

Municipal Bond Market Performance

June 2023



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

Overview

The municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, had a Total Return of 0.826% in June 2023, consisting of the components displayed in Table 1.

The short end of the treasury curve continues to hover at historic highs, with the 1-year term finishing the month at levels not seen since 2000. But, while treasury yields increased at most terms over the month, the municipal yield curve decreased slightly, leading to a Parallel Shift Return of 0.429%. June, like the rest of the second quarter of 2023, sustained much milder total returns than were seen in the beginning of the year. Despite the second quarter's Total Return being slightly negative (-0.147%), the year-todate Total Return of 2.355% is the best at the halfway point of a year since 2019.



Mark Pinson Index Production and Analysis

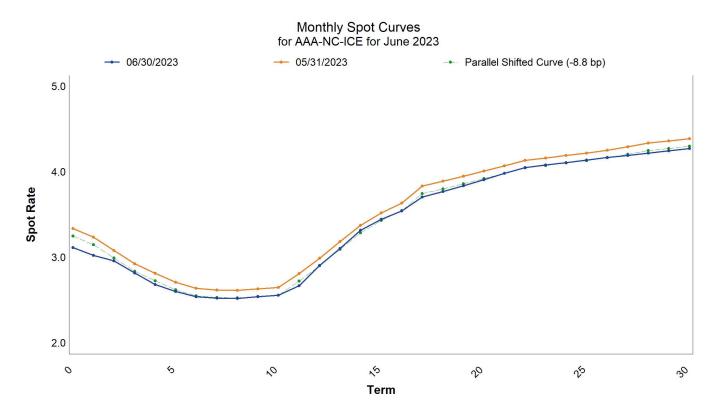
TABLE 1	June	YTD	
Total Return	0.826%	2.355%	
Coupon Return	0.342%	2.130%	
Market Amortization Return	-0.044%	-0.408%	
Parallel Shift Return	0.429%	0.390%	
Non-Parallel Shift Return	0.076%	-0.424%	
Sector/Quality Return	-0.047%	0.375%	
Residual Price Return	0.069%	0.293%	



Interpretation

Figure 1 shows the overall change in the ICE Municipal AAA Noncallable spot curve for June which demonstrated an 8.8 bp decrease in overall level as measured at the ten-year point.

FIGURE 1



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

The Parallel Shift Return of 0.429% is calculated from this curve decrease, as shown in Table 2.

TABLE 2

Change for 10-Year Spot Rate ^(a)	-8.79
Total Key Rate Duration ^(b)	4.8773
Parallel Shift Return ^(-b*a)	0.429

The Non-Parallel Shift Return was 0.076%, due to most of the curve decreasing slightly more than the 10-year term. See Table 3 for the full calculations for this term.



June 2023

TABLE 3	6 Mos	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
Non-Parallel Change	-13.01	-12.60	-3.37	-2.27	-2.15	-0.48	0.00	-1.41	-2.59
Key Rate Duration	0.036	0.129	0.268	0.548	0.761	0.888	1.407	0.742	0.100
Non-Parallel Shift Return	0.005	0.016	0.009	0.012	0.016	0.004	0.000	0.010	0.003

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 -0.047%.

The sectors exhibiting the largest overall tightening in average option-adjusted spread (weighted by both market value and duration) were Health Care, Resource Recovery, and Insured. The sectors exhibiting the largest overall widening were Public Power, Housing, IDR / PCR, and State GO. Quality-based groupings showed a slight "reach for yield" overall. Several sectors also showed a reach for yield: Health Care, Housing, IDR / PCR, Local GO, Other Revenue, Other Utility, Public Power, and Transportation.

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	AAA-rated Local GO	AA-rated Tax-Supported Excl. GO's	AAA-rated Tax-Supported Excl. GO's	AA-rated State GO
Change in Dur-Adj Average OA Spread ^(a)	1.441	1.333	3.335	1.651
Total Key Rate Duration ^(b)	5.000	5.136	5.233	4.420
Sector/Quality Return ^(-b*a)	-0.072	-0.068	-0.175	-0.073
Market Value Weight% ^(c)	9.924	7.644	2.965	5.372
Contribution to Duration ^(b*c)	0.49625	0.39260	0.15514	0.23745
Contribution to Sector/Quality Return $^{(\cdot b^* c^* a)}$	-0.00715	-0.00523	-0.00517	-0.00392



June 2023

TABLE 5	AA-rated Insured	BBB-rated Health Care	A-rated Health Care	BBB-rated Transporation
Change in Dur-Adj Average OA Spread ^(a)	-0.931	-5.255	-1.693	-6.639
Total Key Rate Duration ^(b)	5.698	5.907	5.505	5.902
Sector/Quality Return ^(-b*a)	0.053	0.310	0.093	0.392
Market Value Weight% ^(c)	5.617	0.932	2.924	0.444
Contribution to Duration ^(b*c)	0.32006	0.05506	0.16100	0.02622
Contribution to Sector/Quality Return $^{(-b^+c^+a)}$	0.00298	0.00289	0.00273	0.00174

Coupon Return was 0.342%, based on the index's average coupon of 4.315%. The average beginningof-month market yield was 3.636%, resulting in a Market Amortization Return of 0.044%. These two terms sum to a total income effect of 0.298%.

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** or **click here to contact us**.

To request a product demonstration, please contact **sales@invtools.com**.

For more information about **Custom Index Manager**, please **click here**.