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The yield desert receives a downpour: Will it flower or flood?

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Executive summary

There has been a historic bond market repricing over the past year, leaving fixed income investors with returns as poor as any time in the past 100 years. Bond prices and yields move in opposite directions, though, meaning that the large price declines in 2022 produced sharply higher yields.

Higher yields mean the forward-looking return profile in fixed income looks increasingly attractive. But timing the market is fraught with difficulties, including the challenge of balancing the more favourable forward-looking yields on offer against continued elevated inflation, the likelihood of more market volatility, and fragile sentiment. How can investors judge when is the right time to increase bond holdings?

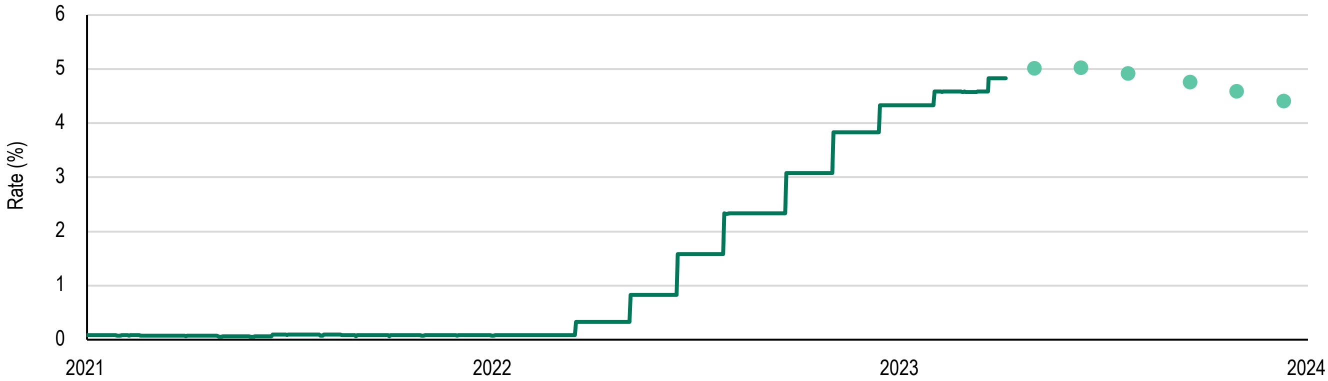
What we find is that yields are clearly more attractive versus the last decade, and that the factors that lead to very poor returns in 2021 and 2022 are unlikely to be repeated - in fact, that historically large selloffs have been followed by strong positive returns. Our work also shows that now that yields are much higher, they can more likely provide the diversification benefit in weaker economic periods than they have historically done. Further, we find that episodes where yields on cash-like instruments rival yields on bonds have actually consistently pointed to better returns for bonds ahead, not worse - as they are a sign that policy tightening is nearing an end. Finally, we show that there is no perfect recipe for timing an entry into bonds - but than historically, entry around the peak in a rate hiking cycle has tended to coincide with falls in bond yields, and that holding bonds within a portfolio is now skewed more positively, and will generally lead to better outcomes compared to having none at all.

Introduction

Investors have been starved for yield for over a decade: Structural trends, unprecedented central bank intervention, and low inflation all conspired to keep yields in fixed income at historically low (sometimes negative!) levels.

That yield desert has now endured a once-in-a-generation storm, and after a savage bond market repricing, more attractive yields abound. But what does that mean for the future: A fertile oasis of return opportunities? Or, are we in the midst of a continued downpour, where sheltering remains the best strategy? We explore the environment, the opportunities, and some indicators of timing, below.

Figure 1: Effective US federal funds rate, and market pricing projections



Sources: Board of Governors of the Federal Reserve System (US), Bloomberg, March 2023.

As a starting point, we note how much is already factored into the yields and prices of bonds. Inflation is elevated, interest rates have been hiked aggressively, and central banks are beginning to wind down their quantitative easing-era bond holdings. But those factors are all known: To make the case for bond yields to rise significantly further, we must expect inflation to stay even higher than we already expect, or for central banks to hike even more aggressively than they already have – and for economies to be able to weather both of these pressures without a meaningful growth slowdown. Without this unlikely scenario playing out, the outlook for bond yields going forward is more positive for investors.

So: Bonds are clearly more attractive than before; that's easy enough to argue. But how can we judge when it is right to add to bond allocations? Market timing is difficult, and we are wary of trying to call "tops" in yields – but a basic approach is to balance the risk-reward of acting too early, versus acting late.

In this paper, we look at several reasons why we think bonds are becoming clearly more attractive, and why it might be appropriate for investors to add, particularly for the many that have been underweight duration (bonds) for an extended period.

We examine several factors:

1. What has driven the repricing so far: rates, not credit.

2. An appreciation for how extreme 2022 moves were, in historical terms.

3. The higher yields on offer, making risk-reward much more favourable.

4. That lightning rarely strikes twice: Rebounds often follow material selloffs, and repeated large selloffs are rare.

5. The ability of bonds to once again offer protection to a diversified portfolio.

6. That not all yield is created equal: Cash has worked well as a defensive hideaway, but high cash yields are not necessarily as attractive as they seem.

7. Timing a peak in yields is impossible. Realising that the peak is near is most important.

Here we mostly focus on the US market, where there is a longer set of historical data (and more recessions to draw lessons from!) compared to Australia and other markets. For the most part, we focus on the impact of underlying government bond yields, rather than credit spreads, as government bonds have been the largest driver of yield changes so far. But many of the conclusions are applicable for other regions, including Australia and Europe, and generally apply to a variety of fixed income allocations.

Some context: What has driven the repricing?

A simple answer to "what happened to bonds?" is – "inflation, obviously." That's true enough, but masks some of the nuance about where in the bond market most of the impact was felt, and what that means for future returns.

A bond yield is conceptually made up of two basic factors: the "risk-free" rate (we use government bonds as a loose proxy), which represents compensation for expected yield changes, and compensation for locking away cash for an extended period; and a "credit spread", which represents compensation for default risk, increased volatility, and lower liquidity.

The bond yield changes since 2022 have been almost exclusively due to changes in underlying "risk-free" yields – government bonds – whereas "credit spreads" have been volatile but have overall moved much less (in comparison). For example: the yield on the US investment grade corporate index is more than 5%, up from less than 2% in mid-2021. The driver of that change has been chiefly changes in the government bond yield, illustrated below:

Figure 2a: US IG corporate yield

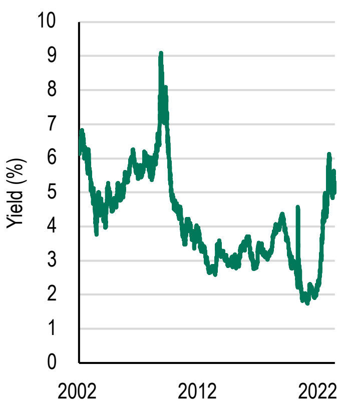


Figure 2b: Implied US Treasury yield

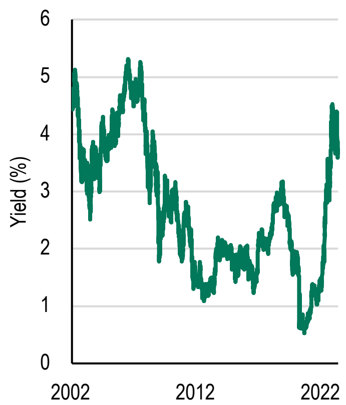
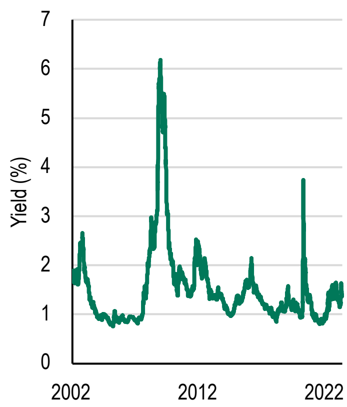


Figure 2c: US IG corporate spread



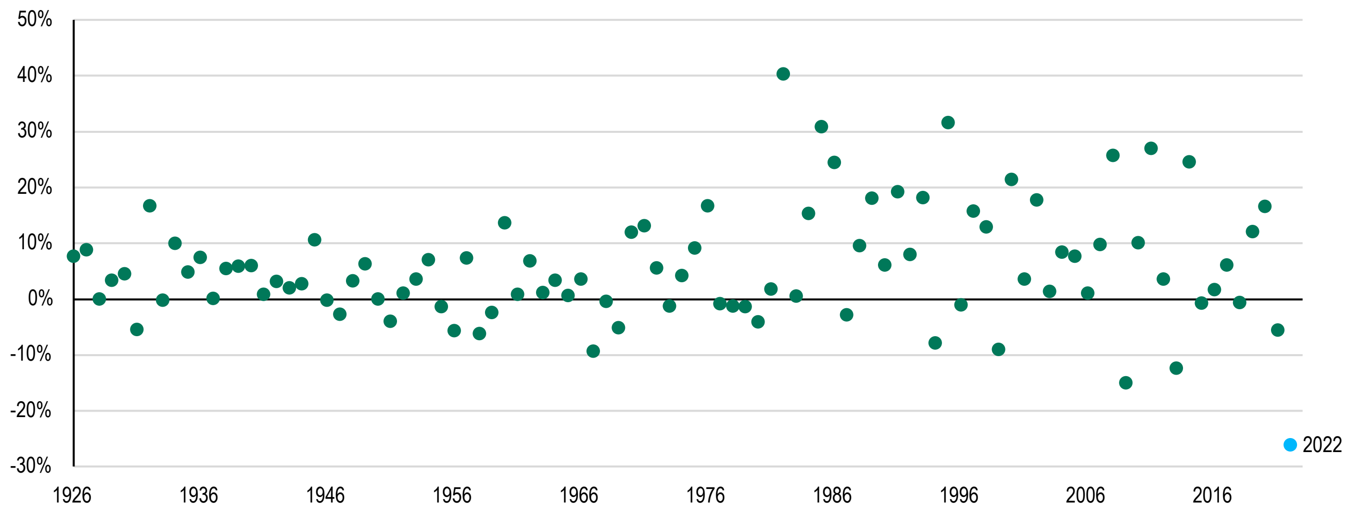
Source: Bloomberg, March 2023. IG = investment grade.

That has implications for bond investors: Over the previous decade, spikes in yields were generally due to credit spread spikes. Taking advantage of these moves meant taking credit risk. This time, spikes in yields are driven by underlying government bond moves, and the opportunity will likely come from taking interest rate risk for now.

Just how extreme was 2022 in historical terms?

2022 was one of the worst years for bond returns, but it is worth appreciating just how severe the losses were. Return on long maturity US Treasurys (taking into account both coupon payments and price movements) show it was the worst year by far, in almost 100 years of data – materially worse than any year during the exit from yield controls following World War II, during the high inflation and sharp interest rate rises of the 70s and 80s, or the rebound from the global financial crisis in 2009.

Figure 3: US long bond annual returns (20-year)



Sources: Ibbotson, Bloomberg, March 2023.

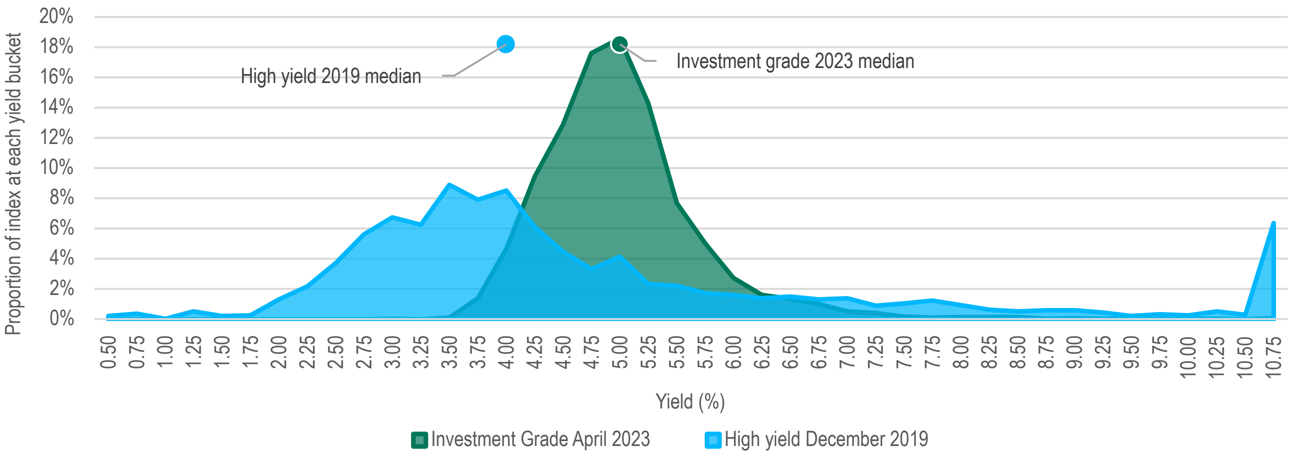
The total loss of more than 25% on the long maturity bond represents a move more than three standard deviations below the long-term average return. If you assume a normal distribution (a brave assumption in financial markets), that's statistically a 1-in-1,000-year event. Even by fat-tail financial market standards, the return stands out in history.

Higher yields on offer, making risk-reward much more favourable

The equivalent of acknowledging the scale of bond underperformance is acknowledging the sharply higher yields on offer (as bond yields move inversely to bond prices).

This is particularly true of higher-quality fixed income such as investment grade credit, with the average yield on the US investment grade corporate index more than 5% , well above any level available in the past 10 years. For context, that is a higher average yield than US high yield corporates – a blend of lower rated credits, including some with material risk of default - offered at the end of 2019. The difference between median yields is even more stark (a median yield is a more realistic measure of achievable yield, as it is less impacted by outlier distressed bonds with extreme yields): Investment grade median yields are now around 1% higher than late 2019's high yield equivalent. Significantly higher yields, with materially lower credit risk? At some point, it is a very attractive mix.

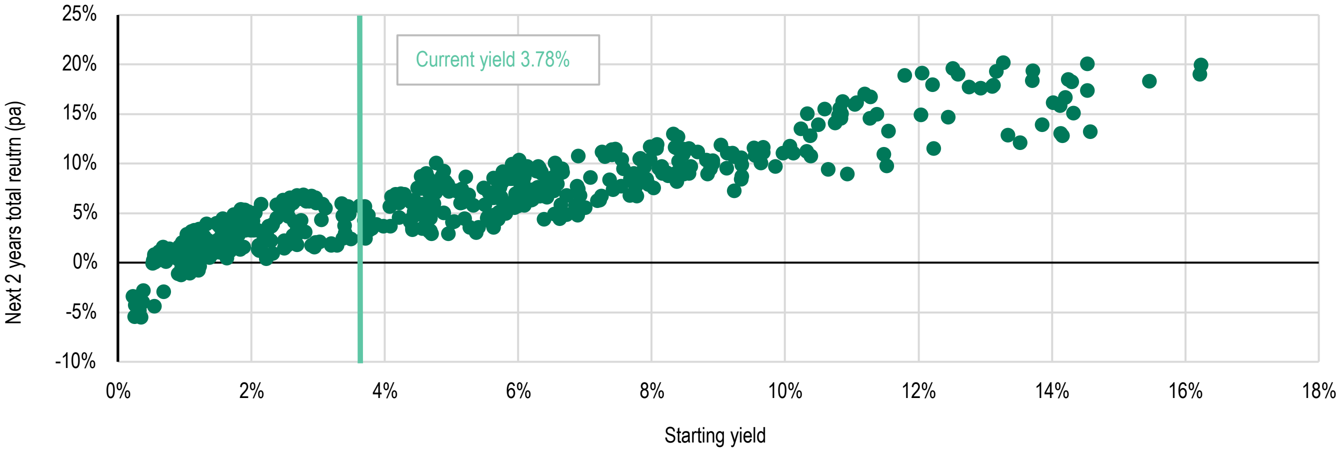
Figure 4: US investment grade (current) versus US high yield (2019) spreads



Sources: Bloomberg, Macquarie, March 2023.

Yields clearly matter for the return outlook. This is "obvious": If you hold a bond to maturity, assuming no default, your internal rate of return will be the yield on the bond. But for shorter holding periods, the rate of return is not so certain: Your actual return is dependent on market moves in the meantime. But starting yield is a key driver of returns even over the shorter term, and higher yields bias returns higher. Figure 5 shows historical annual returns for holding the 1- to 10-year maturity US Treasurys index for 2 years, versus the starting yield of the index: While there is still some uncertainty (the historical observations vary around a broad trend), there is a very clear bias to higher forward-looking returns as yields rise.

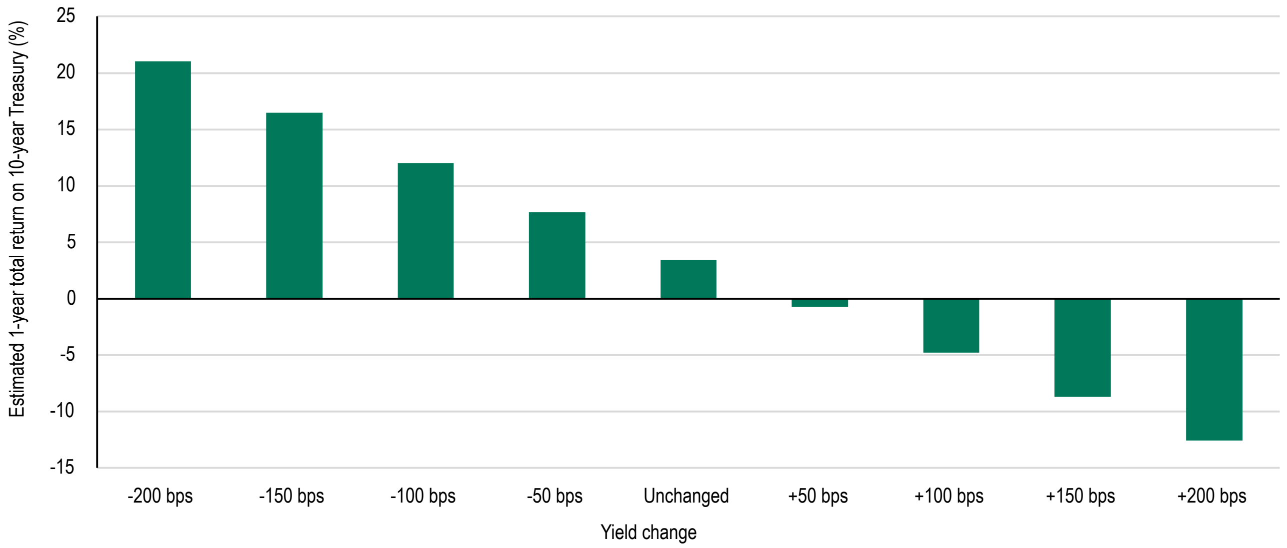
Figure 5: Yield versus 2 years future return: US Treasury Intermediates Index



Sources: Bloomberg, Macquarie, March 2023.

Effectively, higher yields skew outcomes positively going forward. There is simply much less to be afraid of about bond returns post the recent selloff, and much more to be excited about: Using a 10 year US Treasury as an example, even a modest 0.8-percentage-point fall in yields from current levels of around 3.5% (which would only take us back to August 2022 levels) would be enough to generate double-digits returns for the year ahead. And the outlook is highly skewed: An equal rise of 0.8 percentage points in yields generates "only" a 3.2% loss: still negative, but significantly less than the upside available on a symmetric move.

Figure 6: Potential return outcomes skewed to the positive



Source: Macquarie, March 2023.

Lightning rarely strikes twice: Rebounds are common after material selloffs

Bond markets have historically rebounded after big losses – partly reflecting the much better return outlook and positive skews illustrated in Figure 6. Following each of the 10 largest bond selloff years, only 2021 was followed by a materially negative year (2022), and the average rebound was almost 10%. The larger the loss, and the larger the average rebound: For the five largest losses, the largest rebound was over 17%. Nothing is guaranteed, but the pattern illustrates a reality of bond pricing: Large losses lead to higher yields, which positively skews outcomes looking forward.

Figure 7: Bonds historically rebound: Returns following the five weakest years

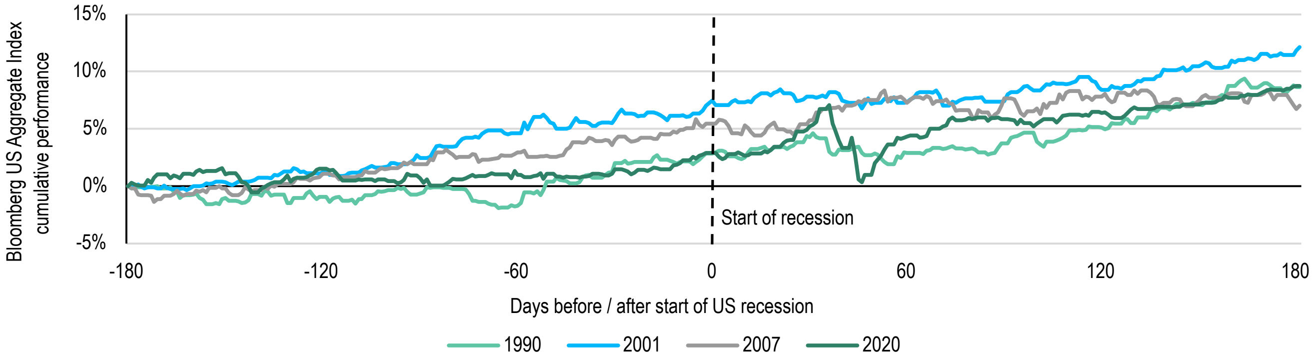
Sources: Ibbotson, Macquarie, March 2023.

Bonds can offer protection again

Bonds have traditionally had an important role in investor portfolios as a source of income and an offset to equity risk. They struggled in these roles in 2022, hampered by the combination of high inflation and very low starting yields. But with yields reset at higher levels, bonds have the potential to fulfill their traditional roles once again.

In particular, bonds have historically performed well heading into recessions, especially relative to the highly volatile experience in equity markets, as investors flee the uncertainty of stocks to the relative safety of fixed coupons. Below shows the experience of the Bloomberg US Aggregate Index (a broad benchmark containing governments, corporates and securitised issuers) around US recessions, highlighting the historical consistency of returns.

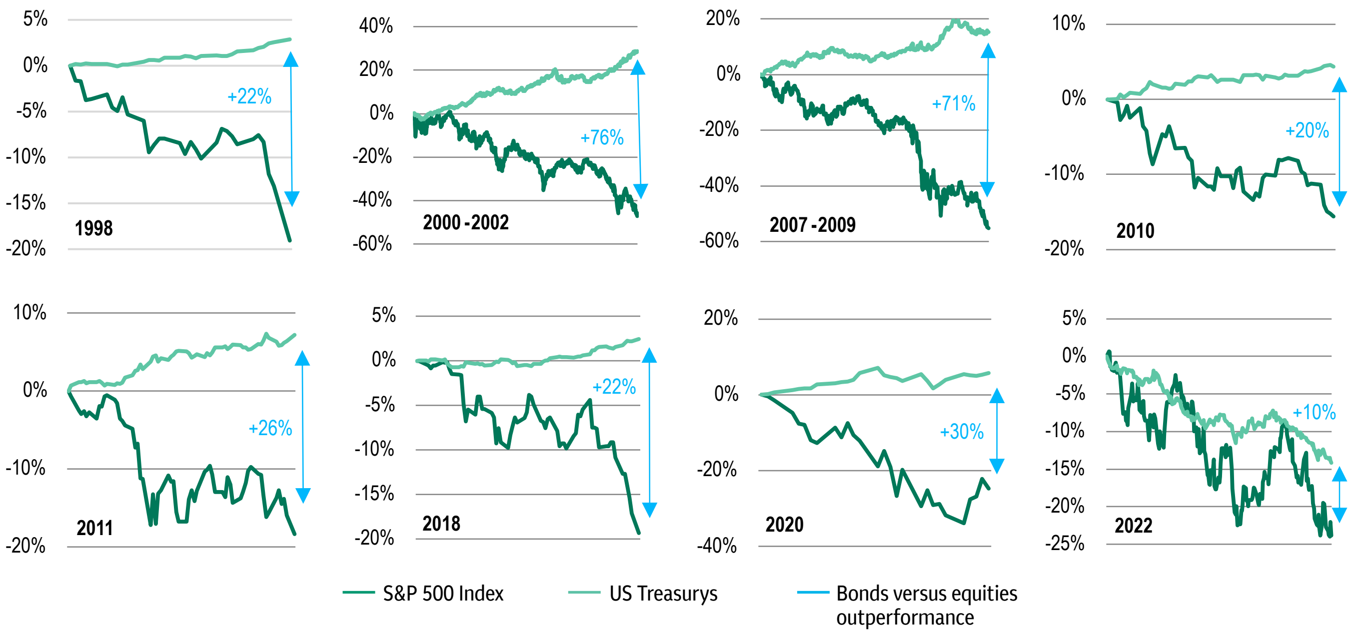
Figure 8



Sources: Bloomberg, Macquarie, March 2023.

That consistency also extends to more common periods of equity weakness – whether that coincides with an actual recession or not. Apart from 2022, bonds have generated positive returns in all of the largest equity drawdowns in the last 30 years – highlighting both the value to a diversified portfolio, as well as the challenges high-quality bonds (such as government and investment grade credit) faced in 2022 coming out of an environment of historically low yields.

Figure 9: Bond returns during equity market drawdowns



Source: Bloomberg, March 2023.

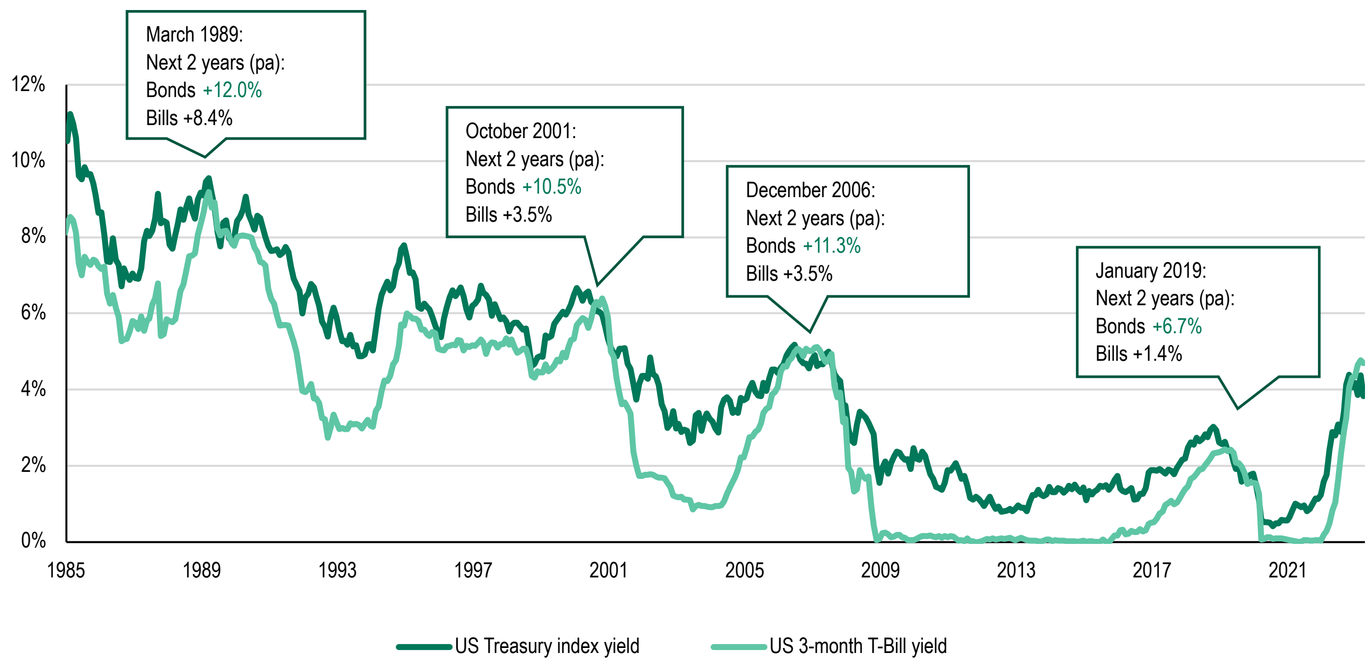
Not all yield is created equal

Hiding away in cash was an appropriate strategy for last year: Most bond and equity markets significantly underperformed. And as central banks have increased rates, the yields on cash and similar investments have also risen sharply, leading to a temptation from investors to continue to seek shelter in this asset class. But there is eventually a cost to being too defensive. Periods of high cash yields (such as now) have historically signalled an attractive time to exit cash and own more long duration bonds, not less.

Why is that – despite very similar starting yields? A bond investor is effectively locking in a given yield for the life of the bond: 7 to 10 years on average for a representative bond benchmark. Cash investors, on the other hand, may lock in a rate for three months, or a year, and so on, but then face reinvestment risk at maturity. The value of buying a longer-term yield becomes meaningful when rates fall – as has historically happened when hiking cycles end in overtightening: Yields fall, cash investors lose out, but bond investors have locked in their higher yields.

Figure 10 shows the yield on the US Treasury index, as well as the yield on a 3-month US government T-Bill: a decent proxy for very short-term high-quality cash yields. Figure 10 demonstrates the current temptation: that is, to own cash instead of bonds, and still earn a similar short-term yield. But historical experience has shown these periods generally align with a poorer relative outlook for cash, not a better one.

Figure 10: Historical yields and returns (Treasury compared to Treasury bill)



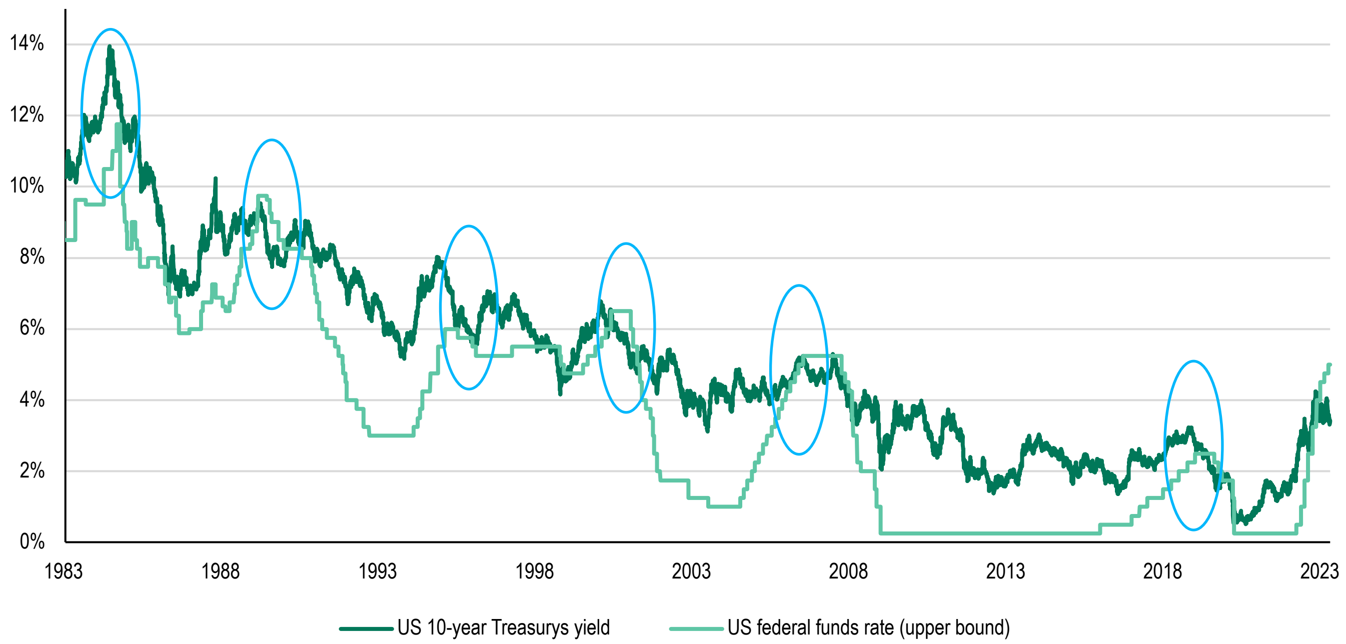
Sources: Bloomberg, Macquarie, March 2023.

Timing a peak is impossible: Realising the peak is near is most important

Market timing is difficult, and it's naïve to believe we can reliably pick turning points – particularly in such a volatile market environment. Instead, it's reasonable to start building into positions as the risk-reward begins to skew in your favour, recognising that waiting too long to see a turning point can be at least as painful as being too early.

History can be a guide: Yields tend to peak around the timing of the last rate hike in a hiking cycle, and in most cases have rallied strongly following that point.

Figure 11: Treasury yields versus Interest rates



Sources: Board of Governors of the Federal Reserve System (US), Bloomberg, Macquarie, March 2023.

Of course, the timing of the end of the rate hiking cycle could be unclear. Several more rate hikes could be coming in this cycle. It's also possible that the last rate hike has already occurred. It's worth noting, in our view, that the exact timing – in a medium-term sense – is not critical. Investors can be early or somewhat late to timing the end of the hiking cycle, as long as they can be confident that they are indeed in the vicinity of the end. Consider three broad alternative strategies, each with a six-month horizon: First, timing the end of the hiking cycle (the last hike) perfectly; second, being three months too early to the last rate hike; and finally, wanting certainty that the hiking cycle is over – that is, waiting to see the first cut in rates.

Getting the timing perfect is obviously attractive, but unlikely: In each historical case, an investor would have captured at least 0.5% of yield compression over the six months.

But what if you are too early? Assume you move three months too early, and suffer some losses in the short term. Being somewhat early to the trade has not been overly costly historically, with at most a further 0.40% of yield rises. But this is followed again by quite consistent gains: yield falls of at least 0.25% over the six-month horizon – and much more in many cases. As long as investors can accept the potential for modest losses in the short term, this has produced a consistent medium-term result.

If investors were to wait for confirmation of a change in the environment (that is, waiting for the first cut in interest rates), more of the bulk of the bond gains will already have happened – but strong performance is still possible. Bond yields move ahead of central bank rate decisions, anticipating changes in the economy and therefore the path of rates – so once it becomes "obvious" that rate cuts are coming, it's likely to be less attractive. So historically, over the six months after the first cut in rates, bond performance is more mixed, but still positive on average: There is still strong performance remaining in some periods (but notably, none more favourable than moving a little too early), but for other periods, the low in yields is already past, and yields actually rise over the next six months.

These outcomes are summarised in Table 1.

Figure 12a: Timing the last rate hike exactly

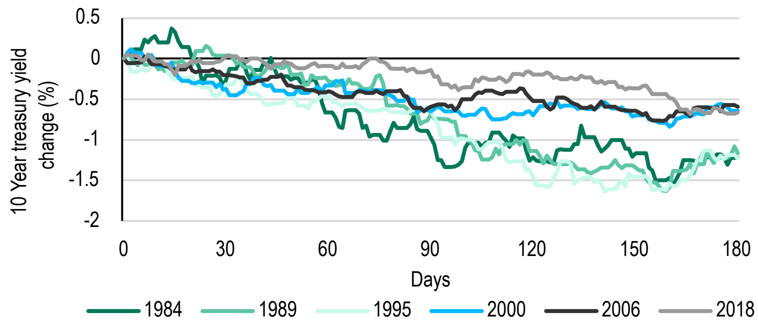


Figure 12b: Moving earlier

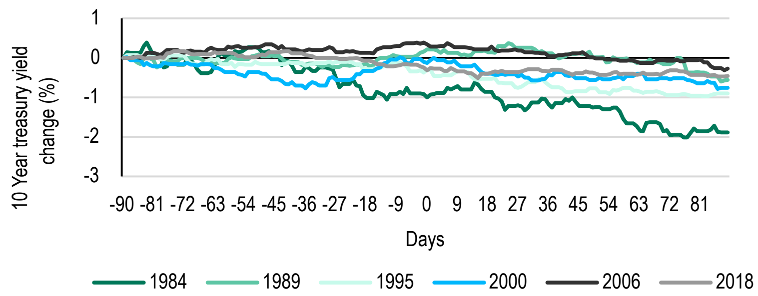


Figure 12c: Moving later

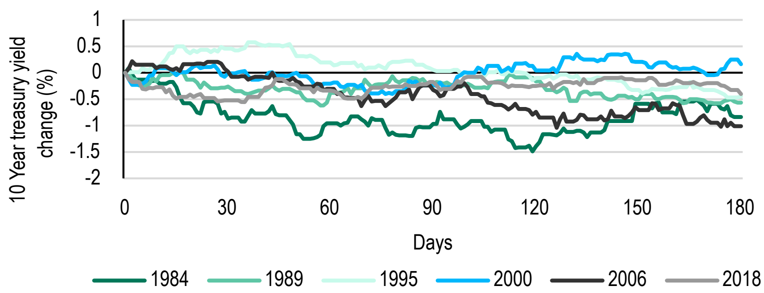


Table 1

10-year yield move over next six months	Investing earlier	Investing with perfect timing	Investing later
Worst case	-0.26%	-0.58%	0.25%
Best case	-1.89%	-1.22%	-1.00%
Average	-0.80%	-0.90%	-0.50%

Sources: Bloomberg, Macquarie, March 2023.

Conclusion

Bond markets over the past period have been extremely volatile, generating returns much worse than any other previous historical instances of rising bond yields. However, it is clear to us that the outlook for bonds looking ahead is much more positive. We believe the factors that led to the poor returns in 2021 and 2022 are unlikely to repeat themselves and that the higher yields on offer now present an opportunity for a strong rebound in performance and diversification to risk assets – particularly if we should see the cycle turn. While it is difficult to time any investment entry point, we find that holding bonds within in a portfolio is now skewed more positively, and believe will generally lead to better outcomes compared to having none at all.

Diversification may not protect against market risk.

Credit risk is the risk of loss of principal or loss of a financial reward stemming from a borrower's failure to repay a loan or otherwise meet a contractual obligation. Credit risk arises whenever a borrower expects to use future cash flows to pay a current debt. Investors are compensated for assuming credit risk by way of interest payments from the borrower or issuer of a debt obligation. Credit risk is closely tied to the potential return of an investment, the most notable being that the yields on bonds correlate strongly to their perceived credit risk.

Fixed income securities and bond funds can lose value, and investors can lose principal as interest rates rise. They also may be affected by economic conditions that hinder an issuer's ability to make interest and principal payments on its debt. This includes prepayment risk, the risk that the principal of a bond that is held by a portfolio will be prepaid prior to maturity at the time when interest rates are lower than what the bond was paying. A portfolio may then have to reinvest that money at a lower interest rate.

Fixed income securities and bond funds can lose value, and investors can lose principal as interest rates rise. They also may be affected by economic conditions that hinder an issuer's ability to make interest and principal payments on its debt. High yielding, non-investment-grade bonds (junk bonds) involve higher risk than investment grade bonds. The high yield secondary market is particularly susceptible to liquidity problems when institutional investors, such as mutual funds and certain other financial institutions, temporarily stop buying bonds for regulatory, financial, or other reasons. In addition, a less liquid secondary market makes it more difficult for to obtain precise valuations of the high yield securities.

Inflation is the rate at which the general level of prices for goods and services is rising, and, subsequently, purchasing power is falling. Central banks attempt to stop severe inflation, along with severe deflation, in an attempt to keep the excessive growth of prices to a minimum.

Quantitative easing is a government monetary policy used to increase the money supply by buying government securities or other securities from the market. Quantitative easing increased the money supply by flooding financial institutions with capital in an effort to promote increased lending and liquidity.

The US 10-year Treasury yield is the yield that the government pays investors that purchase the specific security. Purchase of the 10-year note is essentially a loan made to the U.S. government.

The **Bloomberg Intermediate US Treasury Index** measures the performance of US Treasury bonds and notes with maturities from 1 up to (but not including) 10 years.

The **Bloomberg US Aggregate Index** is a broad-based benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market.

The **Bloomberg US Long Corporate Bond Index** measures the investment grade, fixed-rate, taxable corporate bond market with maturities of 10+ years.

The **S&P 500 Index** measures the performance of 500 mostly large-cap stocks weighted by market value, and is often used to represent performance of the US stock market.

The **S&P 500 Investment Grade Corporate Bond Index**, a subindex of the S&P 500 Bond Index, seeks to measure the performance of U.S. corporate debt issued by constituents in the S&P 500 with an investment-grade rating.

The **S&P US Treasury Bond 20+ Year Index** is designed to measure the performance of U.S. Treasury bonds maturing in 20 or more years.

Index performance returns do not reflect any management fees, transaction costs or expenses.

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