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### Coupon Defensiveness in Vogue Once Again

- Long munis sole outperformers
- Premium coupons hold the line
- Climate thoughts on muni investments

### Relative Performance

This week, municipals held their ground while Treasuries staged a notable rally on the short end, creating some interesting shifts in relative value. AAA muni yields were slightly higher across the curve—up 1bps in most spots. Meanwhile, Treasuries moved in the opposite direction on the front end, with two-year yields falling nearly 5bps and five-year down over 3, while the 30-year Treasury actually rose by more than 3bps.

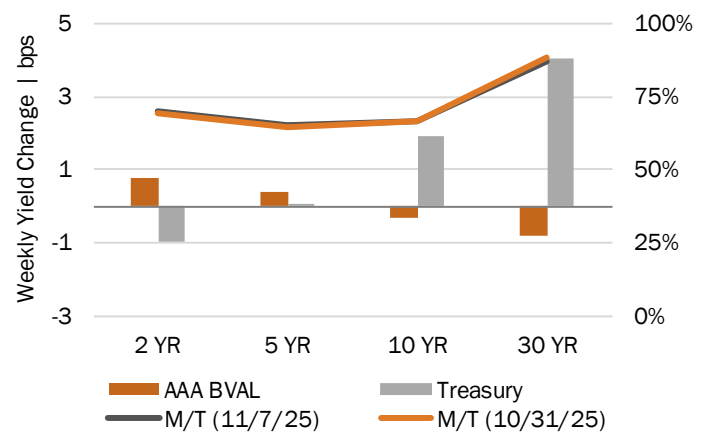
Those moves translated into some ratio adjustments worth noting. The two-year muni/Treasury ratio ticked up to 69.06% from 68.21%, and the five-year rose to 64.42% from 63.71%. The 10-year ratio was essentially flat, while the 30-year ratio slipped over a point to 87.48%. In short, the front end looks incrementally more attractive, while the long end lost a bit of its relative appeal.

Looking ahead, we expect volatility to persist as markets digest Fed messaging and reinvestment flows, absent any real economic data. While there was some shifting in terms of near-term relative value along the curve, a reopening of the US Government could put rate moves in flux, once again.

### Technicals

The municipal market continues to remind investors that structure matters—especially in a higher or rising rate environment. Very few retail buyers spend much time thinking about convexity<sup>1</sup>, but the persistent march higher in rates has exposed vulnerabilities in less-defensive bond structures. It's

FIGURE 1: MUNIS MIXED PERFORMANCE



Data as of November 7, 2025. Spot Muni, Spot AA rates  
Source: Bloomberg

a dynamic that feels eerily familiar to past periods of stress, where duration and coupon composition dictated performance.

### MARKET STRUCTURE: LONG-DATED AND PREMIUM HEAVY

The muni universe remains skewed toward longer maturities, with nearly 40% of outstanding par maturing beyond 15 years.<sup>2</sup> Within that bucket, 5% and 4% coupons dominate, representing almost half of the \$1.5 trillion long-dated segment. Overall, premium coupons (5–6%) account for roughly 45% of the market, providing some defense against price erosion—but not immunity.

1. Convexity is the curvature in the connection between bond prices and interest rates. It reflects the rate at which the duration of a bond changes as interest rates change. It's a way to depict risk/reward relationships in the bond market, as rates are presumably tied to prospective risk.

2. Source: Bloomberg

### DISCOUNT DYNAMICS: A GROWING CONCERN

Despite the prevalence of premium structures, sustained rate pressure over the past few years has dragged prices lower. Prior to the rally of this year (post July), 75% of bonds in the 4–5% coupon cohort were priced at a discount; today, that figure declined to 55%.<sup>3</sup> Even 5% coupons, historically more insulated, had seen 11% of their cohort slip below par, but are now down to 1%. This underscores the reality that in a prolonged selloff, even defensive structures feel the pain.

### COUPON PERFORMANCE: WINNERS AND LOSERS

Over the past 12 months, coupon buckets have told a clear story of winners and losers: bonds with 4% coupons were the biggest laggards, posting total-return losses of 2.88%. In contrast, 3% coupons delivered returns of 3.86%, while premium 5% coupons led the pack with returns of 4.03%. (See Figure 2) However, the clearer picture of coupon performance

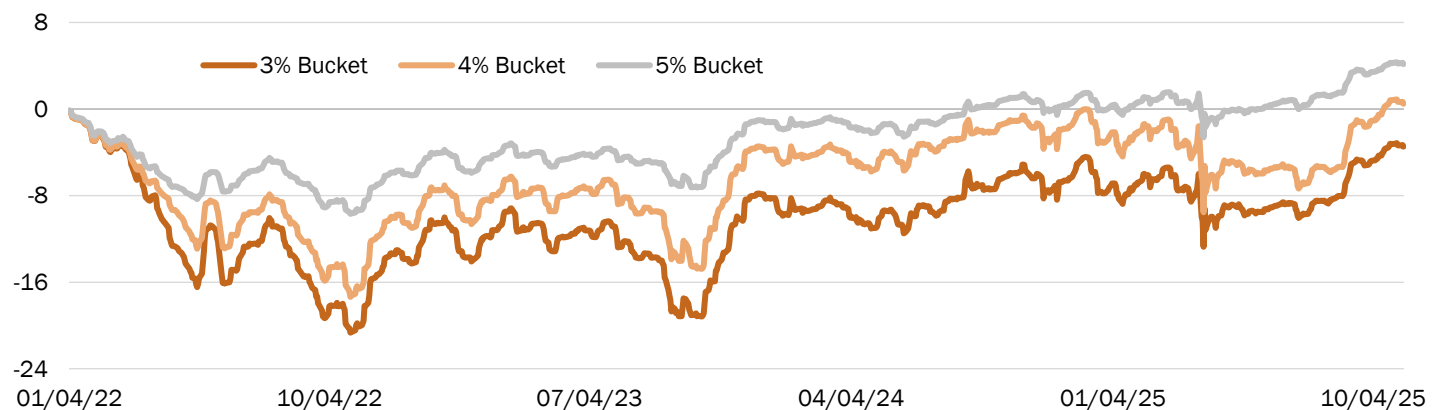
should be evaluated from 2022 until now, to see the impacts of the large rate rise cycle.

Looking at cumulative returns since 2022, the trend favors higher coupons: 5% munis returned nearly 4.2%, while 4% coupons delivered 0.49, and 3% coupons lagged at minus 3.48%. Our takeaway? Premium structures continue to provide a cushion, even if short-term performance can diverge.

### BOTTOM LINE

The muni market's premium coupon cushion remains a critical buffer, but it's not a panacea. With rates still elevated and curve dynamics shifting, we believe investors need to be selective—favoring higher coupons where possible, while keeping an eye on liquidity and reinvestment opportunities. In this environment, structure isn't just a footnote—it's the headline.

FIGURE 2: PREMIUM COUPON STRUCTURES OUTPERFORM



Data as of November 5, 2025  
Source: Bloomberg

3. Source: Bloomberg

## Questions from the Field

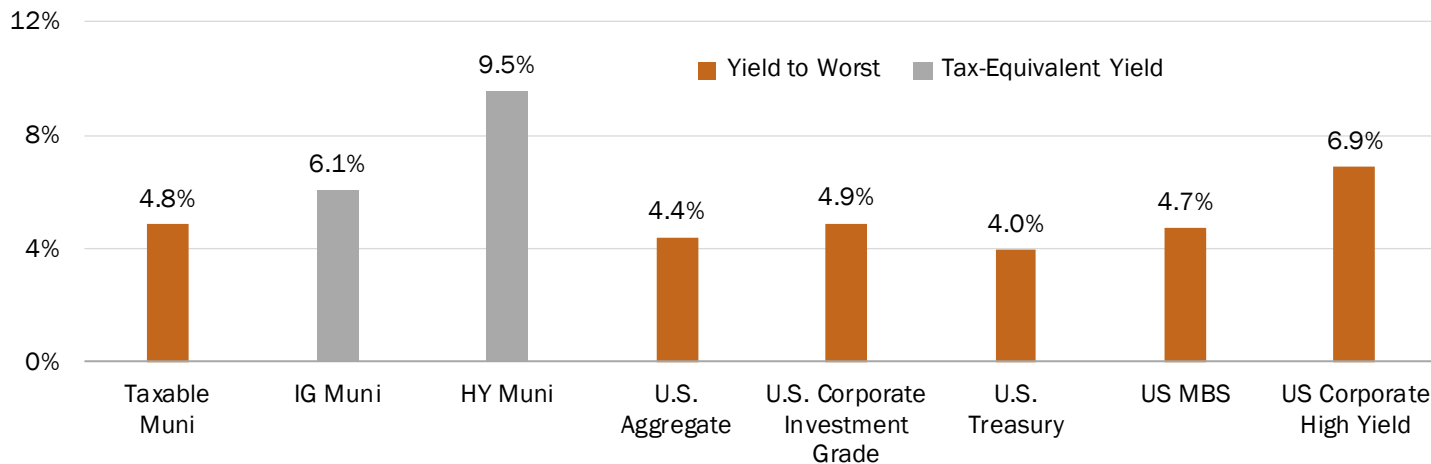
**Q** On the heels of one of the most powerful Atlantic hurricanes recorded, how are you thinking about climate risk as it relates to the municipal market?

**A** Historically, municipal issuers have experienced very little financial impact due to adverse climate events. Today however, issuers in the municipal market are faced with having to manage through more severe and frequent extreme weather events. We would also note that it is not only climate driven weather events that appear in investors side mirrors, with seismic risks in California being another class of risks that fall into this category, and ones that, to date, have had very limited bond holder impacts.

Focusing on the larger weather-related topic, the identification and assessment of climate related risks are an integrated factor, alongside many other factors, within the team's credit investment due diligence. To assist in this analysis, we utilize a third party data platform to help identify the likelihood of, and conduct financial scenario analysis on, the potential impact and financial risk of various climate events (for example hurricane, flood, drought) across the municipal market and for specific issuers.

From a physical risk standpoint, as part of our standard credit analysis, we seek to identify "at-risk" areas. It is important to recognize that the just because a severe climate event may happen in a certain location, it does not necessarily create an outsized risk for issuers in that location. Importantly, we also identify transition-oriented risks as they relate to climate risk and monitor an issuer's governance efforts and mitigation strategies to offset future risks. Our assessments will weigh climate risks and the issuers' efforts to manage material climate risks alongside the security features of each bond we assess (covenants, debt coverage, revenue streams, maturity, etc.). Our climate related analysis feeds directly into our ultimate internal credit assessment and rating of each issue we scrutinize. Our investment decisions will be predicated on the perceived relative value of a given investment, which includes a climate risk assessment.

## INDEX YIELDS

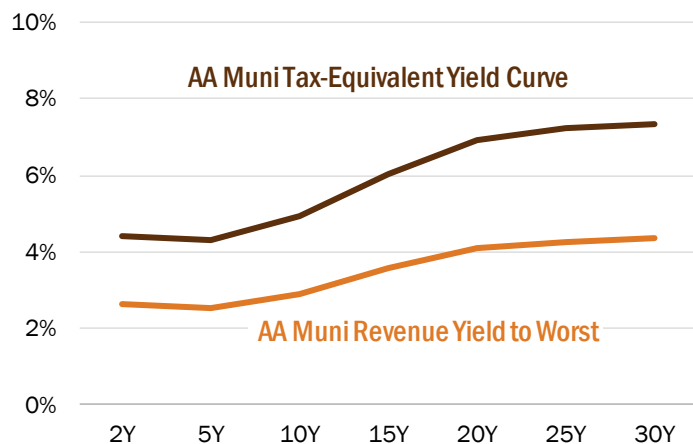


Data as of November 11, 2025.

1. Using 40.8% federal tax rate, including 3.8% Net Investment Income Tax.

Source: Bloomberg

## AA MUNI TAX-EQUIVALENT YIELD CURVE

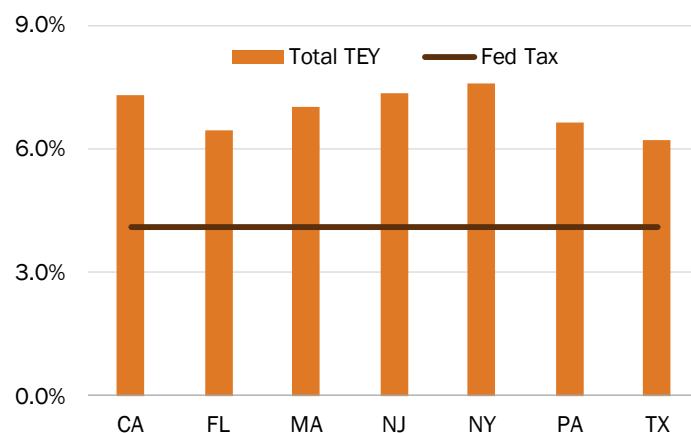


Data as of November 11, 2025.

Using 40.8% federal tax rate, including 3.8% Net Investment Income Tax.

Source: Bloomberg

## IN-STATE MUNI TAX-EQUIVALENT YTW

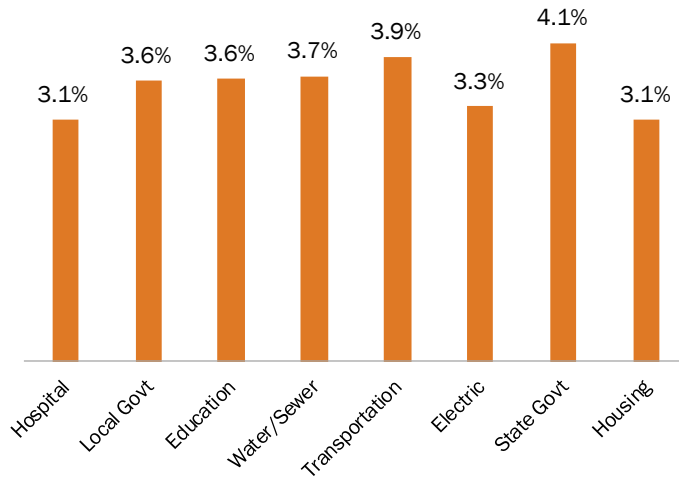


Data as of November 11, 2025.

Using 40.8% federal tax rate, including 3.8% Net Investment Income Tax.

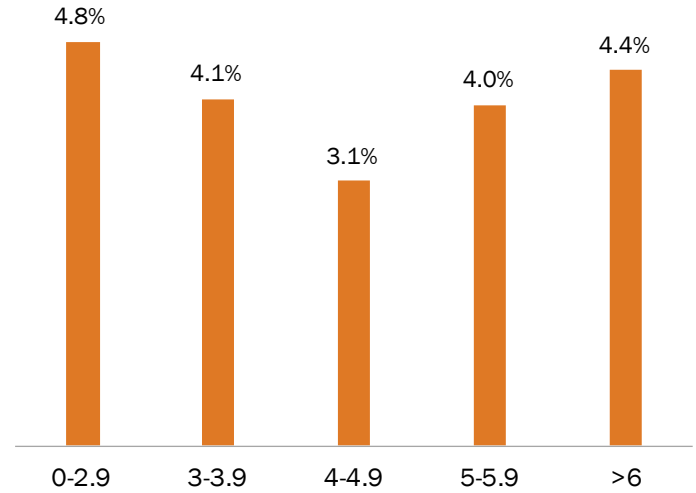
Source: Bloomberg

## YTD TOTAL RETURNS BY SECTOR



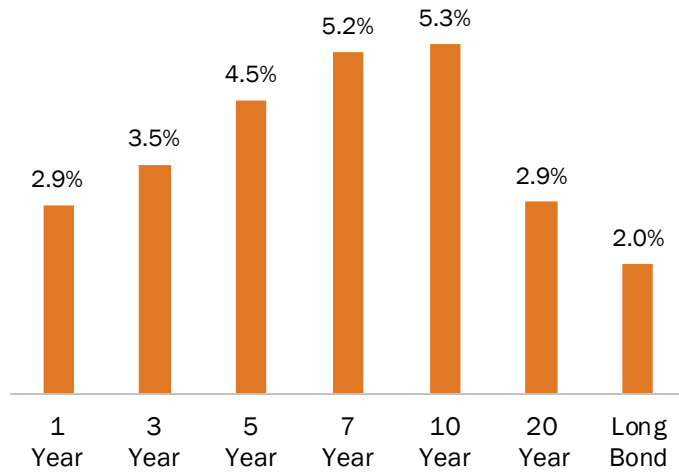
Data as of November 11, 2025.  
Source: Bloomberg

## YTD TOTAL RETURNS BY COUPON



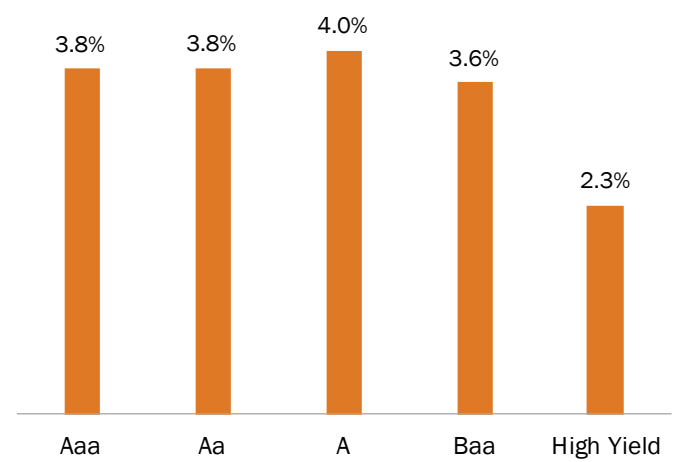
Data as of November 11, 2025.  
Source: Bloomberg

## YTD TOTAL RETURNS BY MATURITY



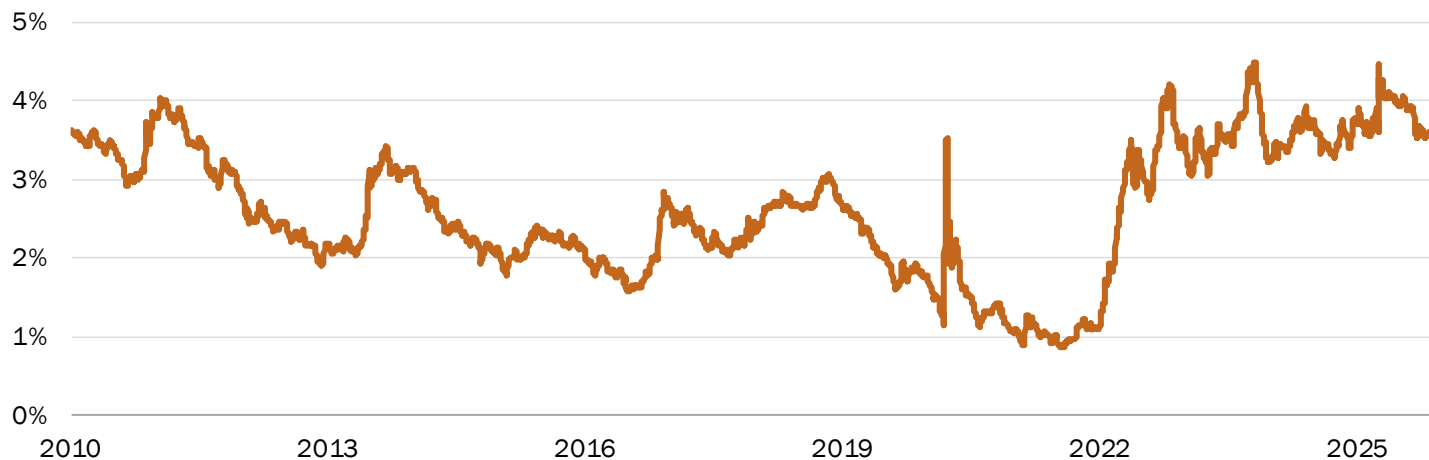
Data as of November 11, 2025.  
Source: Bloomberg

## YTD TOTAL RETURNS BY RATING CATEGORY



Data as of November 11, 2025.  
Source: Bloomberg

## BLOOMBERG MUNICIPAL YIELD-TO-WORST



Data as of November 6, 2025.

"Post GFC Average" measures the period from 1/1/2010 – 7/4/2025

Source: Bloomberg

## MUNI YIELDS

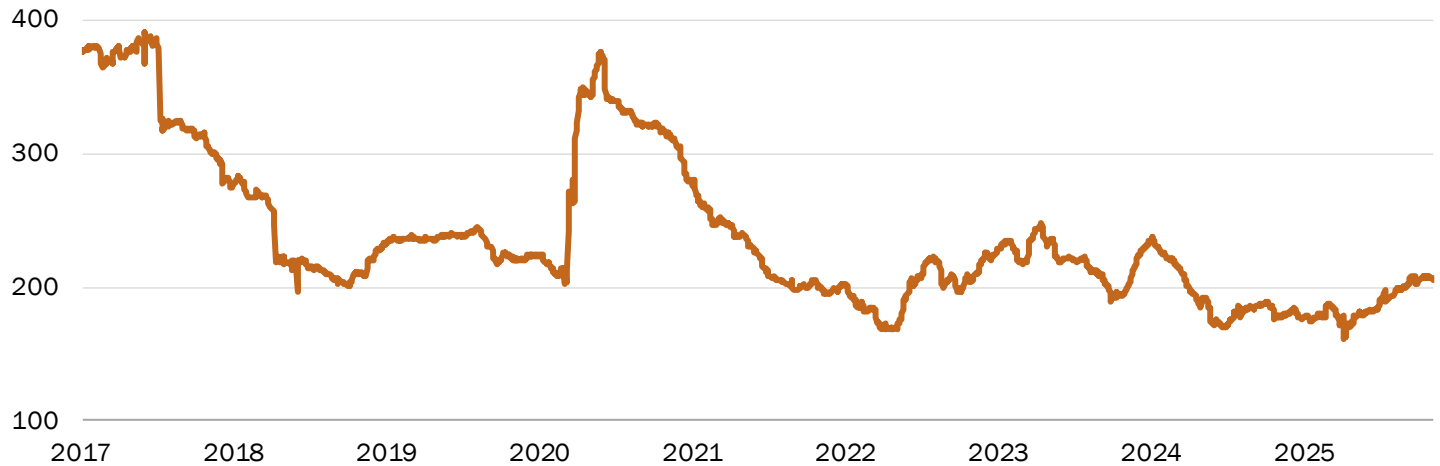
| Tenor                                                      | 10/30/2025   | 11/6/2025     | Change (+/-) |
|------------------------------------------------------------|--------------|---------------|--------------|
| <b>BLOOMBERG AAA MUNI KEY RATE YIELDS</b>                  |              |               |              |
| 2 YEAR                                                     | 2.49%        | 2.49%         | 0.01%        |
| 5 YEAR                                                     | 2.40%        | 2.40%         | 0.01%        |
| 10 YEAR                                                    | 2.73%        | 2.73%         | 0.00%        |
| 30 YEAR                                                    | 4.12%        | 4.11%         | 0.00%        |
| <b>US TREASURY RATE YIELDS</b>                             |              |               |              |
| 2 YEAR                                                     | 3.61%        | 3.57%         | -0.04%       |
| 5 YEAR                                                     | 3.72%        | 3.69%         | -0.03%       |
| 10 YEAR                                                    | 4.11%        | 4.11%         | 0.00%        |
| 30 YEAR                                                    | 4.65%        | 4.69%         | 0.04%        |
| <b>US TREASURY &amp; AAA MUNI CURVE SLOPES<sup>1</sup></b> |              |               |              |
|                                                            | <b>2s10s</b> | <b>10s30s</b> | <b>2s30s</b> |
| US TREASURY CURVE SLOPE                                    | + 54 bps     | + 58 bps      | + 112 bps    |
| AAA MUNI CURVE SLOPE                                       | + 24 bps     | + 138 bps     | + 162 bps    |

Data as of November 6, 2025.

1. 2s10s – is spread between 10yr and 2yr yield; 10s30s – refers to spread between 30yr and 10yr yield; 2s30s – refers to spread between 30yr and 2yr yield

Source: Bloomberg

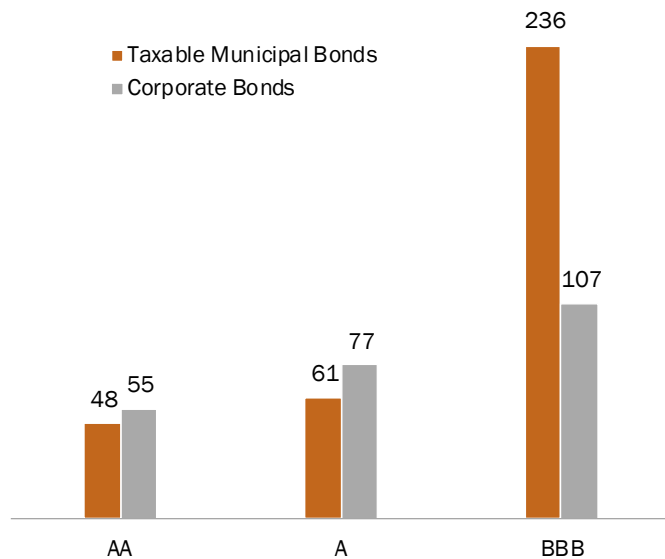
## BLOOMBERG MUNICIPAL HIGH YIELD | AAA YIELD DIFFERENTIAL



Data as of November 6, 2025.

Source: Bloomberg

## TAXABLE MUNICIPAL AND CORPORATE CREDIT SPREADS

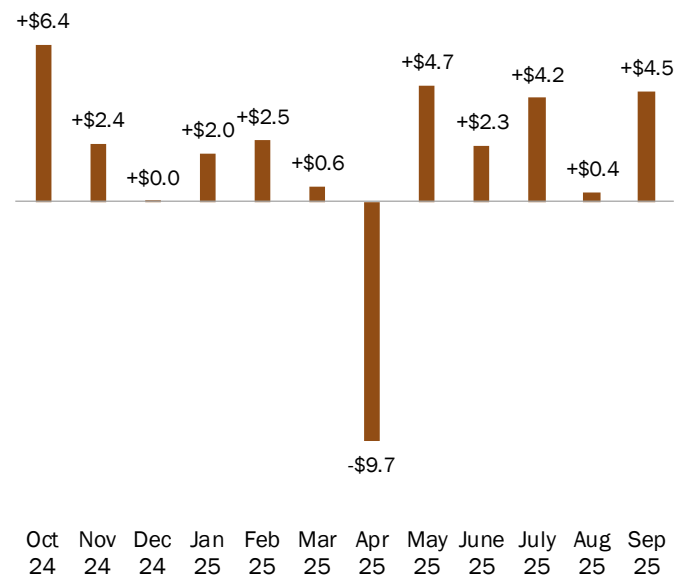


Data as of November 6, 2025.

The spread, better known as the option-adjusted spread (OAS) is the measurement of the yield of a fixed income security over that of a risk-free rate of return, which is adjusted to take into account an embedded option.

Source: Bloomberg

## LONG TERM FUND FLOWS | USD \$BN



Data as of November 6, 2025.

Source: Bloomberg



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## DEFINITION OF TERMS

### Option-Adjusted Spread

The option-adjusted spread (OAS) measures the spread between a bond's rate and the risk-free rate, while adjusting for any embedded options like callables or mortgage-backed securities.

### Standard Deviation

Standard deviation is a statistical measurement that looks at how far discrete points in a dataset are dispersed from the mean of that set. It is calculated as the square root of the variance.

### Tax Equivalent Yield

The tax-equivalent yield is the return a taxable bond needs to equal the yield on a comparable tax-exempt municipal bond. Investors use this calculation to compare the returns between a tax-free investment and a taxable alternative.

### Tax Equivalent Yield to Worst

Tax Equivalent YTW is calculated by dividing the tax-exempt yield by one minus the marginal income tax. This is used to compare YTW on a tax-exempt investment to a taxable investment.

### Volatility

Volatility is a measurement of how varied the returns of a given security or market index are over time. It is often measured from either the standard deviation or variance between those returns. In most cases, the higher the volatility, the riskier the security.

### Yield to Worst

Yield to worst is a measure of the lowest possible yield that can be received on a bond that fully operates within the terms of its contract. It is a type of yield that is referenced when a bond has provisions that would allow the issuer to close it out before it matures. YTW helps investors manage risks and ensure that specific income requirements will still be met even in the worst scenarios.

## INDEX DESCRIPTIONS

### Bloomberg U.S. Taxable Municipal Bond Index

The Bloomberg U.S. Taxable Municipal Bond Index is a rules-based, market-value-weighted index engineered for the long-term taxable bond market. To be included in the index, bonds must be rated investment-grade (Baa3/BBB- or higher) by at least two of the following ratings agencies if all three rate the bond: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment grade. They must have an outstanding par value of at least \$7 million and be issued as part of a transaction of at least \$75 million. The bonds must be fixed rate and must be at least one year from their maturity date. Remarketed issues (unless converted to fixed rate), bonds with floating rates, and derivatives, are excluded from the benchmark.

### Bloomberg Municipal AMT Index

The Bloomberg Municipal AMT index refers to a specific Bloomberg municipal bond index that includes bonds subject to the Alternative Minimum Tax (AMT). Unlike most municipal bond indices, which exclude AMT-subject securities, these indices contain bonds that typically offer higher yields to individuals who are subject to the AMT.

### Muni IG AMT ex Territories Index

The Muni IG ex. AMT and ex Territories Index is the Bloomberg Municipal Bond Index excluding AMT and US. Territory exposure.

### Bloomberg Municipal Bond Index

A rules-based, market-value-weighted index engineered for the long-term tax-exempt bond market. To be included in the index, bonds must be rated investment-grade (Baa3/BBB- or higher) by at least two of the following agencies: Moody's, S&P, Fitch. If only two of the three agencies rate the security, the lower rating is used to determine index eligibility. If only one of the three agencies rates a security, the rating must be investment-grade. They must have an outstanding par value of at least \$7 million and be issued as part of a transaction of at least \$75 million. The bonds must be fixed rate, have a date-date after December 31, 1990, and must be at least one year from their maturity date. Remarketed issues, taxable municipal bonds, bonds with floating rates, and derivatives, are excluded from the benchmark. The index has four main sectors: general obligation bonds, revenue bonds, insured bonds (including all insured bonds with a Aaa/AAA rating), and pre-refunded bonds. Most of the index has historical data to January 1980. In addition, sub-indices have been created based on maturity, state, sector, quality, and revenue source, with inception dates later than January 1980.

### Bloomberg 5-Year Muni Index

The Bloomberg 5 Year Municipal Bond Index is a capitalization weighted bond index created by Bloomberg intended to be representative of major municipal bonds of all quality ratings with an average maturity of approximately five years.

### Bloomberg Municipal 1-10 Year Blend 1-12 Year Index

The Bloomberg Municipal 1-10 Year Blend 1-12 Year Index measures the performance of short and intermediate components of the Municipal Bond Index — an unmanaged, market value-weighted index which covers the U.S. investment grade, tax-exempt bond market.

### Bloomberg Municipal Long Bond 22+ Index

The Bloomberg Municipal Long Bond 22+ Index (often referred to as the Bloomberg Long-Term Municipal Bond Index) tracks the performance of long-term, tax-exempt U.S. municipal bonds with maturities of 22 years or longer. This index serves as a benchmark for high-quality municipal debt and covers various sectors, including general obligation, revenue, insured, and pre-refunded bonds.



#### Bloomberg Municipal Bond High Yield Index

The Bloomberg Municipal Bond: High Yield Index is a flagship measure of the US municipal tax-exempt non-investment grade bond market. Included in the index are securities from all 50 US States and four other qualifying regions (Washington DC, Puerto Rico, Guam, and the Virgin Islands). The index includes state and local general obligation bonds and revenue bonds.

#### Bloomberg U.S. Aggregate Bond Index

The Bloomberg U.S. Aggregate Bond Index measures the performance of investment grade, U.S. dollar-denominated, fixed rate taxable bond market, including Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-throughs), ABS, and CMBS. It rolls up into other flagship indices, such as the multi-currency Global Aggregate Index and the U.S. Universal Index, which includes high yield and emerging markets debt.

#### Bloomberg U.S. Corporate Bond Index

The Bloomberg US Corporate Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD-denominated securities publicly issued by US and non-US industrial, utility, and financial issuers. The index is a component of the US Credit and US Aggregate Indices, and provided the necessary inclusion rules are met, US Corporate Index securities also contribute to the multi-currency Global Aggregate Index. The index includes securities with remaining maturity of at least one year.

#### Bloomberg U.S. Treasury Index

The Bloomberg U.S. Treasury Index measures the performance of public obligations of the U.S. Treasury, including securities that roll up to the U.S. Aggregate, U.S. Universal, and Global Aggregate Indices.

#### Bloomberg U.S. Mortgage-Backed Security Index

The US MBS Index is formed by grouping the universe of individual TBA-deliverable MBS pools into pool cohorts and then applying the index inclusion rules at the cohort level. Each cohort is a representation of its mapped individual pools and contributes their total amount outstanding to the US MBS Index.

#### Bloomberg U.S. Corporate High Yield Index

The Bloomberg US Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below.

#### Bloomberg Global Aggregate Bond Index

The Bloomberg Global Aggregate Index is a flagship measure of global investment grade debt from twenty-seven local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers.

#### Bloomberg Securitized Bond Index

The Bloomberg U.S. Securitized: MBS, ABS, and CMBS Index tracks all USD-denominated, investment grade, securitized issues within the "Parent Index". MBS must have a weighted average maturity of at least one year. CMBS and ABS must have a remaining average life of at least one year.

#### Bloomberg US Municipal Bond Index Total Return Index Value Unhedged

The Bloomberg U.S. Municipal Index covers the USD-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds and pre-refunded bonds

#### Bloomberg US Aggregate Total Return Value Unhedged

The Bloomberg US Aggregate Total Return Value Unhedged Index (LBUSTRUU:IND) is a benchmark that measures the performance of the U.S. investment-grade, fixed-rate, taxable bond market, excluding any currency hedging. It tracks a broad universe of U.S. dollar-denominated securities, including U.S. Treasuries, government-related debt, corporate bonds, mortgage-backed securities (MBS), and asset-backed securities (ABS).

#### Bloomberg US Treasury Total Return Unhedged

The Bloomberg US Treasury Index measures US dollar-denominated, fixed-rate, nominal debt issued by the US Treasury.