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Municipal Bond Market Performance

2023 Year in Review

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

Mark Pinson
Index Production and Analysis

Interpretation

After months of mixed performance in the municipal bond market, as measured by the Standard & Poor's Municipal Bond Investment Grade Index, 2023 had a solid finish. The year began with yields higher than those seen in recent years. The overall drop in the intermediate-to-long portions of the yield curve provided an additional boost to returns. Spread changes, however, were mixed, with a mid-year rally in lower-rated bonds partially reversing in the last months of the year.

## Monthly and Annual Returns with Breakdowns

TABLE 1

	Total Return	Coupon Return	Mkt Amort Return	Parallel Shift Return	Non-Parallel Shift Return	Sector/ Quality Return	Residual Price Return
Year	**5.824%**	**4.330%**	**-0.655%**	**1.633%**	**-0.230%**	**0.030%**	**0.717%**
Dec	2.303%	0.368%	-0.080%	2.093%	-0.127%	-0.505%	0.555%
Nov	5.828%	0.363%	0.007%	4.271%	0.146%	-0.114%	1.155%
Oct	-1.051%	0.382%	-0.004%	-0.998%	0.111%	-0.200%	-0.342%
Sep	-2.639%	0.347%	-0.047%	-2.736%	0.111%	0.174%	-0.489%
Aug	-1.116%	0.353%	-0.051%	-1.312%	0.042%	0.279%	-0.428%
Jul	0.246%	0.364%	-0.065%	0.011%	-0.082%	0.023%	-0.005%
Jun	0.826%	0.342%	-0.044%	0.429%	0.076%	-0.047%	0.069%
May	-0.781%	0.362%	-0.056%	-1.548%	0.126%	0.410%	-0.075%
Apr	-0.185%	0.337%	-0.091%	-0.263%	-0.336%	0.057%	0.110%
Mar	2.146%	0.391%	-0.085%	1.565%	0.324%	-0.176%	0.127%
Feb	-2.294%	0.311%	-0.078%	-2.094%	-0.560%	0.484%	-0.357%
Jan	2.709%	0.354%	-0.048%	2.389%	-0.035%	-0.377%	0.426%

November was the month with the strongest performance, with a monthly total return slightly greater than the entire year's return. Over the course of the year, Coupon Return had the largest positive contribution. Parallel Shift Return was the next largest contributor, as the yield curve finished the year somewhat lower than it started. More information on this breakdown methodology can be found in Investortools' Factor-based attribution white paper.

# ICE US Municipal AAA Noncallable Yield Curve

FIGURE 1
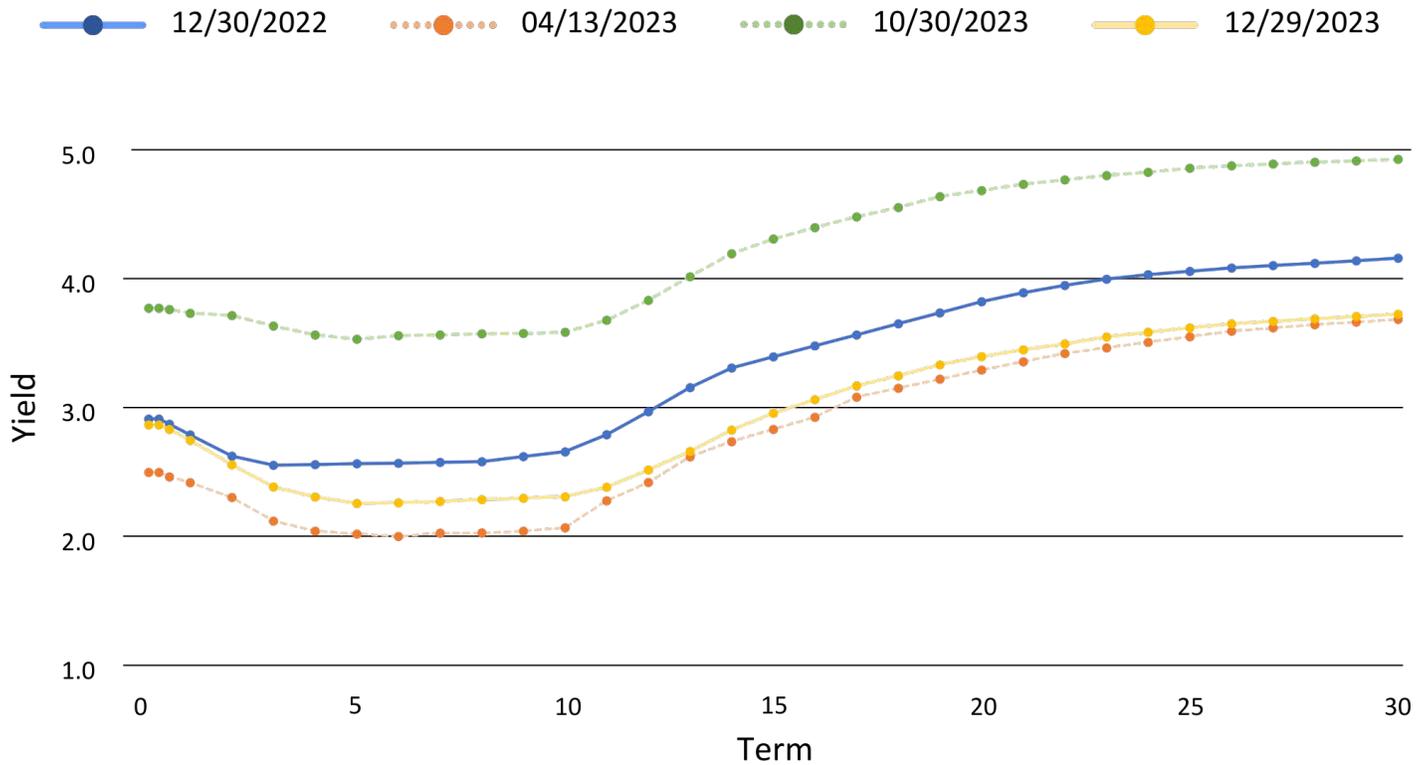
High-grade yields in the municipal bond market, as measured by the ICE US Municipal AAA Noncallable Yield Curve, declined in January for intermediate-to-long terms, while the short end experienced deepening inversion.

After surging upward during February and early March (with short-end inversion easing), by mid-April the yield curve had returned to its end-of-January lows, but with even more short-term inversion.

The curve then marched upward to its high point at the end of October (with short-end inversion easing) before tumbling down during November and December to finish the year lower (but more inverted) than it started.

S&P Municipal Bond Investment Grade Index: Total Return Breakdown by Quality

FIGURE 2

Legend: Return from Curve Change / Convexity — Return from Yield — Return from Spread Change
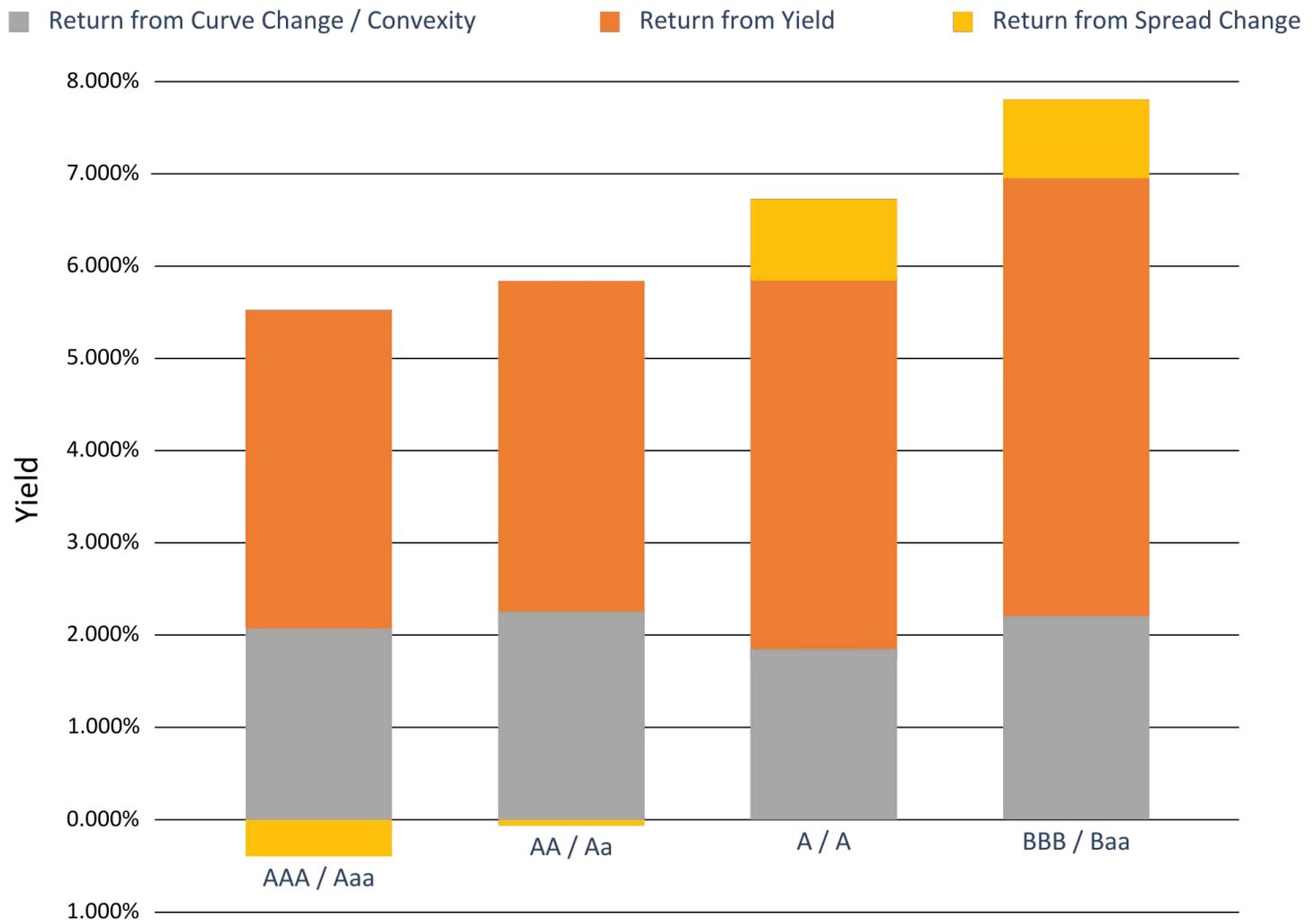
The year was characterized by an overall increase in risk appetite, with lower-rated bonds tending to outperform due to higher average yields and overall tightening of option-adjusted spreads. The simplified total return breakdown by quality in Figure 2 shows that the return from yield curve changes and convexity effects was similar for different rating categories. However, return from yield and spread change showed outperformance in lower-rated categories.
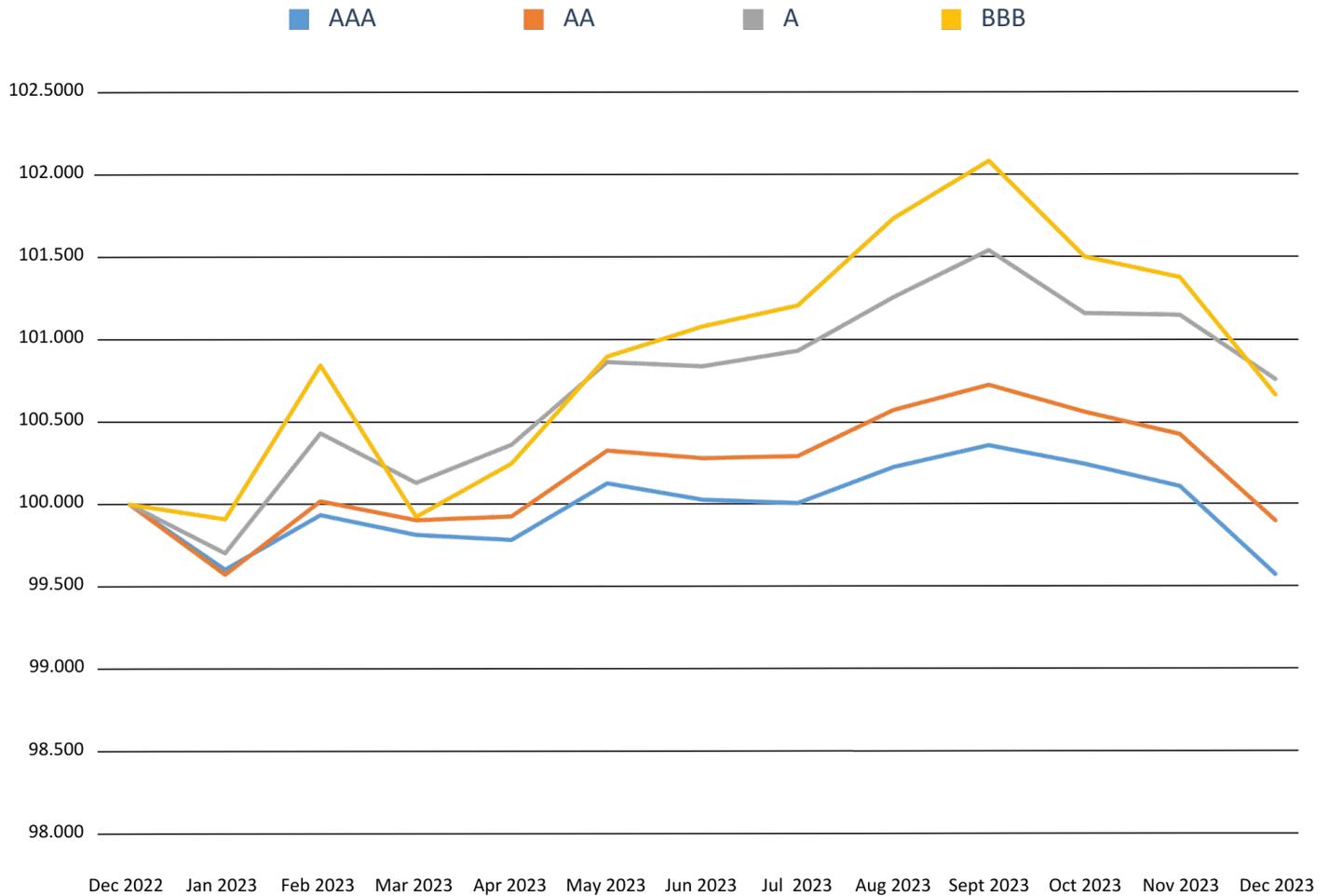
Cumulative Growth by Rating

FIGURE 3

Figure 3 shows the portion of monthly cumulative return from changes in option-adjusted spread.

2023's overall increase in risk appetite for municipal bonds showed itself most between March and September, when A-rated and BBB-rated market segments in particular experienced months of overall spread tightening. However, the last quarter saw a partial reversal of this trend, raising questions for the year ahead.
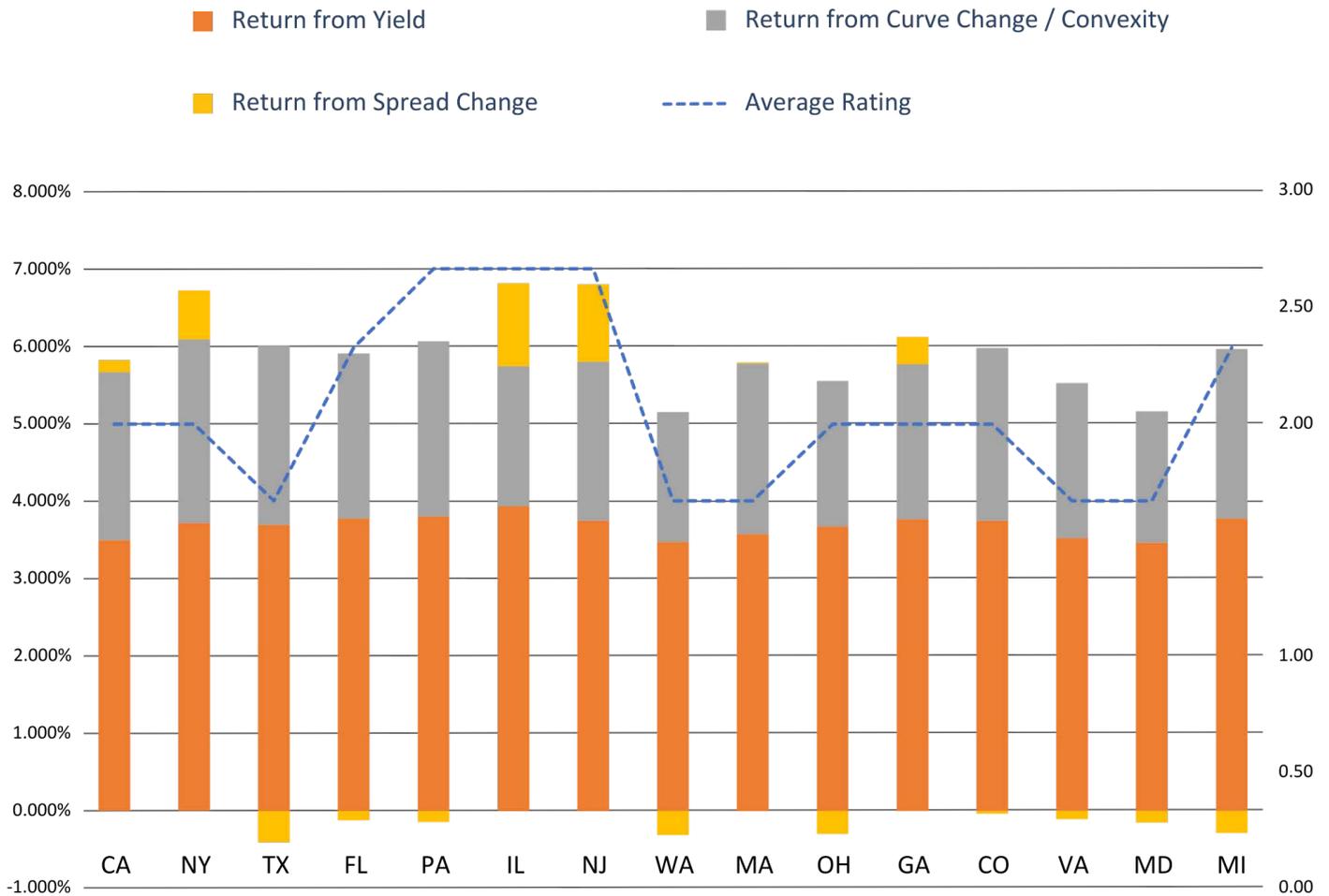
Sector Return Breakdowns

FIGURE 4
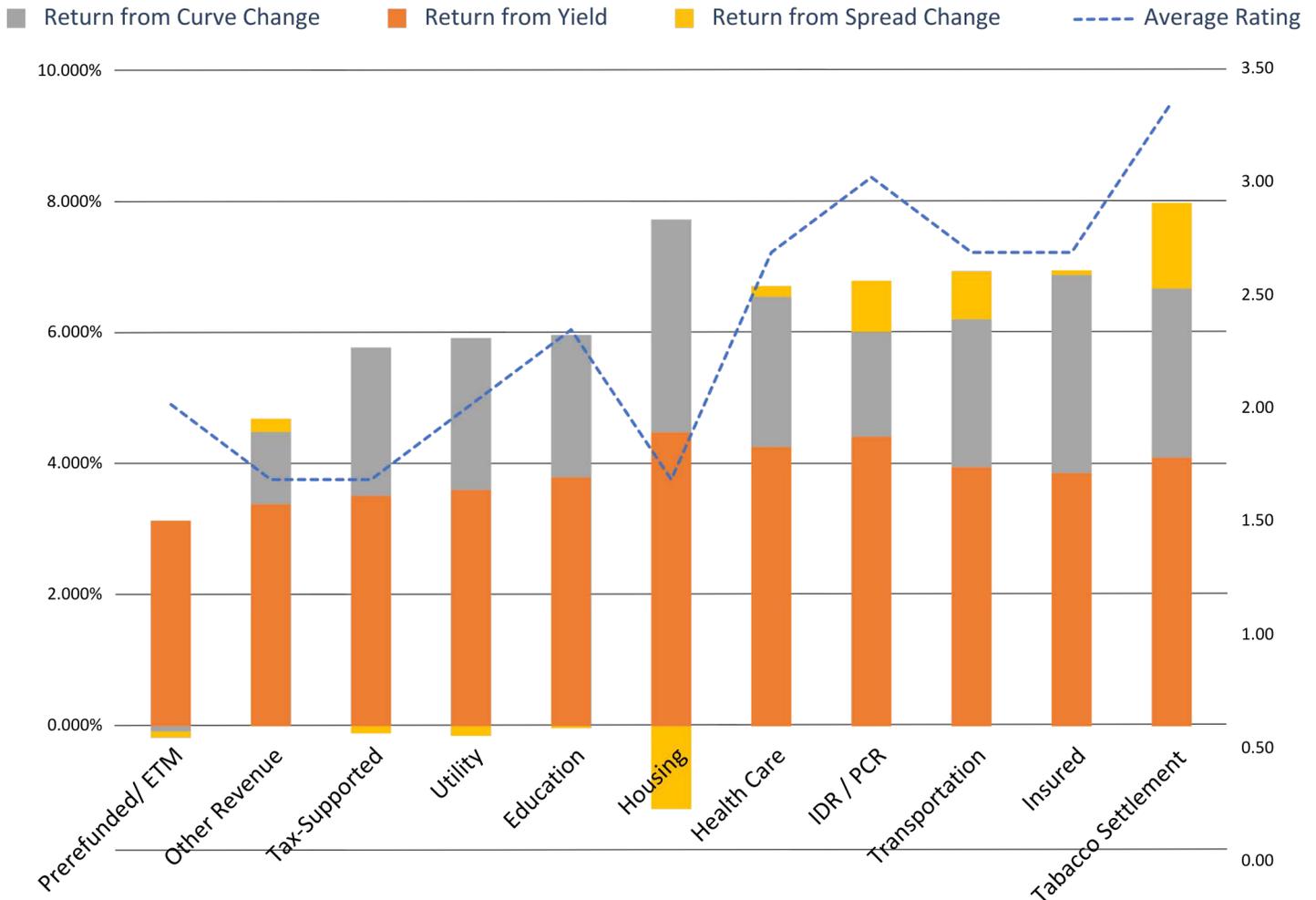
The top-performing sectors of 2023 all had lower than average ratings and most (except IDR / PCR) had longer durations. The Tobacco Settlement, IDR / PCR, and Transportation sectors in particular benefited from spread tightening during the year. Housing's high yield and long duration helped it overcome substantial spread widening in the last two months of the year.

Prerefunded / ETM, the worst-performing sector, was dragged down by both low yields and short durations. Short duration bonds in 2023 both suffered from the short-end inversion in the yield curve and also missed out on the benefit of falling yields in longer parts of the yield curve. Other Revenue's spread tightening in the first half of 2023 was not enough to overcome its lower yield and short duration. The Utility and Tax-Supported sectors particularly suffered from year-end spread widening.

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Biggest States by Market Value

FIGURE 5

Legend:
- Return from Yield (orange)
- Return from Curve Change / Convexity (gray)
- Return from Spread Change (yellow)
- Average Rating (dashed blue line)

Among the 15 largest states and territories by bond market value, the clear top performers were Illinois, New York, and New Jersey. They each outperformed the index's average total return by 90-100 basis points, but for different reasons, as the return breakdown in Figure 5 shows. New York benefited most from its long average duration during a year with overall yield curve decline. Illinois and New Jersey benefited most from high average yields and significant overall spread tightening.

Texas, Washington, Ohio, and Michigan suffered most from spread widening, as reflected in the "Return from Spread Change" bar segment. Washington and Maryland missed out the most from declining yields due to their shorter durations, which is reflected in the "Return from Curve Change / Convexity" bar segment.

Bottom / Top Performing States

FIGURE 6
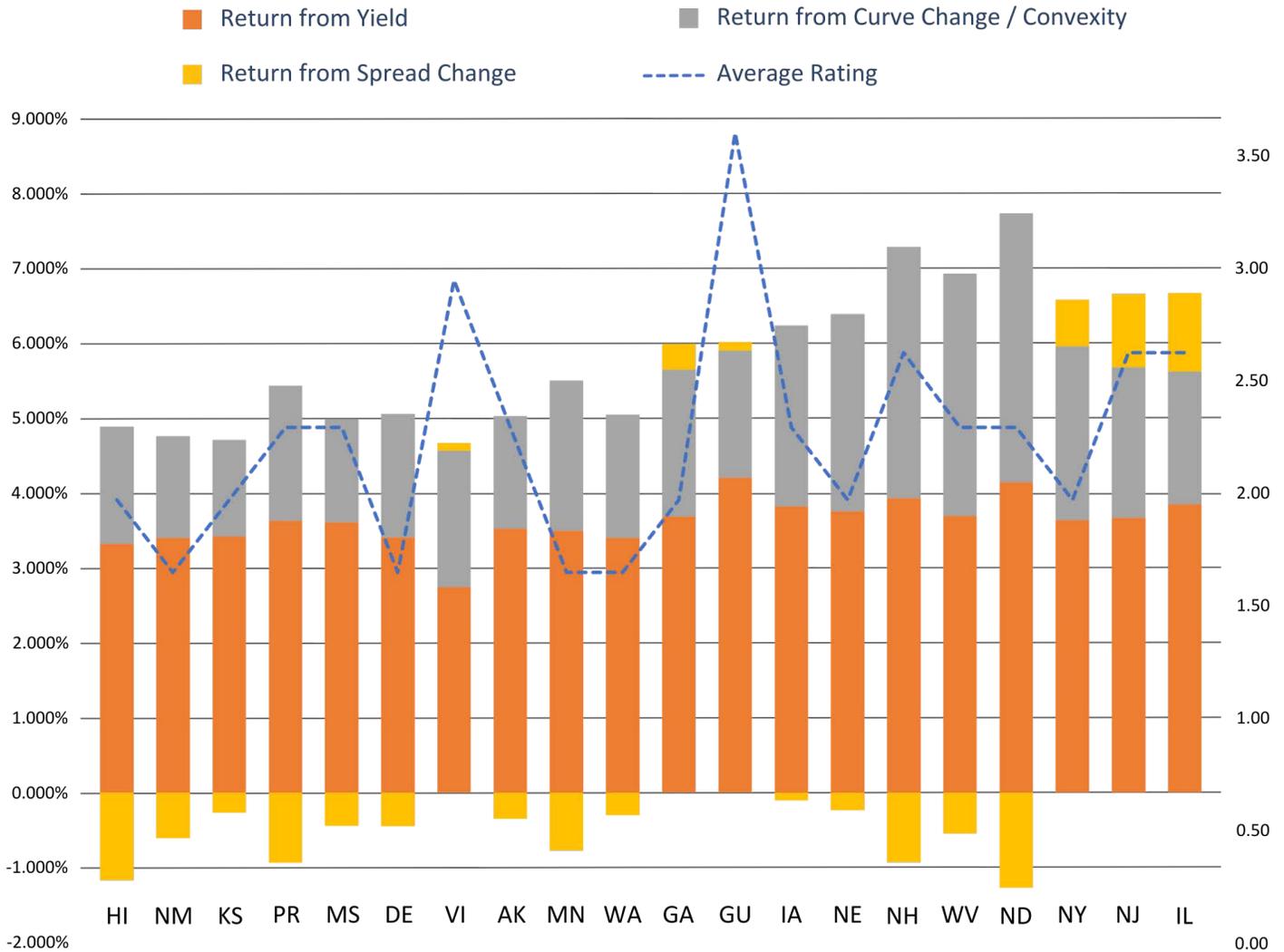
The ten best-performing states & territories tended to have higher yields and longer durations (most notably Iowa, New Hampshire, and North Dakota), benefiting from the yield curve's overall decline for 2023. Illinois, New York, and New Jersey saw their spreads tighten on average. Guam had the highest return from yield (4.303%) of this group.

The ten lowest-performing states & territories tended to have varying combinations of lower yields, shorter durations, and spread widening. The US Virgin Islands benefited from spread tightening, but was dragged down by its yield and duration. Puerto Rico had higher yields, but was dragged down by significant spread widening, as was Hawaii and Minnesota.

There are often many different stories behind total return numbers. An important first step in identifying these stories is breaking out the key sources of total return, like income or yield, yield curve changes (both parallel and non-parallel), and spread changes. In Custom Index Manager™ by Investortools, Inc., this can be done 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, allowing you to quickly pinpoint sources of over-performance and under-performance and turn them into stories that inform your investment management process.

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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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