Where to Invest in a Rising Rate Environment

Tuesday, March 25 | Minneapolis Club

Agenda

7:30-8 am
Light breakfast, coffee

8 - 8:45 am
Keynote speaker - Ben Emon, PIMCO
Potential for rising rates and its Broader Implications
PIMCO

8:45-9:45 am
Panel
Different Perspectives
St. Paul Teachers' Retirement Fund, NEPC, Xcel Energy

9:45-10 am
Break

10-10:30 am
Ideas for Addressing the Fixed Income Conundrum
Wellington Management

10:30-11:15 am
Views on Navigating a Raising Rate Environment
Panel of Investment Advisors

11:15-11:30 am
Closing Remarks

PIMCO

Your Global Investment Authority

A special presentation to CFA Society of Minnesota:

Outlook for U.S. Economy and Monetary Policy

March 2014

Pacific Investment Management Company LLC, 840 Newport Center Drive, Newport Beach, CA 92660, 800-387-4626

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Biography

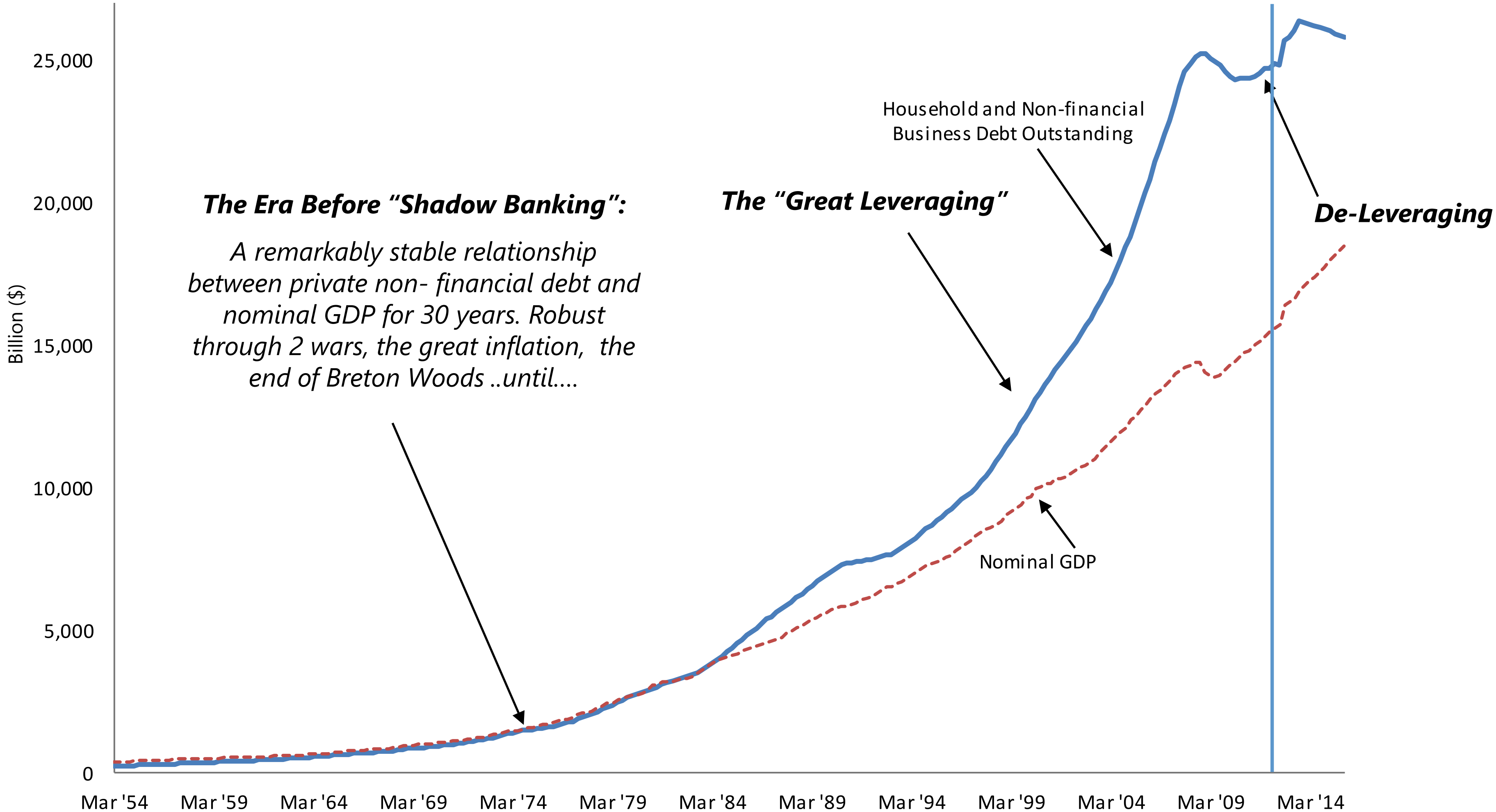
Ben Emons

Mr. Emons is a senior vice president in the Newport Beach office and a portfolio manager in the global portfolio management group. Prior to joining PIMCO, he was a portfolio manager at Nuveen Investments in Los Angeles, focusing on government bonds and derivatives. He has 18 years of investment experience and holds an MBA from the University of Southern California Marshall School of Business and a master's degree in international finance from the University of Amsterdam.

Long-Term Outlook on the U.S. Economy

Private sector deleveraging

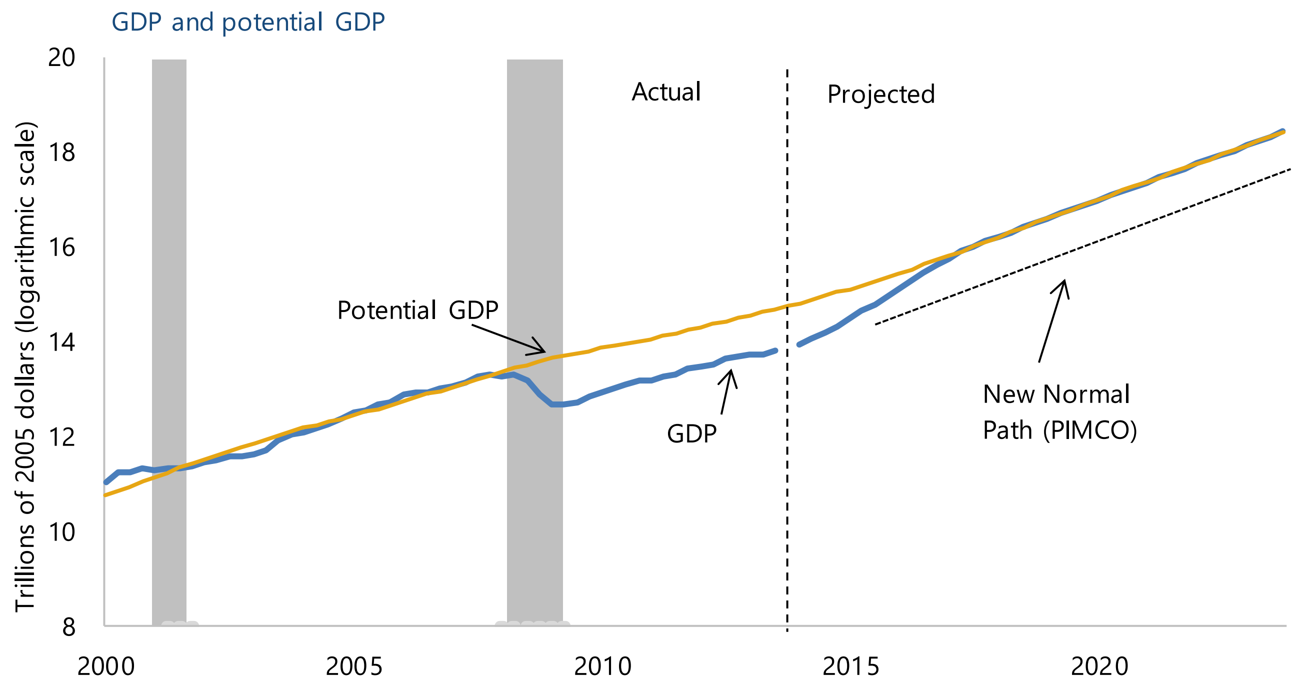
Private Non- Financial debt vs. Nominal GDP



As of 31 December 2013
SOURCE: Haver Analytics
Hypothetical example for illustrative purposes only.
Data from 31 March 2013 forward is forecasted
Refer to Appendix for additional hypothetical example and outlook information.

Washington budget forecasts rely on economy returning to pre crisis GDP path …. Why?

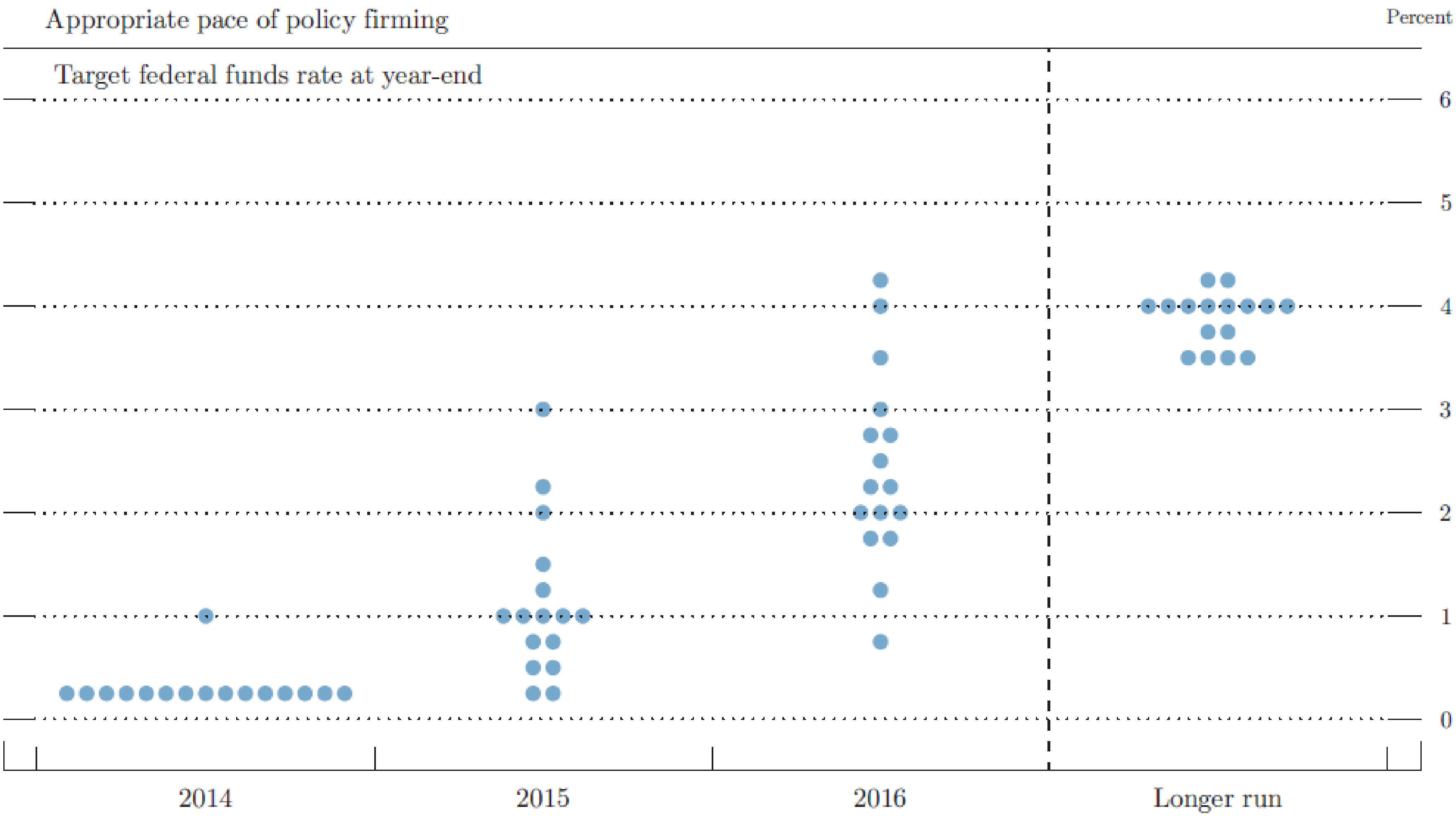
- If The New Normal Path for GDP is realized instead of return to Old Normal trend…
- The shortfall in tax receipts will likely be north of **THREE** trillion dollars over 10 year budget window!!!



As of 31 December 2013
SOURCE: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis, PIMCO
Notes: Potential gross domestic product (GDP) is CBO's estimate of the output the economy would produce with a high rate of use of its capital and labor resources. Data are quarterly. Actual data, which are plotted through the second quarter of 2012, incorporate the July 2012 revisions to the national income and product accounts. Projections, which are plotted through the fourth quarter of 2022, are based on data issued before the revisions.
Refer to Appendix for additional forecast and outlook information.

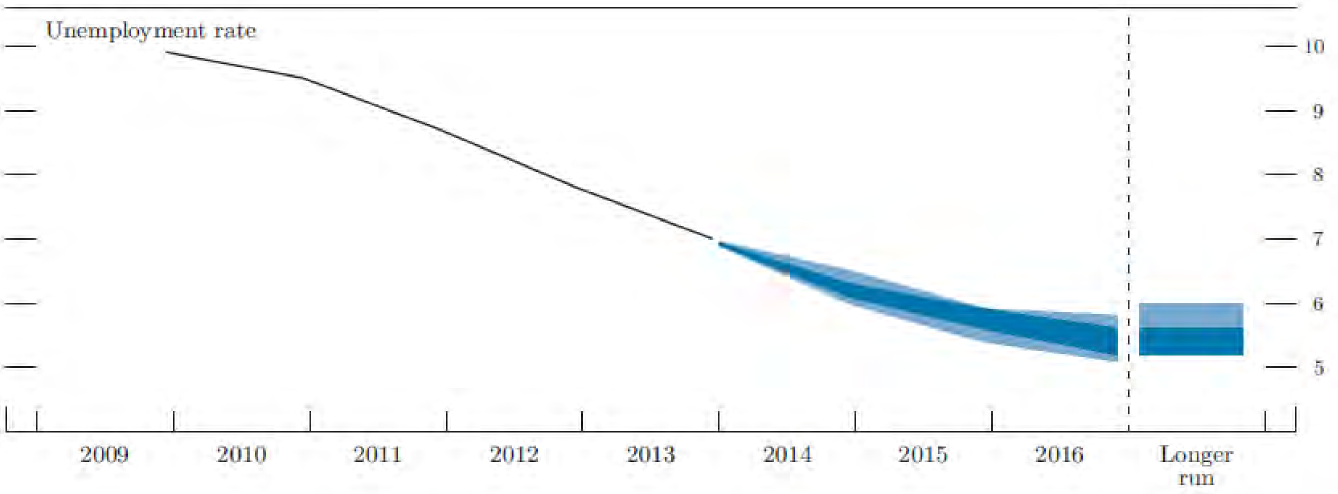
A View into the Federal Reserve

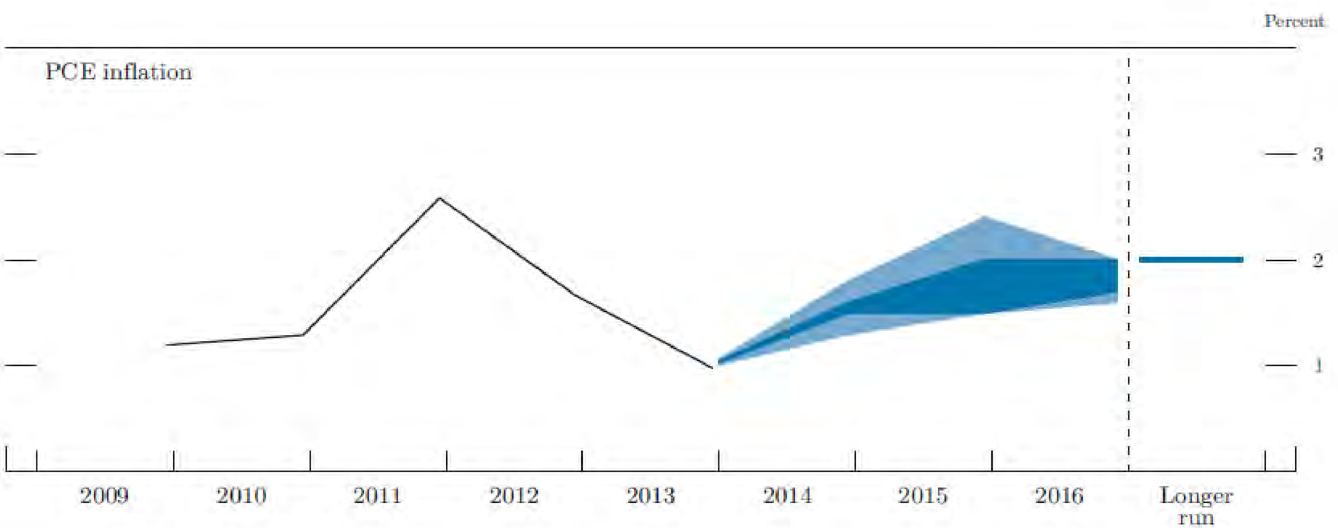
Fed sees neutral nominal policy rate at 3.75% with inflation target of 2%



As of 19 March 2014
SOURCE: Federal Reserve
Refer to Appendix for additional forecast and outlook information

Long-run Fed forecasts for unemployment and inflation





This is important!

As of 19 March 2013
SOURCE: BEA, Feder
Blue areas in charts represent different confidence intervals for the projections. The light blue represents lower confidence, the dark blue represents higher confidence. Definitions of variables are in general note to the projections table. The data for the actual values of the variables are annual.
Refer to Appendix for additional forecast and outlook information.

U.S. Interest Rate Outlook

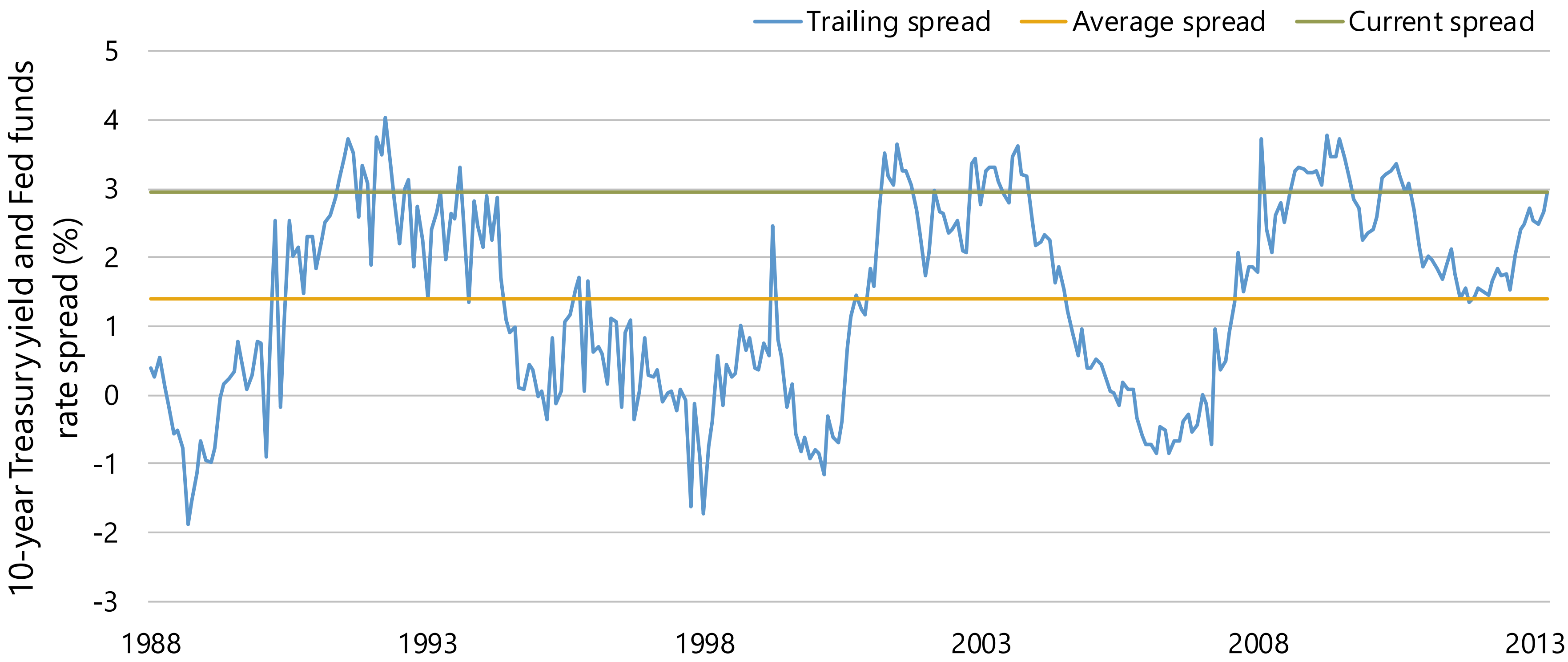
U.S. Interest Rate Outlook

PIMCO’s assessment of fair value, yield range forecast, and fundamentals driving 10-year yields

4.0%	Ceiling based on 0% fed funds rate
-1.0%	Impact of Fed purchasing programs and forward guidance
-0.8%	Impact of potentially diminished GDP growth related to: • Demographic influences • Global debt dynamics • Economic and political uncertainty throughout the world
=2.2%	**Fair value. Yields are likely to fluctuate in a range between 2.5% to 3.0% until a clearer picture emerges on economic growth in 2014**

As of December 2013
SOURCE: PIMCO
Refer to Appendix for additional forecast information.

Yields historically anchored by Fed funds rate



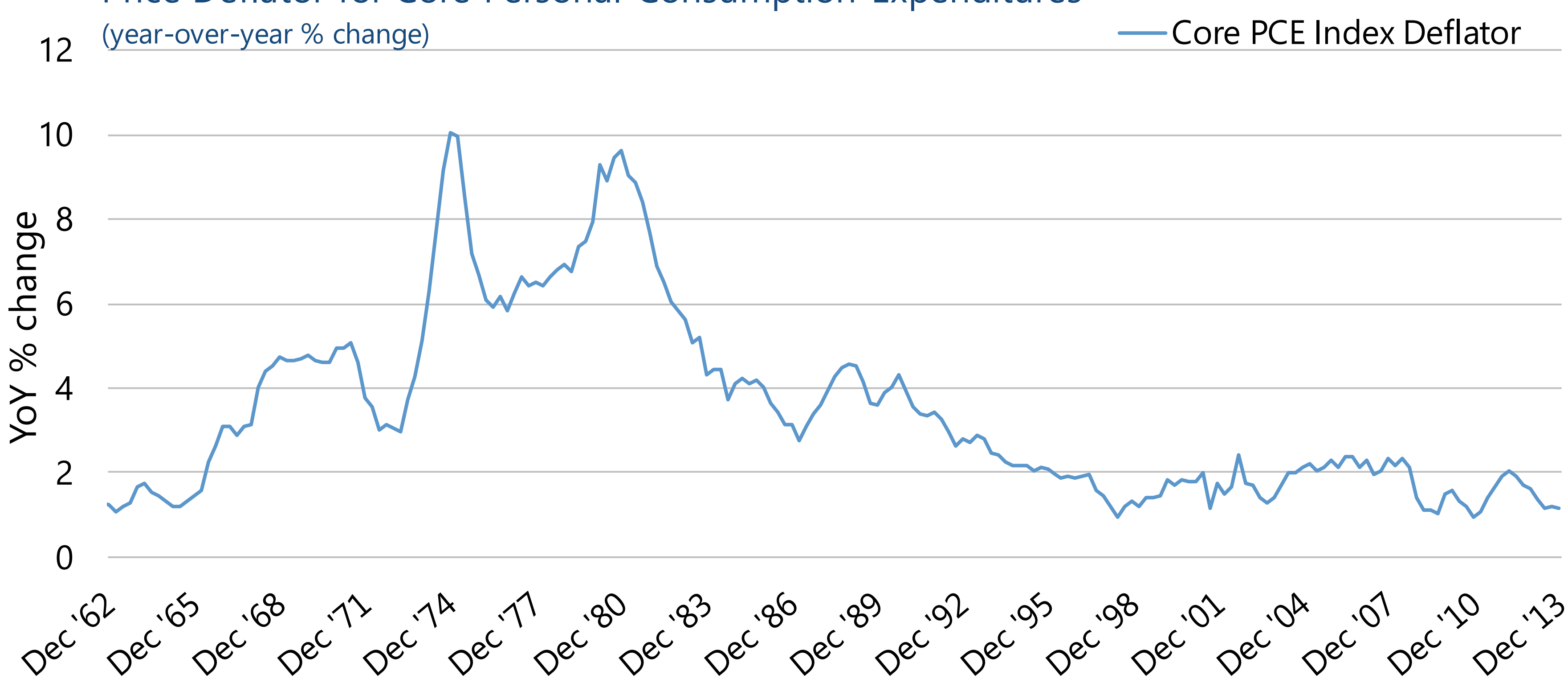
As of 31 December 2013
SOURCE: Bloomberg
Trailing and average spreads compared using month-end data

Low inflation allows the Fed to be patient on rates despite change in forward guidance

"The Committee continues to anticipate, based on its assessment of these factors, that it likely will be appropriate to maintain the current target range for the federal funds rate for a considerable time after the asset purchase program ends, especially if projected inflation continues to run below the Committee's 2 percent longer-run goal, and provided that longer-term inflation expectations remain well anchored" FOMC Statement, March 19, 2014

Price Deflator for Core Personal Consumption Expenditures

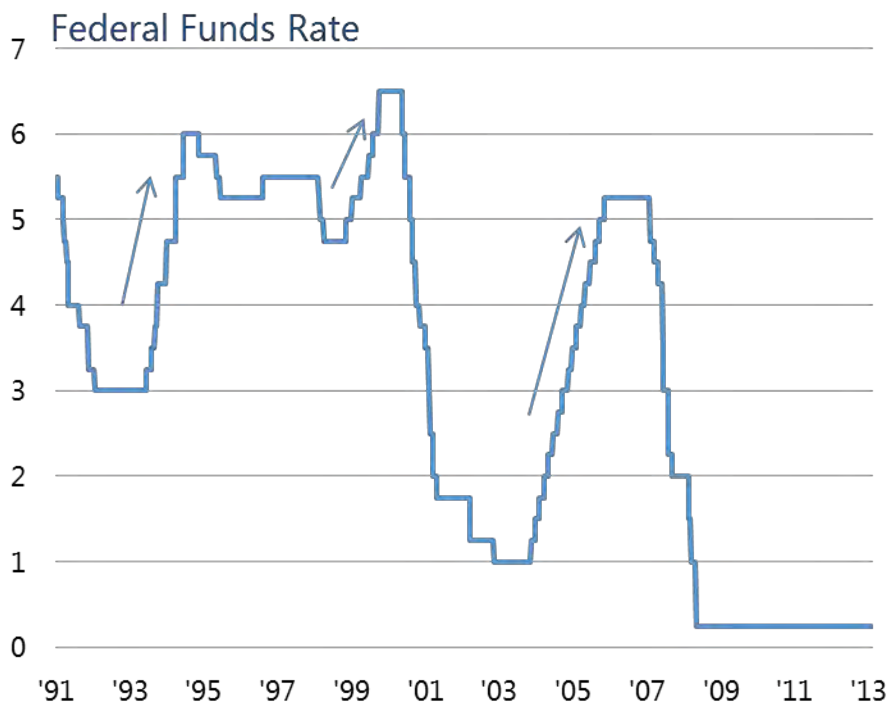
(year-over-year % change)

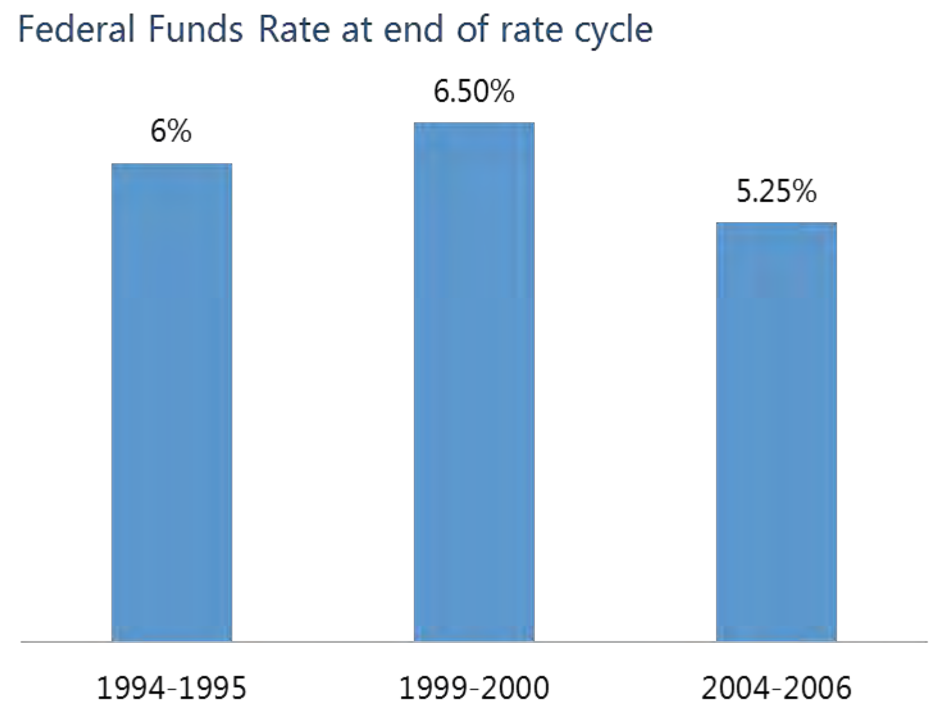


As of 31 December 2013
SOURCE: Bloomberg

It's a New Normalization – For Fed Policy

The Fed's projection for a 2.5% policy rate at the end of 2016 contrasts sharply with past rate hike cycles

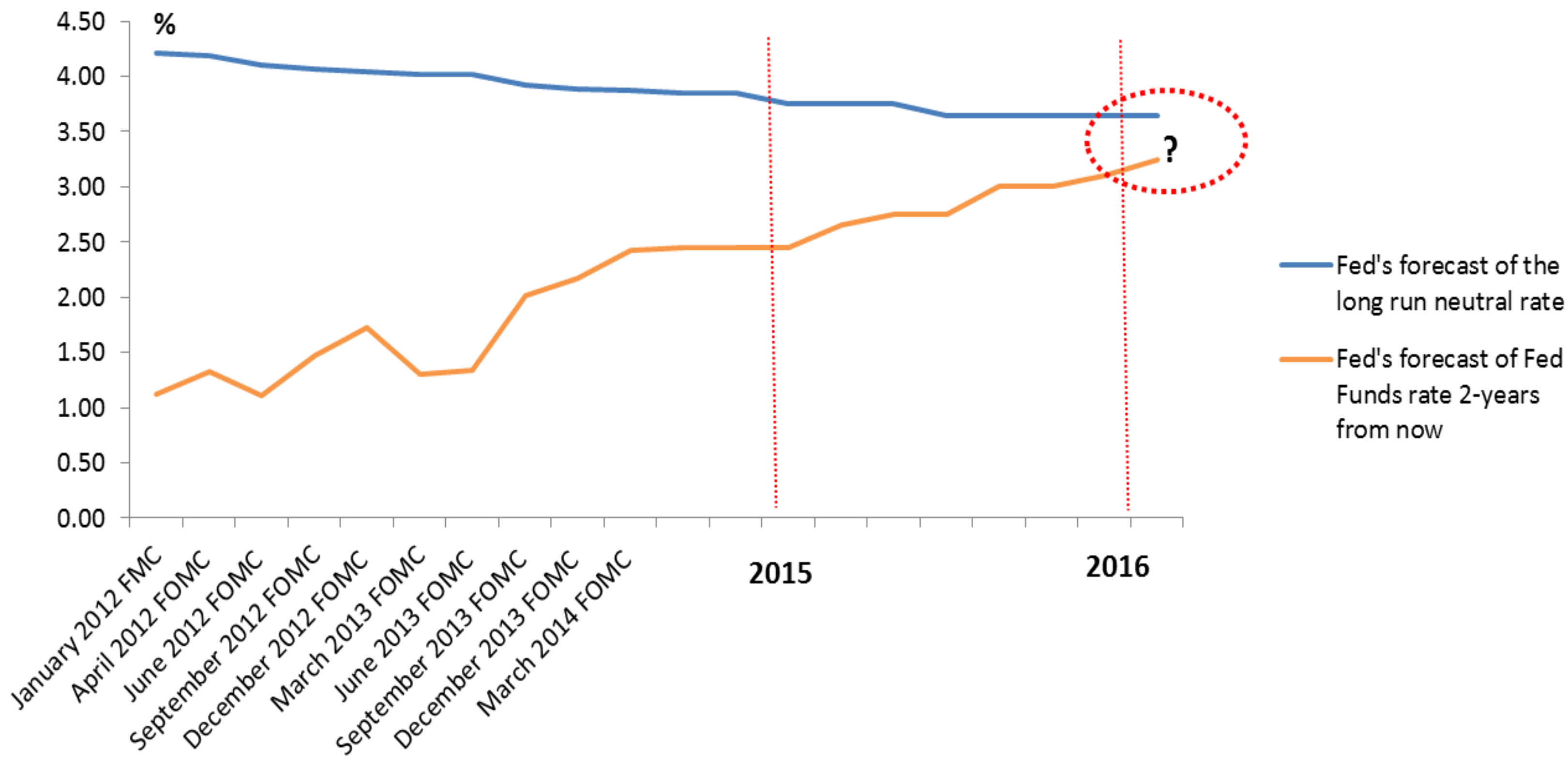




As of 31 December 2013
SOURCE: Federal Open Market Committee (FOMC)

It's a New Normalization – For Fed Policy (cont.)

The Fed's projection for a 2.5% policy rate at the end of 2016 vs. the Fed's perceived "neutral Fed Funds rate" at 3.88% suggests a potential different future terminal rate than in the past



As of 19 March 2014
SOURCE: Federal Open Market Committee (FOMC)
Refer to Appendix for additional forecast and outlook information.

Questions?

Appendix

FORECASTS
Forecasts, estimates, and certain information contained herein are based upon proprietary research and should not be interpreted as investment advice, as an offer or solicitation, nor as the purchase or sale of any financial instrument. Forecasts and estimates have certain inherent limitations, and unlike an actual performance record, do not reflect actual trading, liquidity constraints, fees, and/or other costs. In addition, references to future results should not be construed as an estimate or promise of results that a client portfolio may achieve.

HYPOTHETICAL EXAMPLE
No representation is being made that any account, product, or strategy will or is likely to achieve profits, losses, or results similar to those shown. Hypothetical or simulated performance results have several inherent limitations. Unlike an actual performance record, simulated results do not represent actual performance and are generally prepared with the benefit of hindsight. There are frequently sharp differences between simulated performance results and the actual results subsequently achieved by any particular account, product or strategy. In addition, since trades have not actually been executed, simulated results cannot account for the impact of certain market risks such as lack of liquidity. There are numerous other factors related to the markets in general or the implementation of any specific investment strategy, which cannot be fully accounted for in the preparation of simulated results and all of which can adversely affect actual results.

OUTLOOK
Statements concerning financial market trends are based on current market conditions, which will fluctuate. There is no guarantee that these investment strategies will work under all market conditions or are suitable for all investors and each investor should evaluate their ability to invest for the long-term, especially during periods of downturn in the market. Outlook and strategies are subject to change without notice.

RISK
All investments contain risk and may lose value. Investing in the bond market is subject to certain risks, including market, interest rate, issuer, credit and inflation risk.

This material contains the current opinions of the manager and such opinions are subject to change without notice. This material has been distributed for informational purposes only and should not be considered as investment advice or a recommendation of any particular security, strategy or investment product. There is no guarantee that these investment strategies will work under all market conditions and each investor should evaluate their ability to invest for a long-term especially during periods of downturn in the market. Information contained herein has been obtained from sources believed to be reliable, but not guaranteed. No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission. PIMCO and YOUR GLOBAL INVESTMENT AUTHORITY are trademarks or registered trademarks of Alllianz Asset Management of America L.P. and Pacific Investment Management Company LLC, respectively, in the United States and throughout the world. Pacific Investment Management Company LLC, 840 Newport Center Drive, Newport Beach, CA 92660, 800-387-4626. ©2014, PIMCO.

INDEX DESCRIPTIONS
The 3-Month LIBOR (London Interbank Offered Rate) Index is an average interest rate, determined by the British Bankers Association, that banks charge one another for the use of short-term money (3 months) in England's Eurodollar market.

It is not possible to invest directly in an unmanaged index.

Panel: Different Perspectives

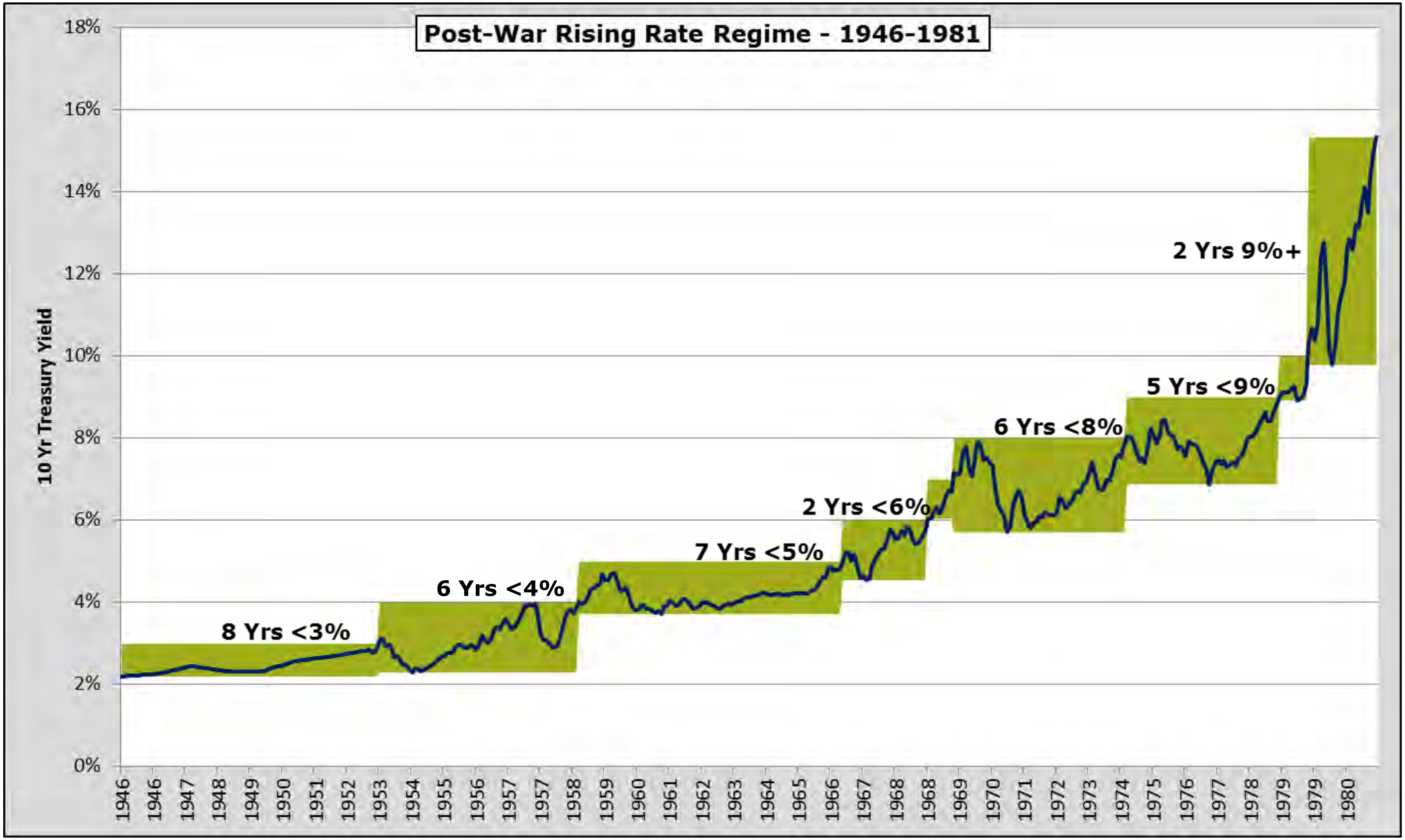
St. Paul Teachers' Retirement Fund

NEPC

Xcel Energy

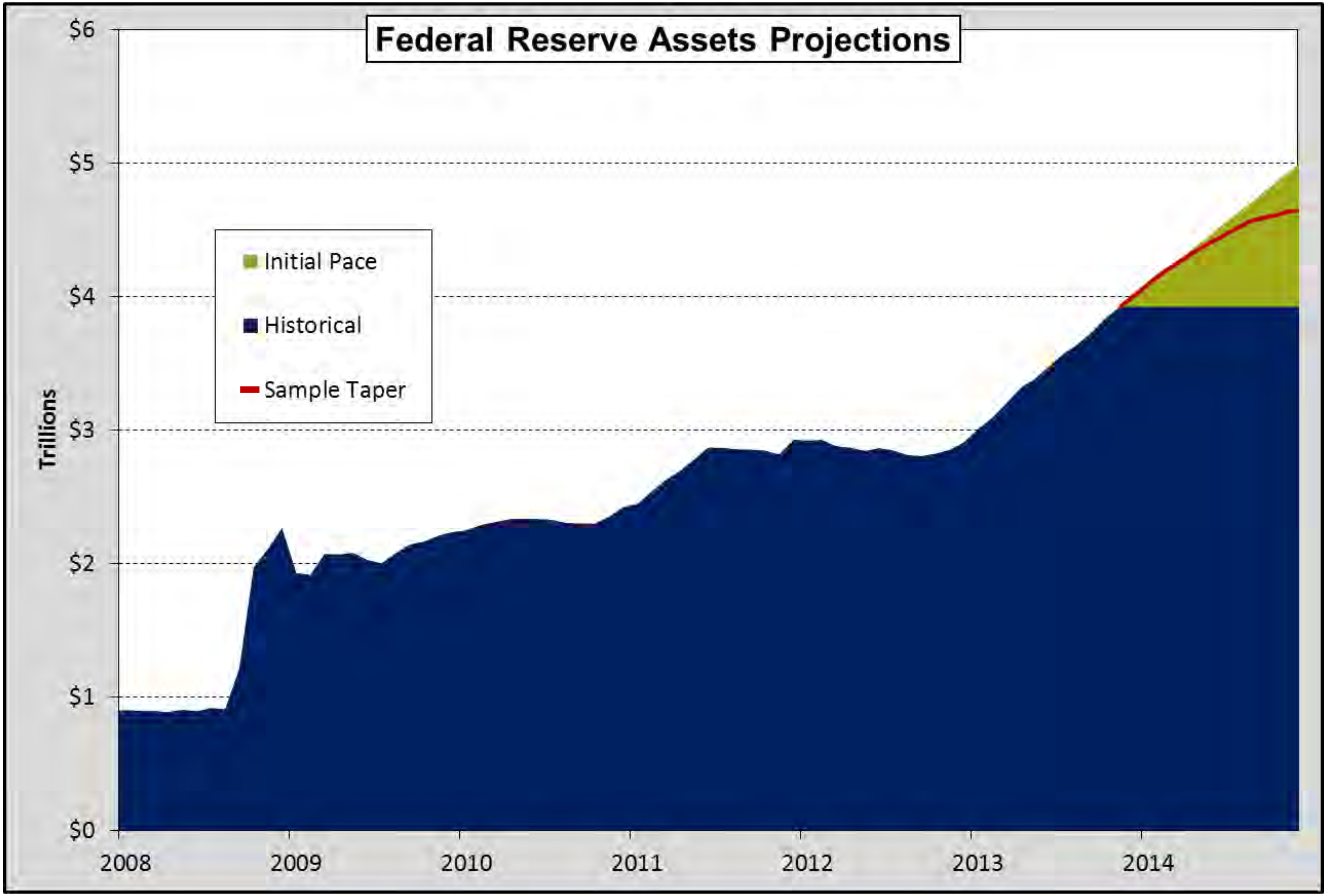
- **US monetary policy is diverging from other developed markets**
- **Further increase in interest rates must harmonize with changes in economic growth and inflation**
- **Narrow credit spreads and constrained liquidity expose investors to potential downside risks**
- **Strategic exposure to interest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

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



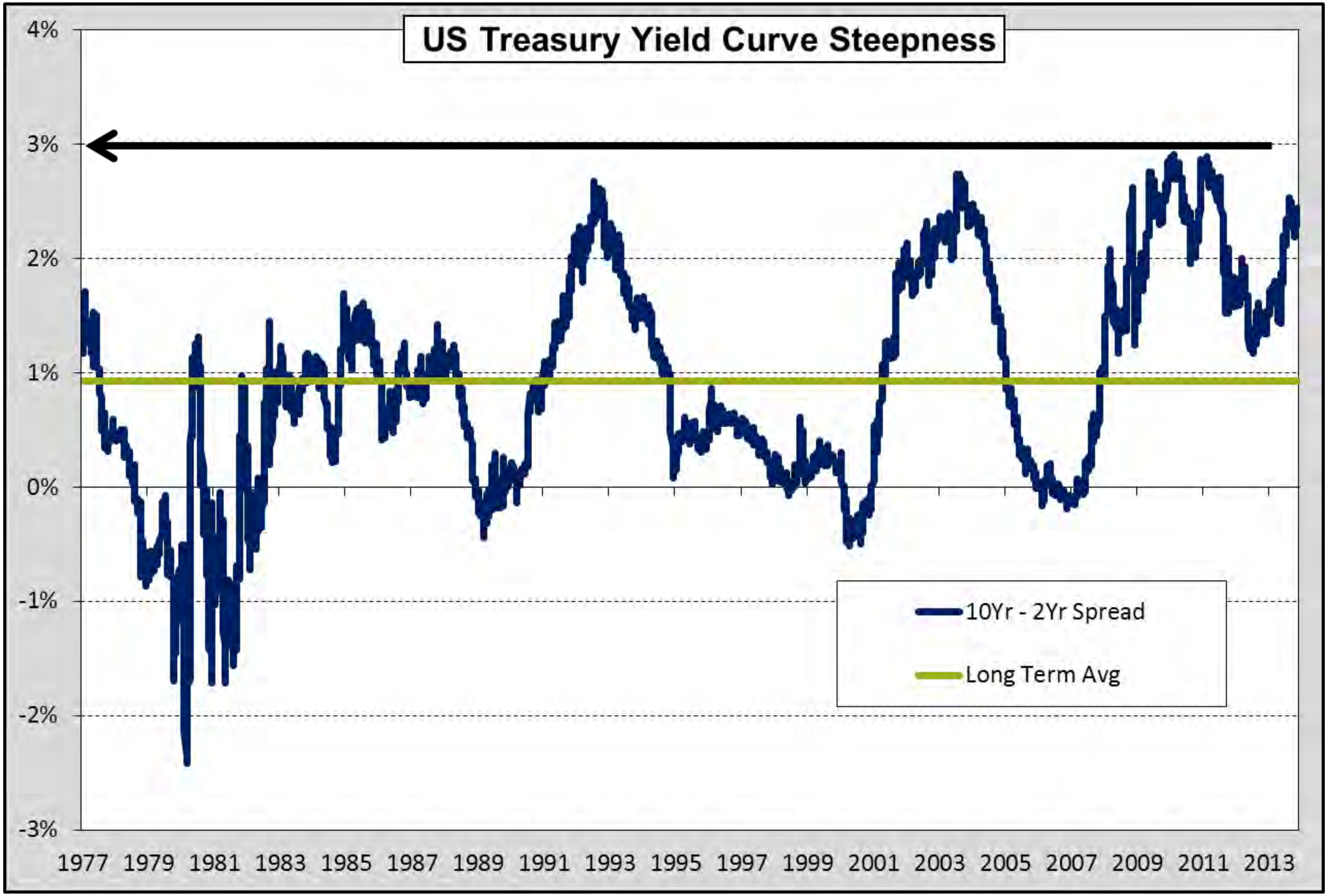
Source: Federal Reserve Bank of St. Louis

Unprecedented Monetary Policy Experiment Continues with "Taper"



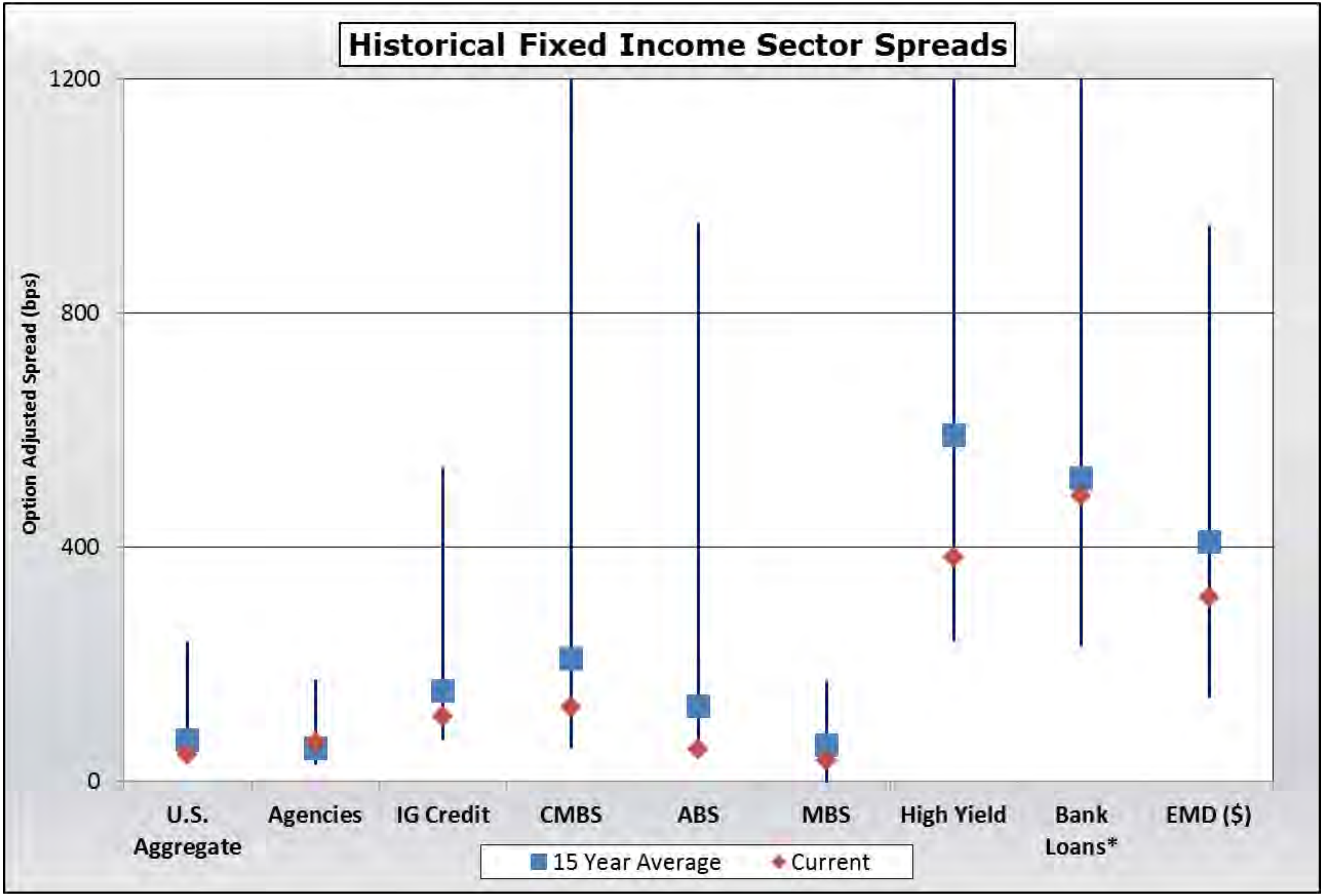
Source: NEPC, Board of Governors of the Federal Reserve System

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

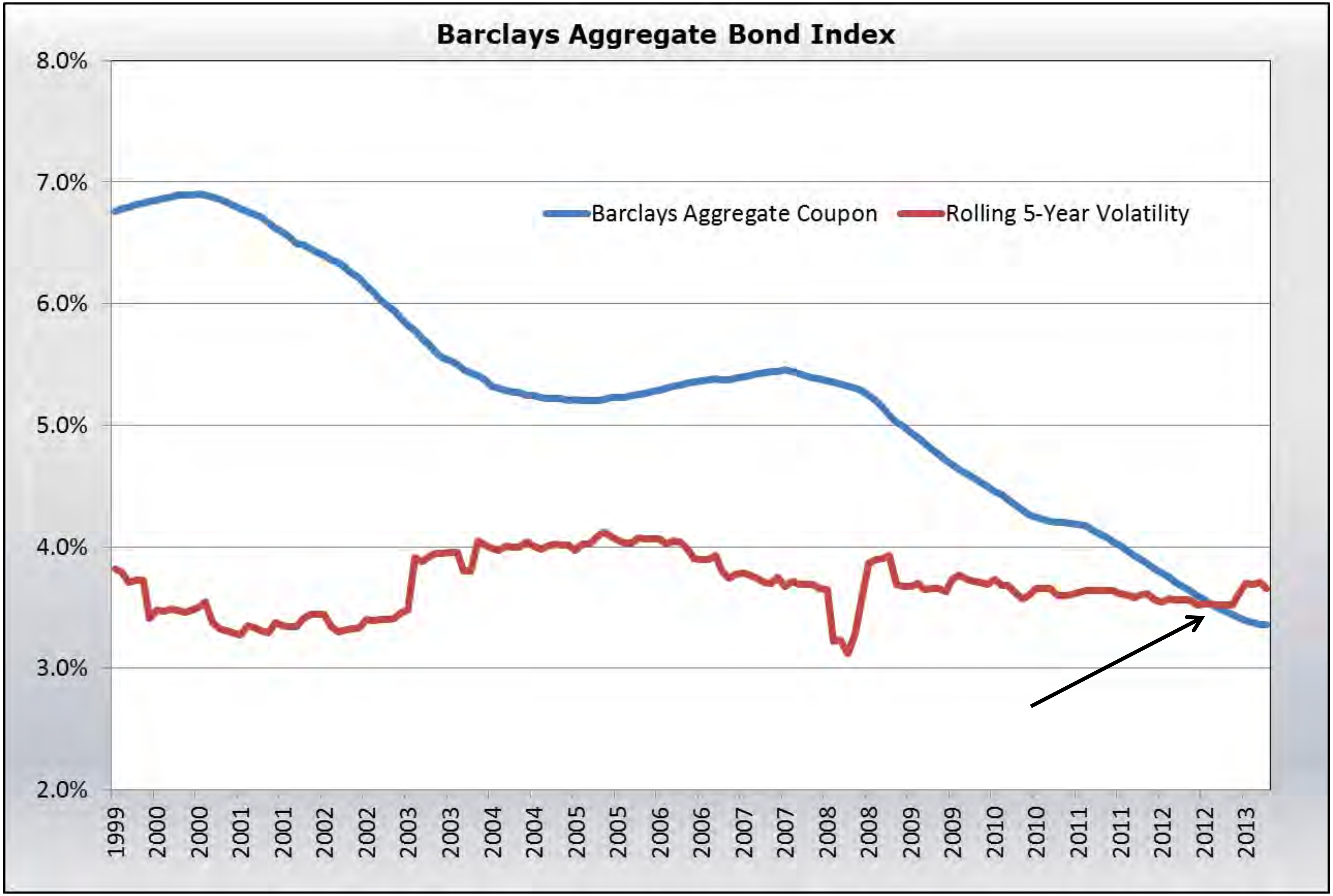


Source: NEPC, Board of Governors of the Federal Reserve System

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



Source: Barclays Live, *3-year Discount Margin

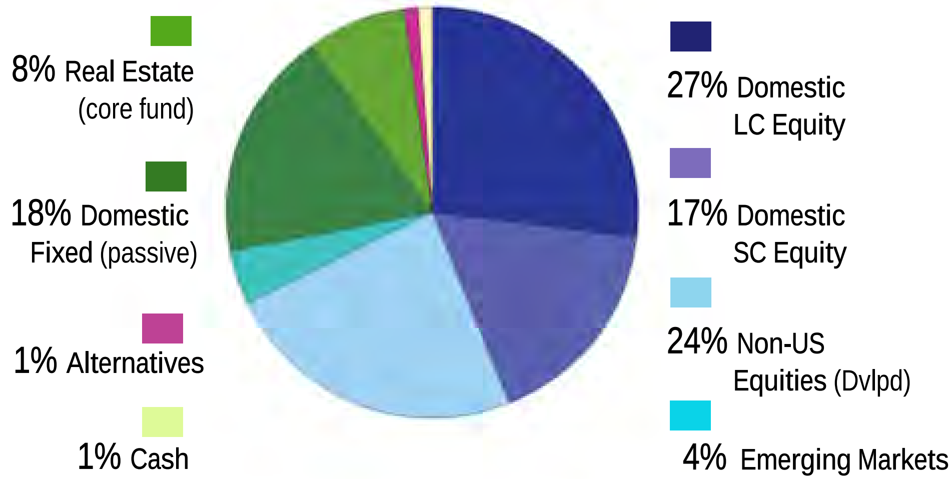


Source: Barclays Live

Risks – There Are Way Too Many To Count

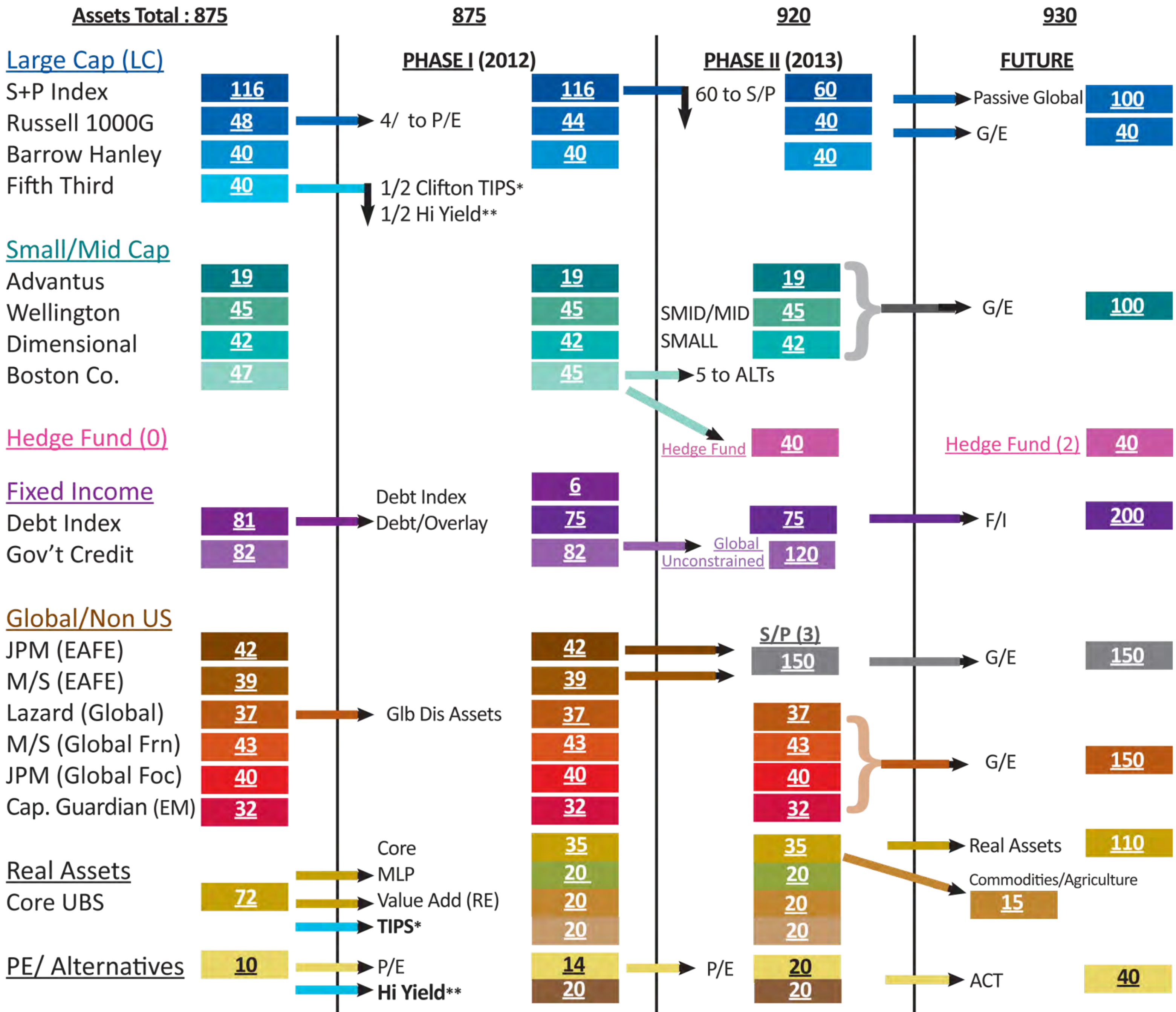
Portfolio as of Spring 2011

SPTRFA

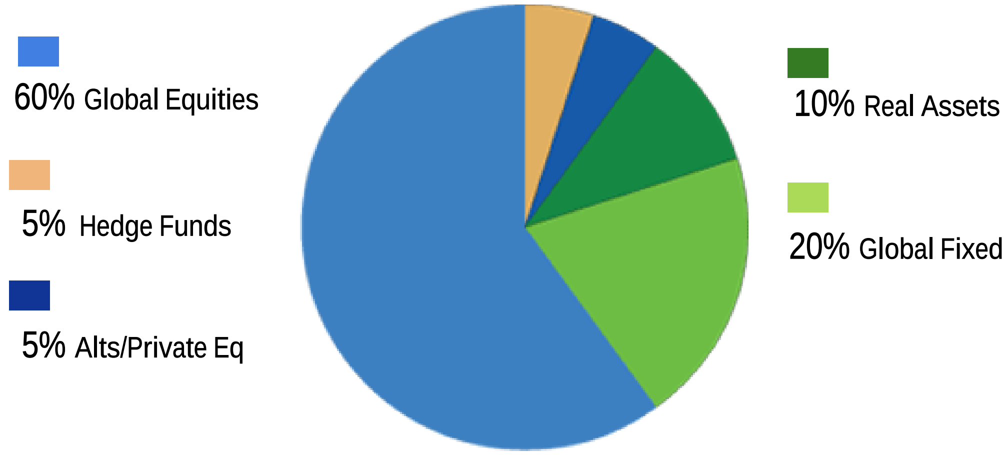


Company Specific Exposure

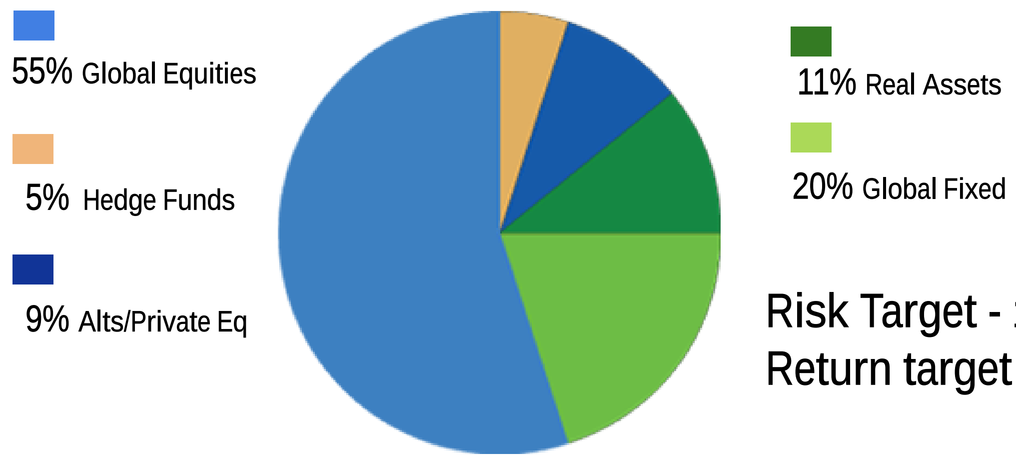
Portfolio Realignment Plan



Portfolio as of Spring 2014



Long Term Target Portfolio



Risk Target - 10-11% (.5% < Policy Risk)

Return target - 8%

Recent Quarterly Returns with Peer Rankings

Fiscal Year 2012	*Return*	*Peer Ranking Qtr/Year*
1Q (9/11)	-12.5%	96%
2Q (12/11)	7.3%	12%
3Q (3/12)	9.9%	5%
4Q (6/12)	-3.3 (0.3%)	96% / (74%)

Fiscal Year 2013	*Return*	*Peer Ranking Qtr/Year*
1Q (9/12)	4.9%	49%
2Q (12/12)	1.7%	48%
3Q (3/13)	6.1%	30%
4Q (6/13)	0.7% 13.9%	31% / (26%)

Recent Quarterly Returns with Peer Rankings

Fiscal Year *2014*

	Return		*Peer Ranking Qtr/Year*
1Q (9/13)	5.4%		34%
2Q (12/13)	6.2%	11.9%	16%
3Q (2/14)	1.1%	13.2%	

Periods Ending	Standard Deviation	Sharpe Ratio	Up Capture	Down Capture
January ’13	11.66%	0.65%	110.18%	102.54%
June	11.46%	0.66%	110.48%	101.28%
December	11.33%	0.74%	110.25%	101.91%

Portfolio Strategies Implemented

SPTRFA

1) Lessen Reliance (exposure) on domestic equities
2) Shift Fixed Income focus from domestic passive to active global
3) Among equities, unwind geographic centric mandates: EAFE, Emg Markets
4) Focus on lower correlated mandates even within Asset Classes
5) Give Managers (especially fixed) broader latitude and encourage nimbleness

    + Unconstrained- (duration +/-, credit, emerging debt, "best ideas")

    + Mindful of Statutory/policy limits (hi-yield, floating rate/bank loans)

Fixed Income Portfolio Mandates

SPTRFA

April 2011

Passive Accounts

1) Gov’t/Credit (10%)
2) Debt Index (8%)

April 2014

Active (co-mingled/separate accounts)

1) Domestic “core plus” (8%)
2) Global Unconstrained (2) (10%)
3) TIPS (2%)
4) Dedicated Hi-Yield (3%)
5) Sht Dur w/Overlay (+5) (2%)
6) H/F Credit Strategies (2%)

Break

9:45-10 am

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Fixed Income Conundrum

25 March 2014

Tom Coleman
Investment Director

Fixed Income 2014

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Economic recovery has been slowly playing out

Fixed Income valuations are no longer obvious
• Rates will rise, but at what pace?
• Income is available, but further spread compression will be limited

Liquidity is at a premium: use it!

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Where are rates going?

At the end of 2014, where do you expect the US 10-Year Treasury Bond rate to be relative to today's rate?

a. Lower
b. 20 bps higher
c. 50 bps higher
d. 1 00 bps higher
e. More than 100 bps higher

Note: UST 10-year rate was 2.77% as of 11 March 2014

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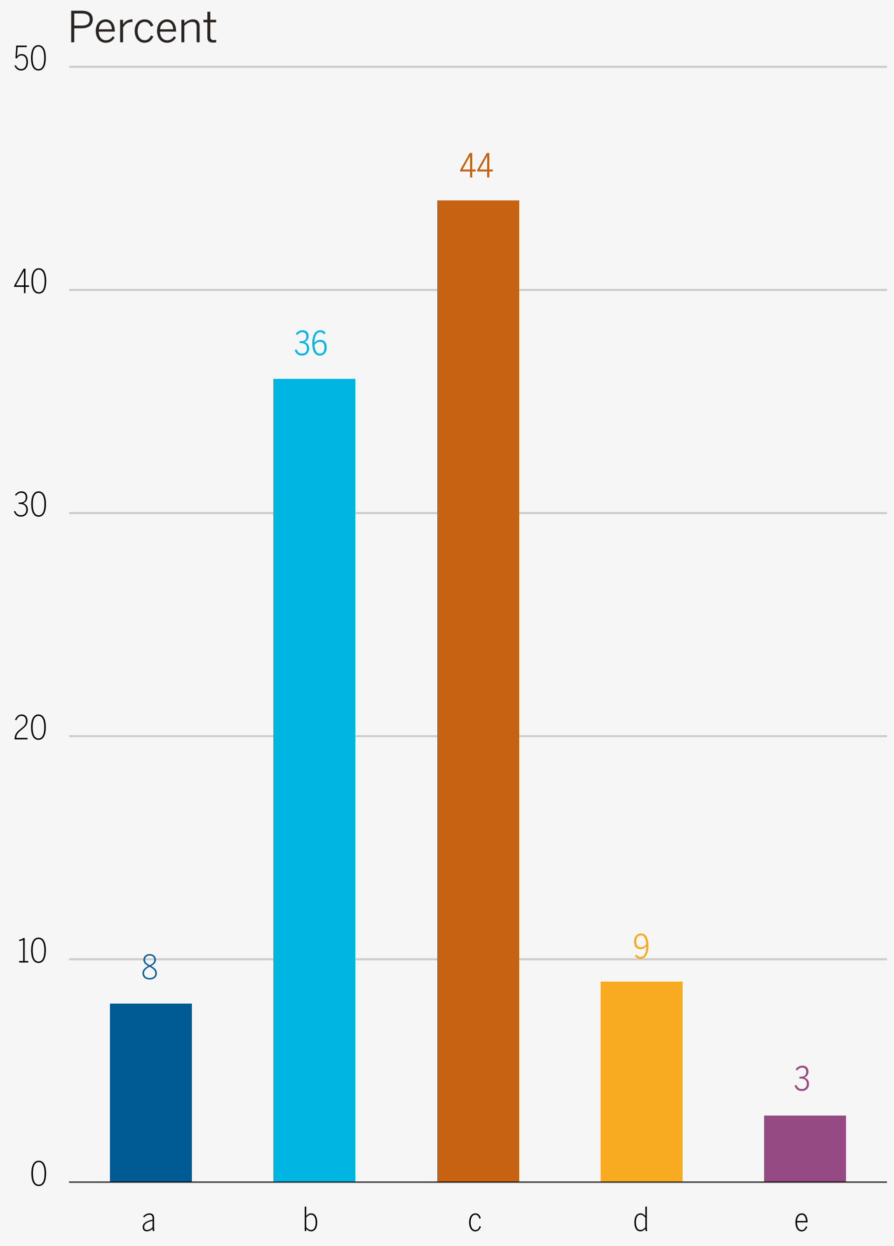
What did investors think 12 months ago?

At the end of 2013, where do you expect the US 10-Year Treasury Bond rate to be relative to today's rate?

a. Lower
b. 20 bps higher
c. 50 bps higher
d. 100 bps higher
e. More than 100 bps higher

Note: UST 10-year rate was 2.0% at the time of the survey



Source: Spring 2013 Wellington Management Client Seminar Surveys

Valuations on the tight side

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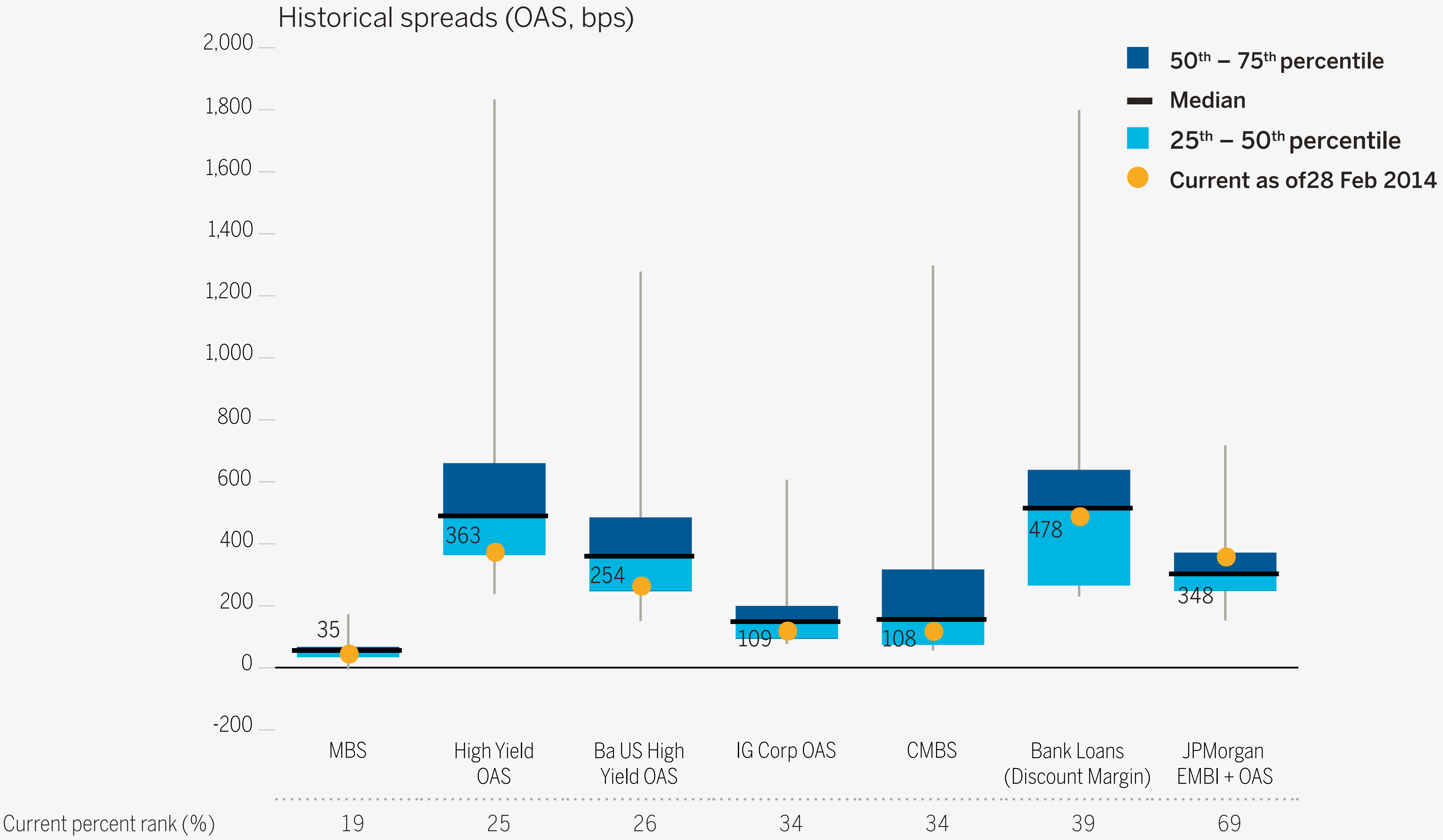

Historical spread analysis based on trailing 10 years of month-end option adjusted spreads, as of 28 February 2014 | Sources: JPMorgan, Barclays, Credit Suisse

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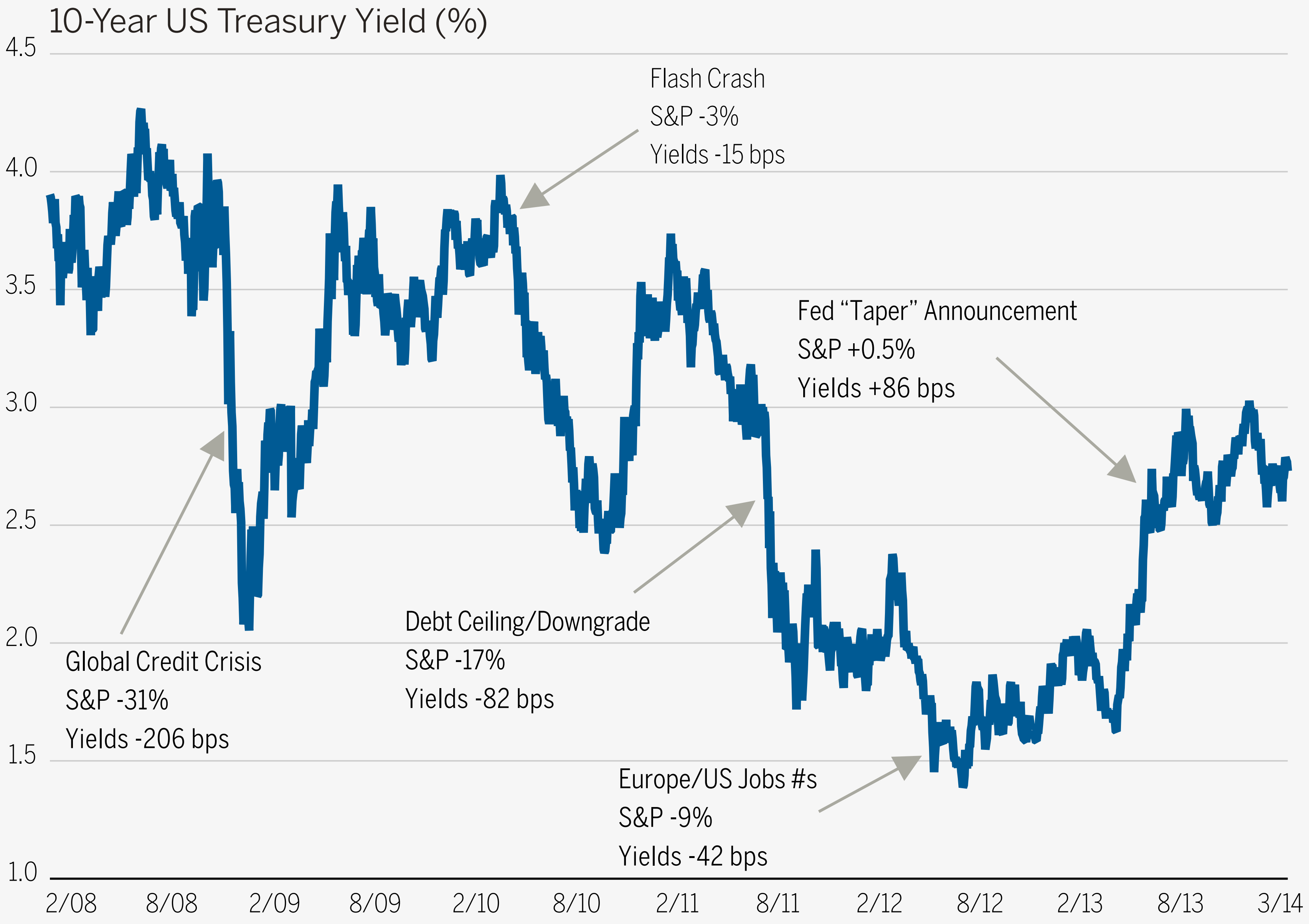
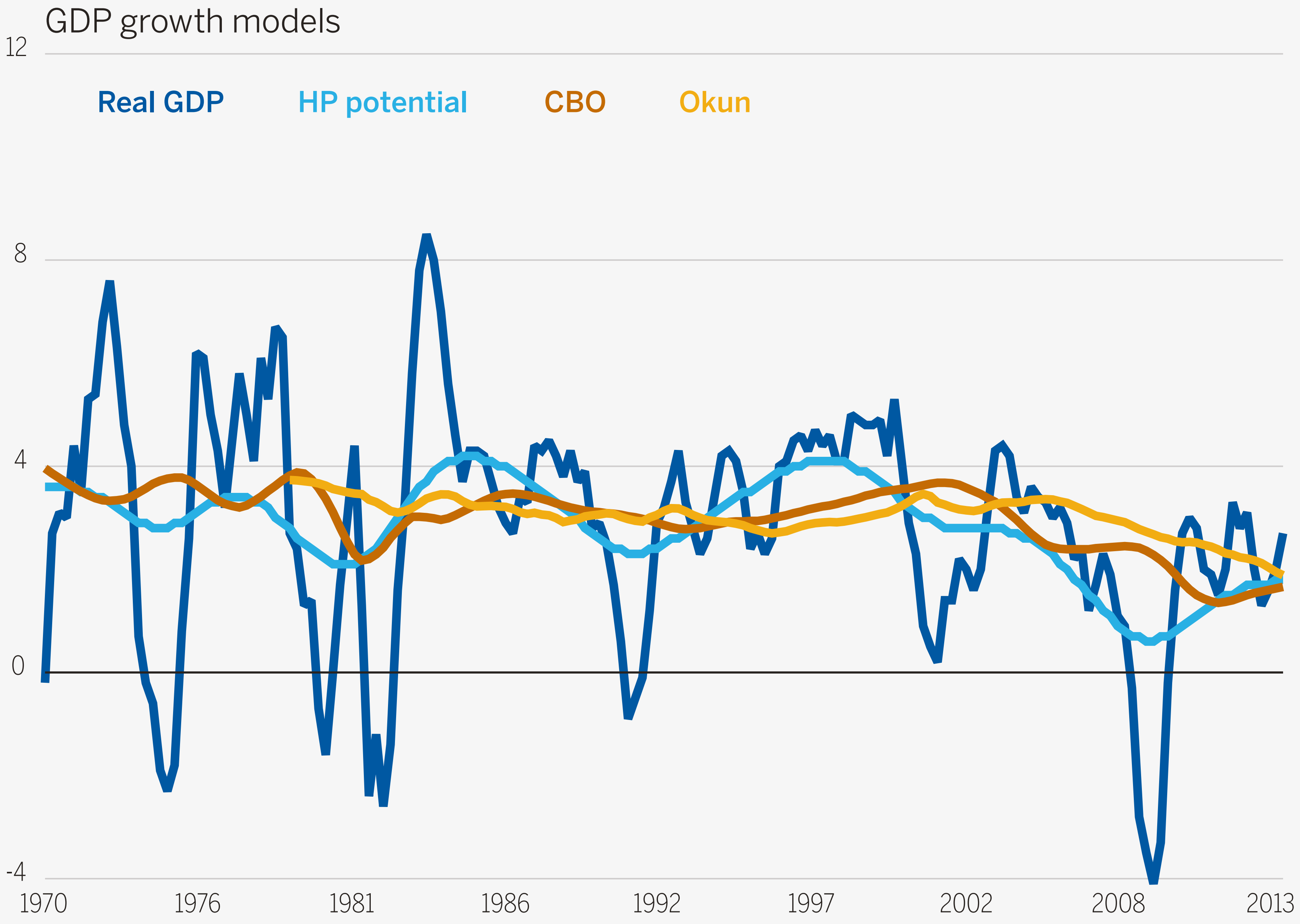
Stay the course

Fixed Income is still an important diversifier



Sources: Bloomberg; S&P, Wellington Management | As of June 2013

Low rates for a low growth world



Source: BLS, CBO, BEA, and Wellington Management | As of March 2014

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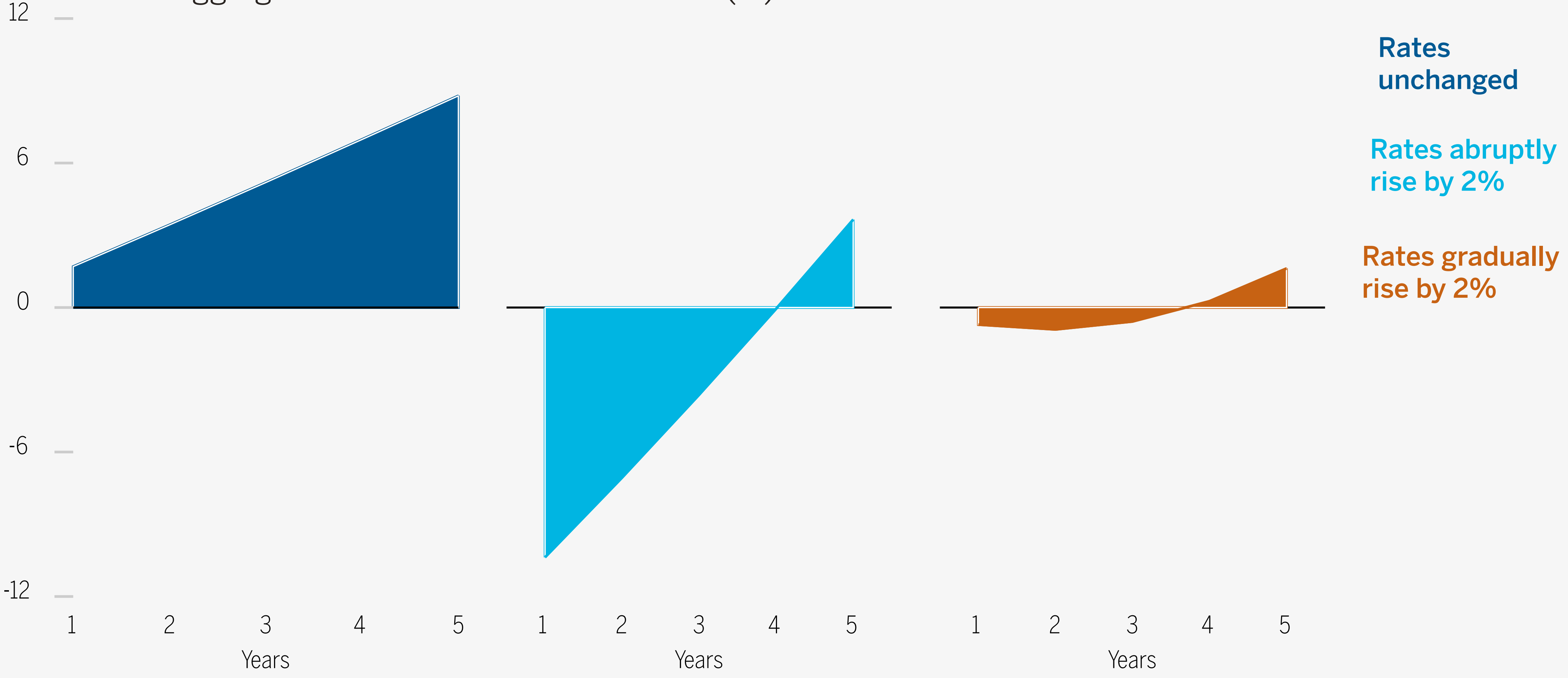
How will higher rates impact you?

Staying the course is a legitimate strategy

Global Aggregate Index cumulative total return (%)



Global Aggregate Index annualized 5-year return (%)

Expected annualized return assuming rates remain unchanged: 1.70%

	0.5% rise	1.0% rise	2.0% rise
Rates abruptly rise	1.49	1.25	0.72
Rates gradually rise	1.31	0.95	0.32

Sources: Barclays, Wellington Management | Analysis assumes currency relationships remain unchanged.

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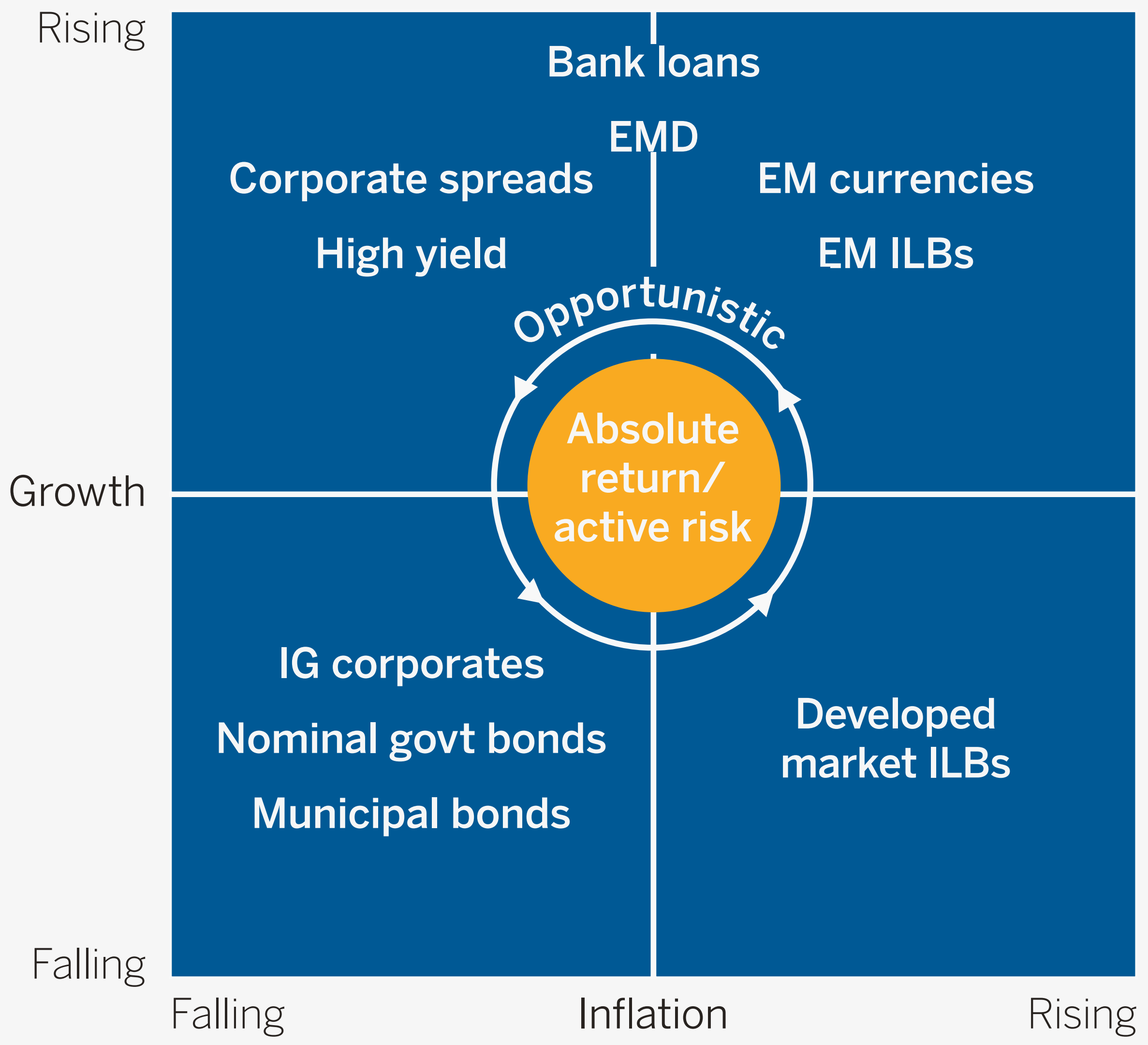
Think function, not form

Fixed Income can play multiple roles

Relative performance by economic environment



Source: Wellington Management | For illustrative purposes only

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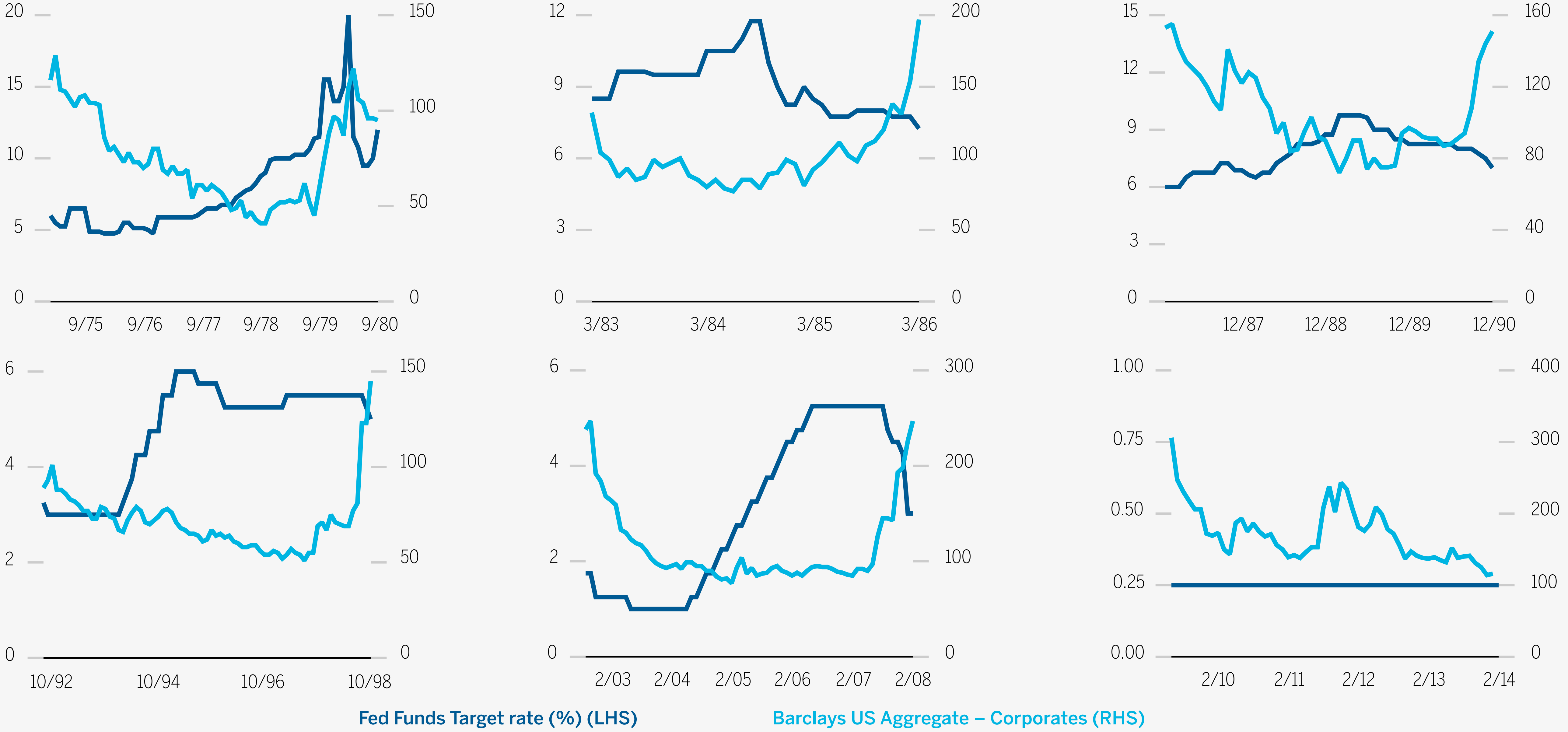
Corporate bond spreads and Fed policy



Investment Grade OAS is Barclays US Aggregate – Corporate Index spread from 30 June 1989 to the present. Prior to 1989, OAS data is not published for this index. OAS estimates shown are Wellington Management estimates based on available index data.

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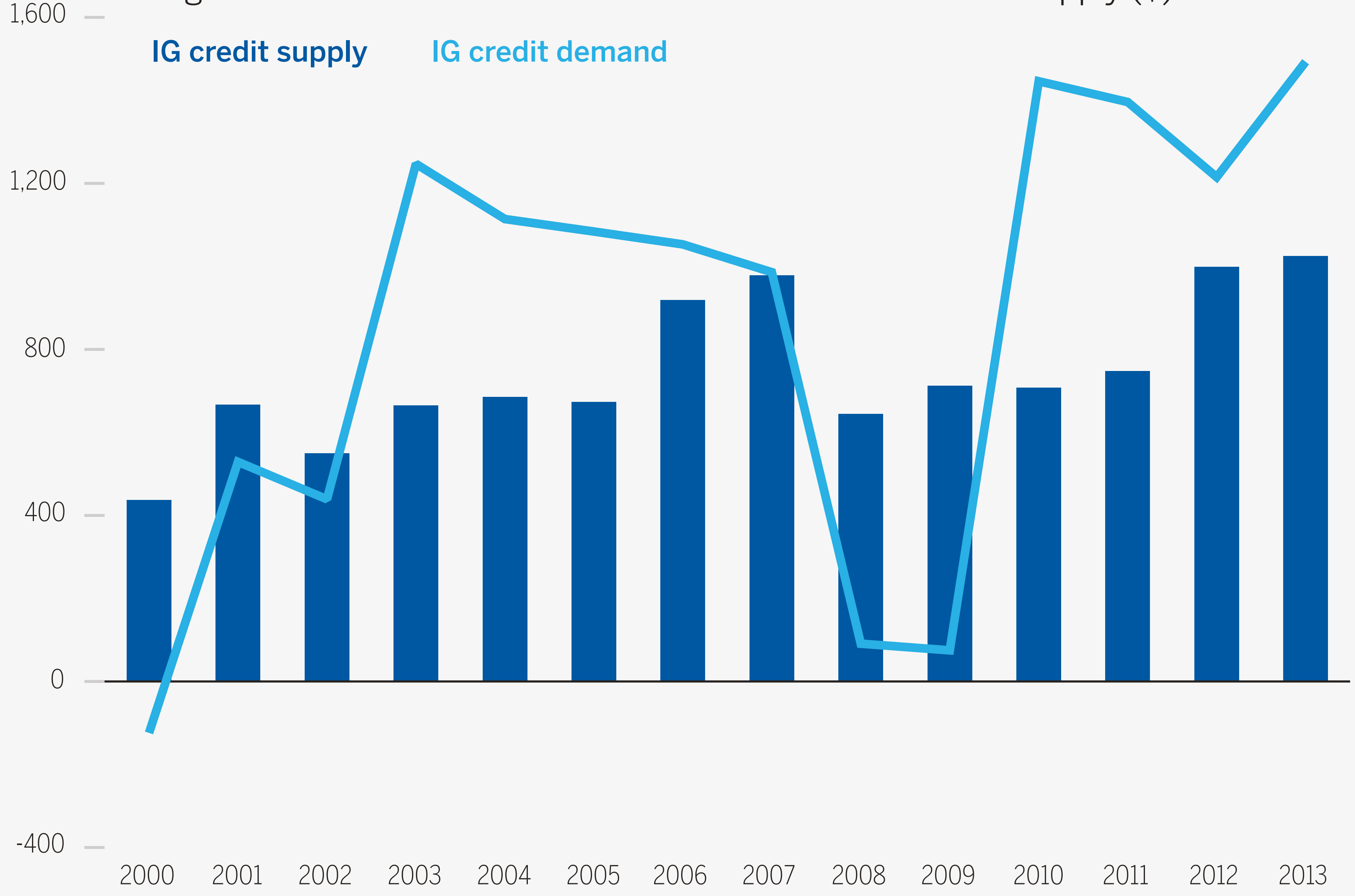
Despite record supply, strong demand is supportive of credit

Strong demand for IG credit has absorbed recent increases in supply ($)



Credit demand is equal to the sum of flow of funds data for retail mutual funds, closed end mutual funds, ETF's, public and private pension plans, life insurance companies and P&C insurance companies. Credit supply is equal to gross issuance of Investment Grade Credit. | Sources: Haver and Morgan Stanley.

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Own spread duration vs rate duration

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	Example	Interest rate risk	Credit risk	Diversification vs growth assets	Liquidity	Other considerations
Short Duration	Diversified, high quality portfolios	Low	Moderate	Moderate	High	Yield give-up
Higher Beta Credit	High yield, Bank loans, Structured credit, Multi Sector	Low	High	Low	Moderate/ high	Attractive yield cushion
Duration-hedged Credit	Full maturity credit portfolio with duration hedge overlay	Low	Moderate/ high	Low	Moderate	Yield give-up Derivatives
Negative Duration Strategies	Negative duration instruments (IO/IOS)	Negative	Moderate/ high	Low	Moderate	Complex instruments Derivatives

Liquidity: a premium to capture, a risk to manage

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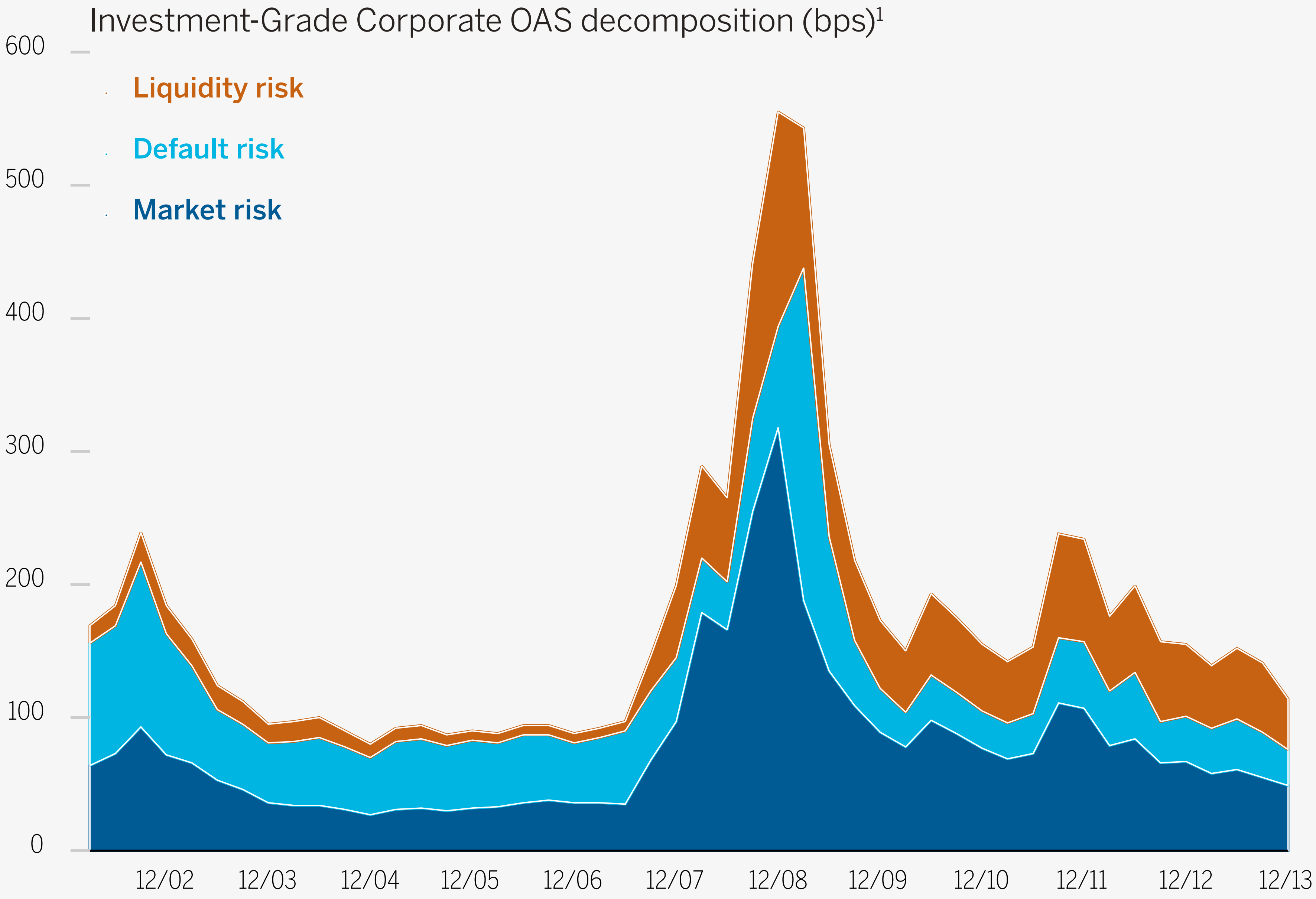

[1]Rolling regression model with half-life decay of 3 years with OAS as the dependent variable and liquidity premium and credit-default risk as independent variables. Market-observed liquidity premium between new and old bonds is liquidity premium input to regression. Moody's 12-month trailing credit default rate data and proprietary recovery rates are default premium input to regression. OAS is decomposed pro-rata based on the betas associated with default, liquidity and residual. | Sources: Wellington Management, Barclays, Moody's | For illustrative purposes only, This material is not intended to constitute investment advice or an offer to sell, or the solicitation of an offer to purchase shares or other securities. While Wellington Management has utilized data from third parties it has deemed to be reliable, Wellington Management does not guarantee the accuracy of such data. Actual results may differ significantly from the information presented above should data inaccuracies exist.

Liquidity is not what it used to be

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Dealer inventories down about 40%

Average trade size down about 15%

Universe has increased by 75%

Bid/Ask has increased slightly on average transaction but has increased considerably on illiquid issues

60% of the TRACE-eligible bonds never trade or trade less than five times a year;

Only 1% of bonds trade with a daily frequency

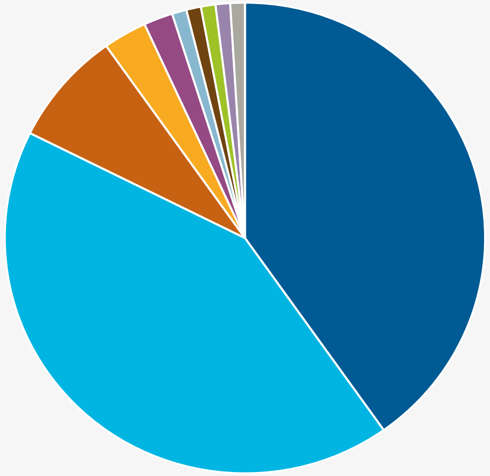
The 20 most liquid IG corporates on average trade at 2% the frequency of the average NYSE and NASDAQ stock

Standard benchmarks force investors into liquid markets

Buy and Maintain may have higher IR but are harder to measure in incremental performance

Think like a lender: own what you want to own

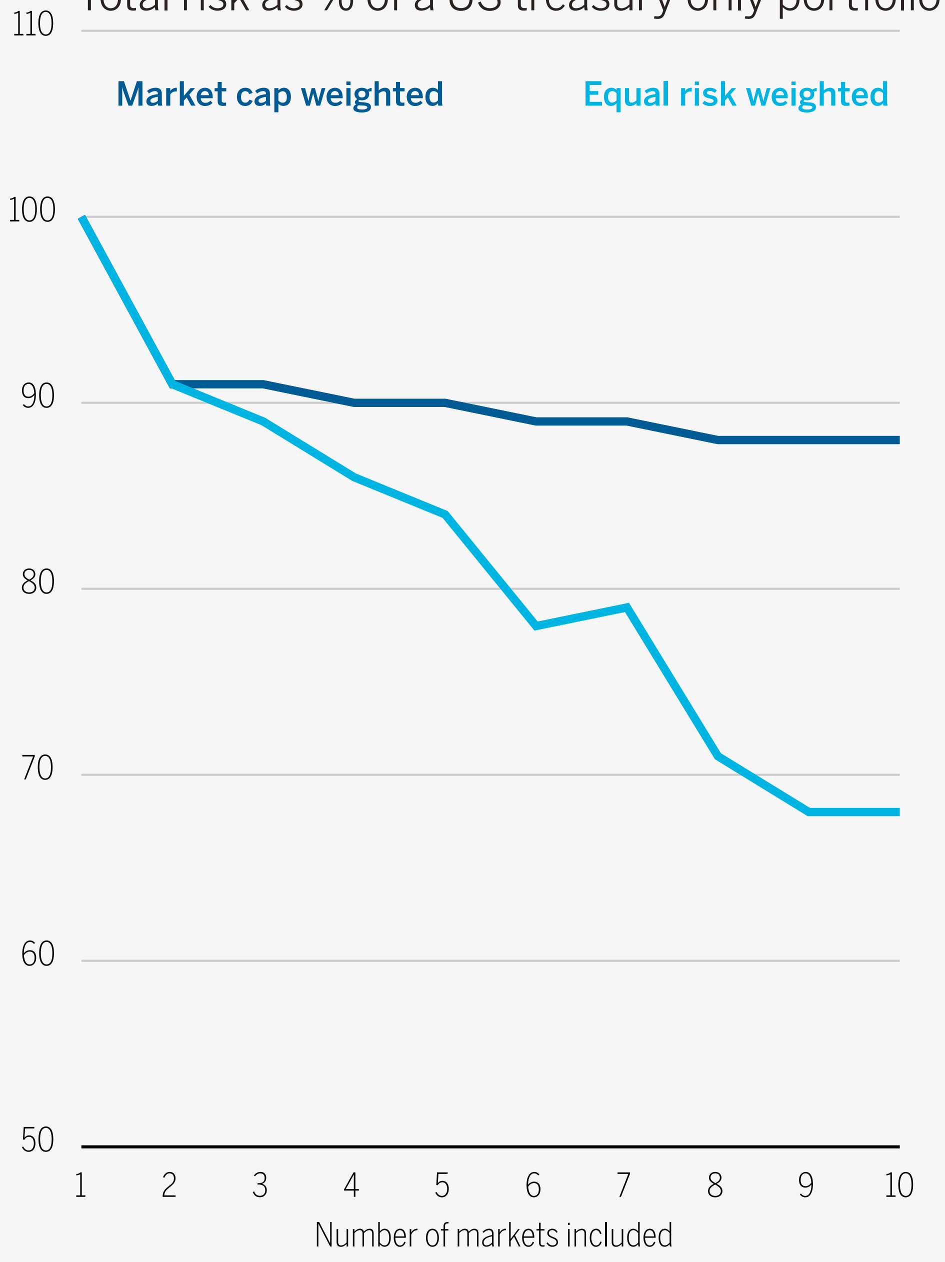
Market cap weighted



Equal risk weighted

- United States
- Euro
- United Kingdom
- Canada
- Australia
- Mexico
- Denmark
- Poland
- South Africa
- Sweden

Total risk as % of a US treasury only portfolio[1]



[1]Assume 5-year duration for each country | Sources: Citigroup, Wellington Management

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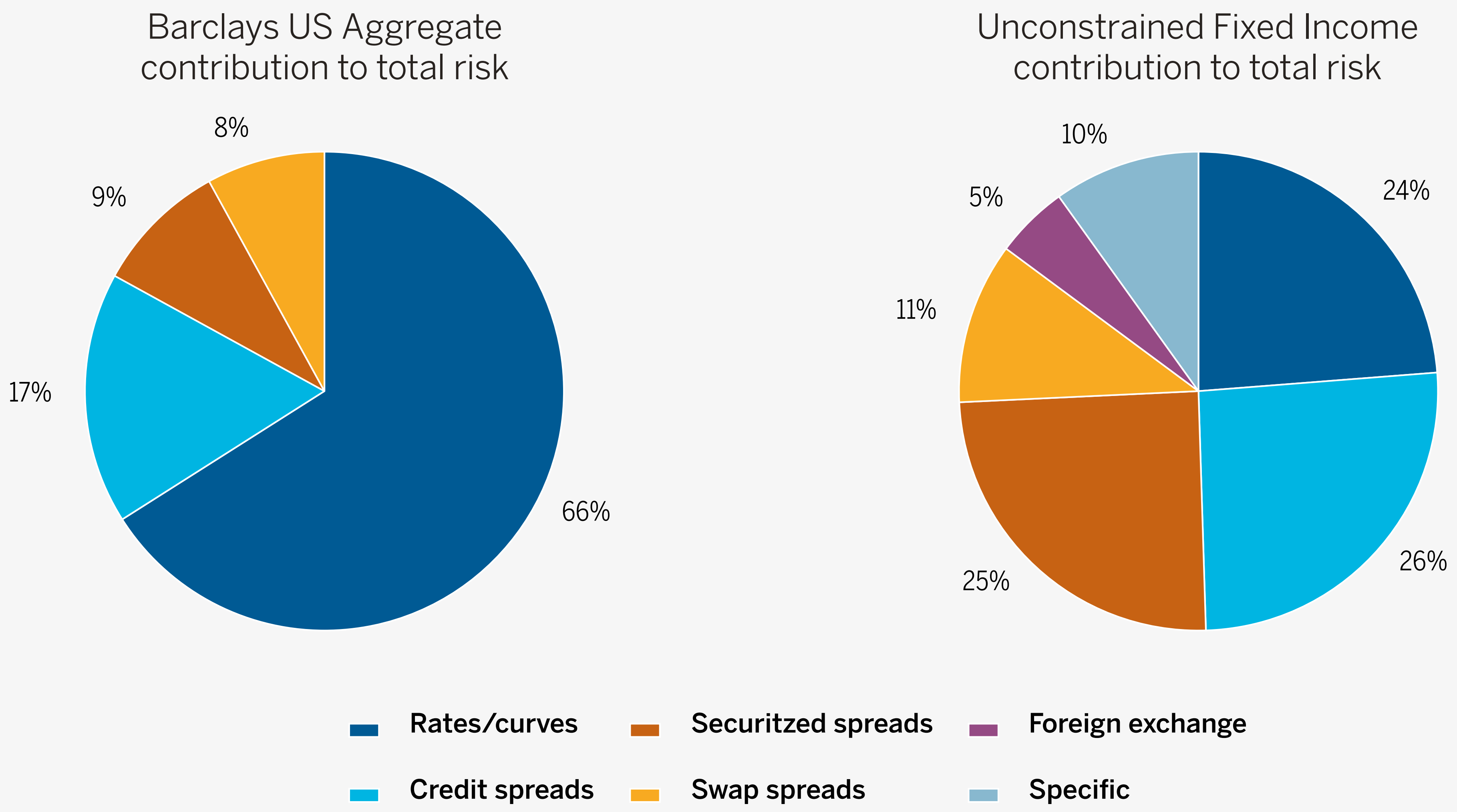
Diversify your risks



Sources: Wellington Management Fixed Income Risk Engine | As of 1 October 2013

How much duration should you have?

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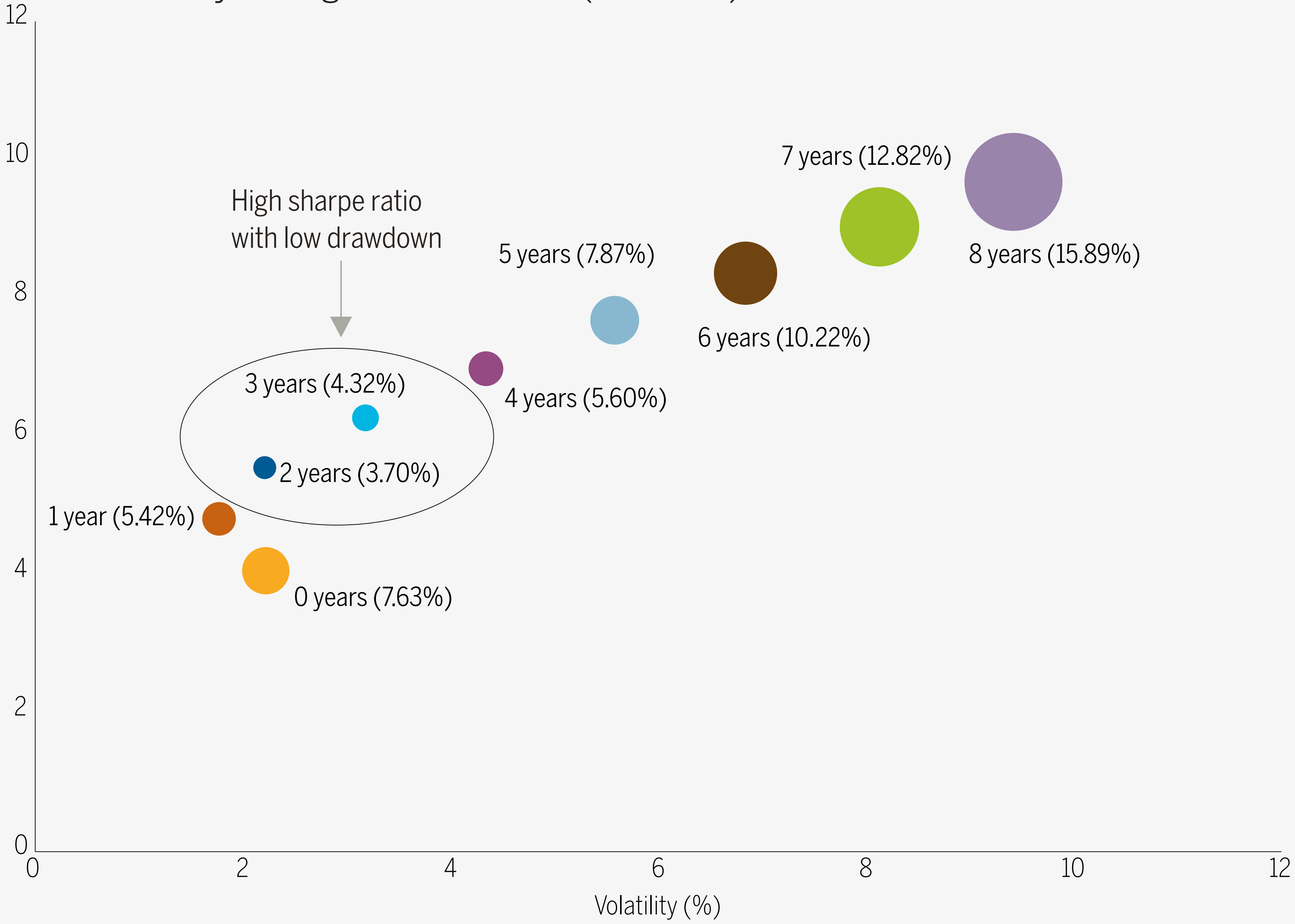
Historical structural model portfolio index return, volatility and maximum drawdown by average duration level[1] (return, %)[2]



[1]Bubble sizes represent maximum historical drawdown of target structural portfolio | [2]Return, volatility and drawdown calculated based on historical index proxy returns for target structural portfolio, adjusted for secular interest rate decline | Source: Wellington Management

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Non-benchmark fixed income solutions

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	Example	Interest rate risk	Credit risk	Diversification vs growth assets	Liquidity	Other considerations
Unconstrained/ opportunistic	Total-return oriented diversified portfolio with broad opportunity set	Varies, depends on manager skill	Varies, depends on manager skill	Varies, depends on manager skill	Moderate	Relies heavily on manager skill Potential for some "anchoring" to benchmark
Total return-oriented credit	Cash-plus objective achieved with credit beta	Low	Moderate/varies	Moderate/varies	Moderate	Relies heavily on manager skill Measure of success can be less clear
Absolute return	Designed to have no systematic exposure to major risk factors	Low	Low	High	Varies	Relies most heavily on manager skill Notional leverage Derivatives

Conclusions

Fixed Income still plays a key role in asset allocation

Credit risk versus duration risk makes sense

Think like a lender

Take the risks that reward you

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Thank You!

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