FRANKLIN TEMPLETON INVESTMENTS

Topic Paper

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Fixed Income Investing in a Rising Interest-Rate Environment

PERSPECTIVE FROM FRANKLIN TEMPLETON FIXED INCOME GROUP®

Christopher J. Molumphy, CFA
Executive Vice President and
Chief Investment Officer
Franklin Templeton Fixed Income Group®

Introduction

Although rising interest rates may to a greater degree challenge those bond investments with the highest sensitivity to interest rates, we believe many parts of the global fixed income universe can provide reduced interest-rate risk and can even be used to seek potentially strong performance in a rising interest-rate environment.

Spread sectors (such as US investment-grade corporates, emerging-market debt, high yield and bank loans) historically have had lower correlation to more interest-rate-sensitive sectors, such as US agency and US mortgage-backed securities, than they have had to one another in most cases. This is evidenced by the spread sectors' generally lower and even negative numbers compared to US Treasuries, illustrated in the table below.

Exhibit 1: Spread Sectors Have Generally Provided Lower Correlation to More Interest-Rate Sensitive Sectors Than They Have To One Another
Five-Year Period Ended June 30, 2014

	US Treasuries	US Agencies	US MBS	Global Bonds	US IG Corp	ABS	EM Debt	High Yield	Bank Loans
US Treasuries	1.00	0.93	0.79	0.51	0.56	0.65	0.18	-0.22	-0.37
US Agencies	0.93	1.00	0.90	0.65	0.69	0.74	0.41	0.03	-0.19
US Mortgage-Backed Securities (MBS)	0.79	0.90	1.00	0.61	0.65	0.64	0.43	0.09	-0.13
Global Bonds	0.51	0.65	0.61	1.00	0.60	0.52	0.57	0.33	0.05
US Investment-Grade (IG) Corporates (Corp)	0.56	0.69	0.65	0.60	1.00	0.70	0.66	0.59	0.38
Asset-Backed Securities (ABS)	0.65	0.74	0.64	0.52	0.70	1.00	0.45	0.31	0.24
Emerging Market (EM) Debt	0.18	0.41	0.43	0.57	0.66	0.45	1.00	0.69	0.38
High Yield	-0.22	0.03	0.09	0.33	0.59	0.31	0.69	1.00	0.85
Bank Loans	-0.37	-0.19	-0.13	0.05	0.38	0.24	0.38	0.85	1.00

Source: Morningstar. US Treasuries represented by Barclays U.S. Treasury Index, US agencies represented by Barclays U.S. Agency Index, US investment-grade corporates represented by Barclays U.S. Corporate–Investment Grade Index, US mortgage-backed securities represented by Barclays U.S. Mortgage-Backed Securities Index, asset-backed securities represented by Barclays Asset-Backed Securities Index, bank loans represented by Credit Suisse Leveraged Loan Index, emerging-market debt represented by JP Morgan Emerging Market Bond Index Global, global bonds represented by Citigroup World Government Bond Index and high yield represented by Credit Suisse High Yield Index. See Appendix for further vendor disclaimer information. For illustrative purposes only. Indexes are unmanaged, and one cannot invest directly in an index. Past performance does not guarantee future results.

We believe there are three main investment strategies that can be utilized within a rising-rate environment:

1. **Credit-oriented strategies**—Credit sectors historically have been more closely correlated to the overall economic outlook and corporate earnings landscape than interest rates, and they may perform well in a rising-rate environment.

2. **Short-duration-oriented strategies**—Short-duration securities typically have lower sensitivity to interest-rate changes than their longer-duration counterparts. Strategies investing in shorter-duration securities or sectors can seek to capitalize on the higher income from rising rates more quickly than longer-duration sectors and, consequently, potentially reduce interest-rate risk.

3. **Globally oriented strategies**—Investing globally offers diversification through non-US-dollar yield curves and currencies and can seek to capitalize on the differing business cycles and economic conditions present around the world. Of course, diversification cannot guarantee a profit or protect against a loss.

Credit-Oriented Strategies

As mentioned earlier, credit sectors historically have been more closely correlated to the overall economic outlook and corporate earnings landscape than interest rates. Improved balance sheets and liquidity, healthier credit ratios, and increased credit availability may help reduce the impact of rising interest rates.

We believe there are various credit-oriented strategies that can be used to seek potentially strong performance, as well as reduce risks associated with rising interest rates. These strategies include:

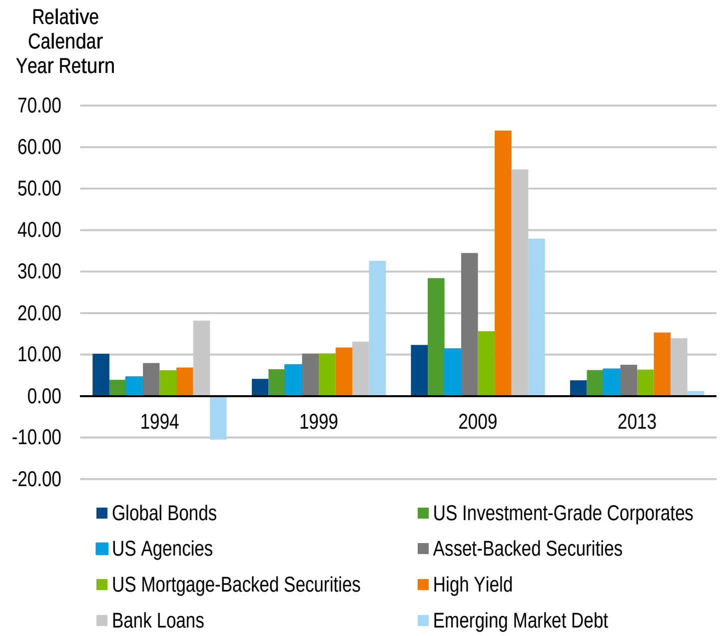
- **Strategic income or multisector fixed income**—This strategy typically invests across multiple sectors in the fixed income universe, including various credit sectors, and may help reduce interest-rate risk.

- **High income**—This is a strategy that may provide an enhanced income cushion, low correlation to other fixed income sectors and the opportunity to potentially benefit from economic growth, as equities would. The strategy focuses predominantly on lower-quality credit sectors and tends to be more closely correlated with economic growth than higher-quality credit sectors.

In general, bond prices and interest rates display an inverse relationship, such that as interest rates rise, a bond's price will fall. However, as you can see from the following chart, not all sectors have moved in tandem with US Treasury prices when Treasury rates rise. In fact, from the chart, you can see that many sectors exhibited more attractive returns relative to 10-year Treasuries when the 10-year Treasury rate increased. Please note that we are only showing the last four calendar years that have exhibited increases in interest rates. Relative performance in other periods may have been different.

Exhibit 2: Performance Relative to the 10-Year U.S. Treasury

As of December 31, 2013



Sources: Morningstar and U.S. Treasury Department. Global bonds represented by Citigroup World Government Bond Index, US investment-grade corporates represented by Barclays U.S. Corporate–Investment Grade Index, US agencies represented by Barclays U.S. Agency Index, asset-backed securities represented by Barclays Asset-Backed Securities Index, US mortgage-backed securities represented by Barclays U.S. Mortgage-Backed Securities Index, high yield represented by Credit Suisse High Yield Index, bank loans represented by Credit Suisse Leveraged Loan Index and emerging-market debt represented by JP Morgan Emerging Market Bond Index Global. See Appendix for further vendor disclaimer information. Performance calculated by subtracting the 10-year Treasury return from each sector return for the stated calendar-year periods. For illustrative purposes only. Indexes are unmanaged, and one cannot invest directly in an index. Past performance does not guarantee future results.

Short-Duration-Oriented Strategies

Short-duration securities are generally not as sensitive to rate movements and can offer an attractive alternative to intermediate- or longer-duration exposures for which rising rates typically have a greater effect on price and valuations. Securities with a longer time to maturity are exposed to greater uncertainty surrounding the economic outlook or business cycle and, consequently, have tended to exhibit higher volatility than shorter-maturity securities. The primary reason shorter-maturity securities have tended to exhibit less volatility is that they are less exposed to the economic cycles and uncertainty surrounding the economic environment, which tend to span longer time frames. Consequently, shorter-duration securities can be used to seek to capitalize on rising interest rates more quickly than longer-duration securities, as their return of principal at maturity can be reinvested at the new, higher interest rate than securities that have not yet matured. This reinvestment at higher interest rates may help total return potential over time.

There are various strategies and security types with short-duration qualities that we believe can help reduce risks associated with periods of rising rates. These strategies include:

- **Low-duration total return**—This is a multisector strategy that generally invests in short-duration, high-quality securities across a variety of fixed income asset classes while typically having lower sensitivity to interest rates due to the focus on shorter maturities.
- **Bank loans**—This strategy invests in loans made by banks and other financial institutions to below-investment-grade corporations, which are, in general, fully secured by the assets of the borrower. The interest rate paid on such loans often resets over short periods of time to the current interest rate charged by financial institutions offering the loan and can then typically capture any rise in interest rates relatively quickly.
- **Absolute return**—This strategy embraces a flexible and diversified approach that generally allows it to invest across sectors and in different countries. It also typically involves dynamically hedging pure interest-rate risk to try to reduce volatility from shifts in interest rates. It is important to note that hedging and the use of derivatives involve significant risks and may not achieve the anticipated benefits and/or may result in losses.

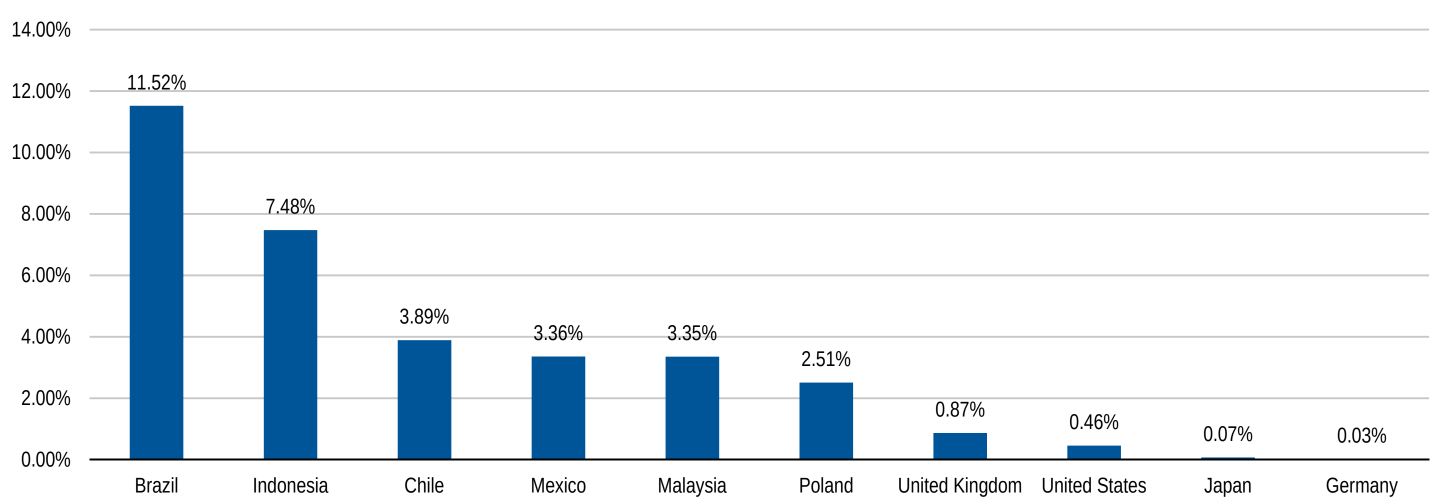
Globally Oriented Strategies

Global bonds can offer global diversification through non-US-dollar yield curves and currencies. Global diversification across countries, currencies and credit sectors can enable investors to potentially reduce risks during downturns in particular markets and to take advantage of differing business cycles and economic conditions around the world. Additionally, investors can seek to capitalize on changes in interest rates, currencies and credit in different markets globally. Please keep in mind that diversification cannot guarantee a profit or protect against a loss.

There are various global strategies and security types that can potentially benefit from a rising interest-rate environment. These strategies include:

- **Global total return**—This multisector strategy seeks to benefit from any higher yields available from corporate bonds and other spread sectors, with an emphasis on countries where economic recovery is likely to be strongest. Improving fundamentals associated with a stronger growth environment have, in general, historically shown excess returns over US Treasuries in a rising-rate environment.
- **Shorter maturities**—This strategy involves active duration management across developed fixed income markets. An example of this strategy would be underweighting the core treasury markets of the world where interest rates have fallen to historical lows since the 2008–2009 global financial crisis and defensive interest-rate positioning in markets where strong economic growth, such as in Asia ex Japan, is expected in the near to intermediate term.
- **Select currencies**—This strategy involves searching for low-cost ways to hedge against a rise in yields in the developed world through active currency management.
- **Global credit**—This is a diversified strategy that can typically invest across the entire credit fixed income universe, enabling it to seek to capitalize on differences between sectors and benefit from improving global conditions.

Exhibit 3: Relatively Higher Short-Term Yields Available Outside the United States
Two-Year Government Bond Yields
As of June 30, 2014



Source: Bloomberg, LP. Data as of 6/30/2014. For illustrative purposes only. Past performance does not guarantee future results.

Conclusion

Broadly speaking, we expect global interest rates to rise over the longer term. However, recent economic indicators make the near-term picture less clear. Uncertainty about the strength and durability of the current economic growth path of the United States has led the US Federal Reserve to signal that base interest rates will likely remain low, possibly well into 2015. Global concerns—ranging from the conflicts in eastern Ukraine to economic worries in Europe and China—could also help keep short-term interest rates low. While we believe a more solid US economic recovery could put upward pressure on interest rates, continuing easing measures in Europe and Japan could moderate the pace and scale of any near-future increases.

Given this backdrop, we believe opportunities still exist in global fixed income markets through credit, short-duration and globally oriented strategies in a rising-rate environment.

Although the investment strategies discussed above may potentially assist investors in reducing interest-rate risk, other risks do need to be considered. These risks include credit risk, which is the risk of a downgrade or default, as well as currency risk, in which the depreciation of a currency can negatively impact the value of the securities in a portfolio. Additionally, please note that there is no assurance that implementation of any strategy will achieve the anticipated potential benefits.

WHAT ARE THE RISKS?

All investments involve risks, including possible loss of principal. Changes in interest rates will affect the value of a portfolio. Bond prices generally move in the opposite direction of interest rates. Thus, as the prices of bonds in a portfolio adjust to a rise in interest rates, the portfolio's value may decline. Special risks are associated with foreign investing, including currency fluctuations, economic instability and political developments. Investments in developing markets involve heightened risks related to the same factors, in addition to those associated with their relatively small size and lesser liquidity. The risks associated with higher-yielding, lower-rated securities include higher risk of default and loss of principal. Investing in derivative securities, such as financial futures, option contracts, currency forwards and swaps, and the use of foreign currency techniques involve special risks and as such may not achieve the anticipated benefits and/or may result in losses. Derivatives involve costs and can create economic leverage in a portfolio, which may result in significant volatility and cause the portfolio to participate in losses (as well as enable gains) on an amount that exceeds the initial investment. A portfolio may not achieve the anticipated benefits, and may realize losses, when a counterparty fails to perform as promised. Changes in the financial strength of a bond issuer or in a bond's credit rating may affect its value. For actively managed portfolios, there is no guarantee that a manager's investment decisions will produce the desired results.

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