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Active Fixed Income Perspectives Q2 2023: Everything everywhere

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Key takeaways

Performance
Bonds provided stability despite a quarter of significant volatility. The Bloomberg U.S. Aggregate Bond Index finished in the black for the last three and six months. Corporate investment-grade and high-yield credit produced the highest returns in the first quarter.

Looking ahead
We expect elevated volatility to create risks and opportunities in coming months. Recent events have reaffirmed our expectation of a 2023 recession, and they point to a more cautious path ahead for monetary policy.

Approach
We added oversold issuers, particularly large banks, during the market stress, but the time for a full risk-on moment has not yet arrived. We remain biased toward higher-quality segments that can weather a weakening economy. We've likely seen the peak in yields for this cycle—at some point, duration will become an investor's best friend.

Everything everywhere

For a moment in early March, the economy appeared ready to continue growing despite a year of rapid interest rate hikes and market turmoil. The consensus was building that the Federal Reserve would have to raise rates further to pull inflation back, but also that the economy was positioned to absorb the increases.

Next came news about Silicon Valley Bank.

Suddenly, like Evelyn Wang trying to do her taxes in this year's Oscar-winning movie, the fixed income markets were pulled into a multiverse of bank failures, runs on bank deposits, and emergency central bank meetings worldwide.

The 2-year Treasury note's yield dropped 104 basis points (bps) in three days, the most since 1987. Eurodollar futures saw the largest one-day price change in their history, surpassing the previous record: the day Lehman Brothers failed.

Each day's news cycle seemed like a jump into a new reality. Credit Suisse forced to sell itself; its AT1 bonds wiped out. Bank deposits protected at all banks? A surge in borrowing at the Fed discount window.

Everything. Everywhere. All at once.

The inflation fight resumes, but with higher risk

Despite the Ides of March, we are confident that regulators have reduced the risk of another global financial crisis and that the Fed will provide liquidity when financial stability is needed.

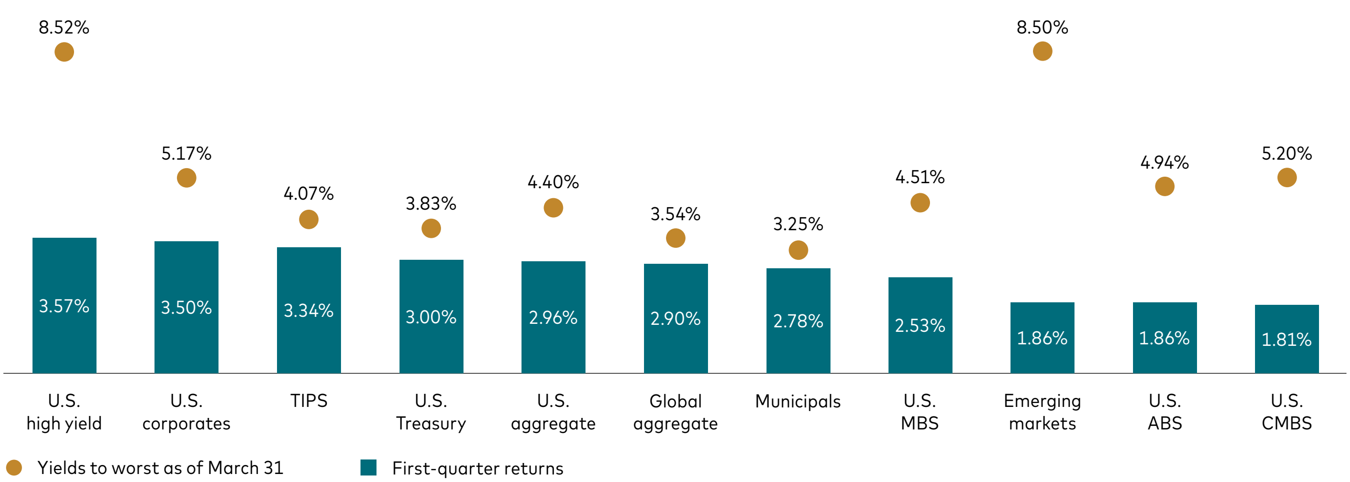
Yet two things have become clear to us. First, we are reaffirmed in our belief that a recession will start in 2023, as bank lending should contract faster. Second, we now expect the Fed to be more cautious in its tightening path.

Markets believe the hiking cycle is largely complete and multiple rate cuts are likely later this year. While a path to that outcome is possible, it's not our base-case view. Core inflation remains persistent and probably won't come down enough to allow for much policy easing in coming quarters.

We believe the Fed will ultimately hoist the fed funds rate above 5% by mid-year before pausing. Barring a major economic surprise, we think the Fed will hold policy rates high for longer than the market currently expects.

Whichever case unfolds, however, the higher yields that we entered the year with continue to help. They have cushioned shocks and provided stability—and positive returns—to the fixed income "multiverse."

Fixed income sector returns and yields



Sources: Bloomberg indexes and J.P. Morgan EMBI Global Diversified Index, as of March 31, 2023.

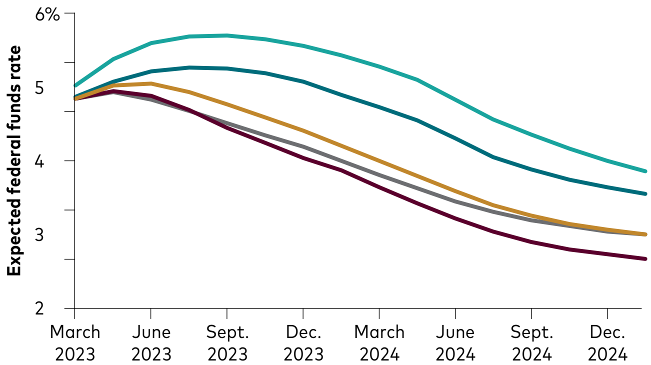
Past performance is no guarantee of future returns. The performance of an index is not an exact representation of any particular investment, as you cannot invest directly in an index.

Rates and inflation

Within the span of a few weeks in the first quarter, market expectations for the economy jumped from a soft landing to no landing, to a hard landing.

Each scenario implied a new path for interest rates, resulting in increased volatility for Treasuries in March.

Banking sector stress resulted in a lower expected fed funds rate

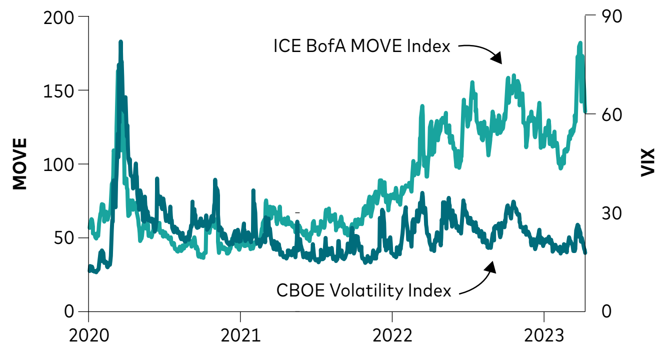


- March 8 (prior to SVB bank failure)
- February 15
- April 13
- March 31
- April 5

Source: Bloomberg, as of April 13, 2023.

The ICE BofA MOVE Index, which tracks volatility in the bond market, last month approached levels last seen during the 2008 global financial crisis. Meanwhile, stocks have remained a bastion of calm.

Tremors: Bonds more volatile than stocks



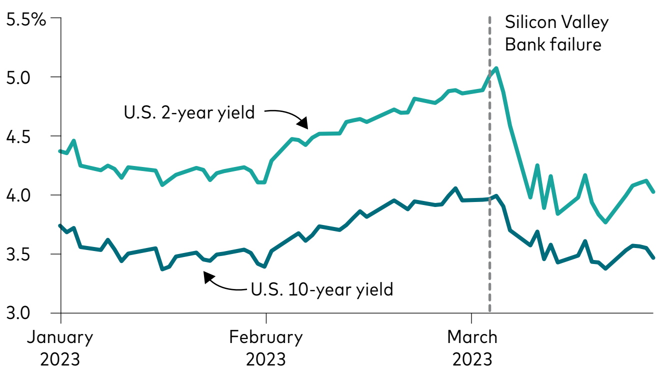
Notes: The ICE BofA MOVE Index (MOVE) tracks implied volatility in the U.S. dollar-based Treasury options and swaps markets. The CBOE Volatility Index (VIX) is a calculation designed to produce a measure of constant, 30-day expected volatility of the U.S. stock market, derived from real-time, mid-quote prices of S&P 500 Index call and put options.

Sources: Vanguard, using data from ICE BofA MOVE Index and Cboe Global Markets, Inc., as of March 31, 2023.

Front-end yields declined twice as much as longer-end yields. Anticipated rate hikes were priced out and rate cuts were pulled forward. The yield curve has become much less inverted, with the difference between 2- and 10-year yields roughly halved from 109 bps just prior to the Silicon Valley Bank news to only 56 bps on March 31.

We acknowledge that the probability of a hard landing has grown and we expect the front end to remain volatile over the near term.

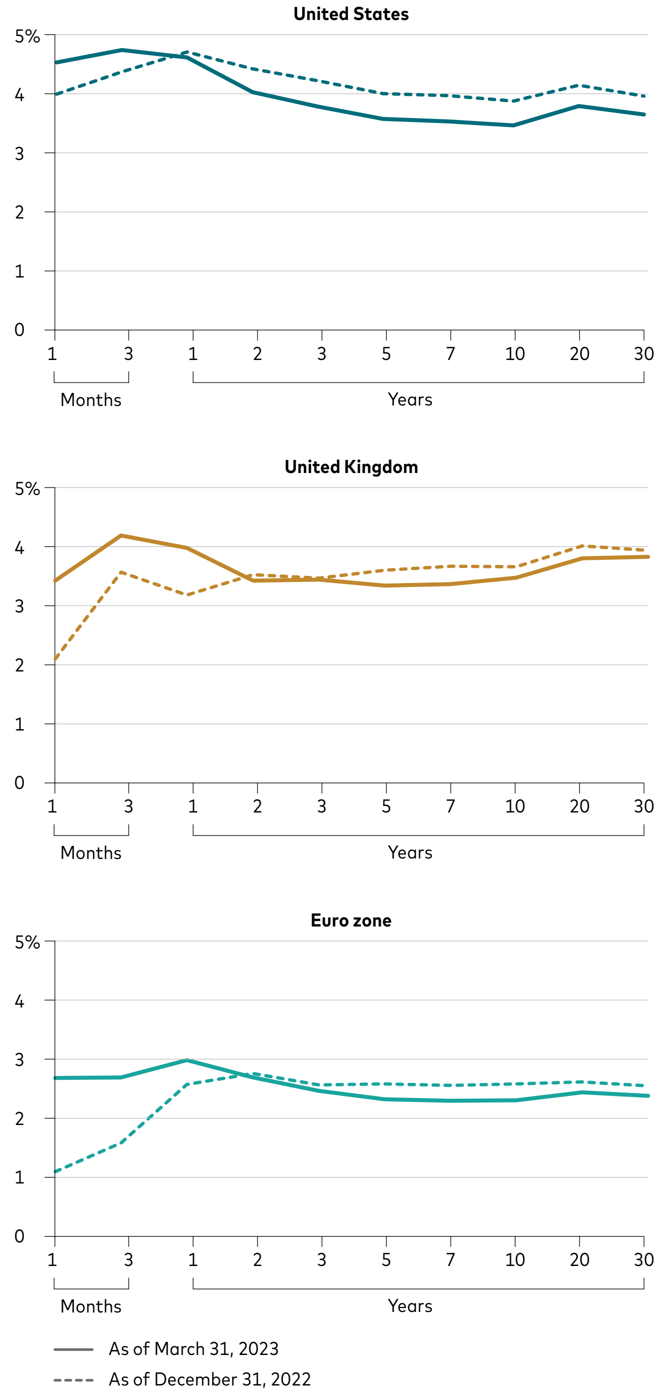
Yields before and after Silicon Valley Bank failure



Source: Bloomberg, as of March 31, 2023.

Our rates strategy continues to focus on selection opportunities, and we remain strategically positioned for a steeper yield curve, which would benefit our portfolios as the economy weakens. We don't see a strong case for rates to rise meaningfully further out on the curve and we view 10-year yields at or above 3.75% as a buying opportunity to add duration.

Government rates: Change in first-quarter yield curves



Source: Bloomberg, as of March 31, 2023.

Mortgage-backed securities

We reduced government mortgage-backed securities (MBS) exposure early this year as spreads tightened and we perceived the MBS market had peaked.

We don't regret the decision.

We are watching how the Federal Deposit Insurance Corporation will oversee sales of over $100 billion worth of securities from Silicon Valley and Signature Banks, most of which are mortgages. (Signature Bank failed days after SVB.) While the MBS market can absorb this unexpected supply, additional bank selling could have a negative impact on prices.

We've seen modest cheapening in recent weeks, but do not see enough added compensation in current MBS spreads to offset the near-term risks.

Longer term, MBS investors will have to assess the future demand from banks for mortgage bonds after the bank sector turmoil. Bank regulation is likely to evolve, but we still expect banks to be more cautious about their MBS allocation and more critical of the entry point at which they participate in the sector.

Implications for Vanguard funds

- We remain strategically positioned for a steeper yield curve, which we expect to see in weaker economic scenarios.
- After we took profits in MBS earlier this year, uncertainty about bank demand has kept us more cautious near-term.
- Duration is now a powerful portfolio construction tool for investors seeking the benefits of diversification. Ten-year yields at or above 3.75% are an attractive entry point given our market outlook.

Credit markets

A return of investor flows helped corporate credit outperform Treasuries in the first quarter.

The turmoil in the banking sector drove spreads broadly wider in March, but the bulk of the repricing was centered on the most vulnerable financial issuers. The Fed's and the FDIC's targeted interventions enabled spreads on more stable issuers to recoup most of the initial selloff by quarter-end.

We expect the key drivers of market performance to shift from monetary policy to underlying credit fundamentals as economic conditions weaken. While that transition has begun, either could drive market behavior in the coming months.

Ready to add risk

Few segments of credit appear mispriced. With a recession expected later this year, spreads should widen further, but we expect them to remain below the more extreme levels seen in 2008 and 2020.

Most issuers are reasonably well prepared for a slowdown. If valuations cheapen, we hope to add risk in securities we think are best positioned for a challenging environment.

Investment-grade corporates

Investment-grade (IG) corporate bond valuations improved over the quarter. Investors initially drove spreads tighter chasing high-quality yield, but spreads moved wider in March amid the mini bank panic.

Spreads in the banking sector widened to the 98th percentile over the last three years, giving us a great entry point to add exposure to the largest, most stable banks at favorable prices. These highly regulated companies are well capitalized and have substantial liquidity.

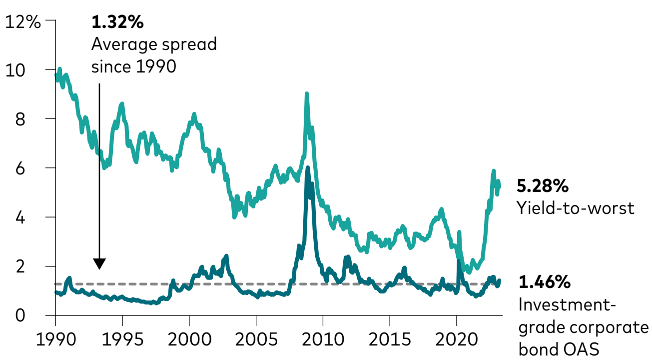
We had little exposure to troubled banks and do not see evidence of a systemic risk to the financial system.

Higher yields

Even after the rally in rates at the end of the quarter, IG still offers yields above 5%.

We continue to prefer higher-quality issuers, but we feel comfortable adding risk where market pricing has moved out of sync with our assessment of fair value.

Corporate bond yields are historically attractive, but credit spreads are average



Note: Investment-grade credit spreads are yields on bonds above the yield on a Treasury security of the same duration.

Source: Bloomberg, as of March 31, 2023.

High-yield corporates

High-yield corporate bonds outperformed the rest of the fixed income market in the first quarter. CCC rated bonds led into March, but then underperformed the higher-quality, more interest rate-sensitive BB rated segment.

Yields finished the quarter near 8.5%, among the highest levels of the last decade, along with the COVID-19 pandemic and the 2016 crisis in high-yield energy bonds.

A tailwind: New issuance continues to be light and planned supply is expected to be low all year.

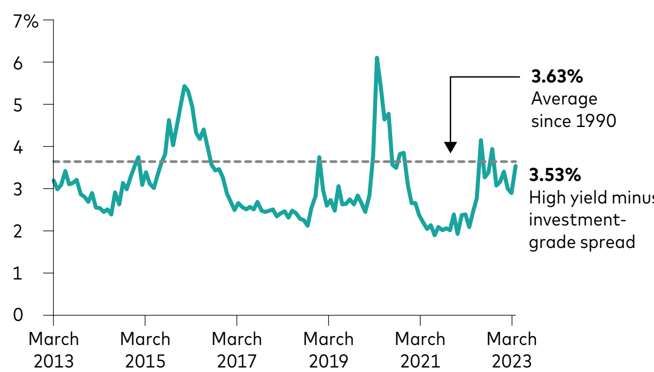
Leverage for high-yield issuers remains low, but valuations are near long-term averages and are just beginning to account for our expectation of weaker fundamentals.

Separating winners from losers

Defaults have stayed below historical averages, but a larger percentage of issuers are trading at distressed levels, and the upgrade rate to investment grade has slowed. With a potential recession in view, the market is separating the winners from the losers.

We are defensively positioned, but we see opportunities in consumer experience-oriented sectors such as transportation and leisure. We remain cautious in financials and consumer cyclicals. At this point of the cycle, security selection is most important.

The yield premium of high-yield relative to investment-grade hasn't risen above the historical average



Source: Bloomberg, as of March 31, 2023

Emerging markets

Last month brought an end to a period of strong flows into emerging markets (EM) bonds. The initial demand at the start of the year helped offset a wave of new supply in which nearly 60% of expected 2023 issuance came to market. We foresee a good technical backdrop for EM spreads.

Higher-quality issuers are more focused on reducing fiscal deficits that ballooned during the pandemic, and weaker credits remain unable to access public debt markets because of elevated borrowing costs and weaker investor demand.

March performance was an example of how stable EM sovereigns can remain during risk-off events. A large percentage of dollar-denominated EM government bonds is at or near investment grade, making these bonds sensitive to movements in Treasury yields. When rates rallied, the price gains more than offset a widening in EM credit spreads.

With a starting yield of more than 8%, fluctuations in spreads and rates left room for a 1.86% return for the quarter.

EM prospects brighten

We expect EM to benefit as growth leadership shifts away from the U.S.

In our view, EM debt is more sensitive to U.S. monetary policy than it is to U.S. economic growth. As the Fed nears the end of its rate-hiking cycle, EM bonds should benefit. A potential U.S. recession is likely to bring a weaker dollar and lower yields. Both will provide relief to EM central banks and to EM countries with USD debt obligations.

We are also more optimistic about local currency-denominated bonds. Several countries are near the point where the next action by their central banks will be to cut rates. We are positioning ourselves in markets where policy easing is most likely in the near term. Mexico, South Africa, Indonesia, and Peru are among the countries where we see opportunities.

Implications for Vanguard funds

- Spreads should move wider as the economy decelerates, but not to the extreme levels seen in recent recessions. We like credit exposure but skew toward higher-quality segments.
- In corporates, the banking troubles offered a brief window to add large banks at compelling valuations. Additional pockets of stress could provide similar opportunities.
- Until valuations improve, we are maintaining lower-than-average exposure to high-yield and emerging markets. Security selection there is critical.

Municipal bonds

Securing the municipal sector's role as a "portfolio ballast"

The recent banking crisis highlighted the hedging benefits of fixed income in a risk-off environment (even as the Fed remains in inflation-fighting mode).

The stabilizer role that investors traditionally assign to fixed income is back in focus. Municipal bonds, whose issuers are exhibiting strong balance sheets and fundamentals, returned 2.22% in March in response to concerns over the banking sector and projections of an approaching recession. That's an example of how municipals typically perform through a negative credit event.

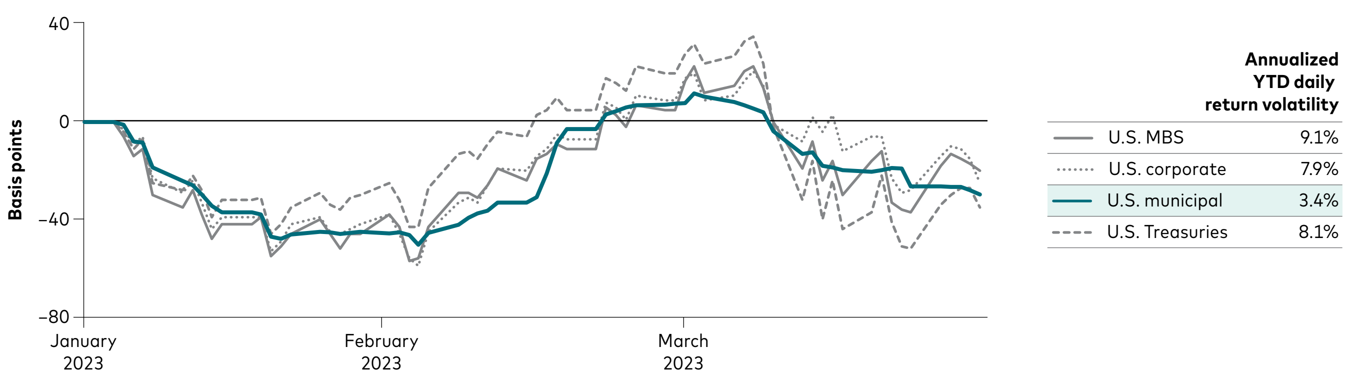
Taxable bond sectors returned more over the quarter, but the path for munis was much smoother than for other sectors as the banking crisis unfolded.

Both corporates and muni bonds embed credit spreads whose widening and tightening is often negatively correlated with rate movements; that helps smooth out returns. However, the higher-quality makeup of the municipal sector leads to less dramatic swings.

The daily yield changes over the quarter show how muni bonds were even more stable than other taxable fixed income sectors.

A smoother ride: Muni yields show less volatility in the first quarter

(sector yield changes, starting at zero)



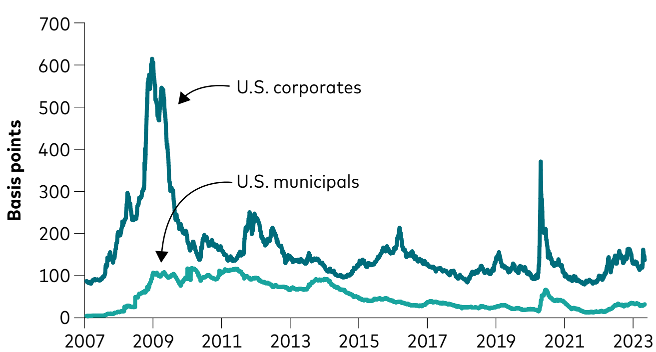
Note: Chart shows changes in yields for the fixed income sectors shown, in the first quarter.
Source: Bloomberg indexes, as of March 31, 2023.

Municipal bonds have been resilient over time. From 1970 through 2021, IG municipals experienced only a 0.09% average 10-year default rate, a fraction of the 2.17% rate for IG global corporate bonds, according to Moody's Analytics.

Even after the 2008 global financial crisis, the resulting collapse of bond insurance, and the Meredith Whitney "municipal doom" projections, default rates ticked up only marginally to 0.18% from 2009 through 2018, far lower than their corporate counterparts, according to Moody's.

It took time for credit spreads to recover after the financial crisis. But after munis proved their durability through that period, spreads hardly moved during later scares, including the oil crisis of 2016, the pandemic sell-off in March 2020, and the banking panic in March.

Municipal spreads have remained stable over time



Note: Chart shows yields above U.S. Treasuries of similar duration for U.S. corporate bonds. Municipal spreads are calculated by subtracting AAA Municipal Index yields from the broader investment grade Municipal Index yield.

Source: Bloomberg indexes, as of March 31, 2023.

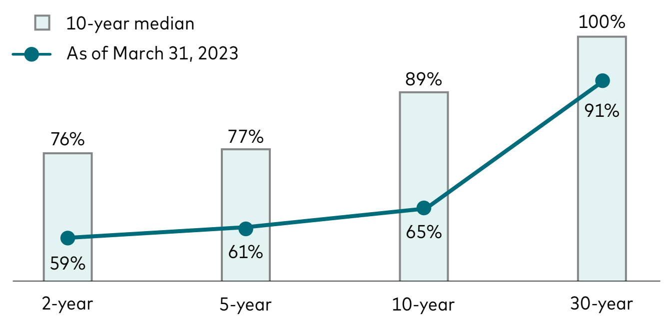
Valuations and flows

While municipal valuations are currently attractive *generally*, we would not say this applies *universally*. A specific segment of the market, including AAA-rated bonds with 10-year maturities and lower, typically trades at a premium relative to longer-term or lower-quality paper.

This AAA premium is especially pronounced right now, perhaps because of individual bond and SMA purchases. If we compare the yields of common ladders against some similar-duration Vanguard funds, the trade-offs are quite evident (see chart on page 10).

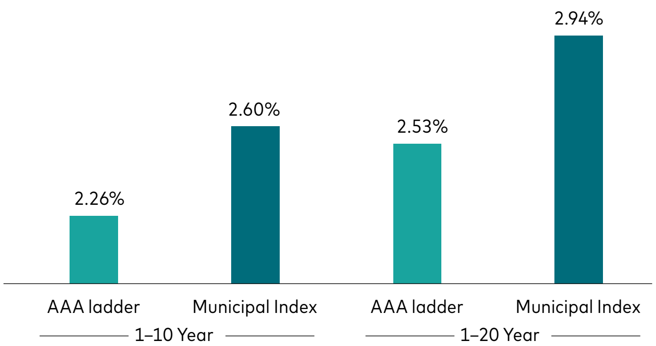
We are opportunistically positioning the higher-grade portion of our funds to sell to those investors who appear to be buying regardless of value. Meanwhile, we feel comfortable moving out longer in duration and deeper into credit. That's because of attractive spreads, solid fundamentals, supportive technical factors, and the ongoing credit management our team offers.

AAA muni/Treasury ratios



Sources: Vanguard and Bloomberg, based on the Municipal Market Data AAA curve, as of March 31, 2023.

Yield comparison: AAA muni ladder strategy versus indexes



Note: Neither approach incorporates fees. Ladders were constructed using the BVAL AAA municipal curve, equally weighting allocations to each annual term-to-maturity, starting at 1 year and ending at 10 or 20 years, respectively.
Source: Bloomberg, as of March 31, 2023.

Soft issuance has been a tailwind for valuations. While many factors are involved, the lack of a primary market during the past several months is likely the result of higher costs of debt and cash-rich balance sheets.

The flow of assets into municipal funds has slowed since the end of February as volatility spiked. We expect inflows to resume once the market finds firmer footing.

Implications for Vanguard funds

- Municipal credit remains strong.
- For investors with longer investment horizons, positive municipal returns in March demonstrated the value of higher duration.
- Municipal funds offer the expertise to drive outperformance through: diversifying around rich segments of the market, adding credit risk with a deep bench of analysts, and exploiting market inefficiencies.

Vanguard active bond funds or ETFs

		Admiral™ Shares or ETF ticker symbol	Expense ratio*
Vanguard active bond funds or ETFs	**Treasury/Agency**		
	GNMA†	VFIJX	0.11%
	Inflation-Protected Securities	VAIPX	0.10
	Intermediate-Term Treasury	VFIUX	0.10
	Long-Term Treasury	VUSUX	0.10
	Short-Term Federal	VSGDX	0.10
	Short-Term Treasury	VFIRX	0.10
	Investment-grade corporate		
	Core Bond	VCOBX	0.10%
	Core-Plus Bond	VCPAX	0.20
	Intermediate-Term Investment-Grade	VFIDX	0.10
	Long-Term Investment-Grade†	VWETX	0.12
	Multi-Sector Income Bond	VMSAX	0.30
	Short-Term Investment-Grade	VFSUX	0.10
	Ultra-Short-Term Bond	VUSFX	0.10
	Ultra-Short Bond ETF	VUSB	0.10
	Below-investment-grade		
	High-Yield Corporate†	VWEAX	0.13%
	Global/international		
	Emerging Markets Bond	VEGBX	0.40%
	Global Credit Bond	VGCAX	0.25
Vanguard active municipal bond funds	**National municipal**		
	Ultra-Short-Term Tax-Exempt	VWSUX	0.09%
	Limited-Term Tax-Exempt	VMLUX	0.09
	Intermediate-Term Tax-Exempt	VWIUX	0.09
	Long-Term Tax-Exempt	VWLUX	0.09
	High-Yield Tax-Exempt	VWALX	0.09
	State municipal		
	California Intermediate-Term Tax-Exempt	VCADX	0.09%
	California Long-Term Tax-Exempt	VCLAX	0.09
	Massachusetts Tax-Exempt‡	VMATX	0.13
	New Jersey Long-Term Tax-Exempt	VNJUX	0.09
	New York Long-Term Tax-Exempt	VNYUX	0.09
	Ohio Long-Term Tax-Exempt‡	VOHIX	0.13
	Pennsylvania Long-Term Tax-Exempt	VPALX	0.09

Active fixed income leadership team

Sara Devereux
Global Head of Fixed Income Group
30 years' experience

Chris Alwine, CFA
Global Head of Credit and Rates
32 years' experience

Roger Hallam, CFA
Global Head of Rates
22 years' experience

Paul Malloy, CFA
Head of U.S. Municipals
17 years' experience

Active fixed income at Vanguard

$226B
Taxable bond AUM
16 funds/ETF**

$180B
Municipal bond AUM
5 national funds/
7 state-specific funds

25+
Portfolio managers

35+
Traders

60+
Credit research analysts

130+
Dedicated team members

* As reported in each fund's prospectus. A fund's current expense ratio may be higher or lower than the figure shown.
† Investment advisor: Wellington Management Company LLP.
‡ Investor Shares available only. There is no minimum investment required for advised clients.
** Includes funds advised by Wellington Management Company LLP.
Note: Data as of March 31, 2023.

For more information about active fixed income, speak with your financial advisor.

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Vanguard ETF Shares are not redeemable with the issuing Fund other than in very large aggregations worth millions of dollars. Instead, investors must buy and sell Vanguard ETF Shares in the secondary market and hold those shares in a brokerage account. In doing so, the investor may incur brokerage commissions and may pay more than net asset value when buying and receive less than net asset value when selling.

Past performance is no guarantee of future results. All investing is subject to risk, including possible loss of principal. Diversification does not ensure a profit or protect against a loss.

Bonds of companies based in emerging markets are subject to national and regional political and economic risks and to the risk of currency fluctuations. These risks are especially high in emerging markets.

High-yield bonds generally have medium- and lower-range credit-quality ratings and are therefore subject to a higher level of credit risk than bonds with higher credit-quality ratings.

Bond funds are subject to interest rate risk, which is the chance bond prices overall will decline because of rising interest rates, and credit risk, which is the chance a bond issuer will fail to pay interest and principal in a timely manner or that negative perceptions of the issuer's ability to make such payments will cause the price of that bond to decline.

Investments in bonds issued by non-U.S. companies are subject to risks including country/regional risk and currency risk.

Although the income from a municipal bond fund is exempt from federal tax, you may owe taxes on any capital gains realized through the fund's trading or through your own redemption of shares. For some investors, a portion of the fund's income may be subject to state and local taxes, as well as to the federal Alternative Minimum Tax.

Be aware that fluctuations in the financial markets and other factors may cause declines in the value of your account. There is no guarantee that any particular asset allocation or mix of funds will meet your investment objectives or provide you with a given level of income.

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