Vanguard

Expert Perspective

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Unpack the challenges of rising bond-fund yields

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Introduction

The low inflation of the last four decades appears to be over and a new era of sustained inflationary pressures and rising bond yields may be upon us. Advisors who weren't around for the high-inflation, low-growth environment of the 1970s will likely be seeing the loss of purchasing power in client portfolios for the first time.

So, now may the perfect time to prepare for the inevitable client calls by boning up on how rising interest rates are affecting client bond funds. It's also a good time to emphasize a key point: Over the long haul, higher yields mean more income from the fixed income portion of client portfolios.

Historical 10-year Treasury bond yields 1960-2022

Note: Data include effects on bond yields related to the Federal Reserve's June 15, 2022, meeting.
Source: The Board of Governors of the Federal Reserve System (U.S.), Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/DGS10, June 15, 2022

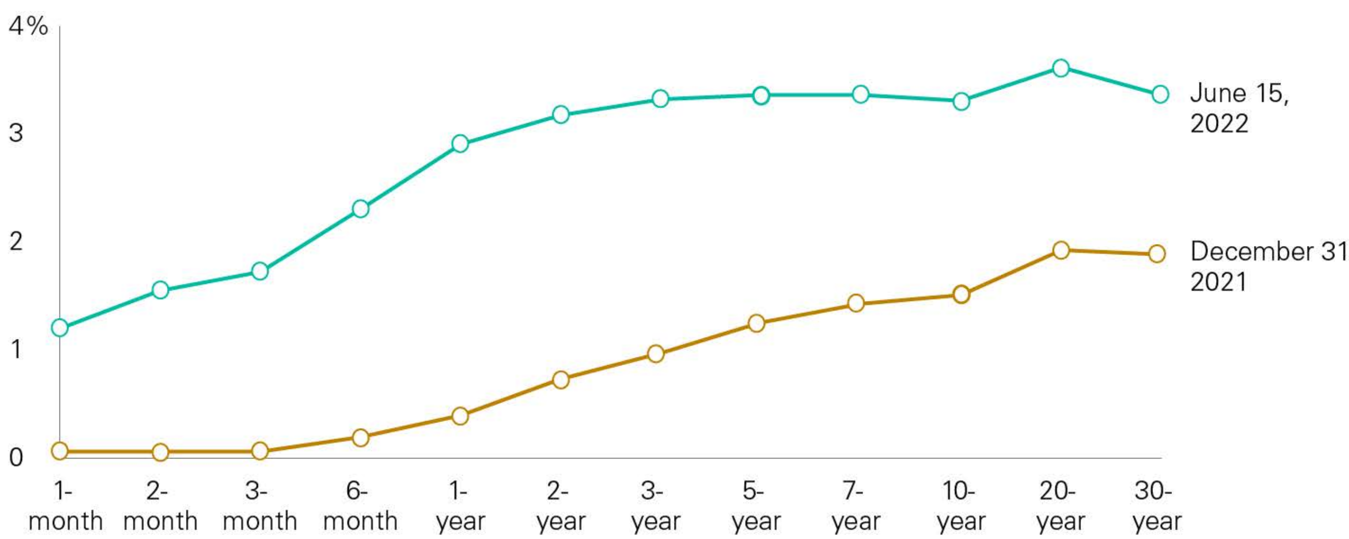
Rates rising rapidly

After an extended period when bond yields generally trended lower, it's worth setting the stage by looking at how much the U.S. Treasury yield curve has changed since the Federal Reserve started raising rates after inflation began to spike in 2021.

The federal funds target rate now stands at a range of 1.50% to 1.75%—up from a range of 0.00% to 0.25% before the Fed started increasing rates. The Fed's most recent rate hike, on June 15, was 75 basis points, and the central bank said it is likely to raise the federal funds rate another 50 to 75 basis points at its next meeting, at the end of July. (A basis point is one-hundredth of a percentage point.)

The effects of the Fed's work to raise rates are plain to see in yield-curve comparisons, such as the one below. More broadly, the Bloomberg U.S. Aggregate Float Adjusted Bond Index has fallen by more than 9% through May, the most it has lost in this short a time in 40 years.[1]

Treasury yield-curve change from year-end 2021 to mid-June 2022



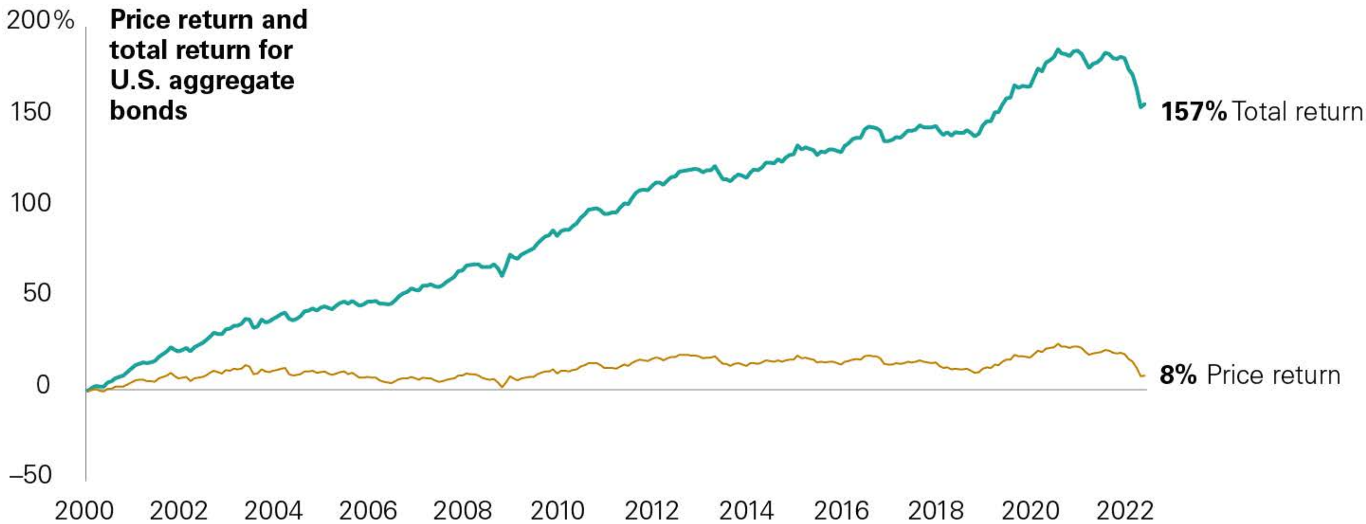
Note: Data include effects on bond yields related to the Fed's June 15, 2022, meeting.
Source: Morningstar, Inc., as of December 31, 2021, and June 15, 2022.

[1] Vanguard, using data from December 31, 2021, through May 31, 2022.

Back to bond basics

With the rapid increase in rates, different metrics can appear to paint very different pictures for expected fixed income returns. It's therefore crucial to have a thorough understanding of different yield metrics and what they're telling us.
So, let's explore common fixed income yield measures used in bond funds and how they can be understood better in the context of a new environment of possibly sustained inflationary pressure.

After all, your clients checking online to see how their bond funds are performing might be taken aback. They might find such terms as "SEC yield" or "distribution yield" but not be able to map those useful bond fund metrics over to data points they're hearing on CNBC or seeing in the Wall Street Journal—data points that focus on changes in the fed funds rate, 10-year U.S. Treasury yields, or 30-year mortgage rates.



Note: Aggregate bonds are represented by the Bloomberg U.S. Aggregate Bond Index.
Source: Bloomberg, as of May 31, 2022.

Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Key bond-fund metrics

How do changes to the federal funds rate, which the Fed controls, affect the bond funds that clients may own?

As an example, let's take a look at how rising rates have affected yields on Vanguard Short-Term Treasury ETF (VGSH), a portfolio composed of U.S. government debt with effective maturity of 2 years.

Yields on individual 2-year notes have risen since October 2021 by about 200 basis points, to 2.53%, as of May 31.

Yield measure	October 2021	May 2022	Impact of rising rates on yield metrics
2-year Treasury yield	0.48%	2.53%	This widely followed measurement of short-term rates reflects real-time market expectations. Because it distills the market consensus, it does not necessarily move in lockstep with the federal funds rate.
VGSH YTM	0.49%	2.48%	The yield to maturity for VGSH closely tracks the 2-year Treasury yield given the proximity of the fund's overall composition to the 2-year key rate. (The average effective maturity and the average duration of VGSH were 1.9 years and 2.0 years as of 5/31/22, respectively.)
VGSH SEC yield	0.34%	2.53%	Changes in the SEC yield for VGSH typically follow the YTM because of the nature of the calculation. SEC yield requires averaging the yield to maturity of the fund's holdings over the prior 30 days and accounts for fund expenses. In some cases, as in May, it can overshoot the YTM because of yield volatility in the prior 30 days.
VGSH distribution yield	0.28%	0.57%	The yield measure that lags most, the ETF's distribution yield hasn't yet caught up with the rise in rates. In a falling rate environment, the opposite occurs, and the distribution yield may be higher than other yield measures.

Note: Because of data availability timeframes, figures in this table do not reflect the Fed's 75-basis-point rate hike on June 15.
Sources: Two-year U.S. Treasury yields from The Board of Governors of the Federal Reserve System (U.S.), Market Yield on U.S. Treasury Securities at 2-Year Constant Maturity [DGS10], retrieved from FRED, Federal Reserve Bank of St. Louis, for Oct. 31, 2021, and May 31, 2022, respectively. Data on VGSH yield to maturity, VGSH SEC yield, and VGSH distribution yield from Vanguard for Oct. 31, 2021, and May 31, 2022.

VGSH standardized performance

Average annual total returns, periods ended June 30, 2022

	Month-end	YTD	1-year	3-year	5-year	10-year	Since inception
VGSH (marketprice)	-0.61%	-3.00%	-3.49%	0.16%	0.85%	0.71%	0.82%
VGSH (NAV)	-0.66%	-3.03%	-3.55%	0.14%	0.85%	0.70%	0.82%
Benchmark*	-0.63%	-3.01%	-3.51%	0.18%	0.90%	0.78%	0.90%

Note: VGSH's expense ratio was 0.04% as of June 30, 2022. The ETF was launched Nov. 19, 2009.
Source: Vanguard, as of June 30, 2022.

*Spliced Bloomberg U.S. Treasury 1-3 Year Index in USD.

The performance data shown represent past performance, which is not a guarantee of future results. Investment returns and principal value will fluctuate, so investors' shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than the performance data cited.

Then there's SEC yield ...

The SEC yield on VGSH was 2.53% as of the end of May. The SEC yield is akin to the yield-to-maturity metric for an individual bond. It's telling us what the bonds in the portfolio may produce in annualized return based on the fund's holdings over the last 30 days. But it includes expenses and any other frictions associated with holding a portfolio composed of many bonds.

Of course, for a perpetual bond fund that's constantly changing as bonds mature out of the portfolio and new bonds are added, the SEC yield can change from day to day. Still, the SEC yield is in the ballpark of what a 2-year U.S. Treasury note is yielding, even if it's lower in our example because it reflects fund fees and the fact that a portfolio might not yet contain bonds that reflect the latest Fed action.[2] Given these dynamics, it's helpful to look to the SEC yield as a reasonable forward-looking picture of the current income of the fund, based on current market value.

... And distribution yield

Then there's a bond fund's distribution yield, which is important because it reflects what the fund's monthly distributions actually are. It's a sensible real-world metric.[3]

The problem is that VGSH's distribution yield in May was 0.57%—well below the 2.53% yield of individual 2-year notes and the 2.53% SEC yield. Moreover, while VGSH's distributions are trending higher in the rising-rate environment, the actual distribution yield hasn't exactly trended higher this year in the way that yields on individual 2-year notes have as the Fed has pushed rates higher. Put differently, this is an accurate, yet backward-looking, metric; it's not a strong predictor of future earnings or overall total return.

[2] SEC yield is an annualized percentage of the income over net asset value (NAV) accrued by the fund in the last 30 days, minus fund expenses.
[3] The distribution yield is an annualized perentage of the previous month's income paid to investors, divided by the average fund NAV over that period.

A few reminders

It's important for advisors to remind themselves and their clients of a few fundamental bond ETF mechanics. Given that most fixed income ETFs typically have some type of maturity constraints, it will take time for current portfolio holdings to "roll" out of an ETF, creating space for new, higher-yielding bonds.

Notably, this same dynamic was in play while the Fed was lowering rates to near zero, and bond funds were still holding onto much-higher-yielding exposures even as benchmark yields were dropping as the Fed cut borrowing costs.

Finally, it's critical to remember the total-return benefits of fixed income. While the upward pressure on rates continues to affect bond prices, net new investments in bond funds will steadily lift yields in the portfolio higher as higher-yielding bonds replace lower-yielding bonds in the fund. That means that, over time, the total return of the bond will increase.

Key takeaways

As the chart above shows so clearly, it's important to remind clients that in the long run, most of the returns from bonds and bond funds come from the income portion of a fixed income security's return profile and not from the price portion.

It's not that changes to a bond's price don't matter. They matter a lot more than yields do in the short term. But price changes matter less to client outcomes over the longer haul.

In other words, a portfolio duration longer than the investment horizon means prices matter more, and a duration shorter than the horizon means that yields matter more. In the end, calibrating the impact of rising rates comes down to advisors appropriately matching the duration of a bond portfolio with the client's investment horizon.

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