# Massachusetts Pension Reserves Investment Management Board

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LOOMIS | SAYLES®

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BOSTON DETROIT SAN FRANCISCO LONDON SINGAPORE

# loomis sayles at a glance

## A Rich Investment Tradition

Serving investors with integrity since 1926

$232.0 billion assets under management*

Expertise across all major asset classes

76% of investment professionals dedicated to research & trading; 149 CFA® charterholders**

Global perspective: investors in Boston, San Francisco, Detroit, London and Singapore

## What Defines Us

Core attributes: integrity, transparency and a team-oriented culture

Rigorous fundamental analysis complemented by robust macro and market insight

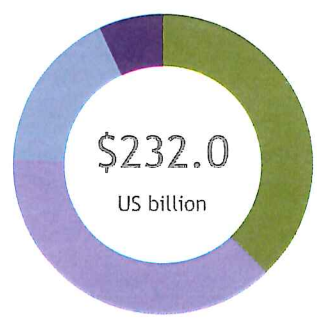
Portfolio managers, strategists, research analysts and traders collaborating to identify our best ideas

Small, accountable product teams implementing portfolio decisions

Disciplined risk awareness integrated into a high conviction investment process

Serving clients in 44 countries across 6 continents

### AUM by Global Accounts




- US separate accounts ($87.7 b)
- US mutual funds ($87.6 b)
- Non-US separate accounts ($40.7 b)
- Non-US mutual funds ($16.0 b)

*As of 9/30/2015. * Includes the assets of both Loomis, Sayles & Co., LP, and Loomis Sayles Trust Company, LLC. ($16.0 billion for the Loomis Sayles Trust Company). Loomis Sayles Trust Company is a wholly owned subsidiary of Loomis, Sayles & Company, L.P. ** 284 investment professionals. 81% of CFA charterholders are investment professionals and 19% are non-investment professionals.*

# deep insight fuels our pursuit of alpha

## MACRO STRATEGIES

- Director
  *35 years experience*
- Associate Director/
  Senior Global Macro Strategist
  *20 years experience*
- Senior Equity Strategist
  *30 years experience*
- 2 Economists
  *26 years average experience*
- 2 Analysts
  *6 years average experience*
- Research Associate
- Research Assistant

## CREDIT RESEARCH

- Director
  *32 years experience*
- 23 Senior Credit Analysts
  *20 years average experience*
- 13 Credit Analysts
  *9 years average experience*
- 9 Research Associates
- 8 Research Assistants

## CONVERTIBLES & SPECIAL SITUATIONS

- Director
  *30 years experience*
- 3 Senior Research Analysts
  *13 years average experience*
- 2 Research Associates

## QUANTITATIVE RESEARCH & RISK ANALYSIS

- Deputy CIO, Director
  *27 years experience*
- 2 Associate Directors
  *19 years average experience*
- Quantitative Strategist
  *20 years experience*
- 8 Quantitative Analysts
  *8 years average experience*
- 2 Quantitative Associates

## SOVEREIGN RESEARCH

- 6 Senior Sovereign Analysts
  *19 years average experience*
- Analyst
  *7 years experience*

## SECURITIZED RESEARCH

- Director
  *18 years experience*
- 4 Senior Securitized Asset Analysts
  *18 years average experience*
- 2 Securitized Asset Analysts
  *9 years average experience*
- 2 Research Associates

## EQUITY RESEARCH

- 23 Senior Analysts
  *18 years average experience*
- 9 Analysts
  *7 years average experience*
- Research Associate

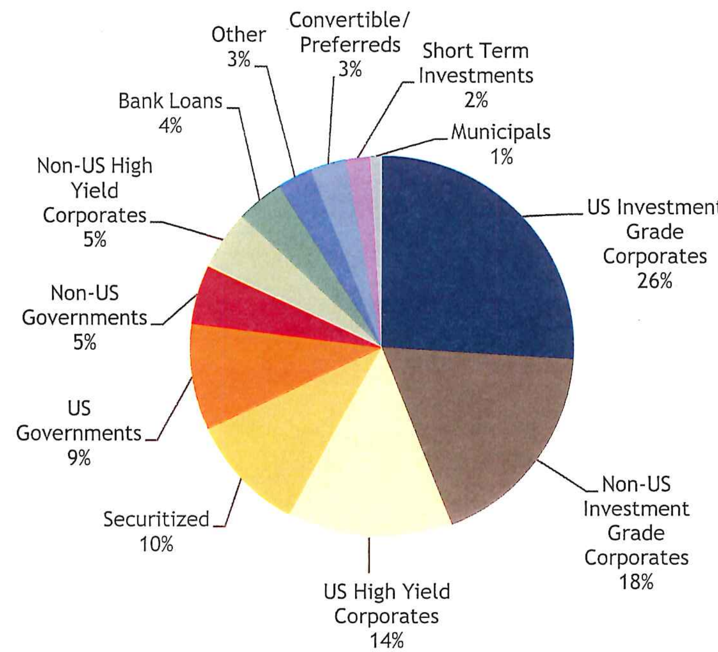
**$88 million committed to proprietary research in 2015**

*As of 9/30/2015; Years experience indicates industry experience.*

# fixed income assets under management

## $200 BILLION AS OF SEPTEMBER 30, 2015

| By sector | Assets ($ millions) |
|---|---|
| US Investment Grade Corporates | 53,017 |
| Non-US Investment Grade Corporates | 36,448 |
| US High Yield Corporates | 27,546 |
| Securitized | 20,612 |
| US Governments | 17,449 |
| Non-US Governments | 10,594 |
| Non-US High Yield Corporates | 9,397 |
| Bank Loans | 7,212 |
| Other | 6,695 |
| Convertible/Preferreds | 5,725 |
| Short Term Investments | 3,897 |
| Municipals | 1,078 |
| Emerging Market Debt* | 16,765 |

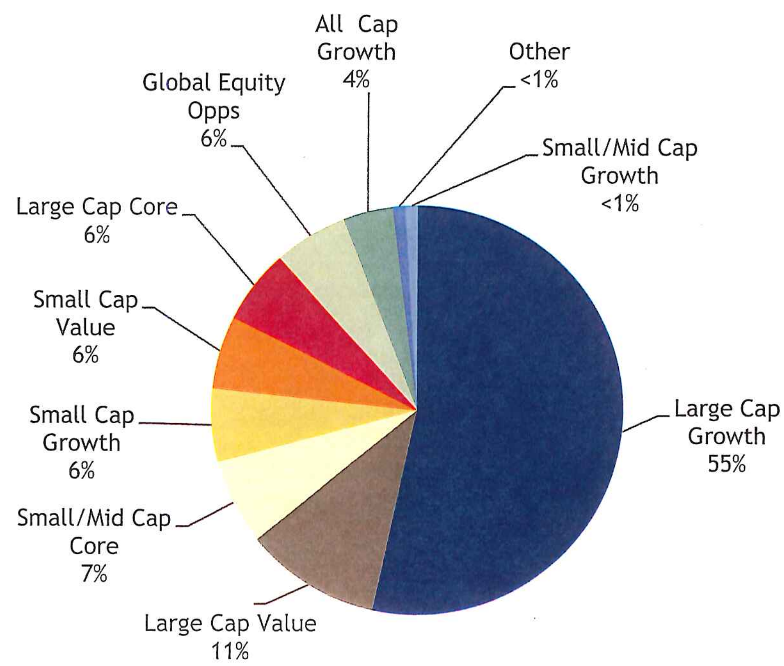



*As of 9/30/2015. Due to rounding, pie chart total may not equal 100%.*
*Includes the assets of both Loomis, Sayles & Co., LP, and Loomis Sayles Trust Company LLC.*
**Emerging Market Debt assets totaling $16.8 billion are included in the total fixed income assets under management. These assets are spread throughout the fixed income sectors.*

# equity assets under management

## $32 BILLION AS OF SEPTEMBER 30, 2015

| By product | Assets ($ millions) |
|---|---|
| Large Cap Growth | 17,670 |
| Large Cap Value | 3,439 |
| Small/Mid Cap Core (closed 9/2013) | 2,152 |
| Small Cap Growth (closed 6/2013) | 2,059 |
| Small Cap Value (closed 1/2002) | 1,888 |
| Large Cap Core | 1,846 |
| Global Equity Opportunities | 1,788 |
| All Cap Growth | 1,344 |
| Other | 106 |
| Small/Mid Cap Growth | 71 |




*As of 9/30/2015. Due to rounding, pie chart total may not equal 100%.*
*The Small/Mid Cap Core, Small Cap Value, and Small Cap Growth strategies are currently closed to new investors.*
*Includes the assets of both Loomis, Sayles & Co., LP, and Loomis Sayles Trust Company LLC.*
*Strategy assets represent all assets managed by the respective team.*

# global growth themes & forecasts

## US

GDP growth, around 2.5% for both 2015 and 2016.

+ Low interest rates, low energy prices, low inflation, solid payroll growth, falling unemployment rate, easier bank lending standards, rising house prices, improving mortgage delinquency rates and housing vacancy rates, and more moderate budget deficits.

− Strong dollar and weakness in major trading partners is hurting the trade balance; slump in oil-patch regions; mediocre productivity growth; plateau in after-tax profits; failure of labor force participation rate to normalize, indicating structural impediments to labor market recovery; prospect of Fed tightening.

## LATIN AMERICA

Struggling economies with 1% growth in 2016, compared to growth in 4%-6% range last decade.

− Recession in Brazil, other countries facing terms of trade shock with much weaker commodity prices.

+ Outlook for Mexico in line with US, regardless of oil prices. Currencies getting cheap in the region, with relatively high interest rates.

## EUROPE

Cyclical recovery to produce 1.4% GDP growth, supported by QE, cheap oil & weak euro, but surprise is over.

+ Bank lending is coming back, strengthening consumer, less fiscal drag.

− Refugee crisis can present political challenges.

## AFRICA & MIDDLE EAST

GDP growth being downgraded to 2-4% range.

− Unstable governments, terrorism, weaker oil and commodity prices.

+ Growing intra-regional trade and investment; huge long-term potential in certain frontier markets.

## CHINA

GDP growth will continue to slow to 5.8% in 2016, maybe a short-lived bounce.

− Housing glut, inability to leverage further, declining credit policy credibility, weaker investment spending, which is almost 50% of GDP.

+ Gov't is getting more nervous and rolling out infrastructure deals, rate cuts, delicate balancing act between tight credit policies and stimulus programs to support economy.

## JAPAN

Real GDP growth around 1.5% in 2016.

+ Strong corporate profits, tourism, tight labor market, lower energy prices, and now rising wages, corporate reform.

− Income stuck in corporate sector, poor demographics.

## ASIA PACIFIC

Growth to moderate further, but on aggregate, remain well above LATAM and EEMEA peers with growth rates in 5% to 6% range.

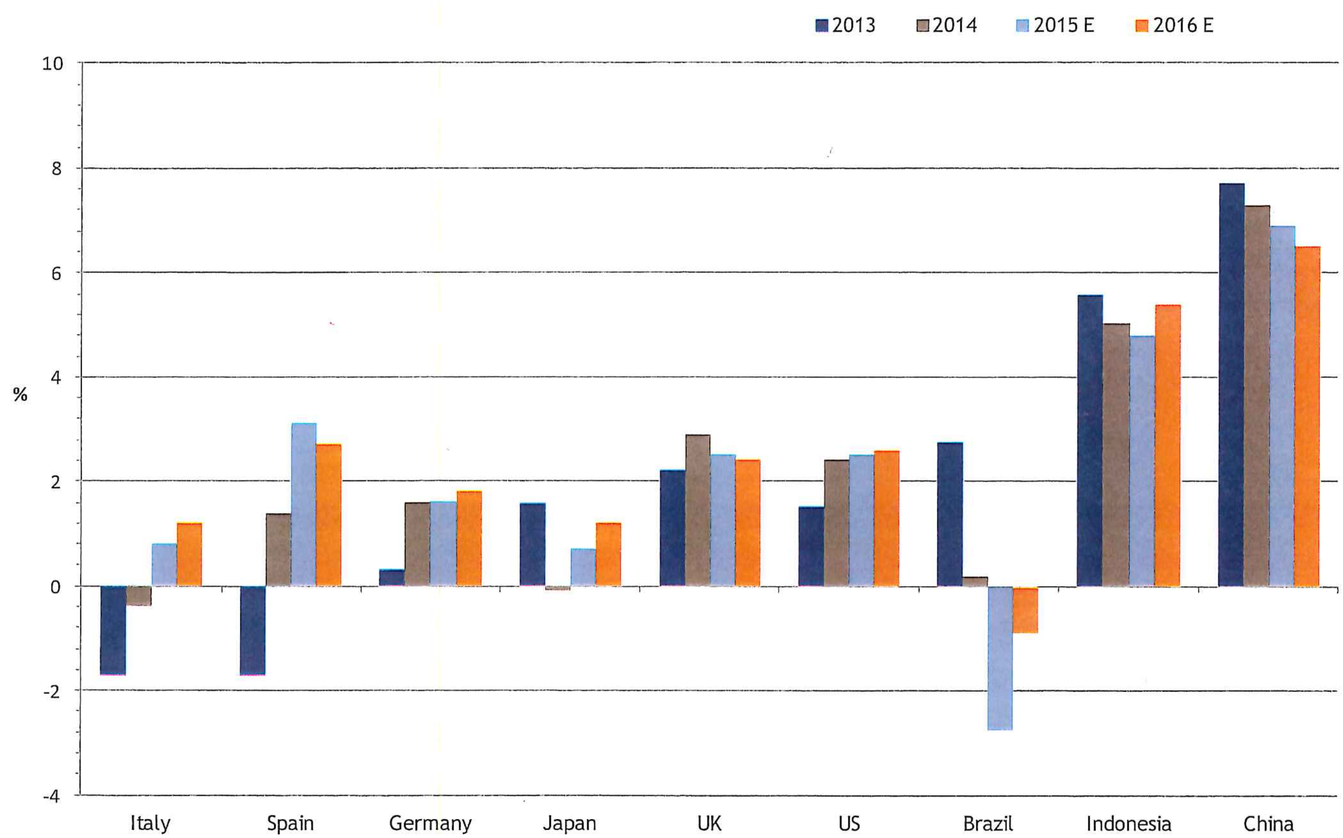
+ Weaker energy prices, stronger US growth, better part of elections cycle for exports.

− Slower China imports, weak yen, overhang of debt in a number of countries and coming off a credit boom.

*Views as of September 30, 2015. This material is provided for informational use only and should not be considered investment advice. The forecasted views and opinions expressed reflect those of the Loomis Sayles Macro Team. All statements are made as of the date indicated and are subject to change at any time without notice.*

# global growth

## 2013 - 2016 Expected Real GDP Growth




*Bloomberg Consensus: 10/30/2015*

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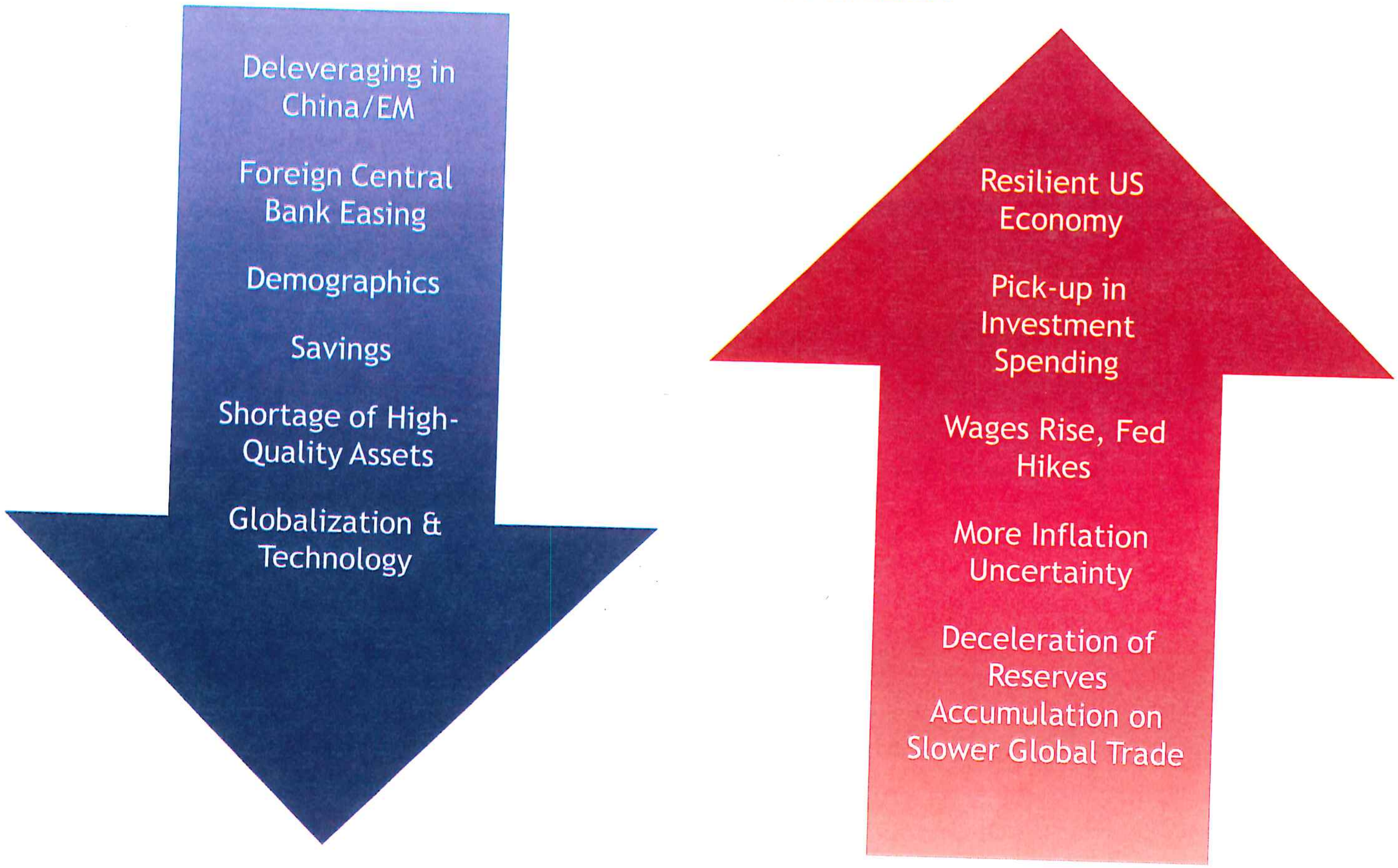
# conflicting currents driving interest rates

## KEEP YOUR INTEREST RATE EXPECTATIONS IN CHECK

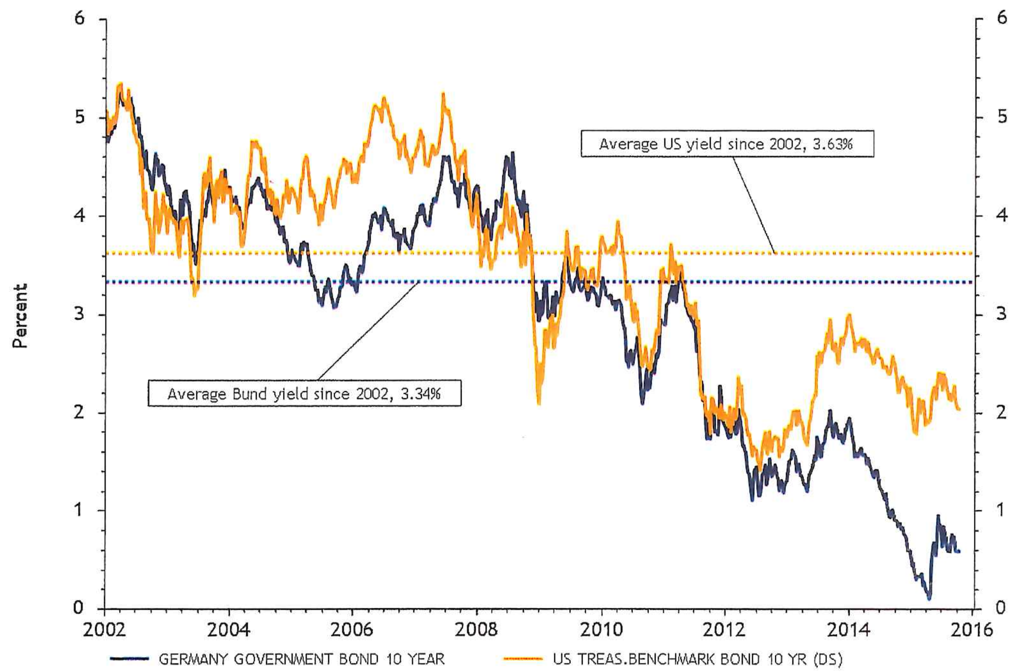



*Source: Loomis Sayles illustration, as of September 2015.*
*This depiction shown above is for illustrative purposes only. There can be no assurance that developments will transpire as shown and actual results may likely be different.*

# goodbye 3.0%

## US YIELDS ONLY HIT 5% DURING THE LAST BORROWING AND SPENDING BOOM IN 2005-08, AND WE ARE NOT EXPECTING A REPEAT. BUND YIELDS MAY NEVER SEE 3%

### US and German Bond Yields in Perspective




*Source: Thomson Reuters Datastream, as of October 13, 2015.*
*Indexes are unmanaged and do not incur fees. It is not possible to invest directly in an index.* ***Past performance is no guarantee of future results.***

# flattening time

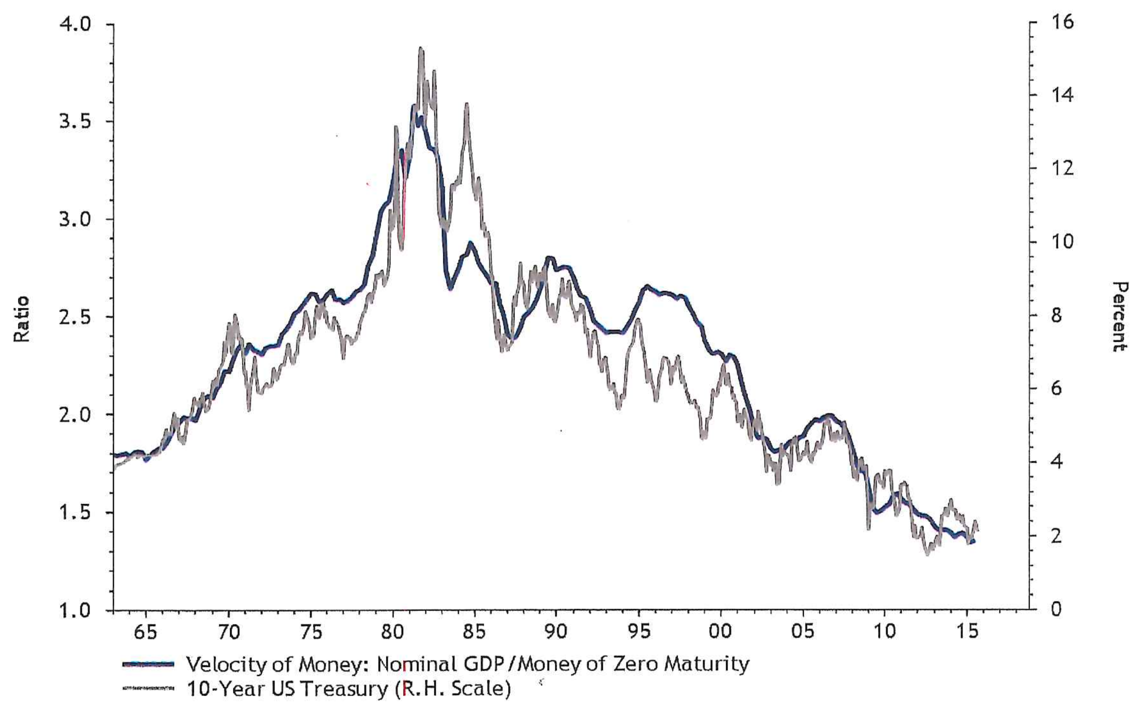
## WHY? FINANCIAL REPRESSION, LOW VELOCITY OF MONEY, A RELATIVELY HAWKISH FED DESPITE VERY LOW INFLATION, LIBAILITY DRIVEN INVESTING, AND A LOWER TERMINAL FED FUNDS RATE


*Source: Thomson Reuters Datastream, as of October 2, 2015.*
*Indexes are unmanaged and do not incur fees. It is not possible to invest directly in an index.* ***Past performance is no guarantee of future results.***

# when will the cold money turn hot?

## SURE, THERE IS LOTS OF CASH IN THE BANKING SYSTEM BUT THE VELOCITY OF MONEY REMAINS SUBDUED, COINCIDING WITH LOW YIELDS

The Velocity of Money and US Treasury Yields




*Data source: Thomson Reuters Datastream, Federal Reserve, BEA, data as of September 30, 2015.*
***Past performance is no guarantee of future results.***

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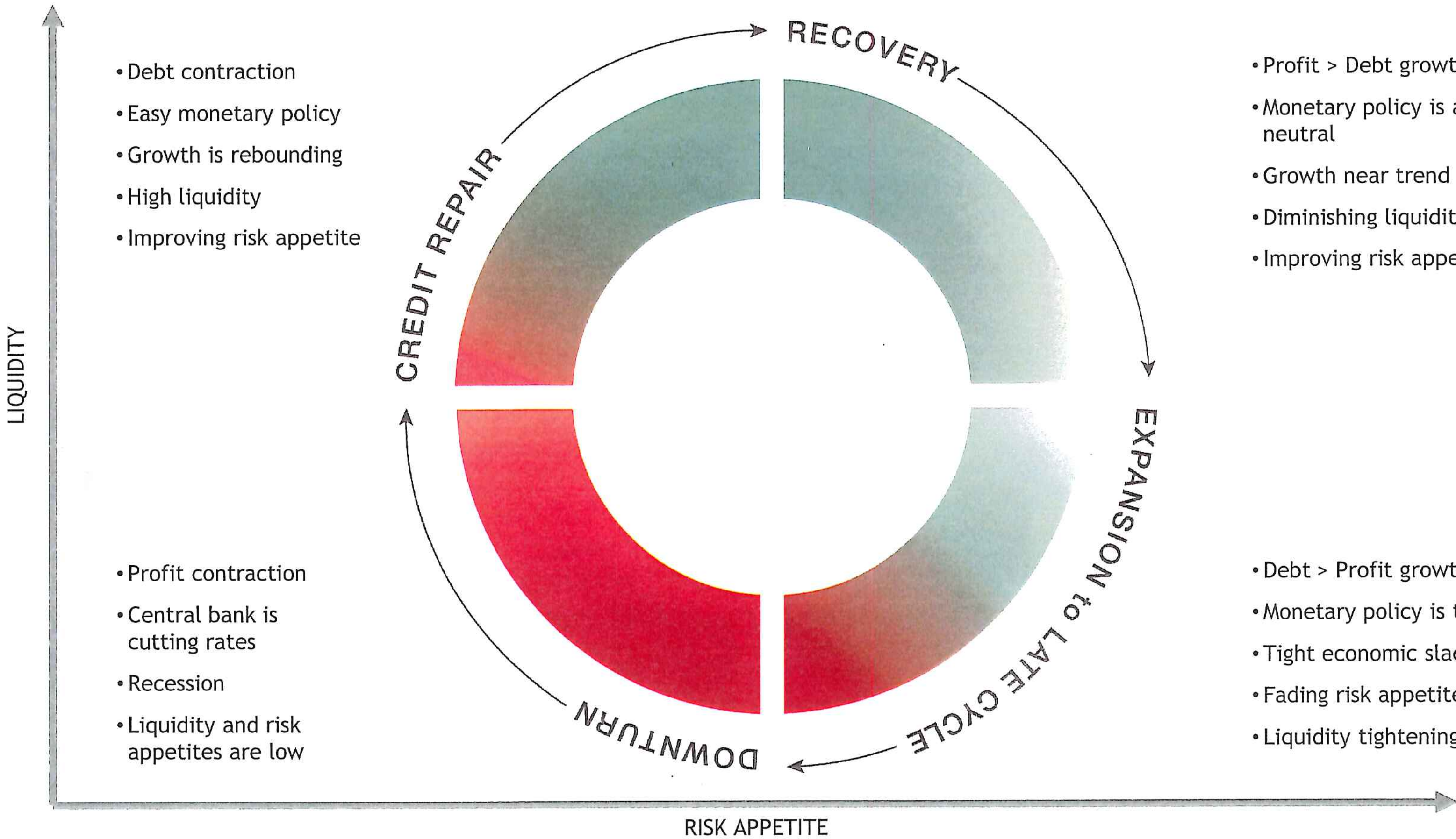
# credit cycle

## COMPANIES BEGIN SHIFT: FAVORING SHAREHOLDERS OVER BONDHOLDERS

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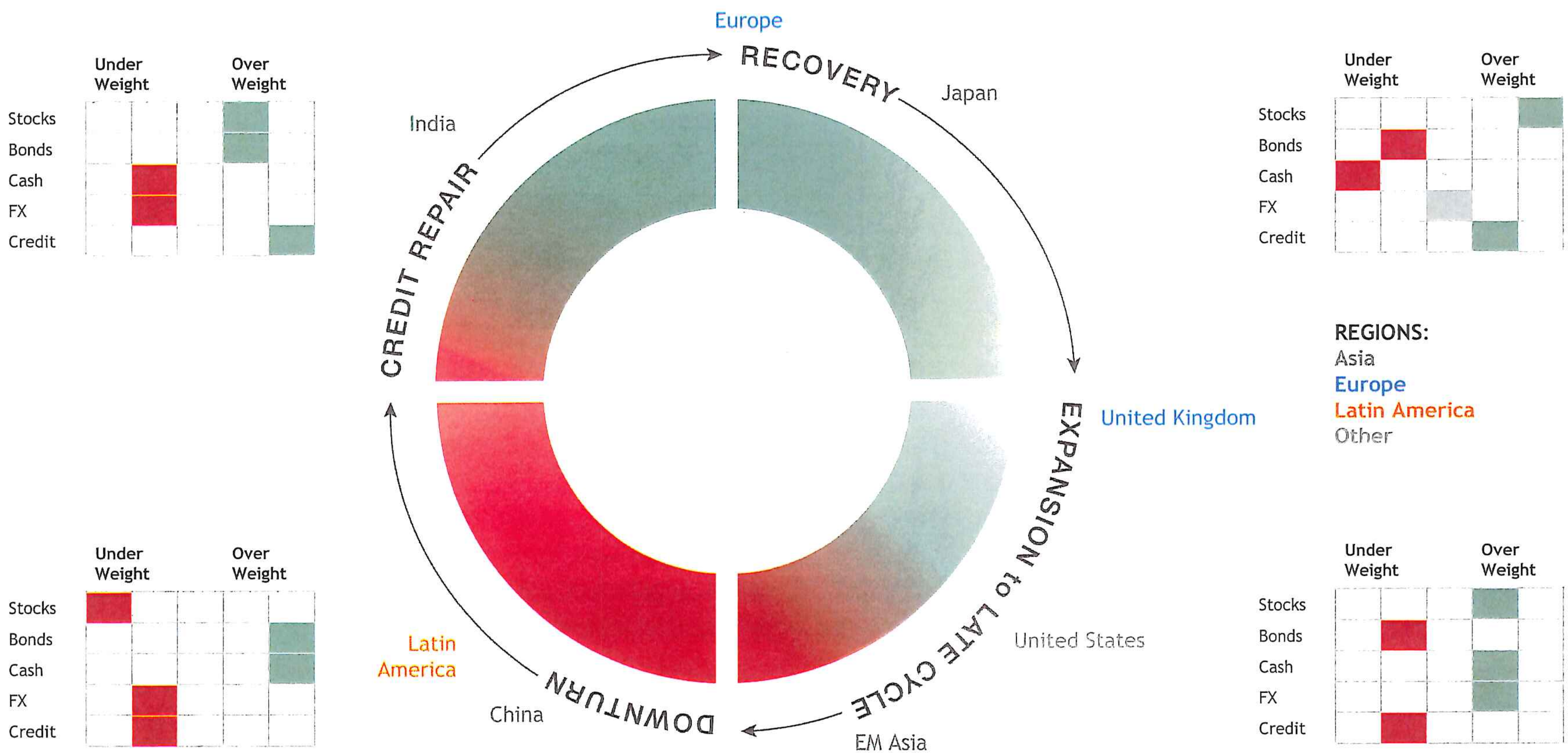
# credit cycle

## DIVERGING CREDIT CYCLES AMONG COUNTRIES AND REGIONS CAN PROVIDE OPPORTUNITIES

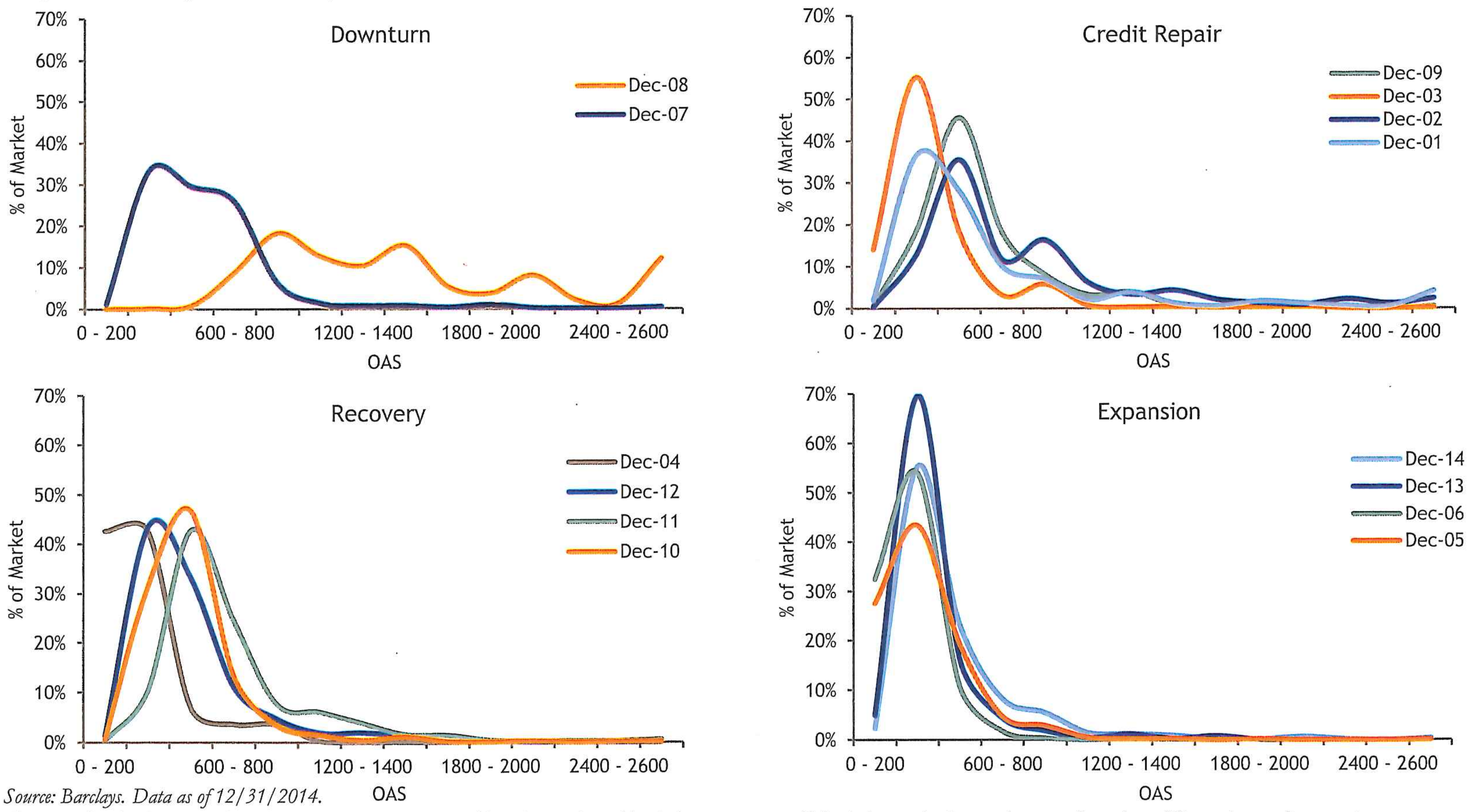



*Views as of 9/30/2015. Green shading denotes asset classes the presenter expects to appreciate and red shading denotes asset classes the presenter expects to depreciate at each point in the economic cycle. This material is provided for informational purposes only and should not be construed as investment advice. Investment decisions should consider the individual circumstances of the particular investor. This reflects the current opinions of the presenter and views are subject to change at any time without notice. Other industry analysts and investment personnel may have different views and assumptions.*

# credit cycle

## STAGE OF THE CREDIT CYCLE DETERMINES ALPHA AND BETA OPPORTUNITIES

### High Yield Spread Dispersion Across The Cycle




*Source: Barclays. Data as of 12/31/2014.*

*Time periods related to the credit cycle shown are approximate and have been estimated by the investment team. Other industry Analysts and personnel may have different views and assumptions.*

# investment process

## PORTFOLIO CONSTRUCTION: CYCLICAL ANALYSIS GUIDES MULTI-ASSET ALLOCATION

| Economic scenario | Investment Grade, Securitized & Government | High Yield, Emerging Markets, & Bank Loans | Preferreds | Master Limited Partnerships | Real Estate Investment Trusts | Dividend Equities |
|---|---|---|---|---|---|---|
| CREDIT REPAIR | Positive | Positive | Positive | Negative | Neutral | Negative |
| RECOVERY | Neutral | Positive | Positive | Neutral | Positive | Positive |
| EXPANSION/LATE CYCLE | Negative | Neutral | Neutral | Positive | Positive | Positive |
| DOWNTURN | Positive | Negative | Negative | Negative | Negative | Negative |

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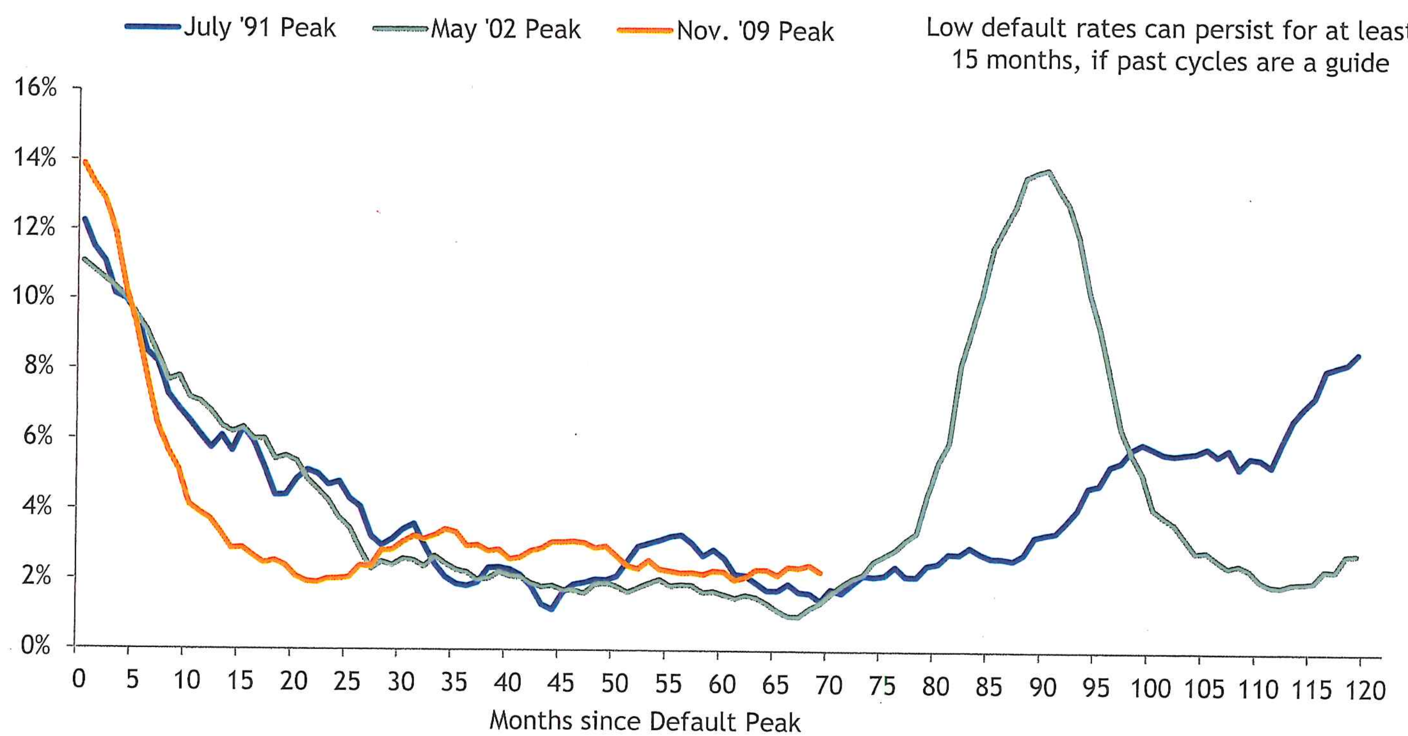
# how much longer can the cycle persist?

## THE CREDIT CYCLE COULD LAST FOR ANOTHER 15-24 MONTHS COMPARED TO PREVIOUS DEFAULT CYCLES. INTEREST RATES ARE LOW AND REFI'S ARE HIGH

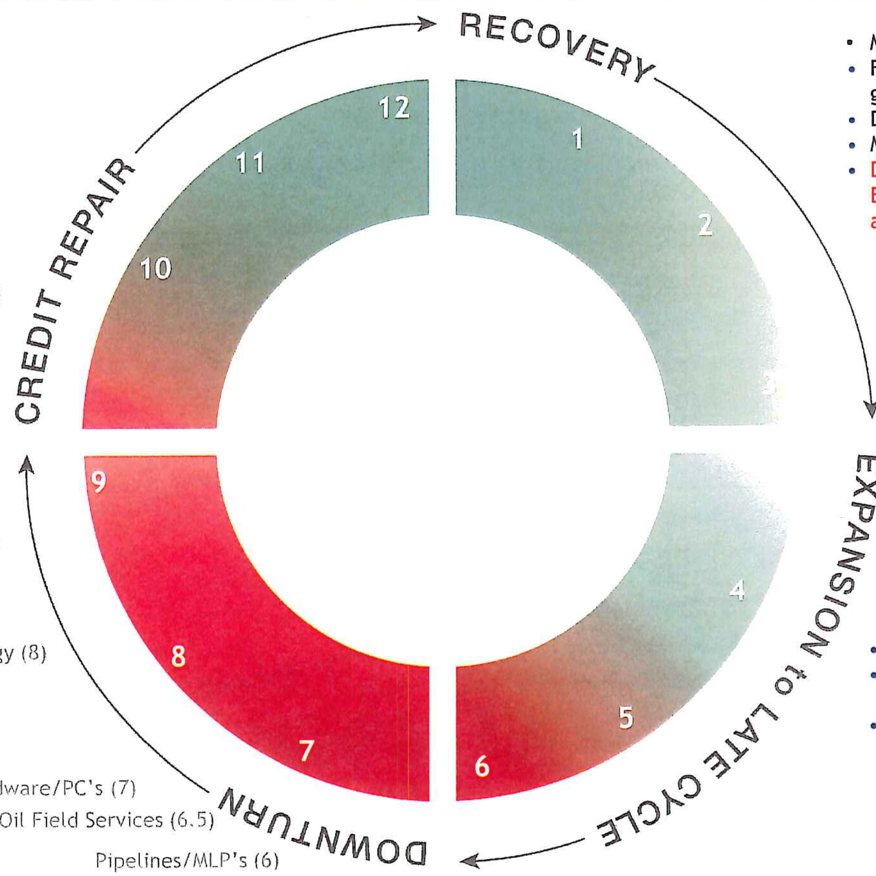
Moody's Global Default Rates




*Source: Thomson Reuters Datastream, data as of August 31, 2015.*

# fundamental view on IG credit & leverage cycle

## MAJORITY OF INDUSTRIES ARE CURRENTLY IN THE EXPANSION PHASE




**Credit repair**

- Repair balance sheets
- Debt is extended or restructured
- High default rate/low recovery values
- Leverage near peak

Energy Independents (10)

**Recovery**

- Margins expand
- Free cash flow is generated
- Default rates fall
- M&A activity rises
- Deleveraging through EBITDA growth and/or debt paydown

US Banks (2)
Aerospace (2)
Consumer Cyclical Services (2)
European Building Materials (2)
Diversified manufacturing (2.5)
Euro Banks (3)
Pharmaceuticals (3)
REITs (3.5)
Textiles (3.5)
Airlines (3.5)
Home Construction (4)
Finance (4)
US Life Insurers (4)
Retailers (4)
Defense (4)
Chemicals (4)
Restaurants (4.5)
Paper & Packaging (4.5)
Restaurants (4.5)
Electrics (5)
Media/Entertainment (5)
Refiners (5)
Consumer Products (5)
Automotive (5)
Lodging (5)
Healthcare (5)
Health Insurers (5)
Food & Beverage (5)
Cable/Satellite (5)

**Expansion to late cycle**

- Margin growth slows
- Dividends and share repurchases accelerate
- Deleveraging stalls/leverage ticks up

Telecom - Wireline (5)
Software & Services (5)
Non PC Hardware (5)
Telecom Wireless: ATT, VZN (5)
Property & Casualty (5.5); Tobacco (5.5); Railroads (5.5)

**Downturn**

Metals & Mining (9)
Casual Restaurants: DRI (9)
Integrated Energy (8)
Hardware/PC's (7)
Oil Field Services (6.5)
Pipelines/MLP's (6)
Construction Machinery (6)

- Dividends are cut
- Capital constrained environment
- Focus on survival
- High default rate
- Leverage rises/FCF turns negative

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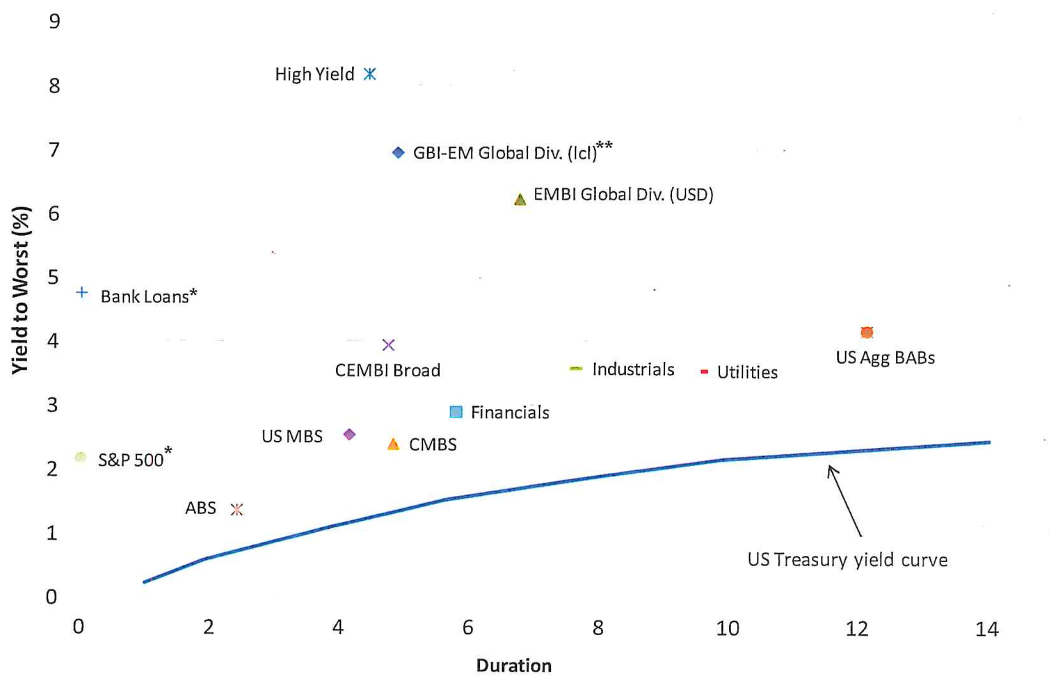
# multisector flexibility is key

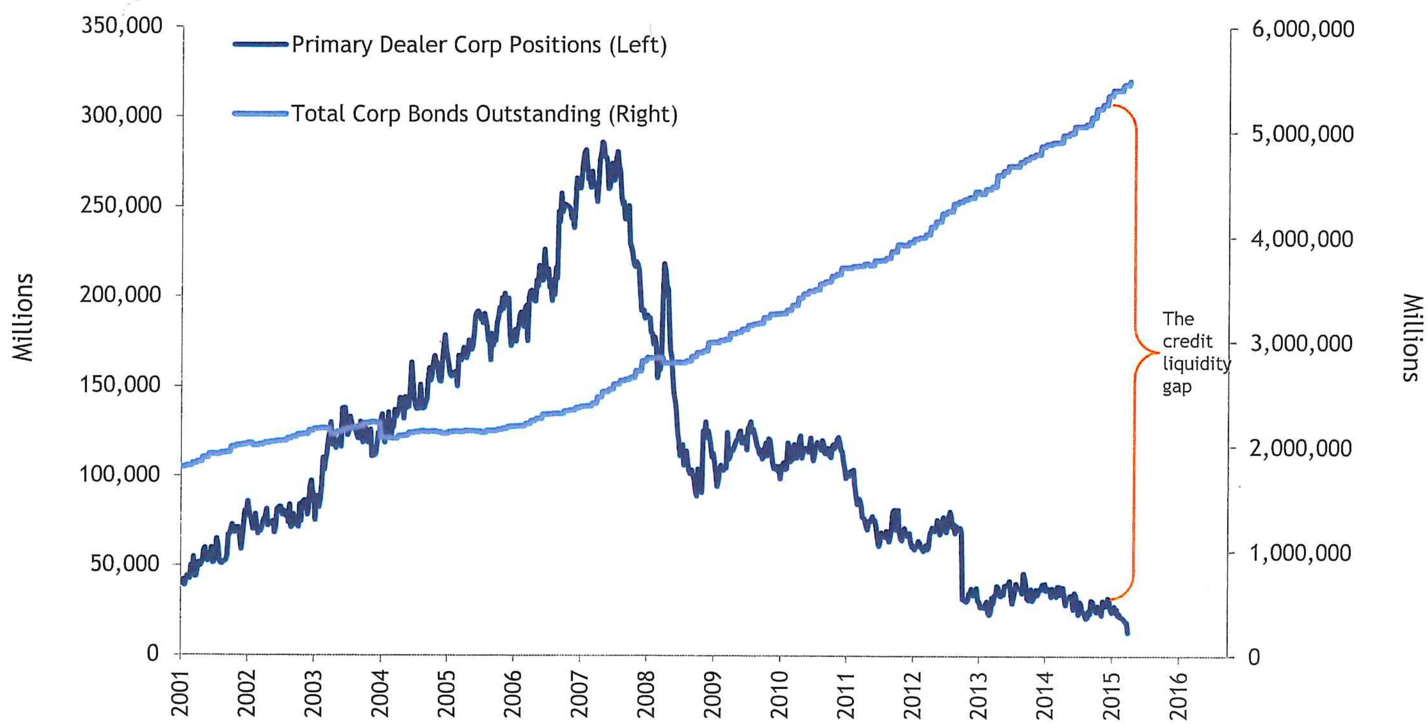
## CURRENT YIELDS ACROSS SECTORS

Sector Yields vs. like duration Treasurys




**Bank Loan current yield and S&P dividend yield replace YTW.*
***GBI-EMYTM replaces YTW.*
*Sources: JPMorgan, Bloomberg, Barclays, data as of October 5, 2015. Indexes are unmanaged and do not incur fees. It is not possible to invest directly in an index.*
***Past performance is no guarantee of future results.***

# liquidity in corporate sector

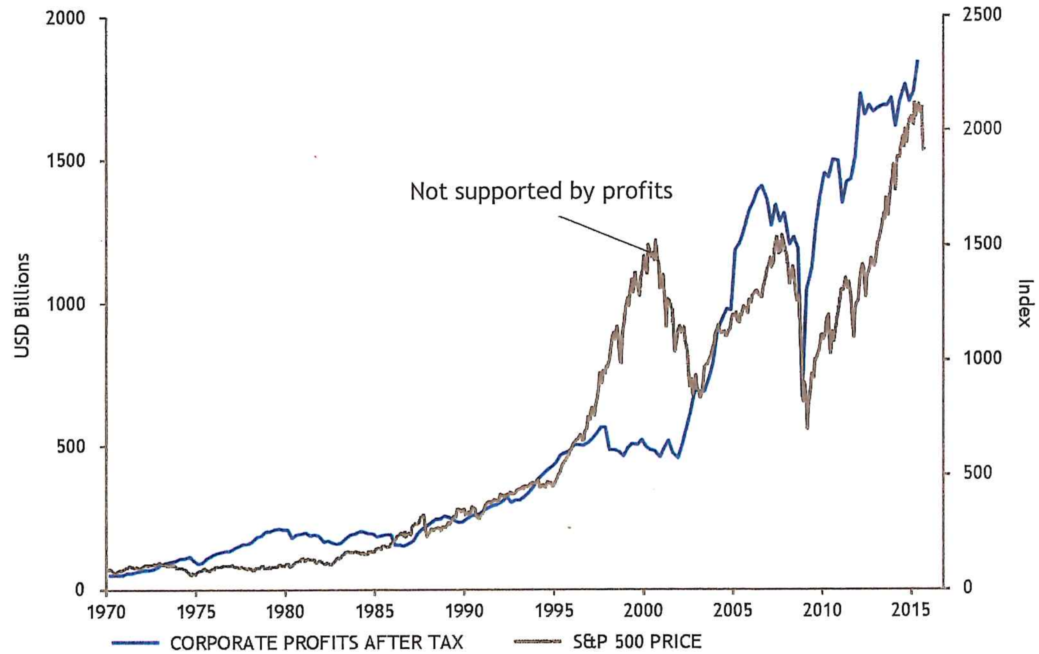



*Data sources: Deutsche Bank, Barclays and Bloomberg, history through September 30, 2015.*

# risk appetite appears strong

## MANY EQUITY MARKETS AROUND THE WORLD ARE MAKING NEW HIGHS, ENCOURAGED BY BOTH MONETARY POLICY AND BETTER FUNDAMENTALS

United States Corporate Profits, S&P 500 Composite Index




*Source: Thomson Reuters Datastream, as of October 1, 2015.*
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