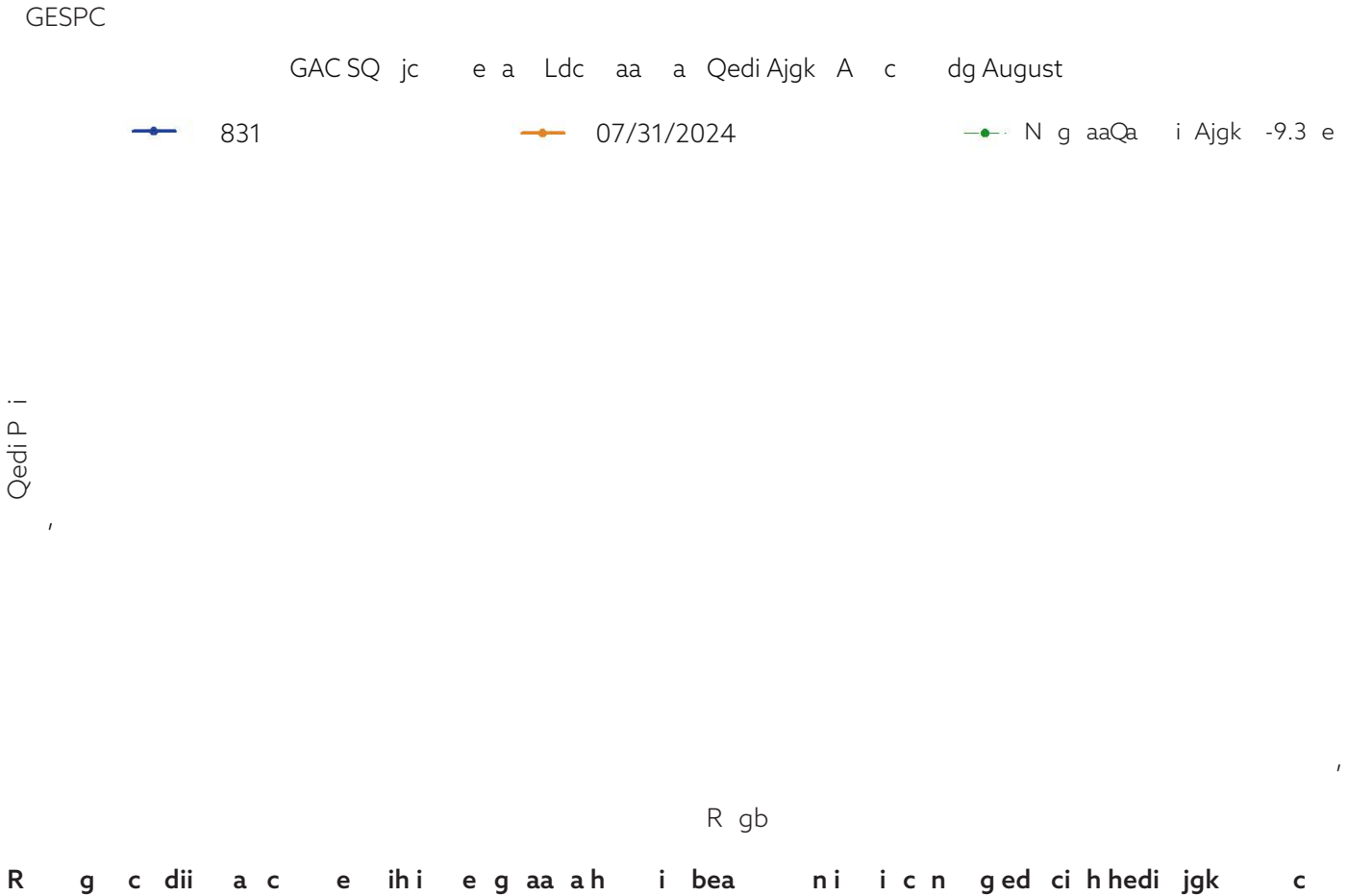




## Interpretation

Figure 1 shows the overall change in the ICE US Municipal AAA Noncallable spot curve for August. This curve demonstrated a 9.3 bp decrease in overall level as measured at the ten-year point.



The Parallel Shift Return of 0.560% is calculated from this curve decrease, as shown in Table 2.

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Change for 10-Year Spot Rate <sup>(a)</sup>	-9.28
Total Key Rate Duration <sup>(b)</sup>	6.0366
Parallel Shift Return <sup>(-b*a)</sup>	<b>0.560%</b>

The Non-Parallel Shift Return was 0.529%. This was primarily driven by yields dropping more at shorter terms of the curve than 10-year yields. See Table 3 for the full calculations for this term.

**TABLE 3**

	6 Mos	1Yr	2 Yrs	3 Yrs	5 Yrs	7 Yrs	10 Yrs	20 Yrs	30 Yrs
Non-Parallel Change	-8.77	-26.63	-27.72	-25.55	-22.64	-9.68	0.00	-3.65	-5.96
Key Rate Duration	0.037	0.118	0.238	0.449	0.657	0.918	1.757	1.533	0.329
Non-Parallel Shift Return	0.003	0.031	0.066	0.115	0.149	0.089	0.000	0.056	0.020

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 -0.498%.

The sector exhibiting the largest overall widening in average option-adjusted spread (weighted by both market value and duration) was Tobacco Settlement. The Prerefunded/ETM sector exhibited the least amount of spread change. Quality-based groupings exhibited no significant trend.

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 Insured
Change in Dur-Adj Average OA Spread <sup>(a)</sup>	-4.210	-1.194
OA Spread Duration <sup>(b)</sup>	8.318	3.257
Sector/Quality Return <sup>(-b*a)</sup>	0.350	0.039
Market Value Weight <sup>(c)</sup>	0.174	0.060
Contribution to Duration <sup>(b*c)</sup>	0.01449	0.00197
Contribution to Sector/Quality Return <sup>(-b*c*a)</sup>	0.00061	0.00002

**TABLE 5**

	AAA-rated Local GO	BBB-rated Housing	AA-rated LOCAL GO	Prerefunded/ EMT
Change in Dur-Adj Average OA Spread <sup>(a)</sup>	-2.139	-4.603	-2.892	-1.920
OA Spread Duration <sup>(b)</sup>				
Sector/Quality Return <sup>(b*a)</sup>				
Market Value Weight <sup>(c)</sup>				
Contribution to Duration <sup>(b*c)</sup>				
Contribution to Sector/Quality Return <sup>(b*c*a)</sup>				

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.

Montana bounced back from its relative underperformance in June, primarily due to outperformance in its IDR / PCR sector. Although spreads of the Tobacco Settlement sector widened more in New Jersey than in other states, the state's Local GO and Transportation sectors boosted the state to outperforming its peers. Iowa's Transportation bonds outperformed even New Jersey's with spreads in this sector actually tightening in Iowa, despite the general widening trend seen nationwide.

Housing bonds in West Virginia, Mississippi, and South Dakota lagged behind their peers in other states, resulting in the second month of underperformance for South Dakota's Housing bonds. Puerto Rico's Insured bonds also continued their underperformance seen in June. Finally, while Nebraska underperformed across most sectors, its Health Care sector was especially weak compared to similar bonds in other states.

**TABLE 6**

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
Guam	0.06%	-0.321%	0.219%	-0.102%
Iowa	0.44%	-0.321%	0.187%	-0.134%
Montana	0.09%	-0.287%	0.177%	-0.110%
Connecticut	1.41%	-0.239%	0.136%	-0.103%
New Jersey	3.05%	-0.289%	0.133%	-0.156%

**TABLE 7**

State or Territory	Total Return Weight	Return from Sector/Quality Composition	State-Specific Spread Return	Total Spread Return
West Virginia	0.27%	-0.300%	-0.080%	-0.380%
Mississippi	0.28%	-0.204%	-0.081%	-0.285%
Nebraska	0.59%	-0.249%	-0.082%	-0.331%
South Dakota	0.16%	-0.318%	-0.122%	-0.440%
Puerto Rico	0.07%	-0.216%	-0.261%	-0.477%

Coupon Return was 0.370%, based on the index's average coupon of 4.389%. The average beginning-of-month market yield was 3.703%, resulting in a Market Amortization Return of -0.035%. These two terms sum to a total income effect of 0.335%.

*Note that 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. Premium bond prices, absent any change in yield, naturally decline over time to their redemption price. This decline is called market amortization.*

## CONTACT US

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

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