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Overview

The municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, had a Total Return of -1.630% in June 2022, consisting of the components displayed in Table 1.

June saw a return to negative market performance after May's relief, putting the Year-To-Date Total Return farther in the red. The municipal yield curve began June continuing its late-May rising trend; although it began falling again the second half of the month, it still finished up overall for the month. Although the treasury curve experienced significant flattening in June, the muni curve actually steepened, with substantial increases in long-term yields. In general, both treasury and muni curves finished the month at or higher than pre-pandemic levels.

Municipal Bond Market Performance

June 2022

TABLE 1

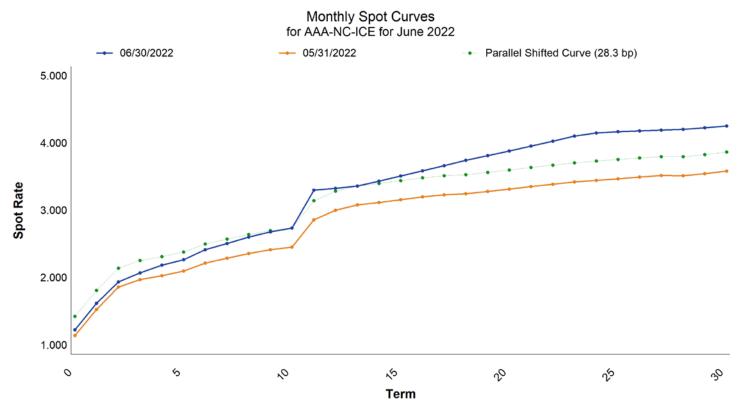
	JUNE	YTD				
Total Return	-1.630%	-8.119%				
Coupon Return	0.329%	1.891%				
Market Amortization Return	-0.103%	-0.916%				
Parallel Shift Return	-1.129%	-6.955%				
Non-Parallel Shift Return	0.203%	-0.136%				
Sector/Quality Return	0.221%	1.951%				
Residual Price Return	-1.152%	-3.954%				



Interpretation

Figure 1 shows the overall change in the municipal AAA non-callable spot curve for June, including a 28.3 bp increase 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 -1.129% is calculated from this curve increase, as shown in Table 2.

TABLE 2

Change for 10-Year Spot Rate ^(a)	28.29		
Total Key Rate Duration ^(b)	3.990		
Parallel Shift Return ^(-b*a)	-1.129		

The curve also showed substantial steepening. The Non-Parallel Shift Return of 0.203% was driven mainly by shorter-term spot rates increasing less than the ten-year point. See Table 3 for the full calculations for this term.



	TABLE 3	6 Mos	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
	Non-Parallel Change	-18.59	-18.99	-20.60	-18.34	-11.61	-6.23	0.00	28.28	38.84
ĺ	Key Rate Duration	0.041	0.163	0.322	0.576	0.736	0.736	0.949	0.407	0.060
	Non-Parallel Shift Return	0.008	0.031	0.066	0.106	0.085	0.046	0.000	-0.115	-0.023

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 0.221%.

The sectors exhibiting the largest tightening in average option-adjusted spread (weighted by both market value and duration) were Housing, Public Power, Water / Sewer, and State GO. The sectors exhibiting the largest overall widening were Resource Recovery, IDR / PCR, Prerefunded/ETM, and Tobacco Settlement. Quality-based groupings showed no significant trend.

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	A-rated IDR / PCR	BBB-rated Health Care	AA-rated Prerefunded/ ETM	A-rated Insured
Change in Duration-Adjusted Average OA Spread ^(a)	12.776	14.206	4.705	15.390
Total Key Rate Duration ^(b)	3.838	4.662	1.511	3.919
Sector/Quality Return ^(-b*a)	-0.490	-0.662	-0.071	-0.603
Market Value Weight% ^(c)	1.958	0.916	4.315	0.441
Contribution to Duration ^(b*c)	0.07515	0.04270	0.06522	0.01729
Contribution to Sector/Quality Return $^{(\cdot b^*c^*a)}$	-0.00960	-0.00607	-0.00307	-0.00266



June 2022

TABLE 5	AA-rated Water/Sewer	AA-rated Housing	AA-rated Tax-Supported (Excl. GO's)	AA-rated Health Care
Change in Duration-Adjusted Average OA Spread ^(a)	-11.291	-23.027	-5.966	-12.354
Total Key Rate Duration ^(b)	4.261	4.966	4.220	4.588
Sector/Quality Return ^(-b*a)	0.481	1.144	0.252	0.567
Market Value Weight% ^(c)	4.362	1.768	7.840	3.443
Contribution to Duration ^(b*c)	0.18584	0.08781	0.33082	0.15796
Contribution to Sector/Quality Return $^{(\cdot b^*c^*a)}$	0.02098	0.02022	0.01974	0.01951

Coupon Return was 0.329%, based on the index's average coupon of 4.284%. The average beginning-of-month market yield was 2.748%, resulting in a Market Amortization Return of -0.103%. These two terms sum to a total income effect of 0.226%, which is up substantially from the beginning of the year due to the rising yields.

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 the low yield curve environment. Premium bond prices, absent any change in yield, naturally decline over time to their redemption price. This decline is called market amortization.

Finally, the Residual Price Return was -1.152% reflecting the positive effects of rolling down the yield curve as well as the more substantial effects of convexity.

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