

RESEARCH

From Hikes to Cuts: Variable Maturity in Different Interest Rate Environments

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KEY TAKEAWAYS

- Information in current forward rates about future bond returns can help investors navigate periods of interest rate changes.
- An approach that dynamically varies a portfolio's maturity exposure to target higher forward rates can benefit investors over the long term.

The US Federal Reserve cut interest rates on September 18, 2024, the first cut since the hikes began in 2022 to control rising inflation. For investors, rate cuts (and hikes) tend to prompt the question: How do different interest rate environments affect my fixed income portfolio?

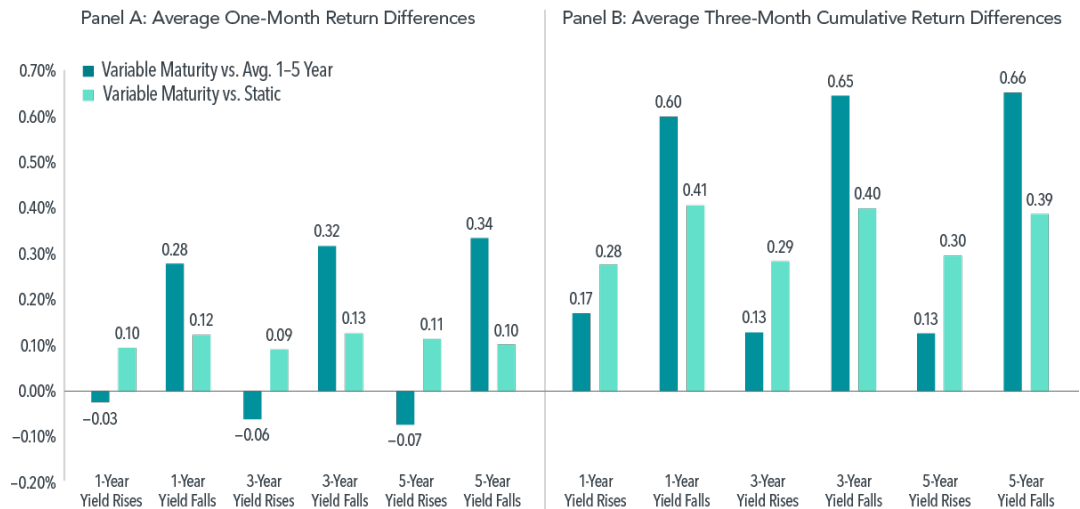
In a recent paper, "[The Drivers of Global Government Bond Returns](#)," we show using updated evidence that investors can leverage information in current forward rates to pursue higher expected returns without having to rely on forecasts of Fed actions or interest rate movements in general. As yield curves change over time, investors can dynamically target higher expected returns by varying their maturity exposure in a systematic way. In this blog post, we highlight one analysis from the paper, which shows this "variable maturity" approach to yield curve positioning is effective in different interest rate environments.

We focus on the US Treasury market and simulate a Variable Maturity portfolio that targets the maturity with the highest forward rate within the range of 1–5 years each month. From July 1952 to December 2023, this portfolio delivered an annualized return of 6.93%, outperforming the Average 1–5 Year portfolio by 1.49% per year. It also outperformed the Static portfolio, which maintains a constant duration that matches the time-series average duration of the Variable Maturity portfolio, by 1.36% per year.

We then examine the performance of the Variable Maturity portfolio when yields are

rising or falling (see **Exhibit 1**). Panel A focuses on the average return of the portfolio in the month of rate change. The Variable Maturity portfolio outperformed the Static portfolio by 9–13 basis points (bps) per month on average regardless of yields rising or falling. The Variable Maturity portfolio also outperformed the Average 1–5 Year portfolio by 28–34 bps per month on average when yields were falling. However, it underperformed by 3–7 bps per month when yields were rising, likely due to its longer duration than that of the Average 1–5 Year portfolio—by about 10 months longer on average.¹

Exhibit 1
Variable Maturity in
Different Interest Rate
Environments
 July 1952–December 2023



Past performance is not a guarantee of future results.

In USD. This figure shows the average one-month return differences and average three-month cumulative return differences of the Variable Maturity portfolio with respect to both the Average 1–5 Year and Static portfolios in different interest rate environments, defined by months where the one-year, three-year, or five-year US Treasury yield is rising vs. falling. The calculation for cumulative returns starts from the month in which the interest rate environment is defined. All data are monthly from June 1952 to December 2023 and sourced from CRSP.

Panel B extends the investment horizon from one to three months and shows that this underperformance was quite short-lived. Over the three-month period, the Variable Maturity portfolio on average outperformed both the Average 1–5 Year and Static portfolios regardless of the interest rate movement in the first month. These results suggest that a consistent implementation of the variable maturity approach through changing interest rate environments can benefit investors over the long term.

More broadly, our paper looks beyond the US market and provides robust evidence supporting the variable maturity approach across multiple currencies in developed markets. The paper also shows that investors can benefit from systematically applying a variable currency approach that emphasizes yield curves with higher expected returns. Overall, our analysis suggests that using real-time information in the global opportunity set can help investors navigate through different interest rate environments toward long-term success.

1. The average durations of the Variable Maturity and Average 1–5 Year portfolios are 3.86 years and 3 years, respectively.

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