JULY 2024

Active Fixed Income Perspectives Q3 2024: The high road

Key takeaways

Performance

Bond yields initially moved higher in the second quarter in response to hotter-than-expected inflation readings early in the year, but then drifted down as growth and inflation moderated. Lower-quality credit performed best as spreads widened modestly across taxable sectors and narrowed in municipals.

Looking ahead

Inflation has decelerated to levels that now allow the Federal Reserve to cut interest rates if needed, which improves the total-return prospects for bonds. We don't foresee significant Fed easing in 2024, but investors shouldn't miss the opportunity to lock in attractive yields and potentially benefit from the price appreciation that would occur when rates eventually decline.

Approach

All-in yields remain attractive across fixed income sectors, but tight spreads keep us cautious about below-investment-grade risk.

Tax-exempt credit still offers more room for spreads to tighten. Higher-rated municipal bonds look rich because of separately managed account (SMA) buying, but considerable value remains, especially in the middle tiers of credit.

Sara Devereux Global Head of Fixed Income Group

Chris Alwine, CFA Global Head of Credit

Roger Hallam, CFA Global Head of Rates

Paul Malloy, CFA Head of U.S. Municipals

Dan Larkin, CFA Senior Investment Specialist Active Fixed Income

Nathaniel Earle, CFA Senior Investment Specialist Active Fixed Income

Contents

Taking the high (quality) road

In her book *How to Decide: Simple Tools for Making Better Choices*, cognitive psychology expert Annie Duke says: "Most decisions have a mix of upside and downside potentials. When figuring out whether a decision is good or bad, you are essentially asking if the upside potential compensates for the risk of the downside."

We are always asking that question. Getting to the right answer, however, requires an assessment of potential market outcomes well beyond a base case view. For us, constructing optimal portfolios starts with a detailed analysis across a range of economic scenarios. A probability-weighted approach provides a better foundation to identify opportunities and manage risks.

In recent months, the worst-case fear for bonds—a reacceleration in inflation and likely higher interest rates—has faded. Growth indicators have been somewhat mixed, but there are more signs of weakness and recent inflation readings have been lower than expected.

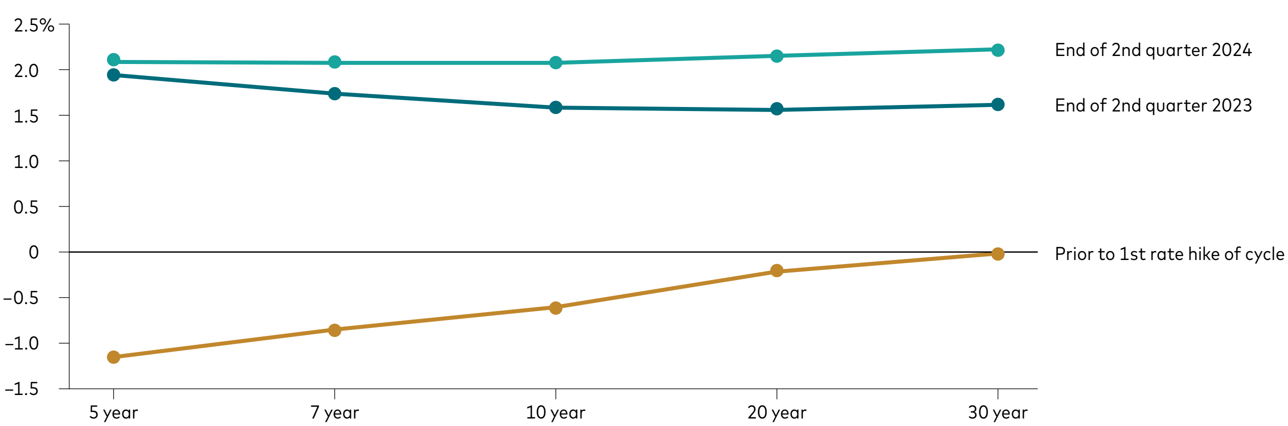
We believe we are approaching a turning point in the economic cycle, which historically has been a good environment for higher-quality bonds. In our view, the risk of a near-term downturn is still low, but we are mindful that a prolonged period of restrictive policy rates poses a risk to the most vulnerable fixed income segments, where most of the good news has been priced in.

Yields well above inflation

Investors should note that real interest rates—the expected return from yields after expected inflation is subtracted—remain near recent historical highs. The entire real yield curve is higher today than it was a year ago and two to three percentage points higher than the day before the Fed started raising rates.

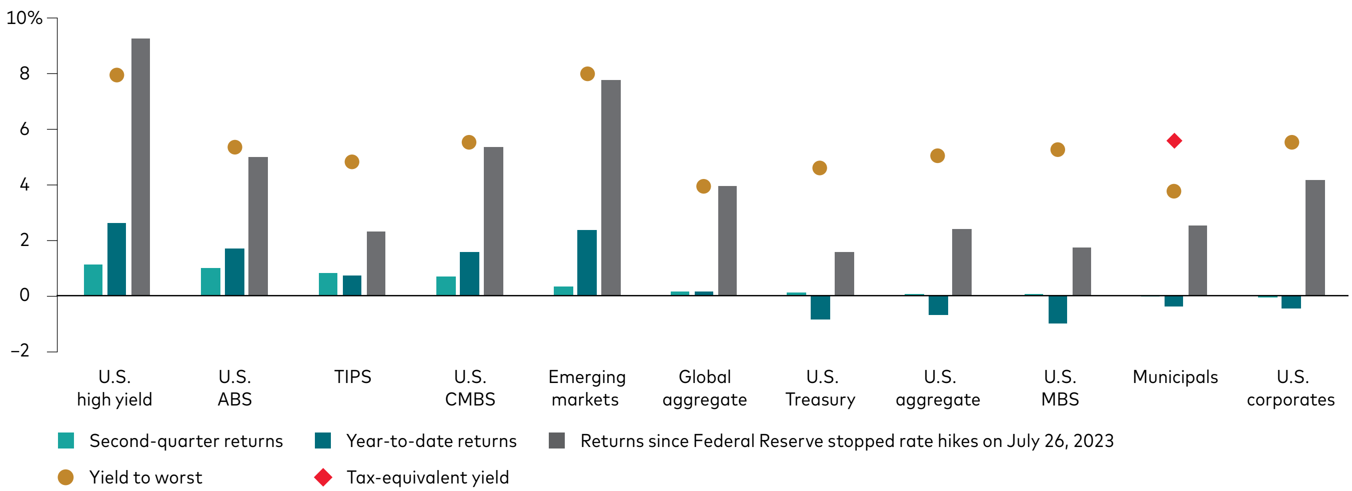
Higher starting yields imply higher returns and better downside hedging. Even if rates generally moved up, higher yields today—relative to the beginning of 2022—can cushion losses from price changes.

Treasury par real rates curve



Notes: March 16, 2022 is the day before the Federal Reserve began raising interest rates in the latest hiking cycle.
Source: U.S. Treasury.

Fixed income sector returns and yields



Note: The municipal tax-equivalent yield is calculated using a 40.8% tax bracket, which includes a 37.0% top federal marginal income tax rate and the 3.8% Net Investment Income Tax to fund Medicare.

Sources: Bloomberg indexes and J.P. Morgan, as of June 30, 2024.

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.

Economy, policy, and markets

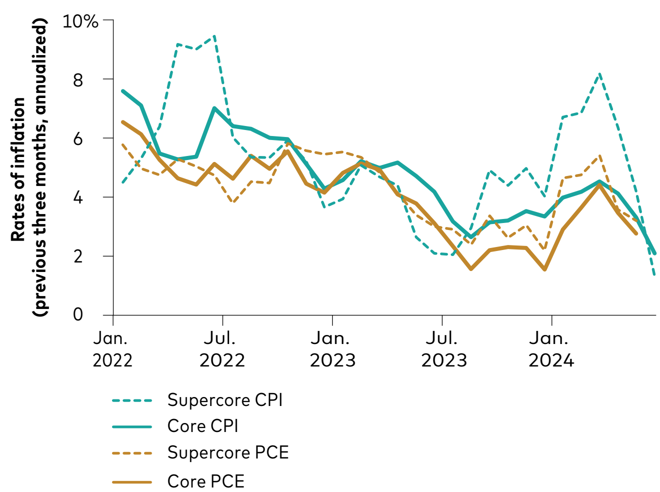
It's been almost a year since the Fed last raised its policy rate. Despite substantially higher borrowing costs, the U.S. economy continues to show strength. After a brief scare in the first quarter, inflation appears to be back on a better path. While recent readings are encouraging, our forecasts see Core PCE inflation trending sideways around the high 2% range into 2025, which underlines the challenge of slowing the inflation rate to the Fed's target.

Stable growth and sticky inflation alongside a firm but gradually normalizing labor market are consistent with the market narrative that policy rates are likely to remain higher for longer. Our base case view continues to be that the Fed will remain on hold for most, if not all, of this year. Monetary policy is highly data-dependent, and the data have shown that it is too soon for the Fed to start cutting.

If the economy were to weaken faster than expected, the more modest inflation trend we've seen recently would allow the Fed to cut rates if needed.

Growth outside the U.S. has improved and progress on inflation has allowed some central banks to begin to ease. However, the Fed will dictate, to varying degrees, what rate-cutting cycles will look like globally.

Rates of inflation (previous three months, annualized)



Source: Bureau of Labor Statistics, Bureau of Economic Analysis, as of June 30, 2024. PCE data as of June 30, 2024 not yet reported as of publication.

Portfolio positioning and strategy

Higher-for-longer rates can be a support for markets if certain conditions hold. If inflation continues to slow gradually, markets will have less uncertainty about the Fed's next move. If growth is good enough, cracks are less likely to appear in credit. Then markets can hold within predictable ranges while higher yields generate more attractive returns for investors.

The risk we worry about is the potential for "higher for longer" to become "higher until something breaks." Valuations and credit quality are still the key factors driving our portfolio strategy.

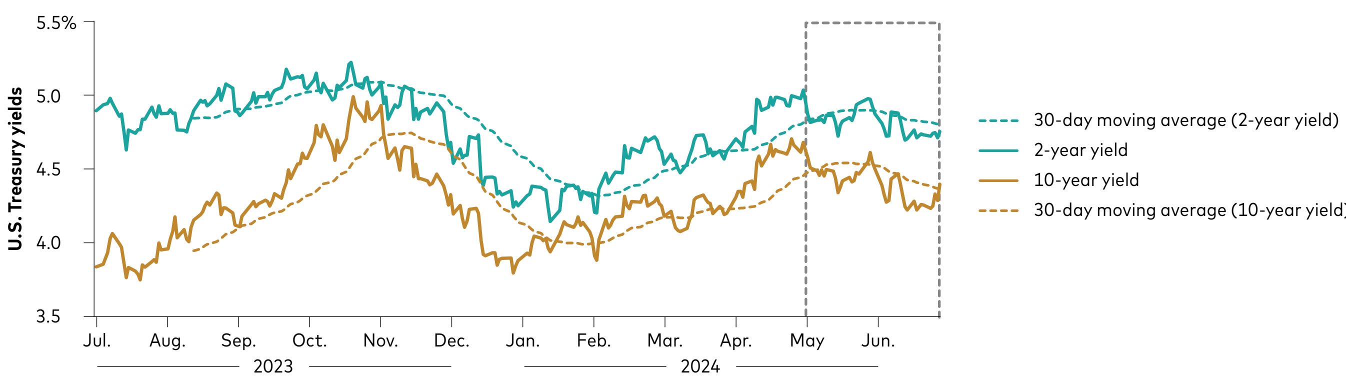
- In our view, rates markets are more appropriately priced for that uncertainty while the lower-quality segments of credit are not.

Rates

In U.S. rates, we've been trading the range in 10-year Treasuries over recent months, between 4.25% and 4.75%. Recent data have likely shifted the range lower over the near term, to 4.00%–4.50%, but rising fiscal concerns could present upside risks to yields. We are biased to add duration at this point in the cycle and will look for attractive risk/reward opportunities to do so if rates test the top end of our expected range.

- On *curve positioning*, we continue to look for ways to benefit from a steeper yield curve. Timing is challenging, but thematically we see several factors that should contribute to a more typical upward-sloping curve. Near term, we are more tactical given that steepener trades have a negative carry profile as long as the yield curve remains inverted.
- *Outside the U.S.*, we see opportunities in global rates markets. We continue to hold a short position in 10-year Japanese government bonds. We are also long Spain and Greece while being short France and Germany.
- We also continue to see value in *agency mortgage-backed securities* and maintain our overweight to bonds with a more stable cash-flow profile.
- Over the quarter, our portfolios exited positions in front-end *Treasury Inflation-Protected Securities* as the positive seasonal impact becomes less favorable over the coming months.

Treasury yields shifted lower in the second quarter



Source: Bloomberg, as of June 30, 2024.
Past performance is no guarantee of future returns.

Credit

Our outlook for credit is positive for the near term, but downside risks are more prevalent in lower-quality segments that have benefited from the "Goldilocks" environment that's driven spreads lower over the last eight months.

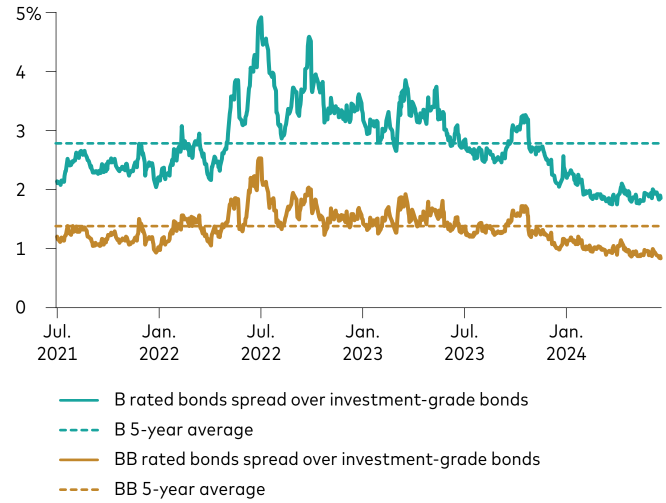
Broadly, we still see strength in underlying credit fundamentals, and supply/demand dynamics look more favorable now that we've made it through the largest wave of new issuance for the year.

- *Investment-grade credit* should perform well across a range of economic scenarios. Higher-rated bonds are better positioned if borrowing costs remain higher for longer, but they would also be more resilient in a downturn. Spreads would widen if the economy slows quickly, but total returns should be supported by the corresponding decline in rates.
- *High-yield bonds* are more vulnerable in both scenarios and offer too narrow a spread premium to justify a large allocation.

With spread valuations stretched, our strategy is biased toward *higher-quality credit* and a focus on maximizing yield while reducing our portfolio's sensitivity to broad market risk. We like the opportunities at the front end of the curve in financials, investment-grade emerging markets, and asset-backed securities.

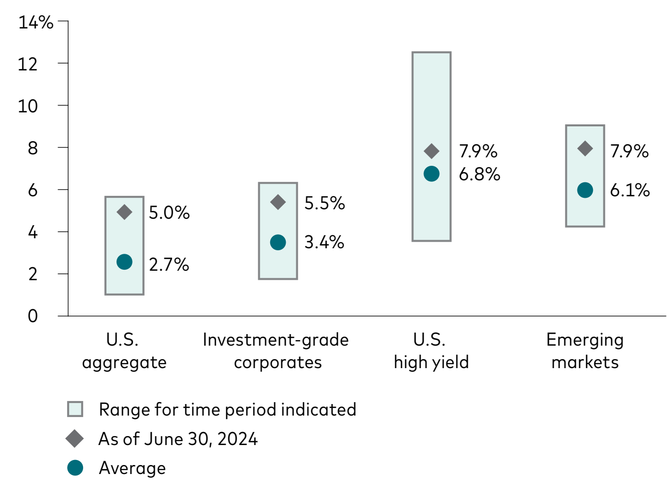
This strategy allows our portfolios to benefit if credit continues to perform well. But if the broader economy weakens, our more defensive approach should hold up better and provide room to add credit back at more attractive prices.

High-yield corporate spreads above investment-grade well below five-year averages



Source: Bloomberg, as of June 30, 2024.

Yields remain higher than long-term averages



Note: Ranges reflect the 15 years ended June 30, 2024, for U.S. aggregate, investment-grade corporates, and U.S. high yield. For emerging markets, the range reflects the 10 years ended June 30, 2024, because of the limited history of the data set.

Sources: Bloomberg indexes and J.P. Morgan.

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.

Current positioning in taxable portfolios

	Exposure	View	Strategy
Rates	U.S. duration & curve	• FOMC has pushed back on the timing of the first cut. Softer Q2 '24 inflation readings raise the prospect of more dovish outcomes. • 10-year Treasury yield range has likely shifted lower, to around 4.25%. Better inflation data lower the near-term risk of a sell-off in yields. • Yield-curve-steepening trades are thematically attractive, but timing is a challenge.	• Neutral duration, biased to add exposure toward 4.5% in 10-year Treasury yields. • Positioned in steepener trades with a less negative carry profile.
	Global duration & curve	• Better growth/sticky inflation resulted in a "hawkish cut" from European Central Bank. • Bank of Japan has more to do on policy normalization. Potential for July rate hike and asset-purchase tapering.	• Long Spain & Greece, short France and Germany. • Short 10-year Japanese gov't bonds.
	MBS/agencies	• Delayed Fed easing represents headwind for the sector. • Spreads remain within our 40bp–60bp fair value range. • Real money and dealer positioning are significantly long.	• Remain overweight MBS sectors (agency MBS, CMOs, and CMBS). • Trimmed exposure as deteriorating technicals have lowered risk/reward.
Credit	Investment-grade corporates	• Spreads have widened modestly but remain well supported by strong demand. • Fundamentals remain healthy and rich valuations are justified given the economy and balance sheet health. • Valuations are attractive in European corporates.	• Opportunities in BBB industrials and front-end financials. • Tight spreads limit upside, but higher quality should hold up even if economic conditions weaken. • Would look to add exposure if spreads widen.
	High-yield corporates	• Credit fundamentals have improved and default rates have declined. • Technicals remain supportive, with most activity tied to refinancing. • We remain cautious mainly because of tight valuations, particularly in higher-quality names.	• Maintaining a lower-than-average allocation given spreads offers little protection against adverse outcomes. • Focus is on bottom-up security selection as dispersion across issuers remains high.
	Emerging markets	• Reduced EM overweight in April, ahead of recent spread widening. • We expect credit fundamentals to remain supportive and new issuance to be modest. • Recent spread widening offers an opportunity to add back exposure to bonds that have adequately repriced.	• Focused on relative value opportunities while valuations remain stretched. • We like countries with greater economic resilience and more defensive bonds on the curve.
	Structured products	• Valuations are attractive. ABS and CMBS are cheap relative to IG corporates. • We remain cautious, but the commercial real estate market is showing signs of stabilization and transaction volumes are starting to pick up.	• Adding less liquid AAA rated ABS that offer attractive spread relative to the risk. • In CMBS, 5-year bonds are attractive in absolute terms and relative to higher-rated corporates.

Municipal bonds

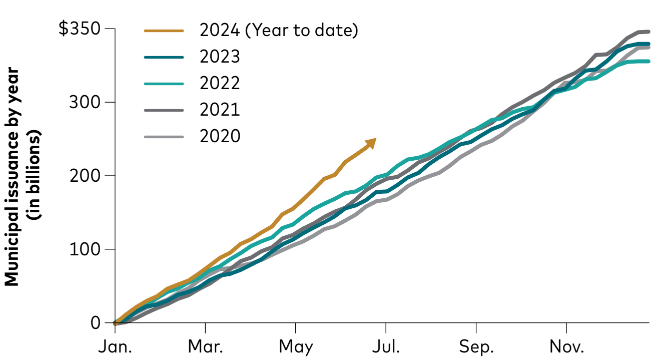
Municipals continue to be better situated to offer higher tax-exempt income than they have been in the past decade. While some lower-rated sectors like higher education will still experience credit-related challenges, the vast proportion of the market exhibits strong fundamentals. With the Fed's next move more clearly trending toward an interest rate cut rather than a hike, investors can allow themselves to be upbeat for the next 12 months in municipal debt.

Record supply is balanced with strong demand ... or is it?

We've been fielding questions on issuance, usually from clients hearing that fewer new muni bonds have been issued in 2024. It's a nuanced subject that leaks into other aspects of muni investing.

Cumulative issuance in 2024 has, surprisingly, trended far higher through June 30 than it has in years. While a "normal" level of annual issuance in this market is ambiguous—various yield environments and tax changes over time have clouded averages—the amount of clearance above prior years' levels is meaningful: 42% more issuance than this time last year, and 12% more than the previous high in 2015 (through June 30 of that year).

Tax-exempt municipal issuance by year



Source: Bloomberg, as of June 30, 2024.

At the same time, municipal fund flows have been mostly positive all year. Our traders report that aggregate demand for new bonds has been fierce, with many new issues being many times oversubscribed.

One may think that this is leading to a natural balance, with heavy supply being met by healthy demand. However, these higher-level data obscure the fact that very little issuance has come from the middle rungs of municipal credit (A through BB rated bonds). BBBs, for instance, make up less than 6% of the Bloomberg Municipal Bond Index. In any given period, a strong supply of such credits is less than assured.

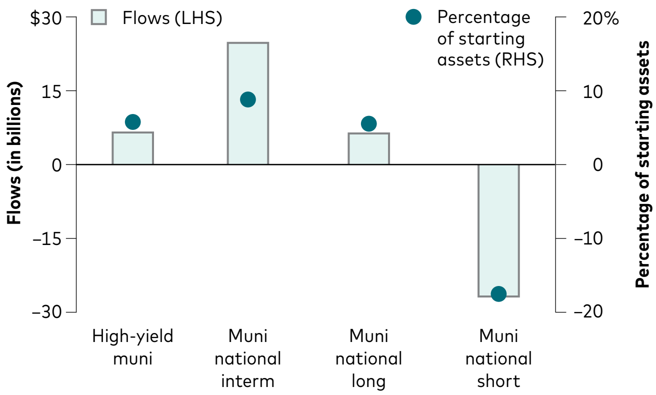
Demand affects credit spreads

Funds are the primary buyers of middle- and lower-rated bonds in the municipal bond world. As a result, flows into these products have a strong influence on credit spreads. And with both long-term and high-yield funds focusing primarily on longer-maturity debt, demand for such products tends to have a meaningful effect on spreads on that segment of the curve. The effect is similar for short-term funds on spreads at the short end of the curve.

As mentioned last quarter, fund-buying has recently concentrated on long-term and high-yield municipal funds. While this general trend has been prevalent since the beginning of 2023, high-yield fund demand has been particularly strong year to date in 2024. Concurrently, shorter-term muni funds have experienced substantial outflows. This combination has led to meaningfully wider credit spreads, and thus greater opportunities, at the short end of the curve.

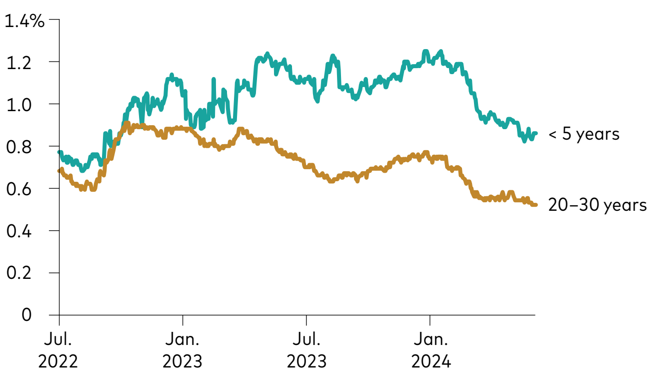
Flows into long and intermediate funds, outflows from short-term funds

(Since January 1, 2023)



Source: Morningstar, Inc., as of May 31, 2024.

Municipal spreads: BBB yields minus AAA yields



Source: Bloomberg indexes as of June 30, 2024.

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.

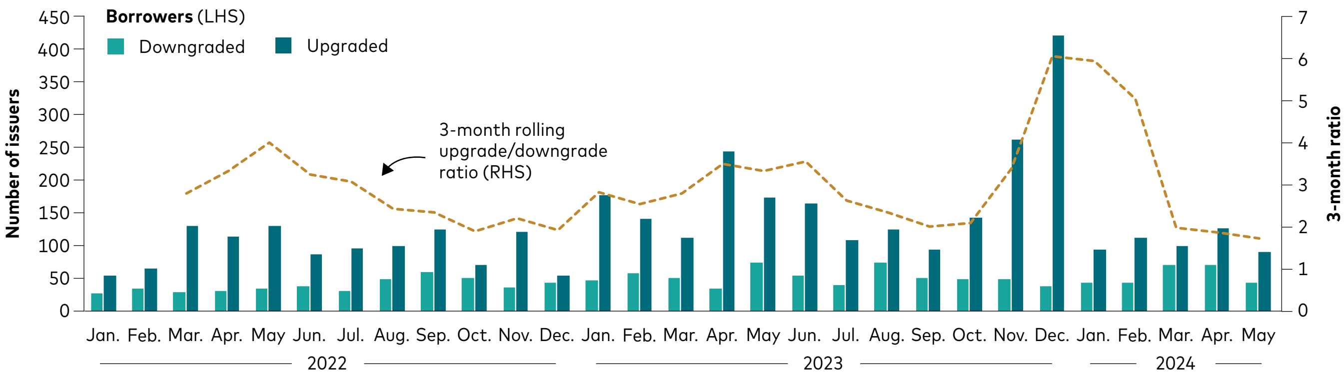
Meanwhile, among higher-rated munis, valuations at the short end of the curve continue to look very rich relative to Treasuries. As long as managers of SMAs, who tend not to focus on relative value, continue to buy securities in this segment of the market, there is little reason to expect that valuations will improve there.

Relative to Treasuries, tax-exempt yields would still favor the longer end of the yield curve for many higher-income investors.

An asset class still on the uptrend

Municipal issuers continue to exhibit strong balance sheets, bolstered by pandemic-era stimulus. While the excesses of that period are wearing away, prudent financial decision-making continues to benefit ratings activity. While downgrades have been subdued for some time, rating upgrades have been increasing and were especially strong in the fourth quarter of 2023. Our role as active managers is to move ahead of rating changes, but the aggregated data do show the ongoing strength of the sector.

Monthly total borrowers downgraded and upgraded



Source: Bloomberg Intelligence, as of May 20, 2024.

Current positioning in tax-exempt portfolios

Exposure	View	Strategy
Credit allocation	• A technically supportive environment favors an overweight to credit overall. • With outflows from short-term funds and demand for longer funds, spreads over AAA municipals are most attractive in the short end of the curve.	• Maintain exposure in sectors like housing and prepaid gas. • Selectively add exposure in sectors with negative headlines (e.g., universities). • Primary markets are screening rich, so we use more secondary markets. • Heavy focus on valuations in conditions where many investors are simply attempting to maximize yield.
Structure	• A historically diverse range of coupons and higher yields places convexity management front and center for risk management and alpha opportunity.	• Underweight 4% coupons. • Overweight lower coupons for upside, and overweight 5% coupons.
Duration/curve	• Without any clear dislocation of municipal yields, look to use duration primarily as a credit hedge. • Valuations in higher-rated bonds are historically rich up to 10-year maturities because of SMA buying.	• Overweight duration proportionate to risk contribution from credit exposure. • Barbell curve positioning, with heavier exposures in cash and 12–15-year bonds to take advantage of roll-down effects into SMA demand.

Vanguard active bond funds and ETFs

Vanguard active bond funds and ETFs		Admiral™ Shares or ETF ticker symbol	Expense ratio*
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 Bond ETF	VCRB	0.10
	Core-Plus Bond	VCPAX	0.20
	Core-Plus Bond ETF	VPLS	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
In industry since 1992

Chris Alwine, CFA
Global Head of Credit
In industry since 1990

Roger Hallam, CFA
Global Head of Rates
In industry since 2000

Paul Malloy, CFA
Head of U.S. Municipals
In industry since 2005

Active fixed income at Vanguard

$222B
Taxable bond AUM
19 funds/ETFs**

$185B
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 June 30, 2024.

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

Connect with Vanguard® • advisors.vanguard.com • 800-997-2798

For more information about Vanguard funds or Vanguard ETFs, visit advisors.vanguard.com or call 800-997-2798 to obtain a prospectus or, if available, a summary prospectus. Investment objectives, risks, charges, expenses, and other important information about a fund are contained in the prospectus; read and consider it carefully before investing.

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. U.S. government backing of Treasury or agency securities applies only to the underlying securities and does not prevent share price fluctuations. Unlike stocks and bonds, U.S. Treasury bills are guaranteed as to the timely payment of principal and interest.

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.

CFA® is a registered trademark owned by CFA Institute.

Vanguard®

FAFIXINC 072024