

Municipal Bond Market Performance

February 2024



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Mark Pinson 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 0.011% in February 2024, consisting of the components displayed in Table 1.

The municipal yield curve saw little movement for most of February. After an early increase, the curve held steady for the rest of the month resulting in only a slight overall increase. With February's small positive return doing little to offset January's larger negative return, 2024 is now the third year in the last four to have posted a negative year-to-date return at the end of February. This has only happened two other times in this index's twenty-five-year history. One bright spot in February was the Tobacco Settlement sector which substantially outperformed every other sector in both January and February, buoyed by a broader increase in market appetite for credit risk. Additionally, Iowa and Puerto Rico had particularly strong state-specific effects.

TABLE 1	February	YTD	
Total Return	0.011%	-0.210%	
Coupon Return	0.328%	0.677%	
Market Amortization Return	-0.061%	-0.116%	
Parallel Shift Return	-0.430%	-1.009%	
Non-Parallel Shift Return	-0.012%	-0.043%	
Sector/Quality Return	0.211%	0.304%	
Residual Price Return	-0.026%	-0.024%	



Intrepretation

Figure 1 shows the overall change in the ICE US Municipal AAA Noncallable spot curve for February. This curve demonstrated a 7.3 bp increase in overall level as measured at the ten-year point.

FIGURE 1



ICE US Municipal AAA Noncallable Spot Curve Change for February 2024

The green dotted line depicts the parallel shift implied by the ten-year point's spot curve change.

The Parallel Shift Return of -0.430% is calculated from this curve increase, as shown in Table 2.

TABLE 2

Parallel Shift Return ^(-b*a)	-0.430
Total Key Rate Duration ^(b)	5.9123
Change for 10-Year Spot Rate ^(a)	7.27

The Non-Parallel Shift Return was -0.012%, driven primarily by short-term and long-term yields rising more than intermediate-term yields, which is known as a butterfly shift. See Table 3 for the full calculations for this term.



TABLE 3

TABLE 3	6 Mos	1 Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
Non-Parallel Change	7.20	4.71	1.88	-2.11	-3.38	-0.42	0.00	0.62	7.29
Key Rate Duration	0.041	0.121	0.248	0.489	0.662	0.834	1.633	1.544	0.340
Non-Parallel Shift Return	-0.003	-0.006	-0.005	0.010	0.022	0.003	0.000	-0.010	-0.025

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 0.211%.

As previously mentioned, the sector exhibiting the largest overall tightening in average option-adjusted spread (weighted by both market value and duration) was Tobacco Settlement. The sector exhibiting overall widening was Prerefunded/ETM. As was the case in January, lower-rated securities generally outperformed their higher-rated counterparts.

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	BBB-rated Insured	AAA-rated Prerefunded/ ETM	AA-rated Prerefunded/ ETM
Change in Dur-Adj Average OA Spread ^(a)	9.500	1.415	0.280
OA Spread Duration ^(b)	3.858	1.173	1.315
Sector/Quality Return ^(-b*a)	-0.367	-0.017	-0.004
Market Value Weight% ^(c)	0.101	1.168	2.211
Contribution to Duration ^(b*c)	0.00390	0.01371	0.02908
Contribution to Sector/Quality Return (b^*c^*a)	-0.00037	-0.00019	-0.00008



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TABLE 5	A-rated Transporation	AA-rated Insured	AA-rated Local-GO	AAA-rated Local-GO
Change in Dur-Adj Average OA Spread ^(a)	-8.177	-4.982	-3.260	-3.097
OA Spread Duration ^(b)	5.311	6.132	5.257	5.166
Sector/Quality Return ^(.b*a)	0.434	0.305	0.171	0.160
Market Value Weight%(c)	4.900	5.992	9.801	10.300
Contribution to Duration ^(b*c)	0.26027	0.36740	0.51525	0.53211
Contribution to Sector/Quality Return ^(-b*c*a)	0.02128	0.01830	0.01680	0.01648

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 state's sector/quality composition, capturing the extent to which the state's performance differs from the national averages.

lowa and Puerto Rico were standouts for outperformance. Maryland and other states in the bottom five weren't lifted as much as other states by the broader spread tightening trends discussed above and reflected in the Return from Sector/Quality Composition column. They lagged behind other states, as reflected in their negative State-Specific Spread Returns.

TABLE 6

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
lowa	0.43%	0.312%	0.287%	0.599%
Puerto Rico	0.08%	-0.073%	0.238%	0.165%
Virgin Islands	0.01%	0.028%	0.098%	0.126%
Wyoming	0.05%	0.330%	0.096%	0.426%
District of Columbia	1.15%	0.216%	0.078%	0.294%



TABLE 7

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
North Carolina	1.54%	0.212%	-0.072%	0.140%
Arkansas	0.29%	0.256%	-0.078%	0.178%
Mississippi	0.28%	0.193%	-0.084%	0.109%
South Carolina	1.12%	0.204%	-0.085%	0.119%
Maryland	1.97%	0.179%	-0.096%	0.083%

Coupon Return was 0.328%, based on the index's average coupon of 4.362%. The average beginning-of-month market yield was 3.369%, resulting in a Market Amortization Return of -0.061%. These two terms sum to a total income effect of 0.267%.

Note that Coupon Return reflects both interest payments and changes in accrued interest throughout the month. Market Amortization Return is negative because of yields being lower on average than coupon rates. Premium bond prices, absent any change in yield, naturally decline over time to their redemption price. This decline is called market amortization

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