In the second quarter of 2023, according to ATS data analyzed by the MSRB, trading was at or near the highest levels we have seen since the second quarter of 2020. The amount of bids-wants in the second quarter of 2023 was comparable, up more than 10% compared to the first quarter of 2023.

The percentage of inter-dealer trades executed through an ATS was very steady in the first half of 2023. As stated in an August 2022 MSRB report, a significant part of all customer transactions were executed by the dealers for 2023, which is in line with the findings of the August 2022 report, as shown in the diagram.

John Bagley and Marcelo Vieira
Municipal Securities Rulemaking Board
Introduction

The second quarter of 2023 was highlighted by higher interest rates, minor net outflows from tax-exempt mutual funds and an increase in new issue volume compared to the first quarter although taxable new issue volume remains low. On the positive side, there was continued interest in municipal bonds from individual investors, directly and through Separately Managed Accounts (SMAs). Although trade count remained below the 2022 record levels, second quarter volume was higher than in any quarter prior to 2022 since the third quarter of 2013.

Impact of the Recent Bank Failures on the Municipal Bond Market

At the start of the second quarter, one concern market participants had was the pending liquidation of the municipal bond portfolios of failed banks Silicon Valley Bank and Signature Bank totaling approximately $7.5 billion in assets. The market’s concern was not related to the size of the portfolios, but rather the structure of many of the bonds. Many of the bonds in the portfolios were purchased in 2020 and 2021 at significantly lower interest rates than the current rate and are now deep discount bonds. Of particular concern to the market was the substantial number of discount bonds that would likely be trading outside the de minimis threshold set in the Internal Revenue Service’s market discount rule. Historically, bonds at deep discounts have been significantly less liquid and more difficult to distribute than other bonds in the municipal bond market. Fortunately, as of the end of June, it appeared that the two portfolios have been largely if not completely liquidated with seemingly little to no impact on the market. Comparing the two bank portfolios with recent MSRB trade data, it appears that substantially all the positions have been sold, with most of the positions being bought by institutional investors and not taken on by dealers for any significant period of time. It also appears the bonds have been sold at

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1 The views expressed in this research paper are those of the author(s) and do not necessarily reflect the views and positions of the MSRB Board and other MSRB staff.
tighter spreads than the market anticipated prior to the sales. It is important to note that despite the liquidation of the two failed bank portfolios, the total par amount sold in May and June was similar to the amount sold in March.\(^2\) The total par amount sold in the second quarter was 5% more than in the first quarter of 2023. The par amount sold in the second quarter was also 63% lower than in the fourth quarter of 2022, when tax-loss selling and swaps dramatically increased the amount of bonds sold by investors. It certainly appeared that the smaller new issue calendar coupled with little selling pressure apart from the bank liquidations helped increase demand for the bonds in the failed bank portfolios.

**Yields**

Figure 1 below shows that although tax-exempt benchmark yields rose in the quarter, they dramatically outperformed Treasury bonds. Tax-exempt yields rose 19-54 basis points in the second quarter, while Treasury bonds rose 18-81 basis points in the quarter. Tax-exempt yields rose in the quarter despite a continued downward trend in new issue volume. Figure 1 also shows the municipal bond to Treasury bond ratio (Muni/TSY) remains historically low through 10 years likely due to continued strong demand from individual investors. This indicates that yields on tax-exempt bonds are low relative to the yields available on Treasury bonds. Tax-exempt and Treasury yields also remain inverted through 10+ years, however the Treasury curve is significantly more inverted than benchmark tax-exempt curves.

**Figure 1. Bloomberg BVAL® AAA Callable and U.S. Treasury Yields**

<table>
<thead>
<tr>
<th>Year</th>
<th>BVAL 06/30/23</th>
<th>TSY 06/30/23</th>
<th>Muni/TSY Ratio</th>
<th>BVAL Q2 22 Change BPS</th>
<th>TSY Q2 22 Change BPS</th>
<th>BVAL 03/31/23</th>
<th>TSY 03/31/23</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.994</td>
<td>5.400</td>
<td>55%</td>
<td>54</td>
<td>76</td>
<td>2.452</td>
<td>4.640</td>
</tr>
<tr>
<td>2</td>
<td>2.897</td>
<td>4.870</td>
<td>59%</td>
<td>51</td>
<td>81</td>
<td>2.389</td>
<td>4.060</td>
</tr>
<tr>
<td>3</td>
<td>2.755</td>
<td>4.490</td>
<td>61%</td>
<td>47</td>
<td>68</td>
<td>2.282</td>
<td>3.810</td>
</tr>
<tr>
<td>5</td>
<td>2.590</td>
<td>4.130</td>
<td>63%</td>
<td>39</td>
<td>53</td>
<td>2.202</td>
<td>3.600</td>
</tr>
<tr>
<td>10</td>
<td>2.527</td>
<td>3.810</td>
<td>66%</td>
<td>27</td>
<td>33</td>
<td>2.260</td>
<td>3.480</td>
</tr>
<tr>
<td>20</td>
<td>3.278</td>
<td>4.060</td>
<td>81%</td>
<td>22</td>
<td>25</td>
<td>3.054</td>
<td>3.810</td>
</tr>
<tr>
<td>30</td>
<td>3.504</td>
<td>3.850</td>
<td>91%</td>
<td>19</td>
<td>18</td>
<td>3.314</td>
<td>3.670</td>
</tr>
</tbody>
</table>

Sources: Bloomberg Finance L.P., U.S. Department of the Treasury

Tax-exempt yields continued their steady decline begun in the first quarter, with 10-year benchmark yields reaching a low of 2.06% on April 12 before rising steadily and peaking at 2.67% on May 26. Yields then declined for the rest of the quarter, closing the quarter at 2.53%. See Figure 2.

\(^2\) Excludes Variable Rate Demand Obligations and Commercial Paper.
Again, there was an increase in trade count as yields rose in the quarter and this led to higher demand for municipal bonds from individual investors. Enhanced demand from individual investors directly and through SMAs buoyed the markets and helped rates fall in the latter part of the quarter.

**Figure 2.** Bloomberg BVAL 10-Year Callable Yields, January 2021–June 2023

Overall trade count in the second quarter was in line with the first quarter but significantly more volatile. In April, there was a significant decrease in trade count to a low of 833,000 coinciding with a decline in interest rates. As rates increased, as mentioned previously, trade count rose in May and June to just over 1 million trades in each month. Enhanced demand from individual investors likely contributed to the elevated trade count, especially considering the manageable new issue calendar and the significant amount of trading that normally occurs when a deal prices and shortly after it comes to market. As shown in Figure 3 below, trade count in fixed-rate securities in the second quarter was up 3% compared to the first quarter but down 16% compared to the unusually high levels seen in the second quarter of 2022. Similarly, par amount in the first half was down 17% compared to the same period in 2022. The par amount of fixed-rate bonds traded in the second quarter was $518 billion, down only 1% from the first quarter but 28% lower than the $722 billion traded in the second quarter of 2022.

Comparing year-over-year trading volumes can be difficult because the previous two years were record years (2021 was a record low and 2022 a record high). Excluding 2021 and 2022, trade count in the first half of 2023 was 10% to 20% higher than in the first half of any year between 2017 and 2020.
To further show the participation of individual investors compared to institutional investors, the number of customer trades of $100,000 or less, often used as a proxy for participation from individual investors, decreased by only 6% in the first half of 2023 compared to the first half of 2022, compared to a decline of 13% for trades of $1 million or more, a proxy for institutional trading. During the same period, the par amount traded for trades of $100,000 or less was down 5%, while the par amount traded for trades of $1 million or more was down 25% compared to the first half of 2022.

Figure 3. Monthly Municipal Market Activity, Fixed-Rate Securities, January 2022–June 2023

![Chart showing monthly municipal market activity, fixed-rate securities, January 2022–June 2023. The chart displays the number of trades and par traded values over the months.]

Trading on Alternative Trading Systems

In the second quarter of 2023, according to ATS data analyzed by the MSRB, there was an increase in the average number of offerings on ATSs compared to 2022. In fact, numerous days in the second quarter were at or near the highest levels we have seen since the second quarter of 2021. In the second quarter of 2023, the average number of offerings on ATSs was up 11% compared to the first quarter. The amount of bid-wanteds or request for quotes (RFQ) in the second quarter was comparable, up more than 10% compared to the first quarter of 2023.

The percentage of inter-dealer trades executed over an ATS was very steady at 57% for the second quarter and the first half of 2023. As stated in an August 2022 MSRB report, ATSs have become a significant part of the customer business through their dealer arm in recent years. For the first half of 2023, 13% of all customer transactions were executed by the dealer associated with an ATS, which is in line with the findings of the August 2022 report, as shown in Figure 4 below.
Mutual Fund and Exchange Traded Fund Flows

Although tax-exempt mutual funds experienced net inflows of about $2 million per week from the beginning of the year through mid-February\(^3\), they saw more moderate inflows for the rest of the first quarter and minor net outflows in the second quarter. Of course, these small outflows are nothing compared to the net outflows experienced in 2022, following three years of significant net inflows into mutual funds from 2019 to 2021. So, although mutual fund outflows were not as dramatic as in 2022, they have made demand from mutual funds tepid at best, which makes the distribution of new issue product more challenging, especially on the long end of the market. Although tax-exempt ETFs saw net inflows in the quarter, they were significantly smaller than the inflows we saw in 2022.

\(^3\) Investment Company Institute—Long-Term Mutual Fund Net New Cash Flow
New Issue Volume

New issue volume was $99 billion in the second quarter, down 14% from the same period of 2022 but up 27% from the first quarter of 2023. Second quarter volume was the highest since the second quarter of 2022. Despite the increase in overall issuance, taxable new issuance decreased to $6.8 billion, levels not seen since the first quarter of 2018. For the first half of the year, taxable new issuance as a percentage of the overall market fell to 11% in the first half of 2022 (only 7% in the second quarter) compared to 16%, 25% and 27% in 2022, 2021 and 2020, respectively.

Tax-exempt issuance increased to $89.4 billion in the second quarter, up 41% from the previous quarter but down 4% from the same quarter of 2022. Tax-exempt new issue volume in the first half was only down 12% vs. 2022, 11% vs 2021 and on par with the first half of 2020.

Overall new issue volume was significantly impacted by the drop in taxable municipal new issue volume. Higher interest rates reduced the volume of advanced refunding and taxable new issue deals. Many municipalities also still have stimulus funds from COVID relief, which also reduced the need for some municipalities to borrow.

Figure 5. Municipal Market Issuance, 2011:Q1–2023:Q2

Source: Refinitiv
Conclusion

The municipal bond market saw a significant rise in trading volume in the second quarter of 2023, reflecting continued strong demand from individual investors directly and through SMAs as yields rose. Additionally, significant demand for deeply discounted bonds—the result of rising interest rates—from institutional investors led to the successful liquidation of the two failed bank portfolios with little to no impact on benchmark yields. Although tax-exempt issuance rebounded in June, taxable new issuance was depressed, likely due to the financial strength of many municipalities, as well as higher interest rates making taxable refundings more difficult. Looking ahead to the third quarter of 2023, we expect July and August will see a significant amount of bonds redeemed, which will be positive for the market from a technical perspective.
ABOUT THE MSRB

The Municipal Securities Rulemaking Board (MSRB) protects and strengthens the municipal bond market, enabling access to capital, economic growth, and societal progress in tens of thousands of communities across the country. The MSRB fulfills this mission by creating trust in our market through informed regulation of dealers and municipal advisors that protects investors, issuers and the public interest; building technology systems that power our market and provide transparency for issuers, institutions, and the investing public; and serving as the steward of market data that empowers better decisions and fuels innovation for the future. The MSRB is a self-regulatory organization governed by a board of directors that has a majority of public members, in addition to representatives of regulated entities. The MSRB is overseen by the Securities and Exchange Commission and Congress.