

Municipal Bond Market Performance

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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 -1.051% in October 2023, consisting of the components displayed in Table 1.

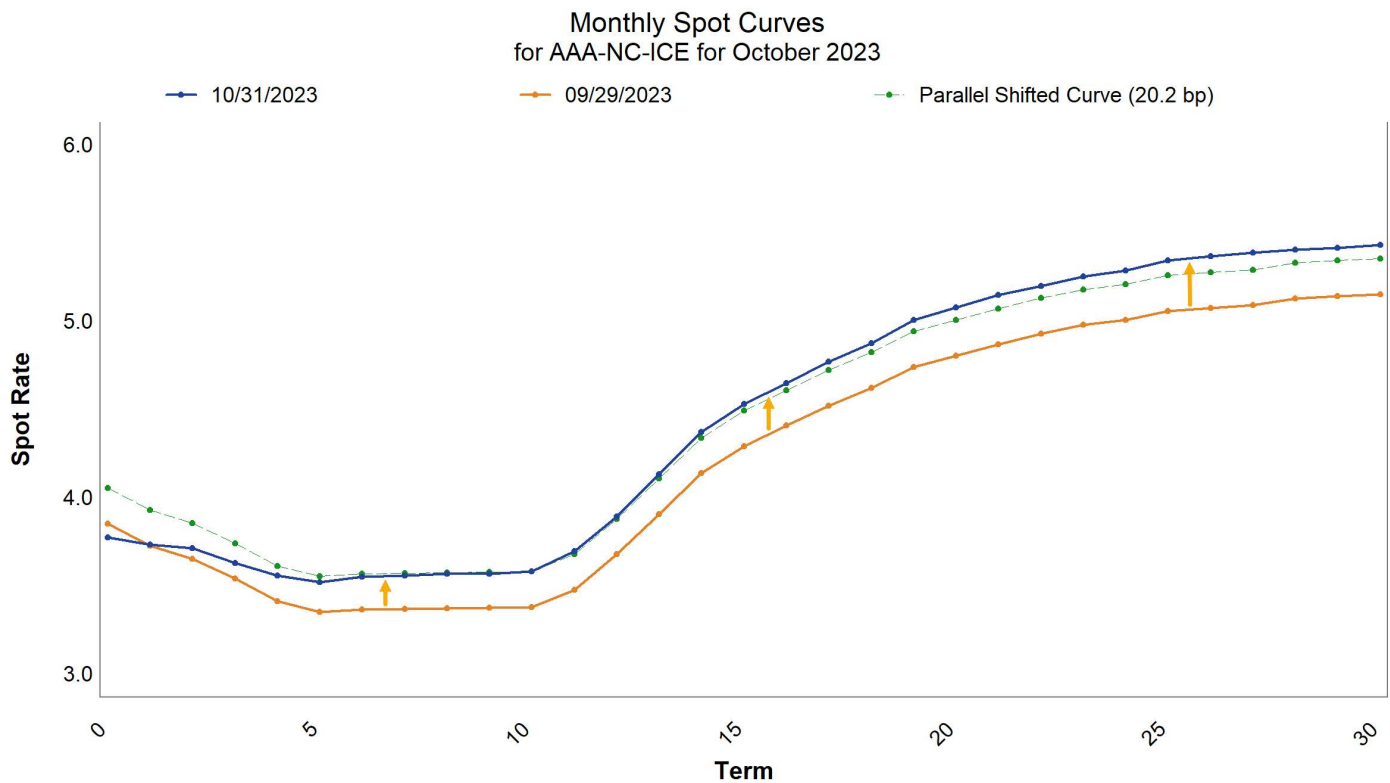
October continued to cut into the inversion in both the Treasury and Municipal yield curves. This was mostly due to an increase in yields at longer terms, as short-term yields showed little overall movement. Now, even the lowest point on the municipal yield curve (the five-year term) is higher than it has been since 2008. But while rising yields have helped drag the index's two-year trailing total return down to -9.002%, the worst in the index's almost 25-year history, they have also been reducing the drain caused by market amortization. This was clearly shown in October by a near-zero Market Amortization Return.

TABLE 1	October	YTD
Total Return	-1.051%	-2.255%
Coupon Return	0.382%	3.595%
Market Amortization Return	-0.004%	-0.578%
Parallel Shift Return	-0.998%	-4.707%
Non-Parallel Shift Return	0.111%	-0.242%
Sector/Quality Return	-0.200%	0.663%
Residual Price Return	-0.342%	-0.986%

Interpretation

Figure 1 shows the overall change in the ICE Municipal AAA Noncallable spot curve for October which demonstrated a 20.2 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 -0.998% is calculated from this curve increase, as shown in Table 2.

TABLE 2

Change for 10-Year Spot Rate ^(a)	20.24
Total Key Rate Duration ^(b)	4.9312
Parallel Shift Return ^(-b*a)	-0.998

The Non-Parallel Shift Return was 0.111%, due to short-term yields increasing less than the ten-year term and, in the case of the 6-month term, actually decreasing. 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	-25.14	-19.49	-13.94	-11.29	-3.30	-1.47	0.00	7.02	7.69
Key Rate Duration	0.036	0.131	0.265	0.530	0.747	0.933	1.461	0.735	0.093
Non-Parallel Shift Return	0.009	0.026	0.037	0.060	0.025	0.014	0.000	-0.052	-0.007

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 -0.200%.

The Housing sector exhibited the largest overall tightening in average option-adjusted spread (weighted by both market value and duration) of any sector. The sectors exhibiting the largest overall widening were IDR / PCR, Health Care, and Transportation.

In a reversal of a dominant trend of the year to date, spreads of lower-rated groupings widened, reflecting decreased appetite for credit risk. Spreads of higher-rated groupings stayed roughly the same.

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, led by the AA-rated and AAA-rated Housing groupings.

TABLE 4

	AAA-rated Local GO	A-rated Transportation	AA-rated Local GO	AA-rated Insured
Change in Dur-Adj Average OA Spread ^(a)	5.090	8.946	3.883	5.669
Total Key Rate Duration ^(b)	5.104	5.173	5.192	5.737
Sector/Quality Return ^(b*a)	-0.260	-0.463	-0.202	-0.325
Market Value Weight ^(c)	10.249	5.138	9.792	5.669
Contribution to Duration ^(b*c)	0.52310	0.26577	0.50834	0.32524
Contribution to Sector/Quality Return ^(b*c*a)	-0.02662	-0.02378	-0.01974	-0.01844

TABLE 5

	AA-rated Housing	AAA-rated Housing	AA-rated Sate GO	AA-rated Public Power
Change in Dur-Adj Average OA Spread ^(a)	-2.429	-3.671	-1.713	-1.293
Total Key Rate Duration ^(b)	6.251	5.881	4.300	4.924
Sector/Quality Return ^(b*a)	0.152	0.216	0.074	0.064
Market Value Weight ^(c)	2.046	1.204	3.133	1.793
Contribution to Duration ^(b*c)	0.12789	0.07083	0.13469	0.08829
Contribution to Sector/Quality Return ^(b*c*a)	0.00311	0.00260	0.00231	0.00114

Coupon Return was 0.382%, based on the index's average coupon of 4.337%. The average beginning-of-month market yield was 4.313%, resulting in a Market Amortization Return of -0.004%. These two terms sum to a total income effect of 0.378%, the largest income effect so far this year.

Note that Coupon Return reflects both interest payments and changes in accrued interest throughout the month. Market Amortization Return was nearly zero this month due to yields being roughly equivalent to the index's average coupon.

Finally, the Residual Price Return was -0.342%, reflecting the effects of rolling down (or, on the short end, rolling up!) the yield curve as well as the more substantial 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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