Municipal Bond Market Performance

April 2025

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In April 2025, the municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, had a Total Return of -0.491%. This total return consists of the components displayed in Table 1.

April was a volatile month for both the municipal and treasury yield curves. Both curves saw substantial daily movement throughout the month, with 10-year municipal yields briefly hitting highs not seen since 2008. Despite this, the 10-year yield of both curves ended the month fairly near where they started the month. While the treasury curve steepened, the municipal curve's yields increased more substantially at both the short and long ends. This movement at the ends was the primary source of April's overall negative return.

Among sectors, Housing was a stand-out winner, seeing substantial spread tightening. Among states, Wyoming Insured bonds stood out, while Guam and Puerto Rico bonds were particularly punished.

TABLE 1	April	YTD
Total Return	**-0.491%**	**-0.779%**
Coupon Return	0.353%	1.436%
Market Amortization Return	-0.045%	-0.243%
Parallel Shift Return	-0.317%	-1.568%
Non-Parallel Shift Return	-0.450%	-0.536%
Sector/Quality Return	-0.086%	0.149%
Residual Price Return	0.054%	-0.018%

Parallel and Non-Parallel Shift Return

Figure 1 shows the overall change in the ICE US Municipal AAA Noncallable spot curve for April. This curve demonstrated a 5.1 bp increase in its overall level as measured at the ten-year point.

FIGURE 1

ICE US Municipal AAA Noncallable Spot Curve Change for April 2025
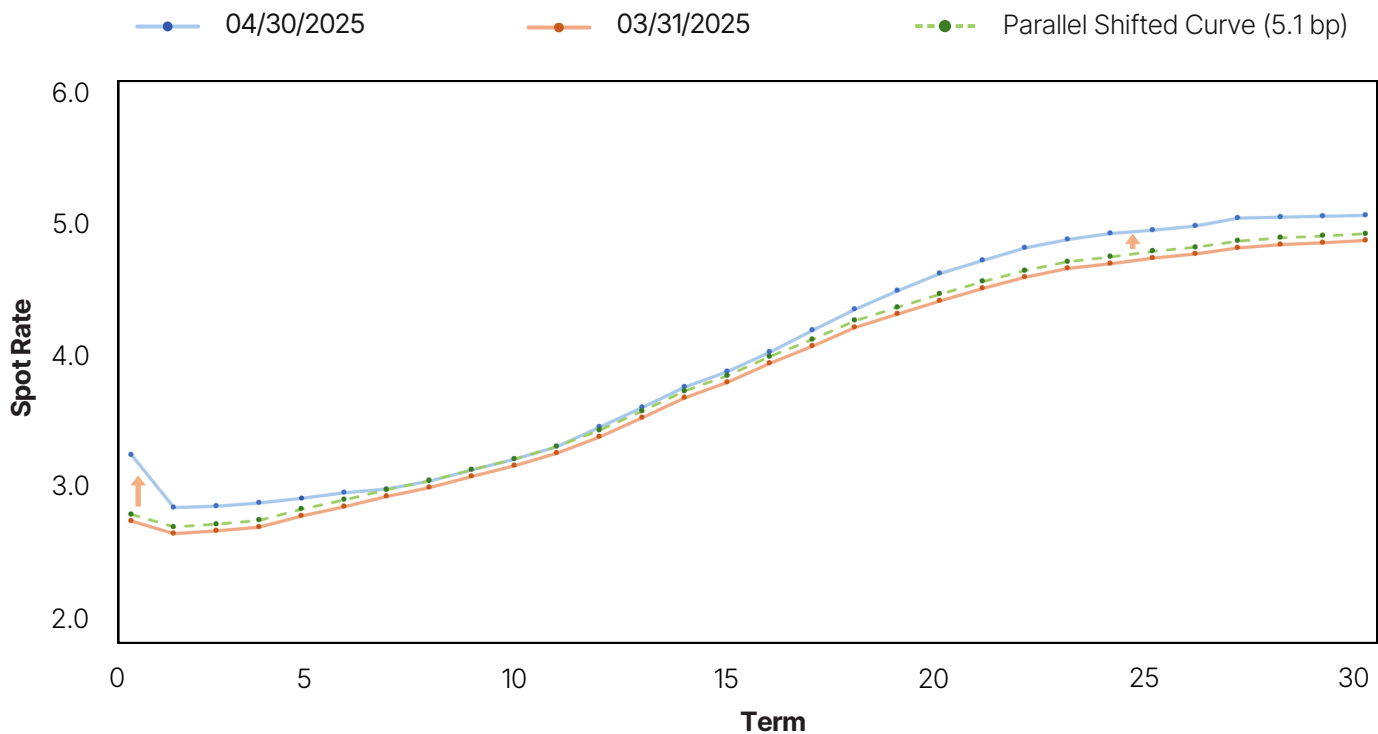
The green dotted line depicts the parallel shift implied by the ten-year point's spot curve change.

The Parallel Shift Return of -0.317% is calculated from this curve increase, as shown in Table 2.

Table 2

Change for 10-Year Spot Rate[a]	5.09
Total Key Rate Duration[b]	6.2373
Parallel Shift Return[-b*a]	**-0.317%**

The Non-Parallel Shift Return was -0.450%. As already mentioned, the short and long end of the curve increased more than other portions of the curve. This movement, known as a butterfly shift, was the primary reason for the large Non-Parallel Shift Return. The movement at the 20-year point had a particularly large effect due to the index's high key rate duration at that 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	34.16	14.57	13.6	12.99	5.29	-0.19	0.00	15.85	14.27
Key Rate Duration	0.038	0.110	0.214	0.421	0.662	0.993	1.849	1.627	0.324
Non-Parallel Shift Return	**-0.013**	**-0.016**	**-0.029**	**-0.055**	**-0.035**	**0.002**	**0.000**	**-0.258**	**-0.046**

Note: Each value in the Non-Parallel Shift Return row is calculated by multiplying the two cells above it, dividing by 100 and reversing the sign.

Sector/Quality Return

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 -0.086%.

The sector exhibiting the largest overall tightening in average option-adjusted spread (weighted by both market value and duration) was Housing. The sectors exhibiting the largest overall widening were IDR / PCR and Tobacco Settlement. Spreads widened slightly overall in lower-rated groupings.

The sector/quality categories with the biggest positive contributions to Sector/Quality Return, considering both weightings and the groupings' own sector/quality returns, are listed in Table 4. The biggest negative contributors are listed in Table 5.

Table 4

	AAA-rated Housing	AA-rated Housing	AAA-rated Tax-Supported (Excl. GOs)	AAA-rated Transportation
Change in Dur-Adj Average OA Spread [a]	-10.696	-7.229	-0.283	-2.881
OA Spread Duration [b]	7.762	8.119	6.633	6.529
Sector/Quality Return [-b*a]	0.830	0.587	0.019	0.188
Market Value Weight% [c]	1.746	2.368	3.570	0.281
Contribution to Duration [b*c]	0.13556	0.19228	0.23678	0.01835
Contribution to Sector/Quality Return [-b*c*a]	**0.01450**	**0.01390**	**0.00067**	**0.00053**

Table 5

	A-rated Health Care	A-rated IDR/PCR	AA-rated Public Power	AA-rated Education
Change in Dur-Adj Average OA Spread [a]	7.889	7.519	5.870	2.763
OA Spread Duration [b]	6.697	4.831	6.267	5.994
Sector/Quality Return [-b*a]	-0.528	-0.363	-0.368	-0.166
Market Value Weight% [c]	2.966	2.939	1.915	3.848
Contribution to Duration [b*c]	0.19860	0.14201	0.12003	0.23064
Contribution to Sector/Quality Return [-b*c*a]	**-0.01567**	**-0.01068**	**-0.00705**	**-0.00637**

Coupon Return and Other Effects

Coupon Return was 0.353%, based on the index's average coupon of 4.439%. The average beginning-of-month market yield was 3.770%, resulting in a Market Amortization Return of -0.045%. These two terms sum to a total income effect of 0.308%.

Note: 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. Over time, premium bond prices, absent any change in yield, naturally decline to their redemption price. This decline is called market amortization.

Appendix: Return from State-Specific Spread Change

Table 6 below shows the states and territories with the five best state-specific spread returns, while Table 7 shows the states and territories with the five worst state-specific spread returns. This is the portion of return from change in spread after adjusting for the sector/quality composition of the state's bonds, capturing the extent to which the state's bonds' performance differed from the national averages.

Spreads widened overall for Insured bonds across the nation but tightened substantially in Wisconsin and Wyoming. Most sectors saw tightening spreads in Maryland and Mississippi, despite most sectors seeing slight widening nationally. On the other hand, the Housing sector saw overall tightening nationally but saw overall widening in New Hampshire.

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Table 6

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
Wyoming	0.05%	0.214%	0.441%	0.655%
Mississippi	0.26%	0.030%	0.199%	0.229%
Nebraska	0.61%	-0.118%	0.163%	0.045%
Maryland	1.89%	-0.036%	0.118%	0.082%
Wisconsin	1.45%	-0.085%	0.118%	0.033%

Table 7

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
New Hampshire	0.30%	0.028%	-0.164%	-0.136%
Alaska	0.20%	0.092%	-0.169%	-0.077%
Nevada	0.84%	-0.031%	-0.180%	-0.211%
Guam	0.05%	-0.291%	-0.463%	-0.754%
Puerto Rico	0.07%	-0.110%	-0.477%	-0.587%

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

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