

Municipal Bond Market Performance

2024 Year in Review

January 30, 2025



Joel A. Buursma, CIPM
Vice President, Senior Software Architect



Mark Pinson
Index Production and Analysis

Overview

The municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, had an annual Total Return of 1.531% in 2024. Table 1 contains the monthly and annual total returns and their breakdowns.

2024 was a year of ups and downs when it came to yield curve levels. The middle of the curve had the largest overall increase in yields across the year (reflected in the sharply negative Parallel Shift Return), and the shortest terms of the curve had the smallest yield increase (reflected in the positive Non-Parallel Shift Return). 2024 saw the continuation of a multi-year trend of tightening credit spreads for lower-rated bonds, reflected in the positive Sector-Quality Return. These bright spots, combined with the force of income, kept 2024 in the green overall.

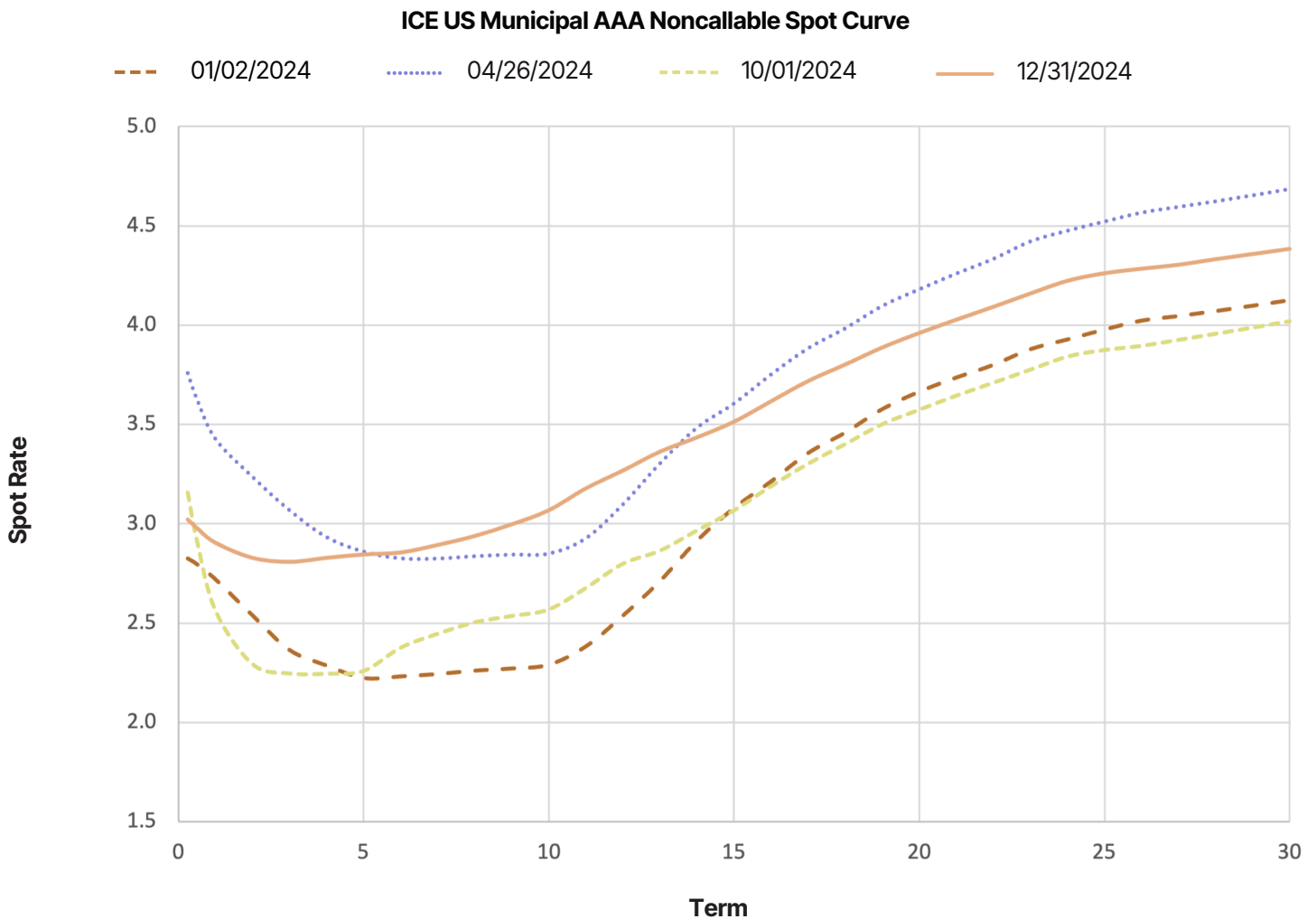
Table 1

	Total Return	Coupon Return	Mkt Amort Return	Parallel Shift Return	Non-Parallel Shift Return	Sector/Quality Return	Residual Price Return
Year	1.531%	4.281%	-0.719%	-4.644%	1.499%	1.111%	0.004%
Dec	-1.130%	0.366%	-0.067%	-1.624%	0.110%	0.072%	0.014%
Nov	1.515%	0.347%	-0.060%	1.420%	-0.201%	0.070%	-0.060%
Oct	-1.318%	0.364%	-0.085%	-2.450%	0.268%	0.507%	0.078%
Sep	0.975%	0.344%	-0.055%	0.484%	-0.018%	0.245%	-0.025%
Aug	0.808%	0.357%	-0.065%	0.560%	0.529%	-0.498%	-0.074%
Jul	0.846%	0.370%	-0.035%	0.494%	0.335%	-0.280%	-0.037%
Jun	1.559%	0.350%	-0.048%	1.361%	0.017%	-0.101%	-0.019%
May	-0.319%	0.371%	-0.048%	-1.593%	0.613%	0.208%	0.130%
Apr	-1.067%	0.343%	-0.022%	-1.784%	0.042%	0.385%	-0.030%
Mar	-0.084%	0.376%	-0.114%	-0.431%	-0.155%	0.187%	0.053%
Feb	0.011%	0.328%	-0.061%	-0.430%	-0.012%	0.211%	-0.026%
Jan	-0.221%	0.350%	-0.055%	-0.580%	-0.031%	0.094%	0.002%

Yield Curve Change

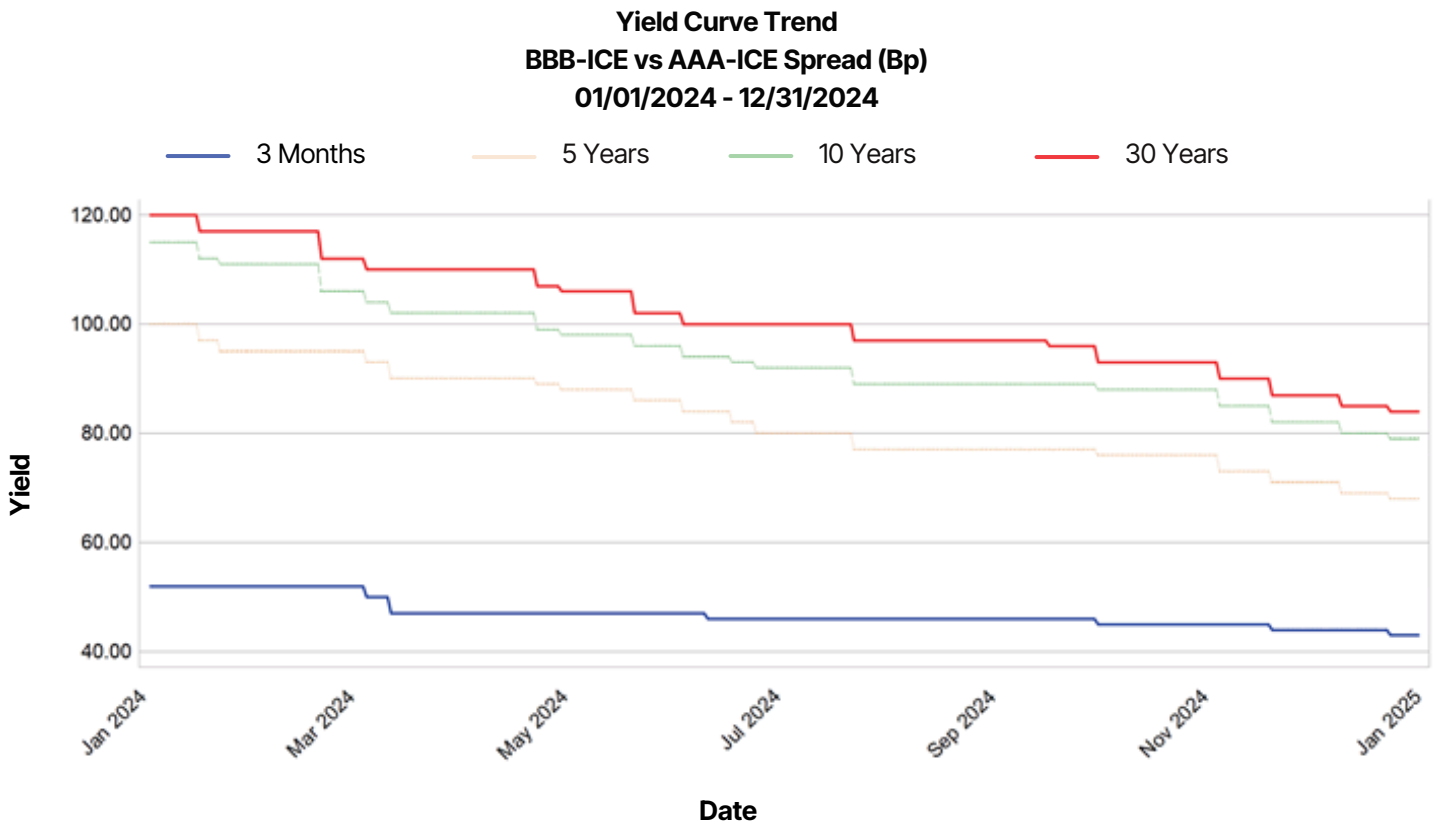
Figure 1 shows the ICE US Municipal AAA Noncallable spot curve at key dates in 2024, illustrating the ups and downs experienced by much of the curve. The 10-year spot rate rose 78 basis points in 2024, causing the Parallel Shift Return to have the largest negative contribution to the market's Total Return. However, the rest of the curve rose less, causing a positive Non-Parallel Shift Return that partially offset this Parallel Shift Return.

Figure 1



Spread Change for BBB-Rated Bonds

Since the middle of 2022, credit spreads for BBB-rated bonds have generally tightened. Comparing the ICE US Municipal BBB and AAA Yield Curves over the course of 2024 reveals that it was no exception. BBB-AAA spreads at the 30-year point narrowed in 2024 by 36 basis points (bp) to a mere 84 bp not seen since the low yield environment of January 2022. Spreads at the 3-Month point narrowed by a much more modest 9 bp.

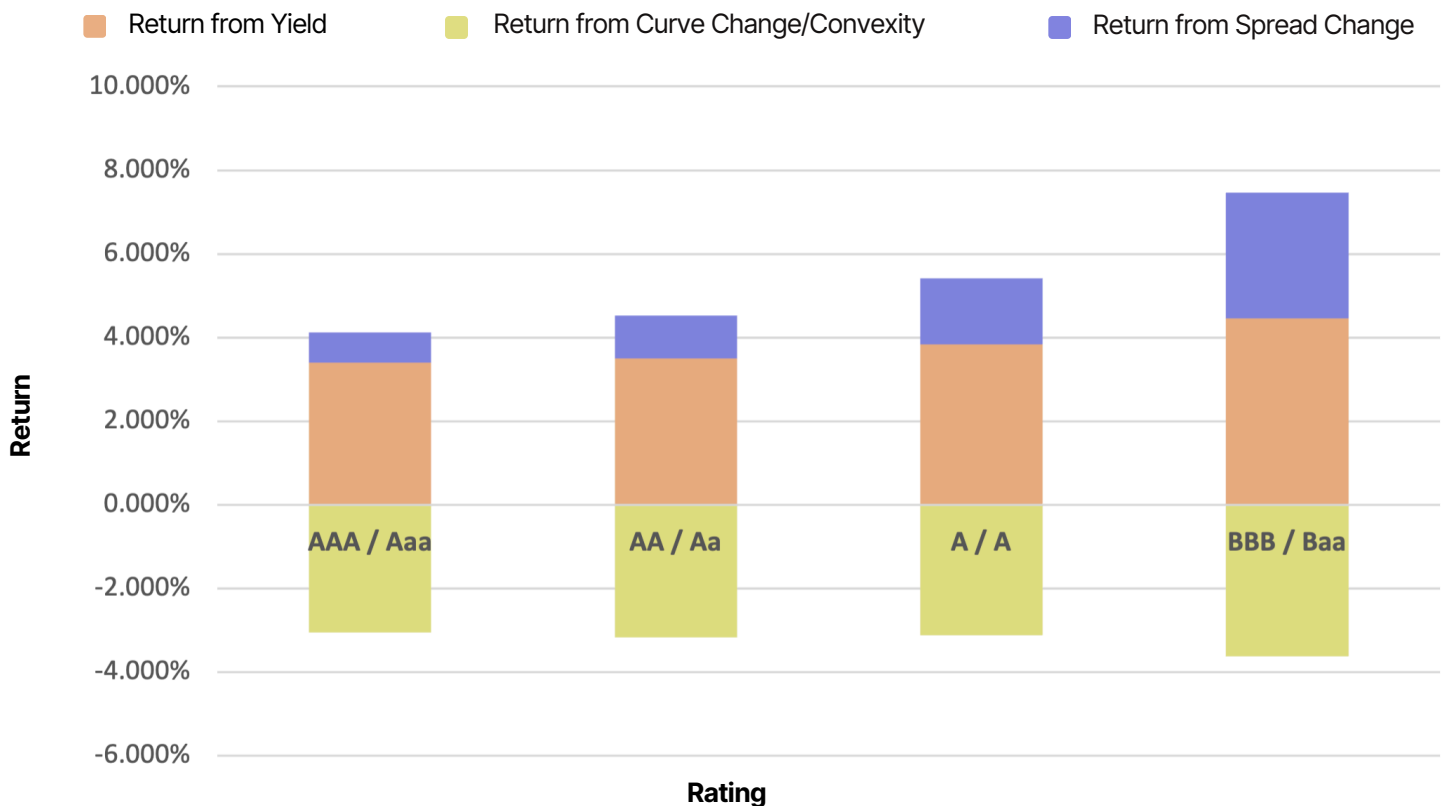
Figure 2


Total Return Breakdown by Rating

In 2024, lower-rated bonds tended to benefit from higher yields in addition to the aforementioned tightening of credit spreads. This was blunted by the tendency of BBB-rated bonds to have longer durations, resulting in a more negative “Return from Curve Chg / Convexity” (see Appendix at the end of the report for more information on these terms) than other rating categories. But their higher returns from yield and spread tightening more than compensated for the increased drag from longer durations.

Table 2

	Weight Percentage	Total Return	Return from Yield	Return from Curve Change/Convexity	Return from Spread Change	Beginning Effective Duration
Grand Totals	100.00%	1.531%	3.562%	-3.141%	1.111%	6.082
AAA/Aaa	24.50%	1.063%	3.387%	-3.053%	0.730%	5.861
AA/Aa	55.28%	1.351%	3.504%	-3.176%	1.023%	6.197
A/A	15.69%	2.292%	3.833%	-3.124%	1.584%	5.905
BBB/Baa	3.90%	3.827%	4.453%	-3.636%	3.010%	7.325
Other	0.63%	2.335%	3.181%	-0.891%	0.045%	2.052

Figure 3
Return Breakdown by Rating


Cumulative Return Growth by Rating

Figure 4 shows cumulative total return over the course of the year for various rating categories.

Figure 4

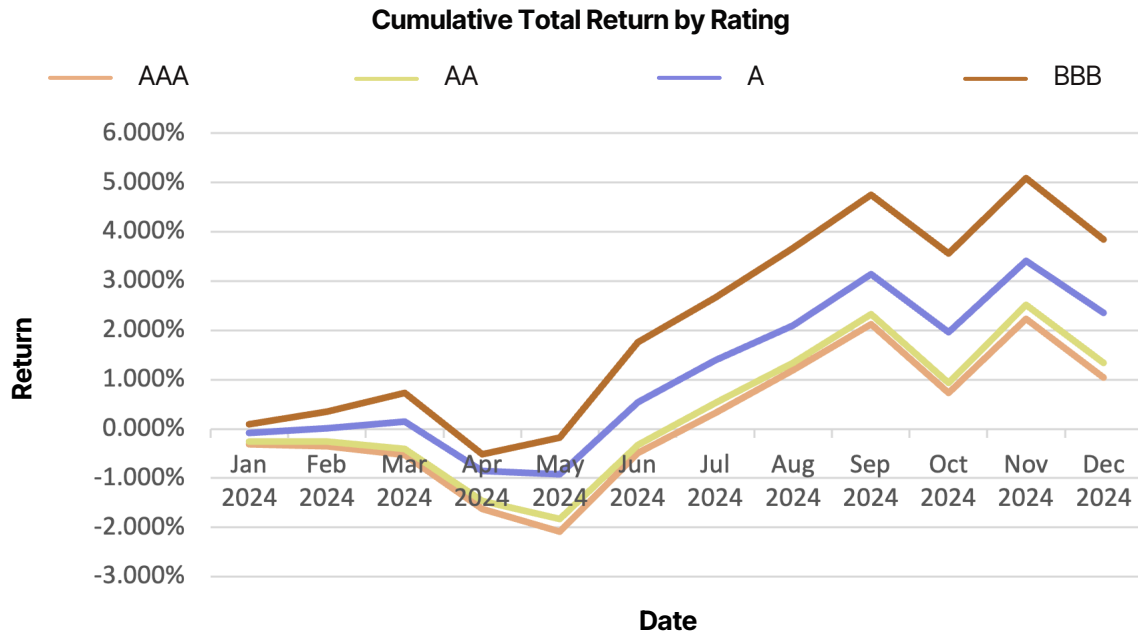
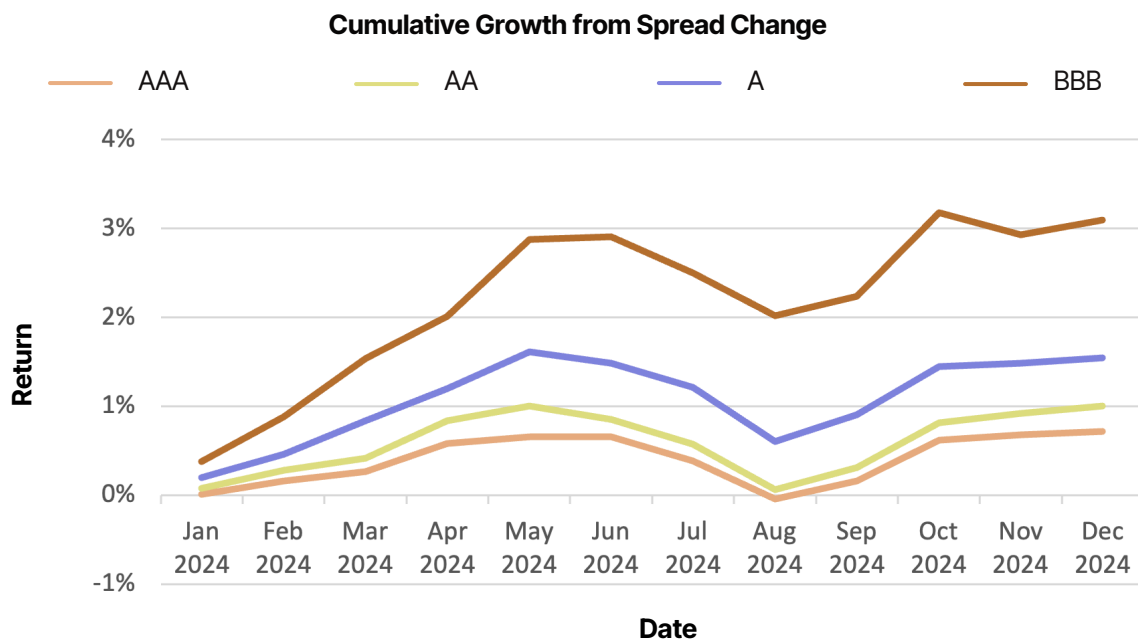


Figure 5 isolates the portion of that cumulative return that is due to spread change.

Figure 5



Total Return Breakdown by Sector

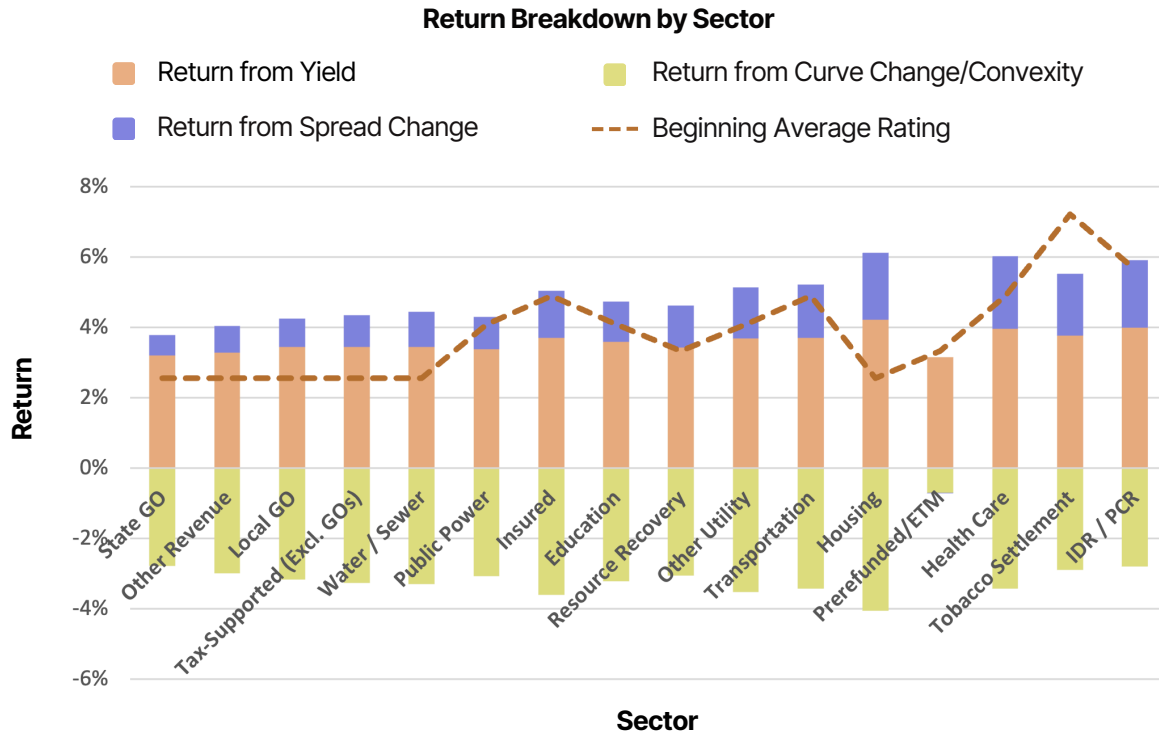
The top-performing sectors of 2024 were IDR / PCR, Tobacco Settlement, and Health Care. These sectors benefited from their greater exposure to lower-rated bonds, resulting in increased return from yield and from the tightening of credit spreads. The next best sector return was from the Prerefunded/ETM sector, whose short duration resulted in a far less negative "Return from Curve Chg / Convexity" than other sectors.

Table 3

	Weight Percentage	Total Return	Return from Yield	Return from Curve Chg/ Convexity	Return from Spread Chg	Beginning Effective Duration	Beginning Average Rating
Grand Totals	100.00%	1.531%	3.562%	-3.141%	1.111%	6.082	AA / Aa2
State GO	9.11%	1.022%	3.212%	-2.768%	0.576%	5.006	AA+ / Aa1
Other Revenue	2.78%	1.060%	3.294%	-2.980%	0.747%	5.358	AA+ / Aa1
Local GO	20.77%	1.085%	3.450%	-3.166%	0.803%	6.149	AA+ / Aa1
Tax-Supported (Excl. GOs)	12.32%	1.097%	3.443%	-3.260%	0.913%	6.398	AA+ / Aa1
Water / Sewer	6.62%	1.166%	3.443%	-3.288%	1.011%	6.399	AA+ / Aa1
Public Power	2.84%	1.235%	3.379%	-3.071%	0.927%	5.778	AA- / Aa3
Insured	6.62%	1.448%	3.714%	-3.602%	1.336%	7.278	A+ / A1
Education	6.68%	1.525%	3.603%	-3.211%	1.134%	6.454	AA- / Aa3
Resource Recovery	0.05%	1.583%	3.431%	-3.046%	1.197%	5.706	AA / Aa2
Other Utility	1.05%	1.623%	3.690%	-3.514%	1.447%	6.202	AA- / Aa3
Transportation	11.06%	1.801%	3.707%	-3.418%	1.512%	6.618	A+ / A1
Housing	3.93%	2.071%	4.227%	-4.057%	1.902%	8.468	AA+ / Aa1
Prerefunded/ETM	4.03%	2.452%	3.156%	-0.695%	-0.008%	1.348	AA / Aa2
Health Care	7.47%	2.618%	3.969%	-3.416%	2.064%	6.900	A+ / A1
Tobacco Settlement	0.30%	2.642%	3.770%	-2.888%	1.761%	6.919	BBB+ / Baa1
IDR/PCR	4.37%	3.137%	4.003%	-2.788%	1.921%	5.283	A / A2

Figure 6 shows sectors that are ordered from lowest return on the left to highest return on the right.

Figure 6



Biggest States by Market Value

Some of the biggest states, as measured by their bonds’ total market value in the Standard & Poor’s Municipal Bond Investment Grade Index, outperformed the general market for various reasons. California bonds slightly outperformed on average, despite their lower yields and longer duration. This was due to flattening effects farther out on the curve and market-beating spread tightening from the state’s Local GO bonds.

Illinois bonds benefited from both their shorter average duration (producing less negative Return from Curve Change / Convexity), and their exposure to lower-rated bonds (producing higher Returns from Yield and Returns from Spread Change). Michigan bonds similarly benefited from higher yields and more spread tightening on average (led by the state’s outperforming Local GOs). Michigan also had a larger-than-average concentration of Health Care bonds, which was an outperforming sector in 2024.

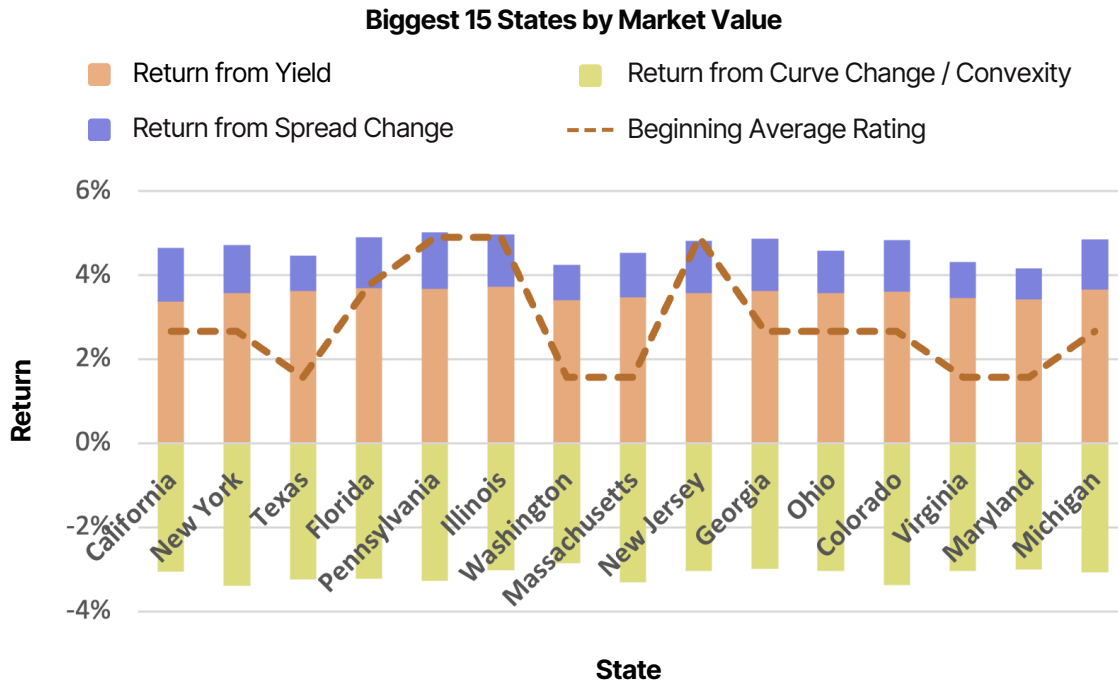
By contrast, Maryland bonds underperformed the market, despite their shorter average duration. This was due to lower yields and market-lagging spread changes. And Texas bonds, while boasting average yields higher than the general market, experienced drag forces from longer durations and lagging spread changes.

Table 4

	Weight Percentage	Total Return	Return from Yield	Return from Curve Chg/Convexity	Return from Spread Chg	Beginning Effective Duration	Beginning Average Rating
Grand Totals	100.00%	1.531%	3.562%	-3.141%	1.111%	6.082	AA / Aa2
California	15.82%	1.608%	3.373%	-3.051%	1.285%	6.163	AA / Aa2
New York	13.02%	1.330%	3.585%	-3.390%	1.135%	6.667	AA / Aa2
Texas	11.69%	1.241%	3.625%	-3.234%	0.851%	6.300	AA+ / Aa1
Florida	4.08%	1.691%	3.689%	-3.220%	1.221%	6.291	AA- / Aa3
Pennsylvania	3.90%	1.757%	3.679%	-3.268%	1.347%	6.223	A+ / A1
Illinois	3.76%	1.954%	3.723%	-3.021%	1.251%	5.858	A+ / A1
Washington	3.10%	1.397%	3.406%	-2.853%	0.844%	5.285	AA+ / Aa1
Massachusetts	3.09%	1.230%	3.471%	-3.309%	1.068%	6.339	AA+ / Aa1
New Jersey	3.07%	1.776%	3.572%	-3.039%	1.244%	5.833	A+ / A1
Georgia	2.36%	1.881%	3.622%	-2.989%	1.247%	5.767	AA / Aa2
Ohio	2.34%	1.563%	3.583%	-3.031%	1.011%	5.946	AA / Aa2
Colorado	2.21%	1.477%	3.615%	-3.368%	1.230%	6.659	AA / Aa2
Virginia	2.15%	1.276%	3.456%	-3.039%	0.858%	5.847	AA+ / Aa1
Maryland	1.93%	1.176%	3.429%	-2.997%	0.745%	5.543	AA+ / Aa1
Michigan	1.81%	1.797%	3.657%	-3.064%	1.205%	6.156	AA / Aa2

Figure 7 shows states ordered from largest (by market value) on the left to smallest on the right.

Figure 7



Top / Bottom Performing States / Territories

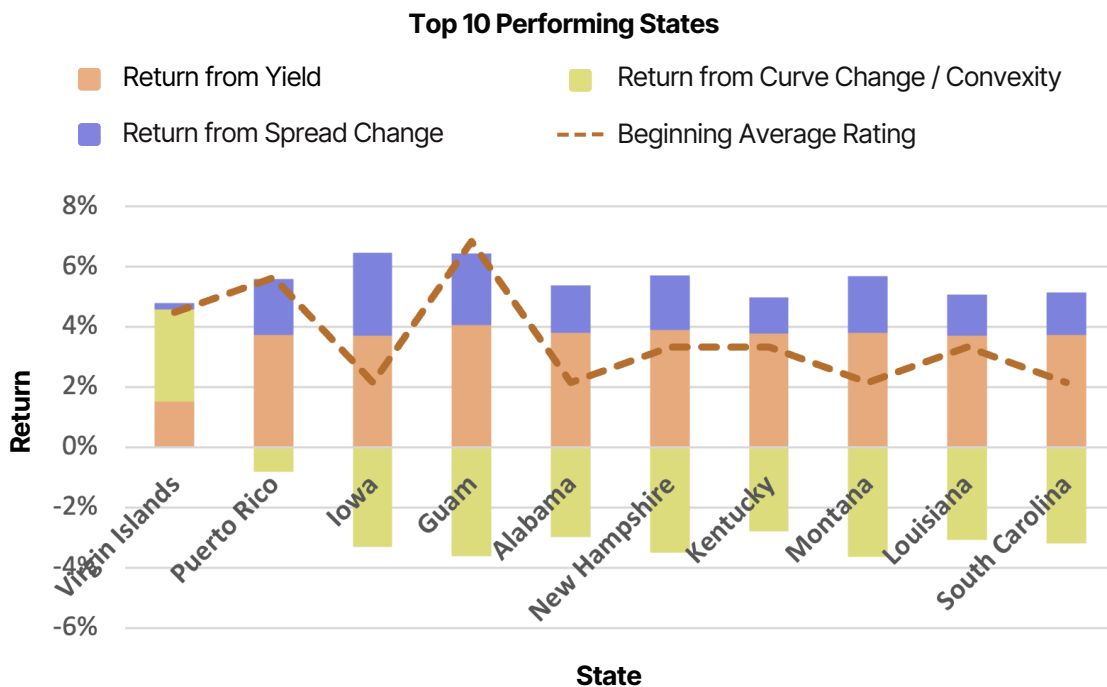
The top-performing state or territory of 2024, the U.S. Virgin Islands, was also the only one to have a positive “Return from Curve Change / Convexity”. Its short duration limited the negative impact of rising yields, and some of its bonds experienced high convexity effects from unusually large spread tightening.

For most of the other top-performing states, the story was one that’s been repeated multiple times in this report: higher yields and market-beating spread tightening from exposure to lower-rated bonds. Puerto Rico additionally benefited from its substantially lower duration.

Table 5

	Weight Percentage	Total Return	Return from Yield	Return from Curve Chg/ Convexity	Return from Spread Chg	Beginning Effective Duration	Beginning Average Rating
U.S. Virgin Islands	0.01%	4.783%	1.512%	3.066%	0.206%	0.661	A / A2
Puerto Rico	0.08%	4.779%	3.735%	-0.815%	1.859%	2.728	A- / A3
Iowa	0.44%	3.162%	3.703%	-3.312%	2.771%	6.865	AA- / Aa3
Guam	0.06%	2.839%	4.068%	-3.605%	2.375%	6.360	BBB+ / Baa1
Alabama	1.57%	2.419%	3.810%	-2.967%	1.577%	5.177	AA- / Aa3
New Hampshire	0.27%	2.217%	3.908%	-3.494%	1.805%	7.371	A+ / A1
Kentucky	0.95%	2.205%	3.792%	-2.787%	1.200%	5.057	A+ / A1
Montana	0.09%	2.037%	3.802%	-3.648%	1.882%	6.298	AA- / Aa3
Louisiana	0.91%	2.006%	3.723%	-3.066%	1.348%	5.167	A+ / A1
South Carolina	1.16%	1.959%	3.744%	-3.180%	1.395%	5.831	AA- / Aa3

Figure 8 shows states ordered from lowest return on the left to highest return on the right.

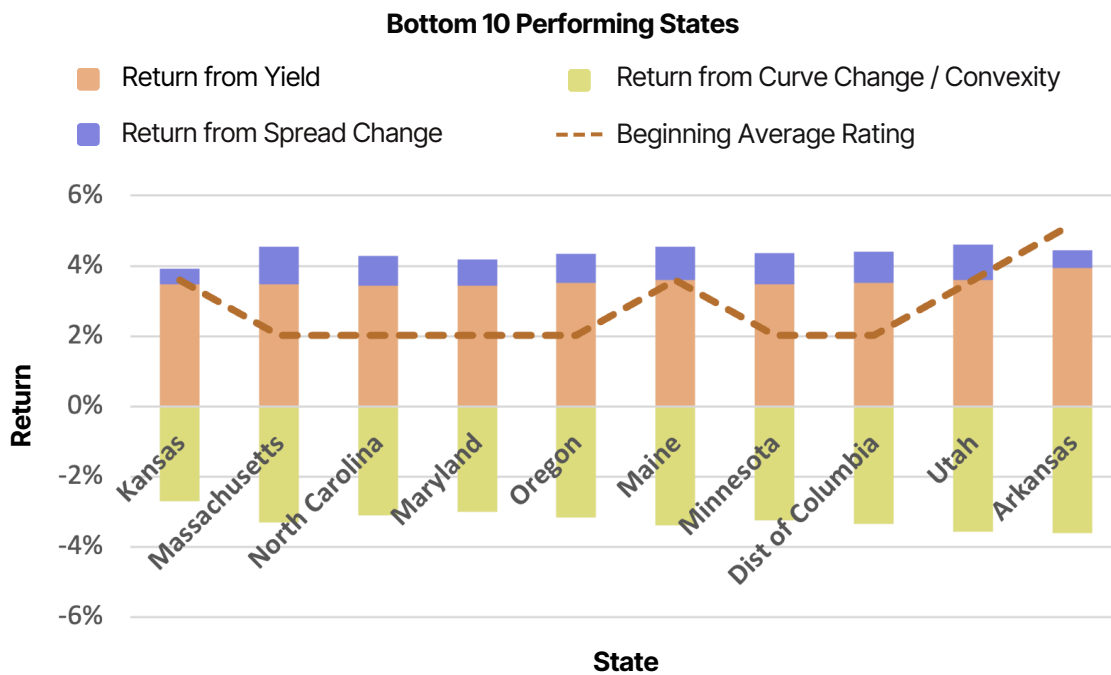
Figure 8


On the other end of the rankings, all of the bottom-performing states or territories had spread changes that underperformed the market. Most additionally had lower yields and/or longer duration.

Table 6

	Weight Percentage	Total Return	Return from Yield	Return from Curve Chg/ Convexity	Return from Spread Chg	Beginning Effective Duration	Beginning Average Rating
Kansas	0.46%	1.233%	3.477%	-2.695%	0.451%	4.821	AA / Aa2
Massachusetts	3.09%	1.230%	3.471%	-3.309%	1.068%	6.339	AA+ / Aa1
North Carolina	1.52%	1.184%	3.440%	-3.103%	0.849%	5.781	AA+ / Aa1
Maryland	1.93%	1.176%	3.429%	-2.997%	0.745%	5.543	AA+ / Aa1
Oregon	1.23%	1.174%	3.508%	-3.161%	0.827%	6.359	AA+ / Aa1
Maine	0.25%	1.166%	3.593%	-3.382%	0.955%	6.615	AA / Aa2
Minnesota	1.36%	1.117%	3.479%	-3.247%	0.885%	5.611	AA+ / Aa1
District of Columbia	1.14%	1.054%	3.511%	-3.358%	0.902%	6.487	AA+ / Aa1
Utah	0.85%	1.037%	3.602%	-3.567%	1.002%	6.904	AA / Aa2
Arkansas	0.28%	0.830%	3.940%	-3.620%	0.509%	7.122	AA- / Aa3

Figure 9 shows states are ordered from highest return on the left to lowest return on the right.

Figure 9


Biggest Credits by Market Value

Together making up just over 12% of the index, the ten largest credits tended to underperform the overall investment grade market. Most had a lower-than-average Return from Yield (with the exceptions of Illinois and Port Authority of NY & NJ). Many of them had longer durations, resulting in more negative Return from Curve Change / Convexity.

All of them had a lower Sector/Quality Return, meaning that their outstanding bonds tended to be in relatively underperforming sector or rating categories. Notably, in 2024, high-grade bonds in sectors like State GO, Local GO and Tax-Supported tended to lag the overall market in performance from spread changes.

Additionally, New York had a negative Credit-Specific Return, indicating that its bonds experienced worse spread changes on average than the national market (after adjusting for sector/quality allocation). However, New York City Water & Sewer System's bonds in particular experienced better-than-average spread changes, giving them the highest Credit-Specific Return of this group.

Table 7 features the top ten key credits by market value for 2024.

Table 7

	Weight Percentage	Total Return	Return from Yield	Return from Curve Change/ Convexity	Sector/Quality Return	Credit-Specific Return
Grand Totals	100.00%	1.531%	3.562%	-3.141%	1.111%	-
California	2.65%	1.052%	3.150%	-2.768%	0.647%	0.024%
New York State Personal Income Tax Revenue Bonds	1.67%	0.831%	3.479%	-3.517%	0.923%	-0.053%
New York City Transitional Finance Authority - Future Tax Secured Revenue Bonds	1.63%	0.735%	3.469%	-3.473%	0.837%	-0.098%
New York	1.27%	0.726%	3.354%	-3.153%	0.888%	-0.362%
New York City Water & Sewer System	1.06%	1.220%	3.528%	-3.665%	1.083%	0.274%
Massachusetts	1.05%	0.889%	3.400%	-3.579%	0.824%	0.243%
Washington	0.99%	0.932%	3.195%	-2.834%	0.362%	0.208%
Illinois	0.76%	2.198%	3.599%	-2.479%	0.933%	0.145%
Port Authority of New York & New Jersey	0.71%	1.723%	3.723%	-3.215%	1.066%	0.149%
University of California	0.63%	0.866%	3.102%	-3.336%	1.079%	0.022%

Conclusion

Bond performance measurements are numbers that have many stories hidden within them. To identify these stories, the best first step is typically to break out the key sources of total return, like income or yield, yield curve changes (both parallel and non-parallel), and spread changes. Custom Index Manager™ by Investortools, Inc. contains power tools that enable this analysis at an overall level, at a security level, and at various intermediate levels in between (e.g., states, sectors, and quality categories). This analysis can be done on a standard or customized index, on a portfolio, or on a portfolio-versus-index comparison basis.

Tools like these enable investment professionals to zero in on key sources of over-performance and under-performance and turn them into stories. These stories can, in turn, powerfully inform their investment management process and enrich communication with investment stakeholders.

Appendix: Definition of Some Return Breakdown Terms

Table 1 uses Return Breakdown terms used in Custom Index Manager™ by Investortools, Inc. More information about these terms can be found in Investortools' Factor-Based Attribution White Paper, which is available upon request from Investortools.

Elsewhere in this document, a simplified breakdown is often used:

- Return from Yield = Coupon Return + Market Amort Return
- Return from Curve Change / Convexity = Parallel Shift Return + Non-Parallel Shift Return + Residual Price Return
- Return from Spread Change = Sector/Quality Return + Security-Specific Return

CONTACT US

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

For more information about Investortools, please visit www.investortools.com or [click here to contact us](#).

To request a product demonstration, please contact sales@invtools.com.

For more information about Custom Index Manager, please [click here](#).