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NEPC 2014 Market Outlook

Assumptions and Actions for Clients

January 23, 2014

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BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | SAN FRANCISCO

Today's Speakers



- **Mike Manning, CFA, CAIA**
 - Managing Partner



- **Erik Knutzen, CFA, CAIA**
 - Chief Investment Officer, Partner



- **Phillip Nelson, CFA**
 - Research Consultant

Today's Agenda

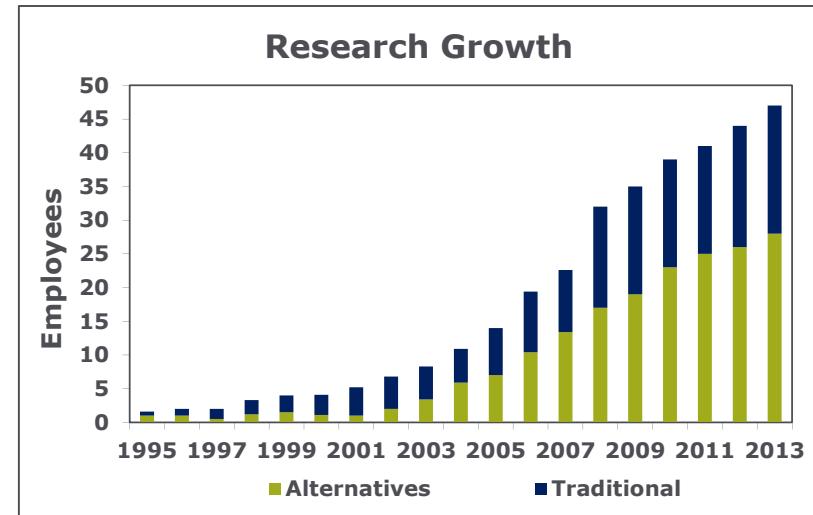
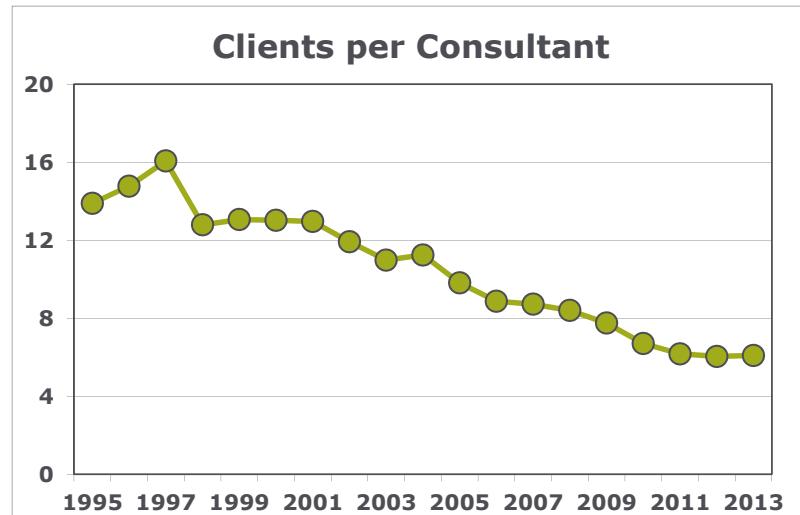
- **Introduction and NEPC Update**
- **Market Review and Current Environment**
- **2014 Observations and Recommendations**
- **Focus on Fixed Income – Investing in a Rising Rate Environment**
- **Your Questions**

*Please see disclosures at the back of the presentation



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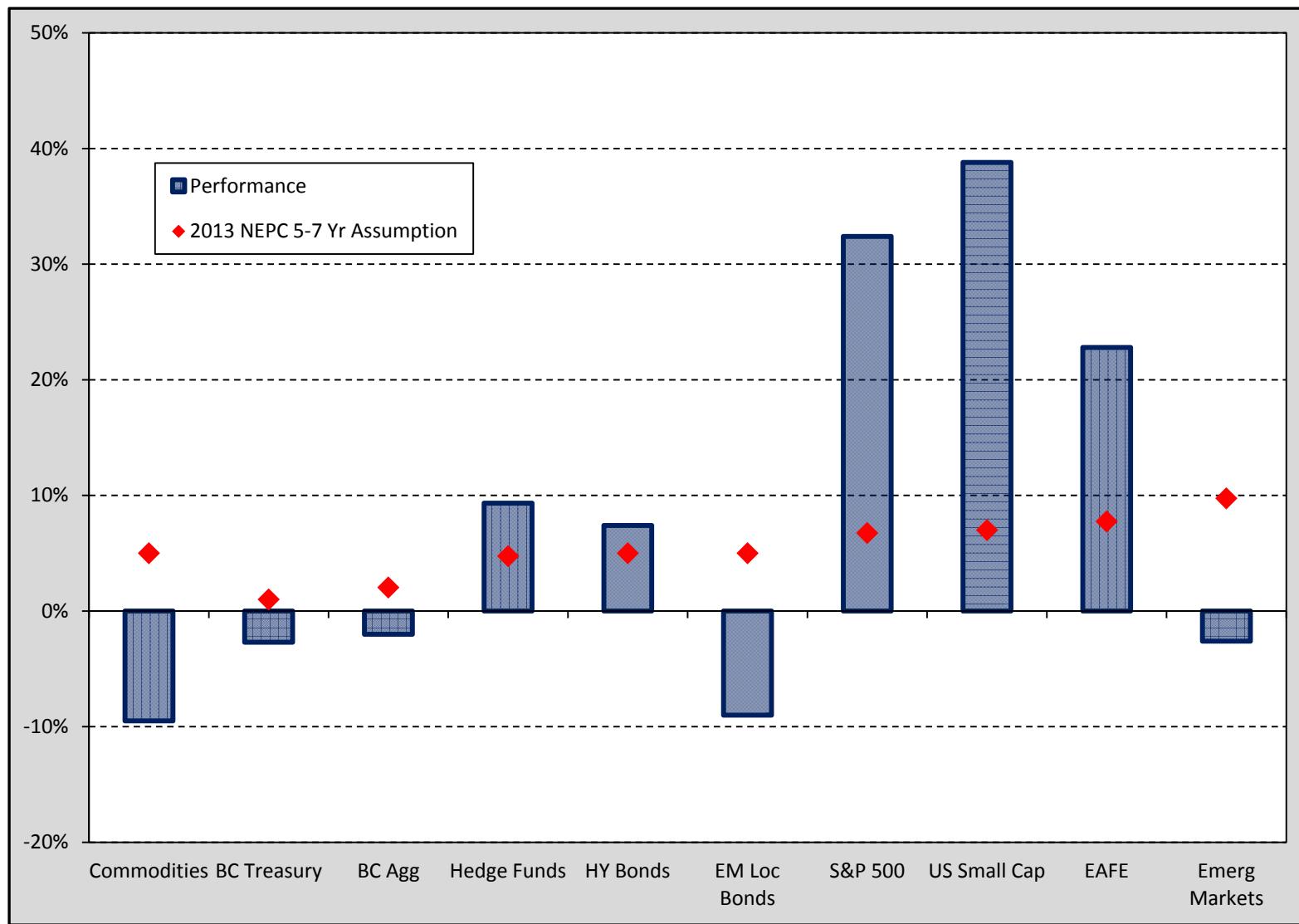
- **NEPC remains the leading independent consulting firm**
 - 100% employee owned by 34 Partners
 - Focused and conflict-free business model
 - A destination for investment professionals who want to consult
- **We remain focused on our commitment to clients**
 - Offer flexible service mandates customized to your needs
 - Work constantly to identify best in class managers and strategies



- **Client focused initiatives**
 - Over 4,800 manager meeting notes available on Client Extranet
 - New research partnership with GFIA in Singapore
 - Delivering on key investment themes: \$1.6b in direct lending
 - Working with InvestorForce and Barra to offer enhanced risk reporting
- **9 white papers published in 2013 (www.nepc.com)**
 - Total Enterprise Management for Endowments and Foundations
 - Defined Contribution: 2013 fee survey and outsourcing
 - Quantitative Hedge Fund Strategy review
- **NEPC external recognition**
 - NEPC received aiCIO magazine's Innovation Award
 - Dick Charlton featured by P&I in review of ERISA 40-year anniversary
 - Erik Knutzen (#1) & KC Connors (#15) among aiCIO's most influential consultants
- **New headquarters at 255 State Street in Boston**

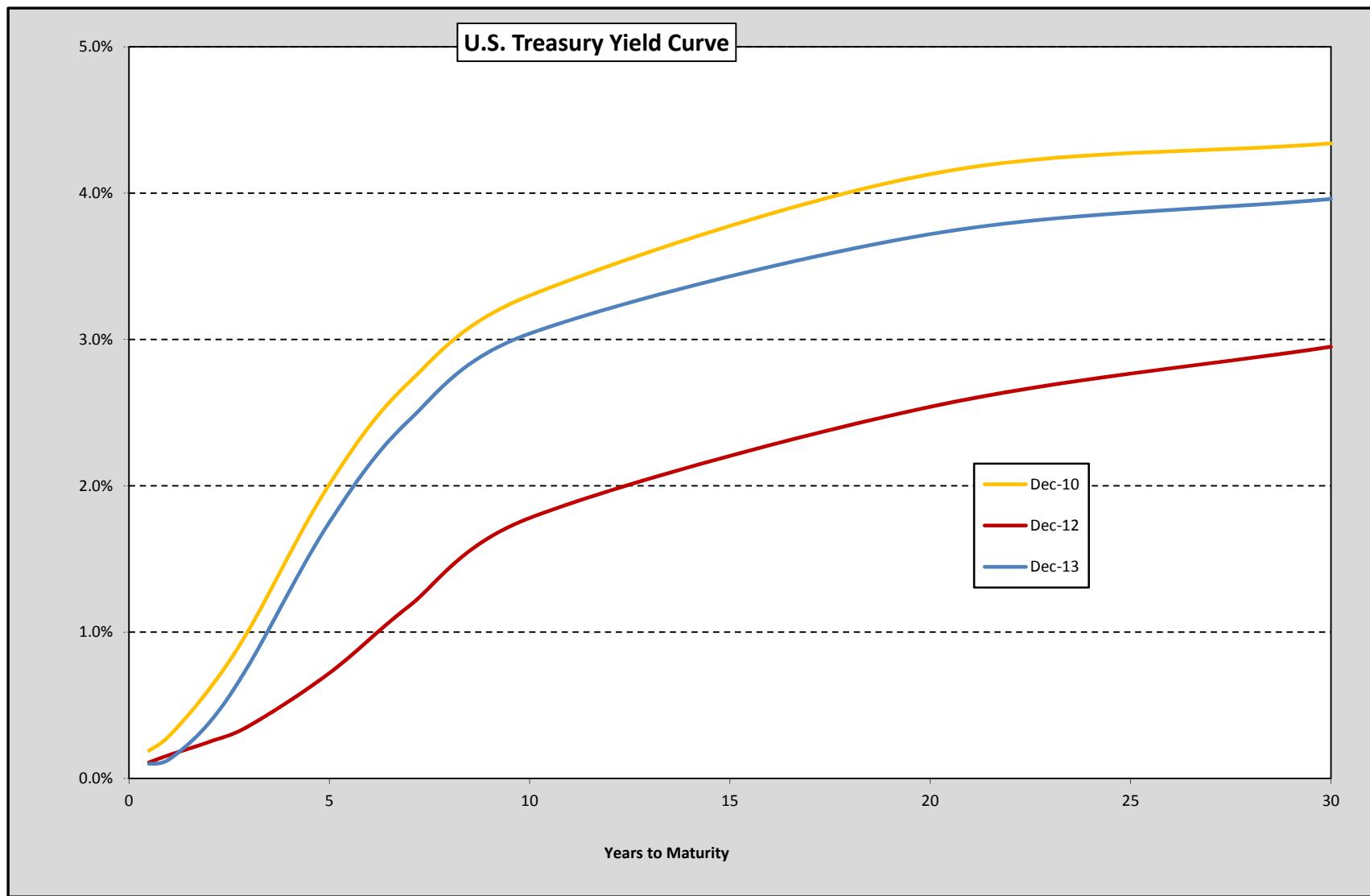
2014 NEPC Client Conference
May 13th and 14th in Boston, MA

The Story of 2013 – US Equity Dominates...



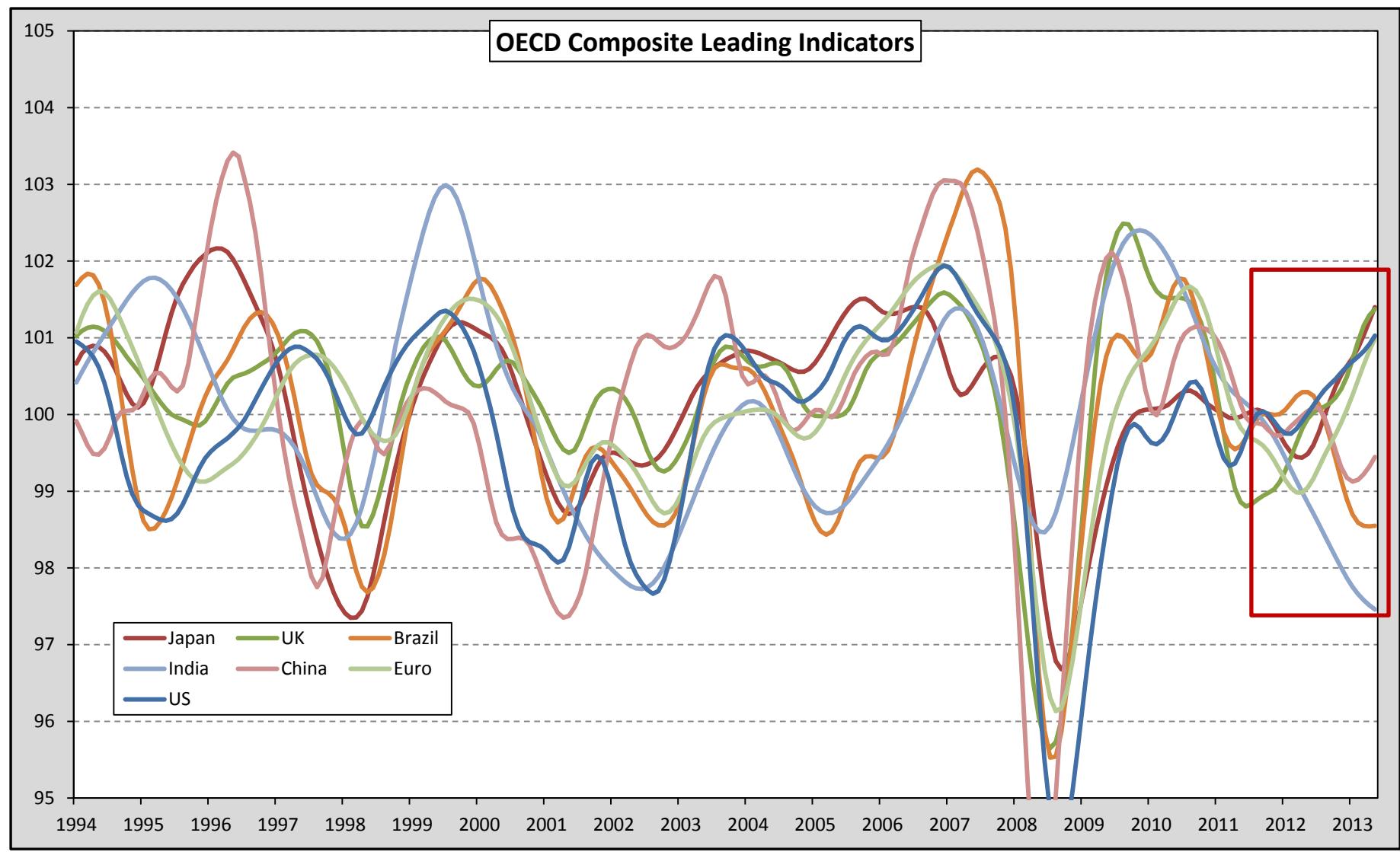
Source: Bloomberg as of 12/31

Treasury Rates Have Risen But Remain Within Scope of Recent History



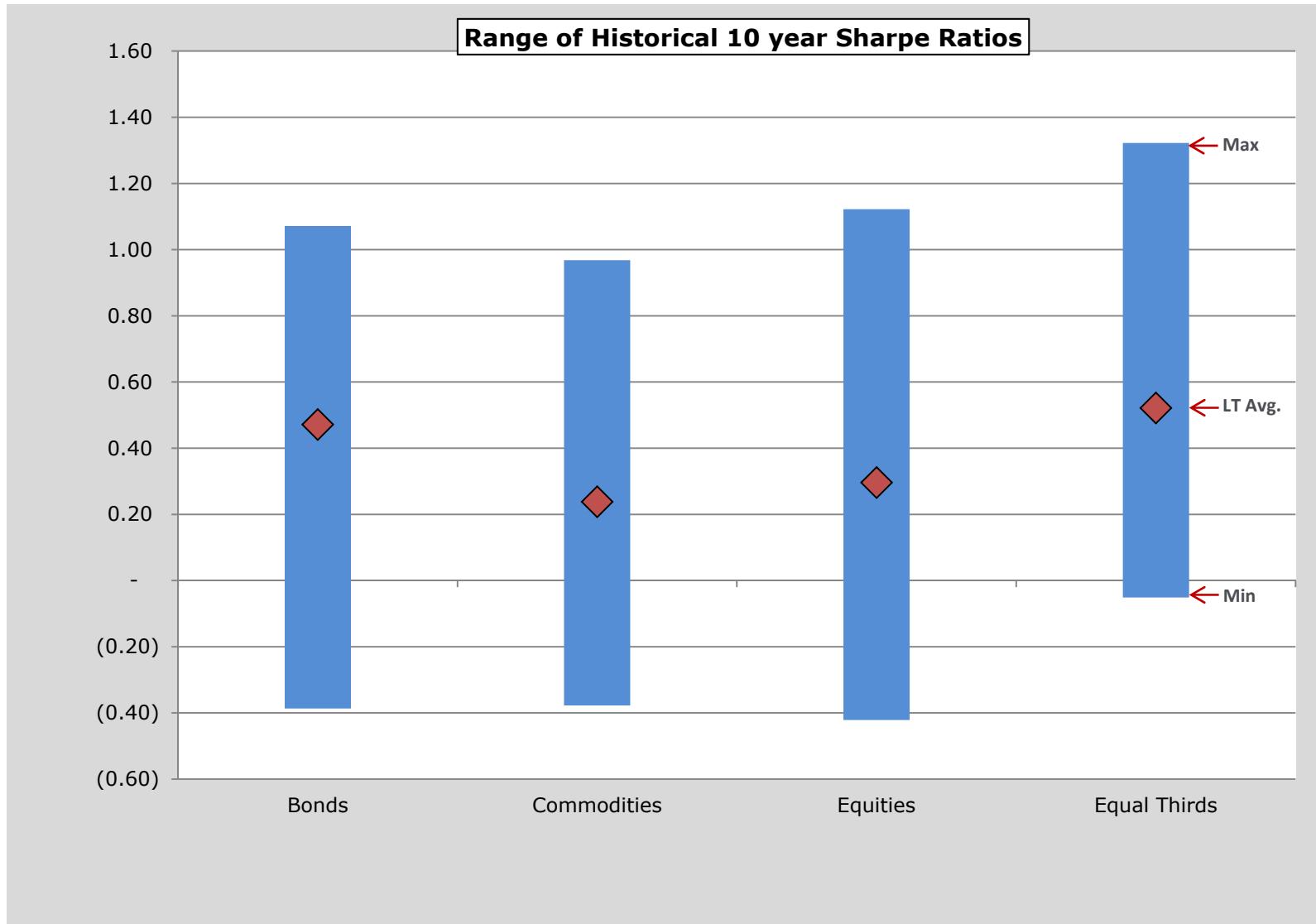
- **Diversification still matters, especially after a period when not rewarded**
- **Developed world growth outlook has improved despite fiscal drag**
- **US Fed taper will occur throughout 2014 with global implications**
- **Upward pressure on interest rates may have subsided**
- **Divergence in economic conditions broadens range of outcomes by country**

Global Economic Divergence



Source: Bloomberg as of 11/30

Diversification Still Wins In The Long Run



Source: Bloomberg, NEPC

Themes for 2014 Asset Class Assumptions

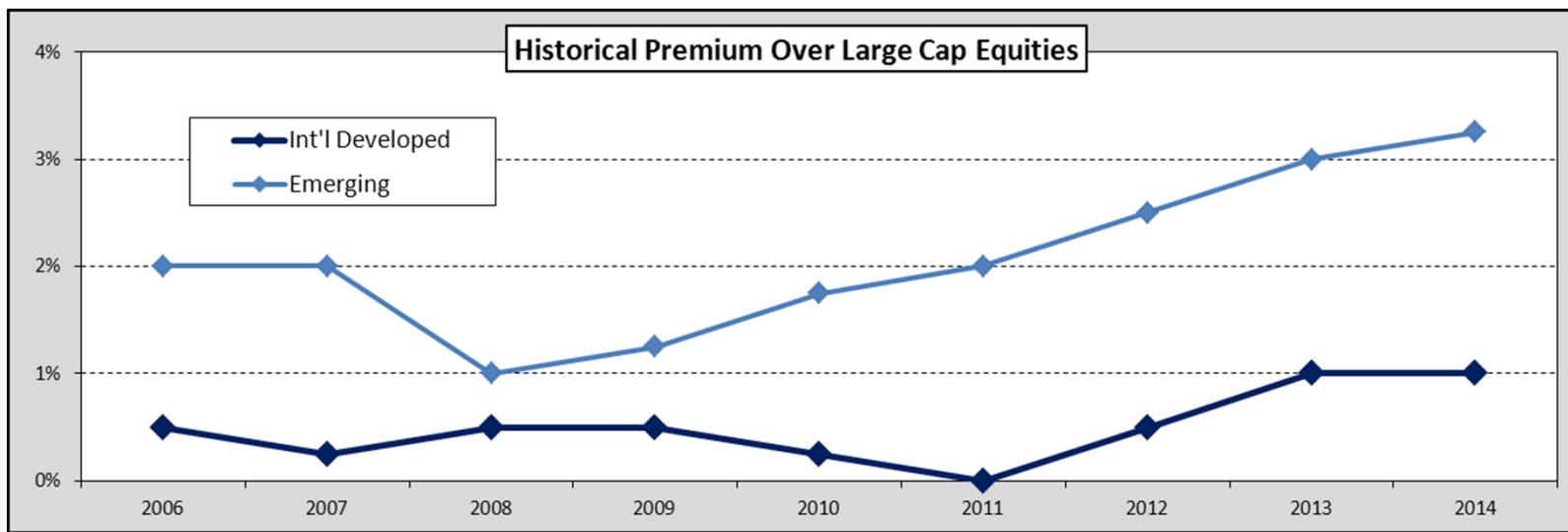
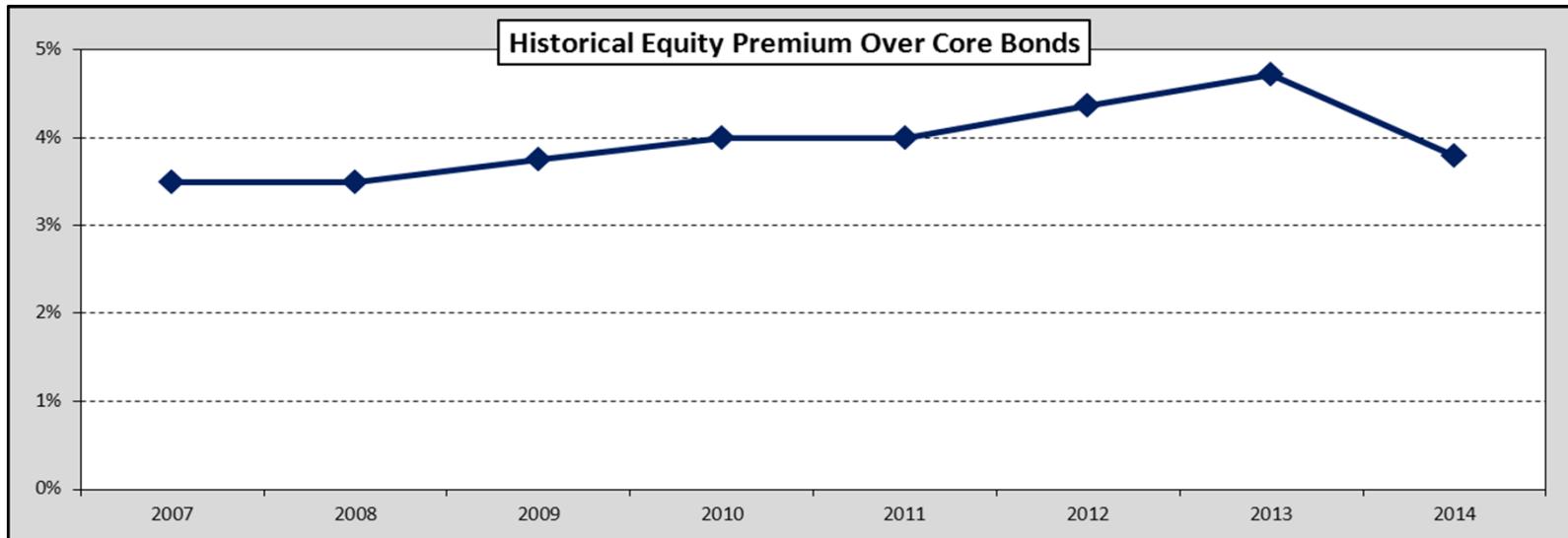
- **Return expectations are diverging**
 - Equity market return forecasts are lower
 - Investment grade bond return expectations have risen with higher interest rates
 - High yield bond expectations are reduced after credit spreads tightened

Asset Class	Long-Term Return ¹	2013	2014	Change
Core Bonds	6.8%	2.00%	2.50%	+0.50%
High Yield Bonds	9.2%	5.00%	4.50%	-0.50%
US Large Cap Equity	10.2%	6.75%	6.25%	-0.50%
Non-US Developed Equity	9.1%	7.75%	7.25%	-0.50%
Emerging Equity	11.9%	9.75%	9.50%	-0.25%

5-7 Year Expected Returns

1 – Annualized returns since January 1, 1976

US Equity Risk Premium Versus Non-US Equity – Moving in Different Directions



- **Remain disciplined and rebalance after strong market run**
- **Take gains in US equities, allocating to underperforming asset classes**
- **Maintain long-term commitment to emerging markets**
- **Assess credit exposure and consider a more dynamic approach**
- **Employ private markets to boost return outlook**

US Equity – Can the Bull Run Continue?

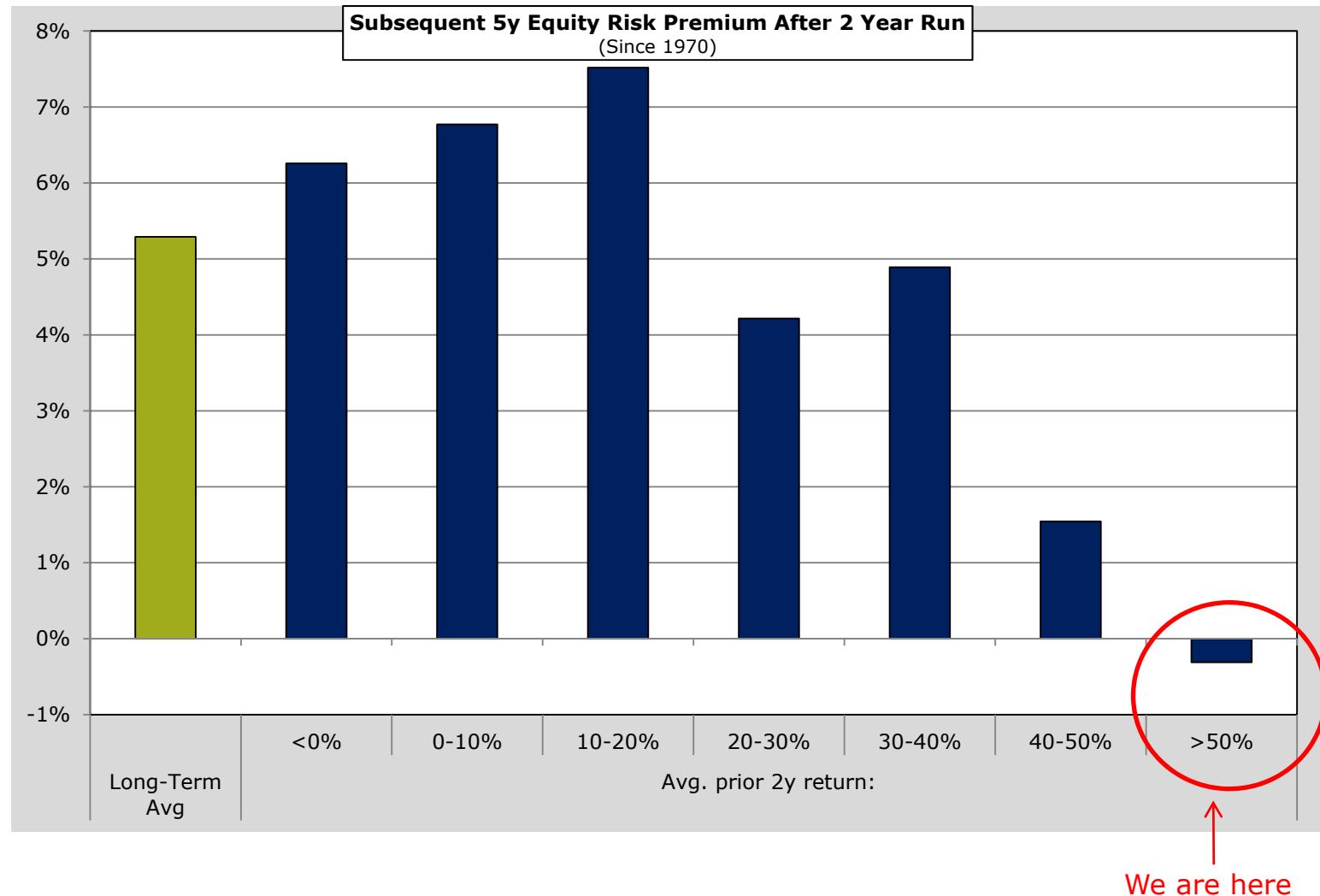
	S&P 500 Return for Year	S&P 500 Trailing PE Ratio (as of 12/31)	S&P 500 Return for Next Year
1997	33.4%	22.3	28.6%
2007	5.5%	17.3	-37.0%
2013	32.4%	17.4	?

Source: Bloomberg as of 12/31



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US Equity – Longer Term Prospects Are Diminished



Source: NEPC, Bloomberg

A Broadly Diversified Portfolio is More Efficient than an Equity-Heavy Portfolio

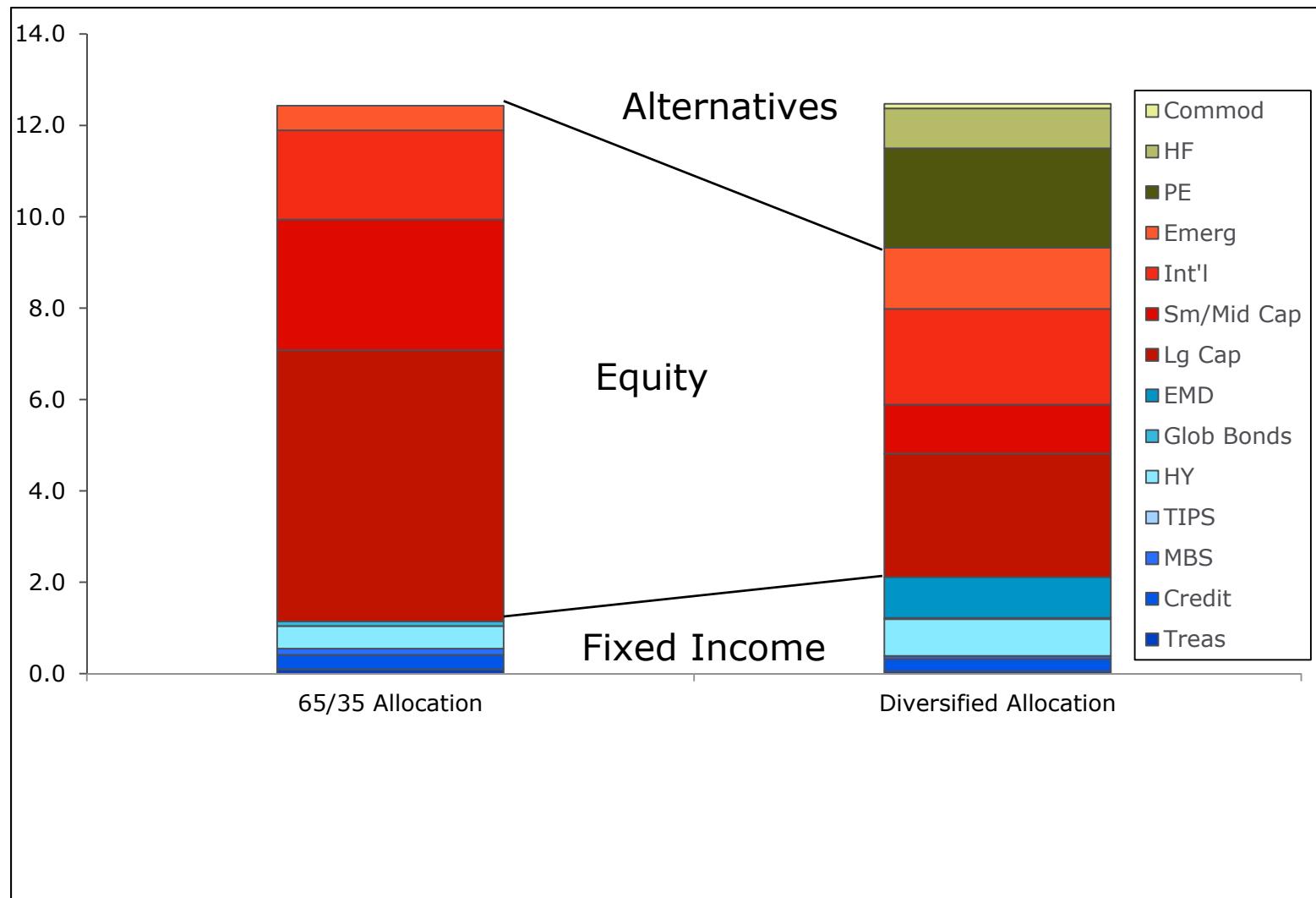
Sample Diversified Portfolio	65/35 Allocation	Diversified Allocation
Total Equity	65%	35%
Total Fixed Income	35%	25%
Total Alternatives	0%	20%
Global Asset Allocation	0%	20%
<i>5-7 Year Expected Return</i>		5.7% 6.5%
<i>Volatility</i>		12.4% 12.2%
<i>Sharpe Ratio</i>		0.46 0.53

Source: NEPC

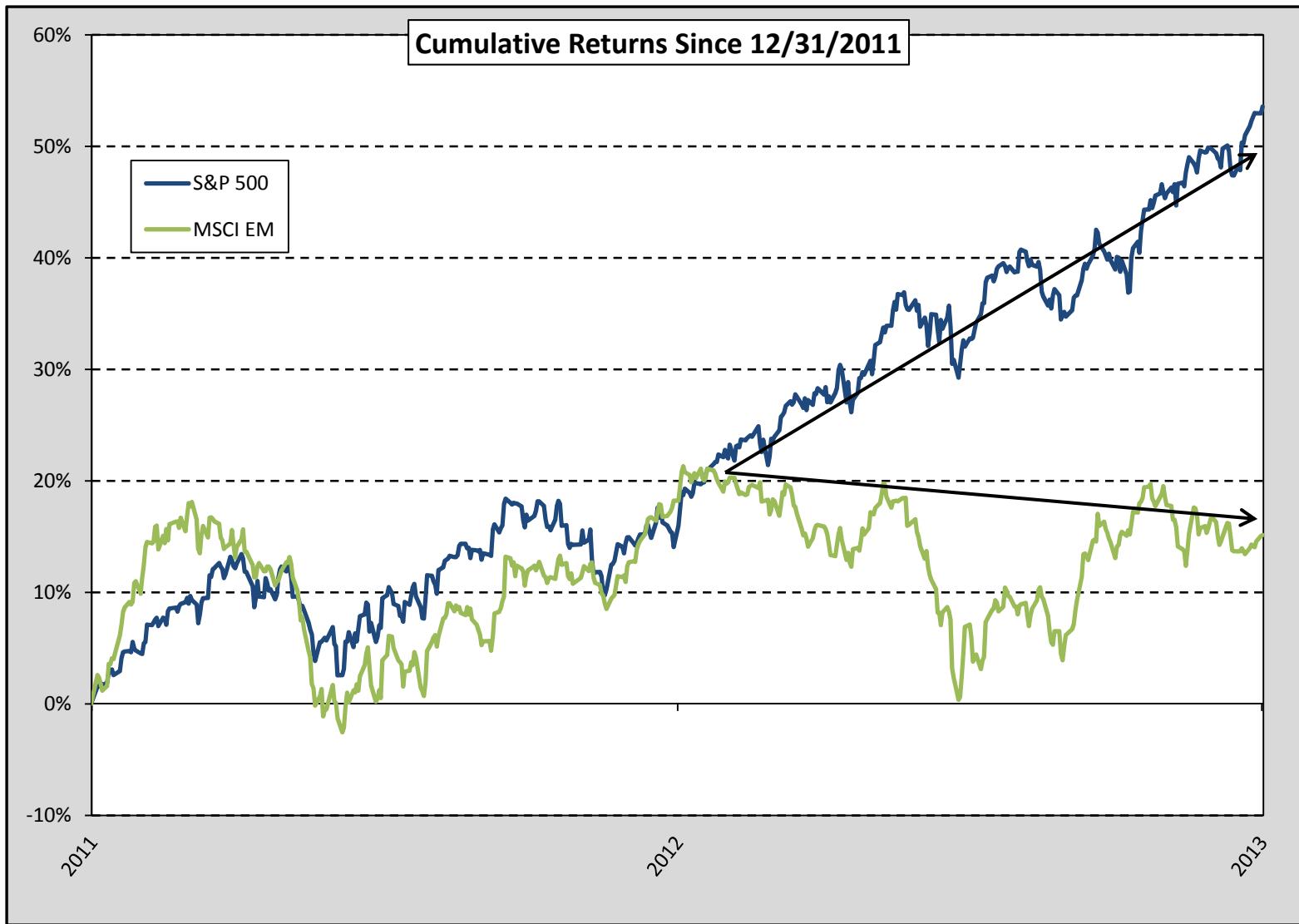


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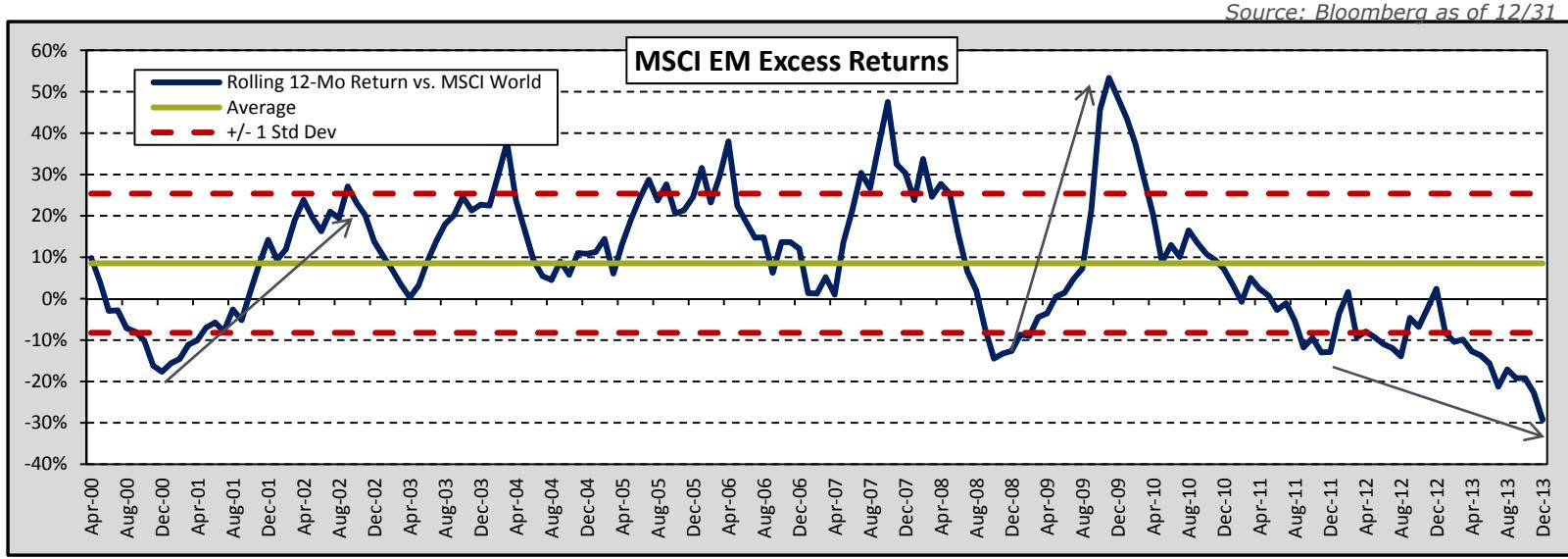
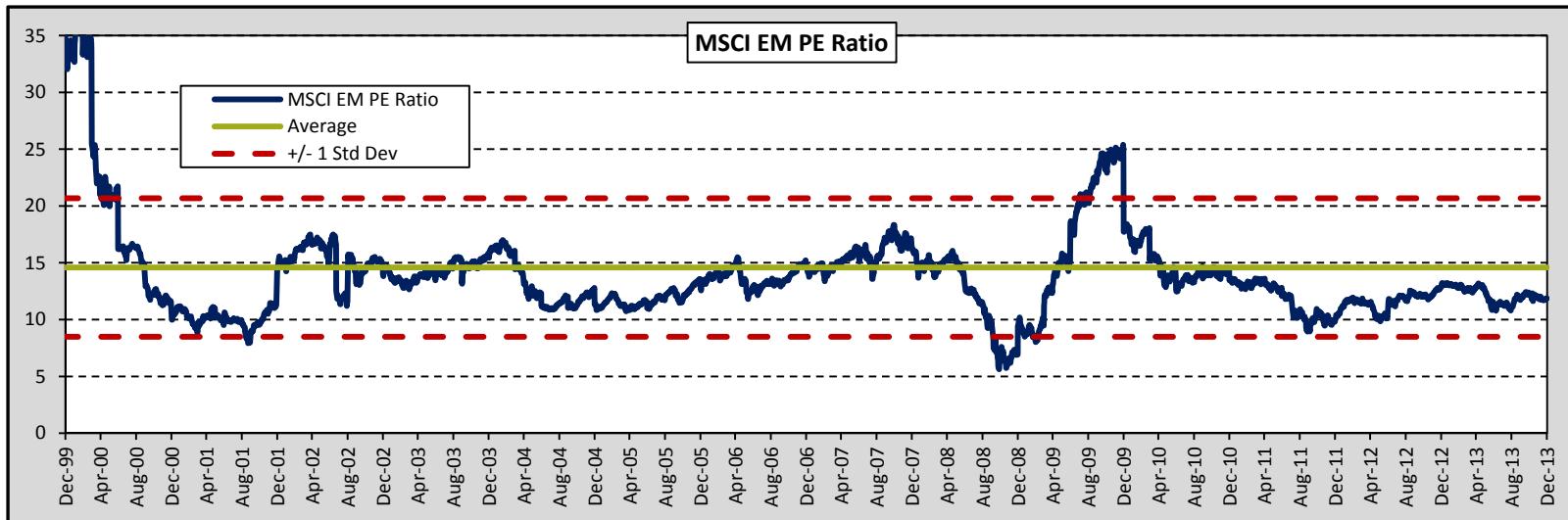
Risk Budgeting – Even at a 35% Allocation Equity is Still the Largest Risk Weight



Domestic and Emerging Equity Returns Diverged in 2013

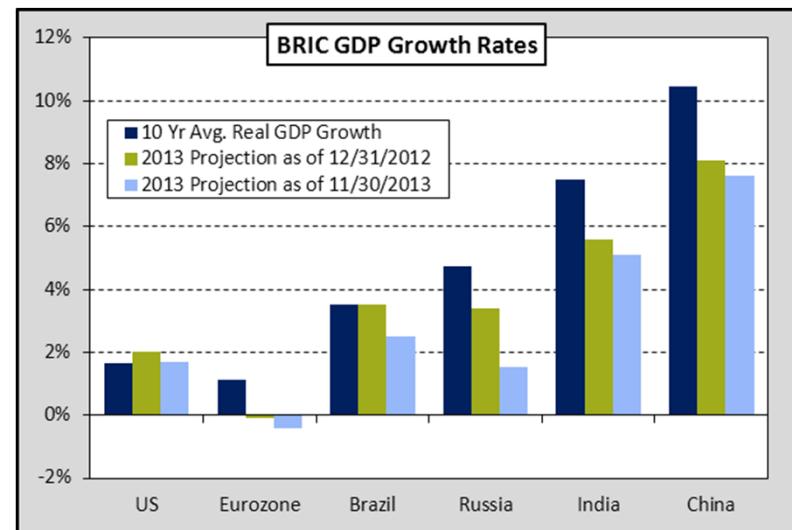


Emerging Markets Equity – Attractive Valuations...Due for a Rebound?

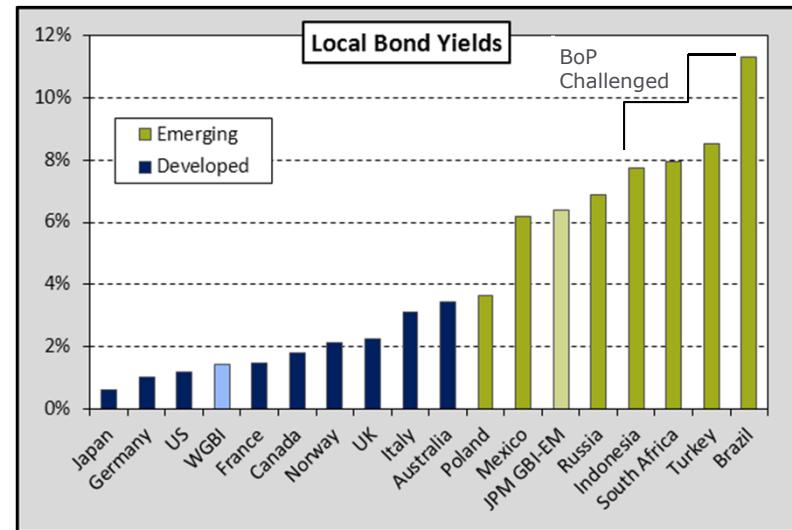


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- **Growth has moderated but remains higher than in developed world**
- **Valuation and yield levels offer some compensation for current uncertainty**
- **Recent weakness offers an opportunity to build positions for those investors with below-market exposure to EM**
- **Active implementation can facilitate management around volatility at country and security level**



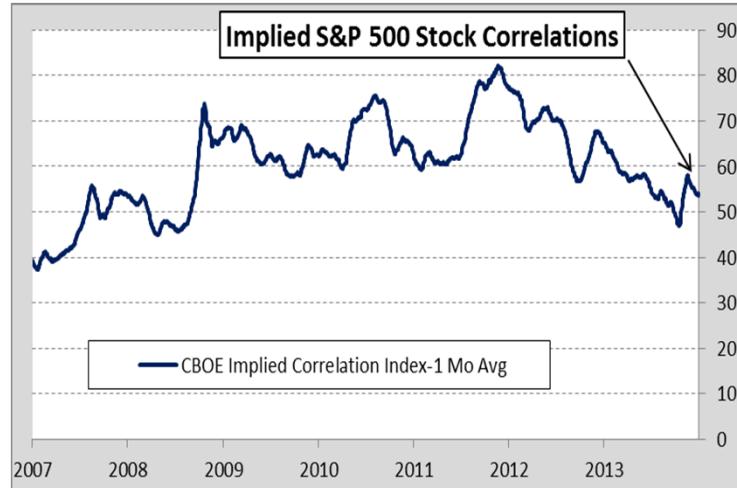
Source: Bloomberg as of 11/30



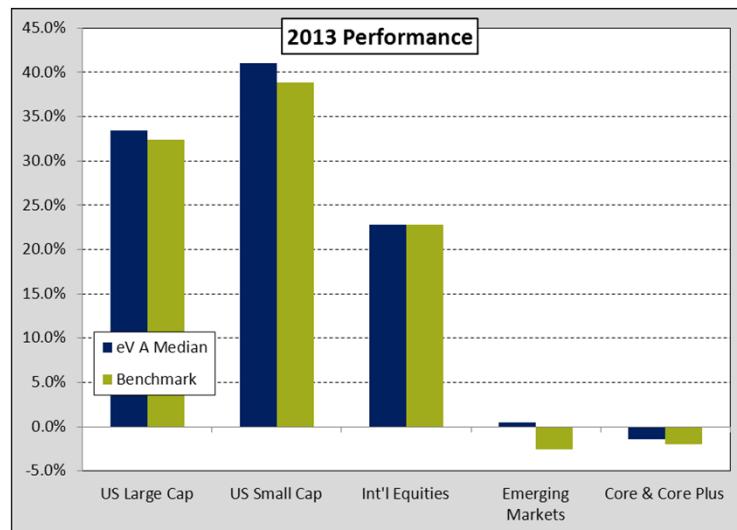
Source: Bloomberg as of 11/30

Active Management – Falling Correlations and Market Divergences Are Helping

- **Equity securities were less influenced by macro-driven events in 2013**
 - Intra-company correlations have declined toward long-term averages
- **Active managers added value in US Equity, Emerging Equity, and Core Fixed Income**
 - International managers were even with their benchmark



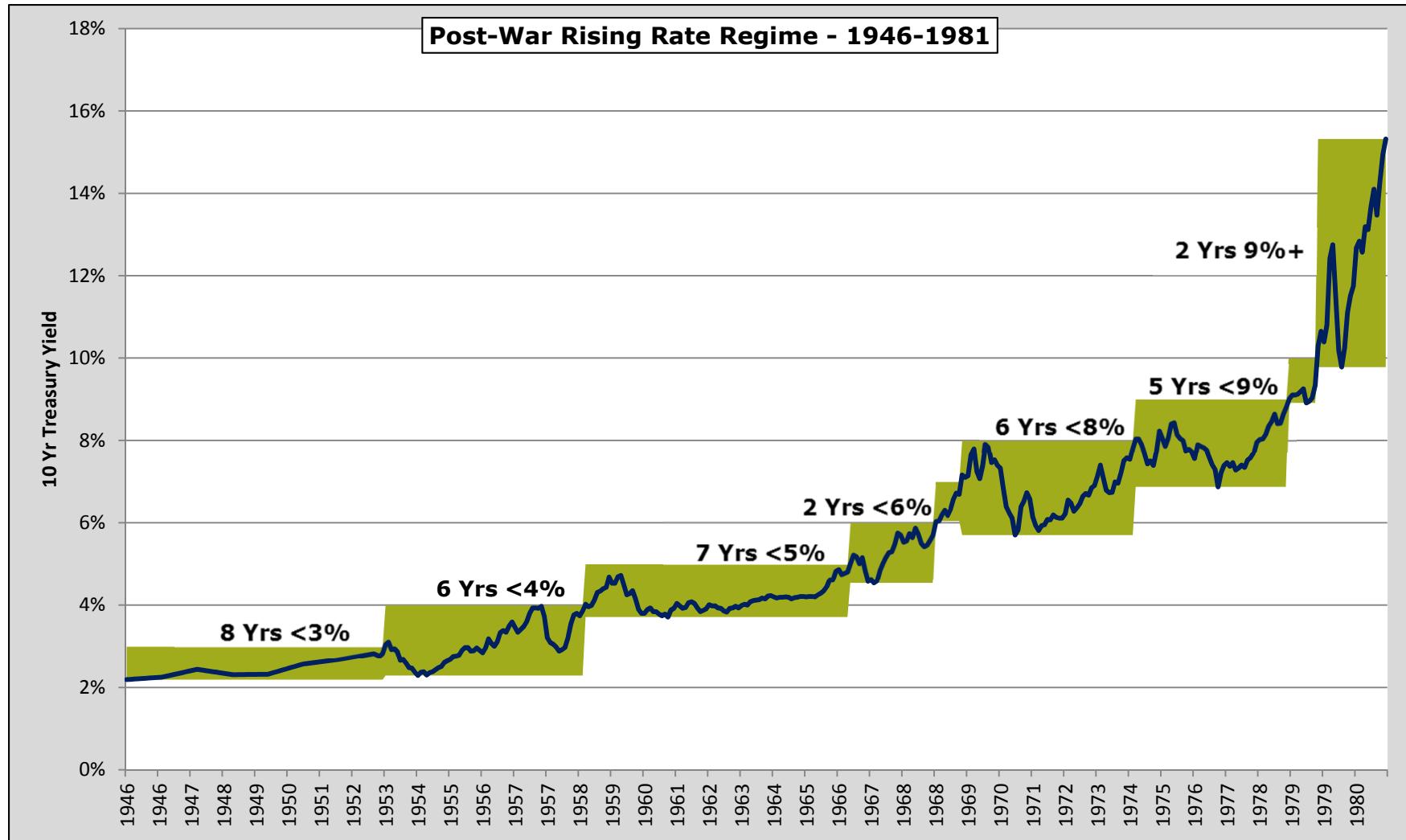
Source: Bloomberg as of 12/31



Source: eVestment Alliance, NEPC as of 12/31

- **US monetary policy is diverging from other developed markets**
- **Further increase in interest rates must harmonize with changes in economic growth and inflation**
- **Narrow credit spreads and constrained liquidity expose investors to potential downside risks**
- **Strategic exposure to interest rates remains an important element of diversification**
- **Private investments offer an illiquidity premium and higher return expectation**

Interest Rate Cycles are Long-Term and Driven by Economic Conditions

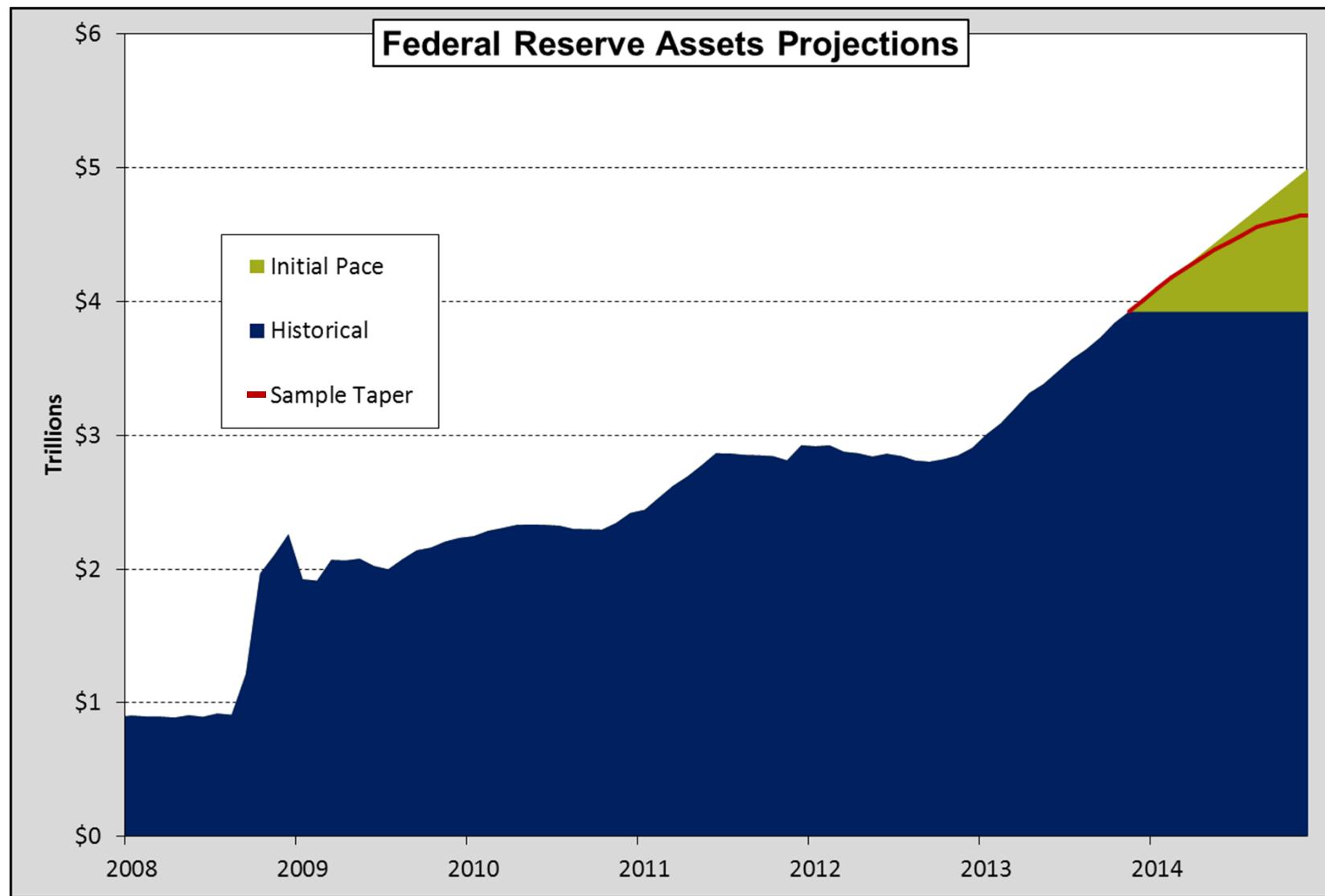


Source: Federal Reserve Bank of St. Louis



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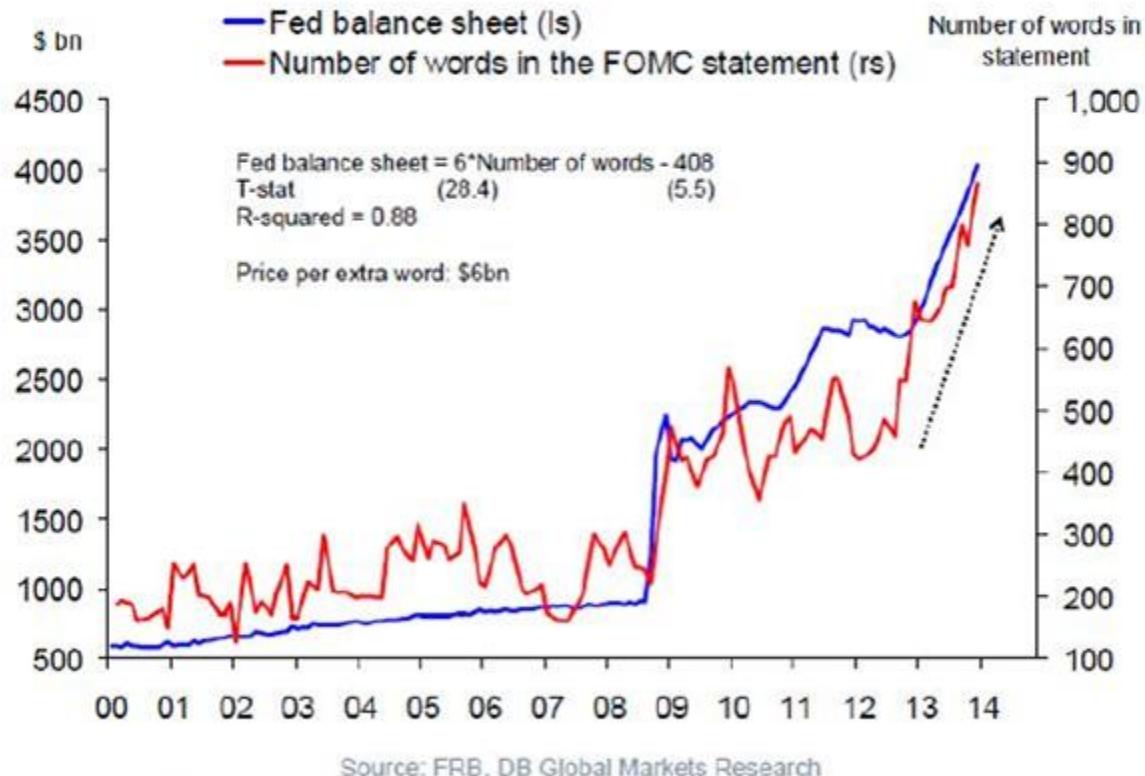
Unprecedented Monetary Policy Experiment Continues with “Taper”



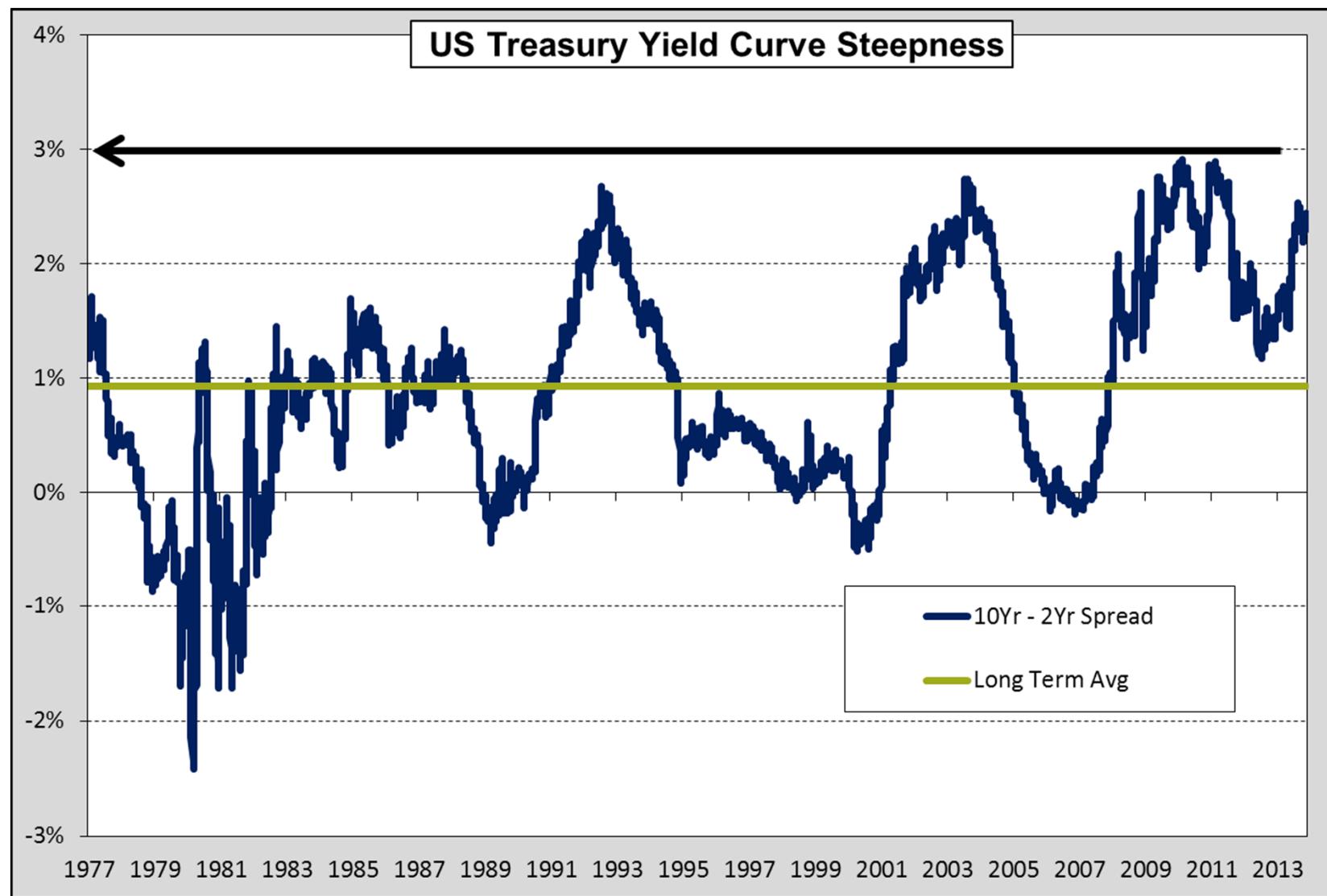
Source: NEPC, Board of Governors of the Federal Reserve System

A Picture Is Worth Nine Hundred Words

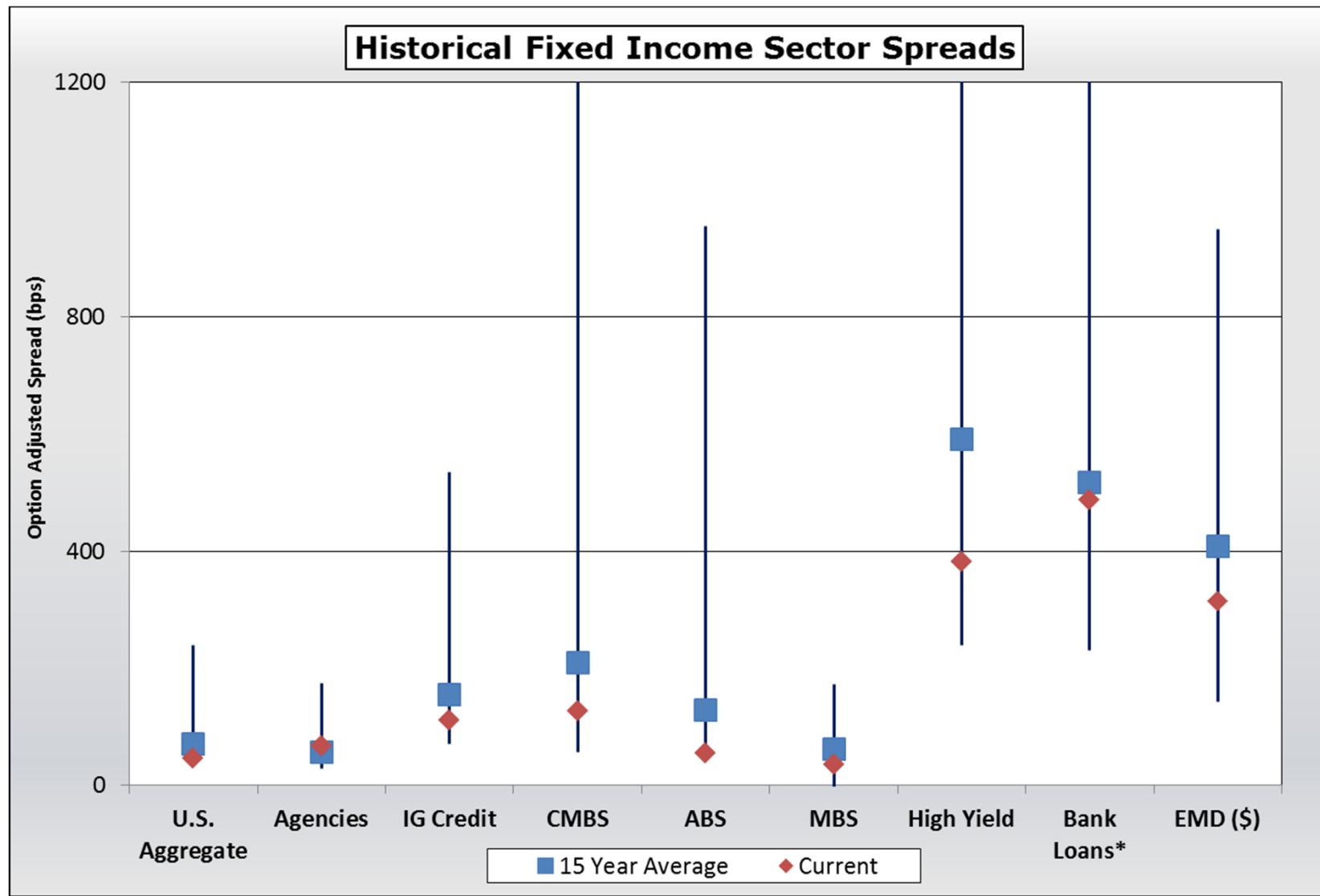
Getting closer to the 6.5% unemployment threshold and
almost 900 words in the latest FOMC statement:
More and more difficult for the Fed to explain what it is doing



10-Yr Treasury Range Bound while Fed Controls Short-Term Rates

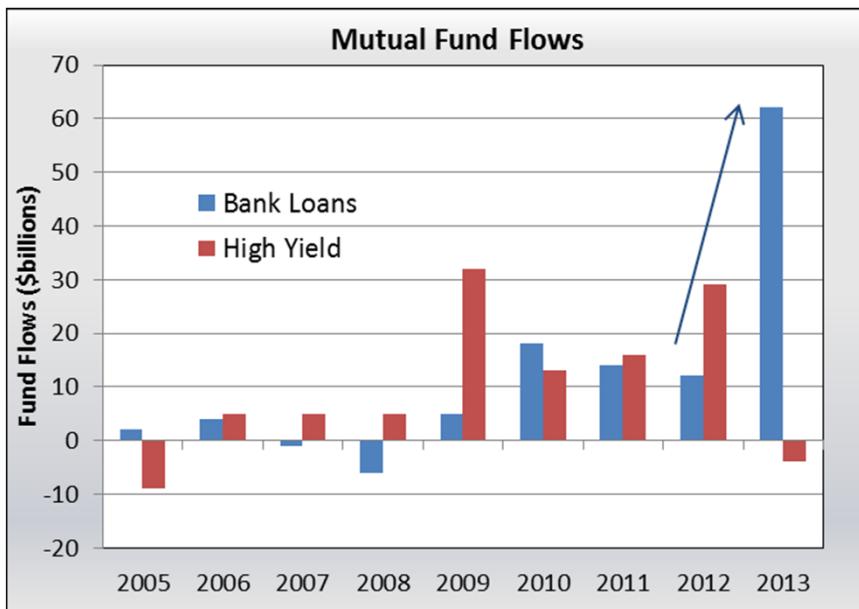


Credit Spreads Approach Pre-Crisis Levels and Yields at All-Time Lows



Source: Barclays Live, *3-year Discount Margin

Liquidity Profile of Credit Markets is Evolving



Source: JP Morgan

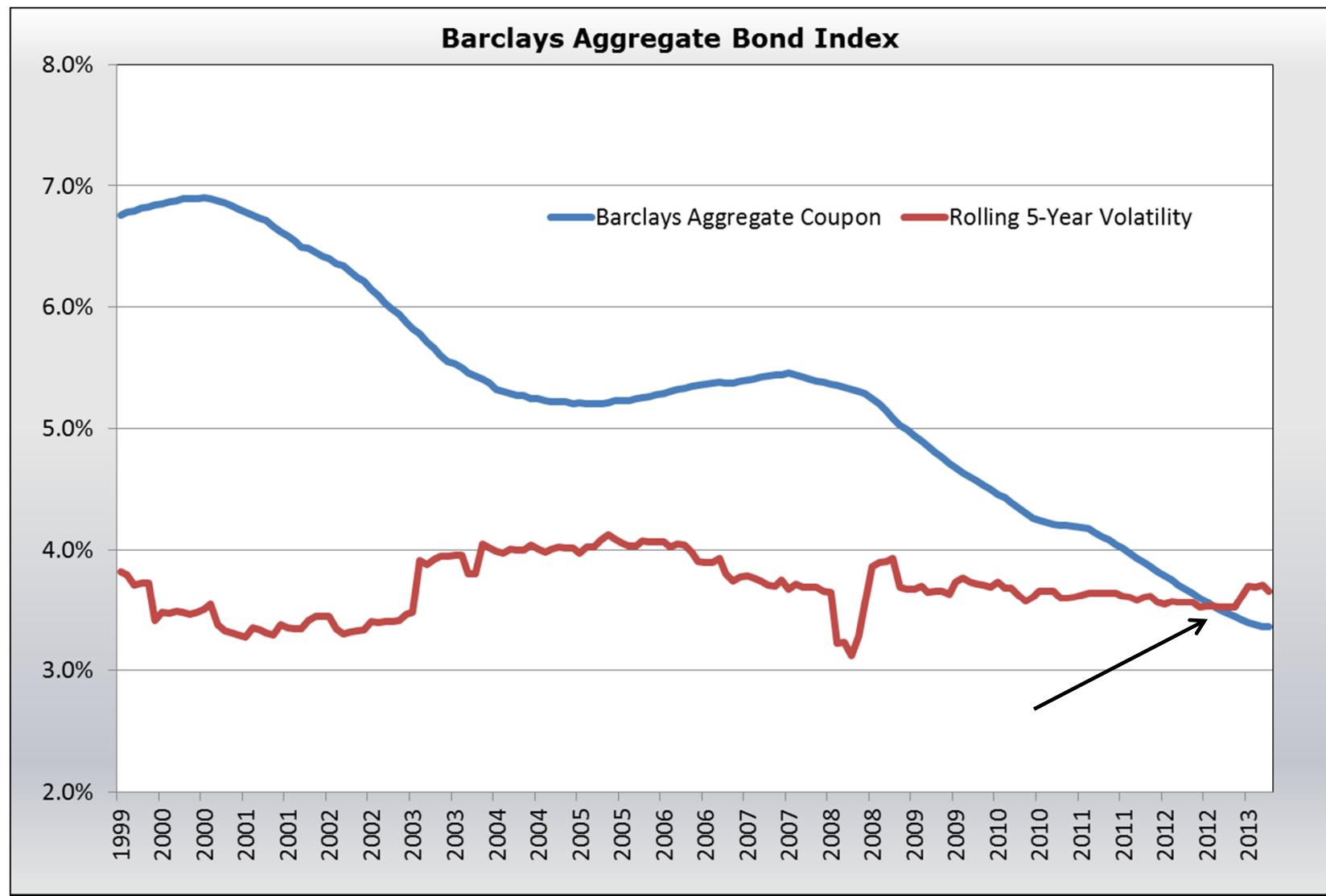


Source: Federal Reserve Bank of New York

- **Demand for higher return has led to significant flows into credit markets since 2008**
 - Increased participation of mutual funds and ETFs in credit markets could amplify illiquidity during periods of stress

- **Decline in Broker Dealer balance sheets is significant since 2008**
 - Impacts ability to transact in credit markets and enhances volatility during periods of stress

Core Bonds: Is it Time to Make a Change?



Source: Barclays Live

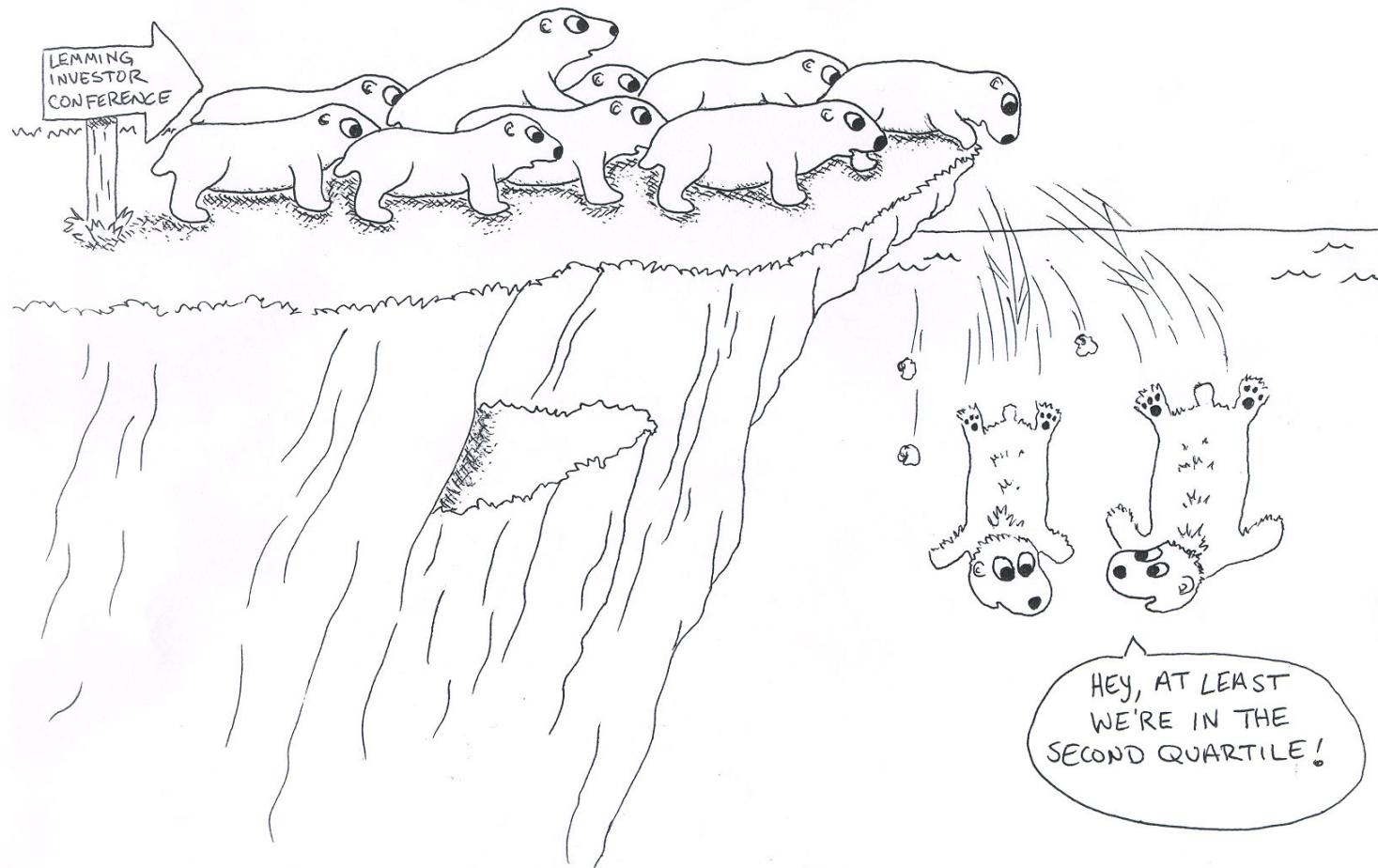


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- **Shift Core Bond exposure to Unconstrained Bond strategies**
 - Depart from traditional benchmark constraints
 - Achieve similar risk profile with improved return expectations
- **Express best ideas across full fixed income opportunity set**
 - Return expectations are subdued across “liquid” credit sectors
 - Utilize tactical credit strategies to identify pockets of value
- **Separate fixed income alpha and duration exposures**
 - Size duration exposure to align more closely with specific risk and liability profile
 - Interest rate increases in 2013 offer a more attractive price point to expand or initiate an LDI program or deflation hedge
- **Private investments offer an illiquidity premium and higher return expectations than the subdued outlook for liquid markets**
 - Barbell fixed income alpha with less liquid alternative fixed income strategies and low volatile unconstrained approaches

How Do You Define Success?

SOMETIMES IT PAYS TO BE DIFFERENT



Originally created by NEPC in 2001

Your Questions

- **Past performance is no guarantee of future results.**
- **Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **The goal of this report is to provide a basis for substantiating asset allocation recommendations.**
- **All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.**
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