



RBC BlueBay
Asset Management

What can bond yields tell us about future returns?

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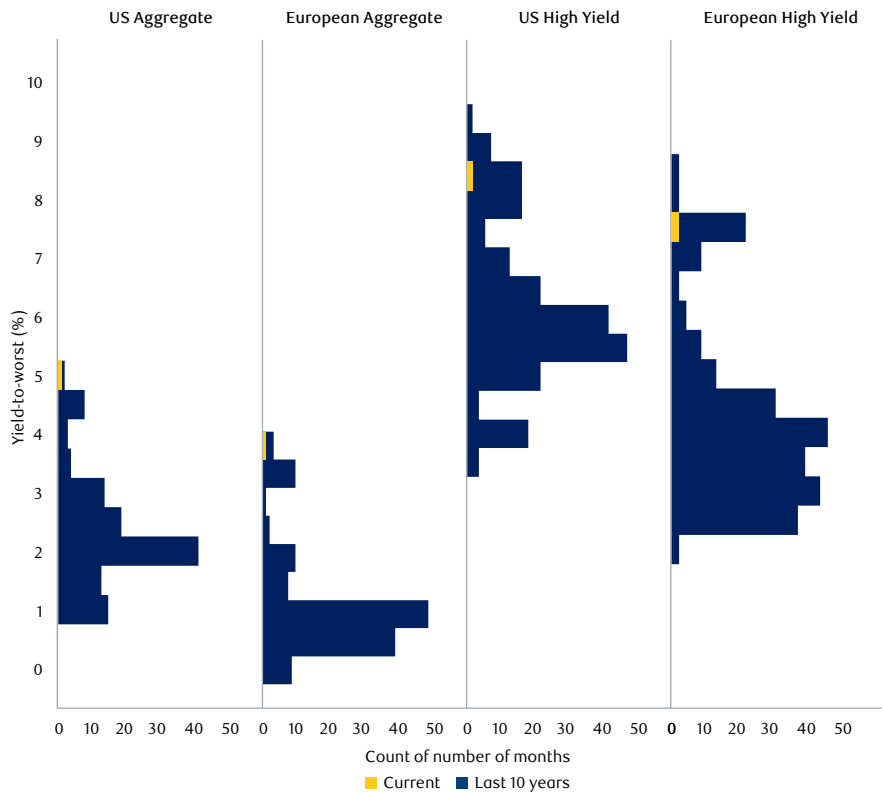
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15-year highs in yields offer an attractive entry point to fixed income investments. Flows, however, have been muted as investors take stock of negative returns in the asset class.

In this piece, we explore whether today's yields can provide an insight into the trajectory of future returns. We make the case that, though spreads remain near historical averages, all-in yields today offer a compelling total return profile.

Figure 1: All-in yields have reset to much higher levels



Source: Bloomberg, RBC GAM, as at 31 October 2023.
US Aggregate refers to the Bloomberg US Aggregate.
European Aggregate refers to the Bloomberg Euro Aggregate.
US High Yield refers to the ICE BofA US High Yield.
European High Yield refers to the ICE BofA European Currency High Yield Constrained.

Great expectations

In fixed income, yields are often used as a proxy for the return that an investor might expect to receive from holding a security over a given time horizon.

A typical bond offers investors fixed cash flows (namely, interest coupon payments and a final payment of the principal amount). The pre-determined nature of these cashflows suggests that, by and large, a starting yield might be a good indicator of return expectations. At the start of 2021, however, the interest rate hiking cycle precipitated a rout across bond markets and bonds delivered a negative total return. This was despite the fact that the average starting YTW in the global index was positive (although notably at a multi-decade low near 1.8%).

Does this mean that yields were a poor indicator of future returns?

The answer varies, depending on the time horizon used. Average maturities in fixed income asset classes are generally longer than a single year, so looking at returns in any given year can produce a distorted view of the relationship between returns and yields.

Instead, let's consider a longer time horizon. Taking the Bloomberg US Aggregate Index from 1976 and the European Aggregate Index from 1998 onwards (Figure 2), we compare their respective YTW to their 5-year forward returns.

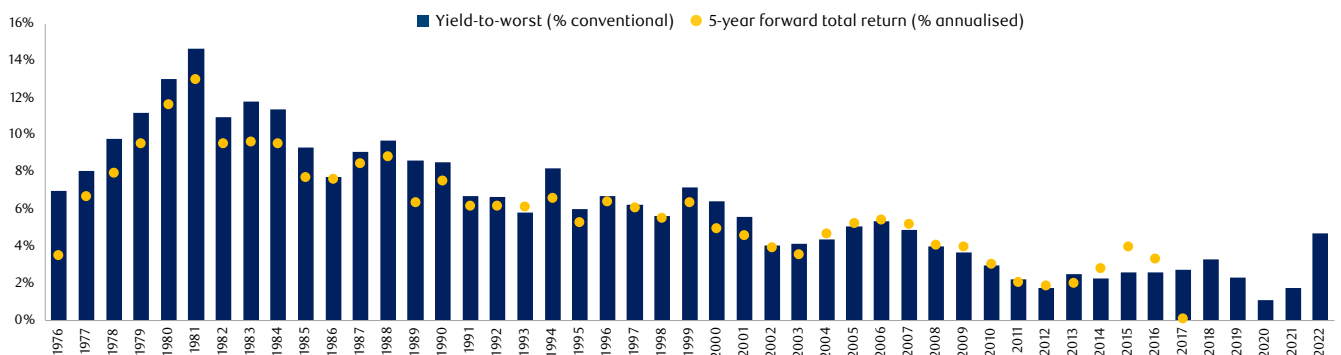
Measuring yield

A **yield** is the internal rate of return of a bond. It could also be described as the expected total return of a bond expressed as an annualised measure. Yields can be decomposed into two key components, the **base interest rate** and the **credit spread** above this reference rate.

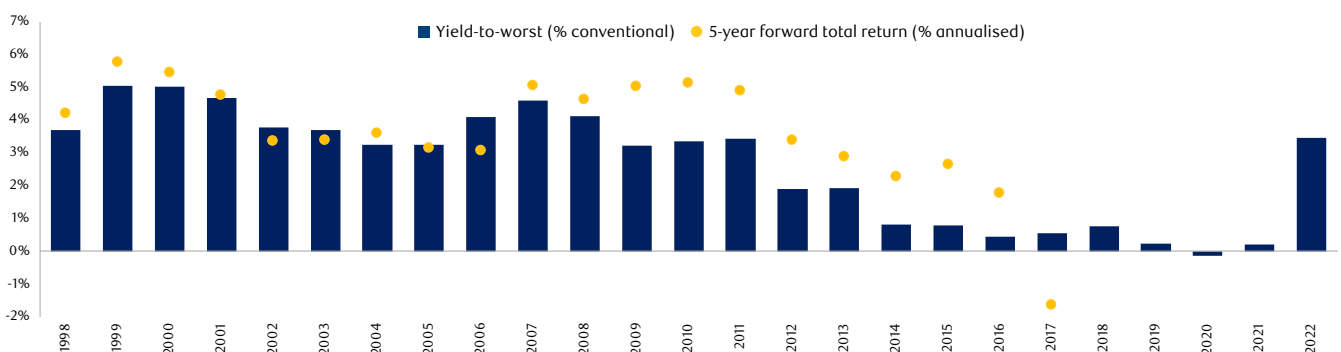
A common measure of yield is **yield-to-maturity (YTM)**. This metric quantifies the full return expected from a bond if that security is held to maturity.

In this piece, we exclusively use a measure known as **yield-to-worst (YTW)** that accounts for the callability of bonds. Most bonds have at least one callable feature that enables either the issuer or the investor to redeem the security earlier than the final maturity date. Rather than expressing the annualised rate of return to the final maturity, YTW expresses it to the first opportunity that a bond could be redeemed. This means that YTW is a more conservative measure, as it is always the lowest possible yield that could be received on a bond (excepting instances where an issuer defaults).

Figure 2: Yields and forward returns
Bloomberg US Aggregate Bond Index



Bloomberg European Aggregate Bond Index



Source: Bloomberg, RBC GAM, as at 31 October 2023.

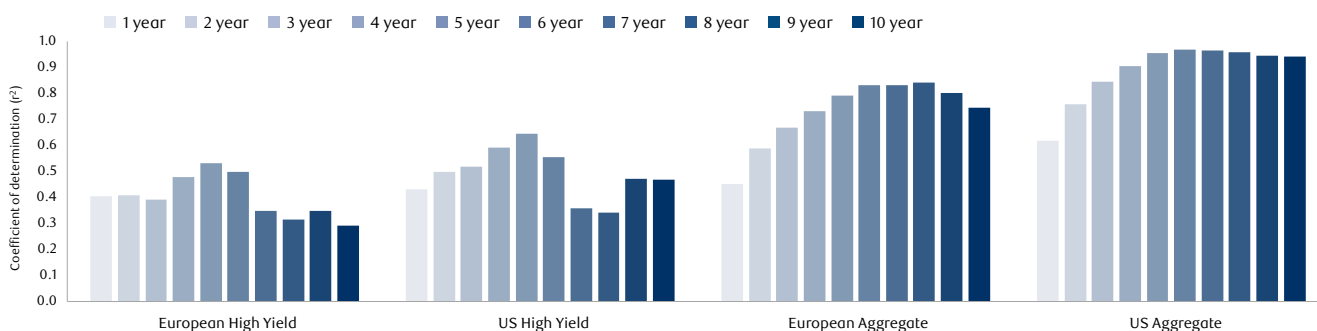
Here, the relationship between yields and returns begins to emerge more clearly. Figure 2 illustrates how, in a typical year, the 5-year forward return tends to track YTW quite closely. In fact, when we calculate the statistical relationship between those two variables, they express a high degree of correlation. The US Aggregate displays remarkably stable predictive power between total forward return and starting yield, with YTW explaining more than 90% of the expected future return (R-squared: 0.91; correlation coefficient: 0.96).

The US Aggregate is a broad index that encompasses a universe of US bonds ranging from sovereign, corporate,

and mortgage- or asset-backed securities. By contrast, as we move further away from the broad index of a single country, the relationship between yields and returns becomes more disrupted. This can be seen in the European Aggregate Index.

Similarly, as we look towards indices more heavily weighted towards corporates, lower-rated securities, or multiple regional and currency exposures, the strength of the relationship between yields and subsequent returns can be further reduced, as Figure 3 illustrates across US and European High Yield indices.

Figure 3: Correlation: YTW versus future annualised return

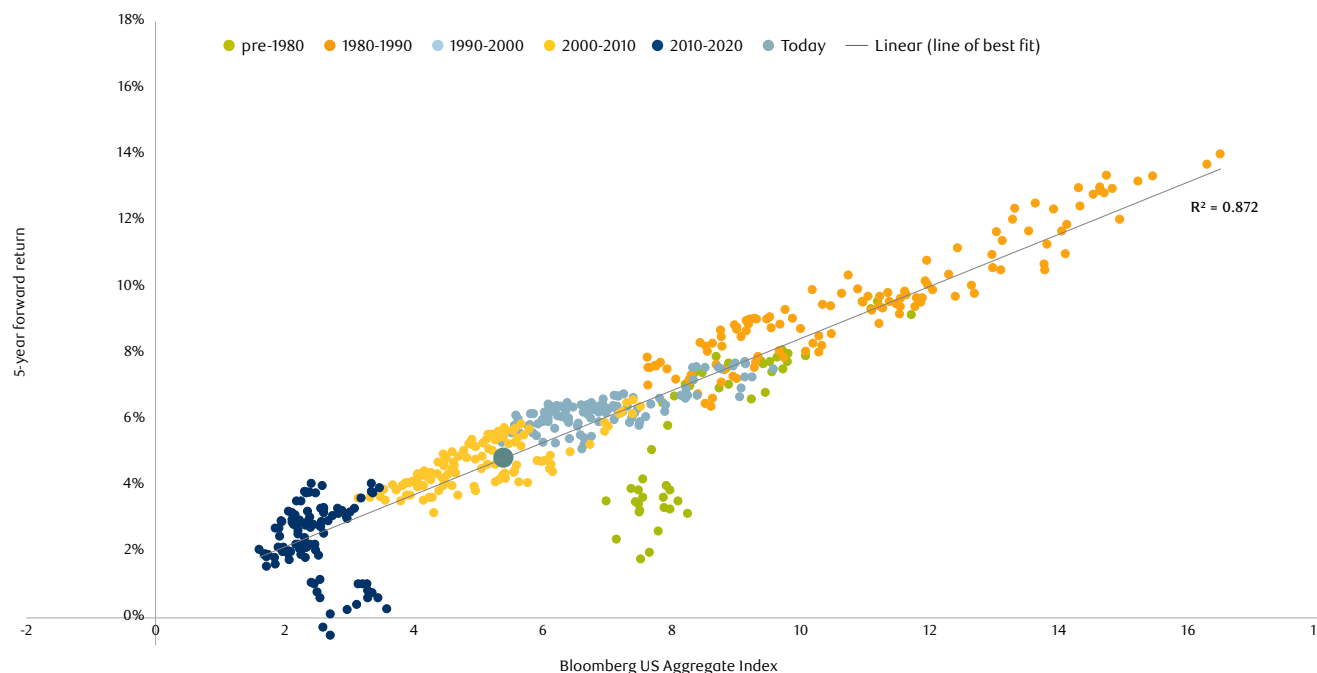


Source: Bloomberg, RBC GAM, as at 31 October 2023.

Nonetheless, the predictive power of the YTW for forward returns remains statistically significant, as we illustrate in Figure 3, which plots the correlation of the YTW using different forward return time periods from 1-year to 10-year.

The initial index yield is significantly correlated with future returns and reaches a maximum correlation at a time horizon that is similar to the index's starting duration. Another way to look at the data is in terms of regimes. Figure 4 shows 40 years of the Barclays US Aggregate.

Figure 4: Regression: YTW versus 5-year annualised return



Source: Bloomberg, RBC GAM, as at 31 October 2023.

Two trends emerge upon closer examination. First, specific periods correlate with different yield and return environments. Second, the relationship between yields and returns is largely constant, with the exception of periods that coincide with a sustained upward shock to base rates (namely, 2021-2023 and 1976-1977; both were periods when inflation skyrocketed, and monetary policy shifted suddenly to restore price stability).

The data series for the Bloomberg US Aggregate is amongst the most extensive available for a fixed income index's yield, with data from 1976 onwards. Nominally, this dataset includes more than 500 observations, a very healthy sample size. In actual fact, however, as the colour-coding of Figure 4 illustrates, the data only really encompasses a handful of regimes and fewer than 50 years' worth of discrete data¹.

The yield buffer

Last year, the speed and size of the move in rates was the primary driver of the sell-off across major bond indices. The fact that rates, and by extension yields, were at a multi-decade low meant that there was little income or embedded yield against which to offset negative price moves.

By contrast, today the breakeven cushion offered by starting yields is much higher. First and foremost, this is a result of the rise in base rates that has increased yields themselves, but is also driven by the reduced interest rate duration of

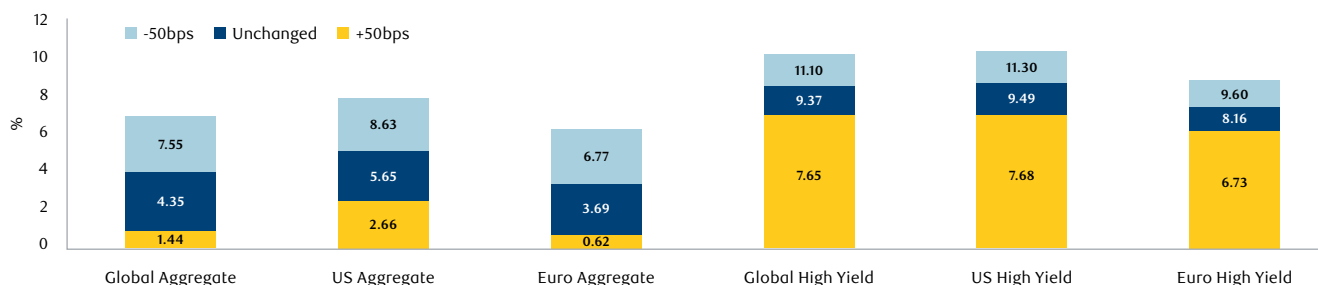
certain asset classes, like high yield, where negative net issuance has shortened average maturities.

In fixed income, the yield on an index that you achieve in any given year should help to cushion losses from defaults or rate rises. This coupon effect is most visible in higher carry asset classes, where total return is more a function of income return than price return². With these assets, income return is independent of price, such that the consistent accrual of income can smoothen volatility over time, especially when compared to more price-return focused asset classes, such as equities.

As a result, those asset classes with relatively greater starting yields driven by the coupon component of yield, such as high yield, and even emerging markets local currency, can outperform the broader fixed income universe.

It should be noted that, although in recent years price return has been negative, this is primarily due to rising rates. With rates peaking in the US and Europe, we no longer expect this to be a headwind for fixed income investors, and going forwards there will be a far larger yield buffer to cushion any unforeseen, negative price moves. Current market-implied rates are now pricing in roughly 100bps of rate cuts in the US. While this may be optimistic, it is clear that expectations are for yields to fall, and for price return to be a positive driver going forward.

Figure 5: 12-month forward returns shocked for a 50bps move in yields



Source: RBC GAM, as at 31 October 2023. Yield shocks calculated by multiplying the shock interval with option-adjusted duration and subtracting this from YTW. Please note: Global Aggregate refers to Bloomberg Global-Aggregate Total Return Index Value Unhedged USD and Global High Yield refers to ICE BofA Global High Yield Constrained Index.

Today's opportunity & active management

Today, higher yields offer the most compelling starting point in 15 years for fixed income investors. With yield returning to the asset class, investors can expect fixed income to deliver returns and not just diversification. While yields may creep higher still, today's higher yields already offer a buffer against losses. Today, interest rates appear to have touched cycle highs as markets price cuts from here across most developed economies. Given those conditions, there is a reasonable expectation that yields today offer a fair guide to returns going forward. Naturally, there are many factors that could reduce the efficacy of this relationship, such as credit quality, country risk, optionality, and convexity, but that is where we believe that careful active management will add the most value. It is our view that, for investors willing to invest with a fixed income active manager, today's starting yields offer a strong entry point from which to maximise the return potential of yields, through prudent selection and allocation of risk.

¹ Here, it is worth noting that our analysis also examined the effect of macroeconomic variables on the yield and forward return relationship. Specifically, we looked at high versus low default rate environments and falling versus rising interest rate regimes. Our analysis of these other factors did not identify any material trends.

² Total return from bonds can be disaggregated into income return and price return. The income return derives from the interest earned by holding the bond, while the price return derives from any change in the bond's market price.

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