

# Municipal Bond Market Performance

March 2024



**Joel A. Buursma**, CIPM  
Vice President, Senior Software Architect



**Mark Pinson**  
Index Production and Analysis

The municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, had a Total Return of -0.084% in March 2024, consisting of the components displayed in Table 1.

March was the second month in a row with a total return in single digit basis points, pushing 2024 farther into the red. A small increase in the level of the municipal yield curve was enough to offset interest earned over the course of the month. Additionally, short-term yields bubbled up toward their long-term counterparts as the inversion in the short end of the curve deepened. At the same time, 2024's continuing increase in risk appetite meant that lower-rated bonds again saw their spreads tighten on average, and sectors with concentrations in lower ratings saw their spreads tighten more than other sectors. Puerto Rico bonds outperformed bonds from other states & territories in similar sector & quality categories, while Wyoming bonds fell farthest below the national averages.

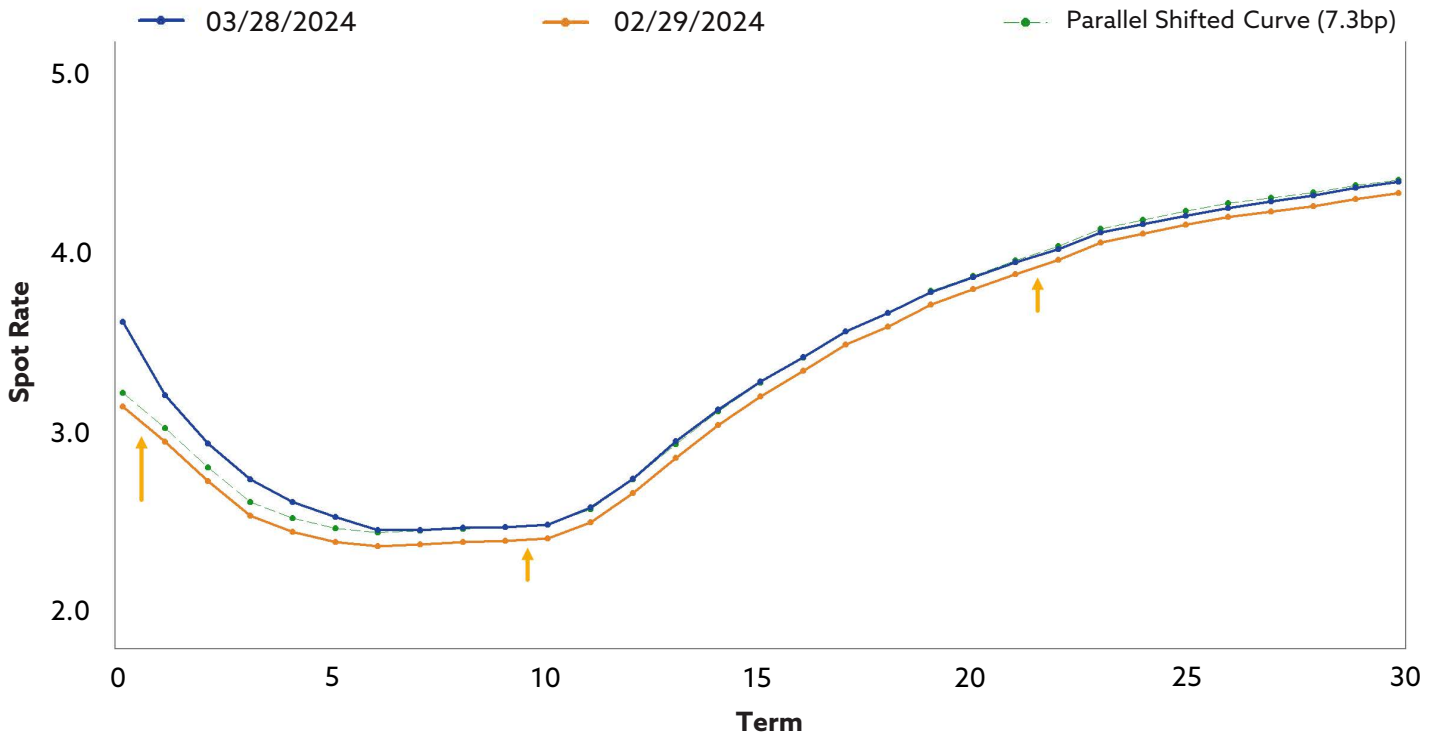
<b>TABLE 1</b>	<b>March</b>	<b>YTD</b>
Total Return	<b>-0.084%</b>	<b>-0.294%</b>
Coupon Return	0.376%	1.053%
Market Amortization Return	-0.114%	-0.229%
Parallel Shift Return	-0.431%	-1.439%
Non-Parallel Shift Return	-0.155%	-0.198%
Sector/Quality Return	0.187%	0.490%
Residual Price Return	0.053%	0.028%

## Intpretation

Figure 1 shows the overall change in the ICE US Municipal AAA Noncallable spot curve for March. This curve demonstrated a 7.3 bp increase in overall level as measured at the ten-year point.

**FIGURE 1**

**ICE US Municipal AAA Noncallable Spot Curve Change for March 2024**



The green dotted line depicts the parallel shift implied by the ten-year point's spot curve change.

The Parallel Shift Return of -0.431% is calculated from this curve increase, as shown in Table 2.

**TABLE 2**

Change for 10-Year Spot Rate <sup>(a)</sup>	7.28
Total Key Rate Duration <sup>(b)</sup>	5.9244
Parallel Shift Return <sup>(-b*a)</sup>	<b>-0.431</b>

The Non-Parallel Shift Return was -0.155%. Shorter terms increased more than the ten-year term, which increased the inversion of the curve and caused this negative return. See Table 3 for the full calculations for this term.

**TABLE 3**

	6 Mos	1Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
Non-Parallel Change	31.39	17.71	12.93	12.42	5.89	0.60	0.00	-0.69	-1.03
Key Rate Duration	0.041	0.121	0.248	0.480	0.654	0.840	1.648	1.551	0.341
Non-Parallel Shift Return	-0.013	-0.021	-0.032	-0.060	-0.039	-0.005	0.000	0.011	0.004

Each value in the Non-Parallel Shift Return row is calculated by multiplying together the two cells above it, dividing by 100 and reversing the sign

Sector/Quality Return captures return from changes in average option-adjusted spread (adjusted by duration) for sector/quality groupings. The index's overall Sector/Quality Return was 0.187%.

Lower-rated groupings exhibited tightening in average option-adjusted spread (weighted by both market value and duration). Similarly, it was the two lowest-rated sectors in the index (IDR / PCR and Tobacco Settlement) that were in a league of their own in terms of overall spread tightening. On the other end of the spectrum, the Prerefunded/ETM sector exhibited overall widening.

The sector/quality categories with the biggest negative contributions to Sector/Quality Return, considering both weightings and the groupings' own sector/quality returns, are listed in Table 4. The biggest positive contributors are listed in Table 5.

**TABLE 4**

	AA-rated Prerefunded/ ETM	AAA-rated IDR/PCR
Change in Dur-Adj Average OA Spread <sup>(a)</sup>	0.500	1.585
OA Spread Duration <sup>(b)</sup>	1.299	3.478
Sector/Quality Return <sup>(b*a)</sup>	-0.006	-0.055
Market Value Weight <sup>(c)</sup>	2.127	0.121
Contribution to Duration <sup>(b*c)</sup>	0.02763	0.00422
Contribution to Sector/Quality Return <sup>(b*c*a)</sup>	-0.00014	-0.00007

**TABLE 5**

	A-rated Transportation	A-rated IDR/PCR	AA-rated Local-GO	AA-Rated Insured
Change in Dur-Adj Average OA Spread <sup>(a)</sup>	-6.862	-12.238	-2.504	-3.432
OA Spread Duration <sup>(b)</sup>	5.308	4.724	5.263	6.124
Sector/Quality Return <sup>(b*a)</sup>	0.364	0.578	0.132	0.210
Market Value Weight <sup>(c)</sup>	4.939	2.468	9.713	6.017
Contribution to Duration <sup>(b*c)</sup>	0.26215	0.11658	0.51121	0.36851
Contribution to Sector/Quality Return <sup>(b*c*a)</sup>	0.01799	0.01427	0.01280	0.01265

Table 6 below shows the states and territories with the five best state-specific spread returns while Table 7 shows the states and territories with the five worst state-specific spread returns. This is the portion of return from change in spread after adjusting for the sector/quality composition of the state's bonds, capturing the extent to which the state's bonds' average performance differs from the national averages.

Puerto Rico bonds outperformed the national market in Insured and Transportation sectors, on average, as shown by its State-Specific Spread Return. For Tennessee, Local GOs were the standout performers. While Guam was heavily weighted in Dedicated Tax bonds, its Dedicated Tax bonds underperformed the general market; however, Guam's Water / Sewer bonds made up for this with their strong outperformance.

While all states benefited from the spread tightening seen in lower-rated bonds (as shown by Return from Sector/Quality Composition in the tables below), some states benefited less than others (as shown by their negative State-Specific Spread Return). Kansas & Arkansas were both dragged down by their Local GO, Insured, and Health Care bonds. Wyoming's bonds lagged behind the national market in the Insured and Housing sectors, but especially in IDR / PCR.

**TABLE 6**

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
Puerto Rico	0.08%	0.159%	0.167%	0.326%
Tennessee	1.37%	0.215%	0.123%	0.338%
Guam	0.06%	0.455%	0.119%	0.574%
Massachusetts	3.17%	0.131%	0.116%	0.247%
South Carolina	1.09%	0.208%	0.102%	0.310%

**TABLE 7**

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
North Dakota	0.15%	0.251%	-0.090%	0.161%
New Jersey	3.11%	0.273%	-0.093%	0.180%
Kansas	0.47%	0.125%	-0.100%	0.025%
Arkansas	0.29%	0.205%	-0.151%	0.054%
Wyoming	0.05%	0.249%	-0.233%	0.016%

Coupon Return was 0.376%, based on the index's average coupon of 4.365%. The average beginning-of-month market yield was 3.427%, resulting in a Market Amortization Return of -0.114%. These two terms sum to a total income effect of 0.262%.

*Note that Coupon Return reflects both interest payments and changes in accrued interest throughout the month. Market Amortization Return is negative because of the large number of premium bonds in the index due to yields being lower than most coupon rates. Premium bond prices, absent any change in yield, naturally decline over time to their redemption price. This decline is called market amortization.*

## CONTACT US

All table data and figures in this report were produced using Investortools, Inc.'s **Custom Index Manager™** product.

For more information about Investortools, please visit [www.invtools.com](http://www.invtools.com) or [click here to contact us](#).

To request a product demonstration, please contact [sales@invtools.com](mailto:sales@invtools.com).

For more information about **Custom Index Manager**, please [click here](#).