

Investment Economics

CDIAC Advanced Concepts and Practices for Investing Public Funds

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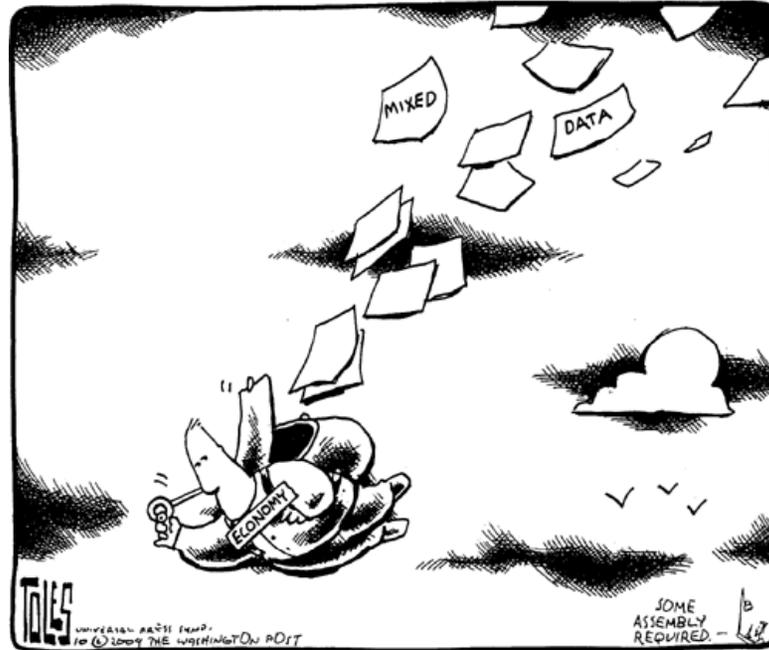


to·tem·ic \tō-'tem-ik\ *adj* archetypal, fundamental [from *totem* (literally, an object serving as the emblem of a family or clan; figuratively, a root truth or most basic form)]



Topics to Be Covered

- Overview of Financial Markets and the Economy
- Opportunities in the Current Market
 - Investment Pools
 - Steep Yield Curve
- Applying Basic Investment Principles to Your Portfolio



Overview of Financial Markets and the Economy



The Nature of Bubbles





Tulip Mania

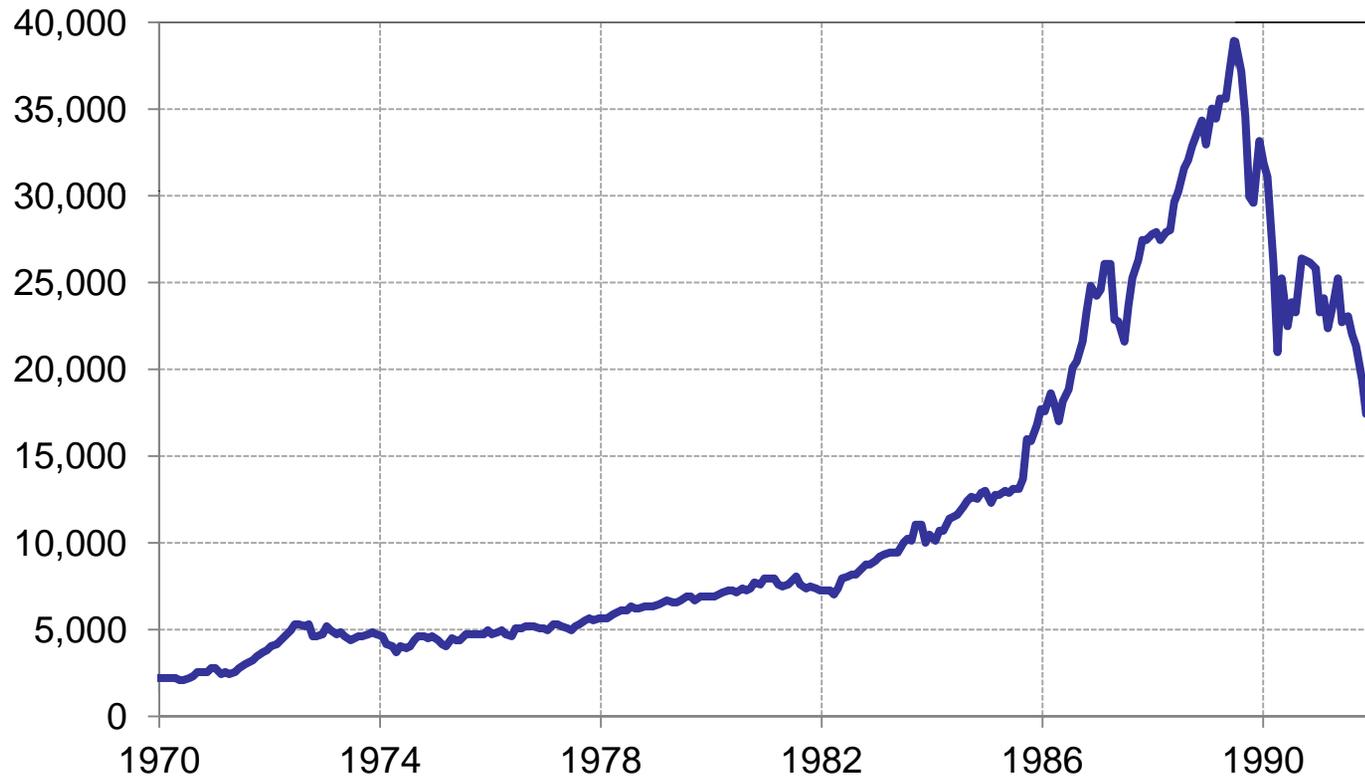


Source: Earl A. Thompson, Professor of Economics, UCLA



Japanese Stock Market Bubble

Nikkei-225 Stock Average
1970 - 1992

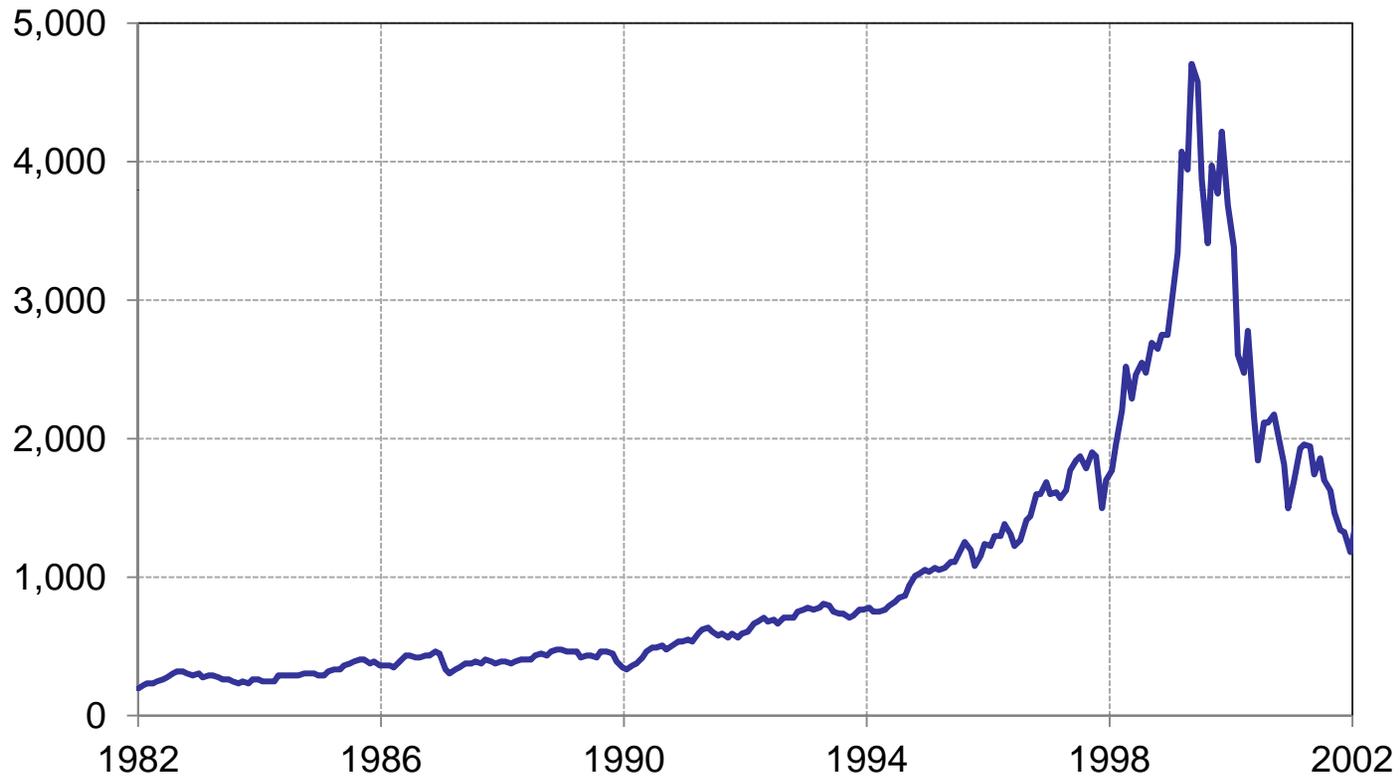


Source: Bloomberg



Dot-Com Bubble

NASDAQ Composite
1982 - 2002

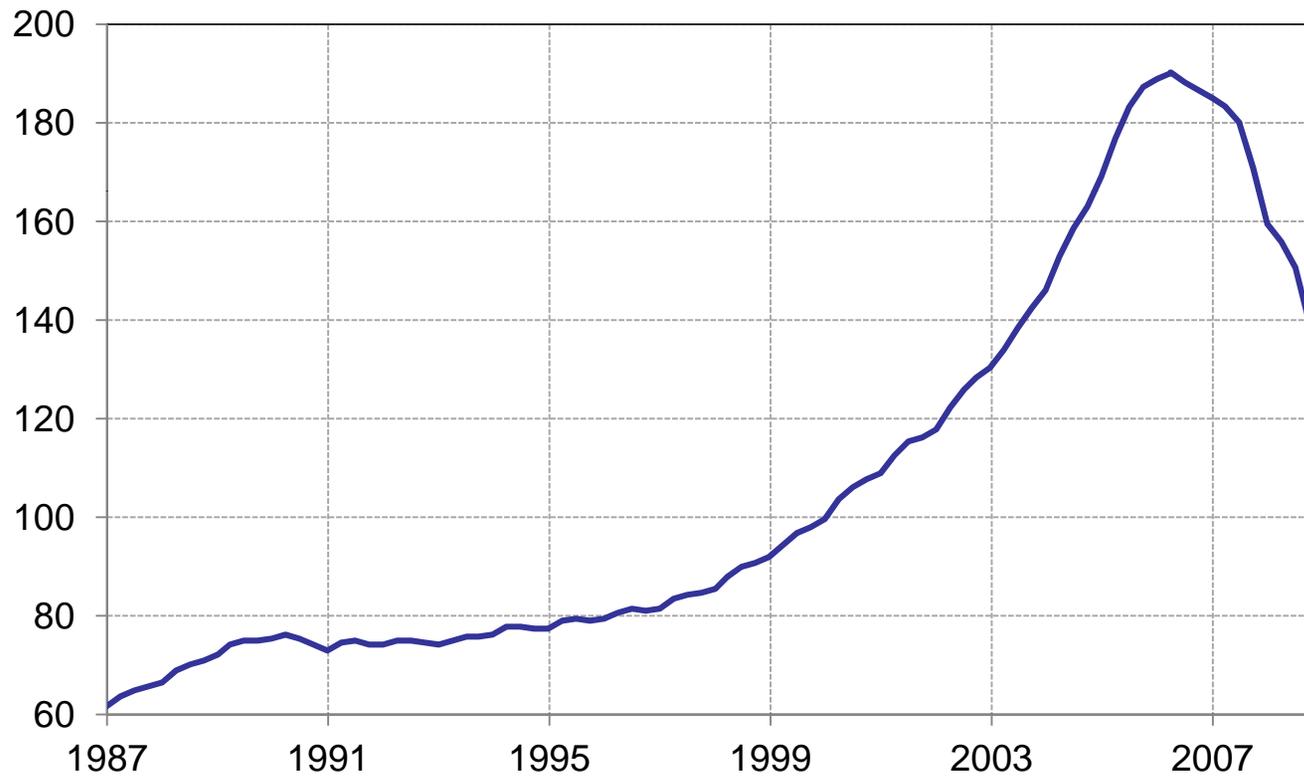


Source: Bloomberg



U.S. Housing Bubble

S&P/Case-Shiller Home Price Index
1987 - 2009

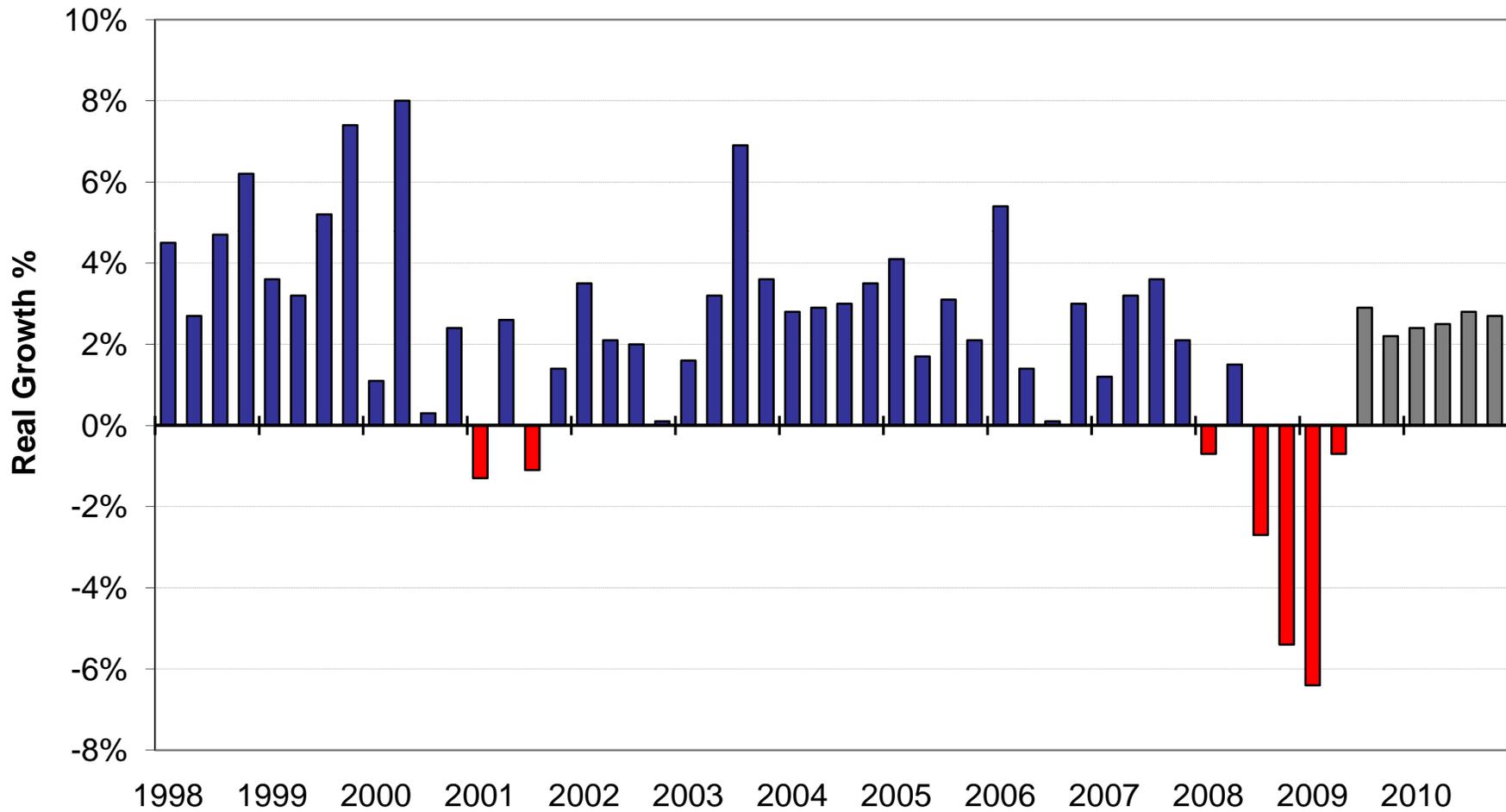


Source: Bloomberg



Gross Domestic Product

First Quarter 1998 – Fourth Quarter 2010 (projected)

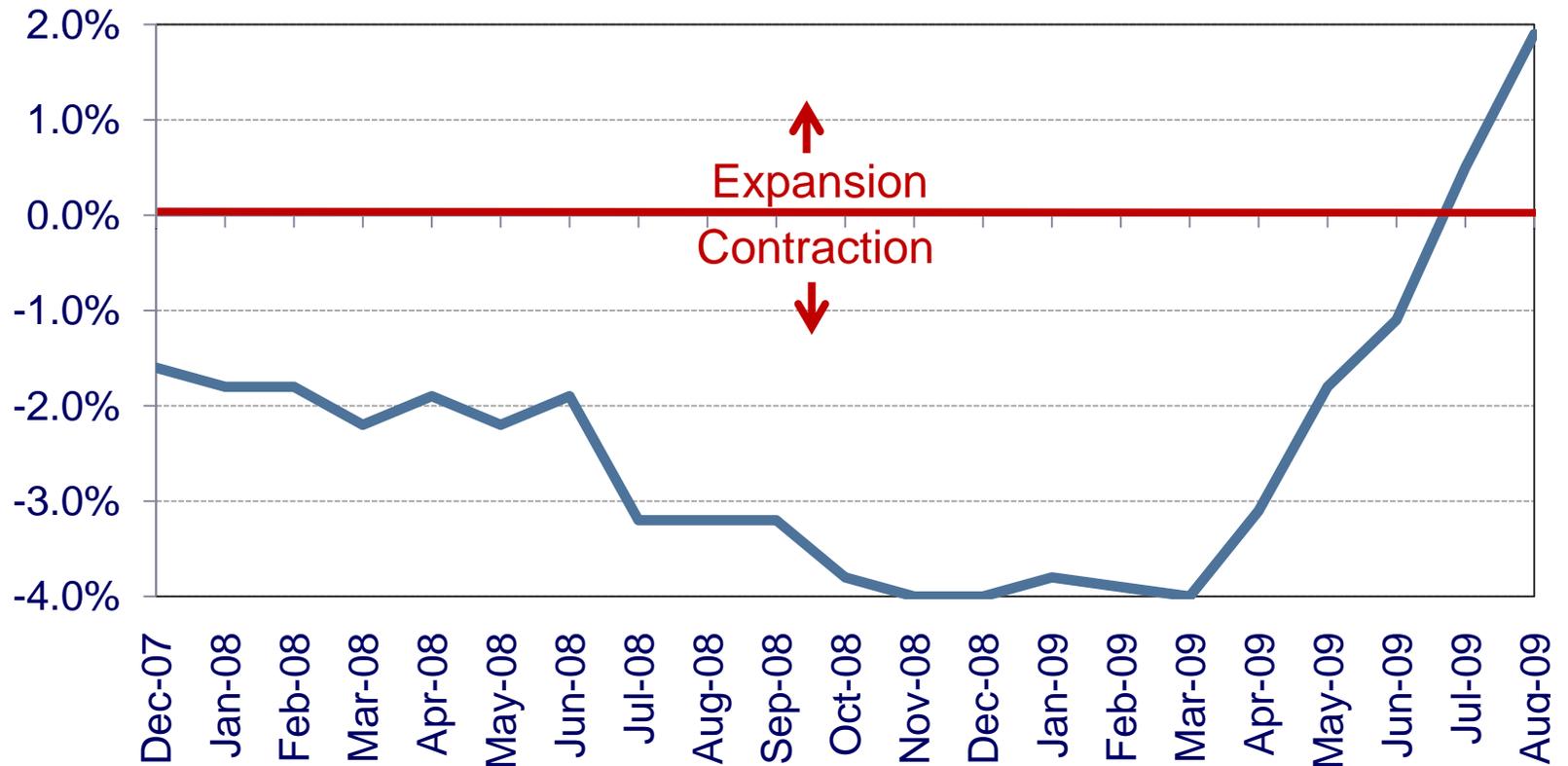


Source: Bloomberg



Index of Leading Indicators

Leading Economic Indicators
December 2007 – August 2009



Source: Bloomberg



Lagging Indicators

- Consumer/Producer Price Index
- Unemployment rate
- Ratio, manufacturing and trade inventories to sales
- Change in index of labor cost per unit of output, manufacturing, smoothed
- Average prime rate charged by banks
- Commercial and industrial loans outstanding
- Consumer installment credit outstanding to personal income ratio



Equity Market

S&P Index 500
December 2007 – October 2009

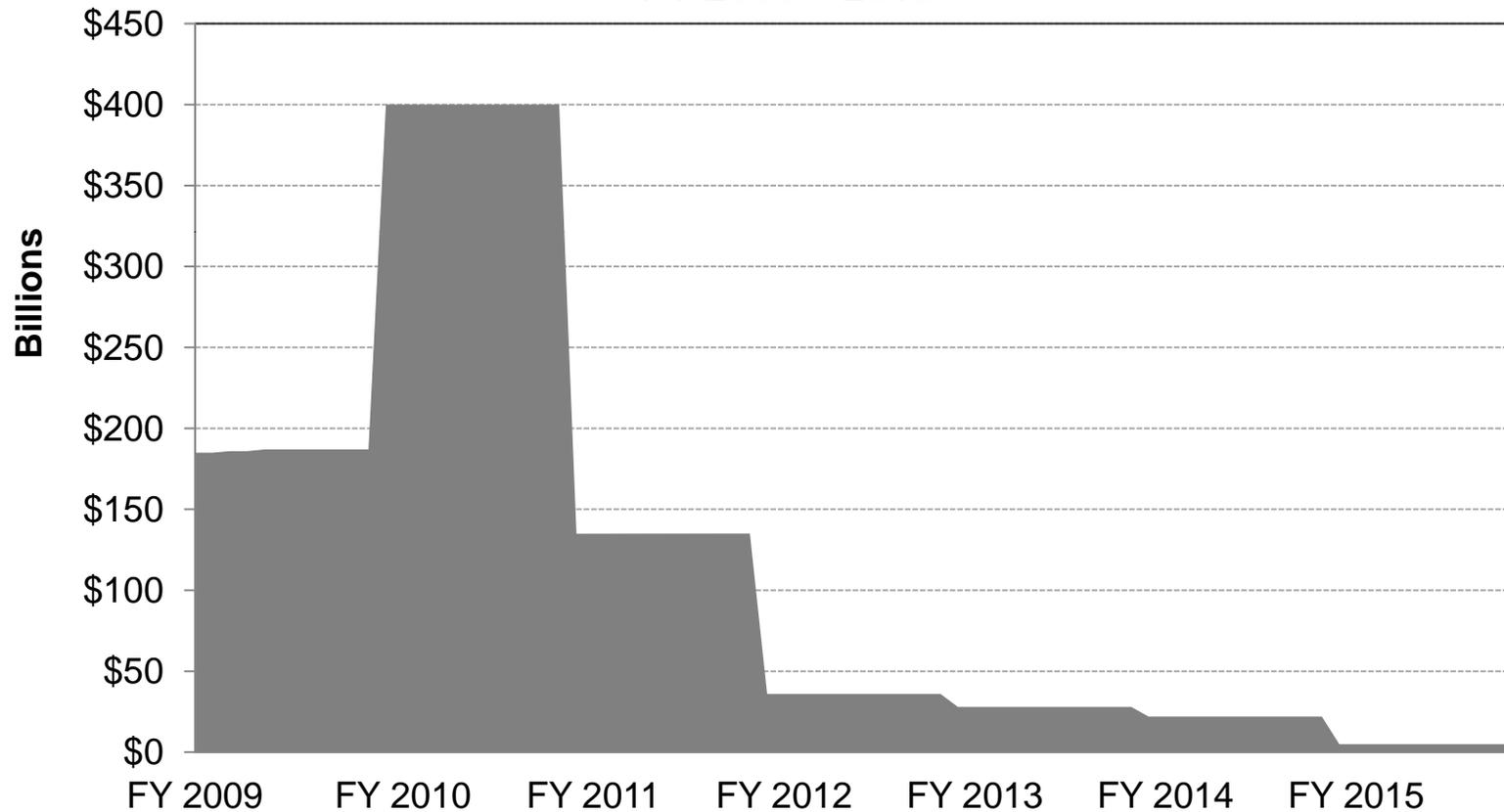


Source: Bloomberg



Federal Government Stimulus Package

Projected Stimulus Spending
FY 2009 – 2015

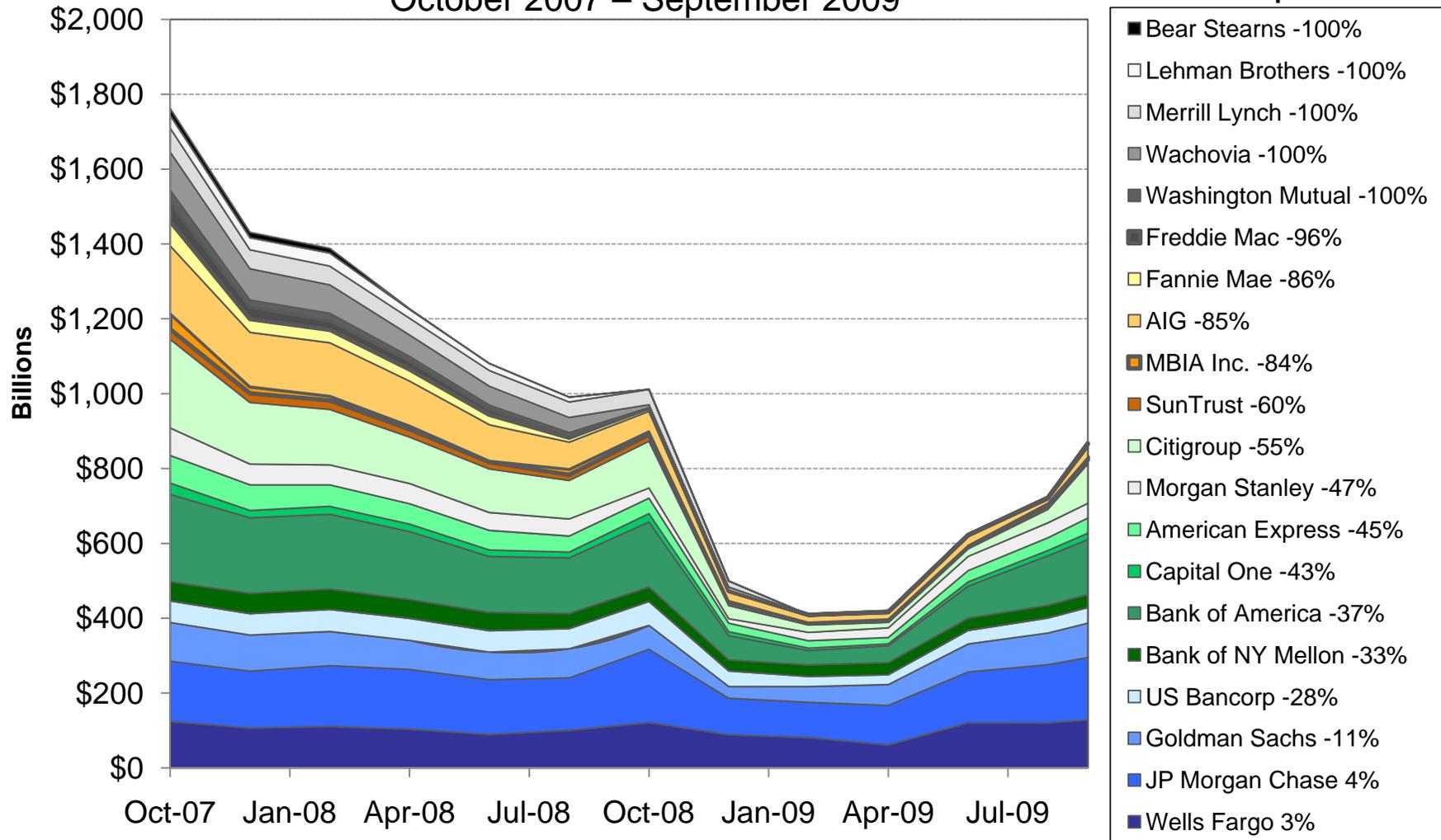


Source: CNSNews.com



A New Financial Landscape

Market Capitalization October 2007 – September 2009





Summary of Economic Conditions

- **Economic activity in the U.S. appears to be “leveling out.” Signs of improvement in the economy include:**
 - Rising consumer confidence
 - Manufacturing sector is now expanding
 - Home sales stronger; prices stabilizing
 - Job losses have slowed
 - Stock markets are leading the way
- **Significant challenges remain, meaning recovery will be relatively slow compared to past business cycles. These “headwinds” include:**
 - High unemployment
 - Weak consumer spending
 - Wealth drain from housing and stock market decline
 - Reduced availability of credit



Long-Term Rate History

10-Year U.S. Treasury Yields
1964 - 2009

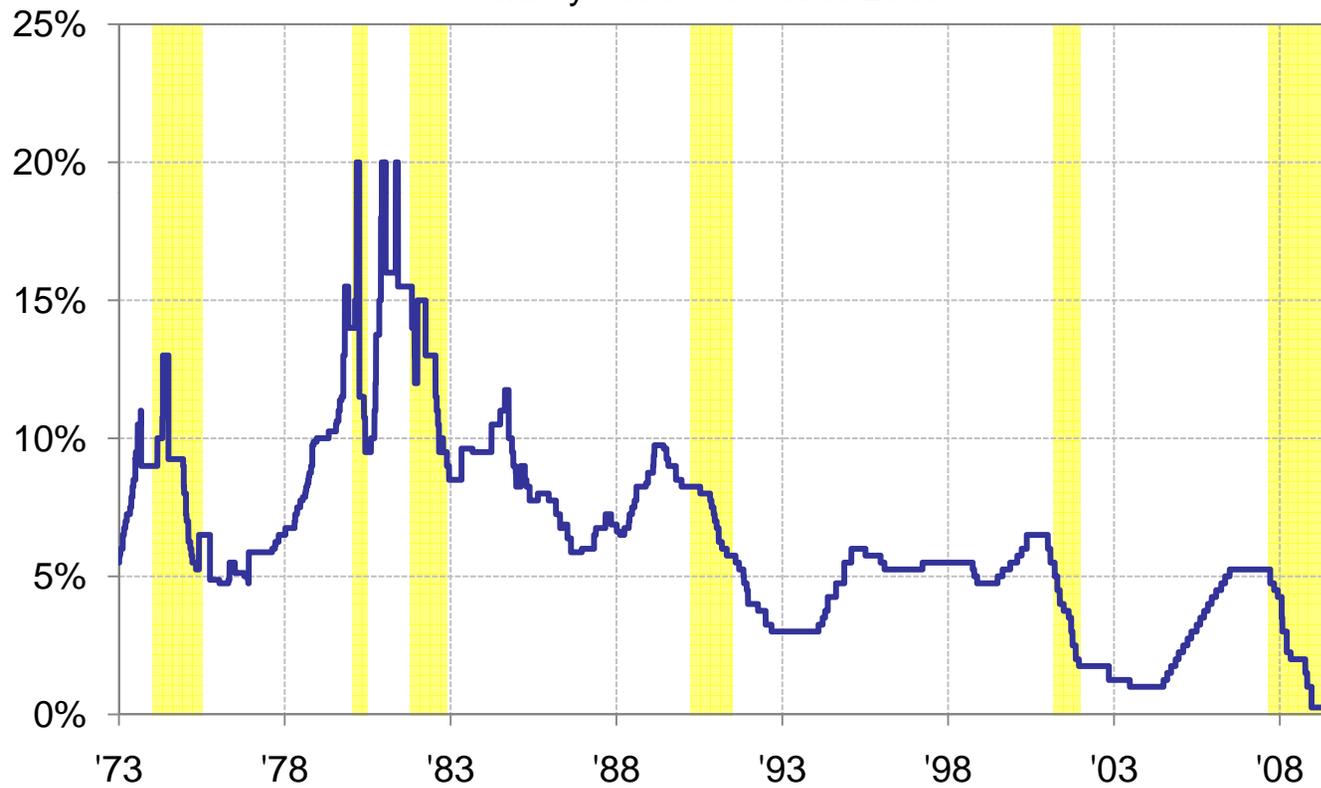


Source: Bloomberg



Fed Funds History

Federal Funds Target Rate
January 1973 – October 2009



Source: Bloomberg



Conditions Supportive of Low Rates

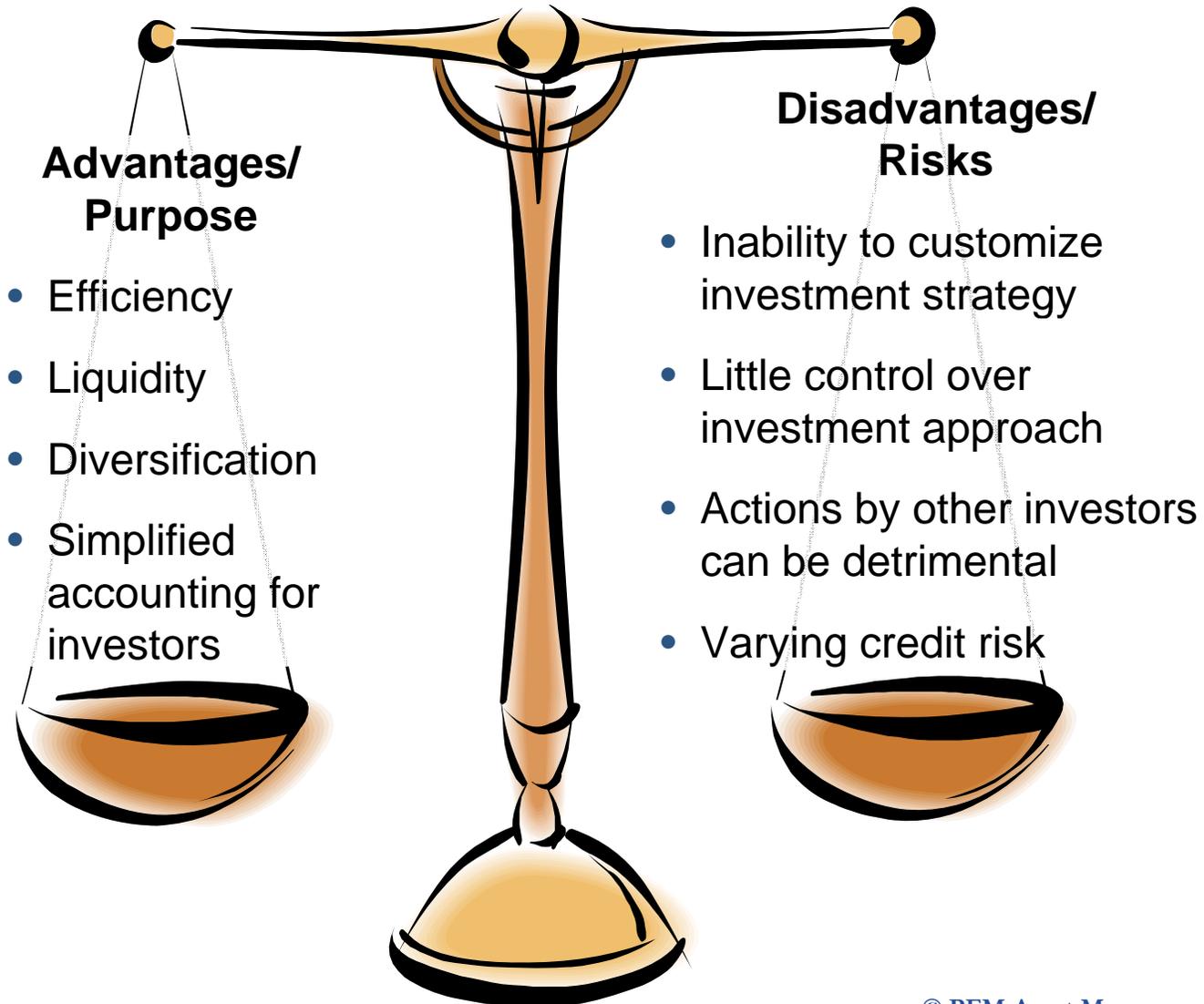
- Federal Reserve on hold for “an extended period”
- Federal Reserve buying massive amounts of Treasuries, Agencies and Agency MBS
- Economic conditions are turning, but not convincingly
- Risk of “L” recovery or “W” double dip
- Deflationary conditions
- Continued strong demand at Treasury auctions



Opportunities in the Current Market



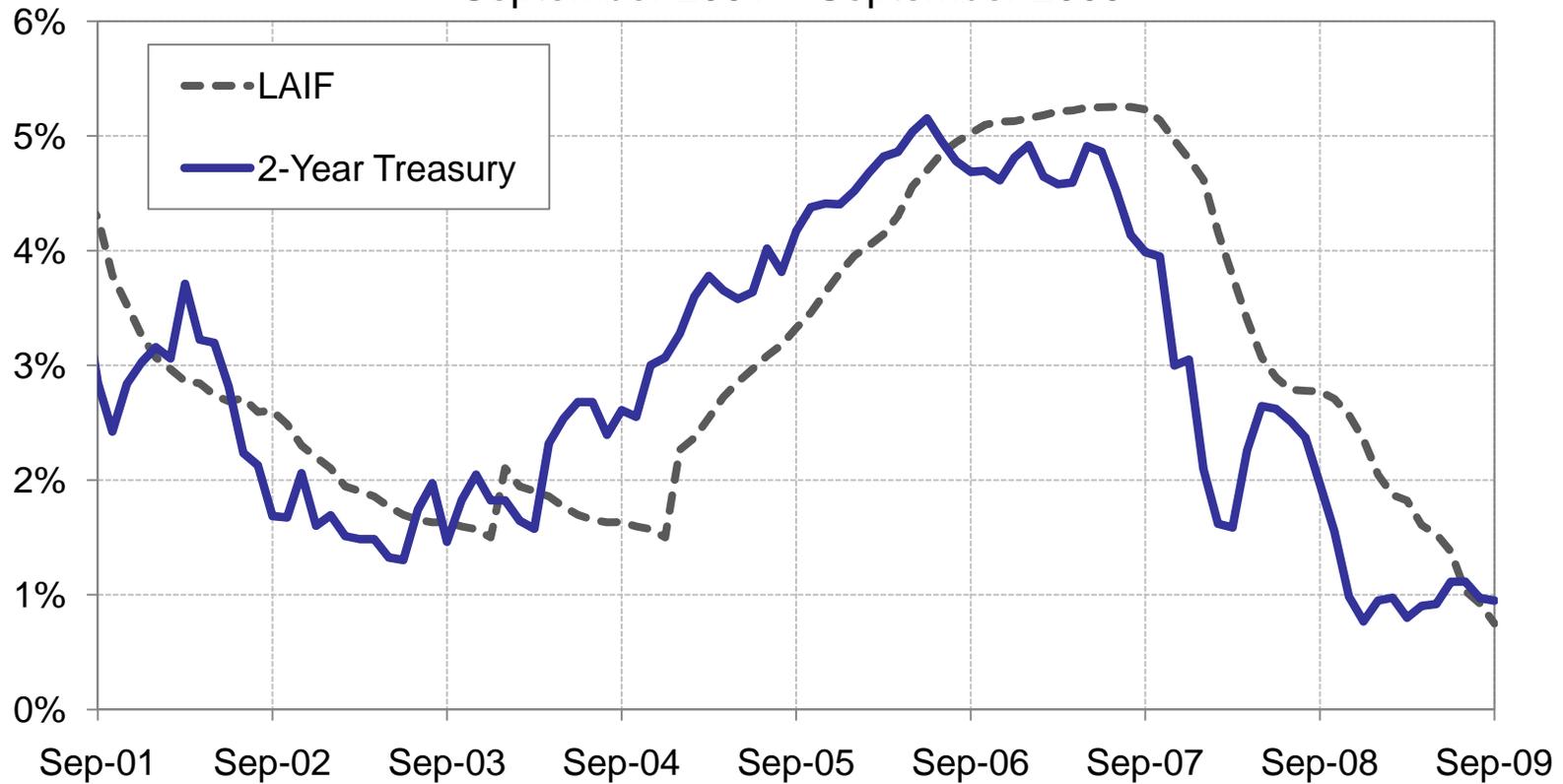
Investment Pools





Pool Yields Lag

Average Monthly Yields
September 2001 – September 2009

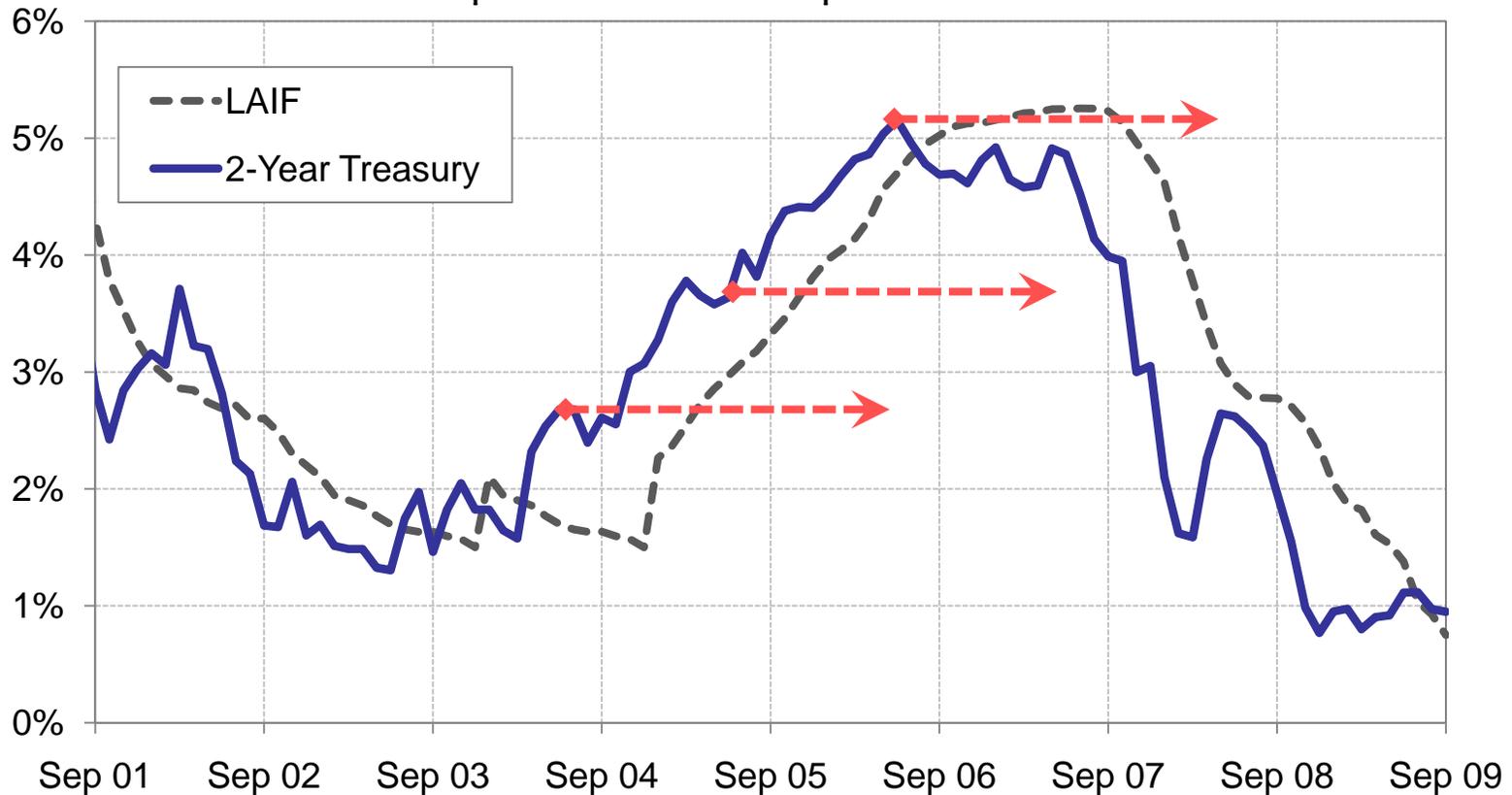


Source: Bloomberg and LAIF website



When the Economy is Expanding . . .

Average Monthly Yields
September 2001 – September 2009



Source: Bloomberg and LAIF website



... LAIF Outperforms

Example

- June 30, 2005
 - LAIF yield: 2.97%
 - 2-Year Treasury yield: 3.64% (0.67% more than LAIF)

- LAIF rises, reaching 5.25% by June 30, 2007
 - Average yield for LAIF: 4.48%

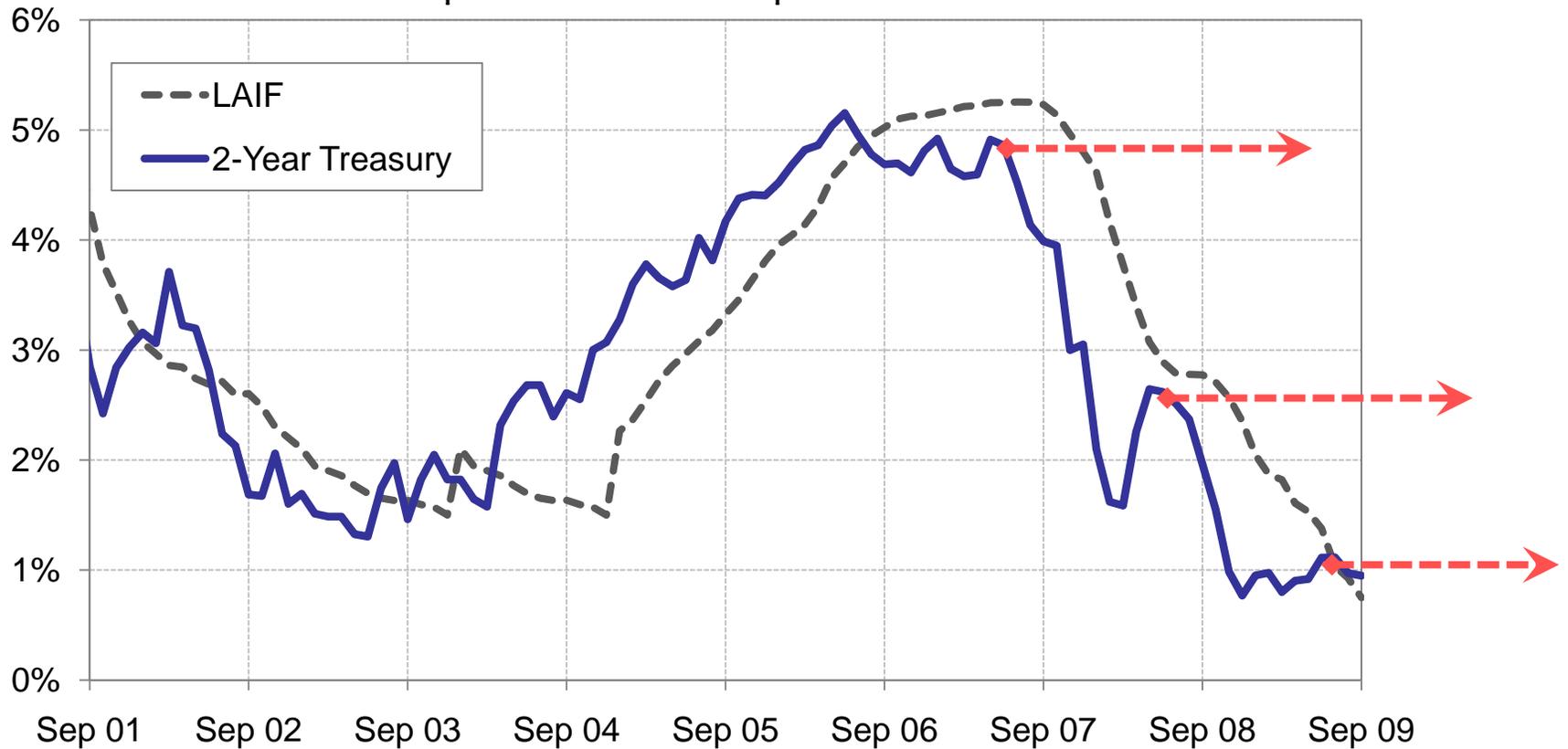
- From June 30, 2005 to June 30, 2007
 - 2-Year Treasury yield: 3.64%

- **Advantage: LAIF +0.85%**



When the Economy is Contracting . . .

Average Monthly Yields
September 2001 – September 2009



Source: Bloomberg and LAIF website



... Treasuries Outperform

Example

- June 30, 2007
 - LAIF yield: 5.25%
 - 2-Year Treasury yield: 4.86% (0.39% less than LAIF)
- LAIF falls, reaching 1.38% by June 30, 2009
 - Average yield for LAIF: 3.27%
- From June 30, 2007 to June 30, 2009
 - 2-Year Treasury: 4.86%
- **Advantage: Treasury +1.59%**



Pools Have Historically Underperformed Diversified Portfolios

Total Returns

Periods Ended September 30, 2009

Sector	Past Quarter	Past Year	Past 2 Years	Past 3 Years	Past 5 Years
S&P LGIP Index	0.08%	0.74%	1.88%	2.92%	3.11%
LAIF	0.23%	1.71%	2.73%	3.55%	3.48%
1-Year Treasury	0.33%	2.34%	3.46%	4.13%	3.62%
1-3 Year Treasury	0.78%	3.46%	4.86%	5.17%	4.03%
1-5 Year Treasury	1.20%	4.59%	5.95%	5.96%	4.42%

Source: Bloomberg and LAIF website



Current Market Yields

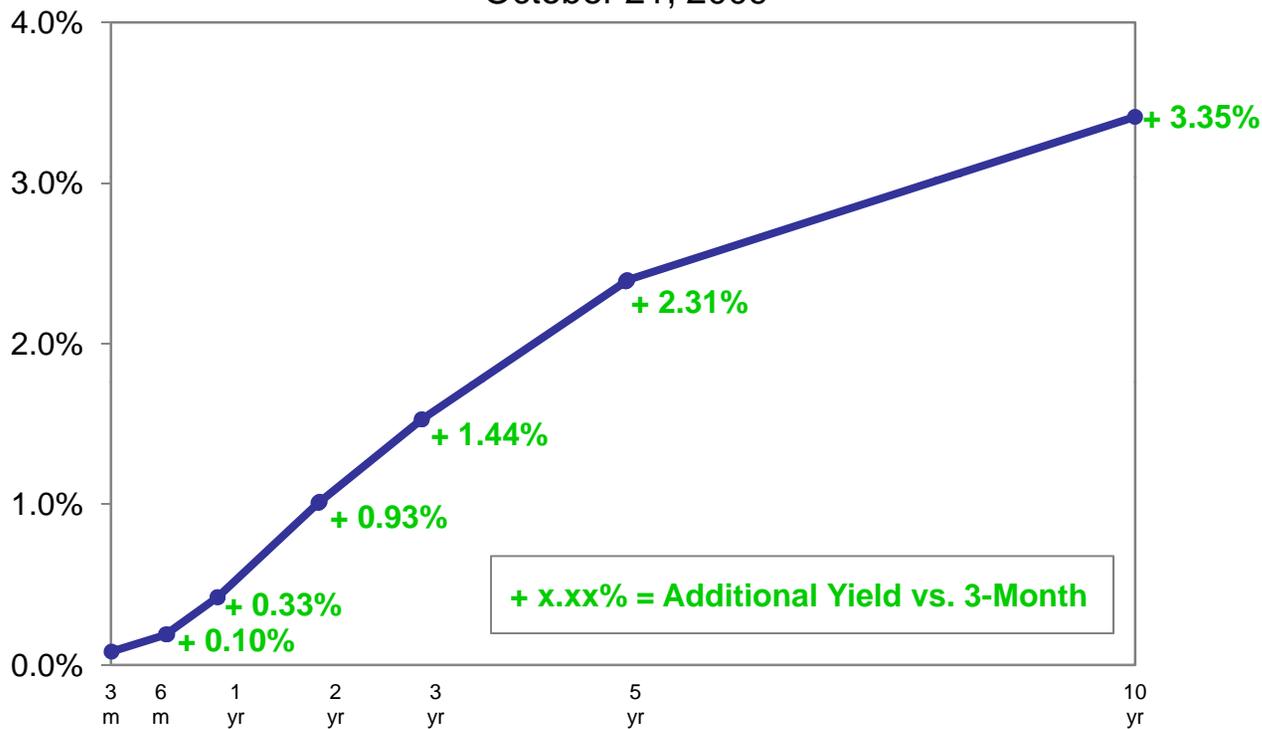
Maturity	Federal Agency Discount Notes	U.S. Treasury Bills	Commercial Paper
1 month	0.09%	0.04%	0.16%
2 month	0.11%	0.06%	0.17%
3 month	0.12%	0.07%	0.20%
4 month	0.14%	0.12%	0.22%
5 month	0.17%	0.13%	0.23%
6 month	0.19%	0.17%	0.28%

Source: Bloomberg



Opportunities With a Steep Yield Curve

U.S. Treasury Yield Curve
October 21, 2009



Source: Bloomberg

Maturity	Yield
3 month	0.07%
6 month	0.17%
1 year	0.40%
2 year	1.00%
3 year	1.51%
5 year	2.38%
10 year	3.42%



Yield Curve Changes With Business Cycle

Spread Between 2-Year and 10-Year U.S. Treasury Note Yields
October 1999 October 2009



Source: Bloomberg



Rates Near Record Lows



Source: Bloomberg



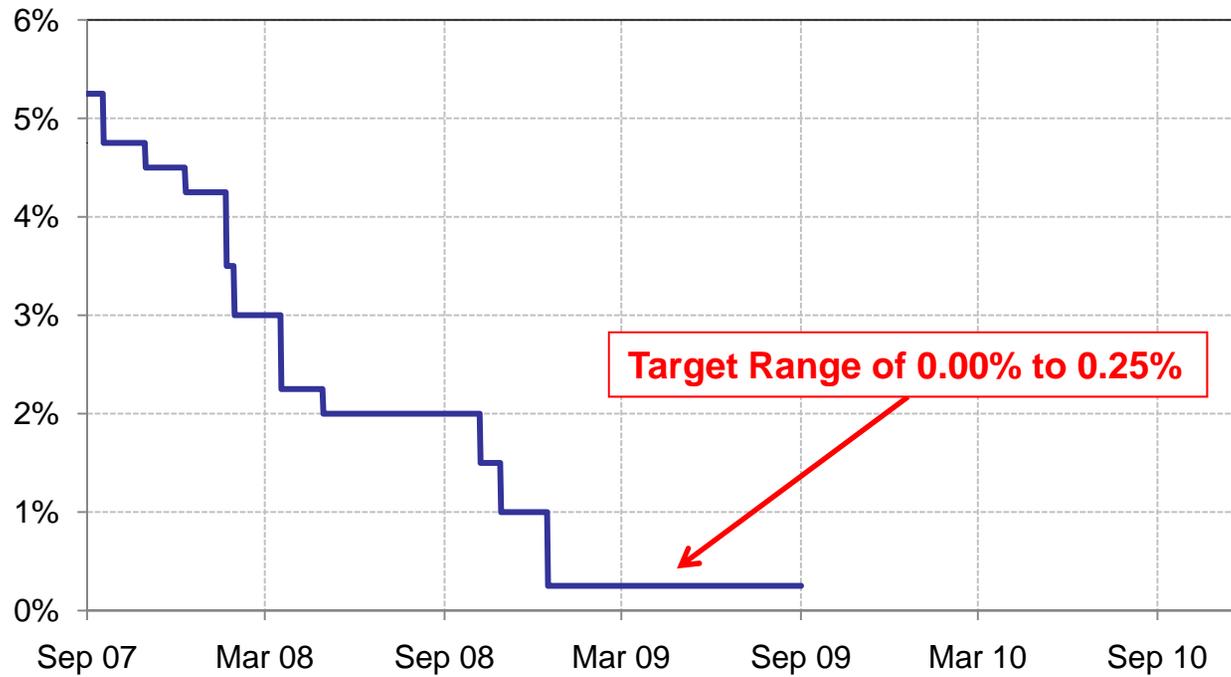
Factors That Have Led to a Steeper Curve

- Investors believe interest rates will increase as the economic outlook improves.
- Long-term rates have moved up in part due to future inflation concerns.
- Short-term rates are hostage to Federal Reserve policy.
- Some investors have favored shorter maturities over longer maturities to protect principal.
- Aggregate supply of short-term debt issuance has declined while demand has remained strong.



Fed Funds Are at a Record Low ...

Federal Funds Target Rate

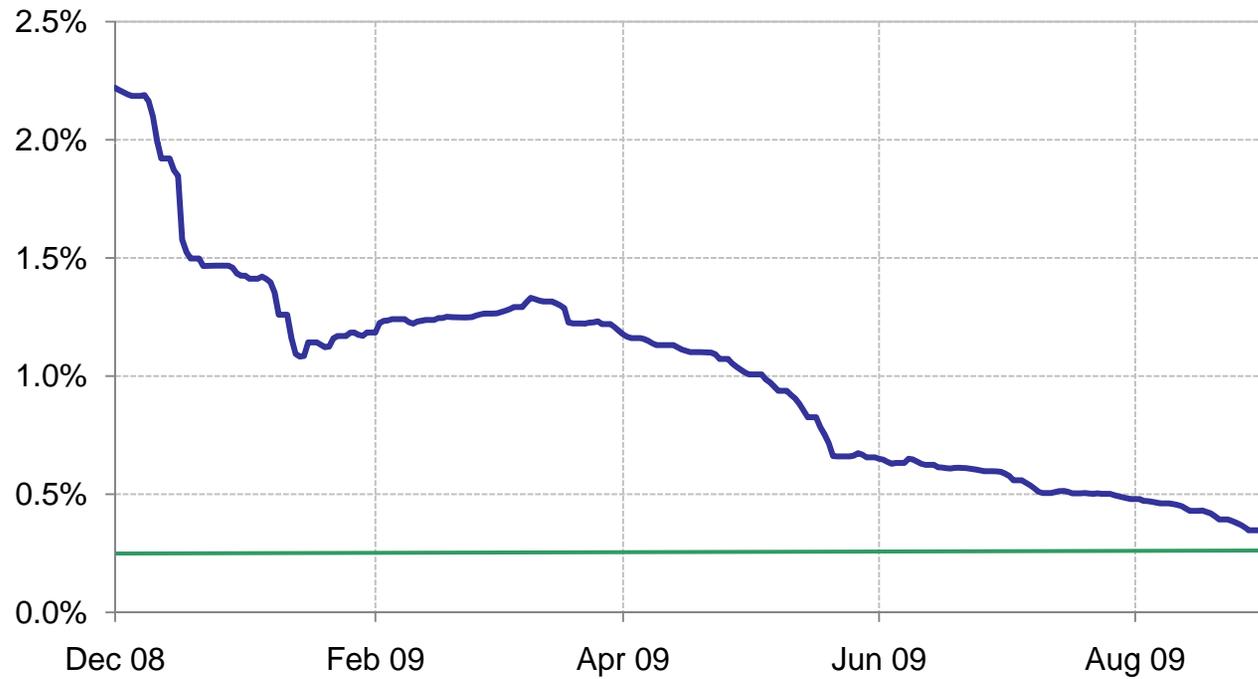


Source: Bloomberg



LIBOR Returns to Normalcy ...

3-Month LIBOR

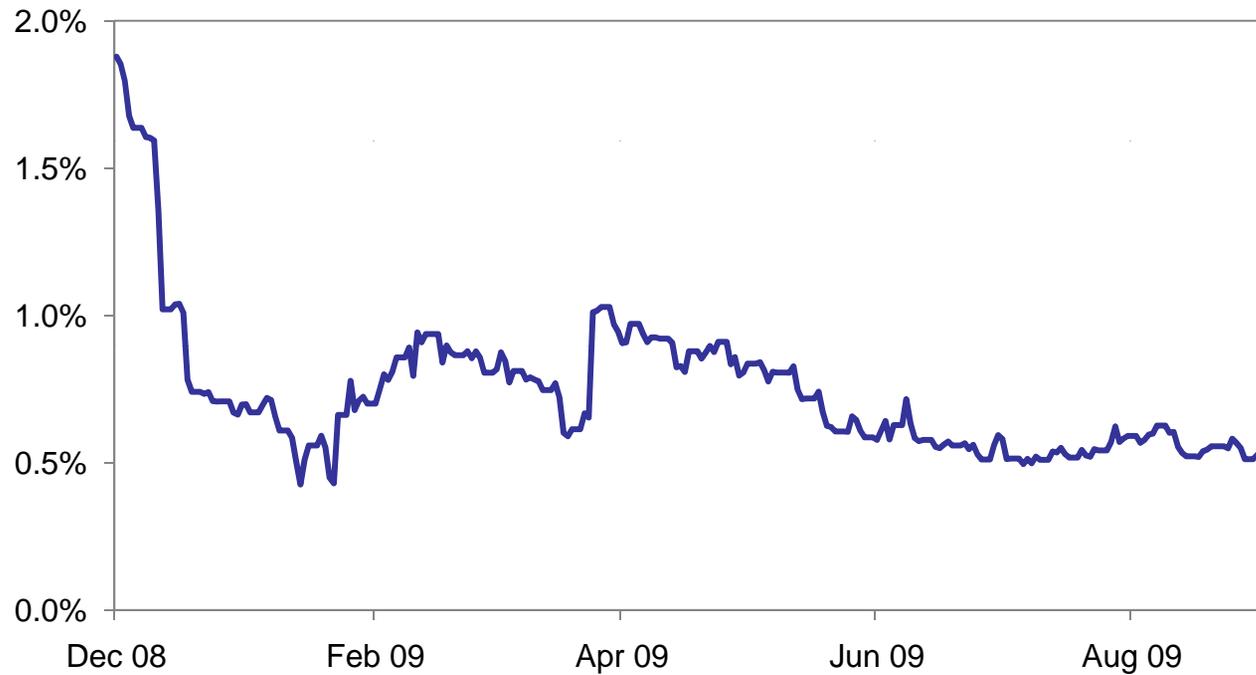


Source: Bloomberg



... Driving < 1-Year Yields Down Sharply

1-Year Federal Agency Note Yield

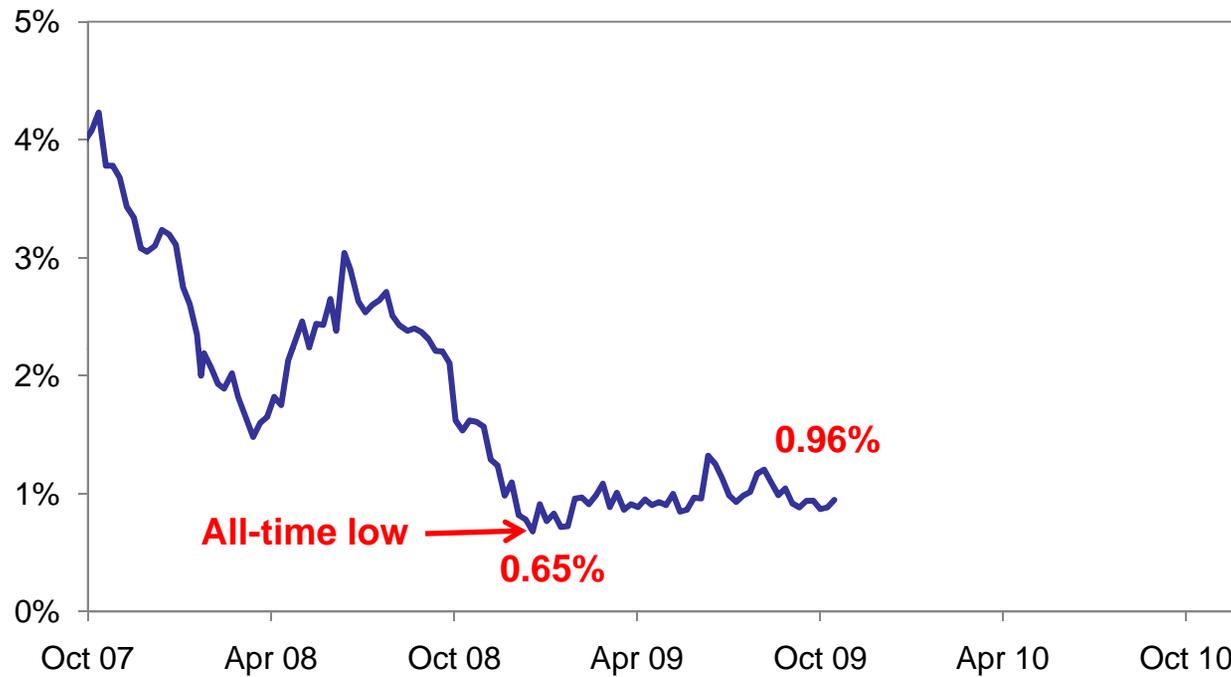


Source: Bloomberg



Treasury Yields Near Record Lows ...

2-Year U.S. Treasury Note Yield



Source: Bloomberg



Interest Rate Forecasts

Median Forecasts as of October 2009

	4Q 09	1Q 10	2Q 10	3Q 10	4Q 10	1Q 11	2Q 11
Fed Funds Target Rate	0.25%	0.25%	0.25%	0.50%	1.00%	1.25%	1.00%
3-Month LIBOR	0.35%	0.40%	0.55%	0.95%	1.25%	1.95%	2.25%
2-Year Treasury Note	1.08%	1.25%	1.50%	1.80%	2.15%	2.42%	2.78%
10-Year Treasury Note	3.50%	3.60%	3.73%	3.90%	4.10%	4.15%	4.19%
30-Year Treasury Bond	4.30%	4.40%	4.51%	4.75%	4.90%	4.95%	5.09%

Source: Bloomberg Survey of Economists median forecasts



Applying Basic Investment Principles to Your Portfolio



Basic Principles of Portfolio Management

- Establish objectives
- Determine risk tolerance
- Write an appropriate investment policy
- Develop an investment plan
- Understand cash flows
- Maintain diversification
- Approach to risk (credit, interest rate)
- Buy and hold versus active management
- Safety, liquidity, then yield



Important Disclosures

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