

November 27, 2018

Submitted Electronically

Ronald W. Smith
Corporate Secretary
Municipal Securities Rulemaking Board
1300 I Street NW
Washington, DC 20005

RE: Request for Information on the Accessibility, Methodology and Utility of Indices, Yield Curves and Other Benchmarks.

Dear Mr. Smith:

On behalf of the Bond Dealers of America (“BDA”), I am pleased to submit this letter in response to the MSRB’s Notice 2018-20 (the “Notice”): The Request for Information on the Accessibility, Methodology and Utility of Indices, Yield Curves and Other Benchmarks. The BDA is the only DC-based group representing the interests of securities dealers and banks exclusively focused on the U.S. fixed income markets. We welcome this opportunity to present our comments.

General

The BDA appreciates the opportunity to provide information on methodologies, benchmarks, and usage by market participants in order to assist the MSRB’s efforts to continuously improve market transparency and efficiency. The BDA surveyed membership on the requested questions in the Notice and below are the aggregated responses. In general, the BDA encourages the MSRB to examine benchmarks, yield curves and pricing services and their respective influence on the securities municipal market. We look forward to continued engagement with the MSRB on evolving market issues.

Benchmarks and their Usage in the Municipal Bond Market

While the spread of responses was similar in scope, the majority of respondents rely on yield curves as their top benchmark. While yield curves were the favored method, both indices as well other products are used widely in the municipal securities market.

All respondents confirmed that the benchmarks mentioned above were used for new issue pricing. A majority claimed use for block-size dealer bids and for institutional investor bids and offers in the secondary market. While the usage of benchmarks for retail-size dealer bids and offers and for individual investor bids and offers in the secondary market exists, it occurs much

less often. It should also be noted that market participants usually use multiple benchmarks and that third party pricing service evaluations are routinely taken into consideration.

Usage of Inputs in the Creation of Benchmarks

The BDA survey found that participants use a wide variety of inputs in order to create benchmark for the municipal securities market. New issue pricings and trade data topped the list for the most commonly used. Most also use secondary market quote data as well as observations and opinions.

Transparency and Integrity of Benchmarks

The degree of transparency appears to be an area of disagreement across membership. Some members believe that the benchmarks currently available in the municipal market are sufficiently transparent. One member noted that unique disclosures and credit ratings make it challenging for transparency benchmarks and can render them not viable for a one size fits all approach. Having better access to EMMA data could be a solution for better transparency. One area of consensus is that a lack of metric consistency is problematic market wide, however, it is also noted that it would be harmful to add another layer of regulation.

International Organization of Securities Commissions' (IOSCO) Principles for Financial Benchmarks

There were differing opinions across membership on whether IOSCO Principles are appropriate for benchmarks in the municipal securities market. Some agreed that they are appropriate while others were unfamiliar and cautious of the efficacy of an international benchmark application to the US municipal securities market.

* * *

If you or your staff has any questions or need additional information, please do not hesitate contact me directly at 202.204.7901 or mnicholas@bdamerica.org. We look forward to your response.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Nicholas".

Michael Nicholas
Chief Executive Officer
Bond Dealers of America



November 28, 2018

Mr. Ronald W. Smith
Corporate Secretary
Municipal Securities Rulemaking Board
1300 I Street, NW - Suite 1000
Washington, DC 20005

RE: MSRB Notice 2018-20: Request for Information on the Accessibility, Methodology, and Utility of Indices, Yield Curves and Other Benchmarks

Dear Mr. Smith:

The National Association of Municipal Advisors (NAMA) is a professional association representing independent municipal advisory firms, and individual municipal advisors (MAs) from around the country. Due to the nature of the work of our members, we appreciate the opportunity to comment on market issues such as indices, yield curves and other benchmarks (collectively, “benchmarks”) used in the municipal marketplace.

Municipal Advisors and Use of Benchmarks

Municipal advisors use benchmarks to help their clients – to which they have a fiduciary duty – price their bonds in negotiated sales and prepare for and then evaluate the results of competitive sales. By using this data, along with other evaluation tools, municipal advisors are able to provide clients with necessary information to provide overall market impressions to support decision-making on when and how to issue bonds and then to assist with executing the new issue offering on the most favorable terms possible.

Municipal advisors typically utilize the same benchmarks and market data used by virtually all underwriters and other municipal market professionals together with other benchmarks, spreads or similar information found on EMMA and other sources, to benchmark yields on new or potential offerings and to assist their clients with understanding market conditions, the impact of credit quality on pricing and the quality of transaction execution for their issues. Many benchmarks, however, have limited transparency and data capabilities or come at high subscription costs which creates a barrier for entry for some professionals, especially small MA firms, and undermines the ability to provide a multi-dimensional view of the marketplace into which issuers are selling their new issues.

Current Market Practices and Benchmarks

Currently, one benchmark has a predominant position among municipal market participants. While there are other providers of similar information, the fundamental inertia of market practices makes it difficult for other benchmarks to gain traction in this market. A basic concern is that having the industry dependent on the work of one entity could expose the entire industry to (i) market disruption if anything were to happen to its infrastructure or business, or (ii) market distortions if flaws or biases (whether intentional or otherwise) in its analytic framework should develop.

**National Association of Municipal Advisors
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Additionally, the current commonly used benchmark has characteristics that concern our members and many other market participants. First, the inputs and other variables used to set the benchmarks are quite opaque. Benchmarks in this market – as well as other capital markets – should be based on transparent quantitative data that is available to and understood by users. To the extent that qualitative inputs or other adjustments are applied to such quantitative data to produce a benchmark, the reason for and nature of such inputs or adjustments, and the manner in which they are applied, should be clearly disclosed so that users can gain a meaningful and nuanced understanding of the construction and integrity of the benchmark. Our members, and others, are often at a loss to point to the underlying data sources used to formulate this benchmark. Second, the manner in which the commonly used benchmark is developed – by seeking input from the very participants who are involved in bond pricing – lends itself to at least an impression that the benchmark could be manipulated by such inputs to serve the interests of a respondent and places that person in a conflict of interest situation that they may wish to avoid. It would seem that these business practices should be avoided in general, and, if such practices persist, must at a minimum be fully transparent to the marketplace.

Moving Forward

While it is unlikely that the need to improve benchmarks in the municipal securities market rises to the occasion of regulatory action or further direct involvement by the federal regulators, we would welcome market participants gathering together in an effort to understand and address the current flaws and future needs of a healthy benchmark ecosystem, as practitioner “buy-in” to improve this system is necessary in order to achieve constructive change to enhance market transparency and liquidity. In particular, we would suggest –

- Review of the IOSCO’s “Principles for Financial Benchmarks” related to transparency as a potential framework for improved practices;
- Discussion of other market benchmarks that are available and how, when and why participants may currently or in the future utilize those as a supplement to or in favor of the benchmark widely used today;
- Discussion of how the currently relied upon benchmark can be improved;
- Market benchmarks be made accessible to all market participants on terms that are reasonable and equitable given the nature and composition of various parties (including issuers, retail investors, and small MA firms); and
- Development of market practices to ensure the disclosure of the benchmark being used in a particular offering to better facilitate the evaluation and determination of the transaction pricing and the overall success of the offering by all parties.

We hope our comments assist the greater discussion in the marketplace on addressing the important issues related to the development and use of benchmarks in the municipal marketplace and can help facilitate further discussion on the matter.

Sincerely,



Susan Gaffney
Executive Director



November 27, 2018

Mr. Ronald W. Smith, Corporate Secretary
Municipal Securities Rulemaking Board
1300 I St NW
Suite 1000
Washington DC 20005

Transmitted electronically

Re: MSRB Notice 2018-20, Request for Information on the Accessibility, Methodology and Utility of Indices, Yield Curves and Other Benchmarks

Dear Mr. Smith,

SIFMA¹ is happy to offer comments on Municipal Securities Rulemaking Board (MSRB) Notice 2018-20, “Request for Information on the Accessibility, Methodology and Utility of Indices, Yield Curves and Other Benchmarks.” Indexes and benchmarks are widely used in the municipal market to gauge pricing on new issues and secondary market trades, as a basis for adjustable-rate notes, swaps, and other variable-rate products, as a metric for evaluating portfolio manager performance, and other uses. It is appropriate for the MSRB to solicit the views of market participants on how indexes are used, and we appreciate the opportunity to comment.

1. Introduction: pricing credit products

Many fixed income financial products entail credit risk, including municipal securities, corporate bonds, certain securitization products and others. In credit markets, investments with credit risk are generally priced at a yield premium to a risk-free rate—the yield curve for US Treasury securities—with similar durations. Price movements of various fixed income products tend to be highly correlated. When Treasury yields rise, the yields on credit products tend to rise as well. This correlation makes it very

¹ SIFMA is the leading trade association for broker-dealers, investment banks and asset managers operating in the U.S. and global capital markets. On behalf of our industry’s nearly one million employees, we advocate for legislation, regulation and business policy affecting retail and institutional investors, equity and fixed income markets and related products and services. We serve as an industry coordinating body to promote fair and orderly markets, informed regulatory compliance, and efficient market operations and resiliency. We also provide a forum for industry policy and professional development. SIFMA, with offices in New York and Washington, DC, is the U.S. regional member of the Global Financial Markets Association. For more information, visit www.sifma.org.

efficient to price credit products against a risk-free rate. This allows market participants to compare easily the yield spreads of various investments to a risk-free rate and to each other.

An issue we face in the municipal market is that the interest on most municipal securities is exempt from federal and usually state and local income tax. The interest on other fixed income products is generally taxable. This difference in taxability causes municipal securities prices to be less correlated to the Treasury curve than taxable products. Also because of the tax exemption, municipal yields are usually lower than Treasury yields despite municipals being a credit risk product, which makes quoting municipal securities yields against the Treasury curve awkward and inefficient. Instead, the market uses pricing tools that are based on strong, triple-A municipal credits. That is the basis for yield scales used for pricing municipal securities.

Building an institutional yield curve for the municipal market presents significant challenges. Municipal securities are more thinly traded than some other capital markets products for a variety of reasons. It is not uncommon on a given day for there to be no institutional-size trades at one or more points on the yield curve. In these cases it is necessary to use interpolation or some other means to estimate the missing points on the curve. It may also be necessary to use, in addition to the prices on executed trades, indications of price levels provided by third-party market participants. In these cases, it is especially important for benchmark sponsors to be transparent about what information goes into their calculations, the sources of that information, the relationship of those sources of information to the sponsor and to other market participants, how that third-party information is used in the benchmark calculation, and other factors.

2. Answers to questions

1. Please indicate what type(s) of, and which specific, benchmark(s) you use in the municipal securities market.

SIFMA is the sponsor of the SIFMA Municipal Swap Index, an index derived from remarketing rates on certain variable rate demand notes that meet the Index criteria.

SIFMA's members use a variety of indexes and yield curves. The most widely used pricing tool in the municipal market is the MMD Scales (MMD) published by Thomson Reuters. Other scales and yield curves that may be used for pricing trades include the "BVAL Municipal AAA Curves," published by Bloomberg, the "MMA AAA Median Municipal Benchmark," published by Municipal Market Analytics, the "Municipal Benchmark Curve," published by Municipal Bond Information Service, and others.

2. Please explain how you use benchmarks in the municipal market?

a. For new issue pricing.

Yield curves, particularly MMD, are used to price the vast majority of tax-exempt municipal new issues. Yields for new issues are generally quoted in relation to the appropriate point on the MMD curve. For taxable municipal securities, the Treasury curve is generally used as a basis for quoting yields.

b. For institutional investor bids and offers in the secondary market.

A benchmark yield curve like MMD is used to price trades in tax-exempt securities because it provides an easy, efficient means to be able to compare multiple investments against a standard. Yield curves are often used to gauge prices for institutional market trades, although yield quotes may be provided as provided in relation to MMD or other scales or as a yield or dollar price. In this sense, a benchmark is used more as a common analytical reference than a basis for price quotes. For taxable municipal securities, the Treasury curve is generally used as the basis for price quotes.

c. For individual investor bids and offers in the secondary market.

Indexes and yield curves are generally not used in quoting retail trades. However, sell-side traders do use benchmarks to determine market levels and prepare quotes on retail-size trades.

d. For block-size dealer bids and offers

Similar to trades involving institutional customers, sell-side traders often use indexes as a pricing tool. Quotes, however, are generally provided as straight yields, not as a spread to an index.

e. For retail-size dealer bids and offers.

Again, indexes and scales generally are not used in quoting retail-size transactions. They are widely used in preparing quotes, however.

f. For periodic interest rate resets.

The two indexes most widely used as the basis for municipal floating rate notes, interest rate swaps and other floating-rate products are Libor and the SIFMA Municipal Swap Index. Generally floating-rate products pay interest at a rate of the specified index plus or minus some spread. Recently, the first municipal floating rate note based on the Secured Overnight Financing Rate (SOFR) was issued.

g. For other uses.

Portfolio managers use total return indexes as a performance comparison.

In addition, banks that are investors in municipal securities and are subject to Basel III capital rules as implemented by US bank regulators use benchmark curves in their compliance practices. Banks need historical benchmarks for risk calculation purposes in order to model Value at Risk (VAR) and Stress VAR. Banks are required to obtain regulator approval of VAR estimation models based on specifications established by the federal banking agencies. Banks need clean, historical benchmark data going back to 2007 to effectively calculate Stress VAR. This dependency limits firms' ability to switch to a new benchmark and may become even more important if the Basel Committee's Fundamental Review of the Trading Book initiative is ever implemented in the US.

3. Do all market participants in the municipal securities market (i.e., issuers, retail investors, institutional investors and market professionals) use benchmarks?

Benchmarks are used most frequently by professional market participants such as dealers, issuers, municipal advisors, institutional investors and others.

a. Are there differences in how these participants use benchmarks?

In the new issue market, issuers, underwriters, investors, and municipal advisors all use benchmark curves similarly, as a gauge for comparing offered yields to the issuer's previous bond sales and to other bonds being priced or traded at the same time. Typically, new issue yields are quoted as a spread to MMD. Virtually all market participants use a benchmark curve to evaluate new issue prices.

Dealers and institutional investors sometimes use benchmark curves for secondary market trades in the same manner as in the new issue market, to measure quoted yields against a standard and to provide a basis for comparing investments. Even when trades are not quoted against a benchmark, it is likely the trader used a benchmark in some manner to prepare the quote.

Institutional investor portfolio managers may also use benchmarks as a gauge to measure total return performance. Some indexes are explicitly designed to be "bogies" against which portfolio managers can compare their performance.

b. Do market participants typically use one or multiple benchmarks?

The most widely used benchmark by far for the purpose of pricing new issues and secondary market trades is the MMD scale. Some market participants may use alternative benchmarks, but only in a relatively small number of cases.

c. Should all market participants have equal access to benchmarks? If not necessarily equal access, do all market participants currently have adequate access to benchmarks?

All market participants should have the ability to access benchmarks on an equal basis with each other. No benchmark provider should discriminate in benchmark accessibility, and there is no indication that such discrimination exists in our market. We do not believe that all market participants should have access to all benchmarks without cost. Publishing and maintaining a benchmark entails expenses, and it is appropriate for benchmark providers to recoup their costs and earn a return on investment. (That said, we note that since August 2014, SIFMA has made its Municipal Swap Index available to the market free of charge.)

One issue related to access has to do with licensing the use of key benchmarks. Some municipal benchmark providers restrict the use of historical benchmark levels in pitch books or other analytical materials intended for client audiences. This limits the ability of underwriters to provide fully transparent analyses to issuers or investors. The Libor licensing agreement published by ICE Benchmark Administration permits the use of historical Libor data in analytical materials. We urge municipal

benchmark providers to permit this use among licensors. ICE also provides alternative pricing for licensors who are not financial institutions and tiered pricing based on the size of a licensor's assets.

Another issue related to access involves "reads" that some municipal benchmark sponsors provide to some subscribers throughout the day. Reads are informal indications of market levels but do not include the actual, published benchmark or scale. Reads provided by some benchmark sponsors are not consistent in time or frequency. Also, the reads are not necessarily provided to the entire subscriber base but to a limited subgroup of market participants. We urge municipal benchmark sponsors to implement some rigor around the release of reads and to provide reads to subscribers overall, not to a limited subset.

d. Does the size of an entity (e.g., large vs. small brokerdealers, institutional investors or municipal advisors) affect the entity's access to benchmarks?

To our knowledge, key benchmark providers in the municipal market do not discriminate on access or pricing based on size. Of course, large companies and organizations may have the ability to spread the cost of benchmark subscriptions across a larger business.

4. What type of inputs are used to create benchmarks for the municipal securities market and are any inputs more useful than others?

For the most relevant and widely used pricing benchmark in our market, the MMD scale, we are not fully aware of all the inputs used to create the benchmark. We know that MMD uses trades reported to the MSRB's Real-time Trade Reporting System. We also know that MMD relies on input from third party providers to determine market levels, especially around points on the curve where there may have been few or no institutional-size trades that day. However, we do not know who provides that third-party input to MMD, the relationships those third-party providers may have with Thomson Reuters or other market participants, or how MMD uses those third-party inputs in calculating their scale.

For the SIFMA Municipal Swap Index, the only inputs to the Index are VRDN reset rates that are reported to the MSRB's Short-Term Obligation Rate Transparency (SHORT) System under MSRB Rule G-34. Any rate not reported to SHORT by 3:15 pm eastern on the Index calculation day is not eligible to be used in the calculation.

For benchmarks designed to reflect current market levels, the best data source is executed trades. However, often there are not enough institutional-size executed trades all along the curve to rely solely on those data. In these cases it is appropriate for benchmark sponsors to use some methodology or alternative inputs to estimate market levels around the missing points on the curve. It is essential, however, that benchmark sponsors disclose the sources of alternative information, how those sources are chosen, any possible conflicts of interest associated with those sources, any guidelines related to overseeing relationships with third-party providers, and how that information is used in calculating the index.

5. Are the methodologies used by the benchmarks currently available in the municipal securities market sufficiently transparent? If not, would greater transparency be beneficial or harmful to the market?

Some of the benchmarks used in our market are sufficiently transparent, but not all. For the most widely used benchmark, the MMD scale, the market is missing some key information. For example, while we know that MMD uses some third-party information in calculating their scale, we do not know how much data come from third parties, what is the nature of that information, who the third-party providers are, whether those providers may have conflicts of interest with respect to the scale, how those data are used in the calculation, and other key information. Greater transparency would help market participants better understand how MMD is calculated and how MMD behaves under different market conditions.

Another transparency-related issue involves personnel changes. It is important that benchmark sponsors provide transparency around key personnel responsible for producing and disseminating indexes and scales. This is especially important in a market like ours where there may be a degree of subjectivity around points on a scale where no trades have occurred, and a change in personnel could have an effect on benchmark outcomes.

6. Do you have concerns regarding the integrity of benchmarks in the municipal securities market? If so, how can the risks associated with any such concerns be mitigated?

As we have stated, we recognize and understand the challenges associated with maintaining a benchmark curve that consistently, reliably, and accurately reflects activity in the institutional municipal market. Given the nature of our market, there will inevitably be days where institutional trading is thin at certain points on the curve, and those points will be less reliable than points where there have been executed trades.

Until a solution to this problem is devised, the key to addressing this issue of reliability rests on transparency. It is absolutely vital that benchmark sponsors provide users with a transparent description of how their index values are calculated, where their data come from, and other key factors necessary to gauge benchmark integrity. Without transparency, especially around the inputs to a benchmark calculation and the methodology, market participants who depend on the benchmark may question the integrity of the calculation process and the outputs.

One issue that may be limiting the quality of municipal benchmarks involves potential liability that could accrue to third-party information providers. Yield curves in our market generally require that certain points on the curve be estimated or interpolated. One approach to doing that is to survey market participants about the levels they are seeing around the missing points. Since the IBOR scandal, however, some market participants have been reluctant to contribute subjective or qualitative inputs to yield curve sponsors on the grounds that if the curve is later determined to have been manipulated, input providers could be liable. Fewer input providers could lead to a weaker or less reliable yield curve. This issue presents a legitimate challenge for municipal benchmark publishers.

7. Are the International Organization of Securities Commissions' Principles for Financial Benchmarks appropriate for benchmarks in the municipal securities market?

The International Organization of Securities Commissions' (IOSCO) "Principles for Financial Benchmarks" (Principles) represents a comprehensive and thoughtful guideline for benchmark sponsors. IOSCO's Principles emphasize transparency, especially around potential conflicts of interest. Many of the practices recommended in the Principles apply directly to benchmarks in the municipal market used as pricing tools. Some of the principles are more relevant to municipal benchmarks than others, including:

- Principle 4. Control Framework for Administrators. IOSCO recommends that benchmark administrators "should implement an appropriate control framework for the process of determining and distributing the Benchmark." The framework should be in writing, and a summary should be made public. One of the key reasons for the framework is to have procedures in place to identify and manage conflicts of interest.
- Principle 5. Internal Oversight. IOSCO recommends that benchmark administrators appoint a committee of experts and stakeholders to advise on such issues as periodic review of sponsors and their methodologies, review the results of external audits, review policies surrounding the use of submitted information, and other governance functions.
- Principle 8. Hierarchy of Data Inputs. IOSCO recommends that benchmark administrators establish and publish guidelines regarding the sources of data and information and the relative importance or hierarchy of various sources.
- Principle 9. Transparency of Benchmark Determinations. IOSCO suggests that with each benchmark publication, the administrator also offer how the scale was derived and, especially important for MMD, "a concise explanation of the extent to which and the basis upon which Expert Judgement, if any, was used in establishing a Benchmark determination." Expert Judgement refers to qualitative input provided by third parties.
- Principle 11. Content of the Methodology. According to IOSCO, "The Administrator should document and Publish or Make Available the Methodology used to make Benchmark determinations."
- Principle 14. Submitter Code of Conduct. IOSCO recommends developing and publishing a "Submitter Code of Conduct," the policies governing the submission of market information by third parties.
- Principle 16. Complaints Procedures. IOSCO recommends that benchmark administrators establish and publish a complaint procedures policy that is user-friendly and that results in timely resolution of complaints, including elevating complaints to the administrator's governance body when appropriate.
- Principle 17. Audits. According to IOSCO, benchmark administrators should appoint an independent auditor to periodically review adherence to the criteria and principles that govern the benchmark.

3. Conclusion

Benchmarks and indexes are widely used in the municipal market to price transactions, as the basis for rate resets, as a metric for portfolio return performance and other purposes. Benchmarks are used by many market participants, including issuers, dealers, municipal advisors, institutional investors and others. It is important that indexes used in our market are reliable, robust, and, especially, transparent. While there is no easy solution to the challenges associated with maintaining an institutional municipal yield scale, the solution to better understanding the benchmarks we already use is full disclosure and transparency by benchmark sponsors. In this regard IOSCO's Principles provide a vital guide.

Talking with some of our market's benchmark sponsors, there may be interest in forming a diverse, market-wide advisory group of stakeholders to provide feedback and advice to municipal benchmark providers on their methodologies and processes. SIFMA would be pleased to coordinate or participate in such a group if there is sufficient interest across the market.

We appreciate the opportunity to provide comments, and we look forward to continuing the conversation among stakeholders and regulators.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Decker". The signature is fluid and cursive, with a large initial "M" and a long, sweeping tail.

Michael Decker
Managing Director