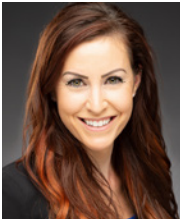




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Municipal Bond Market Performance

June 2021

Overview

The municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, had a Total Return of 0.219% in June 2021, consisting of the components displayed in Table 1. Table 1 also displays a breakdown of year-to-date returns.

After the municipal AAA-noncallable yield curve fell mid-month, taking the short end below 5 basis points to historic lows, it rose again toward end of the month. This resulted in a small net increase at the short end, and a small net decrease at the long end. This was a more muted flattening than what was seen in the treasury curve. A "reach for yield" saw muni BBB spreads tightening more than those of higher ratings. The Health Care and Tobacco Settlement sectors also saw overall tightening.

TABLE 1

	JUNE	YTD
Total Return	0.219%	0.924%
Coupon Return	0.307%	1.910%
Market Amortization Return	-0.222%	-1.405%
Parallel Shift Return	-0.007%	-1.420%
Non-Parallel Shift Return	-0.020%	0.274%
Sector/Quality Return	0.047%	2.175%
Residual Price Return	0.114%	-0.610%

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 0.047%. The sectors exhibiting the largest tightening in average option-adjusted spread (weighted by both market value and duration) were Tobacco Settlement and Health Care. The sectors exhibiting the greatest widening were Housing and Water / Sewer.

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. The biggest positive contributors are listed in Table 3.

TABLE 2

	AA-rated Water/Sewer	AAA-rated Local GO	AA-rated Housing	AAA-rated Housing
Change in Duration-Adjusted Average OA Spread ^(a)	3.229	1.082	4.266	7.765
Total Key Rate Duration ^(b)	4.480	4.462	5.072	4.995
Sector/Quality Return ^(-b*a)	-0.145	-0.048	-0.216	-0.388
Market Value Weight ^(c)	3.576	8.924	1.777	0.755
Contribution to Duration ^(b*c)	0.16020	0.39817	0.09012	0.03769
Contribution to Sector/Quality Return ^(-b*c*a)	-0.00517	-0.00431	-0.00384	-0.00293

TABLE 3

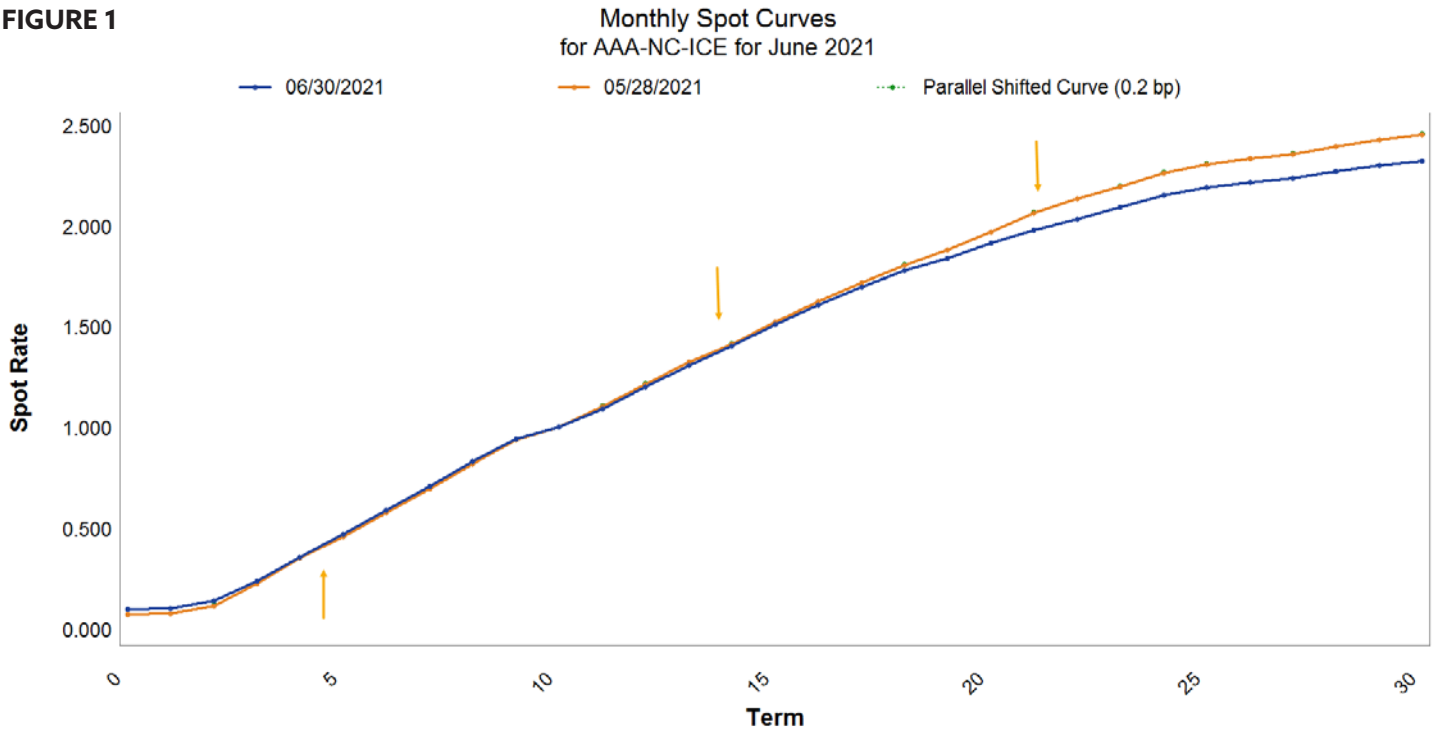
	A-rated Transportation	AA-rated Tax-Supported (Excl. GO's)	A-rated Health Care	AA-rated Health Care
Change in Duration-Adjusted Average OA Spread ^(a)	-3.058	-2.300	-5.291	-4.265
Total Key Rate Duration ^(b)	4.678	4.337	4.858	4.647
Sector/Quality Return ^(-b*a)	0.143	0.100	0.257	0.198
Market Value Weight ^(c)	5.574	7.828	2.874	3.515
Contribution to Duration ^(b*c)	0.26077	0.33945	0.13960	0.16334
Contribution to Sector/Quality Return ^(-b*c*a)	0.00797	0.00781	0.00739	0.00697

Coupon Return was 0.307%, based on the index's average coupon of 4.350%. The average beginning-of-month market yield was 0.939%, resulting in a Market Amortization Return of -0.222%. These two terms sum to a total income effect of 0.085%.

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.

Figure 1 shows the overall change in the muni AAA non-callable spot curve for June. As with May, the spot curve had almost no overall change, except for flattening seen mostly at the long end.

FIGURE 1



The Parallel Shift Return of -0.007% is calculated from the slight 0.16 bp increase in the ten-year point of the spot curve, as shown in Table 4.

TABLE 4

Change in 10-Year Spot Rate ^(a)	0.16
Total Key Rate Duration ^(b)	4.196
Parallel Shift Return ^(-b*a)	-0.007

Despite the decline in the long end, the Non-Parallel Shift Return was slightly negative (-0.020%) due to the key rate durations on the long end being smaller than those in the middle part of the curve.

TABLE 5

	6 Mos	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
Non-Parallel Change (bp)	2.44	2.44	2.34	1.44	1.35	1.15	0.00	-5.49	-13.31
Key Rate Duration	0.036	0.022	0.278	0.623	0.974	0.965	0.960	0.308	0.030
Non-Parallel Shift Return	-0.001	-0.001	-0.007	-0.009	-0.013	-0.011	0.000	0.017	0.004

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

Finally, the Residual Price Return was 0.114%, reflecting the positive effects of rolling down the yield curve as well as the effects of convexity.

CONTACT US

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

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