MSRB Municipal Securities Rulemaking Board

# MSRB Notice

2022-07

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**Stakeholders**
Municipal Securities Dealers, Bank Dealers, Investors, General Public

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Request for Comment

**Comment Deadline**
October 3, 2022

**Category**
Market Transparency

**Affected Rules**
Rule G-14

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# Request for Comment on Transaction Reporting Obligations under MSRB Rule G-14

## Overview

As part of its ongoing retrospective review of its rules and published interpretations, the Municipal Securities Rulemaking Board (the MSRB or the Board) is issuing this Request for Comment (RFC) to solicit comment on a potential amendment to MSRB Rule G-14, on reports of sales or purchases, related to the reporting and public dissemination of information regarding purchase and sale transactions effected in municipal securities. Specifically, the MSRB is seeking input on a potential amendment to Rule G-14 to require that, absent an exception, transactions are reported as soon as practicable, but no later than within one minute of the Time of Trade ("Proposal").[1]

Comments should be submitted no later than October 3, 2022 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 Steet NW, Washington, DC 20005. All comments will be available for public inspection on the MSRB's website.

Questions about this Request for Comment should be directed to Gail Marshall, Chief Regulatory Officer, John Bagley, Chief Market Structure Officer, or David Hodapp, Director, Market Regulation, at 202-838-1500.

## Background

The MSRB's highest priority is to fulfill its congressional mandate to protect investors, issuers and the public interest by promoting a fair and efficient market and ensuring access to capital for communities across the country. The MSRB fulfills its mission in safeguarding the nearly $4 trillion municipal securities market by, among other activities, establishing rules

[1] "Time of Trade," as defined in Rule G-14(d)(iii), means the time at which a contract is formed for a sale or purchase of municipal securities at a set quantity and set price.

for brokers, dealers, municipal securities dealers (collectively, "dealers" and, individually, each a "dealer") and municipal advisors that engage in municipal securities and advisory activities that are designed to prevent fraud and manipulation and promote fair dealing, and a fair and efficient market.

To further promote a fair and efficient market, one that facilitates equal access to information and market transparency, the MSRB provides technology systems that power the municipal securities market and provide market transparency. Over the past decade, the MSRB significantly advanced transparency in the municipal securities market through its Electronic Municipal Market Access (EMMA®) website and technology systems. The EMMA website is the official source for municipal securities data and disclosure documents and provides investors, state and local governments and other market participants with free access to key information and tools to effectively use that information. The MSRB early on recognized the importance of price transparency to achieving its mission of protecting investors, especially since municipal bonds, unlike equities, do not trade on a centralized exchange. With the launch of the EMMA pilot on March 31, 2008, transaction information became available to the public, at no charge, through the EMMA website on a real-time basis.

MSRB Rule G-14 currently requires brokers, dealers, and municipal securities dealers to report information about purchase and sale transactions effected in municipal securities to the MSRB's Real-Time Transaction Reporting System (RTRS).[2] Rule G-14 establishes reporting requirements for three types of transactions: inter-dealer transactions eligible for comparison, customer, and inter-dealer regulatory-only. RTRS has three "Portals" for submission of transaction data, and aspects of RTRS are designed to function in coordination with the National Securities Clearing Corporation's Real-Time Trade Matching ("RTTM") system. Dealers are directed to report such transactions in accordance with Rule G-14, the Rule G-14 RTRS Procedures, and the RTRS Users Manual. Absent an exception, Rule G-14 currently requires a dealer to report the applicable transaction information within 15 minutes of the "Time of Trade," which Rule G-14 defines as the time at which a contract is formed for a sale or purchase of municipal securities at a set quantity and set price.

The transaction information collected by the MSRB in accordance with Rule G-14 serves the dual purposes of market transparency and market

[2] Transactions in securities without CUSIP numbers, in municipal fund securities, and certain inter-dealer securities movements not eligible for comparison through a clearing agency are currently exempt from the reporting requirements of G-14(b)(vi).

surveillance. To advance the goal of market transparency, the MSRB disseminates trade reporting information free to the general public through the EMMA website and to paid subscribers through certain data subscription feeds. To advance the goal of market surveillance, the MSRB maintains a comprehensive database of transaction information, which is made available to the examining authorities, including the Securities and Exchange Commission (the SEC or Commission) and the Financial Industry Regulatory Authority (FINRA), and other appropriate regulatory agencies.

## Proposal on Trade Reporting Time Frame

The MSRB adopted the current 15-minute reporting timeframe in 2004 with an operative date of January 2005.[3] The Board last sought public comment on the reporting timeframe in 2013.[4] As part of its retrospective review, the Board is revisiting this topic to determine, in light of the prior stakeholder comments and current data analysis, whether market practices and technology have evolved to the extent that the potential transparency benefits of more contemporaneous trade reporting could be achieved.

The MSRB is seeking comment on the Proposal to Rule G-14 to require that, absent an exception, dealers report transactions effected with a Time of Trade during the RTRS Business Day to an RTRS Portal as soon as practicable, but no later than within one minute of the Time of Trade.

### A. Trade Reporting Analysis

In 2021, 76.9% of trades that were not exempt from the 15-minute reporting requirement were reported within one minute after a trade execution.[5] By comparison, more than 97.3% of trades required to be reported within 15 minutes were reported in five minutes or less. Accordingly, reducing the required reporting time to as soon as practicable but no later than five minutes would have little impact on enhancing the timeliness as to the number of trades reported.

While a shorter reporting timeframe would have already been satisfied by most reported trades in 2021, a shorter reporting timeframe, such as the

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[3] *See* Release No. 34-50605 (Oct. 29, 2004), 69 FR 64346 (Nov. 4, 2004) File No. SR-MSRB-2004-06; *see also* MSRB Notice 2004-29: Approval by the SEC of Real-Time Transaction Reporting and Price Dissemination: Rules G-12(F) and G-14 (Sept. 2, 2004).

[4] *See* MSRB Notice 2013-02: Request for Comment on More Contemporaneous Trade Price Information Through a New Central Transparency Platform (Jan. 17, 2003). Comments in response to 2013-02 are available here.

[5] In general, "time of execution," as currently required for recordkeeping purposes under Rule G-8(a)(vi) and (vii), is the time of trade as defined in Rule G-14(d)(iii).

proposed one-minute reporting requirement, would provide more immediate transparency from the remaining 23.1% of trades for the same or comparable securities for a market that historically has been associated with low trading volume for a majority of CUSIP numbers, relatively illiquid securities and information opacity.

Table 1 summarizes the MSRB's analysis comparing trade execution time to trade reporting time. As shown in Table 1 below, 76.9% of all municipal securities trades reported in 2021 were reported within one minute. In addition, there is a noticeable difference in the speed of trade reporting by different trade size groups, with the reporting time increasing with trade size. While 80.3% of trades with trade size of $100,000 par value or less were reported within one minute, only 40.1% of trades with trade size between $1,000,000 and $5,000,000 par value and 25.3% of trades with trade size above $5,000,000 par value were reported within one minute. By comparison, the differences in percentage of trades reported within two minutes and five minutes were smaller across the trade size groups, ranging from 49.4% for trades above $5,000,000 par value to 93.4% for trades at $100,000 par value or lower for two-minute reporting and 80.3% for trades above $5,000,000 par value to 98.1% for trades at $100,000 par value or lower for five-minute reporting.

**Table 1. Trade Report Time by Trade Size**
**January 2021 to December 2021[6]**

| | Cumulative Percentage | | | | |
|---|---|---|---|---|---|
| **Difference Between Execution and Reported Time** | **All Trades** | **$100,000 or Less** | **> $100,000 - $1,000,000** | **> $1,000,000 - $5,000,000** | **>$5,000,000** |
| **15 Seconds** | 26.1% | 28.0% | 17.8% | 8.7% | 4.0% |
| **30 Seconds** | 51.6% | 54.5% | 39.5% | 23.1% | 13.2% |
| **1 Minute** | 76.9% | 80.3% | 63.4% | 40.1% | 25.3% |
| **2 Minutes** | 91.0% | 93.4% | 82.1% | 64.1% | 49.4% |
| **5 Minutes** | 97.3% | 98.1% | 94.6% | 87.6% | 80.3% |
| **10 Minutes** | 99.1% | 99.3% | 98.2% | 96.2% | 92.6% |
| **15 Minutes** | 99.5% | 99.6% | 99.0% | 98.1% | 95.7% |
| **30 Minutes** | 99.6% | 99.7% | 99.3% | 98.7% | 96.5% |
| **1 Hour** | 99.7% | 99.8% | 99.5% | 99.0% | 96.9% |
| **> 1 Hour** | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| | | | | | |
| **Market Share** | 100.0% | 83.8% | 13.6% | 2.1% | 0.5% |

[6] The analysis in this request for comment excludes trades that are exempt from the 15-minute reporting time including trades flagged as being executed at the List Offering Price, trades in Variable Rate Demand Obligations, as well as trades in commercial paper.

Table 2 illustrates a significant difference in trade reporting time between dealers with more than one-percent market share of trades (Group 1) and dealers with less than 0.1% market share of trades (Group 3 and Group 4). This difference is especially pronounced for the one-minute trade reporting percentages (blue shade). For dealers in Group 1, 81.2% of all trades conducted were reported within one minute while approximately 50% of all trades conducted by Group 3 (48.0%) and Group 4 (52.0%) dealers were reported within one minute. In addition, when exploring what percentage of firms in each group reported at least 90% of trades within one minute in 2021, 47.6% of Group 1 firms met the criteria while only 14.9% of Group 3 firms and 34.6% of Group 4 firms met the criteria. Please note 67.7% of trades in 2021 were conducted by Group 1 firms, as opposed to 5.5% of trades conducted by Group 3 firms and only 0.7% of trades conducted by Group 4 firms.

**Table 2. One-Minute Trade Reporting Time by Size of Dealers**
**January 2021 to December 2021**

| | Percent of Trades | Percentage of Firms Reporting At Least 90% of Trades | Market Share of Trades |
|---|---|---|---|
| | | | |
| **Group 1 - Firms that accounted for at least 1% of trades** | 81.2% | 47.6% | 67.7% |
| **Group 2 - Firms that accounted for between 0.1% and 1% of trades** | 72.8% | 40.3% | 26.1% |
| **Group 3 - Firms that accounted for between 0.01% and 0.1% of trades** | 48.0% | 14.9% | 5.5% |
| **Group 4 - Firms that accounted for 0.01% or less of trades** | 52.0% | 34.6% | 0.7% |

## B. Preliminary Economic Analysis of the Proposed Amendment

The Proposal would require that, absent an exception, dealers report transactions effected with a Time of Trade during the RTRS Business Day to an RTRS Portal as soon as practicable, but no later than within one minute of the Time of Trade. The Proposal would better align with the actual time that it takes a dealer to report a transaction in most instances and provide more immediate transparency to the market by reducing the reporting time for the remaining instances.

### 1. Necessity for the Proposal

The MSRB analyzed RTRS trade data for the seventeen years of the trade reporting platform’s existence. The MSRB identified a gradual increase in the percentage of trades reported within one minute, even with the current 15-minute trade reporting requirement. Specifically, as mentioned above in Table 1, 76.9% were reported within one minute after a trade execution. A shorter reporting timeframe would have already been satisfied by most reported trades presently. In addition, a shorter reporting timeframe, such as the one-minute reporting requirement, would provide more immediate transparency from the remaining 23.1% trades to a market that historically has been associated with low trading volume for a majority of CUSIP numbers, relatively illiquid securities and information opacity.

**2. Relevant Baselines Against Which the Likely Economic Impact of the Proposal Can Be Considered**

To evaluate the potential impact of amending Rule G-14, a baseline or baselines must be established as a point of reference to compare the expected future state with the proposed change to Rule G-14. The economic impact of the proposed change is generally viewed as the difference between the baseline state and the expected state. The baseline is the current iteration of MSRB Rule G-14(a)(ii) that requires transactions to be reported within 15 minutes of a trade's execution time with limited exceptions to RTRS.

**3. Assessing the Benefits and Costs of the Proposal**

The MSRB policy on economic analysis in rulemaking requires consideration of the likely costs and benefits of a proposed rule change when the rule change proposal is fully implemented against the context of the economic baselines. The MSRB is currently unable to quantify the economic effects of amended Rule G-14 in totality because not all the information necessary to provide a reasonable estimate is available.

There are few publicly available sources of information about revenue and expense data for relevant business lines of a dealer firm, especially in relation to a potential one-time spending on acquiring or upgrading technology and infrastructure for some dealers. In addition, estimating the costs for adoption of a new technology or enhancing existing technology to comply with the proposed rule change is hampered by the fact that it appears dealers who would most likely need these new technologies tend to be smaller and sometimes privately-owned dealers who are less likely to disclose business operation data in public filings than larger-sized dealers. Given the limitations on the MSRB's ability to conduct a quantitative assessment of the costs and benefits associated with the proposed rule change, the MSRB considered some of these costs and benefits in qualitative terms augmented with preliminary quantitative estimates based on the recent analyses performed by the MSRB as well as other published data sources.

The MSRB is seeking, as part of this Request for Comment, additional data or studies relevant to the costs and benefits of the Proposal.

### i. Benefits

The main benefit for proposing the one-minute trade reporting would be improved transparency in the municipal securities market. The municipal securities market historically has been considered less liquid and more opaque when compared to other securities markets, with only about one percent of all municipal securities trading on a given trading day, and pre-trade quotes are not widely available to all market participants.[7] Given the limitations, post trade data are the most important information for all market participants, including retail investors.

Starting in January 2005, all trades in municipal securities were required to be reported to RTRS 15 minutes after a Time of Trade, with some exceptions. Over the past 17 years, with the ever-advancing technologies in the marketplace, most trades are increasingly reported to RTRS in a much shorter timespan than required by Rule G-14, as discussed above in Table 1, and also illustrated in Chart 1 below. Still, about 23.1% of trades took longer than one minute to be reported to RTRS. Under the proposed change, however, more market-wide trades would benefit from more recent trades being reported, as contemporaneous trades would provide more relevant pricing information than distant trades. If the trade reporting requirement had been shorter for the period analyzed (January 2021 through November 2021) and dealers were able to meet that obligation, more market participants would have had additional trade data available to them at the time of their trade executions. Table 3 shows out of the universe of the trades (251,635 “analyzed trades”) with same-CUSIP number matched trades between January and December 2021, where a matched trade was executed before the analyzed trade’s execution but was reported after the analyzed trade’s execution, 27.9% (100% - 72.1%) of those analyzed trades had at least one matched trade executed more than a minute before the analyzed trade’s execution. This suggests those analyzed trades would have benefited from the matched trades’ execution information if

[7] Chalmers, Wang and Liu (2021).

matched trades were required to be reported within one minute after their execution times. By comparison, if the trade reporting requirement were shortened to five minutes, only 7.9% (100% - 92.1%) of analyzed trades would have benefited from the matched trades' execution information; and only 15.5% (100% - 84.5%) of analyzed trades would have benefited if the trade reporting requirement were reduced to two minutes.

**Table 3. Trades with CUSIP Number-Matched Trades Executed Before but Reported After January 2021 to December 2021**

| Execution Time Difference Between Matched Trades and Analyzed Trades | Cumulative Number of Subject Trades with Same-CUSIP Matched Trades | Cumulative Percent of Subject Trades with Same-CUSIP Matched Trades |
|---|---|---|
| 0 - 15 Seconds | 89,214 | 35.5% |
| 30 Seconds or Less | 129,014 | 51.3% |
| 1 Minute or Less | 181,380 | 72.1% |
| 2 Minutes or Less | 212,680 | 84.5% |
| 5 Minutes or Less | 231,691 | 92.1% |
| More than 5 Minutes | 251,635 | 100.0% |

In addition, since only about one percent of municipal securities trade on a given trading day, trades in other comparable municipal securities would be valuable as well in pricing a security. Even if there was no other trade for the same CUSIP number that was executed more than a minute before an analyzed trade, other reported trades from comparable securities executed in the same timeframe might also have benefited from the analyzed trade's pricing. Lowering the reporting time would make more trades in comparable securities available for many transactions. The 2012 report issued by the Government Accountability Office (GAO) stated "Broker-dealers we spoke with said that the price of a recently reported interdealer trade for a security was a particularly good indication of its value for that segment of the market. However, if a security has not traded recently, they said they instead look for recent trades in comparable securities." If so, the actual number of trades that would have benefited from reducing the trade reporting time from 15 minutes to one minute would have been higher than the 27.9% of the analyzed trades with only information on matched trades. Additional trades would have also benefited from a shortening of trade reporting time with augmented trade data from comparable securities.

Past economic research indicates that investors, especially retail investors, benefit from transparency (more and/or better information) by enhancing their negotiation power with dealers, therefore reducing customer trades' transaction costs, also known as bid-ask spread or effective spread. Additional data points from recent trades in the same and/or comparable securities would theoretically increase investors' negotiating power. Specifically, regarding trade reporting time, two research papers examined the 2005 change in trade reporting time from the end of a trading day to 15 minutes after a trade execution and found a statistically significant reduction in customer trades' average effective spread. When comparing the period before and the period after January 2005, the reduction in average customer trade effective spread ranged between 11 to 28 basis points.

- Sirri (2014) estimated the average customer trade spread was reduced, all other relevant factors being equal, by 11 basis points within the six-month period and up to 20 basis points within the one-year period.[8]
- Chalmers, Wang and Liu (2021) found dealer markups across all trade sizes declined by 28 basis points (14% reduction) in a ten-month period (March 2005 – December 2005) following the implementation of RTRS. The authors concluded that the improved timeliness of the market resulted in large reductions in the costs of trading municipal bonds.[9]

In addition, recent MSRB analyses show customer trade effective spreads continued to decline in the last decade.[10] Furthermore, the difference in effective spread between smaller retail-sized customer trades and larger institutional-sized customer trades continued to shrink over the past decade. The reduction was mostly due to the steadily declining effective spread for retail-sized customer trades, as institutional-sized customer trades (par value more than $1,000,000) had a relatively stable level of effective spread during the period.

The MSRB believes the Proposal would further reduce customer trade effective spread as a result of the more immediate transparency. The MSRB acknowledges the difference in the potential impact between the launch of

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[8] *See* Sirri, Erik, "Report on Secondary Market Trading in the Municipal Securities Market," Research Paper, Municipal Securities Rulemaking Board, July 2014.

[9] *See* Chalmers, Wang and Liu (2021).

[10] *See* Wu, Simon Z., "Transaction costs for Customer Trades in the Municipal Bond Market: What is Driving the Decline?" Research Paper, Municipal Securities Rulemaking Board, July 17, 2018; and Wu, Simon Z. and Nicholas J. Ostroy, "Transactions Costs During the COVID-19 Crisis: A Comparison between Municipal Securities and Corporate Bond Markets," Research Paper, Municipal Securities Rulemaking Board, July 2021.

RTRS in January 2005 with the introduction of a 15-minute reporting window and from the shortening of the trade reporting to one minute due to the different scale of the changes. However, even if the proposed change to one minute trade reporting would not generate as significant of an impact as the 2005 RTRS transition, there would likely still be additional benefits for investors, especially for retail investors who previously benefited from post-trade transparency more than institutional investors.[11] For example, even if the reduction in effective spread would only be five basis points from the proposed change, less-than-half of the lower-end estimated impact from the 2005 RTRS changeover and applicable to non-institutional-sized customer trades only with a trade size of $1,000,000 or less, the reduction would result in a savings of $78.3 million annually to these investors based on the 2021 trading volume ($313.1 billion annual par value traded from all customer trades with trade size below-$1,000,000 par value x 0.05%/2 = $78.3 million).

**ii. Costs**

The MSRB acknowledges that dealers would likely incur costs, relative to the baseline state, to meet the new transaction reporting time of one minute outlined in the Proposal to Rule G-14. These changes would likely include the one-time upfront costs related to adopting new technologies or upgrading existing technologies to speed up the trade reporting for some dealers, as well as setting up and/or revising policies and procedures. Since 76.9% of all relevant trades already report within one minute, the cost to comply with the proposed change would not be as significant if the current one-minute compliance rate was substantially lower.

For the upfront costs, it appears smaller firms would have difficulty with the proposed one-minute reporting requirement. The MSRB is basing this assumption on an internal analysis showing smaller firms lagging behind larger firms in reporting time, as illustrated in Table 2 above.

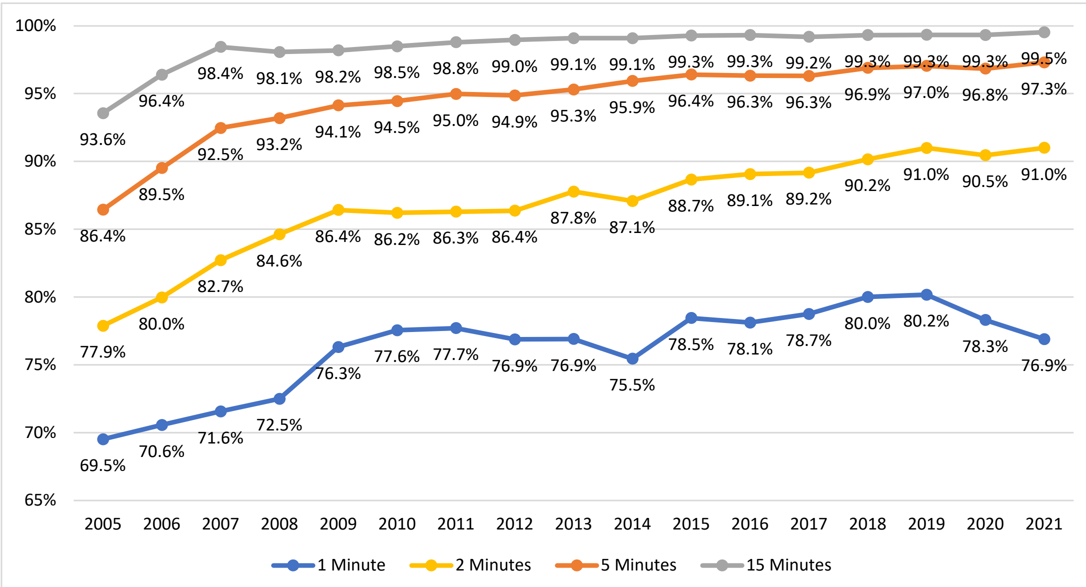
Additionally, the commenters on the 2013 Request for Comment indicated that reporting trades less than 15-minutes may be difficult for larger institutional-sized trades, as those trades are more likely to be executed via negotiations. Smaller-sized trades are more likely executed electronically which should facilitate a faster trade reporting process. Based on the analysis in Table 1, the MSRB is aware that larger trades take longer to report than smaller trades.

[11] *See* Wu, Simon Z., "Transaction costs for Customer Trades in the Municipal Bond Market: What is Driving the Decline?" Research Paper, Municipal Securities Rulemaking Board, July 17, 2018.

> Therefore, while smaller-size trades may be able to be processed within one minute, larger-size trades could take longer and would have difficulty complying with the proposed change.

In addition to the upfront costs in acquiring or upgrading technologies, there is also the possibility that the percentage of trades reported within the required timeframe would be lower than under current reporting requirements, if the proposed change were approved and implemented, at least initially. Looking back at the last time when the trade reporting time requirement was changed, the RTRS transition in 2005 was likely a larger endeavor than the current proposed changeover, which the MSRB understood at the time that the new 15-minute deadline was a break from past practices. Indeed, the percentage of trades reported within 15 minutes was only 93.6% during the first year of RTRS' operation from June 2005 through December 2005, as shown in Chart 1, excluding the data from before June 2005 when the data were not reliable though the compliance rate was likely even lower. The percentage gradually improved over time and reached 98.4% of trades by 2007. By 2013, the total number of trades reported within 15-minuites increased to 99.1%, which was close to the 99.5% rate from the most recent year of 2021.

**Chart 1. Percentage of Trades Reported Within One Minute, Two Minutes, Five Minutes and Fifteen Minutes June 2005 to December 2021**




It is interesting to note that, even though the trade reporting time requirement has been 15 minutes since at least January 2005, the percentages of trades reported within one minute, two minutes and five minutes after a trade execution were also increasing between 2005 and 2021 in Chart 1, suggesting a market-wide technology improvement occurring over time. The percentage of trades reported within five minutes has risen from 86.4% in the latter half of 2005 to 97.3% by 2021, and from 77.9% to 91% for trades reported within two minutes during the same period. The one-minute trade reporting percentage has experienced a similar upward trend, from 69.5% in late 2005 to 80.2% by 2019 before coming down to 76.9% in 2021. However, it should be noted that the one-minute trade reporting percentage has been relatively stable since 2015, indicating that the improved technologies may not reach every corner of the market without regulatory incentives, likely due to the cost factor for implementing the one-minute trade reporting for firms with low trading volume, or for firms executing large institutional-sized trades that may involve a more manual process.

Other than the technology upgrade costs, it is possible dealers may need to seek appropriate advice of in-house or outside legal and compliance professionals to revise policies and procedures in compliance with amended Rule G-14. Dealers may also incur costs as related to continuing education and/or standards of training in preparation for the implementation of amended Rule G-14. The MSRB believes, however, these upfront costs would be relatively minor.

Finally, there would be ongoing costs of ensuring the compliance of relevant trades to be reported within one minute. It is possible that, instead of upgrading existing technologies, some dealers, especially firms with relatively few trades in municipal securities, may choose to increase human effort to ensure a shorter reporting lag after a trade execution to comply with the proposed change. Comparatively speaking, these costs would be minor and may not significantly exceed the costs in the current baseline, as all dealers should already have compliance programs in place in relation to the current trade reporting requirement.

**iii. Effect on Competition, Efficiency, and Capital Formation**

Based on the MSRBs internal analysis, the smallest 400 firms in terms of trades reported, account for less than one percent of all trades. If the proposal moves towards adoption, some smaller firms may find it difficult to meet the new reporting times due to the high costs relative to the amount of business they conduct. Therefore, some dealers may be impacted by the proposed change, though the broader impact on competition in the municipal securities market is expected to be minor given these dealers' relatively minor presence in executing trades for municipal securities currently. Additionally, if these dealers choose to relinquish their secondary market trading business, there should not be any significant reduction in the supply of services to investors, as these trades would likely migrate to other larger dealers. Therefore, the MSRB does not expect a significant alteration to the competitive landscape from investors' perspective if the proposed change were adopted.

The MSRB believes the proposed change to Rule G-14 would improve market efficiency by providing more immediate trade reporting transparency to the market. If indeed there would be a reduction in customer transaction costs, as illustrated by the 2005 RTRS transition, albeit at a smaller scale, the benefits to customers would accrue over a longer period that would overcome the initial investment in upgrading technologies by select dealers. In addition, it is possible that lower transaction costs may encourage more trading by existing investors and/or bring in new investors to the municipal securities market over the long term; if so, the increased volume would offset the decline in effective spread paid by investors. Finally, the potential harmonization of MSRB rule requirements for municipal securities with FINRA requirements for other fixed-income markets would create consistency for firms who have trading operations in all these markets, and, thus, would increase efficiency in terms of firms' compliance burdens. Therefore, the MSRB believes that the proposed change would facilitate capital formation.

### 4. Identifying and Evaluating Reasonable Alternative Regulatory Approaches

The MSRB policy on economic analysis in rulemaking addresses the need to consider reasonable alternative regulatory approaches, when applicable. Under this policy, only reasonable regulatory alternatives need to be considered and evaluated.

One alternative the MSRB reviewed but deemed inferior was to introduce a five-minute trade reporting period. By MSRB's estimates, as shown in Table 1 above, 20.4% (97.3% - 76.9%) of all reported trades in municipal securities would have satisfied the five-minute reporting requirement but not the one-minute reporting requirement in 2021. If the MSRB instituted a five-minute trade reporting period, most of the industry would already satisfy the obligations of a five-minute requirement and it would likely be less of a burden for some dealers to comply. In effect, MSRB rulemaking would merely catchup to current market practices. However, considering that most trades (97.3%) already took five minutes or less to be reported to RTRS, the MSRB believes the five-minute reporting requirement, while easier for dealers to comply with, would not have advanced the immediacy of information transparency by a meaningful amount that would make a difference for investors, especially retail investors, and other market participants. A two-minute trade reporting requirement would be another reasonable alternative, though with 91.0% of all trades reported within two minutes presently, this alternative still may not enhance the transparency for the market significantly, as the two-minute trade reporting percentage is much closer to the five-minute percentage (97.3%) than the one-minute percentage (76.9%). As discussed above in Table 3, significantly more trades would benefit from the proposed one-minute trade reporting requirement from other reported trades with the same CUSIP number than the two-minute or the five-minute trade reporting requirement. The MSRB therefore concludes the proposed one-minute trade reporting period would be a superior option.

Another alternative would be for the MSRB to change the trade reporting time by trade size. The MSRB was informed in the 2013 Request for Comment that large-sized trades are in many instances still negotiated telephonically and require more dealer attention.[12] Table 1 above shows a noticeable difference in the speed of trade reporting by different trade size groups, with the reporting time increasing with trade

[12] Financial Services Institute: Letter from David T. Bellaire, Executive Vice President and General Counsel, dated March 15, 2013.

size. The MSRB could propose that small and medium-sized trades, i.e., trades with par value below $1,000,000, about 97.4% of all trades, be reported within one minute while proposing a longer threshold, for example, a five-minute threshold for large-sized trades, about 2.6% of all trades. In fact, the same percentage of (80.3%) of trades with par value over $5,000,000 were reported within five minutes as the percentage of trades (80.3%) with par value less than $100,000 that were reported within one minute. This method, however, would cause operations staff at dealer firms to maintain two sets of policies and procedures for compliance and potentially result in trade reporting errors. Also, anecdotal evidence suggests that large-sized trades have more of an impact on the direction of the market, as many market participants weigh larger trades more heavily in determining market movements and many of the existing market produced yield curves exclude small-sized trades from their analysis. For example, the most widely curve used is the Refinitiv Municipal Market Data (MMD) AAA curve that only includes institutional block size $2 million or more in the secondary or primary market. This is in addition to the IHS Markit AAA Curve and Bloomberg BVAL municipal AAA curves displayed on the MSRB's EMMA website which exclude small-sized trades from their methodologies. Therefore, it may be more important for large-sized trades to be reported sooner. By establishing a reporting regime based on trade size, with a delayed reporting by large-sized trades, it may cause additional disruptions in the marketplace.

A slight variation of the above alternative on divergent trade reporting requirements would consider trades on Alternative Trading System (ATS) platforms and other non-ATS trades differently, since the speed of reporting differs between these two groups of trades, with 84.4% of inter-dealer trades on an ATS platform being reported within one minute while only 74.9% of non-ATS trades being reported within one minute.[13] However, variation of requirements could similarly cause confusion and may further add burden on dealers who may have to maintain multiple sets of policies and procedures. In addition, ATS platforms also report trades differently, with some ATS platforms being the reporting party while other ATS platforms let participants on the ATS platforms report trades directly to RTRS. Hence, it would be difficult to segregate those complex reporting responsibilities.

[13] Although the MSRB's analysis showed that on average, inter-dealer trades reported faster than customer trades, this difference was almost entirely due to the higher usage of ATSs for interdealer trades compared to customer trades. If we exclude all trades executed on an ATS, the reporting times for customer and inter-dealer trades are very similar.

**B. Request for Comment on the Proposal**

The MSRB seeks public comment on the Proposal to require that dealers, absent an exception, report transactions to an RTRS Portal as soon as practicable, but no later than within one minute of the Time of Trade during the RTRS Business Day. The MSRB requests comment on all aspects of the Proposal, including the economic analysis. The MSRB requests that commenters provide empirical data or other factual support for their comments wherever possible. The MSRB specifically requests comment concerning the following questions, which will inform the MSRB in its efforts to enhance post-trade transparency.

## Benefits

1. What benefits would investors gain by the Proposal to reduce the time transactions are reported to RTRS from fifteen minutes to as soon as practicable, but no later than within one minute?

    a. Would the benefits be different for institutional investors than retail investors? If so, in what way?

2. What benefits would the Proposal to reduce the time transactions are reported to RTRS provide dealers?

    a. Do any of these benefits differ from the benefits to investors? If so, in what way?

    b. Do any of these benefits differ among dealers? If so, in what way?

3. What benefits would the Proposal to reduce the time transactions are reported to RTRS provide municipal advisors and issuers?

4. What benefits would other market participants gain from more timely trade reporting (*i.e.*, yield curve providers, evaluated pricing services etc.)?

## Costs and Burdens

1. Would a one-minute trade reporting requirement have any undue compliance burdens on dealers with certain characteristics or business models (*e.g.*, large firms versus small firms, firms with greater trading volume versus lesser trading volume, bank dealers versus broker-dealers, etc.)? If so, please provide suggestions on how to alleviate the undue burdens.

2. Are these undue compliance burdens unique to minority and women-owned business enterprise (MWBE), veteran-owned business enterprise (VBE) or other special designation firms? If so, please provide suggestions on how to alleviate any undue burden or impact.

3. What are the likely direct and indirect costs associated with the Proposal? Who might be affected by these costs and in what way?
   a. Is there data on these costs that the MSRB should consider? If so, please provide such information.
   b. If firms would have to make system changes to meet a new timeframe for trade reporting, how long would firms need to implement such changes?

## Operational Considerations

1. The time to report a trade is triggered at the time at which a contract is formed for a sale or purchase of municipal securities at a set quantity and set price; is this definition of "Time of Trade" the appropriate trigger? If not, what other elements of the trade should be established before the reporting obligation is triggered?

2. The data in Table 1 above indicates that 76.9% of trades reported to the MSRB were reported within one minute. Are there any commonalities with the trades (other than those noted above) that were reported within one minute or reported after one minute?

3. The data in Table 1 above indicates that larger-sized trades take longer to report than smaller-sized trades. What is the reason(s) it takes a firm that reports larger-sized trades more time to report a trade (*e.g.*, voice trades)?

   a. For dealers that report larger-sized trades, would the process(es) for executing and/or reporting those trades need to change to be able to report those trades in a shorter timeframe? If so, how?

   b. Would dealers need retail and/or institutional investors to modify any of their processes so that larger-sized trades could be reported in a shorter timeframe?

4. The data in Table 2 above indicates dealers that report a smaller number of trades per year, take longer to report trades than dealers that report a larger number of trades. What is the reason(s) it takes a firm that reports a small number of trades more time to report a trade?

   a. For dealers that report a small number of trades, would the process(es) for executing and/or reporting those trades need to change to be able to report those trades in a shorter timeframe? If so, how?

5. Based on the MSRB's analysis, trades conducted on ATS platforms are reported to RTRS in less time than non-ATS trades, with 84.4% of inter-dealer trades on an ATS platform being reported within one minute while only 74.9% of non-ATS trades were reported within one minute. What is the reason(s) it takes more time to report trades executed away from an ATS?

6. Submitting transactions to RTRS using a service bureau appears to result in faster trade reporting time than a dealer using the RTRS Web interface. On average how long does it take a dealer to report a trade through the RTRS Web interface? How could the MSRB improve the process for reporting through the RTRS Web interface? In what instance would a dealer choose to or need to use the RTRS Web interface?

7. Would reducing the timeframe to as soon as practicable, but no later than within one minute affect the accuracy of information reported and/or the likelihood of potential data entry errors? If so, what is the reason for such impact?

8. Are there any necessary process(es) a dealer needs to complete before trading a bond for the first time that could impact the ability to report a trade within a reduced timeframe (*e.g.*, querying an information service provider to obtain indicative data on the security)?

   a. Please describe the process(es) and how often it is necessary to implement the process(es).

   b. Please estimate the time necessary to complete such process(es).
   c. Describe how, if at all, the process has changed in the last 10 years?

9. Rule G-14 currently provides exceptions for certain trades to be reported at end of day. Are these exceptions still necessary? If so, is end of day still the appropriate timeframe for reporting these transactions?

10. Would reducing the reporting timeframe to one minute require additional trade reporting exceptions, other than end of day exceptions, to allow for certain trades to be reported at a different time (*e.g.*, 3 minutes)? If so, please identify the types of trades that would require an exception and why such are believed necessary? For example, do trades executed on swap rather than on a cash basis require more time to report?

## Market Structure Considerations

1. Would approval of this Proposal have an impact on any current trading patterns or processes not already identified above? Would certain types of trades be less likely to occur? If so, what type of trades would be most impacted, and would that impact the fairness and efficiency of the market?

2. The MSRB is aware of differences in the market structure in the municipal bond market compared to other fixed income markets. These differences include the substantial number of issuers and individual securities as well as the lack of uniformity for the structure of many municipal bonds including optional and mandatory redemption provisions.[14] Do these differences cause municipal bond trades to take longer to report than the reporting of other fixed income trades, such as corporate bonds? If so, why?

3. Are there any other potential market structure implications the MSRB should be aware of? For example, could the Proposal alter the competitive balance in the current market?

August 2, 2022

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[14] *See* Chalmers, John, Yu (Steve) Liu and Z. Jay Wang, "The Differences a Day Makes: Timely Disclosure and Trading Efficiency in the Muni Market," Journal of Financial Economics, January 2021.