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Investing in a Low Yield Environment: Looking Beyond Interest Rate Anticipation

In the context of historically low interest rates, the future prospects for bond yields and the impact on returns is a topic of ongoing interest to many investors. In a recent report,[1] we used four techniques to estimate where the 10-year U.S. Treasury yield would eventually settle over the next decade and concluded that 4% is an appropriate long-term expected average for 10-year U.S. Treasury yields.

The implication of this figure is that bond yields are likely to experience an overall upward trajectory over the medium to long term, putting downward pressure on fixed income returns. This environment leaves investors facing two broad questions:

1. How can we improve fixed income returns in order to continue meeting broader portfolio return objectives?
2. For pension plans looking to increase liability matching of the assets, is now the right time?

Improving Fixed Income Returns: Interest Rate Anticipation

Often the first strategy that comes to mind to combat the effects of rising interest rates is to position fixed income portfolios in shorter maturity bonds that are less sensitive to rising interest rates. This strategy sounds simple in theory; however, investors are typically compensated for taking on the risk of longer maturity fixed income investments, meaning shorter maturity bonds usually offer a lower running yield. Figure 1 compares the yield on bonds of different maturity, as defined by the FTSE TMX Canada bond indices.

Figure 1: Yield Comparison of Different Duration Fixed Income Indices

Index	Yield at June 30, 2014
FTSE TMX Canada Short Term Overall Bond Index	1.61%
FTSE TMX Canada Universe Bond Index	2.44%
FTSE TMX Canada Long Term Overall Bond Index	3.56%

Source: FTSE TMX Global Debt Capital Markets Inc.

Because of the yield disadvantage of shorter duration fixed income, shorter duration portfolios do not necessarily outperform longer duration portfolios in a rising interest rate environment. If the rise in interest rates is not sharp enough, the additional yield earned from being longer

[1] Lascelles, Eric, *Estimating A "Normal" Yield* Economic Compass, issue 26, November 2013.

duration can overcome the negative effects of the higher sensitivity to interest rates. Figure 2 illustrates this dynamic by looking at market forecasts for the 1- and 5-year annualized returns, in which long bonds are expected to deliver higher returns despite market expectations for rising yields.

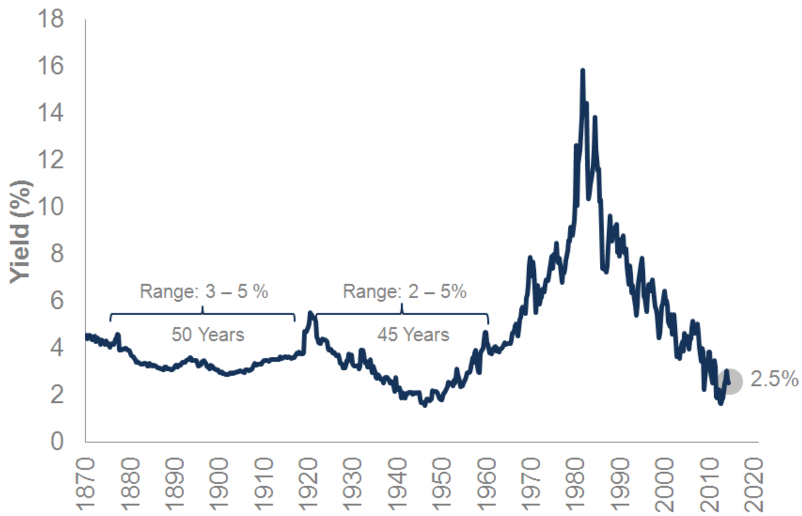
Figure 2: Return Comparison of Short, Universe, and Long Duration Bonds

Index	1-Year Return	5-Year Annualized Return
FTSE TMX Canada Short Term Overall Bond Index	0.7%	1.4%
FTSE TMX Canada Universe Bond Index	1.1%	1.8%
FTSE TMX Canada Long Term Overall Bond Index	1.8%	2.6%

Source: PH&N IM, FTSE TMX Global Debt Capital Markets Inc.
Note: This example is for illustrative purposes only. All data and calculations as of June 30, 2014

Because of the cost typically associated with investing in shorter maturity bonds, accurate timing of interest rate changes is a key aspect of using interest rate anticipation to improve portfolio returns. For a short duration strategy to work, interest rates must rise *faster* and/or by *more* than the market's expectations.

Figure 3: Long-Term History of 10-Year U.S. Treasury Yields



Source: Global Financial Data, Bloomberg

Unfortunately, just because rates are currently low does not guarantee that they will rise in the near term. Figure 3 illustrates that historically, it is not unusual for interest rates to remain flat for an extended period – often decades at a time.

All of this is not to say that interest rate anticipation strategies should not be pursued, but rather, given the difficulties involved with them, they should be used with caution and should not be the sole strategy used to combat rising interest rates.

Improving Fixed Income Returns: Other Strategies

The difficulty in consistently adding value over time with interest rate anticipation strategies alone is a testament to the benefit of a multiple-strategy approach to fixed income portfolios. Credit strategies represent another broad group that is often overlooked when trying to fight the headwinds of low yields and rising interest rates. Credit – such as corporate bonds, high yield bonds or mortgages – can play an important role in this context for two reasons: first, credit builds portfolio yield, which is accretive to portfolio performance, and second, credit can provide some protection against rising interest rates.

Building yield

Yield accrual plays an important part in fixed income portfolio returns. A higher yield means stronger returns and a better ability to meet total return objectives. Investors aiming to build yield in a fixed income portfolio have a wide range of credit strategies to choose from; Figure 4 shows a sampling of yields across several credit sectors.

Figure 4: Sample of Credit Sector Yields

Sector	Yield at June 30, 2014	Spread Over Similar-Term Government of Canada Bond
Provincial bonds[2]	2.6%	0.5%
Investment grade corporate bonds[3]	3.0%	0.9%
Conventional mortgages[4]	3.3%	1.8%
Conservative high yield bonds[5]	4.5%	2.5%
Emerging market debt[6]	5.6%	n/a
Global high yield bonds[7]	5.7%	n/a

These types of credit strategies can be especially helpful in shoring up the yield erosion of a short-duration strategy. This incremental yield, however, is not free. As an investor moves along the credit spectrum for higher-yielding assets, the level of associated risk also increases. These risks may come from several sources, including a lack of liquidity and credit risk.

In some asset classes, such as mortgages, lack of liquidity puts an emphasis on the importance of strong fundamental analysis for each security because once invested, it is difficult – if not impossible – to dispose of the security before maturity. The willingness to accept illiquidity is what earns investors much of the additional yield available in illiquid asset classes.

The incremental yield expected from credit strategies is typically compensation for increased credit risk. This, again, emphasizes the importance of good credit analysis. Credit strategies are most beneficial when attractive compensation for embedded risk is appropriately identified from the outset so that it can be monitored.

Protection against rising interest rates

Aside from building yield in a fixed income portfolio, credit strategies can also provide some protection against rising interest rates in two ways.

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[2] FTSE TMX Canada Mid Term Provincial Bond Index
[3] FTSE TMX Canada Mid Term Corporate Bond Index
[4] Represented by PH&N Mortgage Pension Trust, Series O
[5] Represented by BoA/Merrill Lynch BB US High Yield Index
[6] Represented by 40% JP Morgan Corporate Emerging Markets Bond Index Broad Diversified (CEMBI, hard currency corporate), 40% JP Morgan Government Bond Index-Emerging Markets Broad Diversified (GBI-EM, local currency sovereign), and 20% JP Morgan Emerging Markets Bond Index Global Diversified (EMBI, hard currency sovereign)
[7] Represented by BoA/Merrill Lynch Global High Yield Constrained Index

First, credit strategies typically have a shorter duration than that of the larger portfolio. This decreases the sensitivity of the portfolio to interest rate movements while also counteracting the yield erosion of shorter duration strategies.

The second method of protection against rising interest rates is spread compression. A rising interest rate environment typically coincides with improving economic conditions. Stronger economic conditions generally benefit the credit quality of issuers by increasing their ability to service debt and reducing their risk of default. This reduction in default risk translates into a narrowing of credit spreads, and often provides a cushion against rising interest rates. That said, this shock absorption capability has its limits; the narrower the credit spread, the less shock absorption the credit spread can provide.

Interest Rate Anticipation in a Liability-Driven Investing Framework

So far, we have focused solely on the asset side of the investment equation. When we broaden the scope of the discussion to look at liabilities as well, we see that low yields and rising interest rates will also create difficulties in a liability-driven investment (LDI) context. The same headwinds affecting returns within an asset-only context are present within the LDI framework.

To protect against rising interest rates, many pension plans are already invested in shorter duration portfolios that will decrease the sensitivity to interest rate movements, however, this strategy often creates a significant mismatch between the duration of the assets and the duration of the liabilities. The risk inherent in this mismatch is often larger than it may appear at first glance, especially considering that most portfolios are not fully invested in fixed income assets and, for some, underfunding means that the liabilities already outweigh the corresponding assets in dollar value.

A typical defined benefit pension plan may have an interest rate hedge ratio as low as 16.6%. That is, for a specified change in interest rates, the value of the assets would only change by $16.60 for every $100 change in the value of the liabilities. Figure 4 shows a sample interest rate hedge ratio calculation.

Figure 4: Interest Rate Hedge Ratio Example

	Liabilities	Assets
Duration (yrs)	15.0	6.7[8]
Percent fixed income	100%	40%
Size ($)	$100.00	$93.00[9]
Impact of 1% move in yields ($)	-$15.00	-$2.49
Interest rate hedge ratio[10]	16.6%	

[8] Duration of the FTSE TMX Canada Universe Bond Index
[9] Assumes a pension plan funded status of 93%
[10] Calculated as $2.49 ÷ $15.00, and assuming no correlation between liabilities and other non-fixed income assets

What this reveals is that, whether consciously or unconsciously, many defined benefit pension plans are already positioned to benefit significantly if and when interest rates rise (and to be impacted negatively if interest rates fall). For these reasons, we tend to encourage pension plans to focus on the higher yield associated with longer duration bonds that will accrue to the portfolio over time, while at the same time reducing overall portfolio risk.

Nonetheless, many pension plans understandably remain wary of extending duration given current yield levels. Implementing a de-risking glidepath can allow a plan to systematically increase the interest rate hedge ratio, letting the plan re-allocate the risk budget to additional strategies intended to counteract the headwinds of low yields and rising interest rates.

Conclusion

We are undeniably in a low yield environment, with many indicators pointing to an upward trajectory for interest rates over the coming years. These attributes generate headwinds to fixed income returns that create a challenging environment not only for traditional investors with a market-oriented benchmark, but also for liability-driven investors.

Given these difficulties, what can investors do to try to increase returns? The first instinct for many is an interest rate anticipation strategy that shortens the duration of their fixed income portfolio. But these strategies have their challenges, particularly when the investor's rate expectations align with those of the broad bond market. A multi-strategy approach that aims to capitalize on the benefits of credit strategies as well as the interactions between strategies is therefore a practical investment philosophy to produce consistently superior fixed income returns.

Many pension plans are already short duration relative to liabilities and are likely to benefit from rising interest rates. Nonetheless, they may be looking to extend duration and reduce the risk inherent in such a large duration mismatch between assets and liabilities. In this respect, the introduction of a de-risking glidepath would allow investors to re-allocate the available risk budget to additional return-seeking strategies in an effort to outperform their liabilities and counteract the headwinds of rising interest rates.

For additional details, please contact your PH&N IM institutional portfolio manager,
or call 1-855-408-6111 or email institutions@phn.com

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