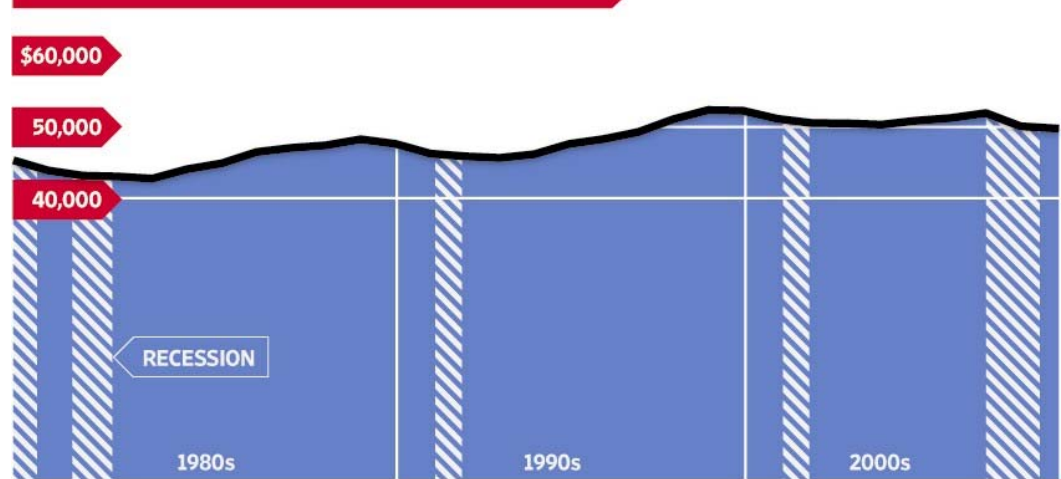
- Consumers not feeling well off

- Wages

- Asset values

- What are they doing with their dough?

MEDIAN HOUSEHOLD INCOME IN 2009 DOLLARS



Ronald Reagan



1985

\$44,898

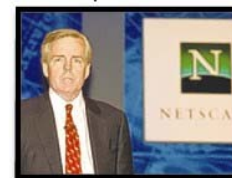
The Gulf War



1991

\$46,269

Netscape IPO



1995

\$47,622

Lehman collapse



2008

\$50,112

Source: Census Bureau

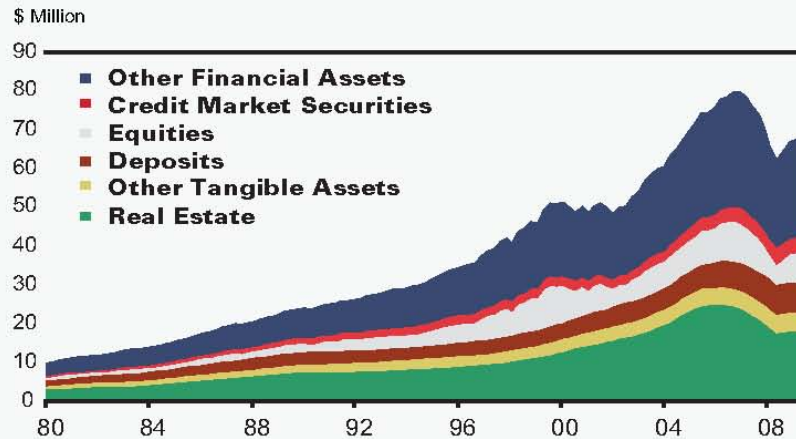
Associated Press (2); Getty Images (Reagan); Agence France Presse/Getty Images (Gulf War)

Source: WSJ, 17 September 2010, p. A1

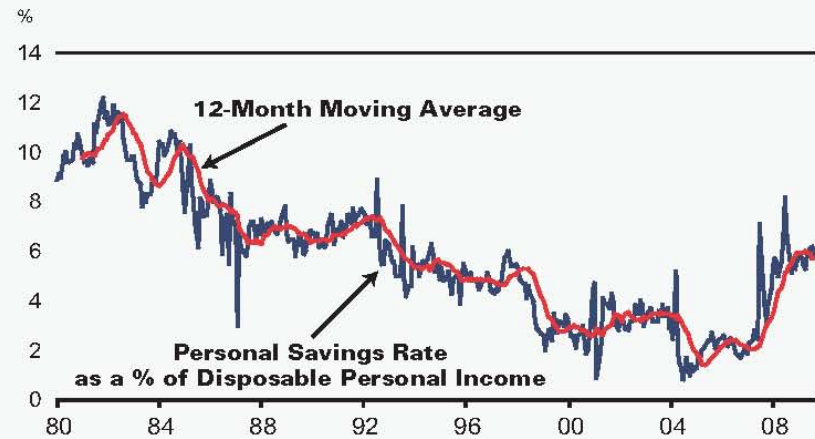
Consumers Have Repaired Finances...

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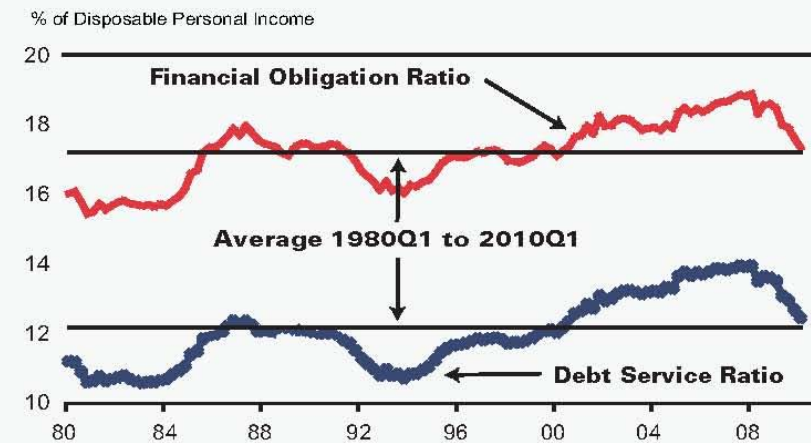
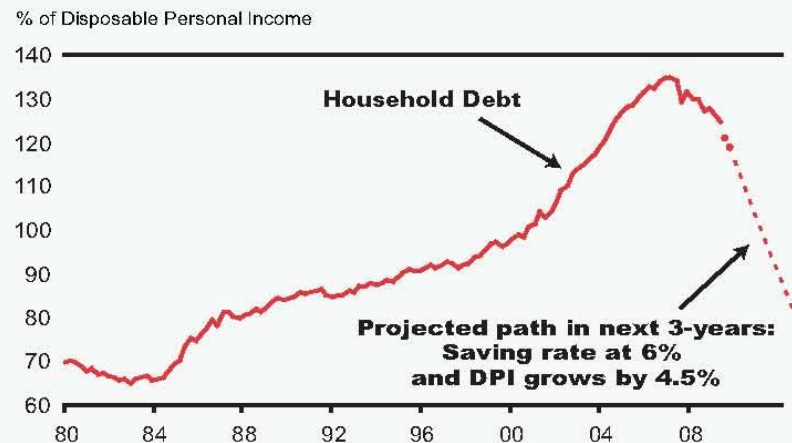
Household Assets Still Well Below Peak Levels...



...Leading Consumers to Save More and Spend Less

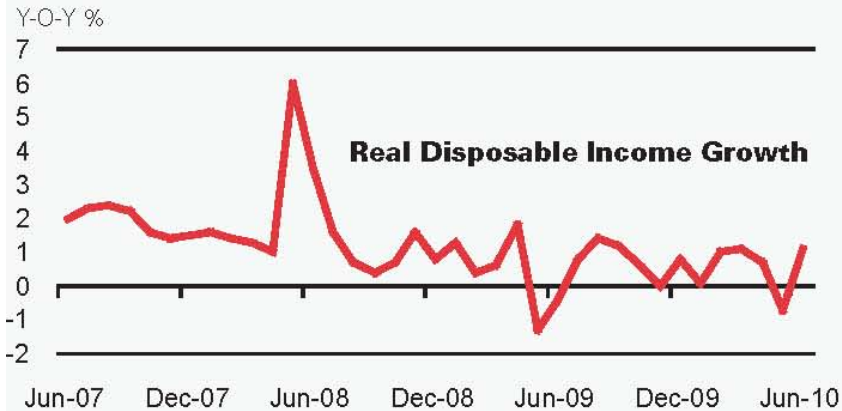


Household Debt Burdens Turning the Corner

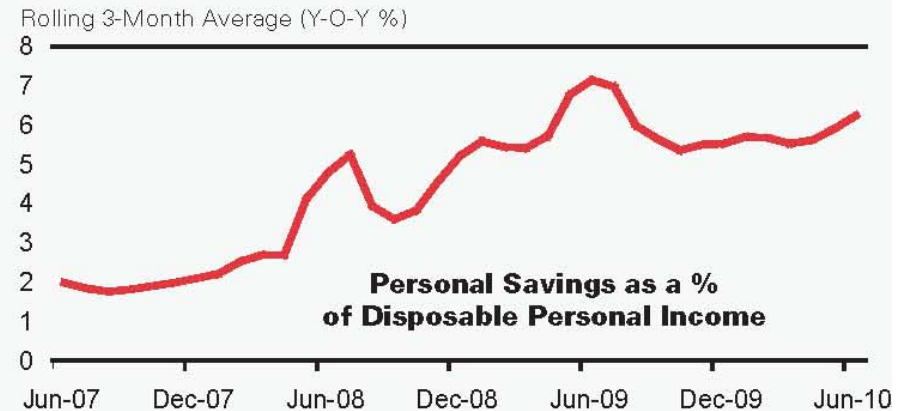


...And Changed Habits

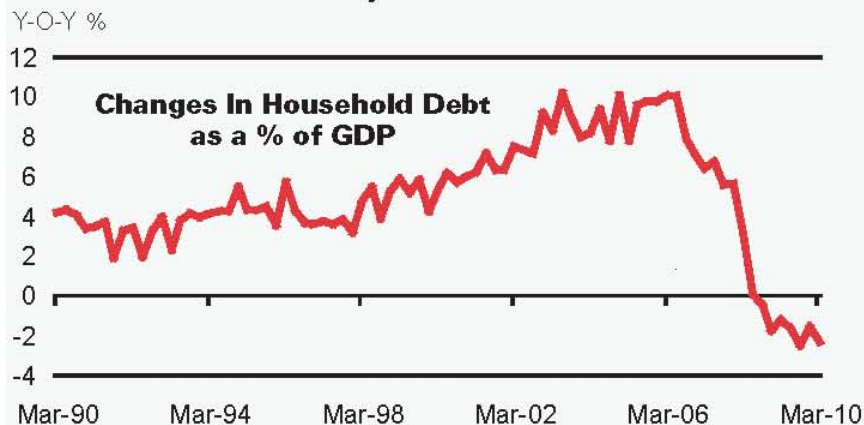
Reasonable Growth In Consumer Incomes...



...Is Being Diverted to Rebuild Savings...



...And Pay Down Debt...



...Leaving Little to Buoy Expenditures



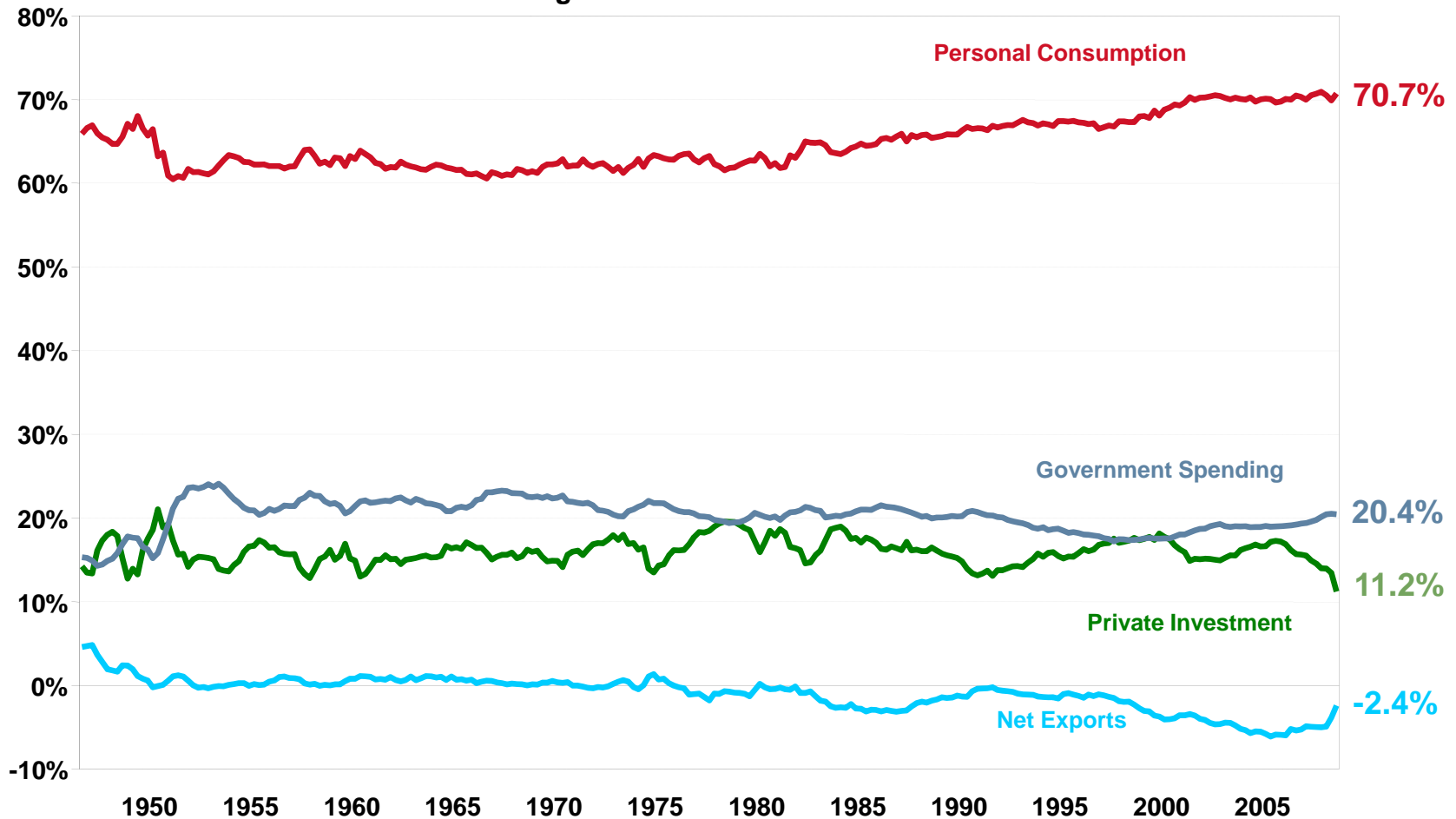
Sources: Bloomberg and BBH Analysis

Why Does this Matter?

Observe the Anatomy of the American Economy

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Composition of the American Economy
Percentage of Gross Domestic Product



Headwind Number Two –Real Estate

The Epicenter of the Great Recession

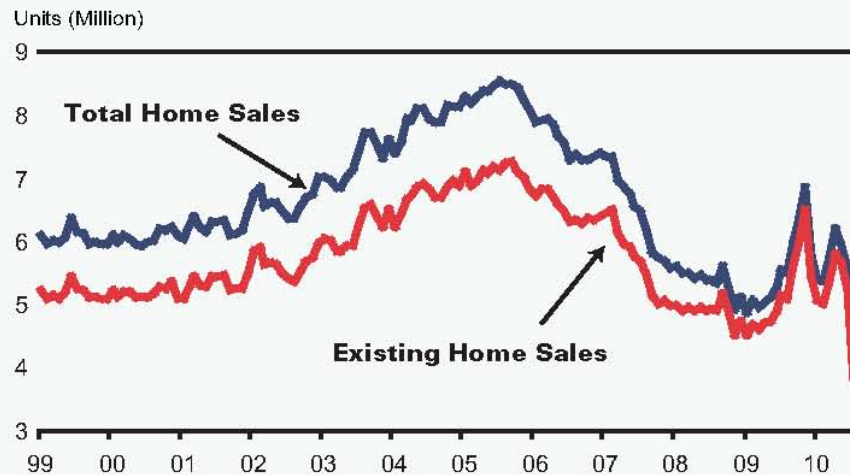
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- Ground Zero for the Great Recession was (is?) the residential real estate market
- Do prices have further to fall?
- Consumers cautious
- Refinancing difficult
- Results in yet more downward pressure
- Vicious Cycle



Housing Markets Have Dipped Anew...

Home Sales



Sources: Bloomberg and BBH Analysis

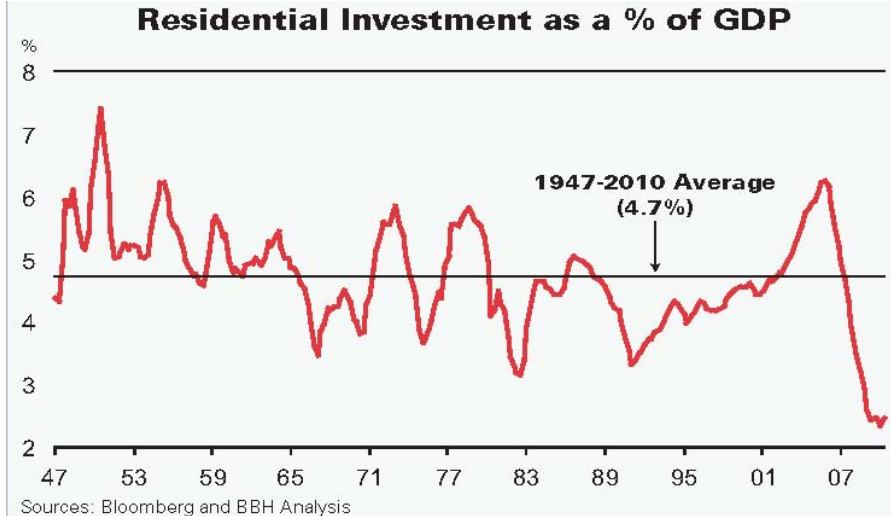
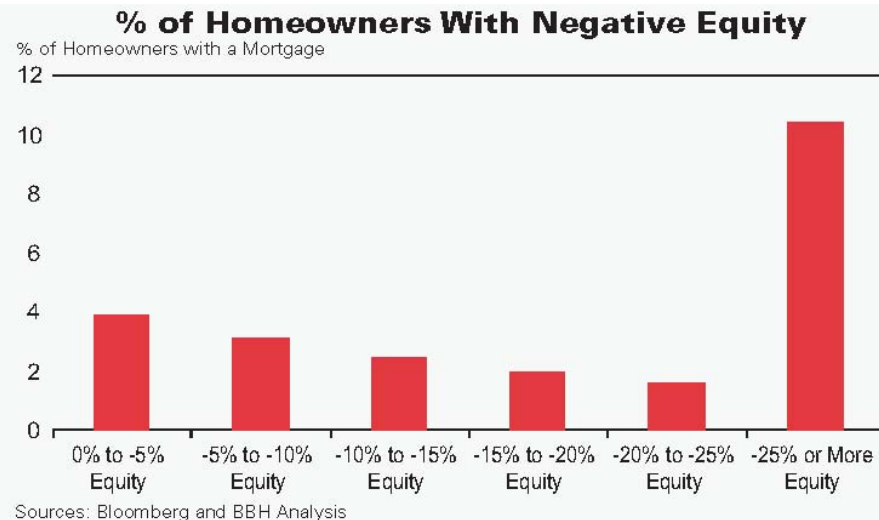
Months Supply and Housing Prices



Sources: Case-Shiller, Bloomberg, and BBH Analysis

- Worker, Homeownership, and Business Assistance Act of 2009
- Tax Credit Expired in April of 2010
- Downward Pressure on Real Estate Activity

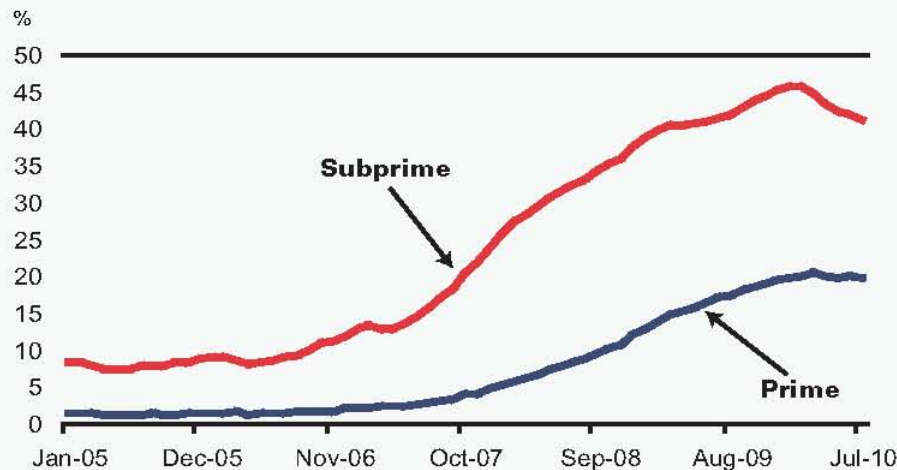
...And Borrowers Are Still Underwater...



- Many households have zero or negative equity
- This provides incentive to default
- Puts further downward pressure on real estate markets
- Left with historically low level of residential real estate investment as a percentage of GDP

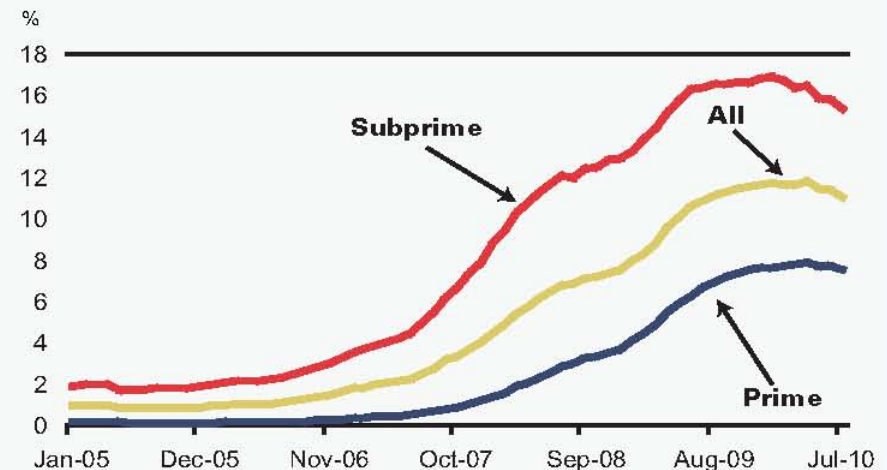
...Leading to More Delinquencies...

Mortgage Foreclosure Rates



Sources: Bloomberg and BBH Analysis

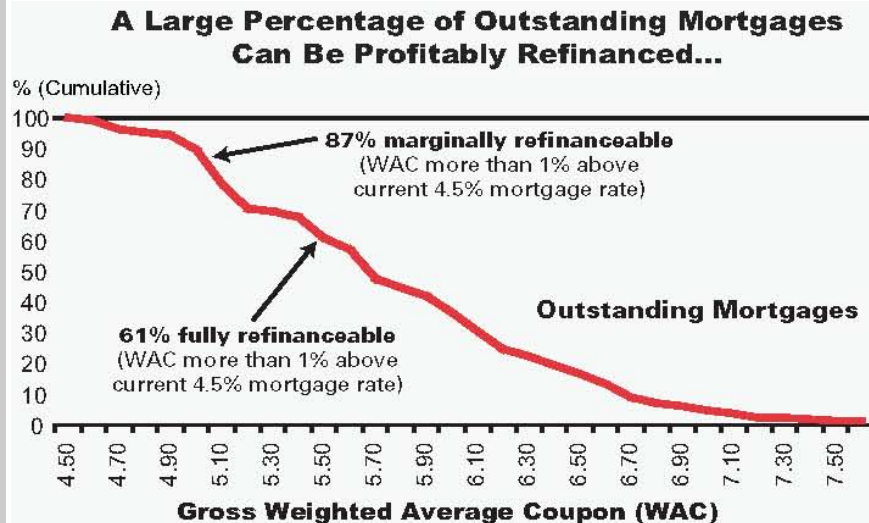
Mortgage 30-90 Day Delinquency Rates



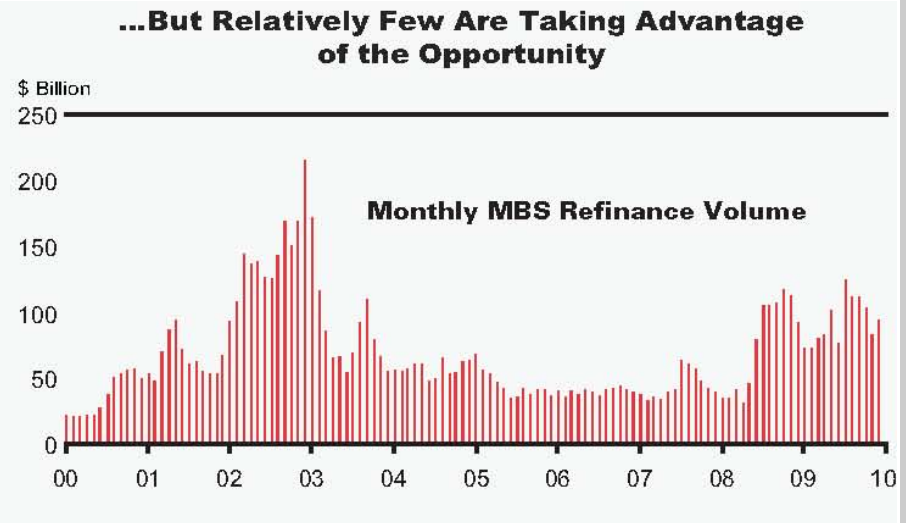
Sources: Case-Shiller, Bloomberg, and BBH Analysis

- Default rate among Prime mortgage holders historically high
- Delinquency rates are leveling off
- Defaults and delinquencies still historically high

...And Unattractive Refinancing Options



Sources: Fannie Mae, Freddie Mac, and BBH Analysis



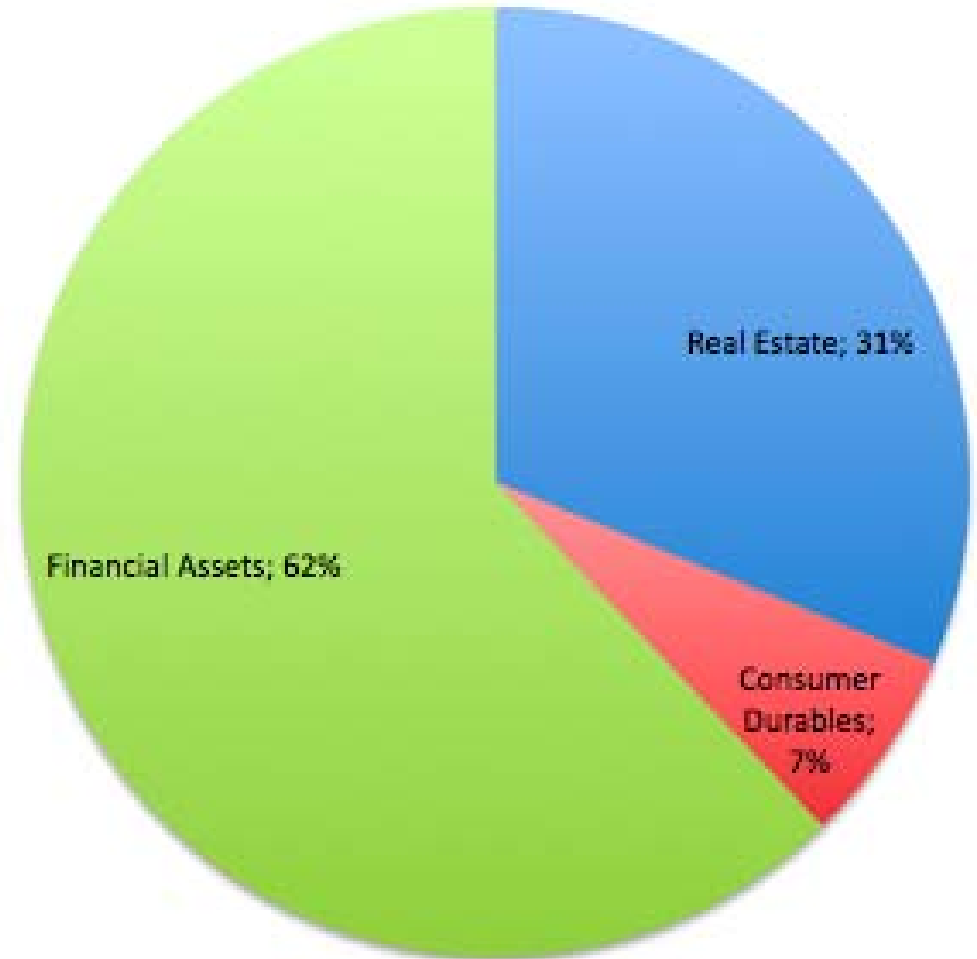
Sources: Frannie Mae, Freddie Mac, and BBH Analysis

- Historically low interest rates
- Why haven't borrowers refinanced?
- Mark Twain on bankers...

Why Does This Matter?

Observe the Composition of Household Wealth

- Largest single asset most Americans own
- Housing wealth leads to greater spending
- We're back to the consumer again



Headwind Number Three – Bankers

The Second Epicenter of the Great Recession

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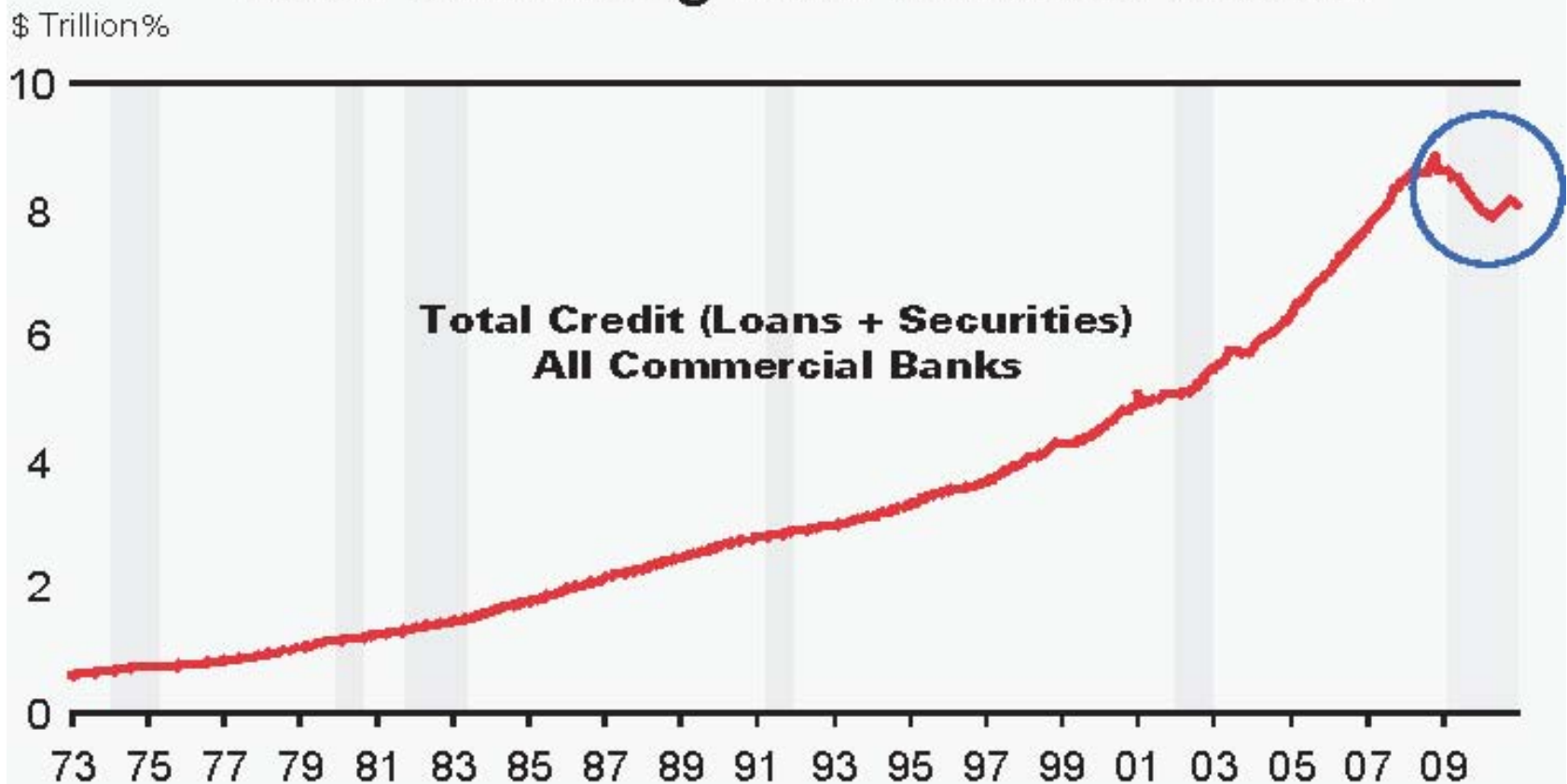
- Housing market crashed
- We allowed the amount of leverage
- Bankers feel chagrined
- Credit lubricates the wheels of commerce
- Crimp in both demand and supply



Banks Are Not Growing...

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Banks Have Uncharacteristically Been Shrinking Their Balance Sheets



Sources: Federal Reserve Bank of New York and BBH Analysis

...And Are More Conservative

- Bankers feel chagrined by bad loans
- War room mentality dies hard
- Uncertainty abounds
- Same mentality as the consumer
- What are the bankers doing with their dough?
- Opting for a more conservative structure

U.S. Bank Holding Companies Capital Ratios

	12/31/2007	6/30/2010
Bank	Tier 1 Common Capital Ratio*	Tier 1 Common Capital Ratio*
Bank of America Corp.	4.9%	8.0%
JPMorgan Chase & Co.	7.0%	9.6%
Citigroup Inc.	4.9%	9.9%
Wells Fargo & Co.	6.5%	7.5%
Goldman Sachs**	NA	12.5%
Morgan Stanley**	NA	9.4%
U.S. Bancorp	5.6%	7.4%
PNC Fin Svcs Grp, Inc.	5.4%	8.3%
SunTrust Banks, Inc.	5.3%	7.9%
Capital One Financial Corp.	8.8%	7.0%
BB&T Corporation	7.2%	8.9%
American Express Co.**	NA	10.7%
Regions Financial Corp.	6.6%	7.7%
Fifth Third Bancorp	5.7%	7.2%
KeyCorp	5.7%	8.1%
M&T Bank Corporation	5.6%	6.2%
Comerica Inc.	6.8%	9.8%
Zions Bancorporation	6.1%	7.9%
Average	5.8%	8.9%

* Tier 1 Common Capital Ratio is common equity less intangibles as a percentage of risk-weighted assets.

** Goldman Sachs and Morgan Stanley were not bank holding companies until September 2008, and therefore did not report Tier 1 Ratios in 2007.

Sources: Federal Reserve and BBH Analysis

Fiscal and Monetary Response So Far

Does the US Government Have Any Dry Powder Left?

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- Let's assess where we are
- We've spent a bunch of money
- We've printed a bunch of money
- Using the playbook so far



Lessons from Our Past

The Past Informs Present Policy Decisions

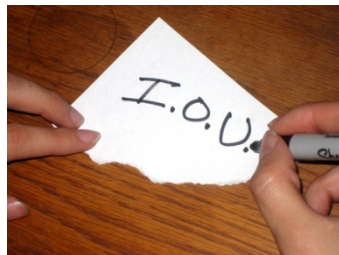
- Chairman Bernanke's Speech from 2002
 - Prescient
 - Federal Reserve Bank Playbook
- Okay, in English Please?
- Five Steps
 - Reduce Short Term Rates to 0%: DONE
 - Provide Low Cost Loans to Banks: DONE
 - Loosen Collateral Standards for Loans: DONE
 - Expand Banking System Reserves: DONE
 - Target Low Interest Rates for Longer Term Debt Securities: In Progress
- Second Round of Quantitative Easing

Quantitative Easing...for Laymen

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Reserves



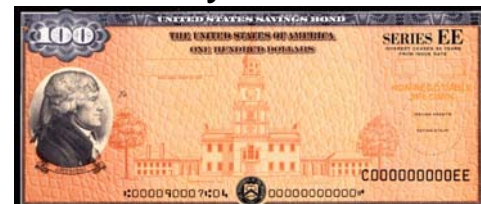
Main St. Bank



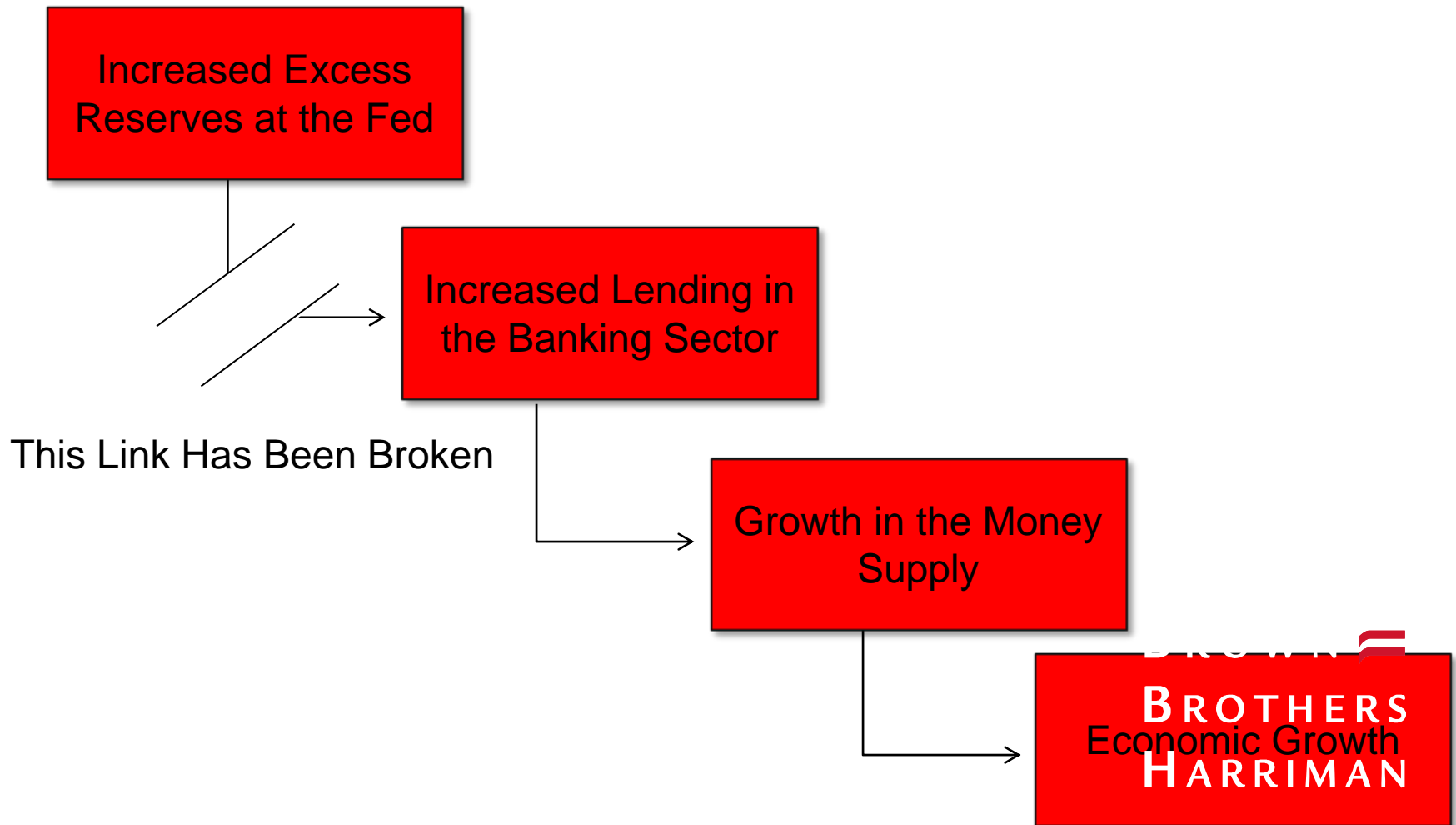
Customer Deposits and Loans



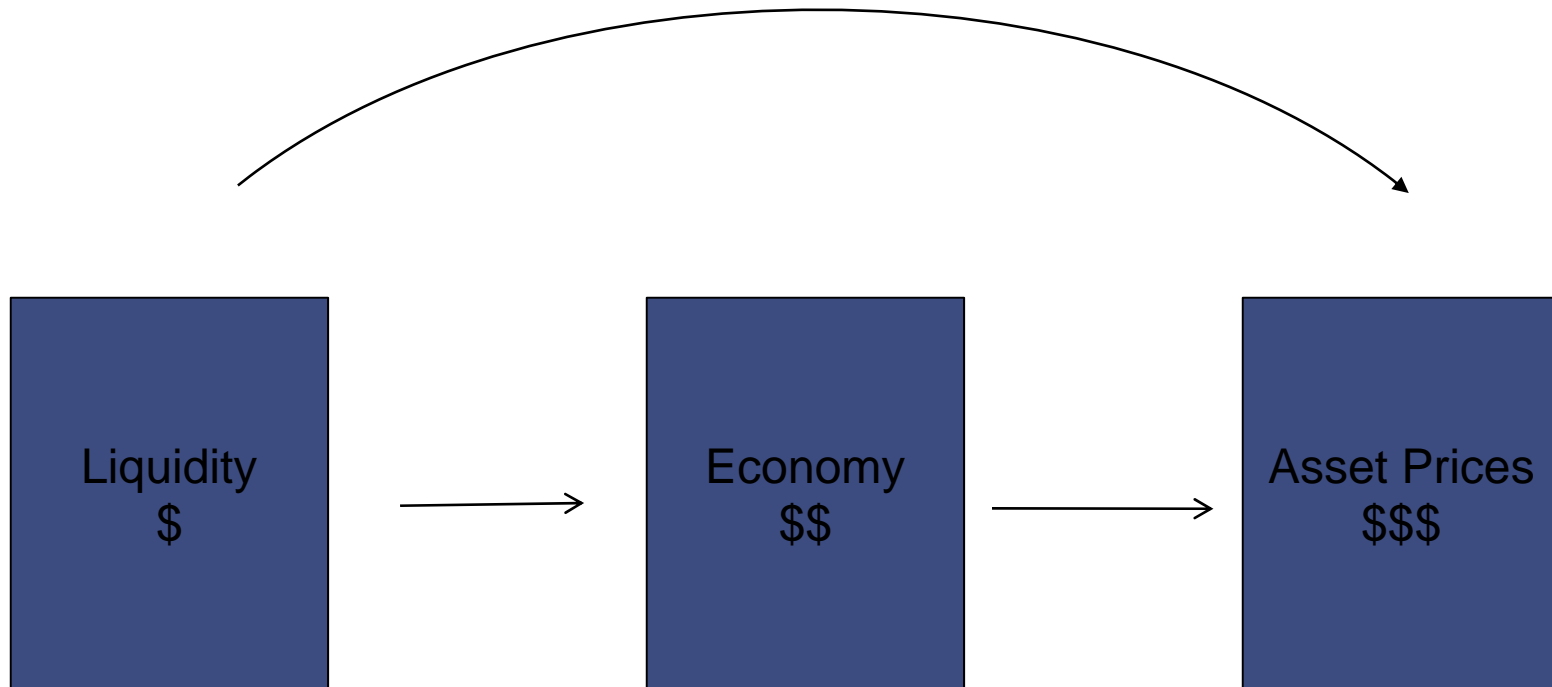
Treasury Securities



Expectations Driving Monetary Policy



But, Asset Prices are Going Higher!



Conclusions, Forecast, Questions

- Recovery underway
- Not a double dip, but...
- Not robust, seems to have stalled
- Issues remain
 - Excess capacity in work force
 - Job growth anemic
 - Consumer spending tepid
 - Residential real estate struggling
 - Damn bankers
- GDP growth middling, 2.0% - 2.5% for several quarters
- No rate hike until late 2011
- Inflation a long term concern
- Short term “escape velocity” is more important
- Less uncertainty now than this summer
- US will return to long run steady state...eventually



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But Our Great Expectations Have Become Modest

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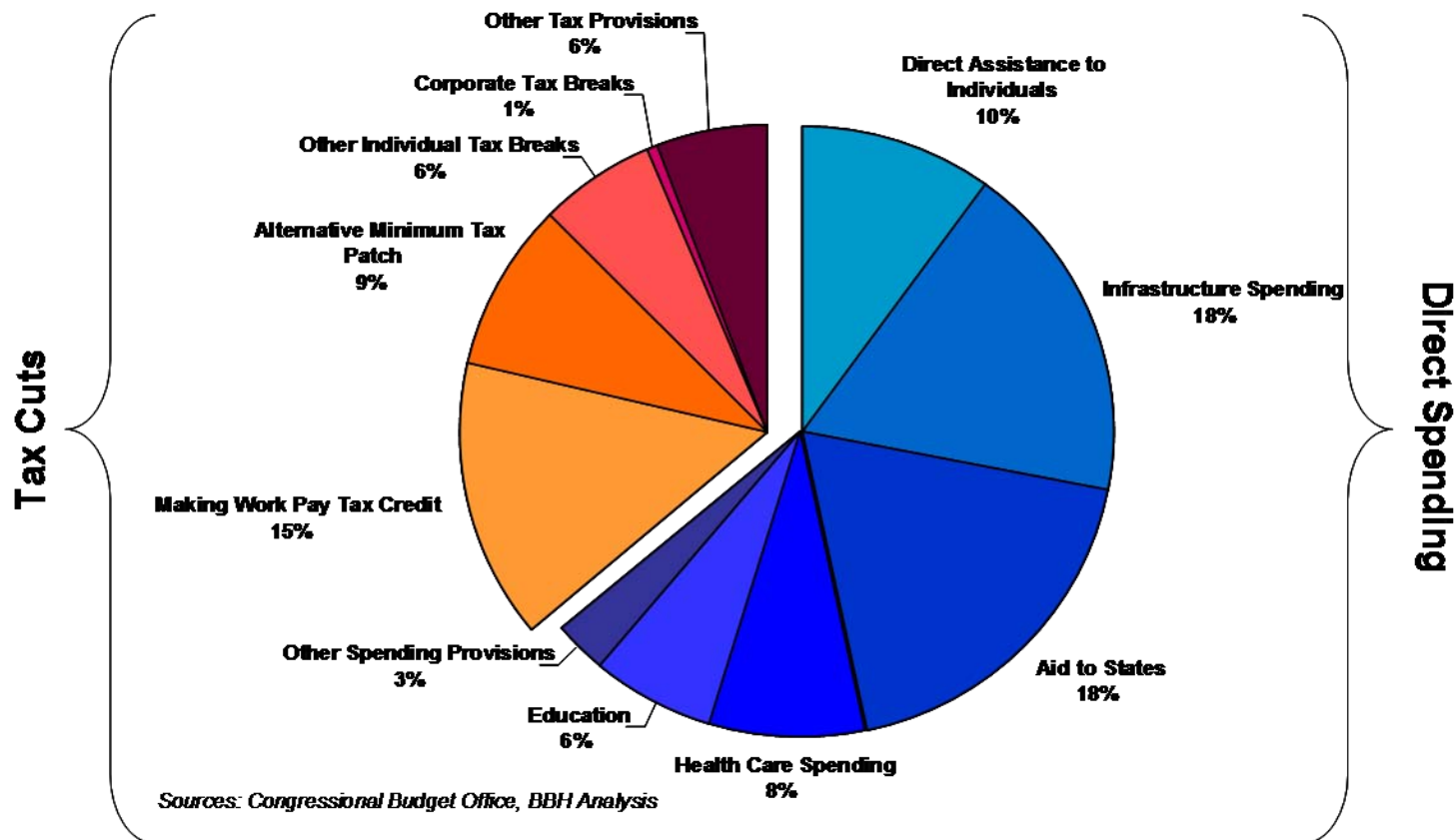
The Government Response: Fiscal

Uncle Sam Spent Us Out of the Depths

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American Recovery and Reinvestment Act of 2009

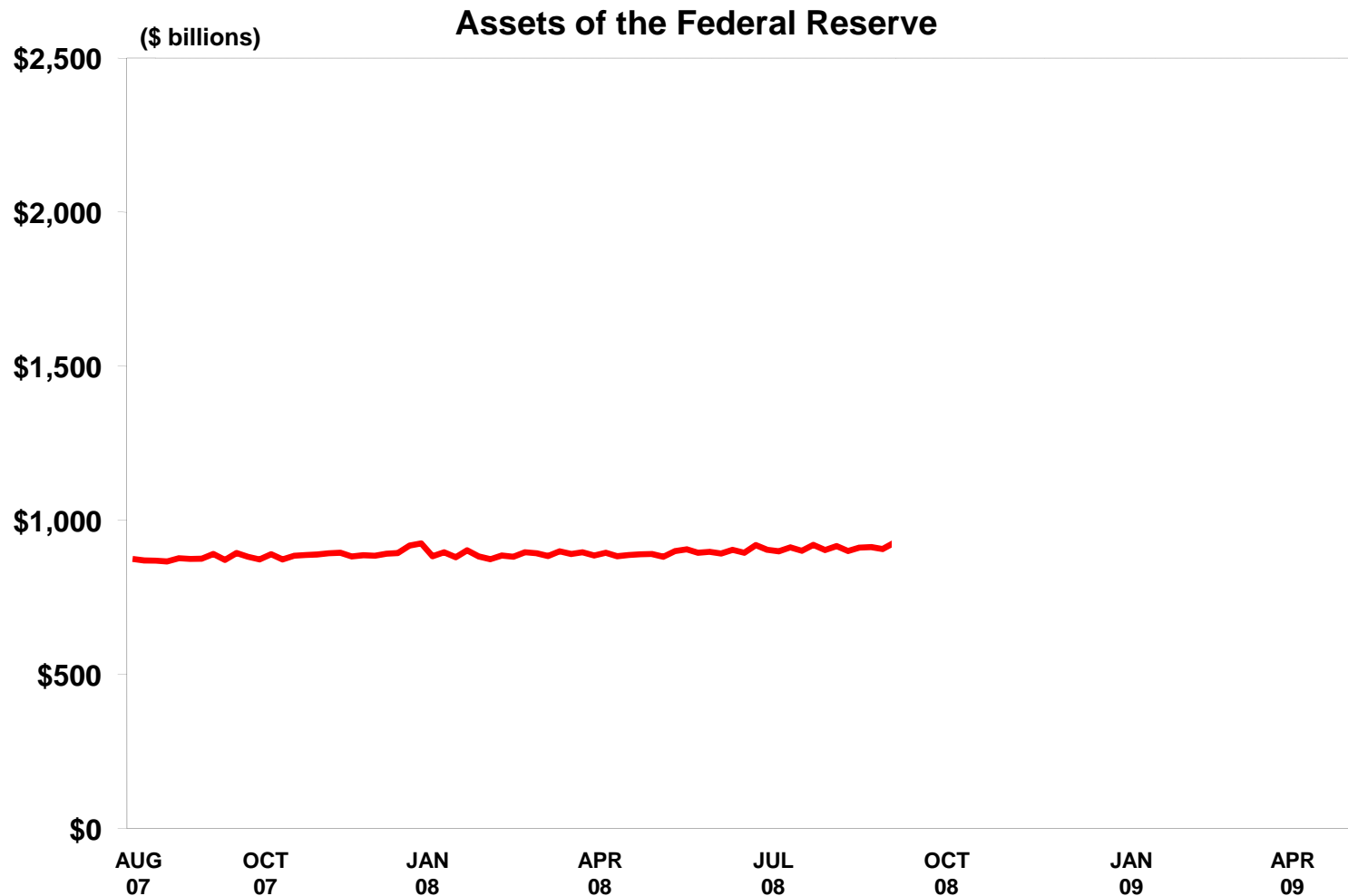
Breakdown of \$786 billion net spending



The Government Response: Monetary

A Bloated Balance Sheet at the Fed

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Deflation or Inflation

What's It Going to Be?

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INFLATIONARY PRESSURES

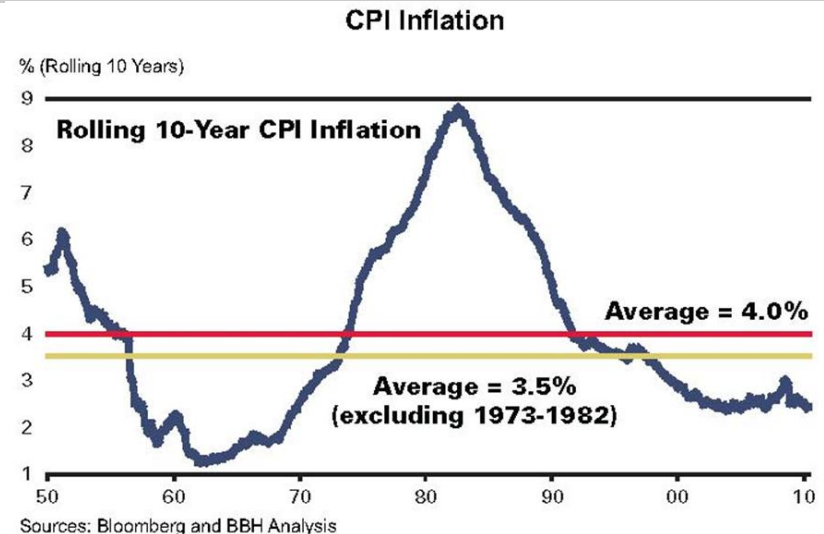
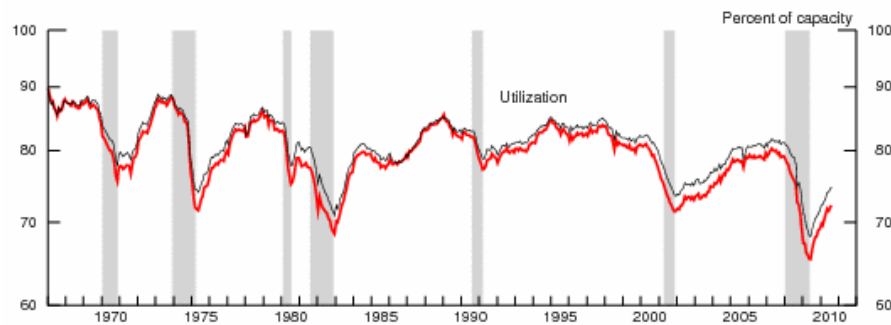
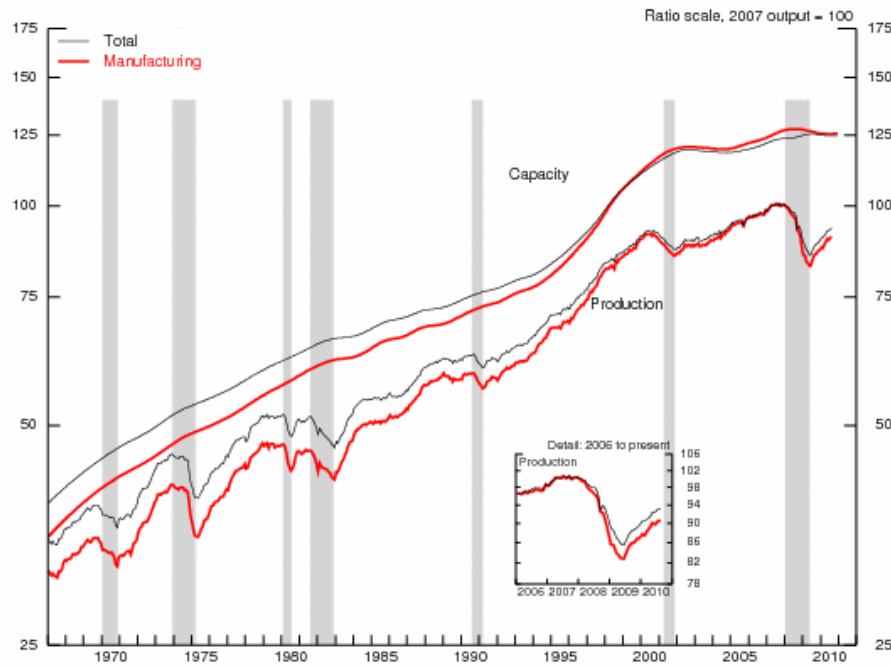
- Three Varieties of Inflation
 - Demand Pull Inflation
 - Wage-Price Inflation
 - Monetary Inflation
- Let's Assess Each One:
 - Are consumers spending money?
 - Are workers earning more money?
 - Is there more money in the system?
- US policy makers not as hawkish on inflation as European brethren

DEFLATIONARY PRESSURES

- Aging Population + Decimated Personal Balance Sheets + Increasing Savings Rates + “Deleveraging” + Hidden Asset Quality Problems at Banks + Perpetually Low Interest Rates = ?
- Sound Familiar?
 - Japan's lost decade
 - Similarities abound
- Policy makers more concerned about deflation at this stage in the recovery

Recent Trends are Deflationary

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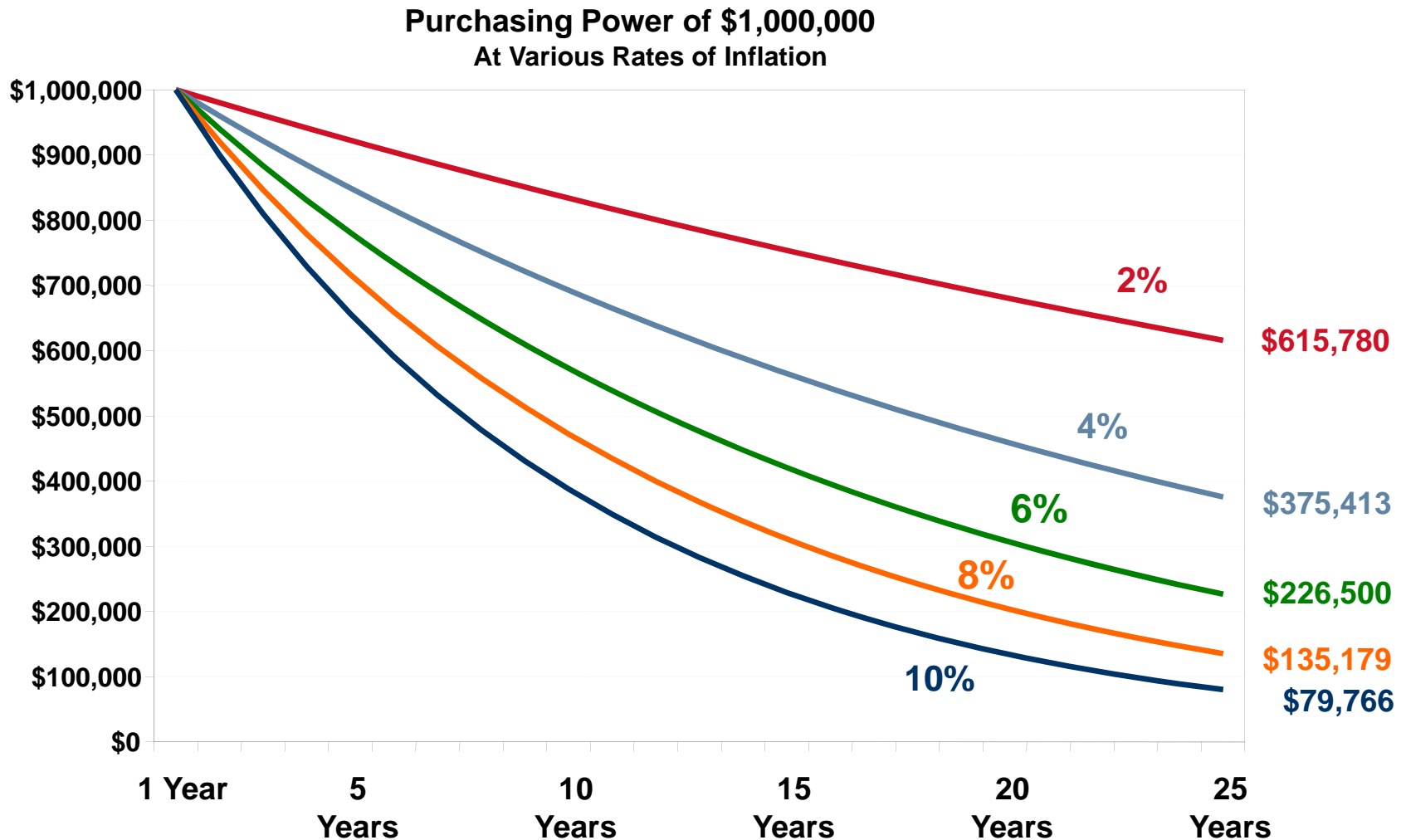


- Data does not point to inflation concern nor rate hike
- Full employment must return first
- Rate hike unlikely for balance of 2010 and much of 2011
- What else can they do?

The Threat of Inflation

A Silent Thief of Value

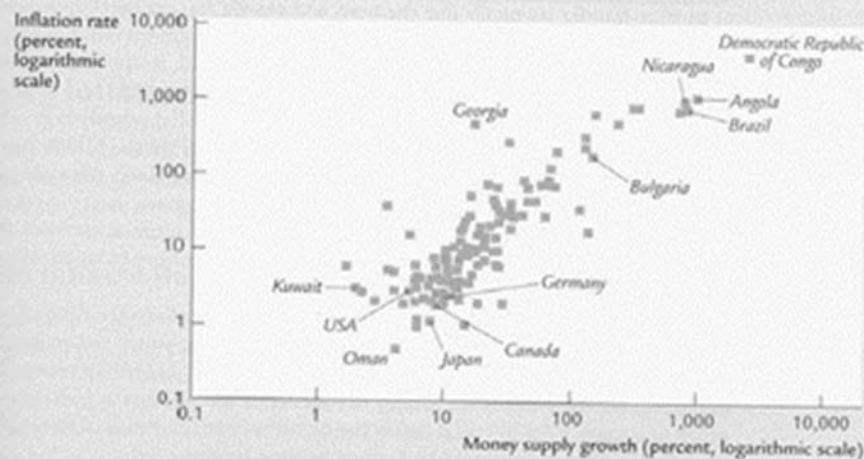
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Correlation: Money Supply and Inflation

International Evidence on Money Growth and Inflation

Figure 4-2



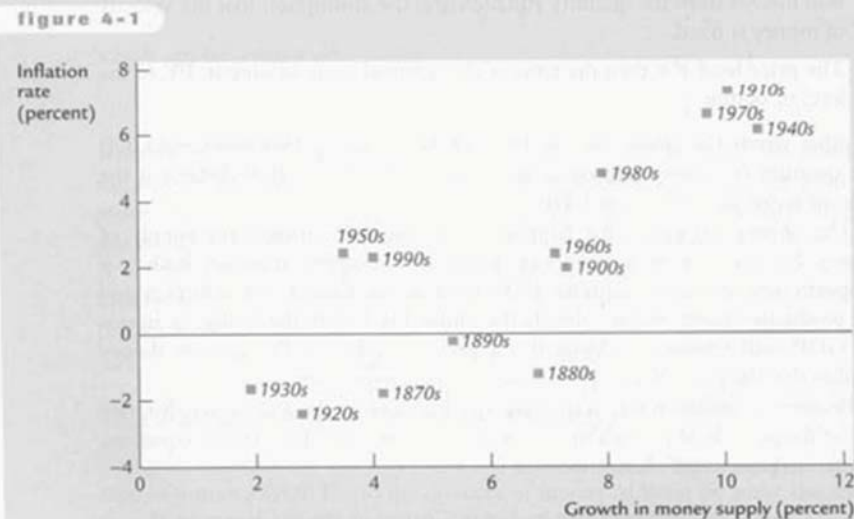
International Data on Inflation and Money Growth In this scatterplot, each point represents a country. The horizontal axis shows the average growth in the money supply (as measured by currency plus demand deposits) during the 1990s, and the vertical axis shows the average rate of inflation (as measured by the GDP deflator). Once again, the positive correlation is evidence for the quantity theory's prediction that high money growth leads to high inflation.

Source: International Financial Statistics.

Graph from:
Macroeconomics,
N. Gregory
Mankiw, 5th
edition, 2003.

Money Supply and Inflation

Money Growth and Inflation in the U.S. by Decade Since 1870



Historical Data on U.S. Inflation and Money Growth In this scatterplot of money growth and inflation, each point represents a decade. The horizontal axis shows the average growth in the money supply (as measured by M2) over the decade, and the vertical axis shows the average rate of inflation (as measured by the GDP deflator). The positive correlation between money growth and inflation is evidence for the quantity theory's prediction that high money growth leads to high inflation.

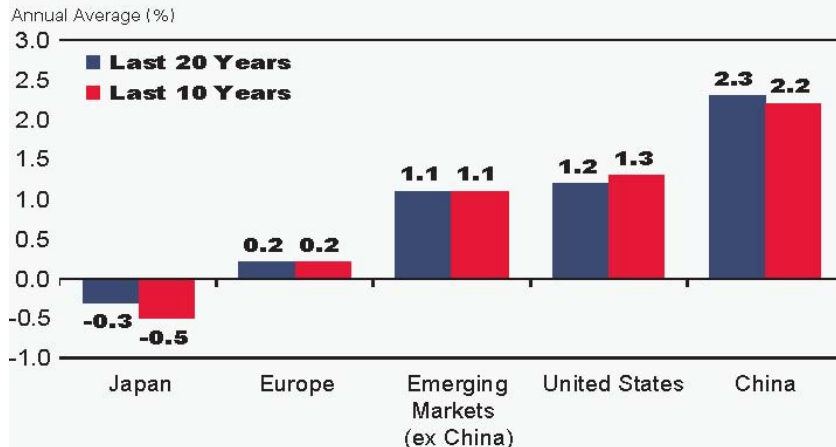
Source: For the data through the 1960s: Milton Friedman and Anna J. Schwartz, *Monetary Trends in the United States and the United Kingdom: Their Relation to Income, Prices, and Interest Rates, 1867-1975* (Chicago: University of Chicago Press, 1982). For recent data: U.S. Department of Commerce, Federal Reserve Board.

Graph from:
Macroeconomics, N.
Gregory Mankiw, 5th
edition, 2003.

US Still Has a Growing Labor Force

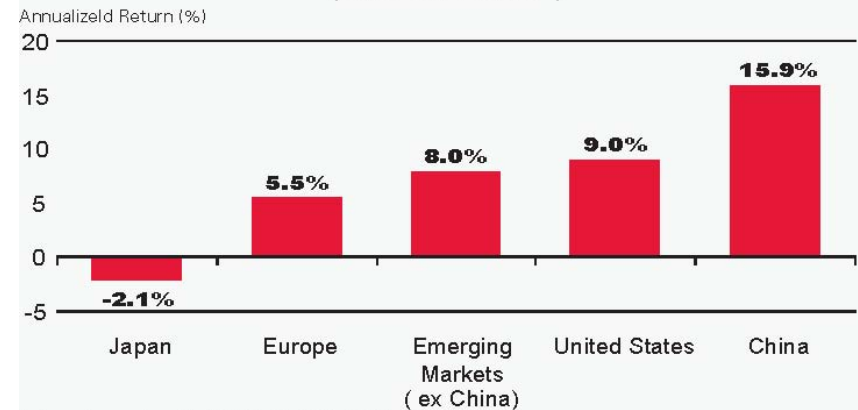
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Labor Force Growth



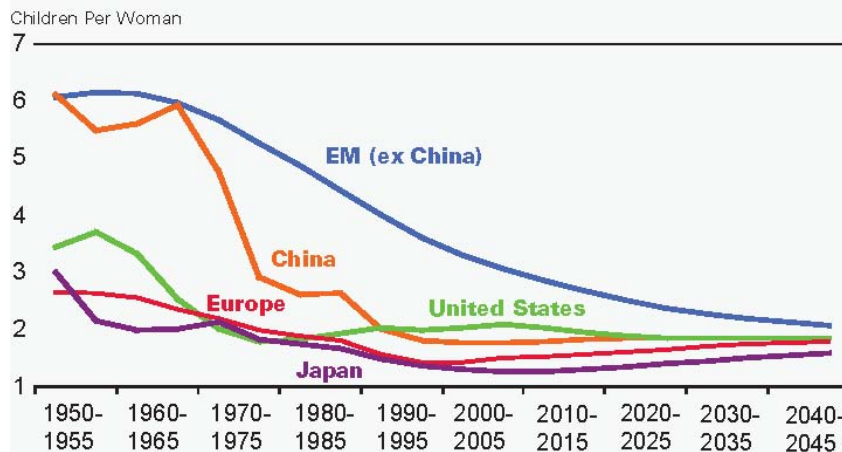
Sources: United Nations World Population Prospects: 2008 and BBH Analysis

Historical Return Hierarchy (Last 20 Years*)



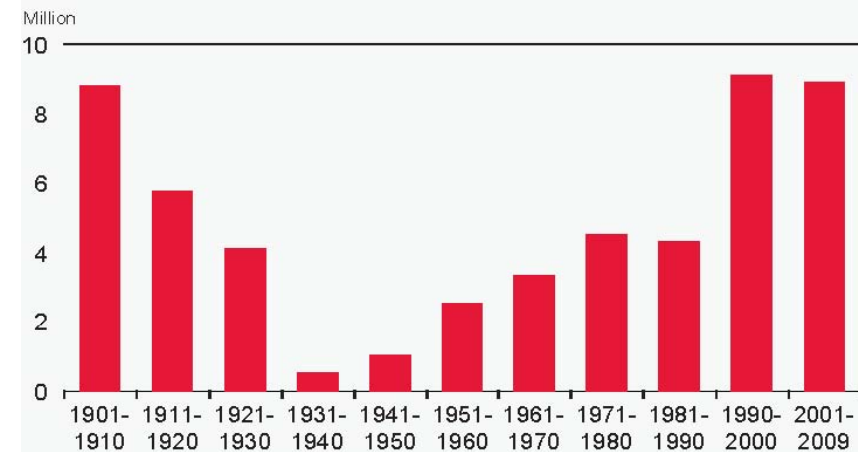
* From December 31, 1990 to April 30, 2010
Sources: Bloomberg and BBH Analysis

Fertility Rates Around the World



Sources: United Nations World Population Prospects: 2008 and BBH Analysis

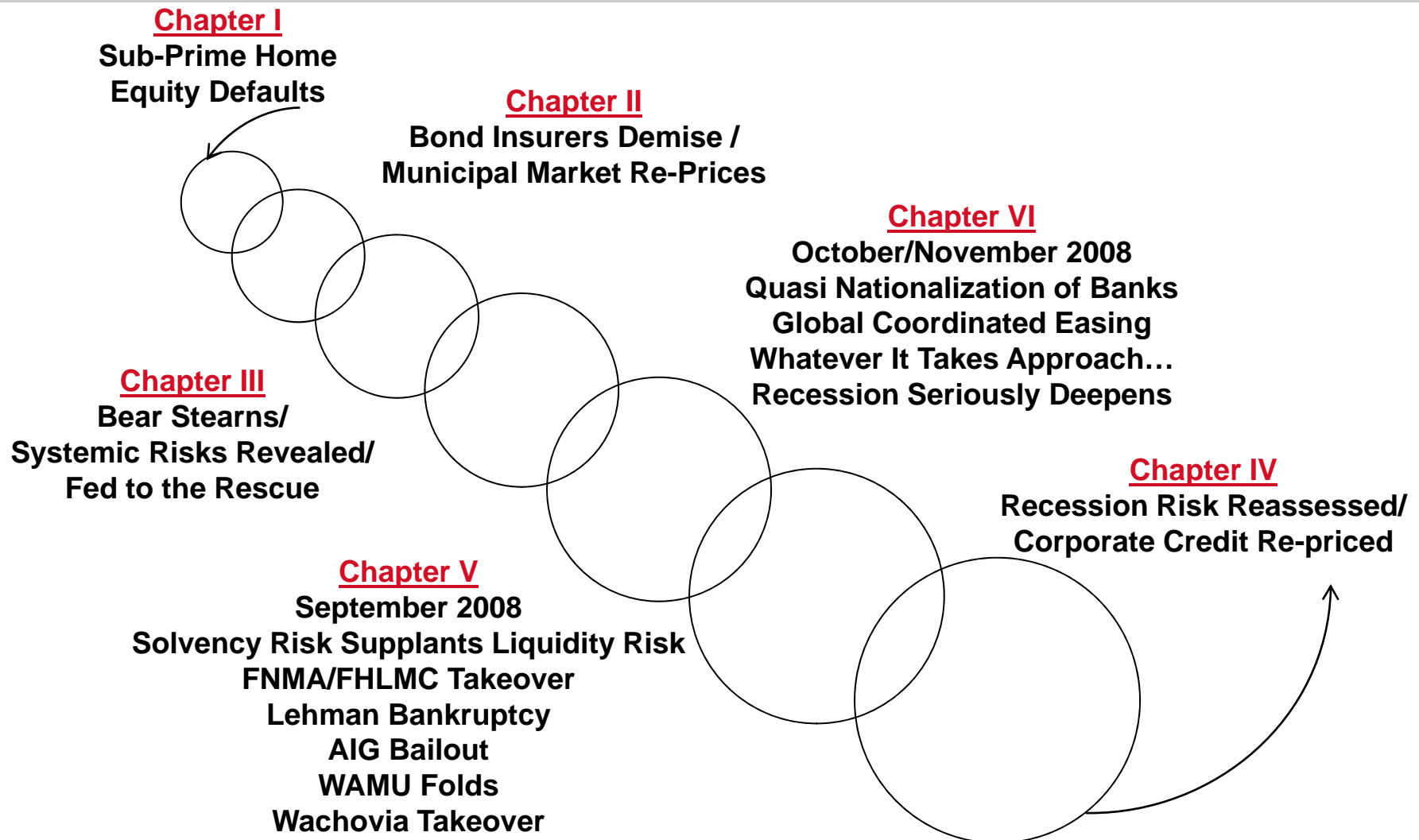
U.S. Immigration By Decade



Sources: U.S. Census Bureau and BBH Analysis

A Crisis in Six Acts...

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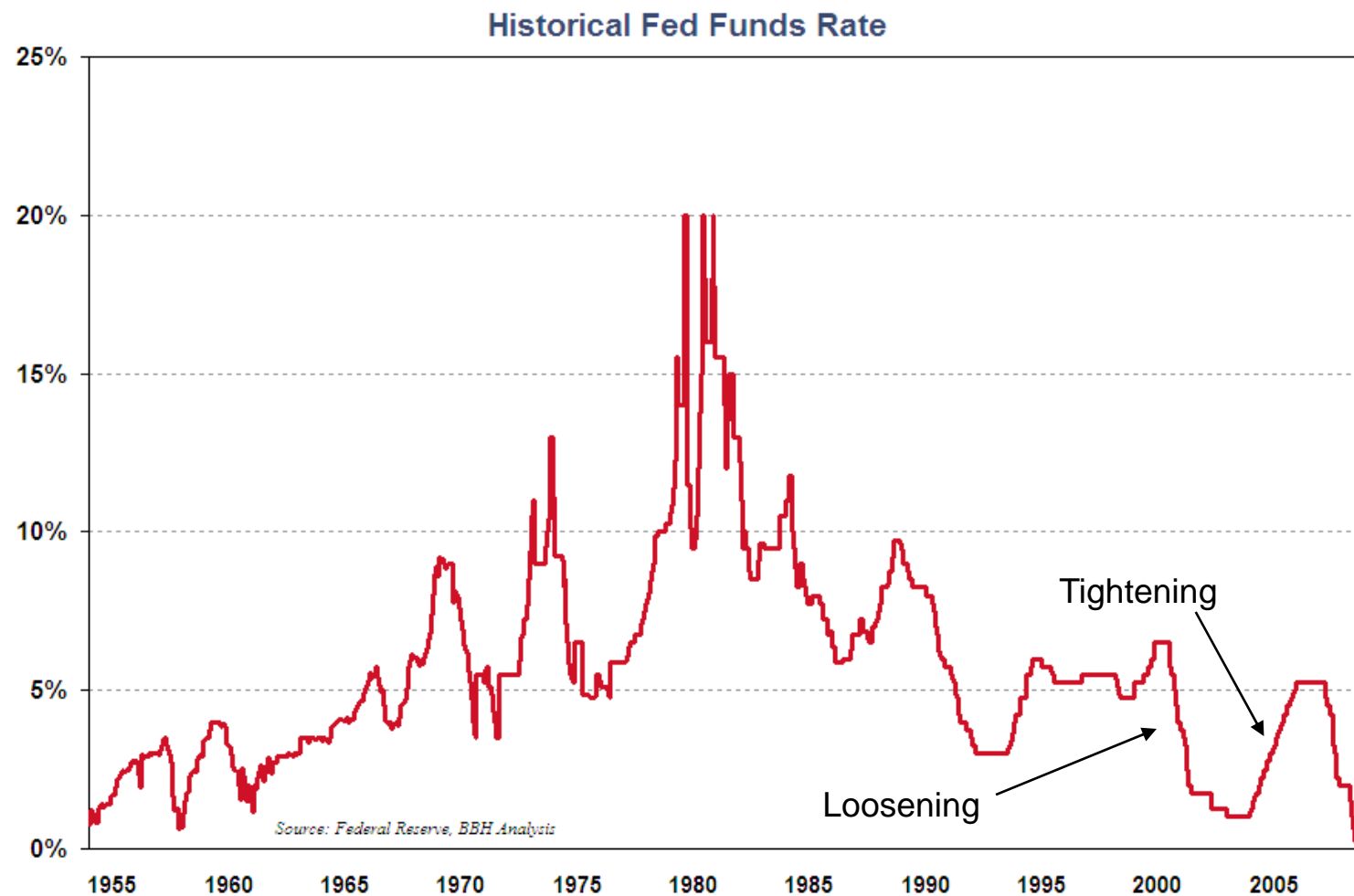
The Great “De-Leveraging” Saga

- Societal Addiction To Debt
- We Went Cold Turkey
- Five Legs Of US “Debt Table” Were Kicked Out From Underneath Us
 - Destruction Of Bank Capital
 - Loss Of Faith In The Creditworthiness Of Financial Institutions
 - Downsizing Of Securitization
 - Destruction Of The Money Market Industry
 - Shrinking Of Hedge Fund Commitments

How On Earth Did We Get Here?

The Role of Monetary Policy

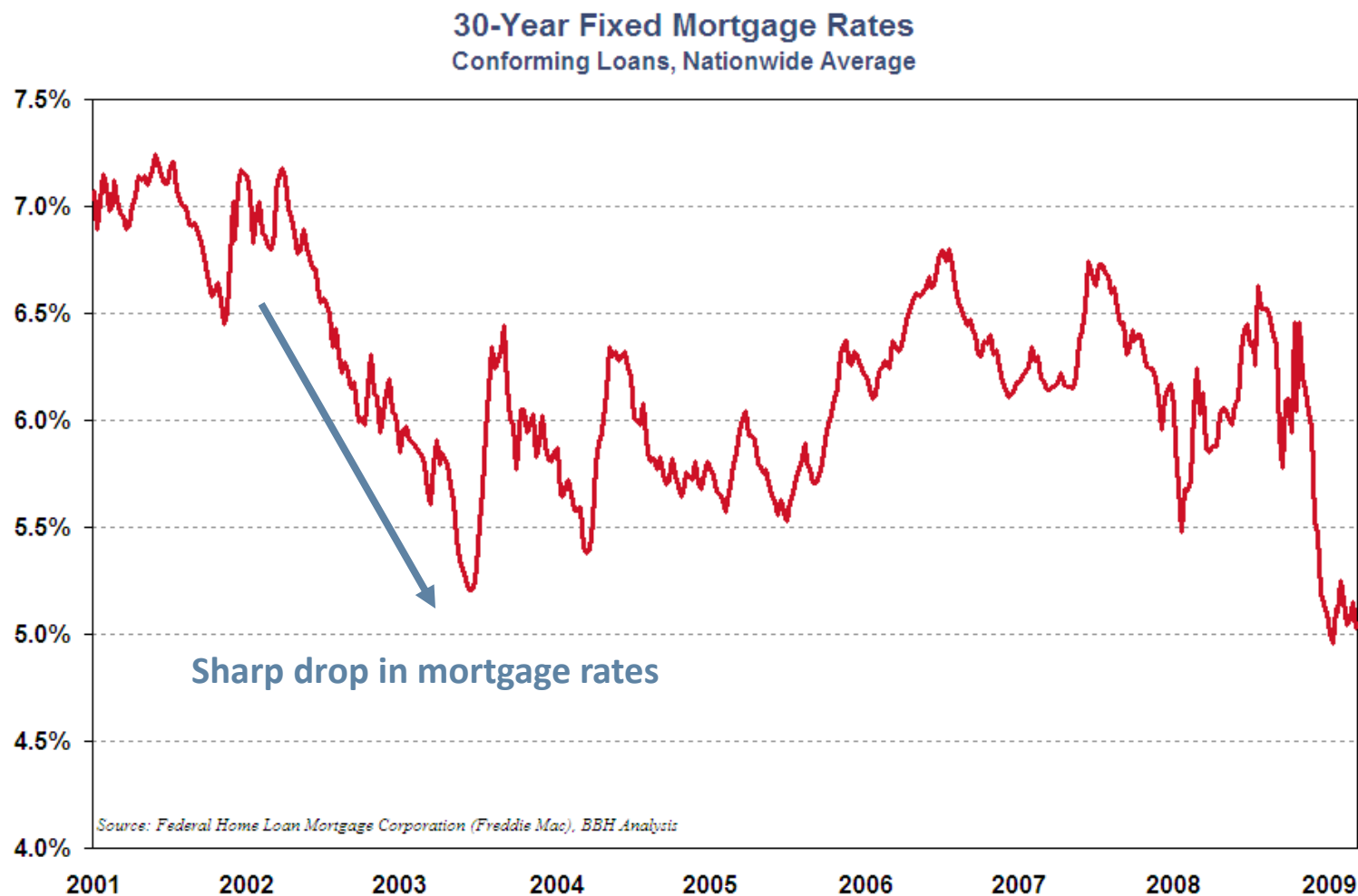
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Mortgage Rates Remained Stubbornly Low

Chairman Greenspan's "Conundrum"

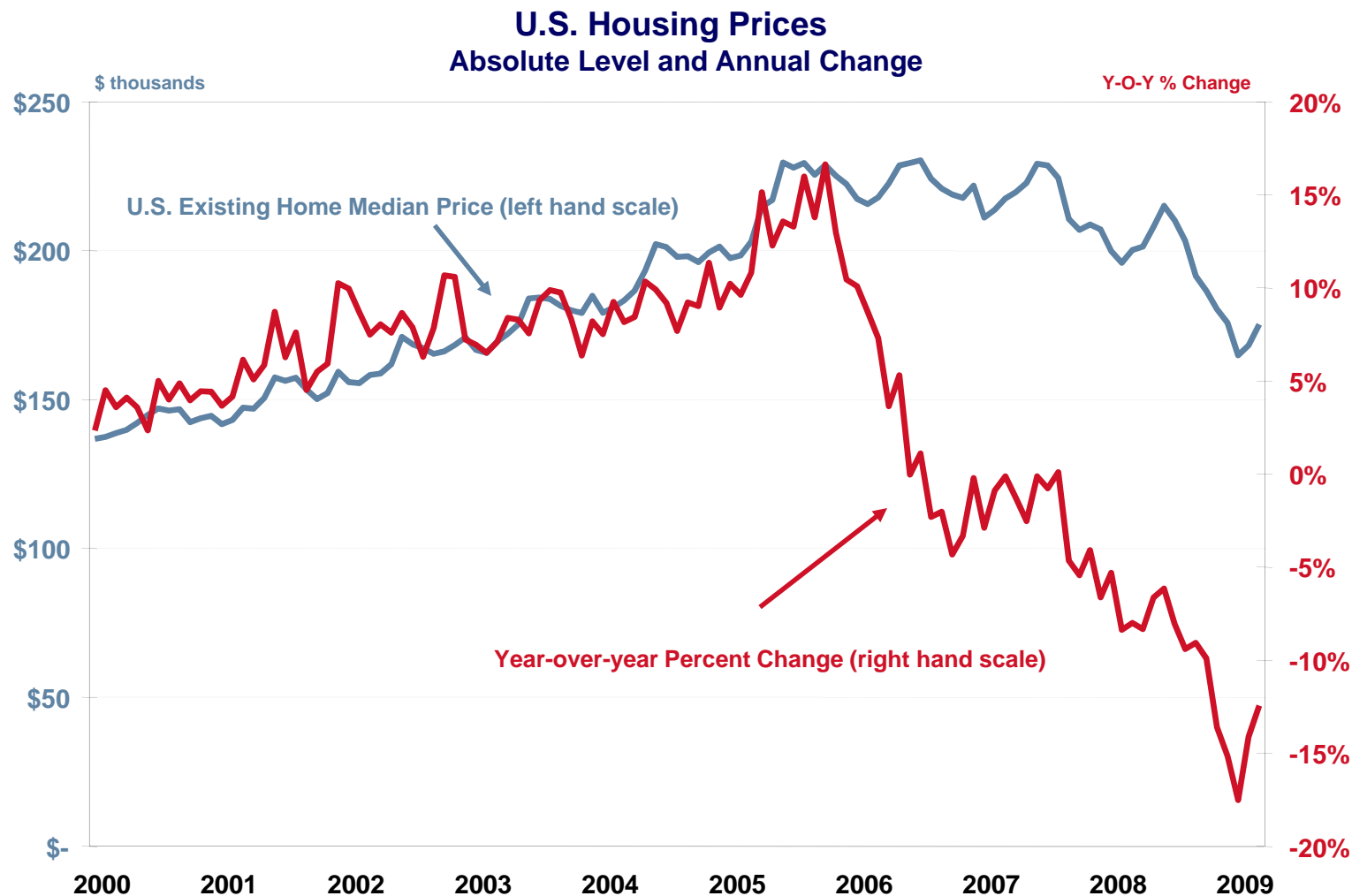
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Housing Market: Too Much of a Good Thing

Stein's Law Stupid!

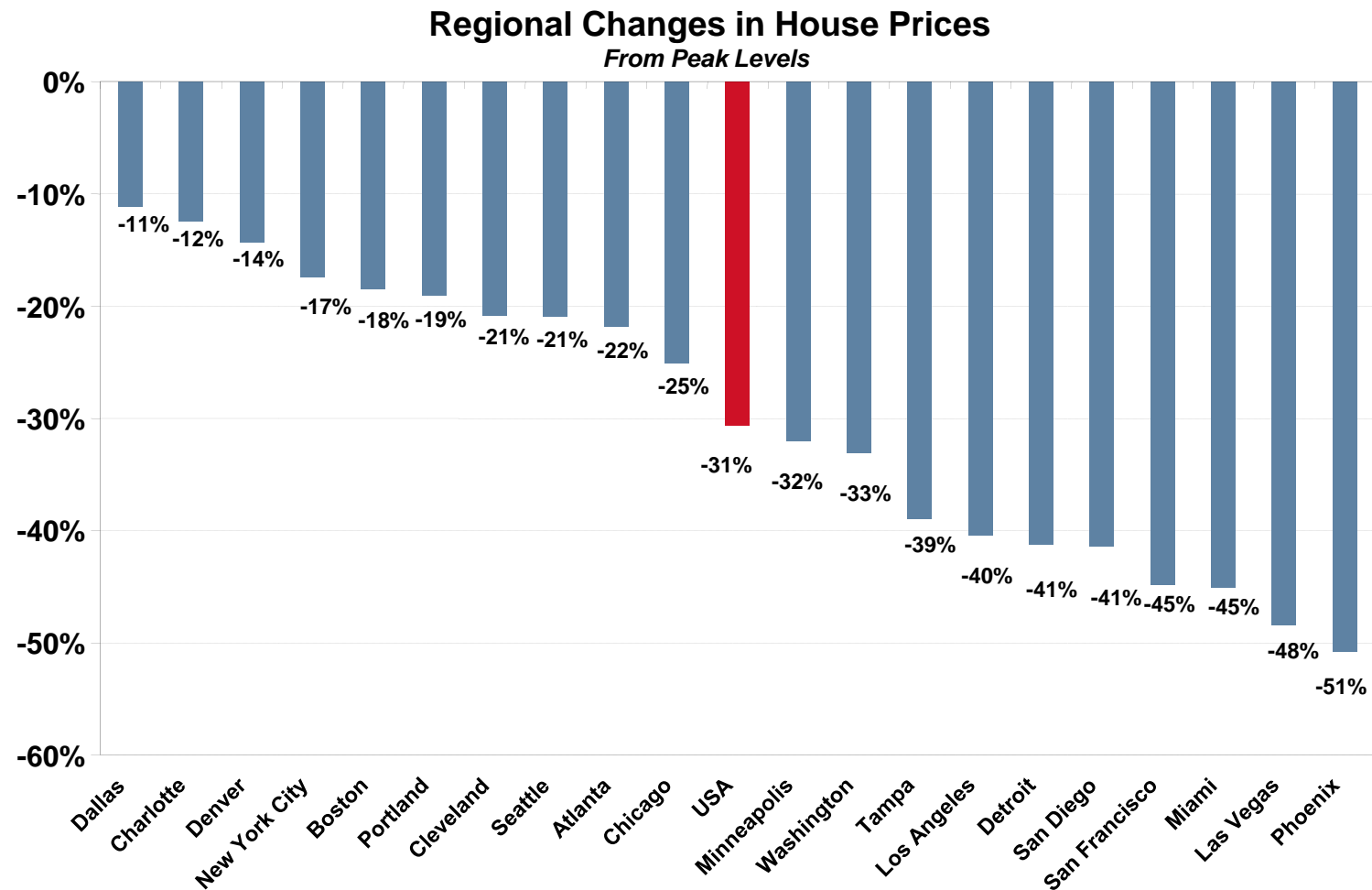
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Housing Trends

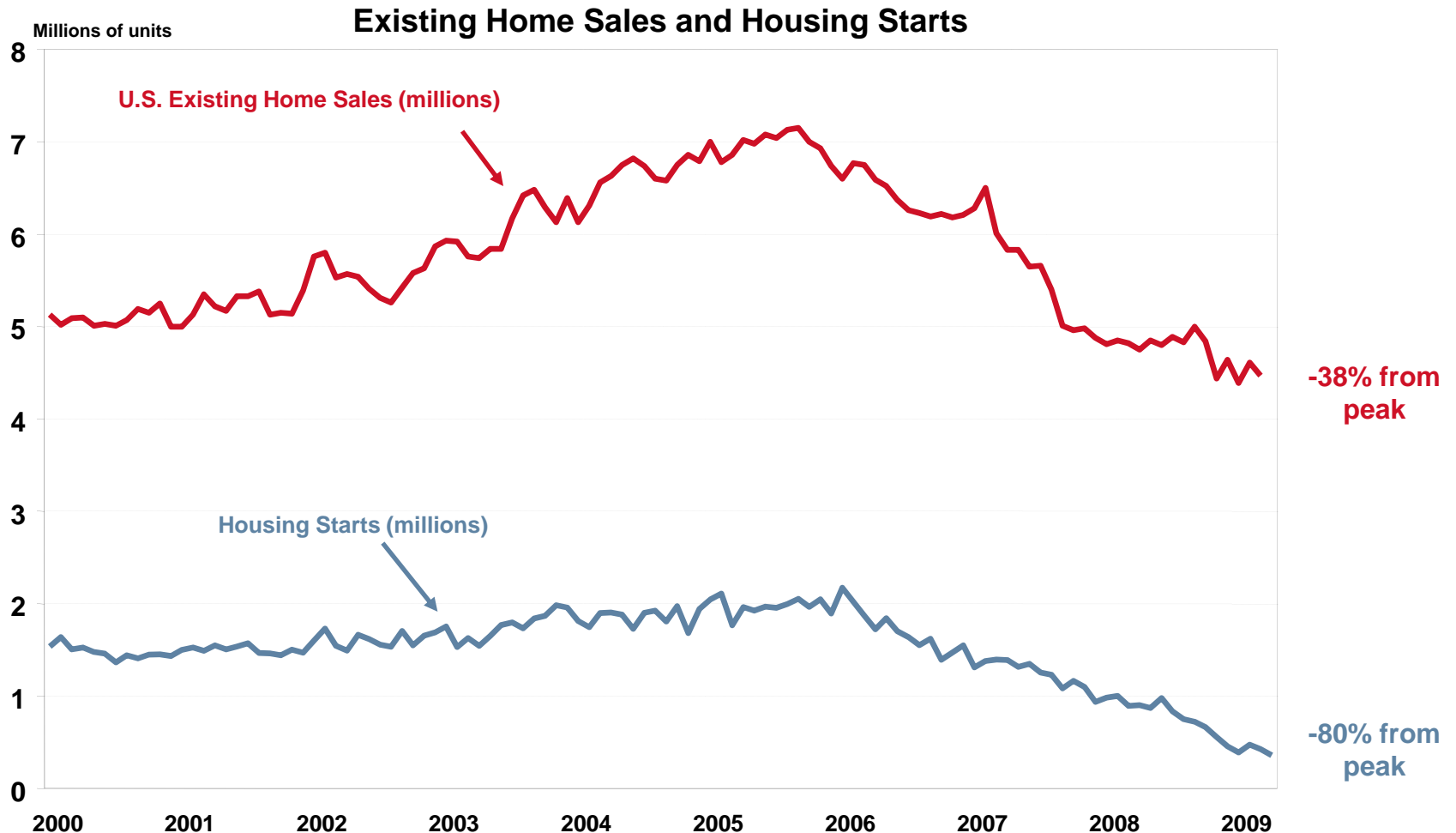
From Bad To Worse

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Want the Bad News or the Bad News?

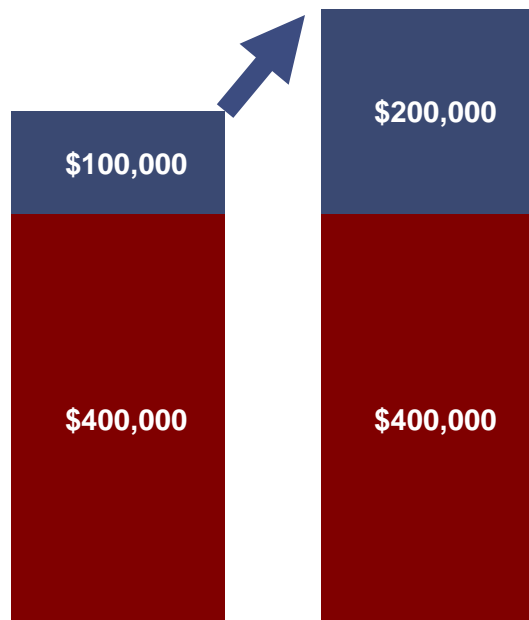
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The Impact of Leverage

An Example from the Housing Market

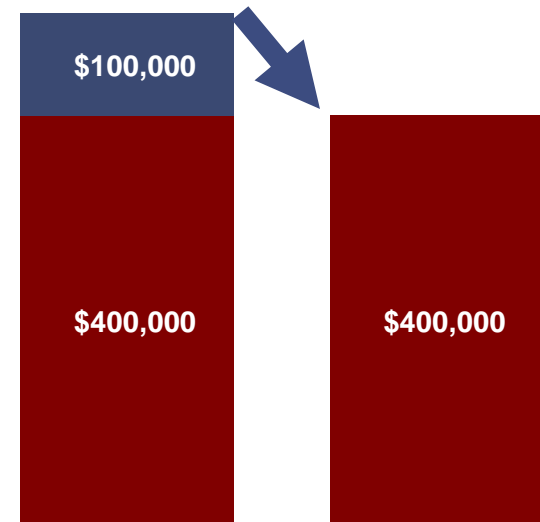
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20% increase in house price
=
100% increase in equity

E Q U I T Y

D E B T



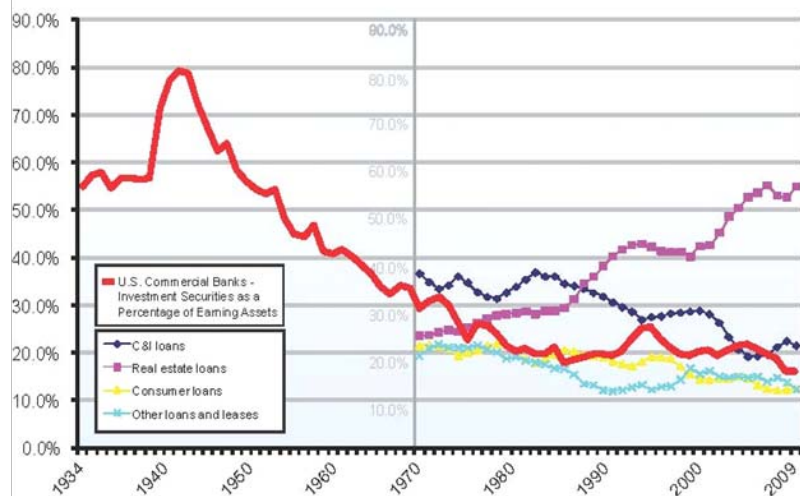
20% decrease in house price
=
100% decrease in equity

Look at Both Sides of the Ledger

Warning Signs

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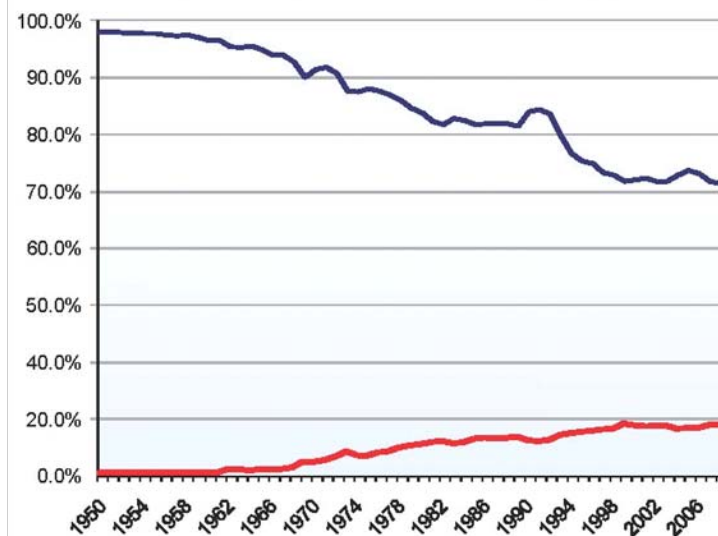
U.S. BANKS – LOAN COMPOSITION BY CATEGORY – 1970 to 2009



Sources: Federal Reserve and Federal Deposit Insurance Corporation (FDIC)

U.S. BANKS – DEPOSITS AS A PERCENTAGE OF TOTAL LIABILITIES – 1950 TO 2008

U.S. BANKS – BORROWINGS AS A PERCENTAGE OF EARNING ASSETS – 1950 TO 2008

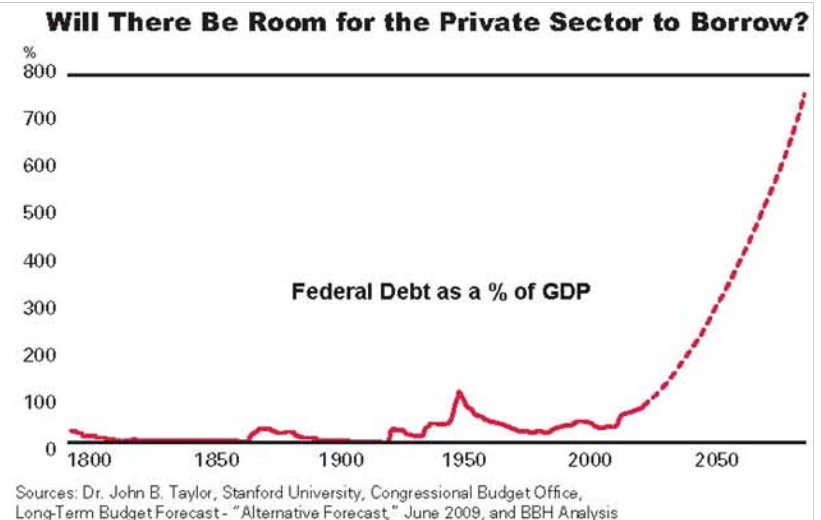
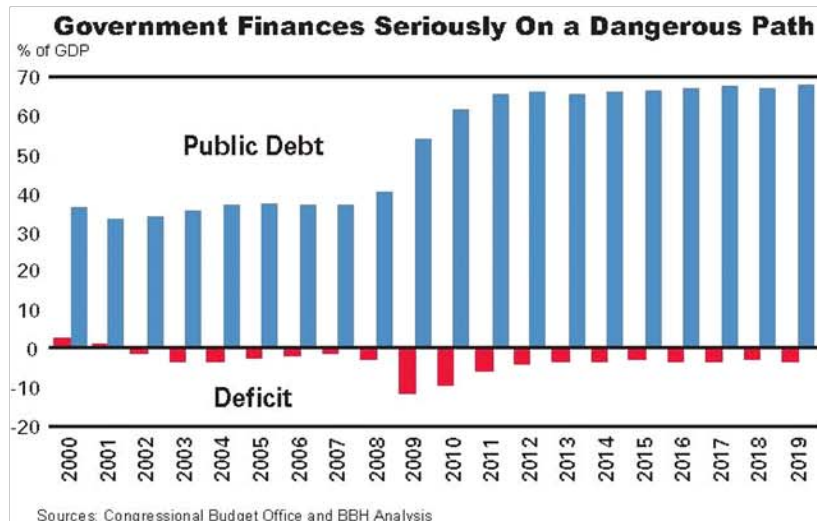


Sources: Federal Deposit Insurance Corporation (FDIC)

Government Finances

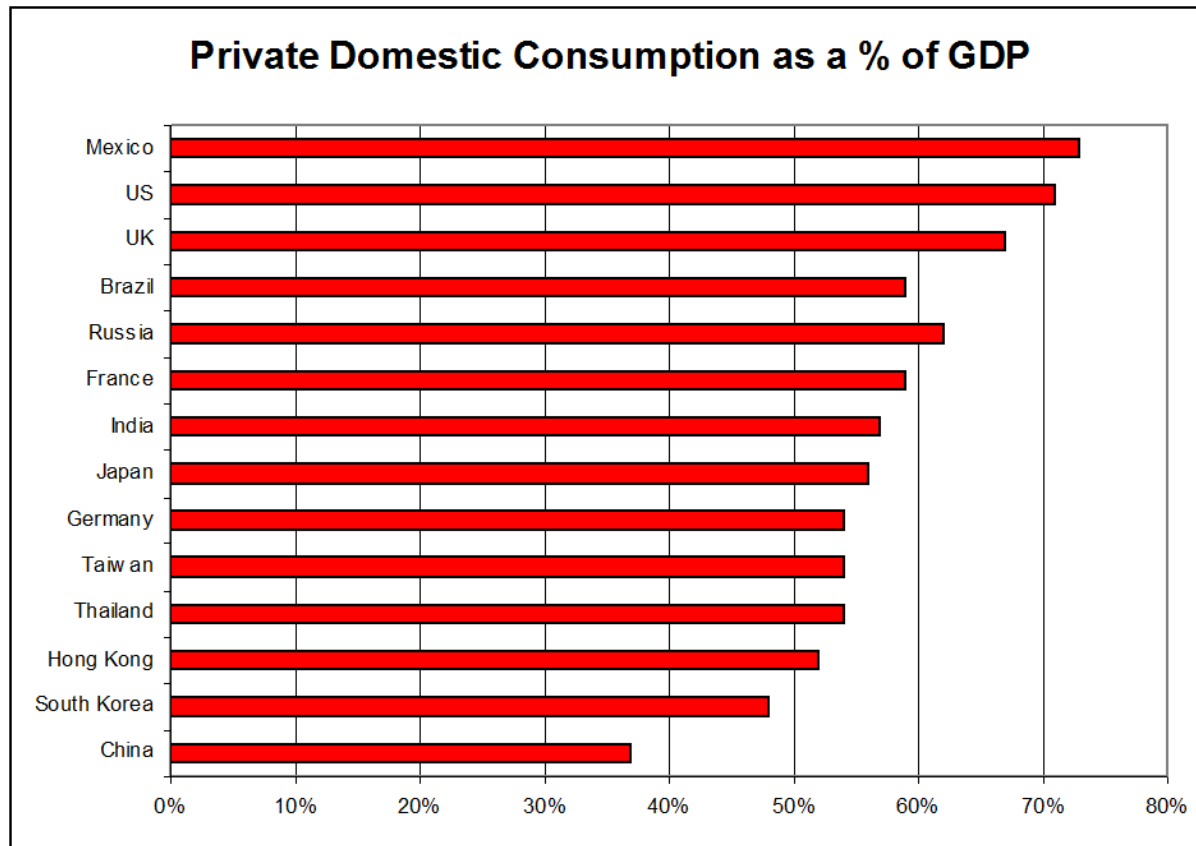
On a Dangerous Path – Headwind Number Four?

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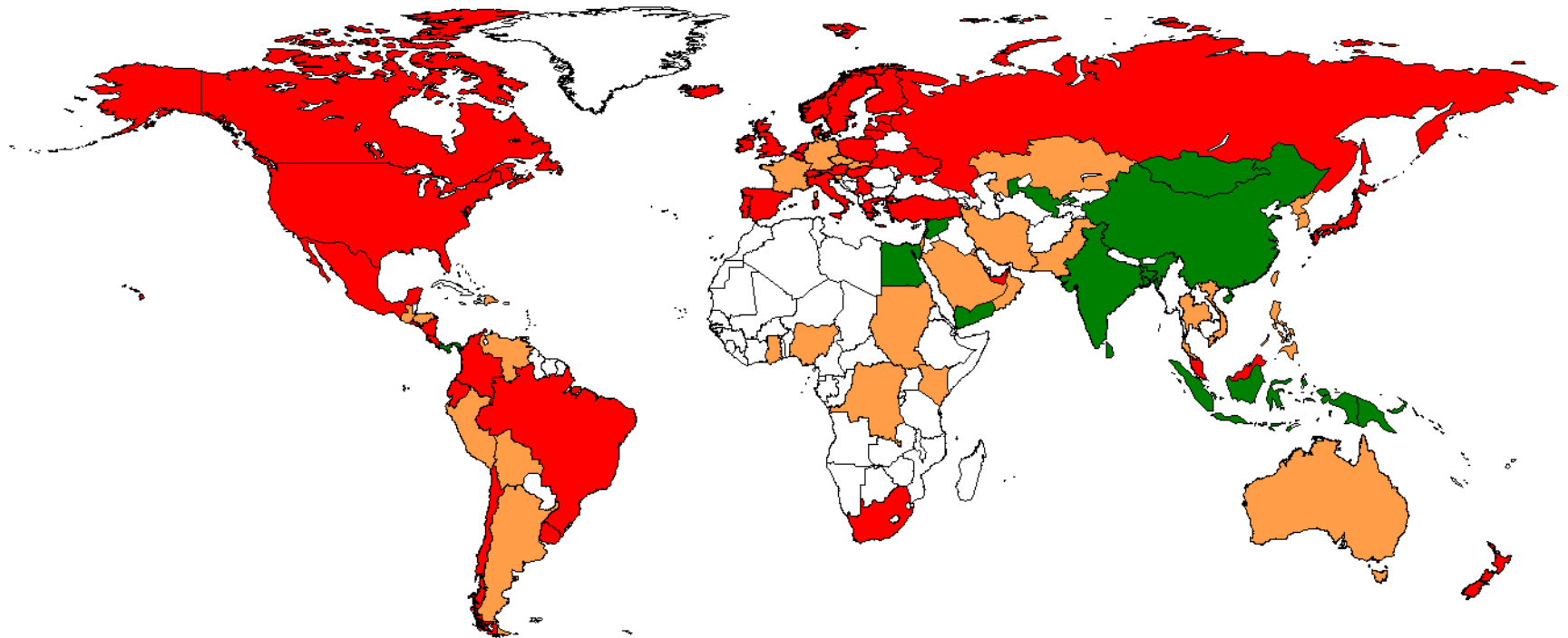
A “Jobless Recovery” Will Hurt...

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...Some More than Others

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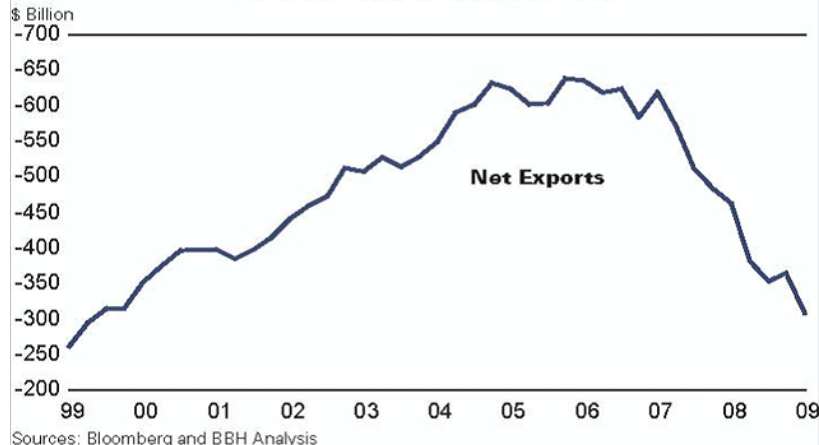
As of August 2009
Source: Moody's Economy.com

- In Recession
- At Risk
- Expanding

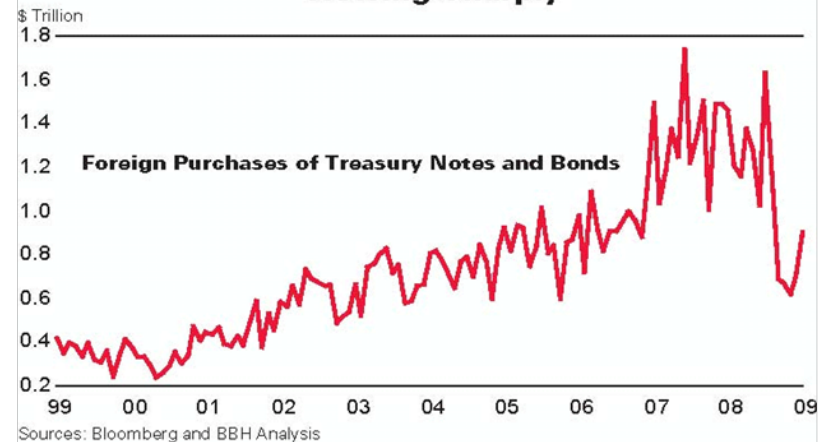
The Opposite of Greenspan's Conundrum

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**Sharp Improvement Underway
In the U.S. Trade Deficit**



**Foreign Purchases of U.S. Treasuries
Slowing Sharply**



Private Sector Appetite for Treasuries Is Quite Low



Inflation:

Our Most Pressing Long Term Concern

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Key Linkages Driving Inflation Expectations

**Massive US
Treasury Issuance**

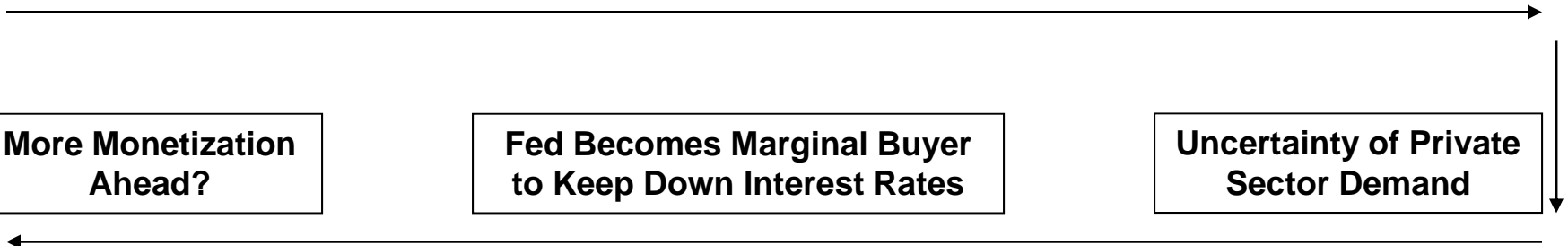
**Slowing Treasury Purchases by
Foreign Central Banks**

**Domestic Investors Must
Absorb New Issuance**

**More Monetization
Ahead?**

**Fed Becomes Marginal Buyer
to Keep Down Interest Rates**

**Uncertainty of Private
Sector Demand**



Implications for Business Managers

It's a "Brave New World," Assess Bank Risk

- Quality of Management
 - As Warren Buffett Said...
 - Beware Aggressive Growth Targets
- Strong Deposit Franchise – Affects a Bank's Cost of Money
- Look at High Return on ASSETS
 - ROE Can Be Manipulated
 - The Best Operations Achieve 2%
- Earnings Power
 - Pre-Tax, Pre-Provision Return on the Loan Book
 - 4% is a Good Number
- Simplicity of Business Model – Remember Enron?
- Strong Capital Base
 - Remember When there were Investment Banks?
 - How Hard Are They Working Their Capital?

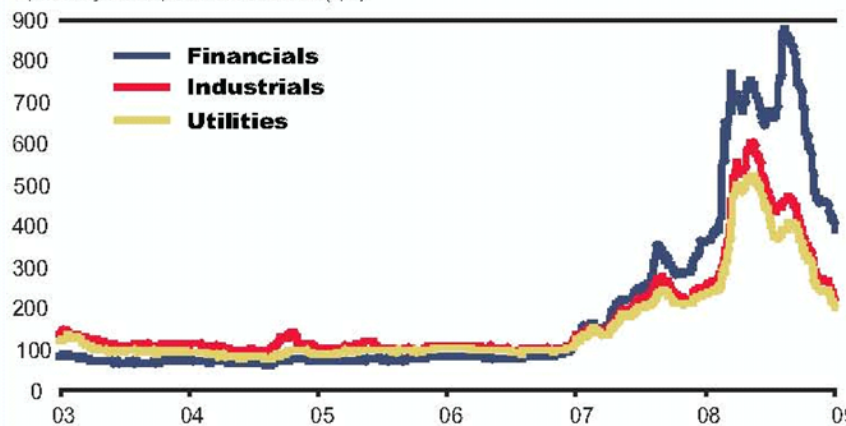
The Threat of Inflation

A Higher Cost of Money

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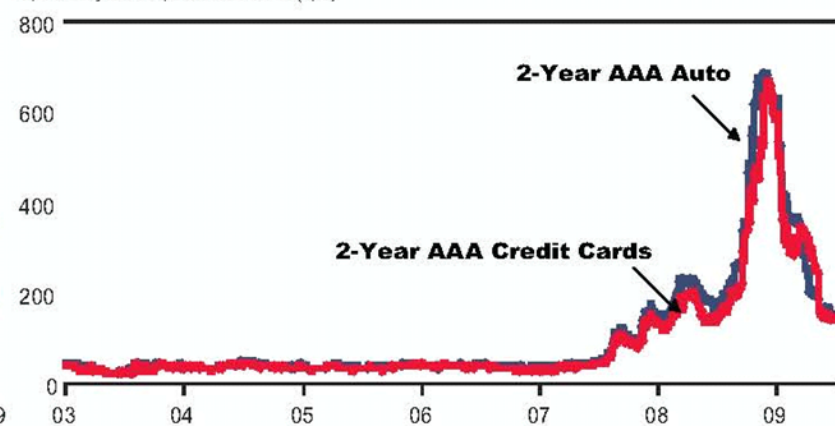
High Quality Corporate and Consumer Asset-Backed Spreads Have Declined Sharply, But Remain Well Above Historic Norms

Option Adjusted Spread to Treasuries (bps)



Sources: Bloomberg and BBH Analysis

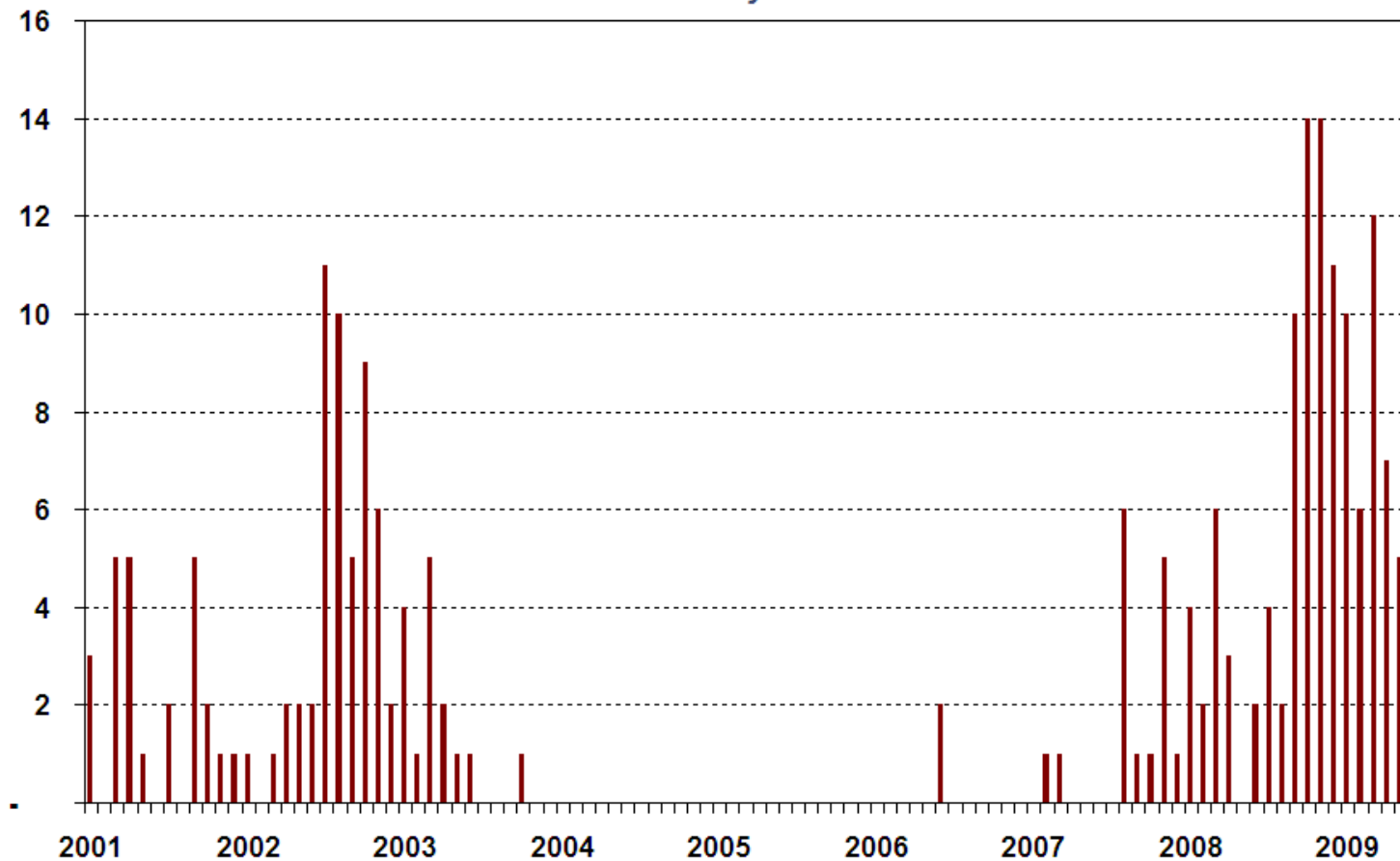
Option Adjusted Spread to LIBOR (bps)



Sources: Merrill Lynch and BBH Analysis

Increased Market Volatility

Number of Trading Days with 2% Moves
Monthly



BBH Equity Portfolios

Sample Holdings

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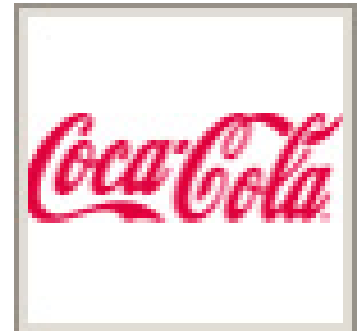
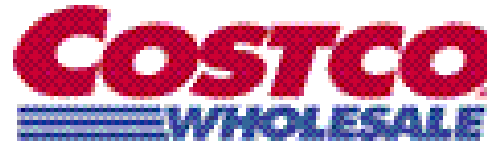
LIBERTY MEDIA CORPORATION



BERKSHIRE HATHAWAY INC.



For better dentistry



The Risk of Market Timing

Nominal Value of \$1 Invested from 1990-2008

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The Shape of the US Economic Recovery

Navigating Today's Economic Environment

Michael L. Vellucci
Senior Vice President
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