



# Enhancing Fixed Income Portfolios with Unconstrained Strategies

PERSPECTIVE FROM FRANKLIN TEMPLETON GLOBAL FIXED INCOME RESEARCH TEAM

## EXECUTIVE SUMMARY

- The current low-to-negative interest-rate environment means that fixed income strategies modelled after a common benchmark, such as the Barclays Global Aggregate Bond Index, may not be sufficient by themselves to deliver adequate risk management or yield to institutional investors.
- A fixed income programme that uses an unconstrained strategy, including investments such as emerging-market sovereign debt, high-yield credit, leveraged bank loans and currency and derivative strategies, can reduce certain risks, such as those related to interest rates, while providing additional yield benefits.
- A theoretical asset mix combining both a core benchmark-based strategy and non-benchmark assets can produce better risk management and yield characteristics.

## Introduction: The Low-Rate, Long-Duration Problem

The current global economic environment of low-to-negative interest rates in major economies poses a challenge to institutional investors looking to squeeze the most out of their fixed income portfolios. The economic conditions in the first five months of 2016 have added to the sense that interest rates globally are likely to stay lower for longer. Even in the United States, which is considered further along the economic cycle than other developed economies, the timing of any move towards interest rate normalisation remains uncertain.

Traditionally, many institutional investors have employed a strategic asset mix that is based on, or at least resembles, a common core benchmark, such as the Barclays Global Aggregate Bond Index. However, the current situation demonstrates how investors taking this approach may be left especially vulnerable to interest-rate risk, when low interest rates combine with the long duration characteristics of several common core benchmarks.

The limitations of a benchmark-based fixed income strategy suggest that institutional investors could benefit from exposure to an “unconstrained” fixed income strategy, one that focuses on generating absolute returns and can shift allocation to investments that are generally outside the realm of core benchmarks. In the following discussion, we will take a closer look at the inherent risks of relying exclusively on aggregate

benchmarks as a portfolio model. Then, we will examine the effect of adding non-core fixed income assets, such as those found in unconstrained strategies, to a hypothetical investment mix in order to improve its risk and/or yield characteristics. Finally, we will discuss using an unconstrained strategy with either a single-sector or multi-sector approach within an active management structure.

## Risks, Limitations in Benchmark-Based Investing

For the purposes of this paper, we will use the Barclays Global Aggregate Bond Index as a proxy for an investment strategy based on a core benchmark. This index is used as a benchmark for many fixed income strategies, and the perception of it amongst many industry professionals is that it is a representation of the broad global fixed income market and general investor sentiment.

Our analysis of the aggregate benchmark highlights several notable risk components that institutional investors should be aware of. These generally fall into four categories:

1. Risk from longer duration.
2. Overexposure to heavy debtors.
3. Sector allocation drift.
4. Correlation risk.

## Risk Component #1: The Aggregate Benchmark's Longer Duration

Duration is vital to understanding the nature of the aggregate benchmark; in fact, for a benchmark-based portfolio, duration is the primary driver of performance. Credit risk—the other main driver of returns in fixed income investing—is largely absent from aggregate benchmarks due to their heavy emphasis on lower-yielding, interest-rate-sensitive developed-government issues and agency securities.

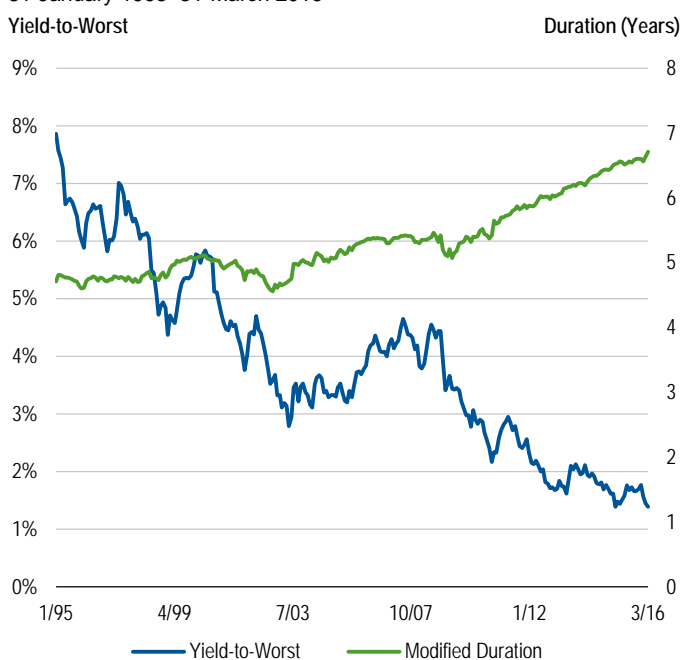
In general, for a fixed income security or portfolio, the longer the duration, the more sensitive it is to fluctuations in interest rates. When rates go up, generally the value of these securities goes down more if they have longer-duration characteristics. In the first half of 2016, a rising-rate environment might be less of an immediate concern than in previous months, but the low-to-negative rate landscape investors are currently experiencing is not sustainable. Institutional investors should be looking closely at how rising rates will impact their fixed income holdings in the future.

For a number of reasons, including the inclusion of a growing proportion of mortgage-backed securities, the overall duration of the aggregate benchmark has been lengthening for several years. This longer duration means a fixed income programme that primarily follows the benchmark could exhibit significant interest-rate risk.

Meanwhile, as Exhibit 1 shows, the benchmark's overall yield has noticeably declined in recent years as longer-dated bonds

**Exhibit 1: Historical Duration of the Barclays Global Aggregate Bond Index and Commensurate Yield Characteristics**

Yield-to-Worst and Modified Duration  
31 January 1995–31 March 2016



Source: FactSet. Past performance does not guarantee future results.

have been issued at lower coupon rates. As a result, a benchmark-based investor may be taking on greater interest-rate risk and lower yields at the same time.

## Risk Component #2: Overexposure to Heavy Debtors

Under certain macroeconomic conditions, a benchmark can become increasingly concentrated in a few large entities, and benchmark-based investors may find themselves with much less diversification than they might have previously assumed by following an “aggregate” portfolio strategy.

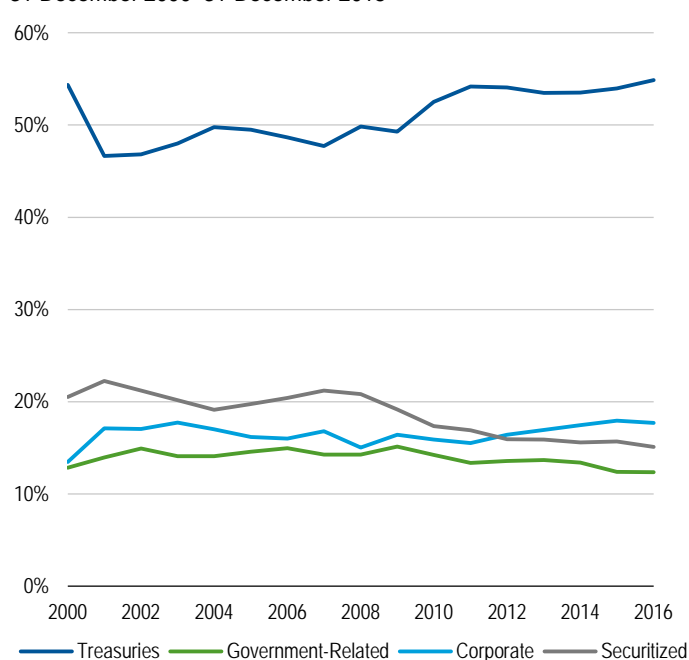
Historically cheap financing levels have prompted many investment-grade companies to lock in longer-term debt at record-low interest rates and because the aggregate benchmark—like many core fixed income indices—is issuance weighted, as large entities issue more debt, their positions within the benchmark increase. This has another effect as well: increasing the benchmark's duration and leaving benchmark-based portfolios vulnerable to interest-rate movements.

## Risk Component #3: Sector Allocation Drift

The perception of the aggregate benchmark is that it is a strongly diversified mix of government and investment-grade corporate issues. However, the composition of the benchmark is actually heavily weighted towards treasury securities, with an approximate allocation of 50% or more. Furthermore, recent years have seen the benchmark's treasury allocation approach historically high levels at the expense of other assets, as illustrated in the following graph.

**Exhibit 2: Benchmark Allocation of Treasury Securities Is over Half of Aggregate Benchmark**

Barclays Global Aggregate Bond Index Sector Allocation  
31 December 2000–31 December 2015



Source: Barclays. Past performance does not guarantee future results.

This shift could present problems for benchmark-based investors who may find themselves far less diversified than they might have assumed, leaving their portfolios vulnerable to capital loss or erosion should only a few fixed income asset classes experience a downturn.

#### Risk Component #4: High Correlations among Benchmark Constituents

Due to a combination of the aggregate benchmark's composition practices and recent market and economic trends, its correlation to US Treasuries and other developed-market indices has been fairly high. In the following table, we compare the five-year correlations between the benchmark and US Treasuries, other developed-market indices and some non-benchmark asset classes.

Exhibit 3: High Levels of Correlation between Aggregate Benchmark, US Treasuries, Developed Markets  
Barclays Global Aggregate Bond Index Correlation to Market Indexes  
10-Year Period ended 31 March 2016

Index Name	Correlation
Barclays US Aggregate Bond Index (Gross)	0.70
Barclays US Aggregate Government – Treasury Index (Gross)	0.51
Barclays Euro Government Bond Index (Gross)	0.87
FTSE UK Gilts (All) Government Total Return Index (Gross)	0.66
Citigroup WGBI Japan (JPY\$) Index (Gross)	0.57
JP Morgan Global GBI Traded (Gross)	0.95
JP Morgan Global High Yield Index (Gross)	0.37
Credit Suisse Leveraged Loan Index (Gross)	0.07

Source: FactSet, representing 10-year correlations between Barclays Global Aggregate Bond Index and the listed indexes. Correlation measures the degree to which two investments move in tandem. Correlation will range between 1.00 (perfect positive correlation; where two items historically always moved in the same direction) and -1.00 (perfect negative correlation; where two items historically always moved in opposite directions). **Past performance does not guarantee future results.**

The high levels of correlation to US Treasuries and other developed-market debt signifies two potential problems. Firstly, as Treasuries and other developed-market bonds tend to have low credit risk, this again reinforces the premise that it is duration that is the main driver of performance, which again suggests that the benchmark, and portfolios that mirror it, carry significant interest-rate risk. Secondly, the high correlations also underscore the lack of true diversification in the benchmark.

## Using Unconstrained Strategies to Enhance Yield, Manage Risk

In the previous section, we analysed some of the composition and performance characteristics of the aggregate benchmark. While we maintain that a benchmark-based portfolio strategy can still be an important part of a given fixed income programme, a sole benchmark focus presents many potential problems. As we have discussed, the most salient are the following:

- A benchmark-based portfolio alone will likely exhibit longer duration characteristics, leaving it vulnerable to capital loss should interest rates rise.
- A benchmark-based portfolio alone will generally exhibit low yields, leaving it vulnerable to capital erosion should returns fail to keep pace with inflation and the investor's liabilities.
- A benchmark-based portfolio alone is less diversified than many investors may have assumed, leaving it heavily weighted in only a few asset classes, and potentially vulnerable to capital loss should certain asset classes or currencies experience a downturn.

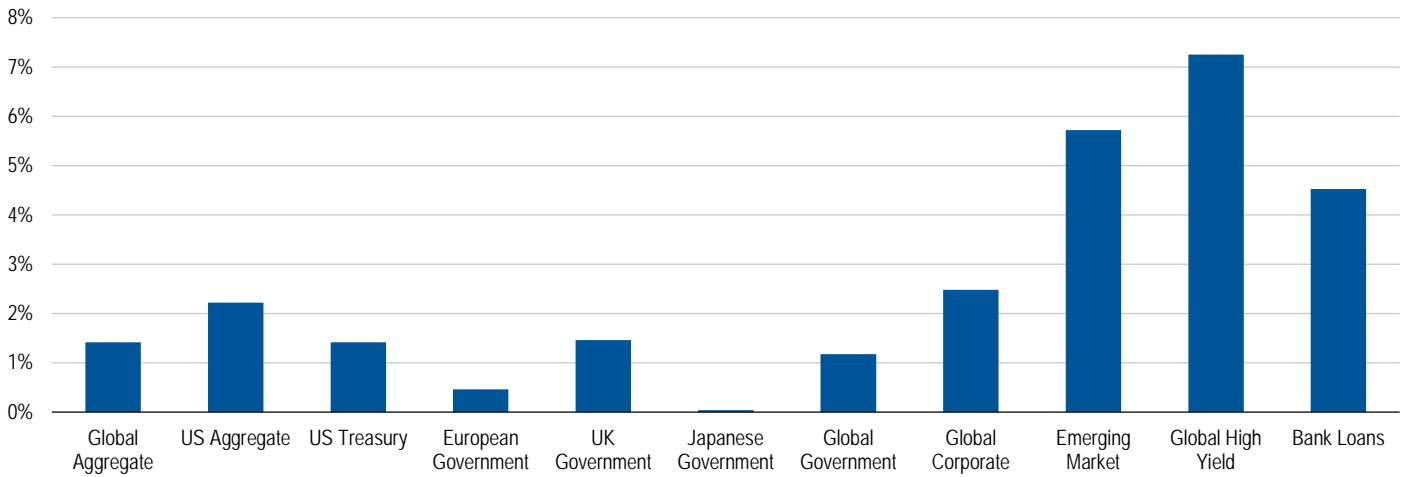
The correlation chart from the previous section suggests a possible way to alleviate some of these risk factors. Our data illustrated that fixed income asset classes that are not represented in the aggregate benchmark—leveraged bank loans and high-yield credit—exhibit low correlations to the aggregate benchmark and, consequently, portfolios based on the benchmark.

These non-benchmark assets are prominent components of many unconstrained income strategies. Unconstrained strategies can invest in securities similar to those contained in the aggregate benchmark, but will often invest selectively in assets such as emerging markets, leveraged bank loans or high yield in order to enhance the yield and manage the risk of a fixed income portfolio.

In terms of diversification, the low correlations demonstrated in Exhibit 3 illustrate the value that unconstrained fixed income assets could provide to complement a benchmark-based strategy. Turning to the low-yield issue, the following graph illustrates the greater yield opportunities offered by the asset classes represented in unconstrained fixed income strategies.

**Exhibit 4: More Robust Yield Opportunities Represented by Non-Benchmark Fixed Income Assets**

Yield-to-Maturity  
As of 31 March 2016



Source: FactSet. Global Aggregate represented by Barclays Global Aggregate Bond Index. US Aggregate represented by Barclays US Aggregate Bond Index. US Treasury represented by Barclays US Aggregate Government-Treasury Index. European Government represented by Barclays Euro Aggregate Government Index. UK Government represented by Citigroup UK Government Bond (LOC) Index. Japanese Government represented by Citigroup Japanese Government Bond (LOC) Index. Global Government represented by JP Morgan Government Bond Index (GBI) Global (Traded). Global Corporates represented by Barclays Global Aggregate Credit Index. Emerging Markets represented by JP Morgan Emerging Market Bond Plus Index. Global High Yield represented by Barclays Global High Yield Index. Bank Loans represented by Credit Suisse Leveraged Loan Index. **Past performance does not guarantee future results.**

Many investors will be familiar with the argument that assets like emerging markets and high-yield credit offer better potential returns, but will also consider these assets to be risky, especially compared with a portfolio that mirrors the aggregate benchmark. An analysis of actual data from these various asset classes tells a different story, and challenges the perception that introducing unconstrained strategies into a fixed income programme also introduces undue risk.

**Demonstrating an Improvement in Portfolio Risk Levels**

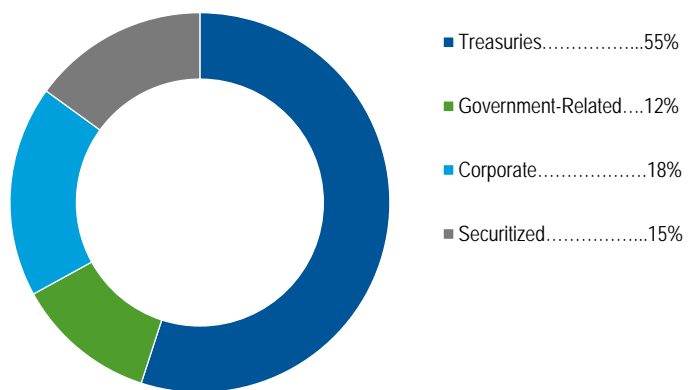
To help gauge the impact of non-benchmark assets on a fixed income portfolio, we have analysed the resultant risk and yield characteristics of two hypothetical asset mixes. The first asset mix is a mirror of the aggregate benchmark. The second serves as a proxy for a diversified, unconstrained investment strategy: While it contains a significant weighting in assets that mirror the benchmark, it also contains weightings in non-core assets—local- and hard-currency emerging-market sovereigns and high-yield credit. It is important to note that this diversified asset mix is not representative of a standard unconstrained strategy, or any unconstrained strategy in particular. In reality, a fixed income strategy focused on generating absolute returns will have an asset mix that changes according to the investment manager’s analysis of where the best opportunities are.

The composition of the benchmark-based asset mix and the diversified, unconstrained asset mix are detailed in Exhibit 5.

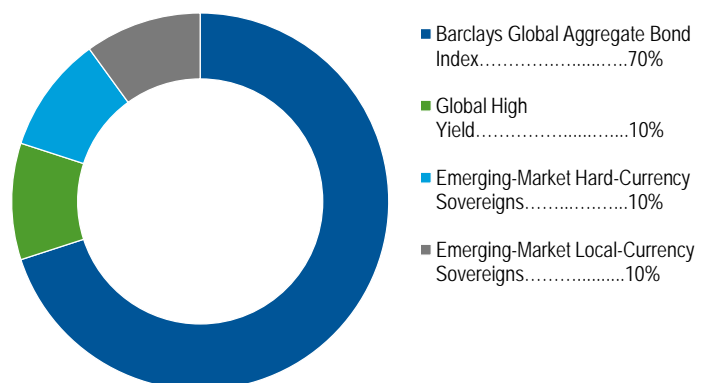
Our next step is to compare the risk and yield characteristics of both asset mixes. By looking at their comparative duration, value-at-risk and yield-to-worst metrics, we can see where the diversification into non-benchmark assets has improved the risk profile of the benchmark-based asset mix.

**Exhibit 5: Comparative Hypothetical Asset Mixes: Benchmark-Based and Diversified, Unconstrained**

As of 31 March 2016  
Barclays Global Aggregate Bond Index Sector Allocation



Hypothetical Diversified Asset Mix



Source: Barclays POINT/Global Family of Indices. © 2016 Barclays. Used with permission. Global High Yield represented by Barclays Global High Yield Index. Emerging-Market Hard-Currency Sovereigns represented by Barclays Emerging Market Hard Currency Aggregate Bond Index. Emerging-Market Local-Currency Sovereigns represented by Barclays Emerging Market Local Currency Government Index. The above allocation data is based on the respective index or indexes shown. An index is unmanaged and does not have fees and expenses, which will affect performance. One cannot invest in an index. The performance data does not reflect the performance of any Franklin Templeton product or strategy. **Past performance does not guarantee future results.**

**Exhibit 6: Comparative Risk, Yield Characteristics of Hypothetical Asset Mixes: Benchmark-Based and Diversified, Unconstrained**  
As of 31 March 2016

	Yield-to-Worst	Duration (Years)	Value-at-Risk
Barclays Global Aggregate Bond Index	1.37%	6.6	201 bps/month
Hypothetical Diversified Asset Mix	2.70%	6.3	215 bps/month

Source: Barclays POINT/Global Family of Indices. © 2016 Barclays. Used with Permission. Hypothetical Diversified Asset Mix made up of 70% Barclays Global Aggregate Bond Index, 10% Barclays Global High Yield Index, 10% Barclays Emerging Market Hard Currency Aggregate Bond Index and 10% Barclays Emerging Market Local Currency Government Index. The above performance data is based on the respective index or indexes shown. An index is unmanaged and does not have fees and expenses, which will affect performance. One cannot invest in an index. The performance data does not reflect the performance of any Franklin Templeton product or strategy. **Past performance does not guarantee future results.** Value at Risk (VaR) is one of the standard industry tools used to monitor market risk exposure. VaR estimates the probability of portfolio losses based on the statistical analysis of historical volatilities and correlations, taking into account inter-relationships between different markets and rates. The VaR estimate is derived from many Monte Carlo simulations generated by the VaR model. This analysis was run with a 95% confidence interval.

The addition of the non-benchmark asset classes has resulted in a shorter duration for the diversified, unconstrained asset mix. A shorter duration means less vulnerability to changes in interest rates. The diversified, unconstrained asset mix also exhibits improved yield-to-worst characteristics, suggesting a stronger risk/return profile. Though the diversified, unconstrained asset mix exhibits a slight increase in value at risk, we believe this is small, and is more than compensated for by the improvements in the other key areas. It is also important to note that this hypothetical diversified asset mix does not take into consideration currency management or derivatives strategies that could also be part of an unconstrained fixed income programme.

The demonstrated improvements were largely made possible due to the diversified, unconstrained asset mix relying not just on the direction of interest rates for yield, but also credit spreads, global exposures and other factors. An unconstrained strategy offers greater diversification and, consequently, greater ability to manage risk from having a broader investment mandate than a benchmark-based strategy.

### Implementing Unconstrained Fixed Income: Single-Sector, Multi-Sector Approaches

Our analysis of the data illustrates how non-benchmark fixed income assets can be used to enhance the yield characteristics of a given asset mix, while also managing some risks. An unconstrained fixed income strategy can be a prudent way to access these assets: With a focus on absolute returns and risk management, an unconstrained strategy is designed to selectively identify and invest in the most promising opportunities that can be found amidst a given set of economic and market conditions.

There are different ways institutional investors can integrate unconstrained fixed income investing into their core fixed income portfolios, but these mechanisms usually fall into either single-sector or multi-sector approaches. The single-sector approach involves the institutional investor allocating some of a given fixed income portfolio to various individual investment vehicles that focus on non-benchmark assets, such as an emerging-markets debt fund, for example. A multi-sector

approach involves the institutional investor partnering with one or more investment managers who specialize in unconstrained fixed income strategies and who invest their portfolio assets opportunistically across multiple types of securities in order to generate risk-managed absolute returns.

Whether the single-sector or multi-sector approach is appropriate is a decision that relies highly on the individualized characteristics of each plan sponsor and defies simple categorization. However, some of the factors that could drive this determination tend to include the following:

- The size of the plan sponsor organization and its portfolio.
- The asset allocation policies of the plan sponsor's investment committee.
- The overall risk profile and/or risk tolerance of the fixed income programme.
- The scope, breadth and expertise of the plan sponsor in making asset allocation and/or manager selection decisions.
- Regulatory considerations.

Another important consideration when selecting one or more unconstrained fixed income investments is active management. By their very nature, unconstrained fixed income strategies are often actively managed, as are some strategies that are closer to the aggregate benchmark, but it is important for institutional investors and other stakeholders to ascertain the extent and quality of active management among different potential holdings during the selection process. With global fixed income markets consisting of tens of thousands of securities at a given time, not to mention alternative strategies as well, the inherent complexities of investing in this sphere necessitate finding true active managers with expertise and experience.

The quality of active management is especially important when utilizing a multi-sector approach. The added value to a fixed income programme can include the following:

- **Security selection:** Choosing investments opportunistically to manage risk and/or enhance returns using analysis of correlations, potential mispricings and/or other metrics.



- **Duration management:** Adjusting interest-rate exposure by reallocating assets amongst longer- or shorter-dated securities. Investors may approach a future inflection point where taking on longer duration may be desirable; an unconstrained approach has the flexibility to take advantage of such an opportunity.
- **Optimization:** Analysing the institutional client's own fixed income programme and portfolio from a risk, diversification and regulatory perspective, and recommending, defining or designing a strategy that best fits the institutional investor's specific needs.
- **Sector rotation:** Anticipating cyclical shifts in the broader economy and how they will impact certain issuing entities.
- **Credit analysis:** Utilizing research resources to evaluate issuing entities and supporting the manager's security selection and asset allocation functions.
- **Currency management:** Taking positions in or against certain currencies to take advantage of relative appreciations or depreciations.

## Conclusion: Fixed Income Positioning for Current, Future Economic Conditions

The low-yield and uncertain rate environment of early 2016 has put at risk fixed income programmes with asset allocations that adhere too closely to core benchmarks, making them vulnerable to rising rates and/or loss of portfolio value from low returns and lack of diversification. While we believe that benchmark-based asset allocations can still be a vital part of any institutional portfolio, shifting some of a programme's focus towards non-benchmark assets through an unconstrained fixed income strategy can better position investors and other stakeholders against the aforementioned pitfalls. Unconstrained fixed income assets can make a portfolio less vulnerable to rising rates, increase its yield potential and improve its overall level of diversification.

### KEY TAKEAWAYS FROM THIS DISCUSSION

- A benchmark-based asset allocation alone exhibits long duration, meaning potentially high sensitivity to rising rates, plus an unfavourable risk/return profile and less diversification than many institutional investors might expect.
- Rather than introducing significantly higher risk, integrating an unconstrained fixed income strategy into a fixed income programme can be used effectively to manage overall portfolio risk by shortening duration and enhancing yield characteristics, with a marginal increase in value at risk.
- Active management through either a multi-sector or single-sector approach to unconstrained fixed income investing can add value through security selection, duration management, credit analysis, sector rotation and currency management.

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