

Higher Rates Are an Invitation for Broader Muni Adoption

KEY TAKEAWAYS

- Munis Get Much Cheaper
- Could Muni Buyer Base Widen?
- Diversification in Munis

Relative Performance¹

Muni-to-Treasury ratios cheapened meaningfully across the curve last week, with the move becoming progressively larger as you moved further out. The 2-year ratio increased nearly 1 point to 60.33%, the 5-year widened 1.3 points to 66.50%, while the 10-year jumped nearly 1.9 points to 74.43%. The 30-year ratio also moved 1.6 points higher to 91.60%.

The long end is where the numbers really get interesting. A 10-year ratio above 74% and a 30-year ratio above 91% represent a significant improvement in relative value from the levels we were discussing earlier this summer. Remember, we spent portions of June and July with 10-year ratios in the mid-60s and the long end in the mid-80s. A lot of that richness has now been taken out.

This also reinforces something we've been saying all year: relative value can return very quickly in municipals. Investors who were frustrated by rich ratios during the summer are now being presented with a very different entry point, particularly further out the curve.

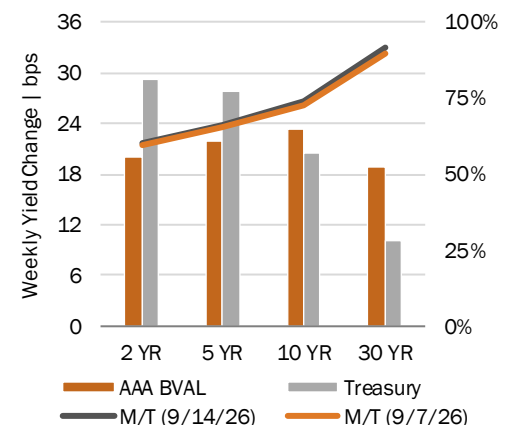
And ratios are only one piece of the equation. When you combine this cheapening with today's higher absolute municipal yields, the steepness of the muni curve, and the tax-equivalent income available to high-bracket investors, the longer end is beginning to check several valuation boxes simultaneously.

FIGURE 1: INDEX PERFORMANCE

	MTD	YTD	2025
Muni Bond 5-Year	-1.08%	-0.40%	5.03%
Muni Bond 10-Year	-1.83%	-2.46%	5.92%
Muni Bond 15-Year	-2.17%	-3.35%	5.31%
Muni Long Bond	-2.25%	-1.60%	1.95%
Muni Managed Money	-1.84%	-2.24%	3.94%

Data as of September 14, 2026.
Source: Bloomberg

FIGURE 2: MIXED PERFORMANCE



Data as of September 14, 2026. Spot Muni, Spot AAA rates

AAA B VAL: AAA Municipal yield curve

M/T: Municipal/Treasury Yield Ratio - Bloomberg

Municipal Bond Index yield / Bloomberg US Treasury Index yield.

Source: Bloomberg

1. Source: Bloomberg

Market Technicals¹

One of the more interesting consequences of the recent backup in municipal yields isn't just that tax-exempt income looks better. It's that the universe of investors who can justify owning municipals is getting larger.

For the traditional high-bracket buyer, the math is pretty straightforward. A 5% tax-exempt yield equates to roughly 8.45% taxable-equivalent at a 40.8% tax rate, while a 6% tax-exempt yield gets you above 10%. Those are eye-catching numbers, but you don't need to be in the highest tax bracket for today's yields to work. At a 32% tax rate, for example, a 5% muni equates to roughly 7.35% taxable, and a 6% muni is roughly 8.82%.

That's important because higher absolute yields begin to broaden the municipal buyer base. At lower yield levels, the tax exemption did much of the heavy lifting and the

natural buyer was predominantly the highest-bracket household. As yields move higher, the economics begin to work for investors further down the tax spectrum. And in certain parts of the market, absolute yields and spreads can become attractive enough to bring in crossover and institutional buyers that may care much less—or not at all—about the tax exemption.

That's why we don't look at higher yields purely through the lens of short-term negative price performance. There's another side to the equation. Every backup increases income, improves tax-equivalent yields and, at some point, brings another cohort of investors into the market.

The higher yields go, the larger that potential buyer base becomes.

FIGURE 3: TAX-EQUIVALENT YIELDS (IN %)

Tax-Exempt Yield	24% Bracket	32% Bracket	35% Bracket	37% Bracket	40.8% All-In
3.50	4.61	5.15	5.38	5.56	5.91
4.00	5.26	5.88	6.15	6.35	6.76
4.50	5.92	6.62	6.92	7.14	7.60
5.00	6.58	7.35	7.69	7.94	8.45
5.50	7.24	8.09	8.46	8.73	9.29
6.00	7.89	8.82	9.23	9.52	10.14

Data as of September 11, 2026.

1. Source: Bloomberg

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Questions from the Field

Q How many individual municipal bonds does an investor actually need to be diversified?

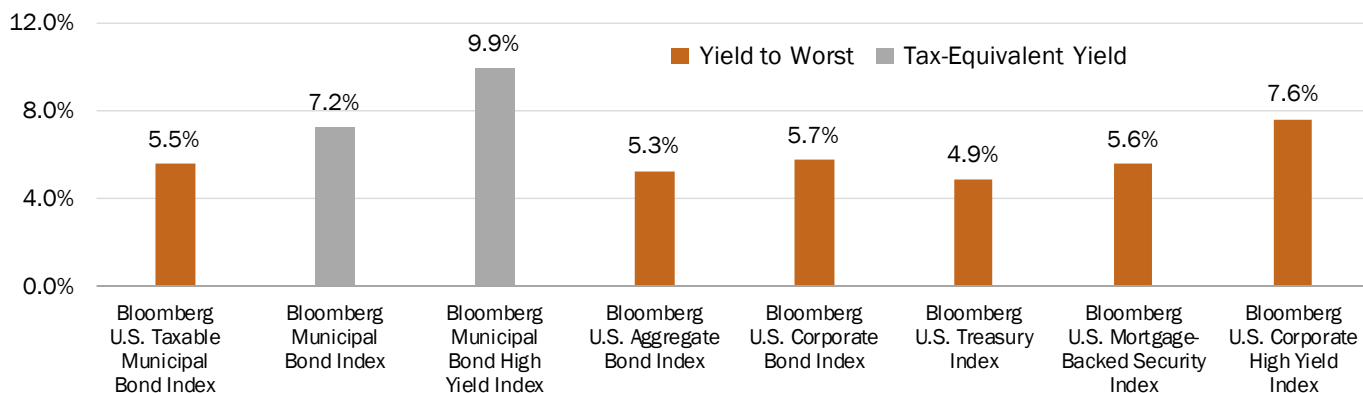
A More than most people think—and simply owning a lot of bonds doesn't necessarily mean you're diversified.

You can own 50 different CUSIPs and still have significant concentration if they're all exposed to the same state, revenue source, sector, or underlying economic risk. That's especially relevant in state-specific portfolios, where investors can unknowingly build exposure to the same tax base or local economy through dozens of seemingly different issuers.

For us, diversification starts with understanding what actually drives repayment. A water authority, hospital, airport, university and state GO may all be municipal bonds, but the risks behind those cash flows are very different. Even within the same sector, structure, security provisions and issuer fundamentals can produce very different outcomes.

That's why we think about diversification through risk exposures, not bond count. The goal isn't to own as many names as possible. It's to make sure one economic, political or credit event can't disproportionately impact the portfolio.

INDEX YIELDS

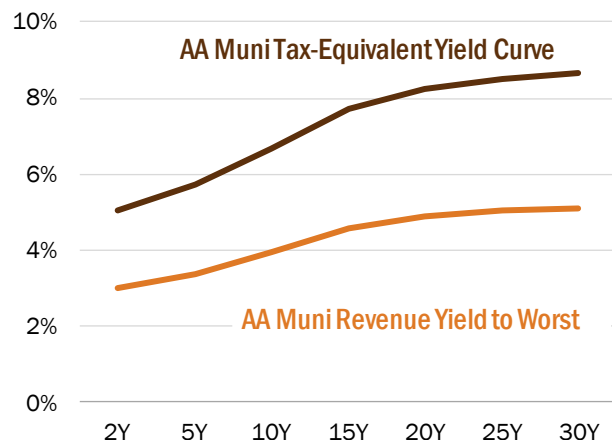


Data as of September 14, 2026

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

Source: Bloomberg

AA MUNI TAX-EQUIVALENT YIELD CURVE

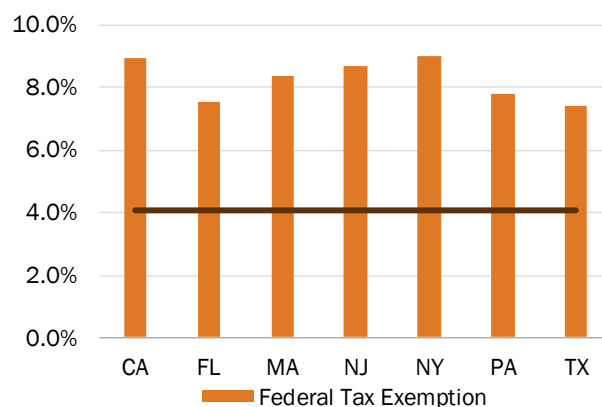


Data as of September 14, 2026

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

Source: Bloomberg

IN-STATE MUNI TAX-EQUIVALENT YTW

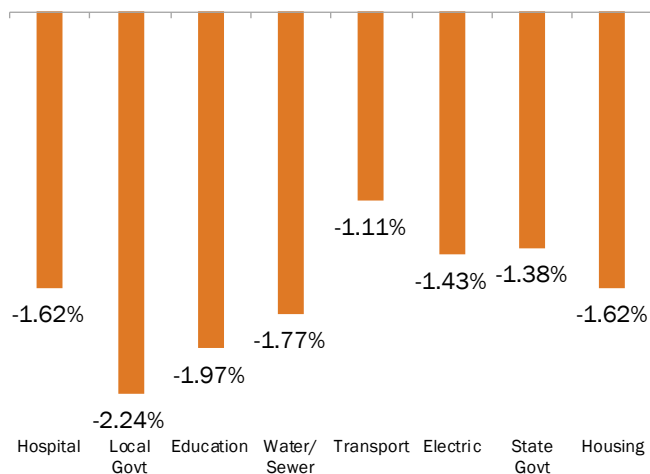


Data as of September 14, 2026

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

Source: Bloomberg

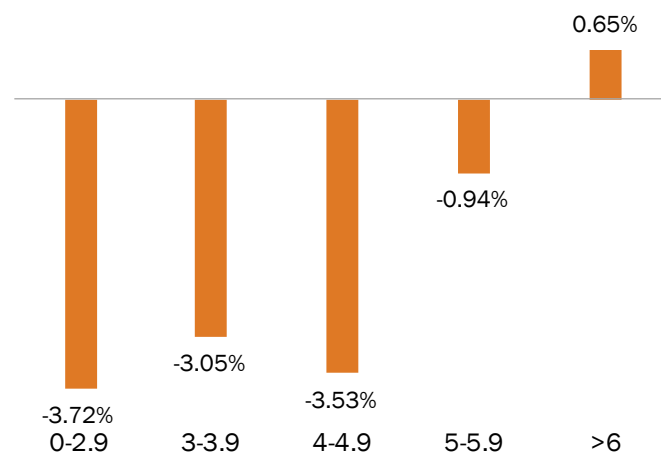
YTD TOTAL RETURNS BY SECTOR



Data as of September 14, 2026

Source: Bloomberg

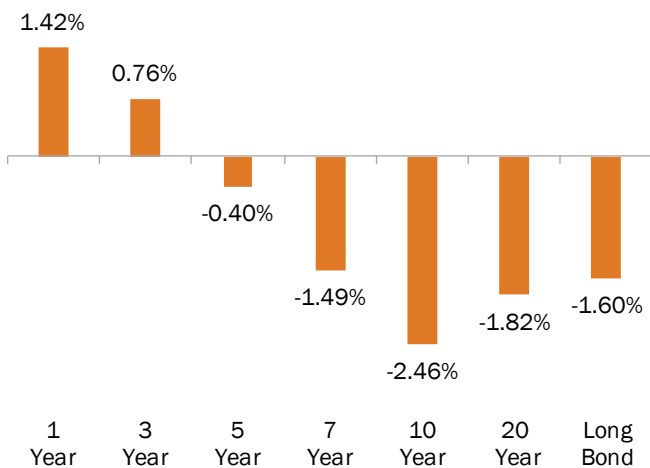
YTD TOTAL RETURNS BY COUPON



Data as of September 14, 2026

Source: Bloomberg

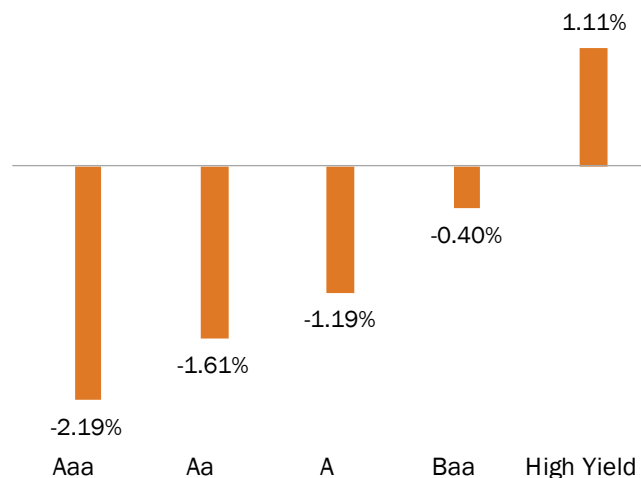
YTD TOTAL RETURNS BY MATURITY



Data as of September 14, 2026

Source: Bloomberg

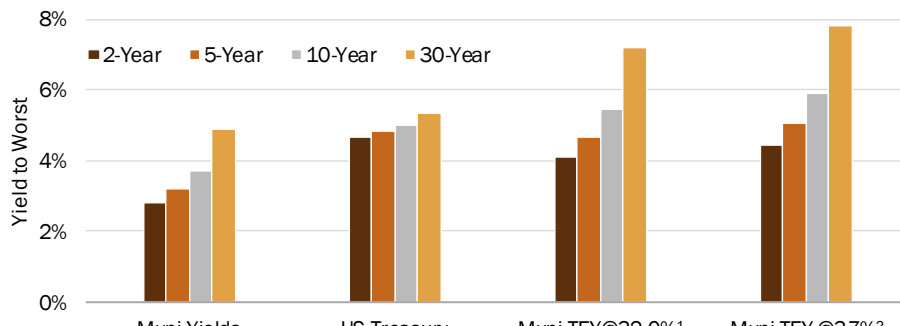
YTD TOTAL RETURNS BY RATING CATEGORY



Data as of September 14, 2026

Source: Bloomberg

TAX-ADJUSTED YIELDS OF MUNICIPAL BOND INDEX VS US TREASURY INDEX



1. Tax Equivalent Yield is using 32% federal tax rate, including 3.8% Net Investment Income Tax.

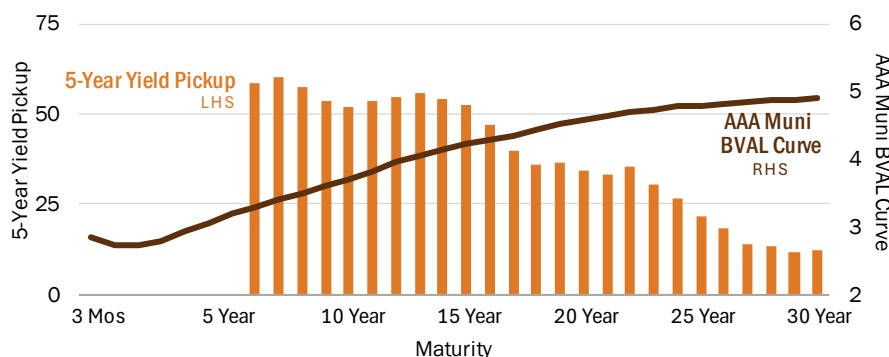
2. Tax Equivalent Yield is using 37% federal tax rate, including 3.8% Net Investment Income Tax.

Data as of September 14, 2026.

Source: Bloomberg

**On a tax-adjusted basis
munis handily lead
across tenors**

YIELD CURVE STEEPNESS

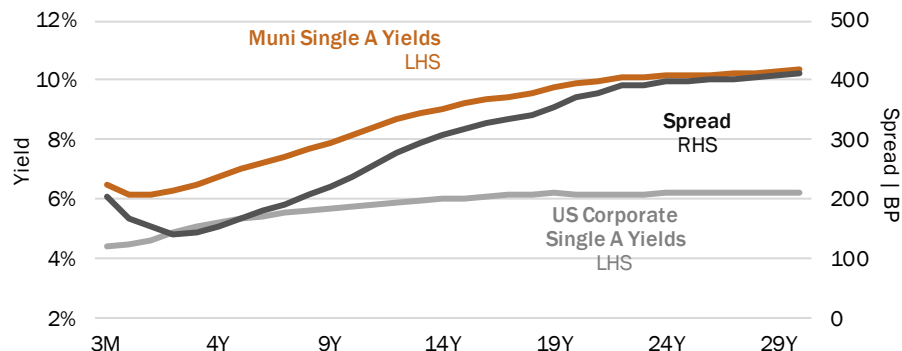


Data as of September 14, 2026.

Source: Bloomberg

**Our relative value lens
focus on the area of the
curve where steepness
benefits returns**

MUNI EXCEEDS CORPORATE SPREADS



Data as of September 14, 2026.

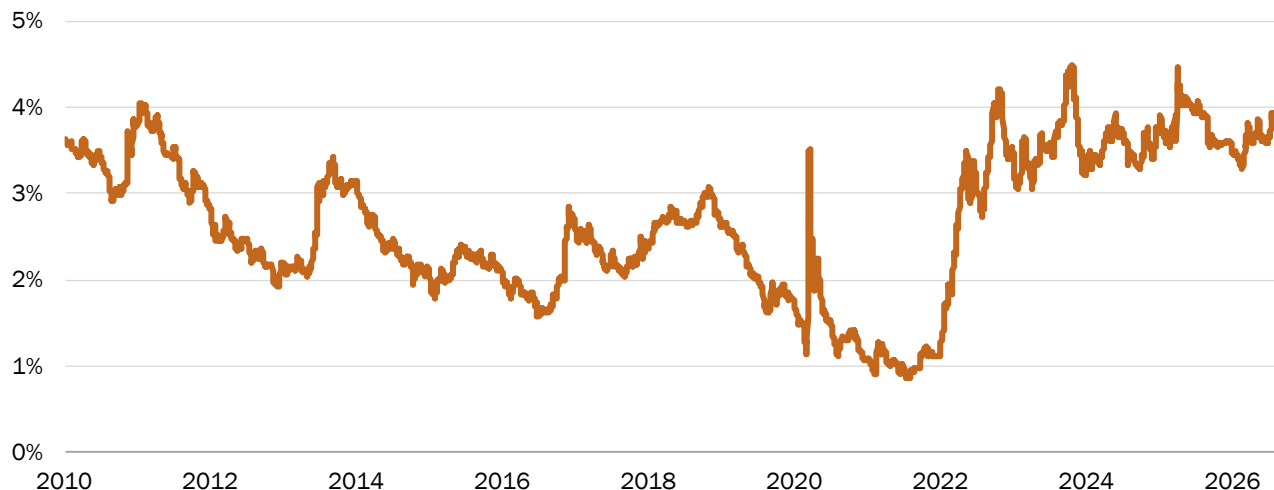
Muni Single A Yields: Bloomberg Municipal Bond Index; US Corporate Single A Yields: Bloomberg Corporate Bond Index

Source: Bloomberg

**Tax equivalent munis
continue to exceed
corporate spread/yields**

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BLOOMBERG MUNICIPAL YIELD-TO-WORST



Data as of September 11, 2026

"Post GFC Average" measures the period from 1/1/2010 – 9/11/2026

Source: Bloomberg

MUNI YIELDS

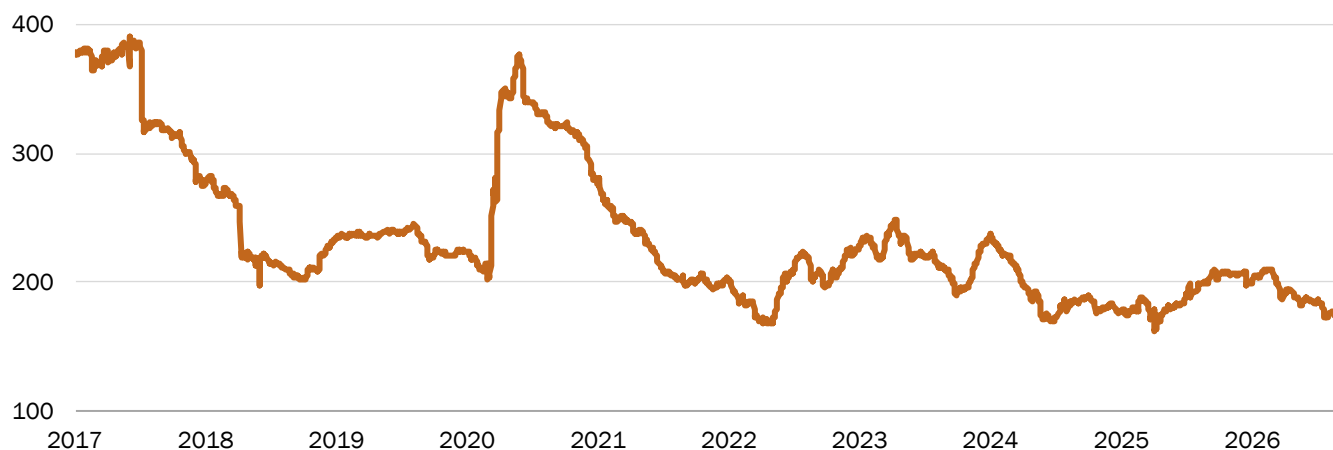
Tenor	9/11/2026	9/4/2026	Change (+/-)
BLOOMBERG AAA MUNI KEY RATE YIELDS			
2 YEAR	2.79%	2.59%	0.20%
5 YEAR	3.18%	2.97%	0.22%
10 YEAR	3.70%	3.47%	0.23%
30 YEAR	4.91%	4.72%	0.19%
US TREASURY RATE YIELDS			
2 YEAR	4.63%	4.37%	0.26%
5 YEAR	4.78%	4.54%	0.24%
10 YEAR	4.96%	4.78%	0.18%
30 YEAR	5.35%	5.24%	0.11%
US TREASURY & AAA MUNI CURVE SLOPES¹			
	2s10s	10s30s	2s30s
US TREASURY CURVE SLOPE	+ 33 bps	+ 39 bps	+ 72 bps
AAA MUNI CURVE SLOPE	+ 91 bps	+ 121 bps	+ 212 bps

Data as of September 11, 2026

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

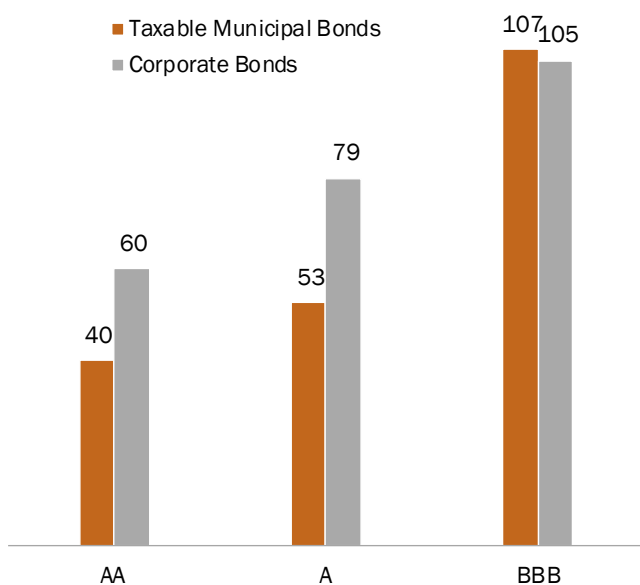
BLOOMBERG MUNICIPAL HIGH YIELD | AAA YIELD DIFFERENTIAL



Data as of September 11, 2026

Source: Bloomberg

TAXABLE MUNICIPAL AND CORPORATE CREDIT SPREADS



Data as of September 11, 2026

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 may assist them in meeting specific income requirements even in adverse scenarios.

Additional Yield Definition

BVAL AA, A, BBB and BB Yields is calculated by Bloomberg and is representative of the average 2YR spot rate on respective Bloomberg Yield curves of corporate credits with the respective average credit rating that are valued by Bloomberg's valuation service.

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.

Morningstar U.S. Active Fund Muni National Intermediate

The Morningstar U.S. Active Fund Muni National Intermediate category contains mutual funds and exchange-traded funds (ETFs) that primarily invest in investment-grade municipal bonds issued by state and local governments with durations typically ranging between 4.5 and 7 years. Because they are actively managed, the fund managers dynamically adjust credit exposure, interest rate sensitivity, and yield curve positioning rather than tracking a static index.

Morningstar U.S. Passive Fund Muni National Intermediate

The Morningstar U.S. Passive Fund Muni National Intermediate category includes intermediate-term national municipal bond portfolios that invest in tax-exempt debt issued by state and local governments. Passive options and index ETFs in this group track broad municipal indexes to offer low-cost, tax-free income with moderate interest-rate risk.