

Municipal Market Quarterly Review

Third Quarter 2024

Municipal Market Review

The S&P Municipal Index (Municipal Index) returned 2.71% in the third quarter, bringing its year-to-date return to 2.89% (**Figure 1**). Falling interest rates drove municipal bond price appreciation as the Federal Reserve (Fed) lowered the fed funds rate in September.






Municipal yields declined across the yield curve. Short-term yields fell more than long-term yields, leading to a steeper yield curve, as measured by the spread between 2- and 30-year rates. The U.S. Treasury (UST) curve also steepened, enough to disinvert (**Figure 2, page 2**). The shift in municipal term structure indicated an increased risk premium for interest rates (**Figure 3, page 2**). Longer-dated bonds still outperformed shorter-dated bonds due to their higher interest rate sensitivity, or duration.

Figure 1. Fixed Income Returns and Statistics
As of 9/30/2024

<i>S&P Municipal Bond Indices</i>	Q3 2024 Return	YTD Return	Yield to Worst	Duration
Main	2.71%	2.89%	3.43%	5.4
Intermediate	2.82%	2.18%	3.09%	4.5
Short-Intermediate	2.60%	2.48%	2.83%	3.0
Short	2.02%	2.66%	2.79%	1.7
General Obligation	2.73%	2.27%	3.18%	5.1
Revenue	2.78%	3.36%	3.63%	5.8
Taxable	5.07%	5.47%	4.62%	7.9
<i>Bloomberg Indices</i>				
U.S. Treasury	4.74%	3.84%	3.76%	6.0
U.S. Aggregate	5.20%	4.45%	4.23%	6.1
U.S. Corporate	5.84%	5.32%	4.72%	7.1

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

KEY THEMES

-  The Municipal Index returned 2.71% in the third quarter.
-  Municipal yields declined across most maturities. Short-term yields fell faster than long-term yields, resulting in a steeper yield curve.
-  Municipal valuations were mixed versus USTs on a maturity-matched basis; long-term Municipal-to-Treasury (MT) ratios improved.
-  Credit spreads were little changed, reflecting the expectation for credit fundamentals to continue receiving support from economic activity.
-  We believe municipal yields can offer a compelling option for tax-sensitive investors.

Quarterly Review

Figure 2. Quarter-over-Quarter Yield Curve Change (bps) (6/30/2024 – 9/30/2024)

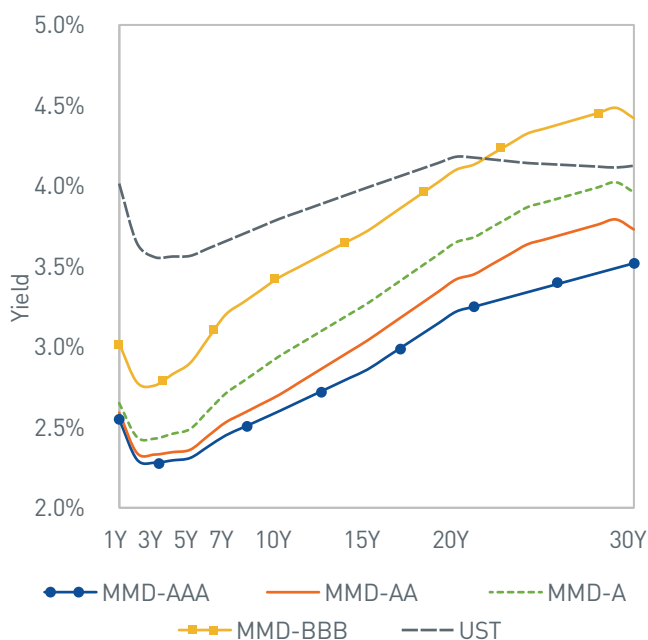
Maturity	AAA	AA	A	BBB	UST
1 Year	-60	-60	-60	-60	-109
2 Year	-81	-81	-81	-81	-108
3 Year	-69	-69	-69	-69	-96
5 Year	-58	-58	-58	-58	-78
7 Year	-41	-41	-41	-41	-69
10 Year	-24	-24	-24	-24	-58
15 Year	-22	-22	-22	-22	-52
20 Year	-22	-22	-22	-22	-46
30 Year	-20	-20	-20	-20	-41

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

Relative to taxable fixed income sectors, the Municipal Index underperformed the Bloomberg U.S. Treasury Index by 203 basis points (bps) in the third quarter, due in part to lower index-level duration amid falling interest rates. Municipals also underperformed the Bloomberg U.S. Aggregate and Bloomberg U.S. Corporate indices by 248 bps and 312 bps, respectively, also driven by differences in index-level duration. Among quality cohorts, A-rated and BBB-rated municipal bonds outperformed as credit spreads were little changed.

From a technical perspective, investor demand for municipals remained positive in the third quarter; municipal mutual funds experienced net inflows of \$10.4 billion during the quarter and more than \$20.9 billion year to date. On the supply side, lower interest rates spurred a 36% increase in municipal bond issuance compared to the same period in 2023. Only 7% of all municipal bonds issued in 2024 have been taxable compared to 10% during the same period in 2023.

Figure 3. Municipal Market and UST Yield Curves As of 9/30/2024



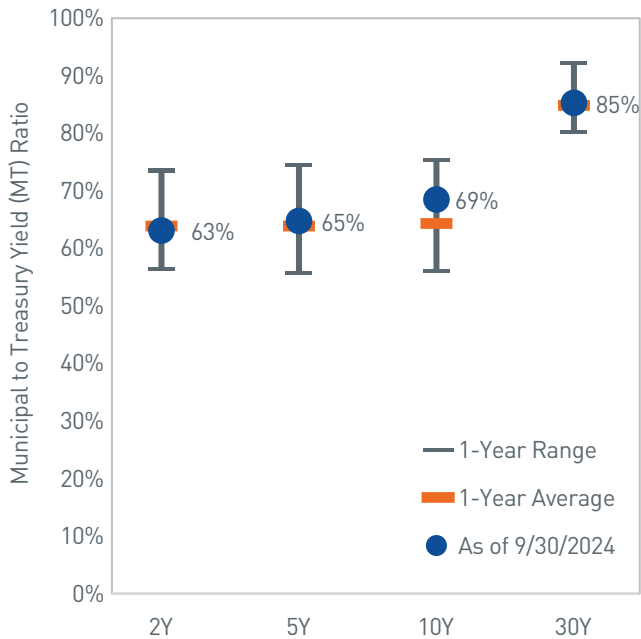
Sources: Refinitive, S&P Dow Jones Indices, Bloomberg L.P., PNC

Tax-exempt Municipal Valuations

The shift in MT ratios during the quarter was sharpest at the long end of the yield curve. The 10- and 30-year MT ratios improved to 69% and 85%, respectively, while 2- and 5-year MT ratios decreased. The 5-, 10- and 30-year MT ratios are now above their respective 1-year averages (**Figure 4, page 3**).

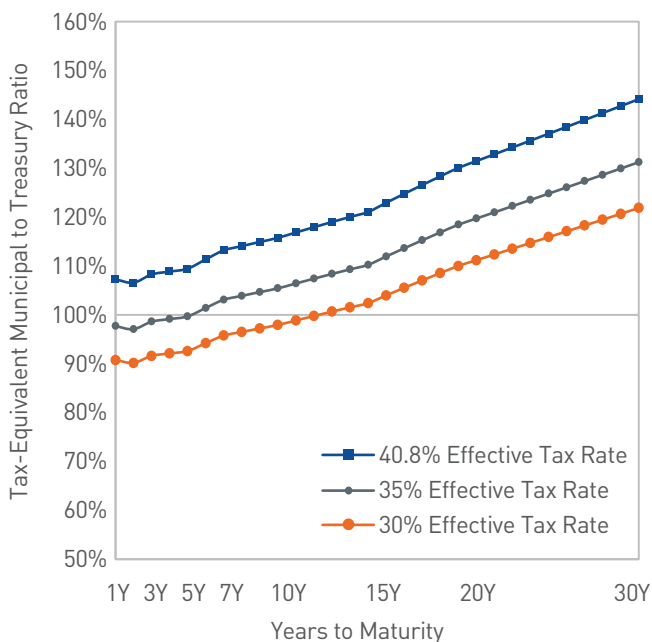
The shift in yields has made tax-exempt municipal bonds more attractive on a tax-equivalent basis versus taxable alternatives. Assuming an estimated federal tax rate of 40.8% (37% maximum federal income tax level and 3.8% Medicare tax that may apply to some taxpayers), the tax-equivalent yield of a 10-year AAA-rated municipal bond now offers 116% of the 3.79% yield offered by the 10-year UST, up from 110% at 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. Comparatively, tax-equivalent MT ratios for investors with a tax rate of 35% are above 100% for maturities beyond 5 years (**Figure 5, page 3**).

Figure 4. Municipal-to-Treasury Yield Ratios
As of 9/30/2024



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

Figure 5. Tax Equivalent MT Yield Ratios
As of 9/30/2024



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

Taxable Municipals Outperform Tax-exempt

The S&P Taxable Municipal Bond Index (Taxable Municipals) returned 5.1% in the third quarter, outperforming tax-exempt municipals by 235 bps. Taxable municipals underperformed the Bloomberg U.S. Corporate Index by 77 bps, due to less credit spread tightening. A-rated taxable municipal bonds 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 7% decrease in taxable municipal issuance year over year.

Municipal Credit Review

The momentum toward narrower municipal credit spreads stalled last quarter amid broadly lower interest rates. BBB-rated credit spreads widened 4 bps to 98 bps following notable tightening in the first half of the year. Meanwhile, AA-rated bonds tightened 4 bps in the period, to end at a spread of 13 bps. The A-rated portion of the market also emulated riskier credit performance, widening 6 bps to end at 51 bps. Taxable credit markets displayed similar results. The corporate credit segment of the Bloomberg U.S. Aggregate Index narrowed 5 bps to end at a spread of 89 bps following a large dose of volatility in August that carried spreads as high as 111 bps.

Overall, credit spreads were little changed for the quarter, staying at the low end of the long-term range and reflecting the expectation for economic activity to remain supportive of credit fundamentals. From a fundamental perspective, municipalities remain well positioned given the increase in reserves over the past four years.

Looking Ahead

Given the progress in reducing inflation toward the Fed's 2% target, the second component of the Fed's mandate — employment — will be a key indicator for the policy rate going forward. The PNC Economics team currently expects the fed funds rate to move 1% lower over the next 12 months and for the unemployment rate to increase modestly. While economic growth is expected to slow, lower

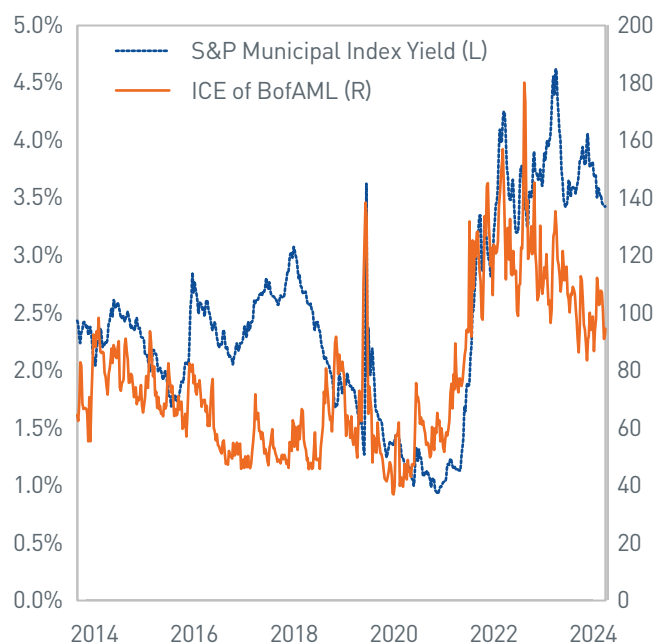
Quarterly Review

interest rates help loosen financial conditions and may increase the chance for the economy to achieve a soft landing following a historically aggressive rate-hike cycle.

Municipal credit spreads have settled amid the shift in Fed policy and in anticipation of the upcoming U.S. elections. While stability reigned in the most recent period, spreads remain less attractive relative to historical levels following the notable tightening in the first half of 2024. The value and relevance of the municipal bond tax exemption could fall under greater scrutiny post-election. Additionally, both parties have expressed interest in repealing the State and Local Tax (SALT) cap, which had a dramatic impact on municipal bond pricing.

The recent increase in MT ratios improved the value proposition of tax-exempt municipals versus USTs. While valuations relative to corporate bonds remain historically expensive, investors in the highest tax brackets can still find value in tax-equivalent municipal bond yields. The Municipal Index yield remains in the 81st percentile of weekly observations over the last 10 years (**Figure 6**). Given the rise in yields since 2021, in our view, long-term return expectations for the asset class have improved.

Figure 6. S&P Municipal Bond Index Yield & Rate Volatility
As of 9/30/2024



Sources: Bloomberg L.P., PNC

Investment Management Team

Adam Mackey
Managing Director

Ken Weinstein
Senior Credit Analyst

William Bonawitz, CFA
Director of Credit
Research

Matthew Feda
Client Portfolio Manager

Robert Howells
Senior Portfolio Manager

Jamie Horn
Client Portfolio Manager

Daniel Salahub, CFA
Portfolio Manager

Walid Baki, CFA
Client Portfolio Associate

Cesar Avila
Senior Credit Analyst

Elvi Sopiqoti
Trader

Lisa Kreiling, Ph.D., CFA
Senior Credit Analyst

Markian Shust
Trader

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