

OCTOBER 2025

Active Fixed Income Perspectives Q4 2025: Caught in the crosswinds

Key takeaways

Performance

Bonds have delivered this year. Higher coupons combined with price appreciation from a decline in yields and further spread compression has boosted bond returns across sectors. Year to date as of September 30, the broader U.S. bond market as measured by the Bloomberg US Universal Index has produced returns of 6.31%. Our outlook anticipates that conditions for strong performance will continue.

The big picture

The labor market is realigning to a lower trajectory, and the impact from tariffs will build into 2026. However, positive growth drivers are on the horizon, which should help the economy over the coming quarters. With additional rate cuts on the way, we see an opportunity for investors to lock in durable yields further out on the curve.

Our approach

Strong investor demand has pushed spreads even tighter in taxable credit, despite near-record September issuance. We expect credit to continue to perform well and are leaning into segments that have lagged in recent tightening. In municipals, investor flows have returned and there's considerable value further out on the curve and in coupon and call selection.

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Taxable bonds recorded positive performance across sectors during the quarter. Yields ended the quarter slightly lower, with the front end outperforming the long end, resulting in a steeper curve. Credit spreads narrowed further across sectors as economic conditions remained supportive and investor demand exceeded near-record new supply. U.S. credit spreads touched their lowest levels since 1998. Mortgage-backed securities also performed well, aided by a decline in implied interest rate volatility.

The Fed gets proactive

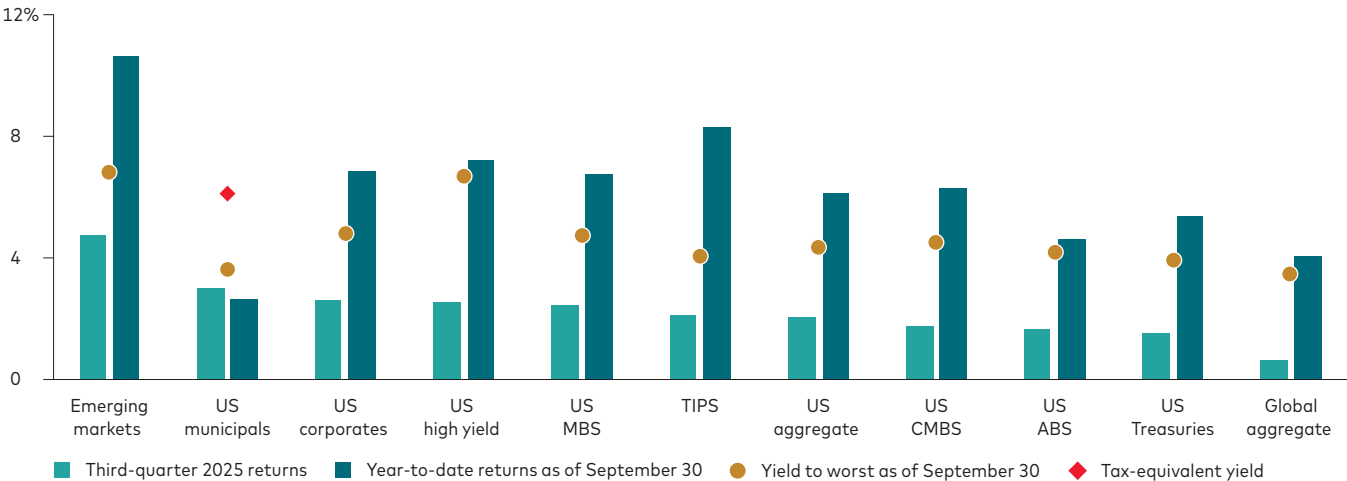
After a nine-month pause, signs of labor market weakness opened the door for the Fed to lower the federal funds rate by 25 basis points in September and signal two additional cuts before the end of the year. Fed Chair Jerome Powell called the decision a "risk management cut,"

suggesting a proactive stance toward normalizing monetary policy in support of the economy. But he also acknowledged that there are no risk-free paths for monetary policy right now.

Inflation risks remain, but the Fed can assess tariff and non-tariff inflation separately, as long as long-term inflation expectations remain anchored. If that holds, we expect the Fed to look through tariffs as a one-time price increase.

Going forward, the pace and depth of cuts will be dependent on labor market and inflation outcomes, as well as the evolving composition of the Federal Open Market Committee. We expect the Fed to deliver more rate cuts this year and into 2026, but not as many as the approximately four additional cuts that the market has priced in through next year.

Fixed income sector returns and yields



Notes: 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. Yield to worst represents the lowest yield possible for a security given the current price, taking into account both call dates and maturity.

Indexes used in chart: The following indexes are represented in the sector returns and yields chart: J.P. Morgan EMBI Global Diversified Index, Bloomberg US Municipal Index, Bloomberg US Corporate Index, Bloomberg US Corporate High Yield Index, Bloomberg US Mortgage Backed Securities Index, Bloomberg US Treasury Inflation-Linked Bond Index (Series-L), Bloomberg US Aggregate Index, Bloomberg CMBS: Erisa Eligible Index, Bloomberg US Asset-Backed Securities Index, and Bloomberg Global Aggregate Index.

Sources: Bloomberg indexes and JPMorgan, as of September 30, 2025.

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.

A job market in transition

As evidenced by the August jobs report and downward revisions to prior months, the labor market is realigning to a new equilibrium. Both the demand for and supply of labor have declined this year in roughly even amounts. That's limited an upward drift in the unemployment rate, but the balance is fragile and there are downside risks. A year ago, the breakeven rate of job creation that would keep the unemployment rate steady was near 150,000 jobs per month. Since then, a faster pace of retirements and low immigration rates have reduced the supply of workers while companies have been conservative about hiring new workers. By the end of 2025, we expect the breakeven rate to fall to 50,000 per month and hold there through next year. Additionally, artificial intelligence (AI)-related productivity gains and other factors may further subdue demand for labor over the coming quarters.

Competing policy forces

Tariffs continue to shape our outlook. The direct effects have been slow to build in 2025, but economic pressures will persist as the realized tariff rate increases. We estimate about one-third of the new tariff impact has passed through already and expect about half to be reflected by year-end, with the balance to come through next year.

Looking forward, several pro-growth policies are projected to exert a greater influence in the coming year, which should help offset the economic drag caused by tariffs. Tax cuts and deregulation are expected to support the economy. Notably, the One Big Beautiful Bill Act is expected to increase GDP by 0.4% in 2026. Sustained momentum in AI investment has been significant this year and is expected to persist throughout next year. In 2026, we expect companies to experience productivity gains as a direct result. Combined with our expectations for looser monetary policy, we see this policy mix as a net positive for the economy over the coming quarters.

A delicate balance

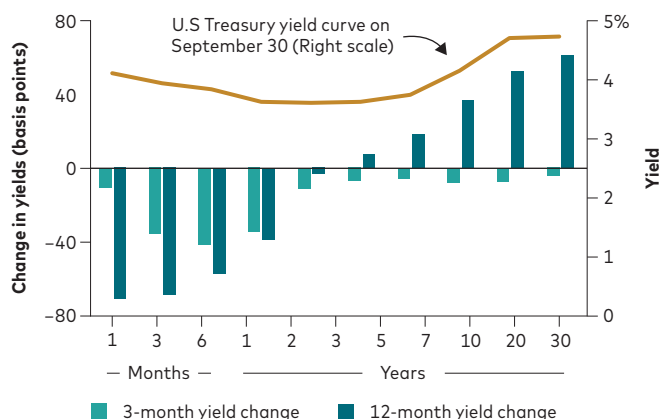
Our medium-term outlook is positive for rates and credit. We expect to see U.S. growth improve as the tariff-driven inflation shock subsides. The possibility of a recession is the main risk to credit spreads, but it is more likely to come from an exogenous shock than a policy mistake. Across our portfolios, we are balancing our constructive economic view against full valuations and the risk that the economy slows more than anticipated in the near term.

U.S. rates and yield curve

Yields across the curve held mostly steady before rallying late in the quarter in response to weaker-than-expected U.S. payroll data and have since settled into a lower range. The 10-year U.S. Treasury, for instance, had held between 4.25% and 4.50% over the past few months, but has traded between 4.0% and 4.25% in recent weeks.

The curve steepened over the quarter as front-end yields declined more than those on the long end. This broader trend has remained intact since the Fed stopped raising rates in 2023. Back then, the yield curve was deeply inverted, with 2-year Treasury yields a full percentage point higher than 30-year Treasury yields. As of September 30, 30-year yields were 112 basis points higher than 2-year yields, offering investors more term premium compensation for taking on longer duration.

U.S. Treasury yield curve has reversed course in past year



Source: Bloomberg, as of September 30, 2025.

Past performance is no guarantee of future returns.

We expect the Fed to deliver additional insurance cuts in this year. However, the path in 2026 is less clear. For example, cuts this year may provide enough relief for the labor market, reducing the need for future cuts.

We are maintaining a strategically neutral U.S. duration position, since we see upside and downside risks to yields as balanced. We continue

to favor exposure in the belly of the U.S. curve, as intermediate duration still offers a balance of yield, cushion against equity drawdowns, and less exposure to term premium risks that could put upward pressure on long-term yields.

U.S Treasury yield curve: Steep and steeper



Source: Bloomberg, as of September 30, 2025.

Past performance is no guarantee of future returns.

Non-U.S. rates

Long-end yields across the developed world have moved higher this year, which reflects a shifting preference from investors who are requiring a higher premium to own longer-duration bonds of countries with rising debt levels. We are positioned for that trend to continue in Europe, Canada, and Australia.

In Germany, its fourth-quarter issuance plans confirmed our expectations for a dramatic increase in government bond issuance. We believe that will put upward pressure on long-end yields and expect 30-year bunds to underperform 30-year U.K. gilts. We remain constructive on government bonds in Spain and Greece, where we observe continued favorable credit trends.

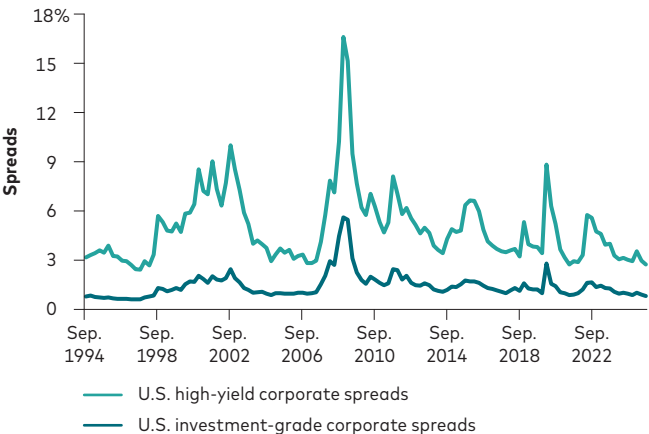
We believe the market's expectation for Bank of Japan (BoJ) rate hikes is insufficient relative to the building inflation risks. We continue to expect the yields to move higher and the curve to flatten.

Credit outlook

Fixed income credit has performed well across sectors and credit-quality tiers. Spreads trended lower over the quarter, with investment-grade credit 10 basis points tighter and high-yield 30 basis points tighter. Emerging-market (EM) credit has been one of the best-performing segments of the market this year, maintaining that momentum in the third quarter as spreads narrowed 40 basis points.

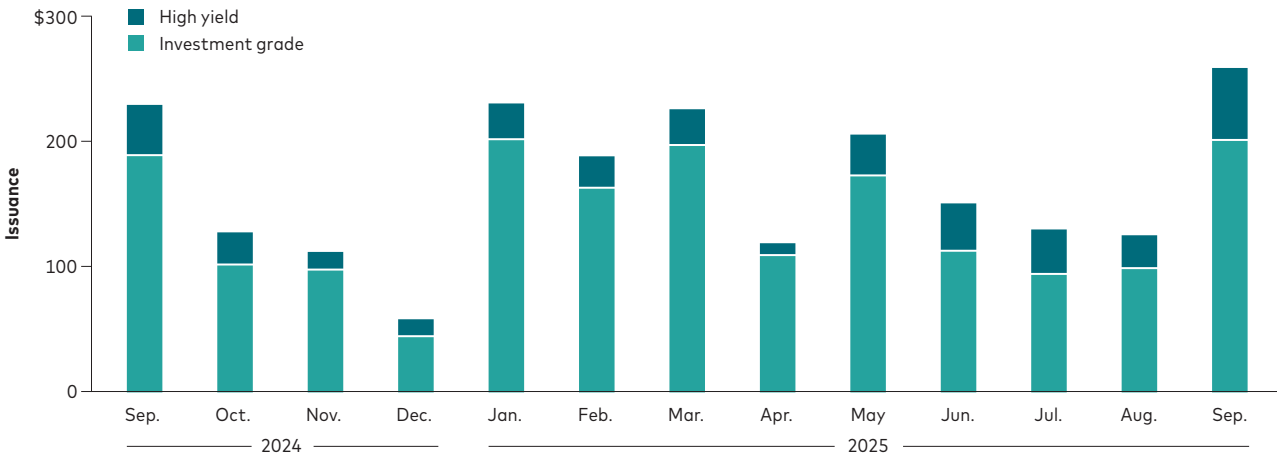
September is typically one of the busiest months for new issuance, and that proved true again as markets saw near-record levels of activity over recent weeks. Market conditions were ideal for issuers looking to refinance into better terms. Borrowing costs have come down as yields have declined from recent peaks. Investor appetite for credit has remained extremely strong: Recent deals have been oversubscribed and come without price concessions for investors.

U.S. corporate spreads sliding lower



Source: Bloomberg, as of September 30, 2025.

U.S. corporate issuance reached new heights in September



Source: Bloomberg, as of September 30, 2025.

We see a positive environment for credit into next year. Corporate leverage is stable, margins are strong, and U.S. consumer debt levels remain lower than they were before the 2020 COVID-19 pandemic. An improving growth outlook and looser monetary policy should keep spreads within recent ranges over the coming months.

Valuations continue to be a key driver for our credit allocation. We hold a lower and more targeted exposure to lower-quality segments. We took advantage of the September issuance surge to add securities that offer attractive carry with sound fundamentals.

Spreads compress across credit markets

	September 30, 2024	June 30, 2025	September 30, 2025	1-year average
U.S. investment-grade corporates	89	83	74	84
Pan-European investment-grade corporates	117	93	80	96
U.S. ABS	64	57	49	54
U.S. CMBS	93	84	75	84
U.S. high yield	295	290	267	294
BB	180	171	168	180
B	285	281	263	284
CCC	642	677	604	622
Emerging markets (USD)	361	321	283	324
Investment grade	115	118	93	116
High yield	660	550	509	567
EM corporates	214	221	187	211

Note: The chart above reflects the option-adjusted spreads (OAS), which is the yield spread added to the U.S. Treasury yield curve to discount the securities' payments to match their market price, using a dynamic pricing model.

The following indexes are used in calculating the spreads: Bloomberg US Corporate Index, Bloomberg Pan-European Aggregate: Corporate Index, Bloomberg US Asset-Backed Securities Index, Bloomberg CMBS: Erisa Eligible Index, Bloomberg US Corporate High Yield Index, Bloomberg US Corporate High Yield Ba Index, Bloomberg US Corporate High Yield B Index, Bloomberg US Corporate High Yield CCC Index, J.P. Morgan EMBI Global Diversified Index, J.P. Morgan EMBI Global Diversified Investment Grade Index, J.P. Morgan EMBI Global Diversified High Yield Index, and J.P. Morgan CEMBI Broad Diversified Index.

Source: Bloomberg, as of September 30, 2025.

Taxable portfolio positioning

Rates

Exposure	View	Strategy
U.S. duration and curve	- There are near-term risks of weaker labor market data, but the growth outlook is likely to improve into 2026. - The Fed may not be able to deliver on the full easing cycle that markets anticipate.	We remain strategically neutral on U.S. duration.
Global duration and curve	- We expect increased German government bond supply to drive bund underperformance vs. the U.K. - Rising term premium pressures could hold global long-end yields higher. - BoJ policy normalization will pressure the Japanese government bond (JGB) yield curve higher and flatter.	- We are short Germany vs. longer-maturity U.K. and peripheral European countries. - We hold curve-steepening exposure in Europe, Canada, and Australia to capture rising global term premium pressures. - We remain short JGBs and are positioned for yield curve flattening.
Mortgage-backed securities (MBS)/agencies	- MBS has performed well as interest rate volatility has stayed low. - Proposed government-sponsored enterprise reform will be difficult and unlikely to result in materially wider MBS spreads.	- Tight valuations constrain our total MBS exposure. - We see security selection opportunities in non-agency residential mortgage-backed securities and sectors that have lagged, like agency commercial mortgage-backed securities (CMBS) and hybrid adjustable-rate mortgages.

Credit

Exposure	View	Strategy
Investment-grade corporates	- AI investment remains robust, and tariff disruption has been manageable. - Investor demand for high-quality yield was more than enough to absorb a near-record September supply surge.	- Spreads reflect strong company credit measures. We remain overweight with a focus on issuer selection. - We still see value in the bank sector. Asset quality is strong, spread levels are reasonable, and regulatory relief is on the horizon. - The AI investment theme has created a wider range of opportunities in the utilities sector. We see the best security selection value lower in the capital structure.
High-yield corporates	- Healthy supply and robust demand highlight the state of the high-yield market. - Lower yields and tighter spreads have spurred a surge in company refinancing. More than 90% of September issuance went toward lowering borrowing costs.	- Our focus is on bottom-up security selection as dispersion across issuers remains high. - CCC rated issuers offer pockets of opportunity.
Emerging markets	- Flows to EM credit have recently accelerated, and the asset class remains underowned, which provides support despite tight valuations. - The underperformance of EM corporates and heavy primary issuance present opportunities to rebuild corporate exposures in high-quality sectors.	- Areas such as the long-end Middle East, Asia, and some distressed names remain expensive and warrant underweights. - Our allocation is positioned for relative value vs. market direction and favors carry over beta, with a focus on spread curve positioning.
Structured products	- Asset-backed securities new issuance has been near-record levels, keeping spreads at attractive levels. - In CMBS, office and multifamily segments remain under pressure, but sectors like industrial, hotels, and even retail are stable and remain areas of opportunity.	- We have been adding exposure to autos, franchise, credit risk transfer, insurance premium, music royalty, and data centers. - We are rotating out of positions that have performed well in recent months and no longer offer compelling value.

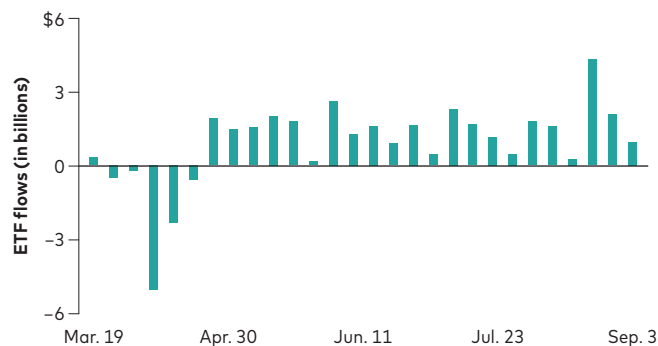
Municipals

The municipal bond market enjoyed a rally in the third quarter, outperforming the Bloomberg US Aggregate Index. Yields moved lower across the curve, but longer maturities delivered the best returns due to higher duration. The key feature of this market remains a historically steep curve with highly attractive long-end valuations and richer pricing in the short end.

Changing course

After consistent curve steepening year to date through August, this trend reversed course in September when the curve flattened. Technical drivers have shifted to support long-end bond returns. Year to date through August, long-term municipal funds experienced outflows in the face of record-setting supply. But both fund and ETF flows surged in mid-September, coinciding with many of our clients seeking value by transitioning to longer-maturity funds.

Weekly mutual fund and ETF flows spiked in September



Source: Investment Company Institute, as of September 24, 2025.

Capitalize on a steep curve

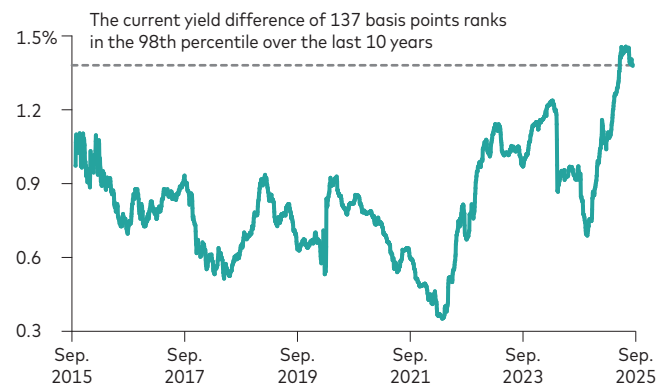
Despite the recent flattening, the municipal AAA curve is still historically steep—especially between 10-year and 30-year maturities. Though the long end is no longer offering exceptional value as it

did in July/August, we still observe highly attractive valuations for tax-sensitive investors. This statement is especially true for highly rated bonds (AAs and AAAs) that showcase economically resilient fundamentals. Our portfolios have been finding the best value in the 15–20-year segment of the curve, which exhibits the optimal carry and roll characteristics.

We believe additional flattening of the municipal curve would require lasting flows into longer-term tax-exempt funds. This outcome, however, may not come to fruition soon, with the prevailing risk of higher term premia across the bond markets. Meanwhile, investors with the requisite risk tolerances can enjoy the yield pickup offered by intermediate, all-curve, and long-term municipal strategies.

The narrative is reversed on the short end, where many high-grade bonds under 5-year maturities are not offering enough yield to compete with U.S. Treasuries on a tax-equivalent basis. Investors seeking short-term exposure can supplement portfolios with lower-rated (and thus higher-yielding) municipal bonds to justify the allocation.

Yield pickup between 10-year and 30-year AAA municipals near 10-year peaks



Source: Bloomberg, as of September 30, 2025.

Past performance is no guarantee of future returns.

Credit and convexity

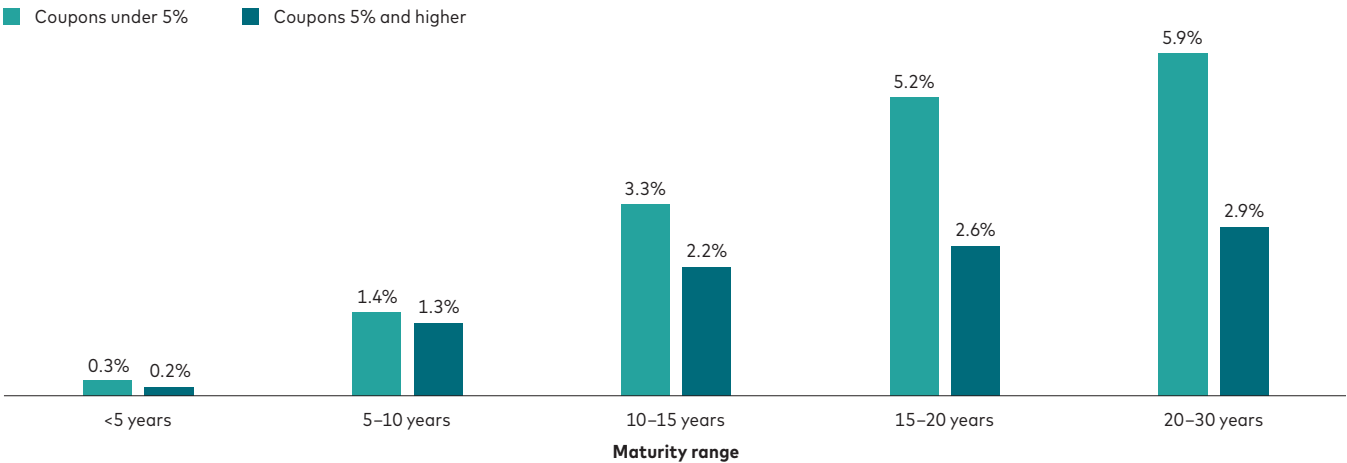
Within credit, there have been headlines around several distressed “mainstream” names in the municipal high-yield market. Many of these issuers reside in the project finance sector that tends to exhibit greater downside risks than other parts of the market. For products heavily allocated to project finance and other highly risky bonds, investors can potentially face market value losses from direct credit deterioration, as well as collateral damage from flows out of “liquidity squeezed” mutual funds. These events highlight the importance of assessing not only manager skill, but also alignment of strategy risks with the investor’s objectives. At Vanguard, our credit analyst team remains vigilant in identifying

such risks and safeguarding our clients. These past few months have highlighted the skills of our team in avoiding deteriorating credits and the benefits of our robust risk management process.

Finally, September provided a prime opportunity for our team to add value through coupon and call selection, as sub-5% coupons materially outperformed. Many of these bonds flipped from discounts to premium pricing through the rally, delivering substantially higher returns than their 5%-plus coupon counterparts. The return difference only becomes more pronounced at longer maturities, highlighting the potential for greater access to this alpha lever in strategies with exposure to the long end of the curve.

Lower coupons outperformed in September

Returns in September 2025



Source: Bloomberg, as of September 30, 2025.
Past performance is no guarantee of future returns.

Tax-exempt portfolio positioning

Exposure	View	Strategy
Credit allocation	- Balance sheets are still strong, with spreads offering attractive carry. - For lower-rated credit (single-A and lower), valuations look "fair" historically, but the pricing is cheap compared with taxable bonds, whose spreads are near all-time tights.	- We maintain positions in lower-rated bonds with ample spread. - Credit trades are currently more focused on issuer/issue selection than broad sector allocations. - Selectively add exposure in sectors with negative sentiment (such as universities and hospitals).
Structure	Steep, volatile yield curves place convexity management front and center.	- We aim to capture gains from convexity trades that outperformed through the September rally. - Avoid bonds trading near par, particularly those with near-term call dates.
Duration/curve	- The current yield curve is one of the steepest in the past decade, leaving the short end quite rich and the long end offering good value. - Going forward, overall duration risks should be balanced, if not favorable.	- We favor longer maturities, particularly for intermediate and long strategies. - Implement slightly long overall duration as a hedge that pairs off against a credit overweight.

Vanguard active bond funds and ETFs

Vanguard active bond funds and ETFs		Ticker symbol	Expense ratio*
Treasury/ Agency	GNMA†	VFIJX	0.11%
	Government Securities Active ETF	VGVT	0.10
	Inflation-Protected Securities	VIPIX	0.07
	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	0.09
	Long-Term Investment-Grade†	VWETX	0.10
	Multi-Sector Income Bond	VMSAX	0.30
	Multi-Sector Income Bond ETF	VGMS	0.30
	Short Duration Bond ETF	VSDB	0.15
	Short-Term Investment-Grade	VFSIX	0.07
	Ultra-Short-Term Bond	VUSFX	0.09
	Ultra-Short Bond ETF	VUSB	0.10
Below- investment- grade	High-Yield Corporate†	VWEAX	0.12%
	High-Yield Active ETF	VGHY	0.22
Global/ International	Emerging Markets Bond	VEGBX	0.35%
	Global Credit Bond	VGCAx	0.25
Vanguard active municipal bond funds			
National municipal	Ultra-Short-Term Tax-Exempt	VWSUX	0.09%
	Short Duration Tax-Exempt Bond ETF	VSDM	0.12
	Limited-Term Tax-Exempt	VMLUX	0.09
	Core Tax-Exempt Bond ETF	VCRM	0.12
	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	0.09
	New Jersey Long-Term Tax-Exempt	VNJUX	0.09
	New York Long-Term Tax-Exempt	VNYUX	0.09
	Ohio Long-Term Tax-Exempt†	VOHIX	0.09
	Pennsylvania Long-Term Tax-Exempt	VPALX	0.09

* 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.

Note: Data as of September 30, 2025.

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

\$498B Vanguard Global Active Bond AUM

\$292B Vanguard Global Active Taxable Bond AUM

\$206B Vanguard Global Active Municipal Bond AUM

25+ Portfolio managers

35+ Traders

60+ Credit research analysts

130+ Dedicated team members

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

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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.

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.

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