Investortools
Investment System Solutions

Municipal Bond Market Performance

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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 -0.278% in August 2021, consisting of the components displayed in Table 1. Table 1 also displays a breakdown of year-to-date returns; the YTD Total Return was 1.326.

August's only positive contributing factors were the Sector/Quality and Coupon Returns. These positive gains were offset by negative returns in every other return component.

TABLE 1

	AUGUST	YTD
Total Return	**-0.278%**	**1.326%**
Coupon Return	0.314%	2.561%
Market Amortization Return	-0.243%	-1.907%
Parallel Shift Return	-0.325%	-1.129%
Non-Parallel Shift Return	-0.012%	0.191%
Sector/Quality Return	0.551%	2.483%
Residual Price Return	-0.564%	-0.872%

Interpretation

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 0.551%.

The sectors exhibiting the largest tightening in average option-adjusted spread (weighted by both market value and duration) were Housing, Water / Sewer, and Health Care. No sectors exhibited overall widening in option-adjusted spread. Quality-based groupings did not show any substantive trends this month. In general, spread tightening tended to be more pronounced in callable bonds.

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 2. As shown, there are only two sector/quality categories with negative contributions. The biggest positive contributors are listed in Table 3.

TABLE 2

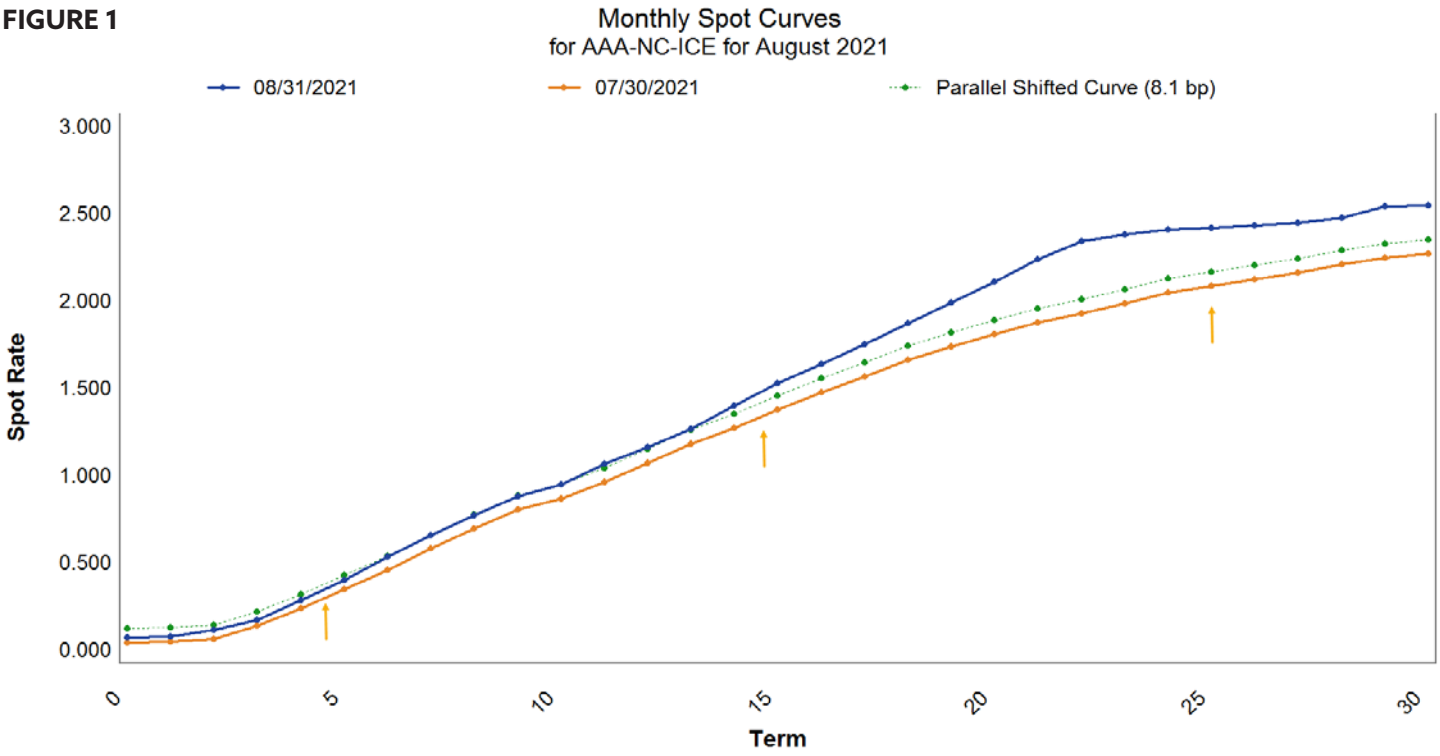
	BBB-rated State GO	A-rated State GO
Change in Duration-Adjusted Average OA Spread[(a)]	5.966	2.450
Total Key Rate Duration[(b)]	3.503	4.473
Sector/Quality Return[(-b*a)]	-0.209	-0.110
Market Value Weight%[(c)]	0.732	0.253
Contribution to Duration[(b*c)]	0.02563	0.01130
Contribution to Sector/Quality Return[(-b*c*a)]	-0.00153	-0.00028

TABLE 3

	AA-rated Local GO	AAA-rated Local GO	AA-rated Insured	AA-rated Water/Sewer
Change in Duration-Adjusted Average OA Spread[(a)]	-14.268	-14.784	-16.522	-23.294
Total Key Rate Duration[(b)]	4.301	4.278	4.586	4.321
Sector/Quality Return[(-b*a)]	0.614	0.632	0.758	1.006
Market Value Weight%[(c)]	9.594	8.939	5.092	3.607
Contribution to Duration[(b*c)]	0.41262	0.38239	0.23352	0.15583
Contribution to Sector/Quality Return[(-b*c*a)]	0.05887	0.05653	0.03858	0.03630

Figure 1 shows the overall change in the muni AAA non-callable spot curve for August. The graph captures the minimal yield curve increase on the short end, peaking at the twenty-two-year point, with an overall steepening. Long munis crept steadily up all month, unlike long treasuries.

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 -0.325% is calculated from the 8.09 bp increase in the ten-year point of the spot curve, as shown in Table 4.

TABLE 4

Change for 10-Year Spot Rate[(a)]	8.09%
Total Key Rate Duration[(b)]	4.014%
Parallel Shift Return[(-b*a)]	-0.325%

The Non-Parallel Shift Return was -0.012%. Points fell from the 6-month to the 7-year range fell, while the 20-year point increased 21.90 more than the 10-year point did. See Table 5 for the full calculations.

TABLE 5	6 Mos	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
Non-Parallel Change	-4.99	-4.99	-3.09	-4.59	-2.76	-0.48	0.00	21.90	19.28
Key Rate Duration	0.070	-0.027	0.036	0.628	0.984	0.982	0.992	0.318	0.032
Non-Parallel Shift Return	0.003	-0.001	0.001	0.029	0.027	0.005	0.000	-0.070	-0.006

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

Coupon Return was 0.314%, based on the index's average coupon of 4.337%. The average beginning-of-month market yield was 0.809%, resulting in a Market Amortization Return of -0.243%. These two terms sum to a total income effect of 0.071%.

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 -0.564%, reflecting the positive effects of rolling down the yield curve as well as the effects of convexity.