PNC Fixed Income

Municipal Market Quarterly Review

Fourth Quarter 2024

Municipal Market Review

The S&P Municipal Index (Municipal Index) returned -0.96% in the fourth quarter, bringing its calendar year 2024 return to 1.90% (**Figure 1**). Prices were pressured by climbing interest rates as investors anticipated fewer policy rate cuts by the Federal Reserve in 2025 amid a resurgence in inflation expectations.

Municipal yields increased across the yield curve. Short-term yields climbed more than long-term yields, leading to a flatter yield curve, as measured by the spread between 2- and 30-year rates (**Figure 2**, page 2). The shift in municipal term structure indicated a decreased risk premium for interest rates. Conversely, the U.S. Treasury (UST) curve steepened, maintaining a slightly positive slope after being inverted during the first half of 2024. The divergence in the fourth quarter reflected a move toward normalization between the two curves (**Figure 3**, page 2). Shorter-dated bonds outperformed long¬er-dated bonds due to their lower interest rate sensitivity, or duration, amid the uptick in interest rates.

Figure 1. Fixed Income Returns and Statistics
As of 12/31/2024

S&P Municipal Bond Indices	Q4 2024 Return	2024 Return	Yield to Worst	Duration
Main	-0.96%	1.90%	4.06%	5.9
Intermediate	-1.07%	1.09%	3.85%	4.8
Short-Intermediate	-0.58%	1.89%	3.54%	3.1
Short	-0.04%	2.62%	3.37%	1.7
General Obligation	-1.04%	1.21%	3.81%	5.5
Revenue	-0.99%	2.34%	4.26%	6.3
Taxable	-3.21%	2.08%	5.16%	7.8
Bloomberg Indices				
U.S. Treasury	-3.14%	0.58%	4.45%	5.7
U.S. Aggregate	-3.06%	1.25%	4.91%	6.0
U.S. Corporate	-3.04%	2.13%	5.33%	6.8

Sources: S&P Dow Jones Indices LLC, Bloomberg L.P., PNC

KEY THEMES

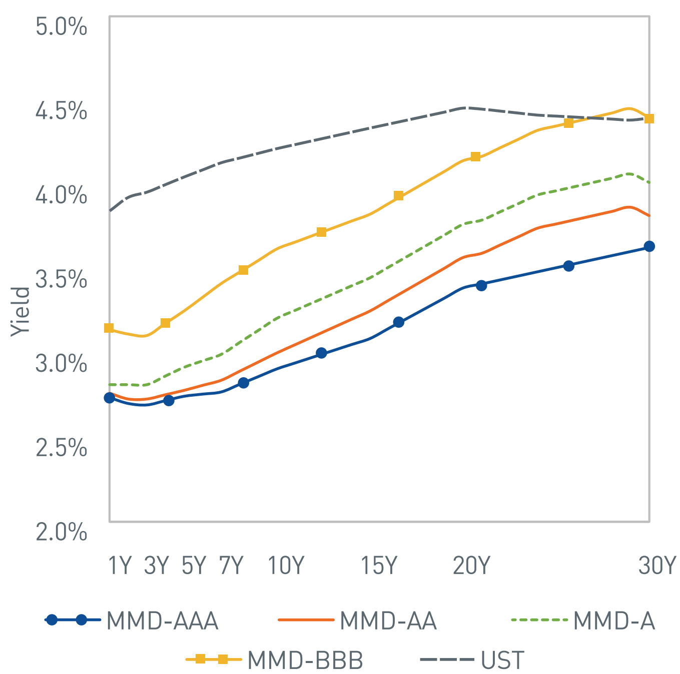
- The Municipal Index returned -0.96% in the fourth quarter, but outperformed comparable taxable sectors by more than 2.0%.
- Municipal yields climbed across maturities. Short-term yields rose faster than long-term yields, resulting in a flatter yield curve.
- Municipal valuations were mixed versus USTs on a maturity-matched basis; short-term Municipal-to-Treasury (MT) ratios improved.
- A-rated and BBB-rated municipals outperformed as credit spreads were little changed, reflecting the expectation for economic activity to remain supportive of municipal fundamentals.
- We believe municipal yields offer a compelling option for tax-sensitive investors relative to taxable alternatives.

Figure 2. Quarter-over-Quarter Yield Curve Change (bps) (9/30/2024 – 12/31/2024)

	Market Spot Rates				
Maturity	**AAA**	**AA**	**A**	**BBB**	**UST**
1 Year	31	30	30	31	14
2 Year	52	51	51	52	60
3 Year	53	52	52	53	73
5 Year	56	55	58	56	82
7 Year	45	45	45	45	83
10 Year	46	47	47	46	79
15 Year	41	42	42	41	74
20 Year	40	41	41	40	68
30 Year	38	39	39	38	67

Sources: Refinitive, S&P Dow Jones Indices, Bloomberg L.P., PNC

Figure 3. Municipal Market and UST Yield Curves As of 12/31/2024



Sources: Refinitive, S&P Dow Jones Indices, Bloomberg L.P., PNC

Relative to taxable fixed income sectors, the Municipal Index outperformed the Bloomberg U.S. Treasury Index by 218 basis points (bps) in the fourth quarter, primarily due to more tempered interest rate volatility in tax-exempt bonds. Municipals also outperformed the Bloomberg U.S. Aggregate and Bloomberg U.S. Corporate indices by 211 bps and 208 bps, respectively, similarly driven by a smaller relative increase in tax-exempt rates. Among quality cohorts, A-rated and BBB-rated bonds outperformed, benefiting from higher yields as credit spreads were little changed.

From a technical perspective, investor demand for municipals remained positive in the fourth quarter. Municipal mutual funds experienced net inflows of $8.8 billion during the quarter and more than $29.8 billion in 2024. On the supply side, municipal bond issuance increased 21% compared to the same quarter in 2023, which resulted in a 33% increase in calendar-year issuance. Only 6% of all municipal bonds issued in 2024 were taxable compared to 9% during 2023. Total taxable issuance was down 12%, providing a strong technical backdrop.

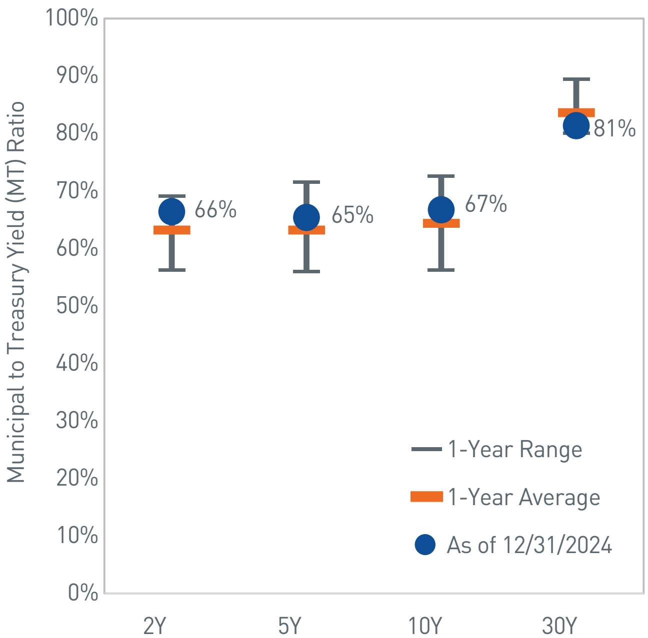
Tax-exempt Municipal Valuations

The sharpest changes for MT ratios were at the front and long end of the yield curve. The 2-year MT ratio improved by 3%, while the 5-year MT ratio improved by less than 1%. In contrast, the 10- and 30-year MT ratios declined by more than 2%, to 67% and 81%, respectively. The 2-, 5- and 10-year MT ratios are now above their respective 1-year averages and are much closer to their 1-year highs than 1-year lows (**Figure 4**, page 3).

The shift in yields has made tax-exempt municipal bonds more attractive on a tax-equivalent basis versus taxable alternatives. Assuming an estimated federal tax rate of 40.8% (37% maximum federal income tax level and 3.8% Medicare tax that may apply to some taxpayers), the tax-equivalent yield of a 10-year AAA-rated municipal bond now offers 113% of the 4.58% yield offered by the 10-year UST, little changed from the end of last quarter. For investors with an effective tax rate of 40.8%, tax-equivalent MT ratios are now above 100% across the yield curve, albeit with more advantage in long-term bonds. Similarly, tax-equivalent MT ratios for investors with a tax rate of 35% are above 100% for nearly all tenors (**Figure 5**, page 3).

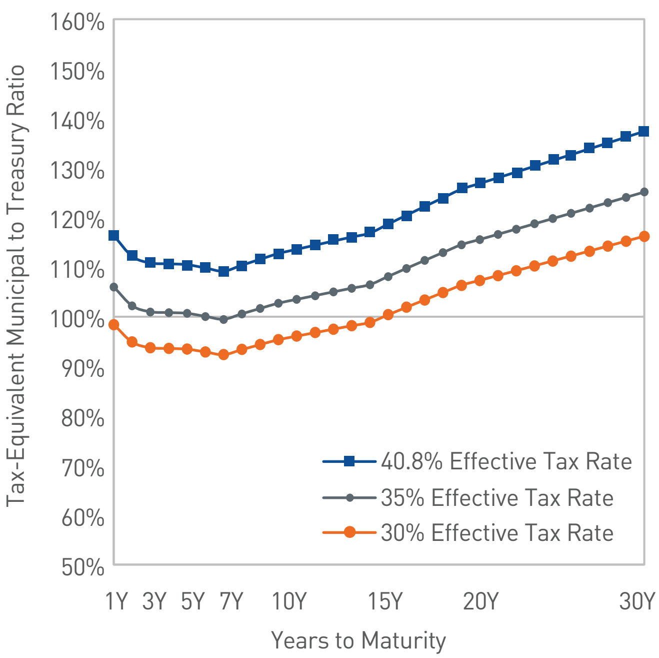
Indices are unmanaged, not available for direct investment, and not subject to management fees, transaction costs or other types of expenses that an account may incur.

Figure 4. Municipal-to-Treasury Yield Ratios
As of 12/31/2024



Sources: Refinitive, S&P Dow Jones Indices, Bloomberg L.P., PNC

Figure 5. Tax Equivalent MT Yield Ratios
As of 12/31/2024



Sources: Refinitive, S&P Dow Jones Indices, Bloomberg L.P., PNC

Taxable Municipals Underperform Tax-exempt

The S&P Taxable Municipal Bond Index (Taxable Municipals) returned -3.21% in the fourth quarter, underperforming tax-exempt municipals by 226 bps. Taxable municipals also underperformed the Bloomberg U.S. Corporate Index by 18 bps, mostly due to higher index-level duration, or interest rate sensitivity. For the full year, taxable municipals returned 2.08% and outperformed tax-exempt municipals by 18 bps but slightly underperformed corporate bonds. A-rated taxable municipal bond yields are now largely in line with A-rated corporates across the yield curve. We believe supply-side technicals remain supportive of valuations given the landscape of competitive yields and our expectation for muted taxable municipal issuance in 2025.

Municipal Credit Review

While yields moved sharply higher in the fourth quarter, municipal market credit spreads were largely unchanged. A-rated and BBB-rated credit spreads widened by 6 bps and 4 bps to 89 bps 98 bps, respectively, following notable tightening in the first half of the year. Meanwhile, AA-rated bonds tightened 4 bps to end the period at a spread of 13 bps. Taxable credit markets had similar results. For the full year, however, spreads compressed significantly, which proved most noteworthy among BBB-rated bonds, the lowest rung of investment grade. Overall, credit spreads were little changed for the quarter, staying at the low end of their long-term range and reflecting the expectation for economic activity to remain supportive of credit fundamentals. From a fundamental perspective, we believe municipalities remain well positioned given the increase in reserves over the past four years.

Credit pricing globally followed a similar path. Investment grade corporate credit spreads, for example, trended lower through the year with most of the gains occurring in the third quarter and following the November election. For comparison, corporate bonds represented in the Bloomberg U.S. Aggregate Index narrowed 5 bps to end at a spread of 80 bps, compressing after the spreads widened sharply in August, reaching 111 bps at the zenith of volatility. Fundamental credit quality exhibited stability throughout 2024 and benefited from relatively benign macroeconomic conditions.

The year also finished without a resolution from Moody's Investors Service after it assigned USTs a Negative outlook rating in November 2023. Customarily, credit outlooks are intended to be resolved within 12 to 18 months. As such, we expect Moody's to decide on the final AAA ratings for the U.S. government within the first half of 2025. Much like the mortgage market, a significant swath of the municipal market directly or tangentially relies on the credit quality of USTs.

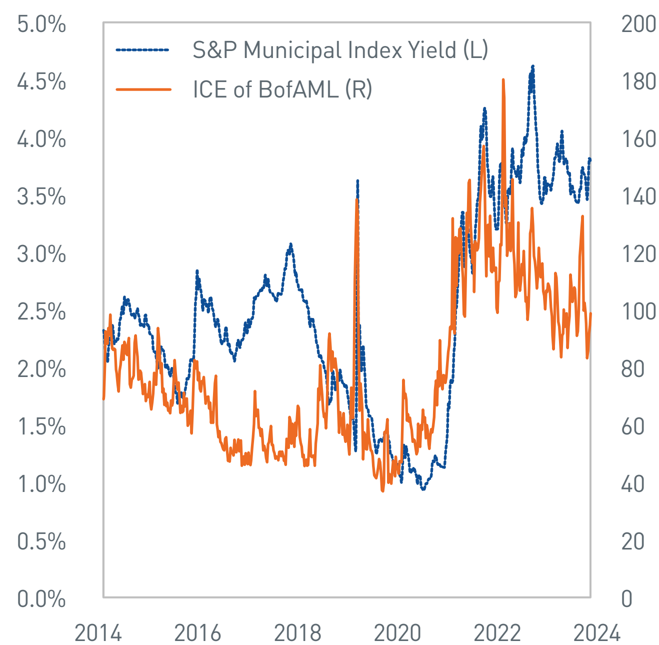
Looking Ahead

Entering 2025, improved relative valuations and higher absolute yields offer an attractive entry point for tax-sensitive investors, in our view, with the municipal index yield in the 91st percentile of weekly observations over the past 10 years (**Figure 6**).

We believe current credit pricing is reflective of fundamental conditions and a widespread expectation for economic activity to remain supportive of municipal finances. While spread compression will always enhance returns for municipal bondholders, historically, tight credit spreads leave little margin for any deterioration from the current fundamental baseline. We believe the year ahead will likely bring flat to potentially widening credit pricing, with income being the primary driver of returns.

Worth monitoring in 2025 and beyond, the presidential election results enhance the probability of substantive changes to the tax shelter offered by most municipal bonds. The value and relevance of the municipal bond tax exemption could fall under greater scrutiny post-election. Additionally, both parties have expressed interest in amending and/or repealing the State and Local Tax (SALT) cap, which had a dramatic impact on municipal bond pricing. The last time the tax shelter faced substantive adjustment was under the same regime via the Tax Cut and Jobs Act of 2017; investors should be prepared for additional modifications as notable provisions of the bill expire in December 2025.

Figure 6. S&P Municipal Bond Index Yield & Rate Volatility
As of 12/31/2024



Sources: Bloomberg L.P., PNC

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