



# EXPLORING THE FUTURE OF FIXED INCOME IN DC PLANS

**Lorie Latham, CFA**—Senior Defined Contribution Strategist

**Wyatt Lee, CFA**—Asset Allocation Portfolio Manager

**Terry Moore, CFA**—Fixed Income Portfolio Specialist

Moderator: **Michael Davis**—Head of Institutional Defined Contribution Specialists

July 12, 2017

# T. Rowe Price—Presenters



## Senior Defined Contribution Strategist

**Lorie Latham, CFA**

- 26 years' investment experience
- 1 year with T. Rowe Price



## Asset Allocation Portfolio Manager

**Wyatt Lee, CFA**

- 19 years' investment experience
- 17 years with T. Rowe Price



## Fixed Income Portfolio Specialist

**Terry Moore, CFA**

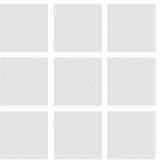
- 22 years' investment experience
- 8 years with T. Rowe Price



## Head of Institutional DC Specialists

**Michael Davis**

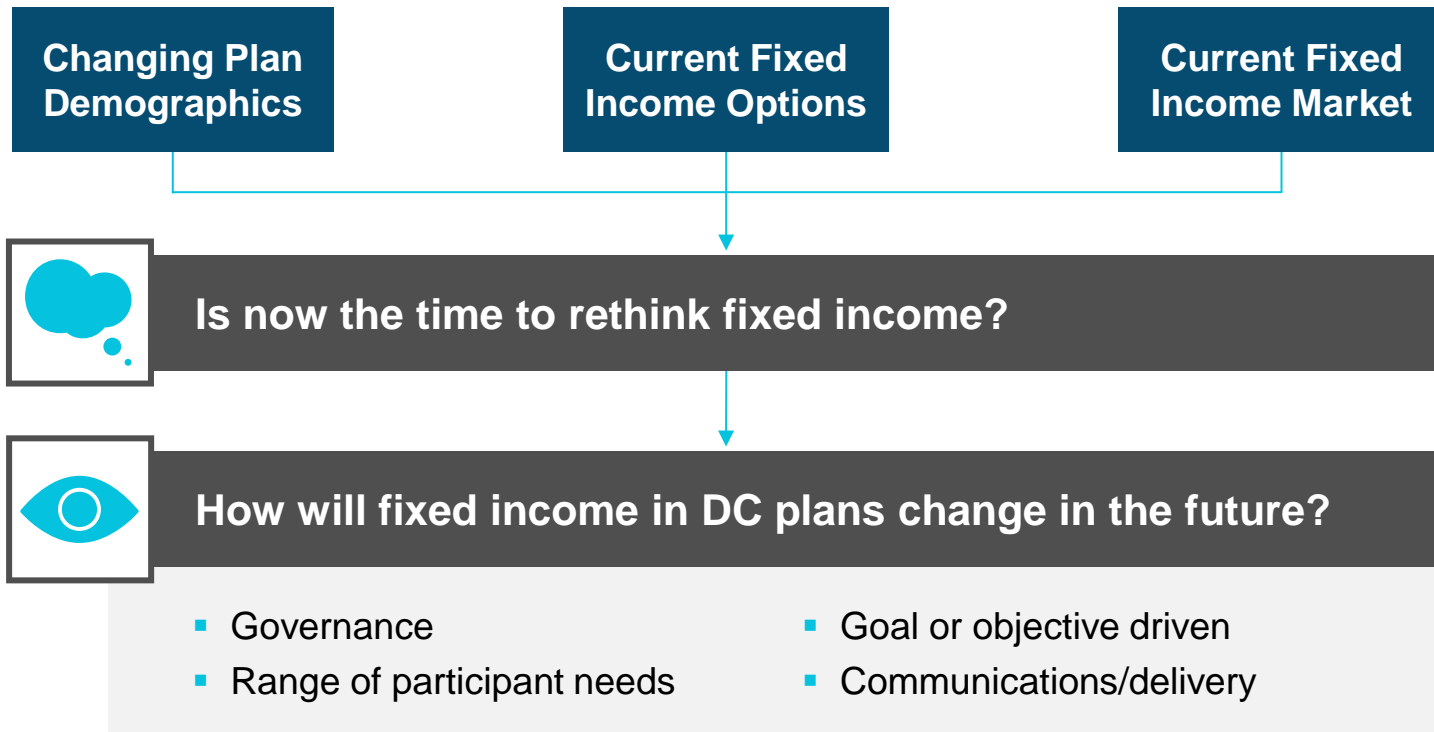
- 24 years' investment experience
- 1 year with T. Rowe Price



# Agenda

- Purpose
- Review of survey results
- Trending influential fixed income themes
- Frameworks and potential investment solutions
- Summary

# Future of Fixed Income in DC Plans



In today's session, we will review our research findings which offer sponsor context, participant data, and trends and also offer ideas that may influence the path forward.

# Fixed Income Use by Age— Plans Over \$500M

As of December 31, 2016

## SUMMARY OF FIXED INCOME USE BY AGE—PLANS OVER \$500M

	Age < 20	20–29	30–39	40–49	50–59	60–64	65–69	70+	Total
<b>% of Participants</b>	1%	17%	23%	22%	23%	8%	4%	2%	100%
<b>% of Total Assets</b>	0%	2%	11%	23%	39%	14%	7%	4%	100%
<b>% of Fixed Income Assets (Morningstar categories)</b>	0%	0%	6%	17%	38%	18%	10%	11%	100%
<b>% of Participants with an Allocation to Fixed Income Funds</b>	0.1%	7.9%	19.4%	24.4%	28.8%	10.4%	5.2%	3.9%	n/a
<b>Average Account Balance</b>	\$611	\$8,229	\$39,198	\$88,376	\$144,311	\$155,452	\$149,832	\$138,252	n/a
<b>Average Allocation to Fixed Income Funds (among owners)</b>	24.5%	34.5%	21.2%	21.1%	24.7%	29.7%	35.2%	53.7%	n/a

Participants over the age of 50 own over 75% of fixed income assets.

Source: T. Rowe Price Reference Point study of 58 plans over \$500M, as of December 31, 2016.

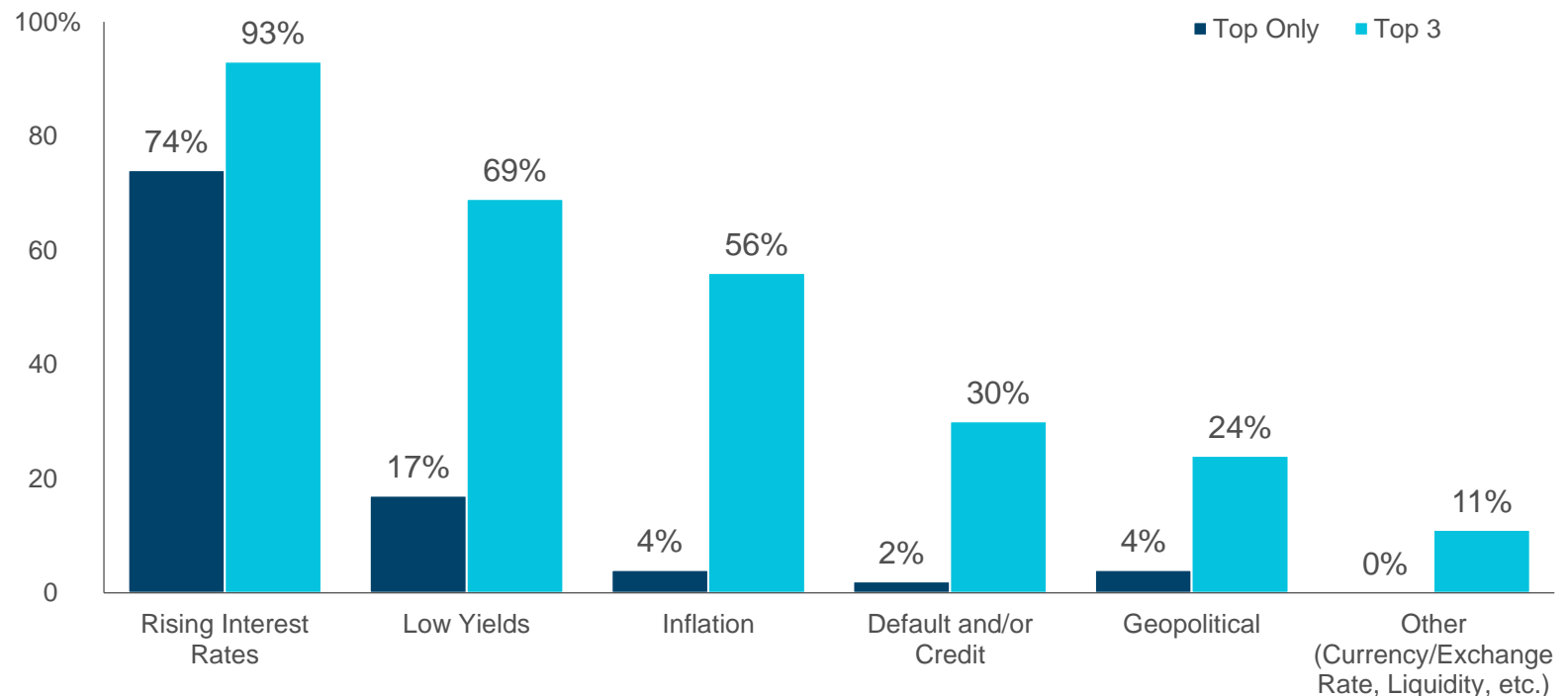


# Survey Methodology

- T. Rowe Price conducted a Future of Fixed Income in DC Plans Survey from April 7 through April 21, 2017 with plan sponsors responsible for the oversight of fixed income decisions in DC plans over \$500M.
- The survey asked about DC plan governance, current and future investment offerings, the importance of certain characteristics of fixed income offerings in the DC plan, and issues involved with adding fixed income options to a DC plan.
  - The survey received responses from 54 individuals who work in Finance/Treasury/Investments (41), Human Resources/Benefits (8) or Both/Other (5).
  - There was one response per entity.
  - 81% of respondents manage over \$1B in DC plan assets.
- Respondents participated via an online survey and received an invitation to receive early results as an incentive for participation.
- T. Rowe Price designed the survey questions and was responsible for the interpretation of the results.

# Fixed Income—Biggest Concerns

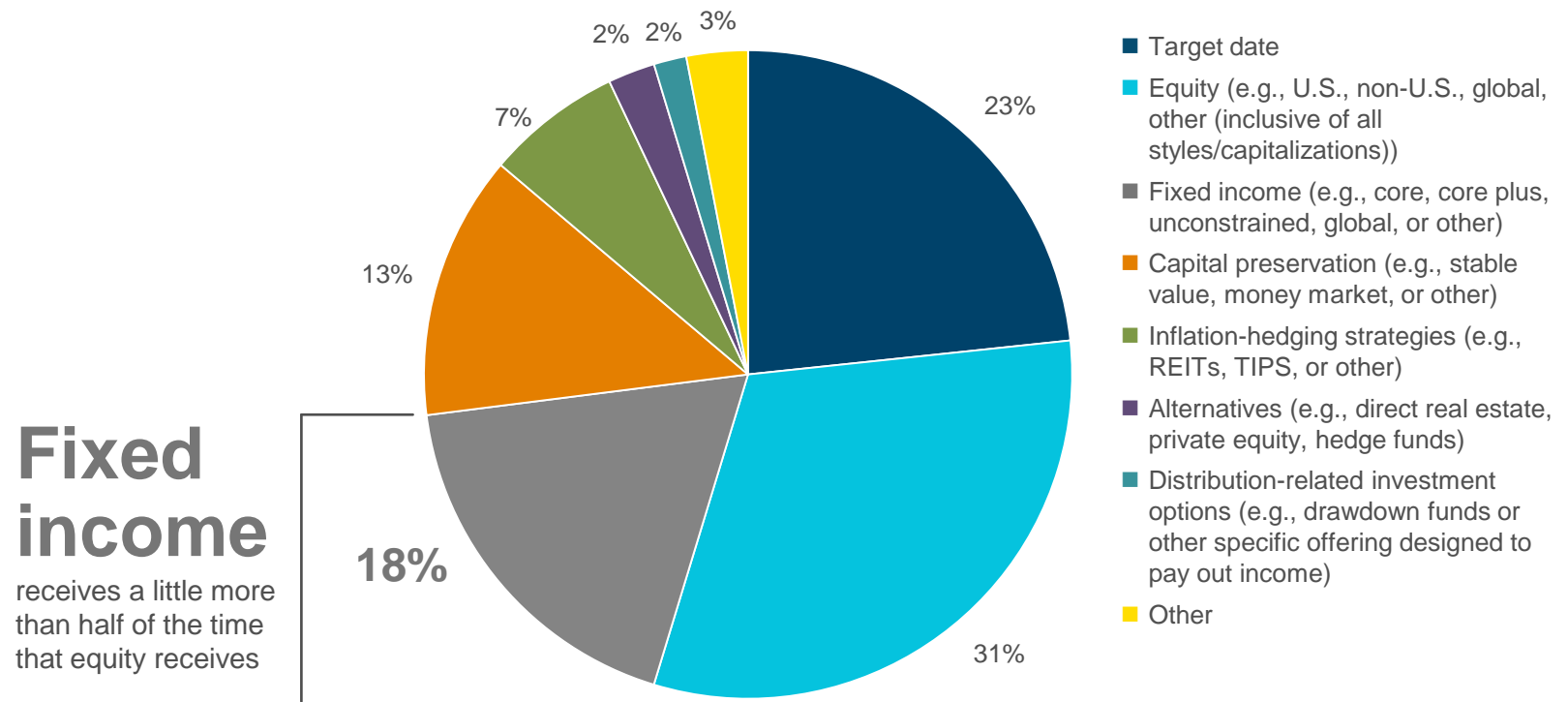
**WHAT WOULD YOU OR YOUR ORGANIZATION HIGHLIGHT AS THE BIGGEST CONCERNS FOR FIXED INCOME INVESTING FROM AN INVESTMENT ONLY PERSPECTIVE AT THIS TIME? SELECT THE TOP THREE RISKS.**



Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses.

# Overall DC Plan Time Spent by Asset Class

**PLEASE ASSIGN POINTS FROM 1 TO 100 FOR EACH OF THE ASSET CLASSES/INVESTMENT TYPES TO INDICATE AMOUNT OF GOVERNANCE-RELATED TIME SPENT ON EACH ASSET CLASS/INVESTMENT TYPE.**



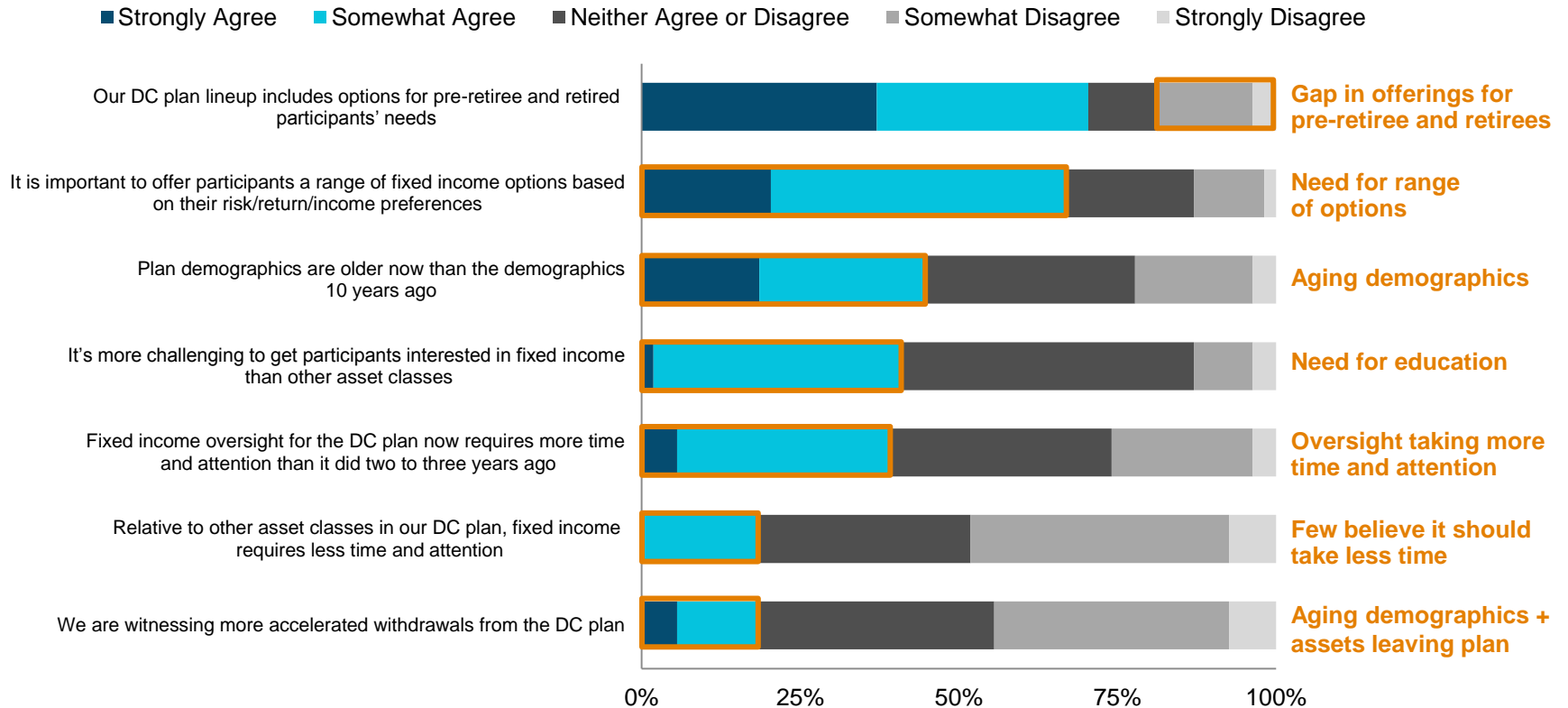
Note: May not add up to 100% due to rounding.

Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses. "Other" responses include managed account services, company stock, and brokerage.



# DC Plan Sponsor Fixed Income Observations

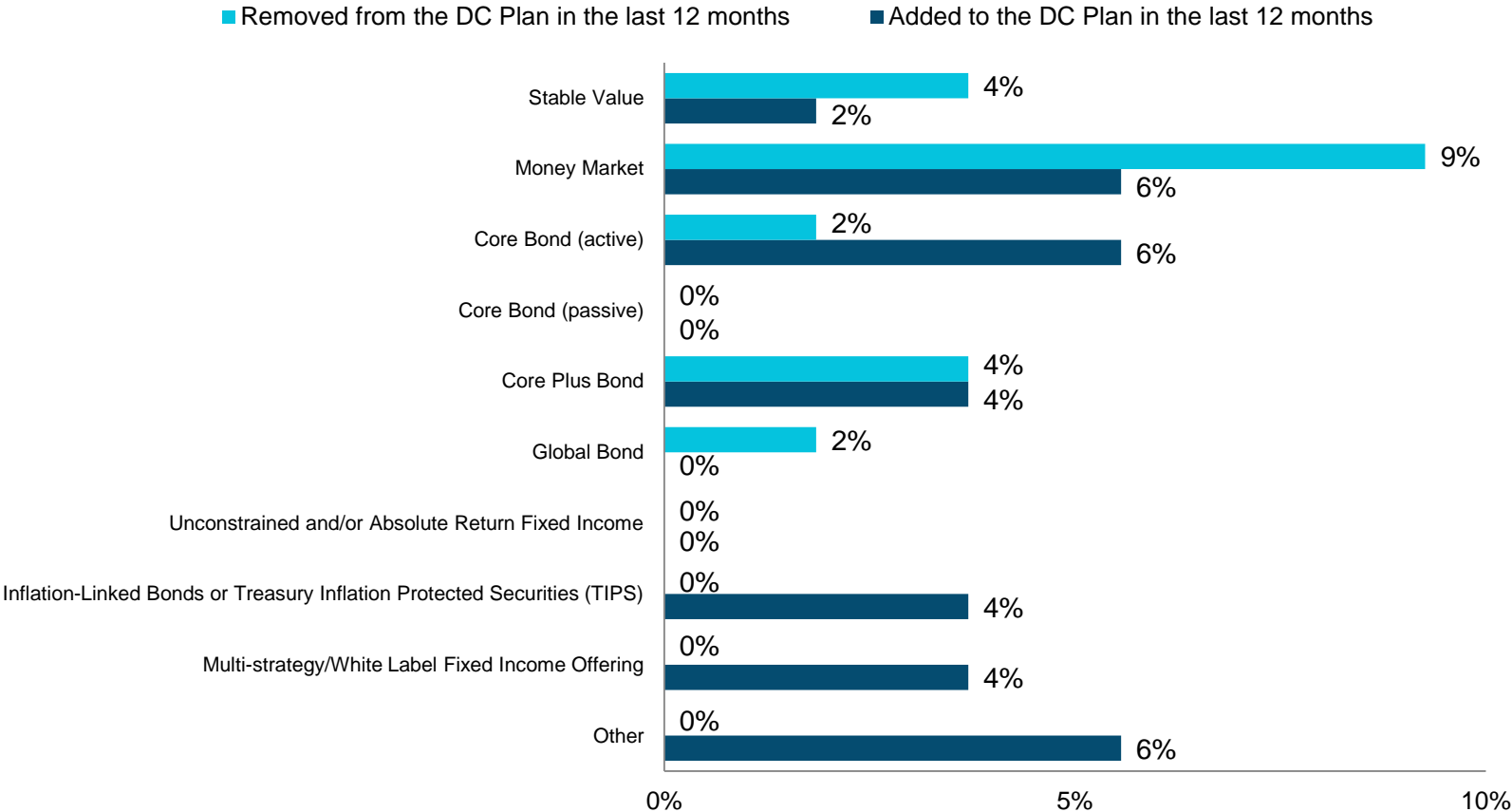
**WE WOULD LIKE TO ASSESS YOUR LEVEL OF AGREEMENT WITH THE FOLLOWING STATEMENTS. PLEASE SELECT THE RESPONSE THAT REFLECTS YOU OR YOUR ORGANIZATION'S POINT OF VIEW.**



Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses.

# DC Plan Fixed Income—Last 12 Months

**DC PLAN LINEUP: PLEASE IDENTIFY ANY CORRESPONDING ACTIVITIES FOR EACH OF THE FOLLOWING.**

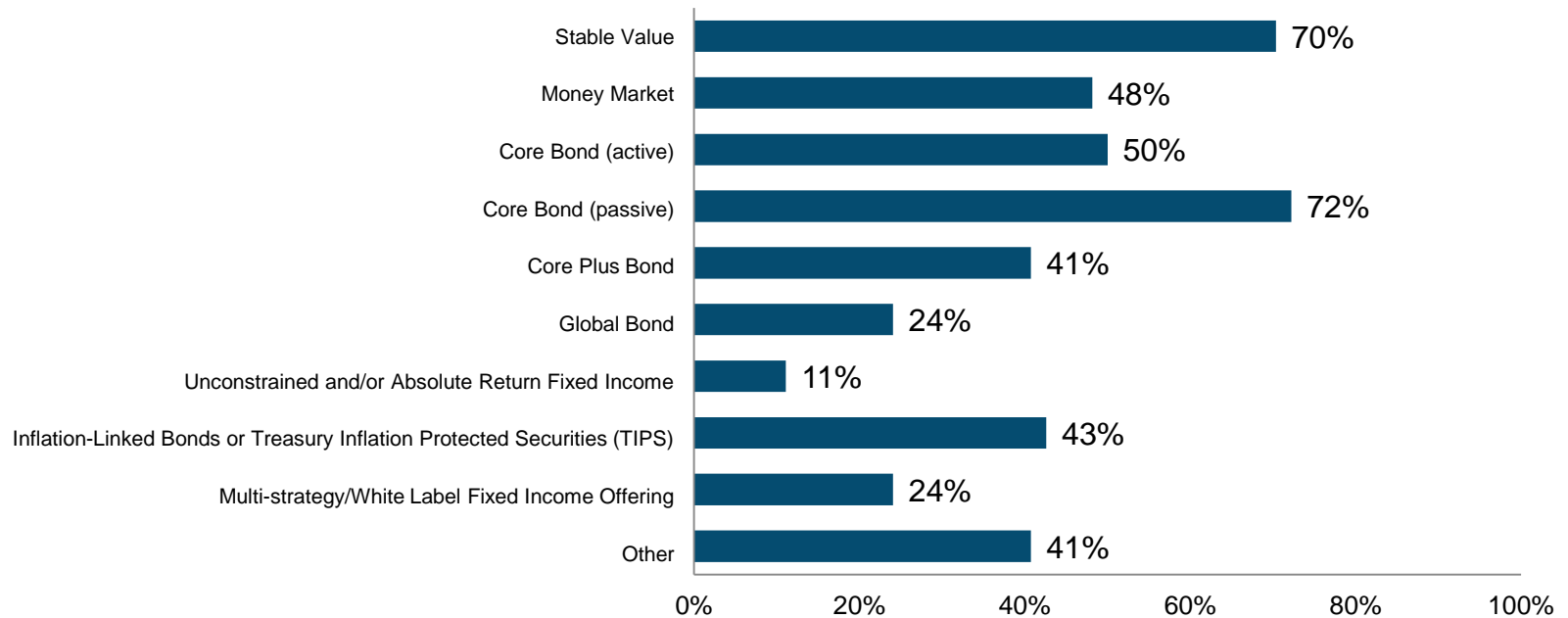


Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses. Other includes high yield, emerging market debt, other capital preservation, etc.

# DC Plan Fixed Income—Last 12 Months

## DC PLAN LINEUP: PLEASE IDENTIFY ANY CORRESPONDING ACTIVITIES FOR EACH OF THE FOLLOWING.

Reviewed in the last 12 months but made no changes

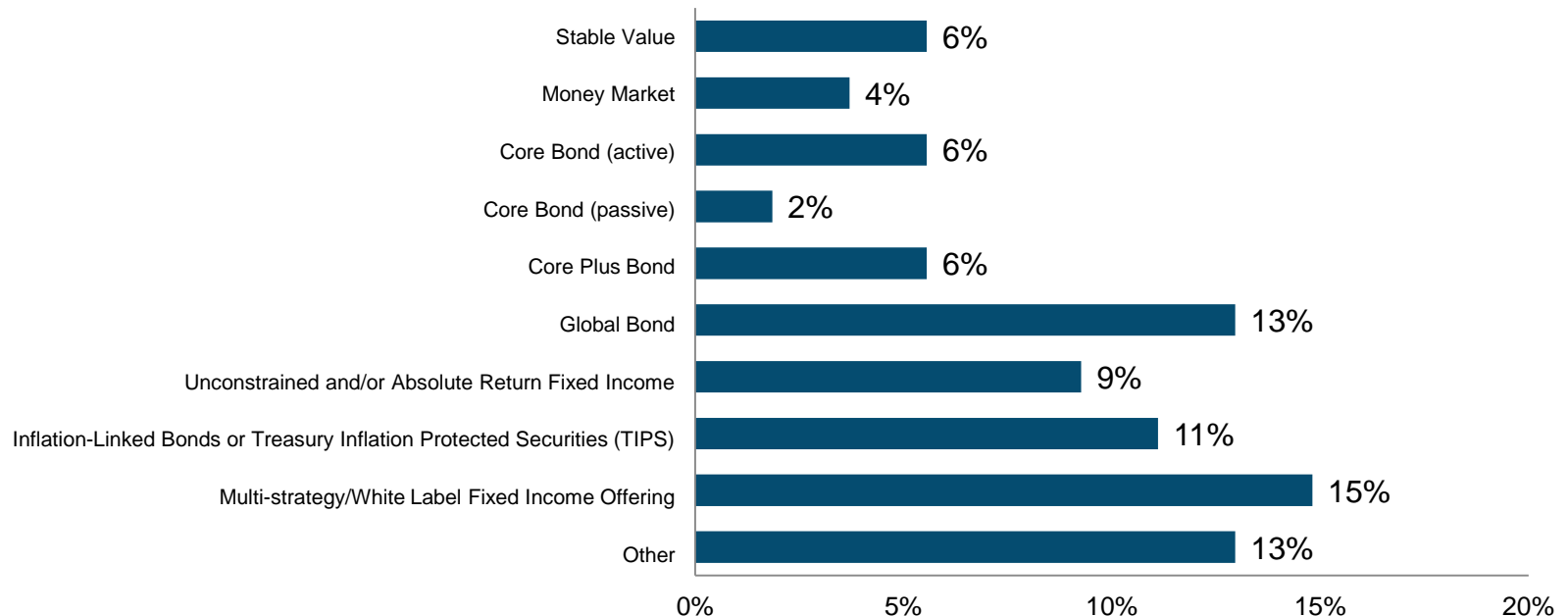


Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses. "Other" includes high yield, emerging market debt, other capital preservation, etc.

# DC Plan Fixed Income—Next 12 Months

## DC PLAN LINEUP: PLEASE IDENTIFY ANY CORRESPONDING ACTIVITIES FOR EACH OF THE FOLLOWING.

### Intend to consider in the coming 12 months

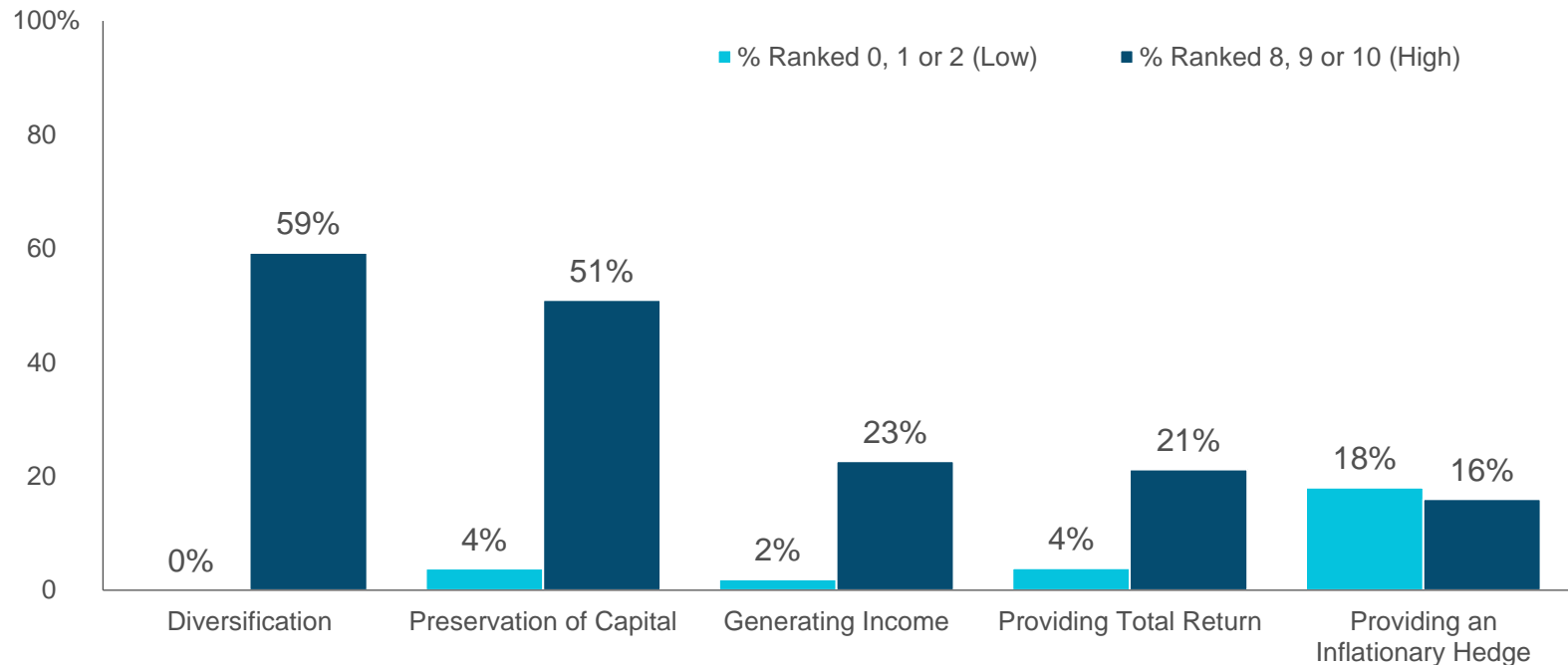


Sponsors are growing more open to implementing options with structures that allow for more flexibility and a combination of portfolios. Also, white label provides a vehicle to integrate multiple strategies/levers that are complementary.

Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses. "Other" includes high yield, emerging market debt, other capital preservation, etc.

# Most Important Fixed Income Characteristics to Offer in a DC Plan

**WHAT FIXED INCOME CHARACTERISTICS DO YOU BELIEVE ARE MOST IMPORTANT TO OFFER IN A DC PLAN TO MEET THE RANGE OF NEEDS OF YOUR PARTICIPANTS?**

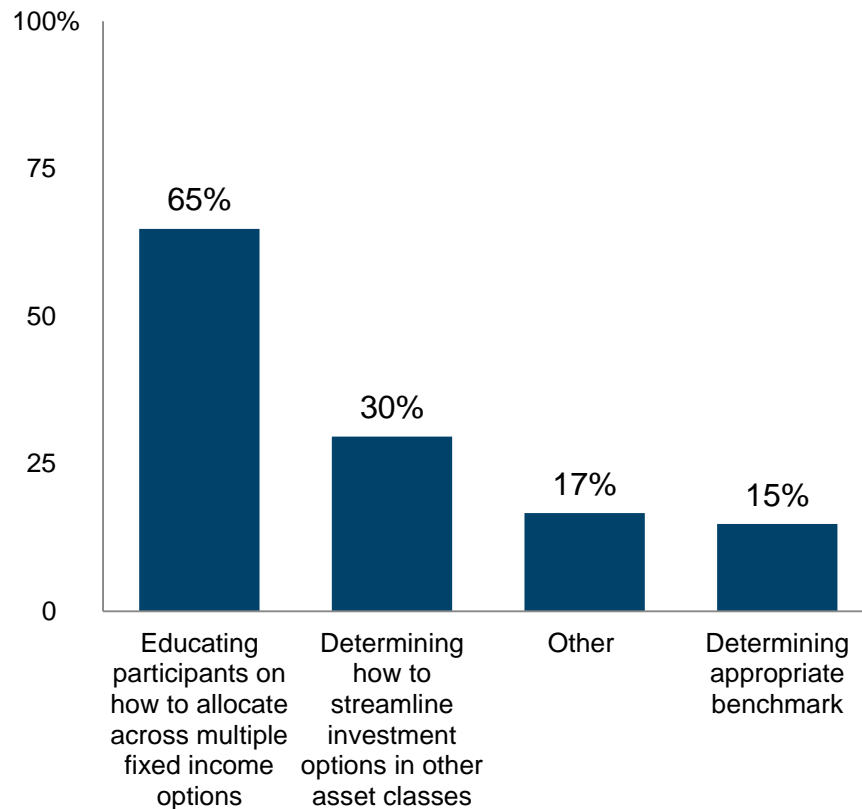


Diversification and preservation of capital ranked high as a “most important characteristic” alongside income, total return and inflation having a role as well. The role of fixed income in DC plans will likely evolve and become more complex.

Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses.

# Biggest Challenge With Making Changes to Fixed Income Offerings

**WHAT CHALLENGES HAVE YOU OR DO YOU FACE AT YOUR ORGANIZATION WHEN IT COMES TO MAKING CHANGES AND/OR ADDITIONS TO THE FIXED INCOME OFFERINGS IN THE DC PLANS? PLEASE SELECT ALL THAT APPLY.**



## OTHER RESPONSES INCLUDE:

“Increasing the number of options— not counting QDIA funds, we already offer 20 primary fund offerings.”

“Most of our fixed income options are good for accumulation phase, but not for longevity income risk.”

“Uncertainty surrounding regulations and litigation environment.”

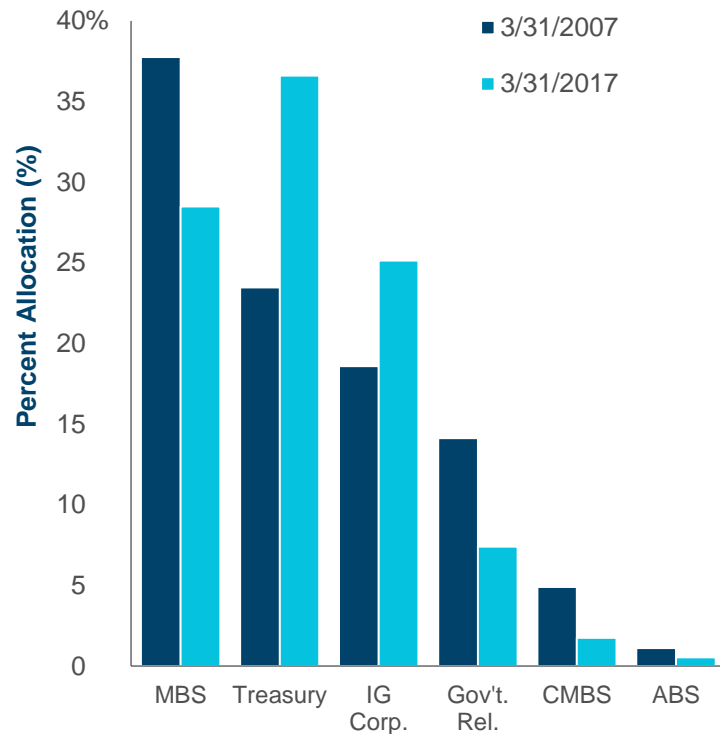
“Length of time to do the work and convince governance bodies.”

Source: T. Rowe Price Future of Fixed Income in DC Plans Survey, April 2017. Based on 54 responses.

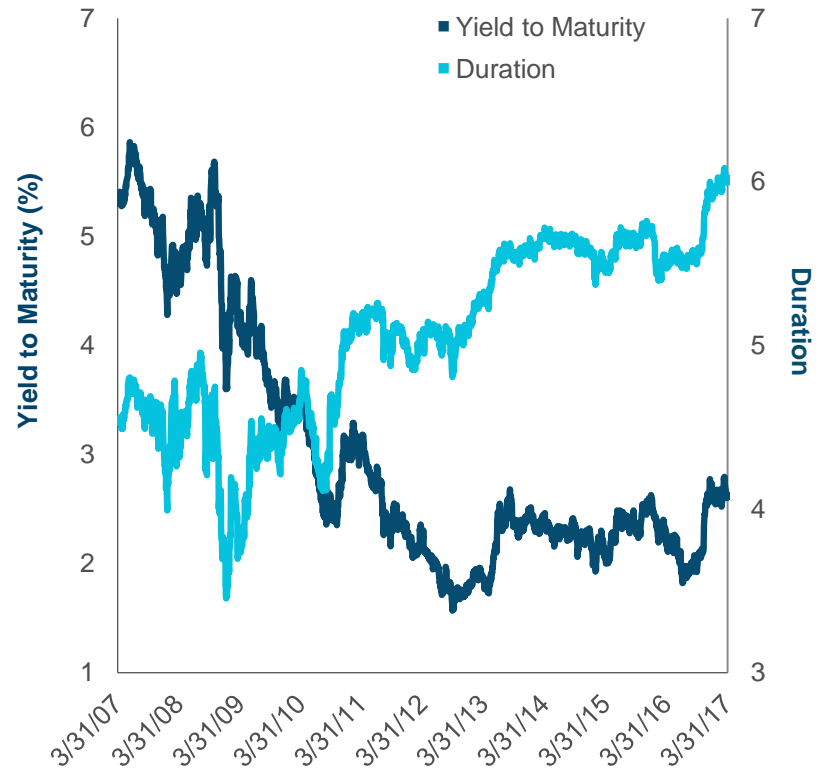
# The Evolution of the Bloomberg Barclays U.S. Aggregate Bond Index (2007–2017)

As of March 31, 2017

## CHANGING COMPOSITION



## YIELD VS. DURATION



Source: Bloomberg Index Services Ltd. Copyright© 2017, Bloomberg Index Services Ltd. Used with permission.

# The Value of Diversification

## TIME PERIODS WHEN TREASURY YIELDS ROSE 100+ BPS

Figures are calculated in U.S. dollars

### Total Returns—One-Year Period

12-Months Ended	10-Year UST Yield Move	U.S. 10-Year Treasury	U.S. Aggregate Bond	U.S. Corp. Inv. Grade	Global High Yield	Emerging Market Bonds Global	Global Agg. Hedged	U.S. Dollar
<i>Dec 31, 1999</i>	+179 bps	-8%	-1%	-2%	+3%	+24%	+1%	+8%
<i>May 31, 2004</i>	+130 bps	-5%	-0%	-0%	+13%	+3%	-0%	-5%
<i>Jun 30, 2006</i>	+120 bps	-6%	-1%	-2%	+5%	+5%	-0%	-4%
<i>Dec 31, 2009</i>	+162 bps	-10%	+6%	+19%	+59%	+28%	+5%	-4%
<i>Sep 30, 2013</i>	+140 bps	-6%	-2%	-2%	+7%	-4%	+1%	+2%

### Total Returns—Periods Less Than One Year

12-Months Ended	10-Year UST Yield Move	U.S. 10-Year Treasury	U.S. Aggregate Bond	U.S. Corp. Inv. Grade	Global High Yield	Emerging Market Bonds Global	Global Agg. Hedged	U.S. Dollar
<i>Apr 30, 2013– Aug 31, 2013</i>	+112 bps	-8%	-4%	-5%	-2%	-10%	-3%	-2%
<i>Jul 8, 2016– Dec 16, 2016</i>	+123 bps	-10%	-4%	-4%	+6%	-3%	-3%	+6%

### Past performance cannot guarantee future results.

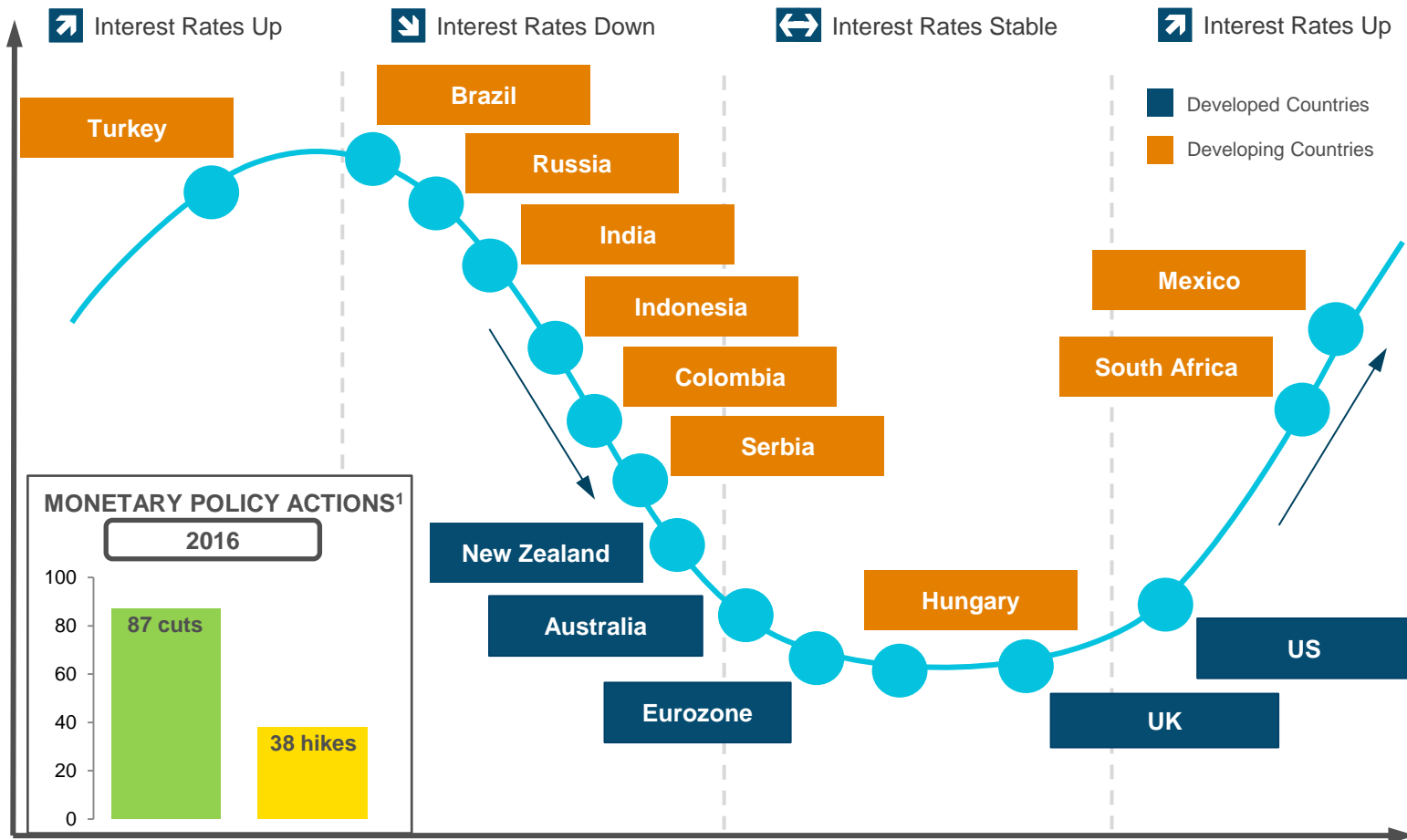
Sources: J.P. Morgan, Bloomberg Barclays. U.S. 10-Year Treasury: Bloomberg Barclays U.S. 10-Year Treasury Index. U.S. Aggregate Bond: Bloomberg Barclays U.S. Aggregate Index. U.S. Corp. Inv. Grade: Bloomberg Barclays U.S. Corporate Investment Grade Index. Global High Yield: J.P. Morgan Global High Yield Index. Emerging Market Bonds Global: J.P. Morgan Emerging Market Bond Global Index. Global Agg. Hedged: Bloomberg Barclays Global Aggregate Hedged USD. U.S. Dollar: DXY Index.



# As The Fed Increases Interest Rates, There Are Bond Opportunities Elsewhere

As of March 31, 2017

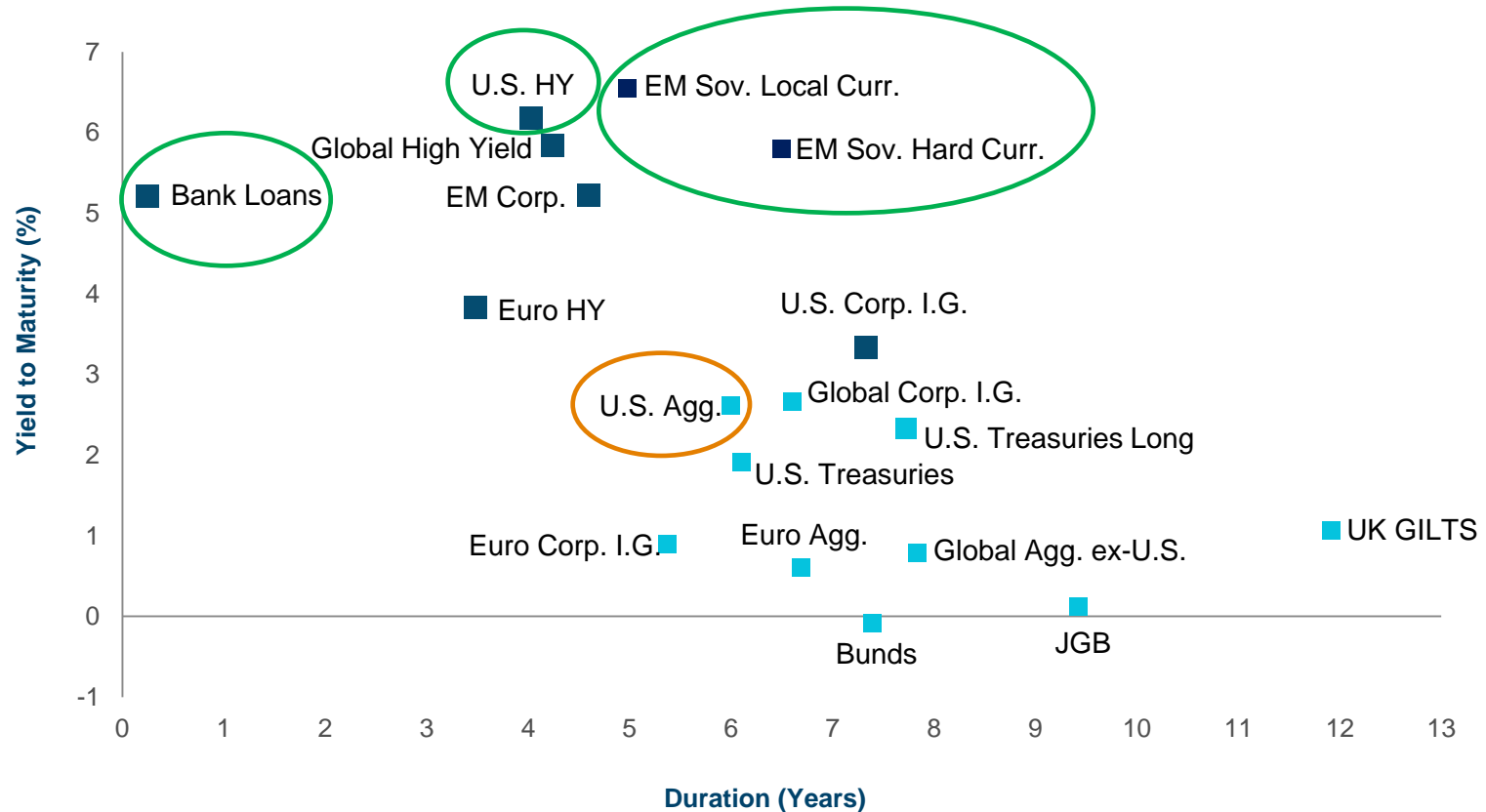
## ILLUSTRATIVE INTEREST RATE CYCLE



<sup>1</sup>The columns of cuts versus hikes are the actual number of rate cuts and rate hikes that have happened across countries worldwide. Sources: CRB Rates and T. Rowe Price.

# Cast a Wider Net for Bond Opportunities

As of March 31, 2017



**Past performance cannot guarantee future results.**

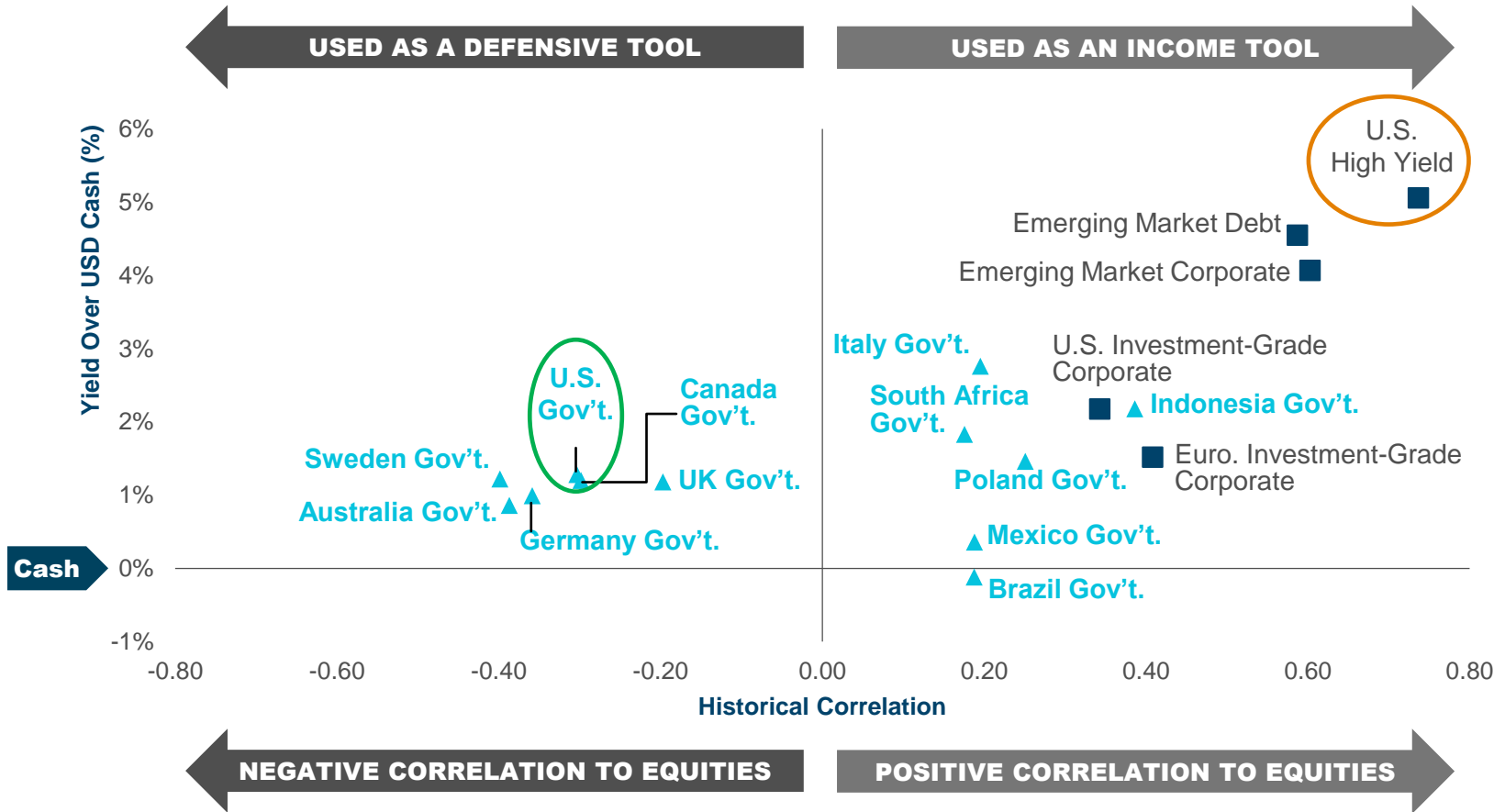
Sources: U.S. Treasuries: Bloomberg Barclays U.S. Treasury Index; U.S. Treasuries Long: Bloomberg Barclays 7-10 Year U.S. Treasuries Index; U.S. Aggregate: Bloomberg Barclays U.S. Aggregate Bond Index; U.S. Corporates: Bloomberg Barclays U.S. Corp. IG Index; U.S. High Yield: Bloomberg Barclays U.S. High Yield Index; EM Sovereign Hard Currency: JPM Emerging Market Global Diversified Bond Index; EM Corporates: JPM CEMBI Broad Diversified; EM Sovereign Local Currency: JPM GBI-EM GD Index; Global Bonds: Bloomberg Barclays Global Aggregate Index; International Bonds: Bloomberg Barclays Global Aggregate ex-U.S. Index; Euro Corporates: Bloomberg Barclays Euro-Agg.: Corporates Bond Index; Euro HY: Bloomberg Barclays Pan-European High Yield Index; Euro Agg.: Bloomberg Barclays Euro Agg. Index; JGB: Bloomberg Barclays Asian Pacific Japan Index; Bunds: Bloomberg Barclays Global Treasury Germany Index; UK Gilts: Bloomberg Barclays Global Treasury UK Index; Global High Yield: Bloomberg Barclays Global High Yield Index; Bank Loans: S&P/LSTA Performing Loan Index (loan yield as of March 31, 2017).

# Ultimately, What Do We Really Expect From Fixed Income?

As of March 31, 2017

## CURRENT YIELD ABOVE USD CASH VS. HISTORICAL CORRELATION

Last 10 Years



Past performance cannot guarantee future results.

Sources: UBS, Bloomberg Barclays, J.P. Morgan, Bank of America/Merrill Lynch, S&P, MSCI, and T. Rowe Price.

Yield shown is on a hedged basis in U.S. dollars. Volatility is based on the monthly returns of each asset class hedged into U.S. dollars.



# An Evolved Approach to DC Fixed Income for Consideration

## Our guiding principles:

- Preservation of the characteristics of fixed income that are most attractive in a total portfolio context
- Giving participants broad access to fixed income markets
- A fixed income allocation that is **influenced** by the equity allocation

**Core design belief:** Our approach is designed to complement the equity portfolio as different fixed income components have markedly different relative dynamics to equity returns.

Importantly, each fixed income portfolio design takes into account several key fixed considerations:

- Aim to improve Sharpe ratio for total portfolio
- Help stabilize overall portfolio returns
  - Volatility reduction
  - Tail risk protection
- Seek to increase fixed income return

## Resulting portfolio construction:

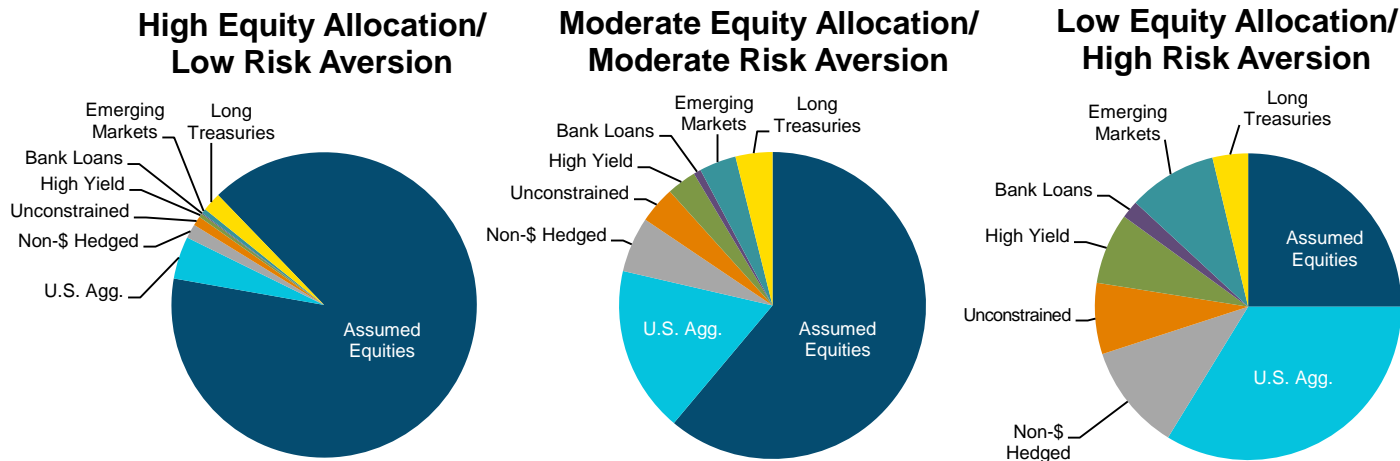
- Three multi-strategy fixed income portfolios for use as a series of standalone offerings within a DC plan lineup focused on a portfolio context (i.e., factoring in equity exposure)
- Alternatively, sponsors desiring simplicity could target the moderation risk allocation portfolio or revisit current exposures relative to some of the themes we have shared

# Roles of Fixed Income: A Total Portfolio, Risk-Based Framework

		High Equity Exposure: (Low Risk Aversion)	Moderate Equity and Risk Aversion	Low Equity Exposure: (High Risk Aversion)
"Core" Static Component	<b>Main Role of FI Core</b>	Establishes a lower volatility baseline profile for the fixed income allocation		
	<b>Targeted Characteristics</b>	Lower volatility (<5% annualized)		
	<b>"Core" Sectors</b>	U.S. Aggregate International (hedged) Unconstrained/nontraditional		
Diversifiers Dynamic Component	<b>Main Role of FI Diversifiers</b>	<ul style="list-style-type: none"> <li>▪ Diversify against equity risk</li> <li>▪ Stabilize portfolio</li> </ul>	Blend of low and high	Improve risk-adjusted return
	<b>Targeted Characteristics</b>	Greater duration exposure		<ul style="list-style-type: none"> <li>▪ Greater spread exposure</li> <li>▪ Return-seeking FI</li> </ul>
	<b>Diversifying Sectors</b>	Long-duration Treasuries		<ul style="list-style-type: none"> <li>▪ High yield</li> <li>▪ Bank loans</li> <li>▪ Emerging markets</li> </ul>

At high levels of equity, greater duration exposure becomes a key diversifying portfolio element, while greater spread exposure is desired when equity exposure is low.

# Multi-strategy Fixed Income Model Portfolios



		Low Risk Aversion	Moderate Risk Aversion	High Risk Aversion
Core	U.S. Agg.	45.0%	45.0%	45.0%
	Non-\$ Hedged	15.0%	15.0%	15.0%
	Unconstrained/ Absolute Return	10.0%	10.0%	10.0%
Dynamic Component	High Yield	4.0%	8.0%	10.0%
	Bank Loans	1.0%	2.0%	2.5%
	Emerging Markets	5.0%	10.0%	12.5%
	Long Treasuries	20.0%	10.0%	5.0%

Each portfolio was constructed according to plan participant risk tolerance level, which was determined based on the degree of their total equity portfolio exposure.

Source: T. Rowe Price.

# Multi-strategy Fixed Income Model Portfolios

## FIXED INCOME PORTFOLIO

Metrics	Benchmark (Bloomberg Barclays Global Agg.)	High Equity Allocation/ Low Risk Aversion	Moderate Equity Allocation/ Moderate Risk Aversion	Low Equity Allocation/ High Risk Aversion
Excess Return Over Cash	0.85%	1.21%	1.42%	1.52%
Volatility	5.72%	4.26%	3.77%	3.73%
Sharpe Ratio	0.15	0.29	0.38	0.41
Tracking Error (to Benchmark)	0.00%	1.38%	1.33%	1.83%

## OVERALL PORTFOLIO—WHEN COMBINED WITH EQUITY

Metrics	High Equity Allocation/ Low Risk Aversion		Moderate Equity Allocation/ Moderate Risk Aversion		Low Equity Allocation/ High Risk Aversion	
	Using Global Agg.	Model	Using Global Agg.	Model	Using Global Agg.	Model
Portfolio Excess Return	4.73%	4.77%	3.22%	3.48%	1.71%	2.25%
Portfolio Risk	15.03%	14.83%	10.31%	9.72%	6.58%	5.36%
Portfolio Sharpe	0.31	0.32	0.31	0.36	0.26	0.42

Fixed income allocations designed to meet investor needs through the DC investment life cycle.

For illustrative purposes only and not intended to represent the returns of any specific security.

Past performance cannot guarantee future results.

Sources: T. Rowe Price and Morningstar. Return sources: U.S. Aggregate: Bloomberg Barclays U.S. Aggregate Bond Index. Non-\$ Bonds (Hedged): Bloomberg Barclays Global Aggregate Ex USD Bond Index (Hedged). Global Aggregate: Bloomberg Barclays Global Aggregate Bond Index. Nontraditional Bond: Blended Series: PIMCO Unconstrained Bond Fund from 7/31/2008–1/31/2015. T. Rowe Price Dynamic Global Bond Fund from 2/28/2015–3/31/2017. Non-\$ Bonds (Unhedged): Bloomberg Barclays Global Aggregate Ex USD Bond Index (Unhedged). Long Treasuries: Bloomberg Barclays Treasury Long 10+ Years Returns Index. High Yield: Credit Suisse High Yield Index. Bank Loans: S&P/LSTA Performing Loan Index. Emerging Markets: J.P. Morgan Emerging Markets Bond Index Global. For modeling purposes, the equity allocation weights are 70% Russell 3000 and 30% MSCI ACWI ex. USA Index.

# Future of Fixed Income Lineups in DC Plans (Capital Preservation +)

Current State	Option Description	Considerations
<b>Traditional Core</b>	Core/Core Plus	<ul style="list-style-type: none"> <li>Legacy exposure</li> <li>Anchored to Bloomberg Barclays Aggregate benchmark</li> <li>Limited ability to broaden opportunity set</li> </ul>

Alternate Approaches	Option Description	Considerations
<b>OPTION 1: Redefined Core</b>	Redefined Core: <i>Core/Core Plus + Unconstrained + Hedged Non-\$</i>	<ul style="list-style-type: none"> <li>Core/Core Plus option redefined to expand exposures and reduce diversification challenges of traditional core offerings</li> <li>Limited ability to complement different levels of equity exposure in total portfolio</li> </ul>
<b>OPTION 2: Extended Approach</b>	Redefined Core + Bank Loans/Emerging Markets/ Long Treasuries	
<b>OPTION 3: Evolved Approach</b>	Low Risk Aversion <i>(high equity exposure)</i>	<ul style="list-style-type: none"> <li>A new concept in DC plans that offers portfolio context and ability to complement equity exposure</li> <li>Implementation approach would need to be explored</li> <li>Participant communication and education necessary</li> </ul>
	Moderate Risk Aversion <i>(moderate equity exposure)</i>	
	High Risk Aversion <i>(low equity exposure)</i>	

Source: T. Rowe Price.





# Key Takeaways

- Survey reveals a gap in governance deployed to fixed income
- The role of fixed income has evolved and is more complex due to shifting demographics and a more robust opportunity set
- Rising interest in pursuing strategies that maximize access to a broader opportunity set and/or considering a more robust core fixed income structure
- The fixed income offerings in DC plans tend not to be complementary in a total portfolio context
- A more dynamic fixed income portfolio can be designed with varying risk tolerance levels to complement the equity portfolio
- Range of ways to consider implementation

# Supplement: Tool for Evaluating Fixed Income in DC Plans

## KEY QUESTIONS THAT CAN HELP INFORM HOW SPONSORS APPROACH THEIR DC OFFERING(S):

Thematic Influences	Key Questions to Ask
<b>Governance</b>	<ul style="list-style-type: none"> <li>▪ <b>How much time do you spend on the fixed income options in your plan relative to other asset classes?</b></li> <li>▪ What is the goal of the fixed income option(s) in your lineup?</li> <li>▪ What factors do you consider when evaluating the fixed income option(s)?</li> <li>▪ Does the committee have investment beliefs and/or views that influence plan options?</li> <li>▪ Has the committee developed a philosophical view on whether it prefers to maintain retiree assets in the plan?</li> </ul>
<b>Participant Demographics</b>	<ul style="list-style-type: none"> <li>▪ <b>How do you think about the demographics of your participants when designing investment lineups?</b></li> <li>▪ What is the distribution of age groups by number of participants and assets?</li> <li>▪ What is the level of investment sophistication and/or engagement for various participant demographics?</li> </ul>
<b>Fixed Income Objectives</b>	<ul style="list-style-type: none"> <li>▪ <b>Is the fixed income lineup in your plan relevant for the current and future market environments?</b></li> <li>▪ How does each fixed income option correlate with options in other asset classes?</li> <li>▪ How do the investment objectives align to the needs of different age groups and different market conditions (e.g., stability, total return, inflation, yield)?</li> </ul>
<b>Asset Class Exposures</b>	<ul style="list-style-type: none"> <li>▪ <b>How do the standalone fixed income options compare with the underlying fixed income options in your QDIA (target date or managed account)?</b></li> <li>▪ How many fixed income options do you have in your plan compared with the number of equity options?</li> </ul>
<b>Implementation</b>	<ul style="list-style-type: none"> <li>▪ <b>How does your plan approach leveraging scale, access, and buying power?</b></li> </ul>

Design and governance, participant engagement, and investment oversight intersect and are important in DC plan oversight, even when evaluating asset classes.





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