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Market Transparency

Concept Release: MSRB Requests Comment on a Municipal Securities Pre-Trade Data Initiative

Overview

The Municipal Securities Rulemaking Board (the “MSRB”) seeks public comment on a concept release regarding a potential initiative to collect pre-trade data (the “Pre-Trade Initiative”) for certain municipal securities from brokers, dealers, and municipal securities dealers (collectively, “dealers”) and other entities. For the purposes of this initiative, data collection could occur from a sub-set of dealers (i.e., broker’s brokers, Alternative Trading Systems (“ATs”) registered as dealers, and/or some or all other dealers) as well as from other sources, as appropriate, with the goal of minimizing potential duplication of data collected and collecting data in the most effective and cost-efficient manner possible.

The data collection framework that could be used in furtherance of the Pre-Trade Initiative as presented in this concept release is preliminary and is intended to elicit views and input from all interested parties on the potential benefits and burdens of such an initiative and on possible less costly alternatives. The comments will further assist the MSRB in determining next steps, if any, related to enhancing pre-trade transparency for municipal securities, and this concept release does not commit the MSRB to undertake any course of action.

MSRB staff considered various sources of information in the development of this concept release including prior work by the MSRB and other regulators, academic and research studies, other publicly available materials, staff-generated statistics based on available data sources, and the input received during meetings and conference calls with stakeholders. The MSRB also believes that technological advancements in the municipal securities market make this a logical time to gather feedback from stakeholders publicly. Improved technology has enabled the market to handle an ever-growing number



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of live quotes and bid-wanted, also known as request for quotes (RFQs) and have three consecutive years of record trade count.

Staff recognize that further action on specific aspects of this initiative would involve further study of relevant additional information including public comment on this concept release.

Comments should be submitted no later than May 16, 2025, and may be submitted in electronic or paper form. Comments may be submitted electronically by clicking [here](#). Comments submitted in paper form should be sent to Ronald W. Smith, Corporate Secretary, MSRB, 1300 I Street NW, Washington, DC 20005. Generally, all comments will be made available for public inspection on the MSRB's website.¹

Background

A. The Municipal Securities Market

Accessed by state and local governments to finance trillions of dollars in infrastructure spending and other public purpose projects, the municipal securities market is essential to meeting the state and local needs of America's communities.

The market is comprised of a primary and secondary market where, in the primary market, dealers acting as underwriters purchase new municipal securities from issuers and sell them to investors during a primary offering period.

In the secondary market, participants may freely buy and sell municipal securities and there are significantly more trades executed in the secondary market than in the primary market.

Municipal securities have historically traded in the over-the-counter ("OTC") market without the use of an exchange. There are currently approximately one million outstanding municipal securities issued by

¹ Comments generally are posted on the MSRB website without change. For example, personal identifying information such as name, address, telephone number or email address will not be edited from submissions. Therefore, commenters should only submit information that they wish to make available publicly.

more than 50,000 different states, local governments, and other issuing authorities.²

The MSRB believes that, due to the large number of unique issuers and securities, this large and diverse market is fragmented and relatively thinly traded compared to other fixed income markets.³ Since the odds of most outstanding bonds trading on any given day are small, dealers generally do not publish many bid-side live quotes. However, dealers may often respond to a customer's bid-wanted because a bid-wanted indicates an actual selling interest in a particular bond by an investor and, therefore, the bond is much more likely to trade. Because of the difficulty and expense related to short selling municipal securities without actually owning the bond, most entities usually provide only live offer-side quotes on municipal securities subject to availability, i.e., for bonds they own or could readily buy.

B. Regulatory History

Prior MSRB Activities on Pre-Trade Information

The MSRB's work in this area has been ongoing for more than 14 years commencing with the announcement in December 2010 that the MSRB would undertake a study of the municipal securities market, including among other things, a review of the market structure and trading patterns, and whether pricing mechanisms and liquidity in the market could be improved with higher levels of pre-trade price transparency.⁴

² See MSRB, [Muni Facts: Municipal Market By The Numbers](#).

³ *Id.* In 2023, a record high year for trade count, on average, about 2 percent of the outstanding securities traded on any day. In contrast, only about 1 percent traded in 2021, a record low year for trade count. See Bagley, John and Marcelo Vieira, [Trading Patterns in the Municipal Securities Market](#), Research Paper, MSRB (March 2024).

⁴ See [Field Hearing on the State of Municipal Securities Markets](#) (December 7, 2010), MSRB panelist statements at 8, stating that once the study is completed, we can determine whether additional pre-trade information would provide benefits to market participants. The initial study that followed, was completed on behalf of the MSRB by Erik R. Sirri, and published in July 2014. The initial study focused on core trading behaviors in the municipal securities market with the purpose of serving as a foundation upon which further work could be undertaken in furtherance of market transparency initiatives, including pre-trade transparency. See MSRB, [Report on Secondary Market Trading in the Municipal Securities Market](#) (July 2014), at 5 (the "2014 Secondary Market Trading Report"), stating that future enhancements to the MSRB's RTRS price transparency

Thereafter, the MSRB published a Long-Range Plan for Market Transparency Products (the “Long-Range Plan”) in January 2012.⁵

In January and July 2013, the MSRB published two concept releases, as contemplated by the Long-Range Plan, regarding the collection and dissemination of pre-trade data (the “2013 Pre-Trade Concept Releases”).⁶ The 2013 Pre-Trade Concept Releases sought input from market participants and stakeholders regarding, among other things, the potential benefits and burdens of publicly disseminating pre-trade information through a central transparency platform and the appropriate standards for collection and dissemination of pre-trade data. Although no formal rulemaking resulted from these proposals, the MSRB continued to pursue other regulatory initiatives and research to help advance transparency in the municipal securities market.⁷

The MSRB also published three research reports on pre-trade data (the “MSRB Pre-Trade Reports”) in 2018, 2020 and 2024⁸ that collectively with

services and the development of a central transparency platform designed to integrate RTRS post-trade transparency with the potential introduction of pre-trade transparency data for the municipal securities market will benefit from such data-driven analysis.

⁵ See MSRB, [Long-Range Plan for Market Transparency Products](#), (January 27, 2012). See also [MSRB press release](#) of October 31, 2011.

⁶ See [MSRB Notice 2013-14](#), Concept Release on Pre-Trade and Post-Trade Pricing Data Dissemination Through a New Central Transparency Platform (July 31, 2013). The MSRB explained that while such platform could ultimately provide links from such data to market participants where any execution activities could be undertaken away from the platform, the MSRB’s Long-Range Plan contemplated that the platform would serve solely as an information platform and not act as an exchange, automated trading system, or other form of execution venue. See also [MSRB Notice 2013-02](#), Request for Comment on More Contemporaneous Trade Price Information Through a New Central Transparency Platform (January 17, 2013).

⁷ These include enhancements to EMMA such as the addition of ratings, yield curves, indexes and a new issue calendar, the adoption of the MSRB’s order handling best-execution rule in 2015 and mark-up and markdown disclosure requirements for certain retail transactions in 2016. In addition, the MSRB published the 2014 Secondary Market Trading Report as a first step in engaging in data-driven research in support of potential enhancements to market price transparency, including the pre-trade data reports described below.

⁸ See [Wu, Simon Z.](#), et al., [Analysis of Municipal Securities Pre-Trade Data from Alternative Trading Systems](#), Research Paper, MSRB (October 2018); Wu, Simon Z. and John Bagley, [Municipal Securities Pre-Trade Market Activity: What Has Changed Since](#)

other MSRB research papers⁹ demonstrate the increasingly predictive value of pre-trade data for pricing bonds, a noticeable increase in the availability to certain segments of the market of pre-trade data over time, the continued lack of availability of this data to retail investors compared to institutional investors, and that the market is moving in the direction of greater electronication, making it increasingly easier to collect pre-trade data.¹⁰

Other Supporters of Enhanced Pre-Trade Transparency

Some governmental entities or advisory committees have supported improved public access to pre-trade pricing information for the municipal securities market. It is important to note that these observations have been focused specifically on the municipal securities market and not the larger fixed income markets.

Government Accountability Office (the “GAO”)

In January 2012, concurrent with the publication of the MSRB’s Long-Range Plan, the GAO published a report that among other things made the following observation:

“The relative lack of pretrade transparency in the municipal securities market has raised questions about whether individual investors, that is, those who buy and sell securities for themselves directly through broker-dealers, have sufficient price information to make well informed investment decisions regarding the

[2015?](#), Research Paper, MSRB (July 2020); and Wu, Simon Z., [Pre-Trade Market Activity in Municipal Securities: Recent Developments](#), Research Paper, MSRB (April 2024).

⁹ For example, a 2021 paper compared the trading activity on ATS platforms and broker’s broker platforms. See Wu, Simon Z., [Characteristics of Municipal Securities Trading on Alternative Trading Systems and Broker’s Broker Platforms](#), Research Paper, MSRB (August 2021).

¹⁰ The MSRB Pre-Trade Reports were based on a limited amount of pre-trade data, relying upon requests for quotes (“RFQ”) data and live quote data from two predominant municipal securities electronic ATS platforms. While these two sources have a substantial number of quotes, it should be noted that there exists a substantial amount of additional pre-trade information available on other venues, which is not captured in MSRB Pre-Trade Reports.

securities they wish to buy and sell in the secondary market, where municipal securities are traded after they are issued.”¹¹

Securities and Exchange Commission (“Commission”)

In July 2012, a report published by the Commission also spoke to a lack of widespread pre-trade transparency in the municipal securities market and recommended, among other things, enhancements to the flow of information to investors.¹² At the time, the Commission also contemplated but did not adopt amendments to Regulation ATS to require an ATS with material transaction or dollar volume in municipal securities to publicly disseminate its best bid-side and offer-side prices and, on a delayed and non-attributable basis, responses to “bids wanted” auctions.¹³ The report noted that the MSRB could consider adopting rules requiring a broker’s broker with material transaction or dollar volume in municipal securities to publicly disseminate the best bid-side and offer-side prices on any electronic network it operates and, on a delayed and non-attributable basis, responses to “bids wanted” auctions and that the MSRB should promptly pursue enhancements to its EMMA[®] website to provide retail investors better access to pricing and other municipal securities information.¹⁴

Fixed Income Market Structure Advisory Committee (“FIMSAC”)

Established by the Commission in 2017, FIMSAC was composed of members from industry, bond issuers, academia, and regulatory agencies,

¹¹ See GAO, [Report to Congressional Committees, Municipal Securities, Overview of Market Structure, Pricing, and Regulation](#), at 1-2 (January 17, 2012).

¹² See the Commission’s [Report on the Municipal Securities Market](#), at vi and ix-x (July 31, 2012).

¹³ *Id.* at ix.

¹⁴ EMMA[®] is a registered trademark of the MSRB.

including the MSRB¹⁵ and the Financial Industry Regulatory Authority (“FINRA”) in non-voting capacities.¹⁶

Regarding pre-trade data, FIMSAC recommended that the Commission determine whether there are effective actions that may be taken by the Commission, the MSRB or others to provide additional transparency for the municipal securities market.

Post Trade vs. Pre-Trade Transparency

MSRB Rule G-14 currently requires dealers to report all executed transactions in municipal securities to the Real Time Transaction Reporting System (“RTRS”) within fifteen minutes of the time of trade, with limited exceptions.¹⁷ Launched in 2005, RTRS initially made transaction data available through subscription services¹⁸ and, beginning with the pilot launch of EMMA in 2008, simultaneously made transaction data available to the general public free of charge on EMMA to achieve the widest possible dissemination of information with the goal of ensuring the fairest and accurate pricing of municipal securities transactions.¹⁹

¹⁵ In connection with this effort, the MSRB developed a white paper on pre-trade information and presented the findings to FIMSAC. See Wu, Simon Z., et al., [Analysis of Municipal Securities Pre-Trade Data from Alternative Trading Systems](#) (October 2018).

¹⁶ See SEC, [Fixed Income Market Structure Advisory Committee, Recommendation Concerning Pre-Trade Transparency in the Municipal Securities Market](#) (June 1, 2020).

¹⁷ On September 20, 2024, and consistent with certain aspects of the 2013 Pre-Trade Concept Releases that addressed the timing of trade reporting, the MSRB received approval from the Commission to amend Rule G-14 to shorten the reporting timeframe to one minute after the time of trade subject to certain exceptions. See Release No. 34-101118 (September 20, 2024), [89 FR 78955](#) (September 26, 2024) (File No. SR-MSRB-2024-01).

¹⁸ See [MSRB Notice 2004-29](#), Approval By the SEC of Real-Time Transaction Reporting and Price Dissemination: Rules G-12(f) and G-14 (September 2, 2005). RTRS replaced the MSRB’ prior Transaction Reporting System (“TRS”) established in 1995, which received and disseminated transaction data in an overnight batch process. See [MSRB Reports, Reporting Inter-Dealer Transactions to the Board: Rule G-14, Vol. 14, No. 5 \(December 1994\)](#) at 3.

¹⁹ See [MSRB Notice 2008-14](#), MSRB Files With SEC to Launch Pilot Electronic Municipal Market Access System (EMMA) on March 31, 2008 (March 7, 2008).

A. State of Post Trade Data

Although post trade data is widely available for free on EMMA or through subscriptions with the MSRB or various third parties, the amount of post trade data generated by the level of trading activity in the marketplace is significantly smaller than the potential universe of pre-trade data. As previously mentioned, the over one million outstanding municipal securities are thinly traded and therefore the municipal securities market has a relatively small number of post trade data points when compared to other securities markets. The impact of this limited availability may be amplified during periods of market volatility.

MSRB research has shown that for those small percentages of municipal securities that do trade, there are typically very few trades in any given security in a given day.²⁰ For example, in 2023, a record high year for trading activity, there were on average about 51,000 trades per day and approximately 20,000 individual securities that traded. Therefore, even in a record high year only about 2 percent of outstanding bonds traded on an average day. In fact, in 2023, out of this 2 percent, more than two thirds traded only once or twice on a given day. Also, approximately 92 percent of those trades were in municipal securities with four or fewer trades on that same day. Also, about 40 percent of the executed trades occurred at a time when there were no other trades on the same day for that security at the time of execution. Finally, even on March 24, 2020, the date with the highest number of trades, there were less than 73,000 trades in the market.

Since many market professionals and systems place more value on larger trades, it is also important to consider the proportion of larger trades relative to the total number of trades. In 2023, there were fewer than 2,800 trades in about 1,500 municipal securities on an average day that traded with a par amount of \$500,000 or more and fewer than 1,800 trades and 1,000 securities with a par amount of \$1 million or more. In 2021, the average number of trades and securities traded per day available for trades of \$500,000 or more were significantly lower, with 1,900 trades and 1,000 securities traded per day. For trades of \$1 million or more, there were only about 1,200 trades and 650 securities traded per day on average.²¹

²⁰ See Bagley, John and Marcelo Vieira, [Trading Patterns in the Municipal Securities Market](#), Research Paper, MSRB (March 2024).

²¹ *Id.* at 6.

The municipal market also has a wide variety of security structures of varying complexities. The limited number of post trade data points, coupled with the wide variety of security characteristics, including federal and state tax treatments, a wide variety of coupons and maturities, redemption provisions, market sectors and sources of payments as well as ratings, can make it difficult for market participants to assess the value of certain securities.

This data collectively shows that although market participants are highly reliant on post trade data, a very small percentage of outstanding municipal bonds trade on any given day and those that do trade most likely trade only a few times on that day. With great frequency, there may be no data points that match a specific bond that an investor or dealer is interested in buying or selling, including data for other comparable trades in similar securities. In the end, the municipal securities market has significantly fewer trading data points, especially related to the number of outstanding bonds, than other fixed income markets. This can make the decision to buy or sell a municipal security and to determine the appropriate price point more difficult.

B. State of Pre-Trade Data

The MSRB understands that pre-trade data is significantly more complex, more voluminous and more decentralized than the post-trade data described above, and in many cases may be available in a greater variety of formats than post-trade data. This concept release represents the next step in the MSRB developing a fuller understanding of the potential opportunities, potential costs and other burdens, and reasonably feasible alternatives with respect to the Pre-Trade Initiative so that the MSRB can be fully informed in making any future decisions whether to continue to contemplate further action. In that regard, the MSRB recognizes that, while RTRS has democratized access to post-trade pricing information, there is currently no similar central repository for comprehensive pre-trade data on the more than one million outstanding municipal bonds. Therefore, the availability and access to this pre-trade information has continued to be piecemeal, incomplete, and largely limited to larger market participants even as post-trade data has become broadly available.

With no freely available public source for pre-trade data, the MSRB believes that there is information asymmetry where larger market participants may have access to significantly more pre-trade data than smaller market participants. Other stakeholders and specifically retail

investors likely have access to little or no pre-trade data despite collectively being the largest holders of municipal securities, owning 44 percent²² of the municipal securities outstanding through June 2024.²³ When individual investors do have access to pre-trade data, it is likely through their dealer with quotes that may include a mark-up or mark-down from the prices shown through traditional inter-dealer and institutional sources. Although larger market participants are likely to have access to more pre-trade data, they too may still have gaps in the pre-trade data to which they do have access.²⁴ Therefore, if a pre-trade initiative reaches a later transparency phase, where information is more freely available, there may be many types of recipients and beneficiaries of quote data as well as various alternative methods to disseminate quote data.

There are a variety of entities that provide pre-trade data to their own platform participants to varying degrees. All of these entities require a fee to subscribe to the data or to become a participant on the platform. Further, while a participant on an ATS platform may have access to most of the live quotes and bid-wanted on that platform, they do not necessarily have access to all data on that platform. Since the provider of the quote, whether on an ATS or otherwise, generally controls the quote, the provider of the quote can also determine what entities see any live quote, when they see the quote and the price shown for the quote. Therefore, among dealers competing for order flow on an ATS, dealers with a large network of retail investors may have a broader view of pre-trade data than a dealer that has no retail investors. ATSs also provide a recap of bid-wanted activity that can help a participant determine how competitive they were on the items they bid on. In addition, a broker's broker may also provide similar data to their clients.

²² Holdings by households include assets in separately managed accounts ("SMA") and non-SMA accounts.

²³ See Board of Governors of the Federal Reserve System, [Financial Accounts of the United States](#), Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, Federal Reserve Statistical Release, Second Quarter 2024 (September 12, 2024). In comparison, households account for less than 10% of Treasury bond holdings and less than 3% of corporate bond holdings.

²⁴ In 2018, the Division of Economic and Risk Analysis of the Commission published a white paper that examined the wide variations in dealer quotes on ATSs across municipal bonds utilizing data from ATSs and RTRS. See Craig, Louis, et al., [Pre-trade Information in the Municipal Bond Market](#) (July 2018). The research concluded that although pre-trade price-information is available to the majority of municipal bonds traded in the form of dealer quotes, only a limited group of market participants, i.e., dealers and certain institutional and retail investors, have access to pre-trade information.

There are also third parties that aggregate from various electronic platforms into one location and sell subsets of pre-trade quote data to subscribers. Additional sources of pre-trade data may exist in a more dispersed manner, for example in the forms of emails and chat messages in an unstructured format that may be harder to collect and less usable.

Live quotes, bid-wanted and responses to bid-wanted could originate from a dealer or an investor. Dealers can send live quotes and bid-wanted to ATSS, broker's brokers, investors, and other dealers simultaneously. Live quotes and bid-wanted can be sent electronically in a structured or unstructured format as well as verbally. The prices quoted in these live offerings can be the same across the various recipients or they can be different depending on the cost to execute on a platform or the size of the offering sent to the platform, among other reasons.

The potential size of a pre-trade data set for municipal bonds is dramatically larger than a post-trade data set for a given time period.²⁵ With the large number of quotes and bid-wanted, any potential pre-trade data set could be multiple times the size of post trade data.²⁶ MSRB research has shown that a single ATS may have between one to three million live quotes (including quote updates) and 10,000 to 15,000 bid-wanted, constituting \$1 - \$2 billion in par amount, in a single day in the secondary market.²⁷

It is also possible for a pre-trade data set to have a significant amount of duplicative data, and therefore it is vital to minimize the duplicative data when possible and identify duplicative data when it cannot be eliminated. Duplicative data can happen because a dealer or an institutional investor could send a single quote (or bid-wanted) to multiple sources such as ATSS, broker's brokers, investors, and dealers. Dealers and investors can also send offerings of different sizes and or prices depending on the

²⁵ See Wu, Simon Z. and John Bagley, [Municipal Securities Pre-Trade Market Activity: What Has Changed Since 2015?](#), Research Paper, MSRB (July 2020); and Wu, Simon Z., [Pre-Trade Market Activity in Municipal Securities: Recent Developments](#), Research Paper, MSRB (April 2024).

²⁶ In fact, six months of live quote and bid-wanted data that an ATS sent to the MSRB for research, was a larger data set than all the trades reported to the MSRB since the launch of RTRS in 2005.

²⁷ See Table 3 from Wu, Simon Z., [Pre-Trade Market Activity in Municipal Securities: Recent Developments](#), Research Paper, MSRB (April 2024). The daily statistics are derived from the monthly averages.

recipient and/or the cost of executing on various platforms. Identifying the source of the quote is therefore important in order to minimize the amount of duplicative data and potentially help reduce the compliance cost to the industry.

The MSRB has observed general trends indicative of a universe of data that may be potentially available to dealers and institutional investors outside of ATSS and broker's brokers on third party trading platforms that are not currently regulated under federal securities laws or MSRB rules. The MSRB believes this data set could have significantly more offerings and trading volume as well as a significant amount of bid-wanted per day, as compared to just ATSS and broker's brokers. These third-party trading platforms likely also have a significant amount of par value in the form of live quotes and bid-wanted. The MSRB believes that some of these offerings and bid-wanted on such platforms may also appear on ATSS or broker's brokers, but much of this liquidity is likely unique and exclusive to the paid subscribers of such third-party platforms.

C. Increased Use of ATS Platforms

A vast majority of trades had at least one quote available on the two predominant ATS platforms at the time of a trade between 2018 and 2022, and the percentage has increased. As indicated by Table 1 below, while 71.3 percent of all secondary market trades (customer trades and inter-dealer trades) during the 2018 period had a quote on at least one of the two platforms at the time of execution, the percentage rose to 71.8 percent in 2021 and 78.4 percent in 2022.²⁸ The increase in the percentage was consistent with the rise in the number of quotes from 2018 to 2022, suggesting that even though most of these trades were not executed on ATS platforms themselves, a vast majority had some pre-trade quotes at the time of execution. Looking only at customer trades, 82.1 percent of customer buy trades and 76 percent of customer sell trades had at least one quote available on one of the two ATS platforms in 2022. Table 1 also illustrates that the spread between the best quote and the execution price declined for both customer-buy and customer-sell trades between 2018 and 2022,²⁹ likely as a result of an increased number

²⁸ See Wu, Simon Z. and John Bagley, [Municipal Securities Pre-Trade Market Activity: What Has Changed Since 2015?](#), Research Paper, MSRB (July 2020); and Wu, Simon Z., [Pre-Trade Market Activity in Municipal Securities: Recent Developments](#), Research Paper, MSRB (April 2024).

²⁹ Customer buy trades paid less of a markup in 2021 and 2022 than in 2018, while in the case of a customer sell trade, a positive price difference in 2021 and 2022 illustrates that

of quotes and quote price competition by market participants.

Table 1. Percentage of Trades with at Least One Quote on Two ATS Platforms at the Time of Trade³⁰

| | 2018 Data (June November) | 2021 Data (April - June) | 2022 Data (April - June) |
|--|------------------------------|-----------------------------|-----------------------------|
| Total Number of Trades | 4,857,895 | 1,861,573 | 3,327,417 |
| Trades with At Least One Quote at the Time of Trade | 3,466,056 | 1,336,935 | 2,609,004 |
| Percent | 71.3% | 71.8% | 78.4% |
| Number of Customer Buy Trades | 1,848,644 | 630,994 | 1,170,875 |
| Customer Buy Trades with At Least One Quote at the Time of Trade | 1,422,287 | 486,405 | 961,083 |
| Percent | 76.9% | 77.1% | 82.1% |
| Median Difference Between Customer Buy Price and Best Offer Quote | 0.38 | 0.05 | 0.22 |
| Number of Customer Sell Trades | 1,120,243 | 531,152 | 849,874 |
| Customer Sell Trades with At Least One Quote at the Time of Trade | 580,662 | 361,642 | 643,772 |
| Percent | 51.8% | 68.1% | 75.7% |
| Median Difference Between Customer Sell Price and Best Bid Quote | 0.00 | 0.10 | 0.10 |
| Number of Inter-Dealer Trades | 1,889,008 | 699,427 | 1,306,668 |
| Inter-Dealer Trades with At Least One Quote at the Time of Trade | 1,463,107 | 488,888 | 1,004,149 |
| Percent | 77.5% | 69.9% | 76.8% |
| Median Difference Between Inter-Dealer Trade Price and Best Offer Quote | 0.00 | (0.05) | 0.00 |

the customer was receiving a better sell price than the highest bid-side quote, equivalent to a negative markdown.

³⁰ The MSRB's analysis of pre-trade data from two ATS platforms. See Wu, Simon Z. and John Bagley, [Municipal Securities Pre-Trade Market Activity: What Has Changed Since](#)

General Comparison with Other Markets

A. Equity Market

Among the securities markets, the equity market may be the farthest along in pre-trade transparency. There are, however, major differences in the respective regulatory frameworks, market structure and product characteristics that make the equity market and the municipal securities market behave differently.

Fixed income securities products are generally not listed on an exchange and are almost exclusively traded in the OTC market, that is, over the counter in party-to-party trades. The equity market operates differently, with at least half of the trading volume occurring on centralized national exchanges, and the rest occurring over the counter (collectively, “market centers”). The various equity market centers are linked and governed by a National Market System Plan (“NMS Plan”) that promotes transparency for equity securities by regulating how all equity market centers disclose quotes and execute trades, requiring that all equity market centers make bids and offers available and visible to investors, thereby greatly enhancing the breadth and depth of pre-trade information for retail investors.³¹

After implementation of the NMS Plan, the equity market saw spreads decline and a dramatic increase in trading volumes. In addition, in the equity market, smaller-sized trades generally have lower effective spreads³² than larger-sized trades for market orders.³³

[2015?](#), Research Paper, MSRB (July 2020); and Wu, Simon Z., [Pre-Trade Market Activity in Municipal Securities: Recent Developments](#), Research Paper, MSRB (April 2024).

³¹ The NMS Plan was created by the Securities Acts Amendments of 1975 through the enactment of Section 11A of the Securities Exchange Act of 1934, as amended.

³² Effective spread is a calculated metric used for the MSRB’s research purposes. The metric is calculated as the difference between the price a selling investor receives for a security and the price a purchasing investor pays, with dealers acting as intermediaries assisting the purchase and selling. The spread therefore also represents the gross compensation received by dealers— known as a mark-up/mark-down—for providing liquidity. See Wu, Simon Z., [Transaction Costs for Customer Trades in the Municipal Bond Market: What is Driving the Decline?](#), Research Paper at 3, MSRB (July 2018).

³³ Academic publications going back to the 1980s and 1990s already affirmed the positive correlation between the trade size for the effective spread. For example, a 1995 paper

B. Corporate Bond Market

Although the corporate bond market is probably the most comparable market to the municipal securities market, there are significant differences in market structure and characteristics between these groups of bonds. The municipal securities market has significantly more issuers and outstanding securities than the corporate bond market. There is approximately \$4 trillion in outstanding debt in the municipal securities market compared to approximately \$11 trillion outstanding in the corporate bond market. Average annual issuance in the corporate bond market was \$1.6 trillion compared to about \$416 billion in the municipal securities market from 2014 to 2023.³⁴ In addition, the average trade size for corporate bonds was \$484,000 from July 2023 through June 2024, as compared to the average of \$191,000 for municipal securities, suggesting a greater participation of institutional investors in the corporate bond market. Finally, the vast majority of the securities in the municipal securities market are tax-exempt while corporate bonds are taxable.

With their differences in market structure, types of investors and characteristics of their respective securities as compared to the corporate bond market, transaction costs as measured by effective spreads are noticeably higher for municipal securities overall and especially for smaller sized trades.

Table 2 below illustrates, for all trades, that average effective spreads for municipal securities (as a percentage of trade price) were more than 15 basis points higher than the average for corporate bonds. As noted above, transaction costs also vary by trade size for both corporate bonds and municipal securities, with an inverse correlation between trade size and effective spreads. Smaller trades generally have higher effective spreads and therefore relatively higher transaction costs than larger trades. Table 2 shows the detailed analysis of the correlation between different trade size buckets and effective spreads for municipal securities and corporate bonds. Smaller trades in municipal and corporate bonds have significantly

examined the 150 stocks listed on the New York Stock Exchange and found that the average effective spread (in dollar or in percentage) increased monotonically, that is increased progressively, with trade size. See Lin, Ji-Chai Lin, et al., [Trade Size and Components of the Bid-Ask Spread](#), The Review of Financial Studies, Vol. 8, No. 4, at 1153-1183 (Winter, 1995).

³⁴ See Securities Industry and Financial Markets Association, [US Fixed Income Securities Statistics](#) (December 5, 2024).

higher effective spreads than larger trades, with the difference in spreads between \$100,000 par value or less trades and \$1,000,000 par value and over trades being more pronounced for municipal securities (40.6 basis points) than for corporate bonds (27.7 basis points).

Table 2. Effective Spreads by Trade Size – Municipal Securities and Corporate Bonds in Basis Points of Security Price (2023 Data)³⁵

| By Par Value | Corporate Bonds | Municipal Securities |
|-----------------------|-----------------|----------------------|
| \$100,000 or Less | 50.2 | 58.4 |
| \$100,001 - \$999,999 | 23.2 | 33.8 |
| \$1,000,000 and Over | 22.5 | 17.8 |
| All Trades | 39.3 | 54.7 |

Similar variation in trade size and effective spreads also exists for other fixed income securities. Table 3 below illustrates the difference in effective spreads between \$100,000 par value or less trades and over \$1,000,000 par value trades for agency securities and Treasury securities, in addition to corporate bonds and municipal securities.

Table 3. Effective Spreads by Trade Size and Type of Fixed Income Security in Basis Points of Security Price (August 2021 – July 2022)³⁶

| Fixed Income Category | Retail-Sized Trades (<= \$100,000 Par Value) | Large-Sized Trades (> \$100,000 Par Value) | Difference |
|-----------------------|--|--|------------|
| Agency Securities | 35 | 15 | 20 |
| Corporate Bonds | 52 | 25 | 27 |
| Municipal Securities | 57 | 29 | 28 |
| Treasury Securities | 7 | 4 | 3 |

³⁵ The source of this analysis is the MSRB's RTRS data and FINRA's Trade Reporting And Compliance Engine ("TRACE") data. TRACE data was provided to the MSRB by FINRA's TRACE System.

³⁶ See Release No. 34-96496 (December 14, 2022), [88 FR 5440](#) (January 27, 2023) (File No. S7-32-22). The Commission's Division of Economic and Risk Analysis' analysis of data from August 1, 2021 through July 31, 2022, [88 FR at 5513](#).

Potential Framework for a Pre-Trade Initiative

The framework presented below is preliminary, largely developed with the assistance of previous outreach with stakeholders. The framework is intended to elicit views and input from all interested parties on the potential benefits and costs of a Pre-Trade Initiative. In particular, the MSRB seeks suggestions regarding possible more effective and/or less costly alternatives including whether to seek alternative sources of pre-trade quote data.

A. Potential Definition of Pre-Trade Data

For the purposes of this Pre-Trade Initiative, the MSRB refers to pre-trade data as live quote data (bid-side and offer-side) signaling prospective trading interest in specific municipal securities as well as bid-wanted data and responses to bid-wanted, also sometimes known as requests for quotes or RFQs. The MSRB views live quote data and responses to bid-wanted as different data points since live quotes can be acted upon at any time that they are live. In contrast, bid-wanted have a defined time during which bids may be entered and a defined time for how long the bids may be acted upon.

B. Phased Approach

The MSRB is preliminarily contemplating a phased approach where the initial phase of the Pre-Trade Initiative would be a collection and research only phase. The MSRB would not seek to move directly to a transparency phase as it anticipates the possibility that such a direct move, without meaningful opportunities to study the pre-trade data and to understand its potential value to the marketplace, could have a significant impact on the municipal securities market structure, some of which could be negative. During a preliminary collection and research phase, the MSRB would collect and analyze the data and make summary level research public. The provider of the quote would continue to retain control over the dissemination of its quote, including determining what entities see any quotes, when they see the quotes and at what price they see the quotes. Therefore, the MSRB believes that a collection and research phase may have a limited impact on market structure, and the data would be critical in determining next steps, if any, without materially impacting the functioning of the municipal securities market.

The goal of any pre-trade data initiative would be to collect data that is adequately representative of the quote population without posing undue burdens on dealers while being able to assess the potential value of various quotes. Since the data analysis would lead to the evaluation of potential next steps, it would be beneficial if a data set could include many different types of quotes, and not be limited to a small subset of the market. The MSRB would also welcome feedback from market participants on the summary level research that it would publish as well as on market participants' experience in submitting data to the MSRB and on developments in the form and availability of pre-trade data in the municipal securities market.

C. Potential Municipal Securities Products and Exemptions

Because the current municipal securities market is diverse, the MSRB believes that the potential value of a pre-trade data set may vary by the type of municipal security and therefore is contemplating exclusions for certain products. Preliminarily, the MSRB believes the municipal securities that could most benefit from pre-trade data, and therefore could be collected and used in the pre-trade data set, would include secondary market fixed rate securities with assigned unique identifiers. This data set would include capital appreciation bonds and zero-coupon bonds.

The MSRB is considering excluding from the Pre-Trade Initiative quotations in variable rate demand obligations ("VRDOs"), auction rate securities, commercial paper and floating rate notes. Although VRDOs are long term securities that have interest rates that reset periodically (daily, weekly, etc.), they include a puttable feature allowing investors to "put" the bonds back to the remarketing agent thereby giving them characteristics of short-term instruments. Similarly, commercial paper has very short durations with maturities no longer than 270 days from the date of issuance. Both VRDOs and commercial paper have limited secondary market activity. VRDOs are almost always offered at par whereas prices of commercial paper may vary slightly from par depending on fluctuations in short term interest rates. Further, VRDO investors do not tend to liquidate their positions between remarketing periods, and the trades are reported at the end of day pursuant to MSRB Rule G-14, which delays their transparency. For these reasons, the MSRB would potentially exclude these securities from the Pre-Trade Initiative as the information obtained would provide limited value.

D. Potential Sources of Pre-Trade Quote Data

While the MSRB has identified dealers and buy-side institutional accounts as primary producers of pre-trade quote data in the municipal securities market, the MSRB only has authority to mandate submission of pre-trade quote data from dealers. Dealers are generally very active in producing quotes, as well as conveying quotes by other dealers and investors to other market participants. Preliminarily, the MSRB believes that electronic quotes that already exist in structured format would be the easiest and most cost effective source for any Pre-Trade Initiative. While the MSRB can only mandate submission from dealers, the MSRB could consider receiving voluntarily quotes from other sources such as institutional investors and industry vendors, including operators of systems through which dealers and/or institutional investors may exchange trading interests in municipal securities.

The MSRB understands that dealers are the source of many of the quotes on ATs and with broker's brokers. If any pre-trade data initiative moves forward, the MSRB would prefer to only collect a particular quote that may appear in more than one venue from a single source, rather than from all potential sources. For example, the MSRB would not collect quotes sent by a dealer to a broker's broker from both the dealer and the broker's broker.³⁷ In addition, there may be some sensitivity to having a dealer submit to the MSRB quotes that it did not itself generate but instead is reconveying from another dealer or an investor.

The MSRB seeks comment on the sources of pre-trade quote data that could most effectively provide the most useful information for assessing whether to proceed with further steps in the Pre-Trade Initiative, in light of the considerations outlined above.

E. Formats of Currently Distributed Quote Data and Manner of Submission to the MSRB

The MSRB has identified that quotes are distributed in the market via electronic feeds, electronic messaging systems, bid-wanted systems,

³⁷ To this end, it is possible that, based on their unique operational synergies, some dealers may find it more cost effective to submit to the MSRB all their quote data including those sent to ATs and/or a broker's broker, and some may be able to separately submit to the MSRB quotes not already sent via an ATS or a broker's broker potentially on a more delayed basis depending on the format of the quote. The MSRB solicits input on the feasibility of these alternative approaches.

bulletin board systems, email, and voice quotes, which include negotiations. Some quote data may be already in an organized and machine-readable structured format and ready for dissemination via electronic feeds, whereas some quote data may be in an unstructured format such as chats and emails. The MSRB believes that this distinction is relevant for the Pre-Trade Initiative.

The MSRB believes the ease and cost of submitting quote data is directly related to the distribution format. For example, a quote sent via an electronic feed that is in a structured data format may be much easier and less costly to report than a quote sent via email or over the phone.

Therefore, preliminarily, the MSRB believes a potential initial phase of a pre-trade initiative would include quotes in a structured format such as quotes sent via an electronic feed and the respective ATs and broker's broker would, acting as a collection intermediary, submit the quotes to the MSRB. Regarding quotes that exist in an unstructured format that may also be valuable and informative, the MSRB welcomes insight from commenters on the feasibility of capturing and submitting such unstructured quote data to the MSRB easily and cost efficiently.

Furthermore, for the initial phase of the Pre-Trade Initiative during which the MSRB would be studying quote data but not further disseminating it (as described below), the MSRB would seek to avoid requiring dealers to establish any significant new infrastructure for submitting quote data to the MSRB. The MSRB welcomes input on the most efficient manner of using existing dealer quote dissemination processes for submitting such data to the MSRB. It is important to note that if any potential first phase did not include transparency, then quotes could be sent to the MSRB in bulk and on a delayed basis, similar to the batch submission of trade data to the MSRB's prior TRS system that served as the first step in a measured evolutionary process for post-trade data collection and dissemination that is currently encompassed by RTRS.³⁸

Transparency Benefits and Potential Burdens

In general, a phased-in pre-trade data initiative could set the stage to eventually benefit the overall market with free and broader access to information. An initial collection-only phase would help inform the MSRB about the nature of pre-trade data across the marketplace and, if the initiative were to ultimately proceed to a transparency phase at a future

³⁸ See note 18 *supra*.

date based on further feedback from market participants, how best to make such information more widely available through research and other means, and disseminated in a manner that benefits market participants, does not create unintended negative consequences in the market, and minimizes the burden on market participants who would be reporting pre-trade data. Such preliminary analysis would, for example, assist the MSRB in understanding how to level the playing field for market participants of all types and sizes, including smaller participants, retail investors or their surrogates, and other entities which may have incomplete, limited or no access currently. Thus, regulators would generally benefit from a collection and research phase by gaining access to a source of data that they currently have almost no access to and thereby make more informed decisions on potential next steps, if any. In this instance, the MSRB would likely benefit during the collection and research phase by using a data driven analytical approach to evaluate the cost-benefit tradeoffs and timing of any potential future actions, if any.

If a later transparency phase were to be undertaken, the MSRB believes that a broad range of market participants would benefit. Smaller investors and dealers might realize benefits through direct access to pre-trade data to which they did not previously have access. These groups currently have significantly less access to pre-trade data than larger dealers and investors. Academic research has continually shown that smaller investors, including retail investors, could benefit substantially as increased transparency leads to decreased spreads and lower transaction costs across markets.³⁹ Previous MSRB research has shown that spreads are substantially wider in smaller size trades, where retail investor trading is concentrated, than larger size trades which are dominated by institutional investors.⁴⁰ With greater access to a broader set of pre-trade data, brokers' brokers would benefit by being able to more effectively and efficiently serve their dealer clients, many of which may include smaller firms.

Although large dealers and institutional investors likely already have the most access to pre-trade data, they may also benefit incrementally

³⁹ See Green, Richard, et al., [Financial Intermediation and the Costs of Trading in an Opaque Market](#), The Review of Financial Studies, Vol. 20, Issue 2 (March 2007); and Harris, Lawrence and Michael Piwowar, [Secondary Trading Costs in the Municipal Bond Market](#), The Journal of Finance, Vol. 61, No. 3 (June 2006).

⁴⁰ See Wu, Simon Z. and Nicholas J. Ostroy, [What Has Driven the Surge in Transaction Costs for Municipal Securities Investors Since 2022?](#), Research Paper, MSRB (August 2023); and Wu, Simon Z., [Transaction Costs for Customer Trades in the Municipal Bond Market: What is Driving the Decline?](#), Research Paper, MSRB (July 2018).

because even for the largest players, access to pre-trade data may be limited and imperfect and they likely have systems that could incorporate the pre-trade data into their workflow efficiently. Other participants such as third party data providers and their customers, as well as market analysts and the financial press, may benefit through tools and services that may be further enhanced with access to such data, or through improvements in the data quality, efficiency and fairness of the municipal securities market more generally. For example, data vendors and other service providers to municipal market professionals would likely benefit from better access to a significant amount of additional data to which they currently have extremely limited access. Since these entities provide valuable tools to make the municipal securities market more efficient, many or most market participants would benefit from these entities having ready access to pre-trade data to improve various tools and products.

Furthermore, municipal advisors and issuers would benefit significantly because very few if any municipal advisors and issuers have access to pre-trade data. Such data could help municipal advisors to better and more effectively advise their issuer clients, with the potential availability of substantially more pricing datapoints to provide insights which could prove to be valuable at the time of pricing a new issue. Issuers, especially those that choose not to hire a municipal advisor, could see similar benefits if pre-trade data is widely available.

Given the potential benefits to a wider range of stakeholders from making the data transparent, the MSRB invites comments that discuss the benefits of pre-trade transparency, the potential impact to market structure and potential costs to dealers from such an initiative.

As noted above, for an initial collection-only phase during which the MSRB would be studying quote data but not further disseminating it, the MSRB would seek to avoid requiring dealers to establish any significant new infrastructure for submitting quote data to the MSRB but instead likely would allow for quotes to be sent to the MSRB in bulk and on a delayed basis (e.g., end-of-day or next business day). The MSRB seeks input on the most efficient manner of using existing dealer quote dissemination processes for submitting such data to the MSRB and what burden such optimized manner of providing data to the MSRB during a collection-only phase might entail.

While the MSRB has not determined to proceed to a transparency phase, and any pre-trade data it receives during a collection-only phase would assist the MSRB in determining whether to consider such a phase, the

MSRB would need to at that point, assess any potential additional burdens that could arise, which would be highly dependent on the mechanics, timing, frequency, nature of submitters and nature of quote data being submitted, among other factors. In particular, these factors would likely drive whether existing technology or processes employed by submitters could be used as is or if they would need to be modified, or if new technology solutions or process approaches would be required to support such an initiative. While the MSRB would continue to seek public comment on any potential burdens at such future point in time, if the MSRB were to propose a transparency phase with specific details of potential alternative approaches, the MSRB currently welcomes any input that would provide useful data or other considerations bearing on the issue of burdens of any potential future phases.

Questions

The MSRB seeks comment on all aspects of this concept release. Commenters may wish to consider the following questions in their response:

A. Current State of Pre-Trade Data

Q1. Do you agree with the MSRB's characterization of the current state of pre-trade data and the need for a pre-trade data initiative?

Q2. Are there any significant factors in the current state of pre-trade data that the MSRB is missing, or you may feel are mischaracterized?

B. Potential Products and Exemptions

Q3. Do you agree with MSRB's proposal to potentially exclude VRDOs and commercial paper from the Pre-Trade Initiative?

Q4. Are there other products that should be potentially exempted?

Q5. Do you agree with the MSRB's assessment that a potential initial phase would require the submission of quotes that are in a structured format and that quotes in an unstructured data format such as voice, email or chat quotes may be more difficult for dealers to submit? Please explain. Alternatively, please provide suggestions as to how such unstructured quotes could be easily and cost efficiently submitted to the MSRB.

Q6. Should the MSRB consider further exemptions from reporting certain quotes? For example, besides the product based exemptions already contemplated, should there be an exemption for smaller dealers similar to the exception provided in MSRB Rule G-14 for one-minute trade reporting for dealers with limited trading activity? If so, should the same criteria and magnitude apply or is there a better measurement? Alternatively, would a potential exemption for unstructured data alleviate the concerns of smaller dealers? Would there be a substantial impact on the representative nature of the quote data if smaller dealers were to be excluded?

Q7. If an ATS, broker's broker or dealer have a feed with dealers and/or investors, what would be the additional costs or burdens related to submitting a feed to the MSRB as well?

C. Transparency Benefits and Potential Burdens

Q8. Do you agree with the MSRB's assessment of potential immediate and future benefits of pre-trade data? Please explain.

Q9. Are there other potential beneficiaries the MSRB has possibly left out?

Q10. What are the potential and unique risks and costs associated with making pre-trade data transparent in the municipal securities market?

Q11. The MSRB preliminarily believes that a measured and step by step approach that uses the data to inform and determine any potential next steps may be the most prudent approach towards any pre-trade transparency phase. Do you agree? Please explain.

Q12. The MSRB preliminarily believes that any potential impacts on market structure from a pre-trade data initiative would be minor during a collection and research phase since the market participant quoting the bond would still retain control over who sees the quote, when they see it and at what price they see the quote. Do you agree or disagree and why?

D. Less Costly Alternatives

Q13. Do you agree that any initial phase of a potential pre-trade data initiative should only be a collection and research phase? Please explain.

Q14. Are there other less costly alternatives that would not require rulemaking that would enable the MSRB to collect a comprehensive and useful data set? If so, what are the other options?

E. Duplication of Data

Q15. Regarding the avoidance of potential duplication of data, should the MSRB collect quote data: a) directly from the dealer making the quotes; b) from the broker's broker and/or ATs to the extent they are distributed by dealers through a broker's broker and/or ATs; c) collect from both parties; or d) a combination thereof?

Q16. If dealers electronically send quote data to ATs, broker's brokers and other dealers or to clients, would dealers prefer to have ATs and broker's brokers submit the quotes to the MSRB on behalf of the dealers and have the dealer only submit quotes to the MSRB that were sent to other dealers or customers (but not to an ATs or broker's broker)? Or would it be easier and preferable for dealers to submit all of their quotes to the MSRB?

Q17. For taxable municipal securities, would it be beneficial to allow quotes to be shown as a spread to Treasury bonds, rather than a price or yield, so that quotes would only need to be updated when the spread to the Treasury bond changed?

Q18. For tax-exempt securities is there also a source that dealers quote securities as a spread to another security or index that the MSRB could access to reduce the number of updated quotes? If so, what are potential sources?

Q19. Are there ways the MSRB could be added to quote distribution lists that would make it easier for dealers to submit quotes to the MSRB? Is this true for structured and unstructured quote data?

Q.20 Do many dealers tier their pricing so that they will have different prices sent to different venues depending on the cost to execute on the platform and/or the likely recipient of the quote i.e. customer vs. dealer? If so, should the MSRB ask for all prices, the best price, an average price or something else?

January 13, 2025