



Municipal Securities Rulemaking Board

transparency
information
research
pricing
disclosure

Milestones in Municipal Market Transparency

THE EVOLUTION OF EMMA[®]

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I. Overview

On March 31, 2008, the Municipal Securities Rulemaking Board (MSRB) unveiled the pilot version of a website to provide free public access to real-time trade price data and disclosure documents for the municipal securities market. For the first time in the centuries-old municipal securities market, individual investors, bond issuers, financial professionals and the public had equal access to bond disclosure and price information, in one place and at no cost. The creation of the Electronic Municipal Market Access (EMMA[®]) website fulfilled the MSRB's vision to create a free, digital source of documents that describe the material features of virtually every municipal security, paired with the prices and other details of the security's trading history. Just over a year later, on July 1, 2009, the U.S. Securities and Exchange Commission (SEC) designated EMMA as the sole, official source for municipal securities data and disclosure documents.

In the 10 years since EMMA's launch, the MSRB has supported and funded the website's continued development by providing an ever-expanding universe of critical disclosure, price and market information, and free analytical and statistical tools. The EMMA website of today continues to honor the original objective of protecting individual investors by democratizing access to municipal marketplace data and disclosure that were previously available primarily to market professionals who had the ability and expertise to utilize paid data services and collect information from many disparate sources.

13,000 61,000 9.9 million 416,000 134,000 7,300

For a sense of the scale and scope of the information consolidated on EMMA, consider the data and documents collected and disseminated by EMMA in the year 2017 alone:

13,000 official statements for new issuances of municipal securities

134,000 annual reports or audited financial statements describing the financial condition of issuers of municipal securities

61,000 filings about material events affecting outstanding bond issues, such as notices of payment defaults, bond calls, and litigation

9.9 million trade reports including price and yield data for a total of approximately **\$3 trillion** par amount traded

416,000 rate resets for variable rate demand obligations

7,300 auctions/rate resets for auction rate securities

The EMMA system also collects and disseminates disclosure documents for most 529 savings plans and certain similar state investment programs for people with disabilities, as well as political contribution disclosures made by municipal securities dealers and municipal advisors. In recent years, as users seek a broader view of municipal market activity, the MSRB has enhanced EMMA with the addition of market-wide data alongside interactive tools, including municipal market yield curves and indices and a calendar of new bond issues scheduled to come to market (see *Appendix*).

This report tells the story of the state of municipal market transparency before EMMA, the origins and development of EMMA, and its impact on the evolving municipal market throughout its first decade of dynamic growth. The report concludes with a look to the future of EMMA as the MSRB continues to seek to meet the evolving information needs of investors and other municipal market participants.



II. The Municipal Market Before EMMA®

Brief History of the Municipal Securities Market

Municipal securities serve as the primary means by which state and local governments and their instrumentalities (collectively, “municipal entities”) finance public infrastructure needs and other activities in furtherance of their public purposes. Municipal securities generally represent debt incurred by municipal entities as issuers of bonds, notes and a variety of other types of instruments.

Typically, municipal securities are purchased from the municipal entity by broker-dealers or banks (collectively, “municipal securities dealers”), acting in the capacity of underwriters, and then are resold to investors. In many cases, municipal entities receive financial advice in connection with the issuance of municipal securities and certain other related activities from financial advisors and other market professionals (collectively, “municipal advisors”). In some cases, certain categories of private-sector entities may access the capital

markets through municipal securities issued by municipal entities to fund projects providing public benefits (“obligated persons”). Investors buy and sell municipal securities in secondary market trading with the assistance of municipal securities dealers until the bonds are redeemed by the issuer or obligated person.

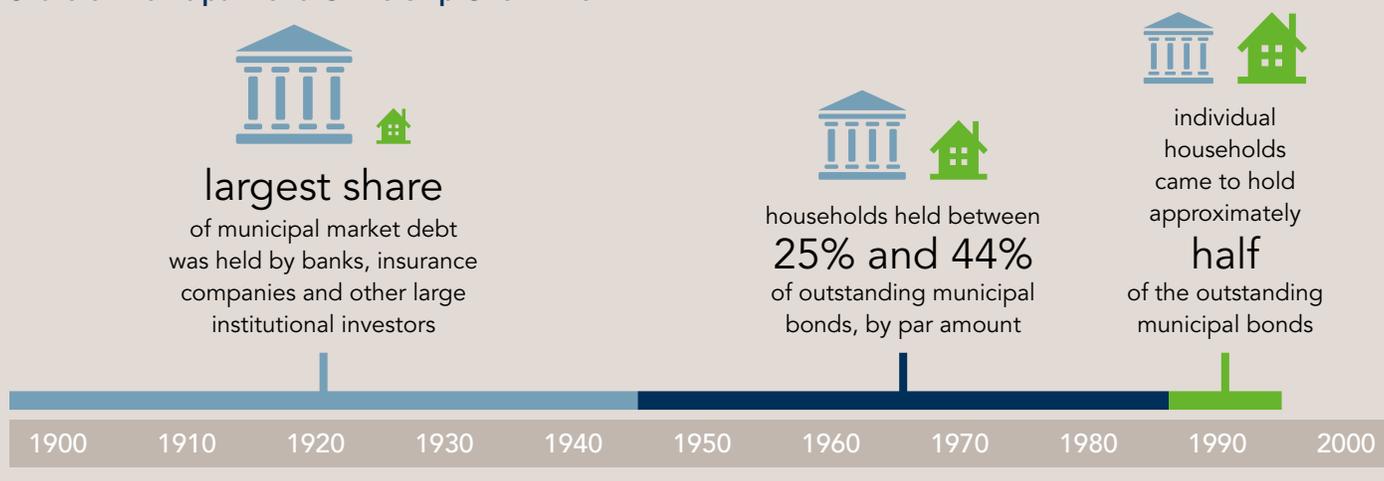
Municipal securities date back to the earliest decades of the nation’s history. For example, the construction of the Erie Canal in New York beginning in 1817 was one of the most important state-sponsored municipal projects in early U.S. history. At a cost of \$7 million, the canal more than paid for itself by opening trade between the state of New York and the Great Lakes region, prompting other states to use proceeds from bond offerings to finance economic development projects.¹

By the early 20th century, the largest share of municipal market debt was held by banks, insurance companies and other large institutional investors.² These investors had

¹ Gerard Koeppel’s Bond of Union: Building the Erie Canal and the American Empire.

² Harry G. Guthmann, “The Movement of Debt to Institutions and Its Implications for the Interest Rate,” *The Journal of Finance*, Vol. 5, No. 1 (March 1950); Bruno Biais and Richard C. Green, “The Microstructure of the Bond Market in the 20th Century” (August 29, 2007).

Share of Municipal Bond Ownership Over Time



greater access than individual investors to professional financial services, as well as greater financial resources and expertise to understand and bear the risk of investing in municipal bonds. From 1945 until the Internal Revenue Code amendments of 1986 took effect, households held between 25 percent and 44 percent of outstanding municipal bonds, by par amount.³ The investor base for municipal bonds shifted after 1986, when changes in tax law made the municipal market more attractive for individual investors. Between the late 1980s and early 1990s, individual households came to hold approximately half of the outstanding municipal bonds.

When making investment decisions, these individual investors often relied exclusively on municipal bond credit ratings — many of which were based on the credit rating of a bond insurer rather than the issuer of the bond itself. Thus, even though the municipal bond market was increasingly becoming a market for individual investors, there was little demand by these investors for greater access to key disclosures and data. Institutional investors continued to take advantage of far greater access to trade data and disclosure documents that were not available to the burgeoning class of individual investors.

Toward a Ticker: Evolution of Trade Price Transparency in the Municipal Market

As more individual investors were entering the market, the MSRB became the market's primary regulator, created by Congress in 1975 to support a fair and efficient market (see *About the MSRB sidebar*). 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. The absence of a real-time public "ticker" of trade prices for municipal bonds limited investors' ability to know the prices at which municipal bonds were traded.

In its second decade, the MSRB undertook an incremental approach to developing systems to shed light on municipal securities trade prices, first for market professionals and ultimately for individual investors. In March 1985, the MSRB first suggested the possibility of collecting and making available to the marketplace secondary market trading data, by leveraging the then-recent adoption of automated clearance and settlement procedures for the municipal market.⁴ Yet it was not until market systems had sufficiently matured that the MSRB established rules to collect and publicly disseminate municipal bond trade price information.

³ Board of Governors of the Federal Reserve System, Flow of Funds Accounts of the United States (Table L.211), 1945-1986.

⁴ MSRB Reports, Vol. 5, No. 3 (April 1985) at 7.

About the MSRB: The Organization Behind EMMA®

The MSRB was created by Congress in 1975 as a self-regulatory organization to serve as the principal regulator for the municipal securities market. The MSRB's initial statutory mandate was to protect investors and the public interest by adopting rules for the activities of municipal securities dealers. In 2010, Congress expanded the MSRB's mission to include the protection of municipal entities and obligated persons, and extended the MSRB's rulemaking jurisdiction to encompass the activities of municipal advisors. In furtherance of its statutory mandate, the MSRB promotes a fair and efficient municipal market through its rulemaking, its transparency systems that collect and disseminate market information, and its programs to provide market leadership, outreach and education.

While the MSRB regulates the activities of municipal securities dealers and municipal advisors, it does not have authority to regulate the municipal entities that issue municipal securities. The SEC, a federal independent agency that oversees the MSRB and has concurrent jurisdiction with respect to municipal securities dealers and municipal advisors, does have limited authority with respect to municipal entities, primarily under the antifraud provisions of the federal securities laws. The MSRB works closely with the SEC and other federal regulators to provide a comprehensive regulatory regime designed to achieve the MSRB's statutory mandate.

In 1995, the MSRB began collecting and disseminating transaction price data on inter-dealer trades, on a next-day basis, to paid subscribers in a data file downloaded through a "computerized bulletin board," as well as on paper at the MSRB's Public Access Facility in its offices. By March 1998, the MSRB was making next-day customer trade price information available to data subscribers, combining it with inter-dealer trade data to produce a daily report, also available for download daily by paid subscribers.

The MSRB initially disseminated information only for securities that traded four or more times on a particular day; however, it gradually expanded the universe of securities and the associated data elements. By June 2003, trades in all municipal securities, including those trading only once in a day, became available as part of the MSRB's data subscriptions.

In January 2005, the MSRB replaced its original transaction reporting system for dealers with the Real-Time Transaction Reporting System (RTRS), which required dealers to report trade

information to RTRS within 15 minutes of the time of trade to support price transparency and market surveillance by regulators. To promote efficiency in the reporting process for dealers, RTRS leveraged the Depository Trust and Clearing Corporation's (DTCC) Real-Time Trade Matching (RTTM) System, with a secondary venue for reporting customer trades through the MSRB's RTRS Web interface. RTRS trade price information initially was available by subscription for a fee; however, as a service to individual investors, the Securities Industry and Financial Markets Association (SIFMA, then known as The Bond Market Association) agreed with the MSRB to make RTRS data available to the public for free on its Investinginbonds.com website.⁵

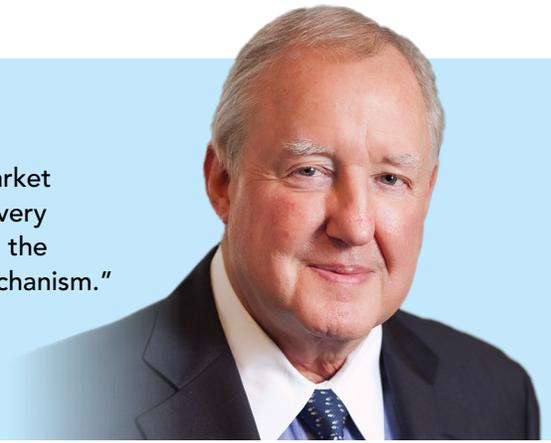
With the launch of the EMMA pilot on March 31, 2008, RTRS trade price information became available to the public, at no charge, through the EMMA website, both on a real-time basis as well as for all prior trades occurring since the inception of RTRS in January 2005. The parallel development of EMMA as a centralized source for both price data and disclosure documents is discussed in Section III.

⁵ SIFMA ceased providing publicly available RTRS data beginning on October 1, 2012, instead directing users to the EMMA website for trade information.



The best way for issuers to get complete information to the market is through an official statement. [In the late 1970s] there was no good delivery mechanism to get the official statement — if one was even produced — in the hands of investors. With the MSRB’s rule, dealers became the delivery mechanism.”

Robert Fippinger, former MSRB Board of Directors member and former MSRB Chief Legal Officer



From Paper to Digital: Evolution of Access to Disclosure Documents

In addition to price transparency, the availability of timely, accurate and complete information about municipal bonds is critical to a well-functioning market. In the primary market, when new bonds are issued, documents called official statements describe the terms, features and risks of the bonds, which help prospective investors make more informed decisions. For outstanding bonds trading in the secondary market, documents called continuing disclosures help current bondholders and prospective investors evaluate important information about a municipal security and its issuer’s ongoing financial condition, and provide notice of specific events that can affect the bonds, such as payment defaults or rating changes. For many decades, these documents did not exist, and, if they did, they were difficult and sometimes impossible for an individual investor to access.

To help connect investors with any official statements that did exist, in 1978, the MSRB adopted MSRB Rule G-32 to require dealers to deliver official statements, if available, to investors. According to Robert Fippinger, author of the definitive text on regulation of the municipal securities market and former MSRB Board of Directors member and former MSRB Chief Legal Officer, “The best way for issuers to get complete information to the market is through an official statement. At that time however, there was no good delivery mechanism

to get the official statement — if one was even produced — in the hands of investors. With the MSRB’s rule, dealers became the delivery mechanism.”

However, the MSRB could not mandate that the issuer create an official statement, because the MSRB has no regulatory jurisdiction over the issuers of municipal securities. Yet it was concerned both with the delays in official statements becoming available to municipal securities dealers to meet their customer delivery obligations under Rule G-32, and with the inability of municipal securities dealers and investors to obtain information about basic features of municipal bonds traded in the secondary market.

The MSRB first proposed creation of a central repository of official statements in electronic form in 1987,⁶ suggesting that the SEC require issuers, under the antifraud provisions of the Securities Exchange Act of 1934 (“Exchange Act”), to provide, after the bond sale, any official statements they produced in electronic format to a central repository. Information vendors would then access the repository and make information available electronically to market participants through their marketplace products. The MSRB believed that rapid access to descriptive information in the official statements for all bond issues would facilitate compliance with Rule G-32 and provide a more complete and reliable source of information than was then generally

⁶ Letter from James B.G. Hearty, MSRB Chair, to David S. Ruder, SEC Chairman, dated December 17, 1987, *reprinted in MSRB Reports*, Vol. 8, No. 1 (January 1988) at 7.



available. The MSRB further believed that, to be successful, submission to the repository would have to be mandatory, rather than voluntary, through a regulated venue.

The SEC decided to take an alternative approach in September 1988 when it proposed a new rule for municipal securities dealers, along with a report on the large-scale defaults by the Washington Public Power Supply System (WPPSS).⁷ The report noted that “[t]he experiences in the sale of [WPPSS bonds] indicate that close attention to disclosure obligations and the use of appropriate disclosure practices are necessary in the sale of municipal bonds,” and found significant failures in disclosure in the official statements by the issuer and in due diligence undertaken by the underwriters.

Beginning on January 1, 1990, Exchange Act Rule 15c2-12 prohibited municipal securities dealers from underwriting most issues of municipal securities unless they obtain, review and provide an official statement to investors in a timely manner.

There was not industry consensus on whether the private sector or a regulator like the MSRB

“The experiences in the sale of [WPPSS bonds] indicate that close attention to disclosure obligations and the use of appropriate disclosure practices are necessary in the sale of municipal bonds.”

SEC Staff Report on the Investigation in the Matter of Transactions in Washington Public Power Supply System Securities, 1988

should create one or more repositories for the official statements, and many in the issuer community were reluctant to have a repository operated by a regulator. Ultimately, Rule 15c2-12 created the concept of a “nationally recognized municipal securities information repository,” or NRMSIR. Several organizations throughout the country met the requirements to serve as NRMSIRs, including several state information depositories (SIDs) that made information available about municipal bonds issued in their states. The SEC’s creation of the NRMSIR system helped ensure important information about features and risks of municipal bonds would be created and delivered to investors, yet it meant that these documents were scattered around the country and not easily or freely accessible to the broader investing public.

Disparate Sources of Municipal Securities Information

Locations of NRMSIRs, pre-2009



⁷ See SEC Staff Report on the Investigation in the Matter of Transactions in Washington Public Power Supply System Securities (September 1988).

While the NRMSIRs served as the official repositories for disclosures, the MSRB decided to establish its Municipal Securities Information Library (MSIL) system to collect official statements from underwriters for new issue offerings on and after January 1, 1990. The MSIL system made available electronic copies of the official statement, as well as advance refunding documents, by paid subscription, primarily to information vendors, with individual paper copies available for purchase through the MSRB's Public Access Facility. All document submissions were made to the MSIL system in paper form until January 2, 2002, at which time the MSIL system began accepting documents in electronic format, at the election of the underwriter, through its new e-OS submission system.⁸

In conjunction with the establishment of the MSIL system in 1990, the MSRB also proposed to establish a Continuing Disclosure Information (CDI) system as a central utility to accept and disseminate electronic disclosures made by issuers and trustees concerning municipal securities in the secondary market.⁹ Disclosures could include periodic financial reports and other notices or reports relating to the financial status and the likelihood of default or early redemption, such as pre-default notices. The CDI system became operational on a pilot basis in January 1993, receiving continuing disclosures on purely a voluntary basis.

Amendments to Exchange Act Rule 15c2-12 in 1994 put the onus on the underwriting dealer to ensure that issuers contracted to provide updated information about their financial health throughout the life of their bonds.¹⁰ With these changes, issuers were to provide annual reports and audited financial statements to all NRMSIRs

and any applicable SID. They also were to provide material event notices and notices of failures to file annual financial reports to any applicable SID and either all NRMSIRs or to the MSRB's CDI system.

To address the availability of disclosures to individual investors, each NRMSIR made continuing disclosure documents available for sale to non-subscribers.¹¹ For its part, the MSRB made its collection of continuing disclosures available in electronic form by subscription for a fee. It made paper documents available to the public at the MSRB's Public Access Facility. This arrangement meant the availability of these important disclosures remained fragmented, with no one repository containing a complete collection of primary market and continuing disclosure documents for the municipal bond market. Further, each NRMSIR took a different approach to indexing the disclosures, with some not indexing at all.

The evident inefficiencies in the NRMSIR system ultimately resulted in the further development of EMMA. Within EMMA's first year, the website became the central repository for all disclosures, replacing the dispersed NRMSIR system and providing retail investors with a single, online portal for accessing these important disclosure documents, without charge, as further described in Section III.

⁸ The MSRB four years earlier had provided interpretative guidance that permitted municipal securities dealers to provide electronic delivery of official statements to customers under Rule G-32. See "Electronic Delivery and Receipt of Information by Brokers, Dealers and Municipal Securities Dealers," November 20, 1998, MSRB Reports, Vol. 19, No. 1 (February 1999).

⁹ MSRB Reports, Vol. 10, No. 3 (July 1990) at 3.

¹⁰ See Exchange Act Release No. 34961 (Nov. 10, 1994), 59 FR 59590 (Nov. 17, 1994).

¹¹ See Exchange Act Release No. 58255 (July 30, 2008), 73 FR 46138 (Aug. 7, 2008).



III.

Municipal Market Access for All: Origins of EMMA

Market Consensus for Change

Persistent concerns about municipal market disclosure, more so than concerns about access to trade price data, prompted the market to coalesce around the need for change. In 1998, the MSRB launched a series of disclosure forums focused on primary and secondary market disclosure practices and concerns.¹² The MSRB also published a discussion paper on disclosure in the municipal securities market, identifying opportunities for improvements and innovations in the municipal securities disclosure process.¹³

“The MSRB believes that additional improvements in disclosure would strengthen the municipal securities market and benefit issuers, investors and dealers.”

MSRB Discussion Paper on Disclosure in the Municipal Securities Market, 2000

The report noted, “[N]otwithstanding significant progress, disclosure still has not reached an optimum level in the municipal securities market. The MSRB believes that additional improvements in disclosure would strengthen the municipal securities market and benefit issuers, investors and dealers.” Specifically, the MSRB suggested that it could produce a central index of continuing disclosure documents to address the widely recognized difficulties arising from the divergent collections at the different NRMSIRs and the lack of consistent indexing by those NRMSIRs.

“There was overall frustration with the inefficiency of the existing de-centralized NRMSIR system,” said Laura Slaughter, Executive Director of the Municipal Advisory Council of Texas, which ultimately would create the first centralized index for disclosures. “Stakeholders were frustrated by the lack of indexing information associated with a filing,

¹² See e.g., MSRB to Host Disclosure Forum, MSRB notice dated August 14, 1998; MSRB Will Host Forums on Land-Secured Disclosure, MSRB notice dated July 15, 1999; Forum on Hospital Finance Disclosure, MSRB Notice 2000-04 (Jan. 24, 2000); MSRB to Host Its Second Disclosure Forum, MSRB Notice 2000-25 (Aug. 18, 2000); Forum on Disclosure for Long-Term Care/Senior Living Debt, MSRB Notice 2002-08 (Mar. 22, 2002).

¹³ MSRB Discussion Paper on Disclosure in the Municipal Securities Market, MSRB Notice 2000-35 (Dec. 21, 2000).



There was overall frustration with the inefficiency of the existing de-centralized NRMSIR system.”

Laura Slaughter, Executive Director of Municipal Advisory Council of Texas



which made it difficult to verify that filings had been made,” she said. “And the issuers were frustrated by having to keep up with all the different NRMSIRs and the time and expense of having to mail their documents to many different locations.”

To address these challenges, the MSRB convened, on May 31, 2001, a disclosure roundtable of key municipal market groups, informally referred to as the Muni Council.¹⁴

“The purpose of the Muni Council was to bring together all the market participants to talk about what the market could do to improve the way disclosure worked,” said Frank Chin, former Co-head of Public Finance at Citi, who led the development of EMMA as Chairman of the MSRB Board of Directors in 2008. “It was very clear at the time that there was a problem in that arena — that information was being provided by issuers to the NRMSIRs, but it was not necessarily done in a way that was easy on the issuers or helpful for investors.”

The Muni Council determined to focus its energy on improving the process for submitting and

accessing continuing disclosures, seeking to achieve progress without requiring regulatory actions by the SEC or the MSRB. “Issuers were very accustomed to supporting their own best practices when it came to disclosure,” said Alan Anders, Deputy Director of the New York City Office of Budget and Management. With the emphasis on non-regulatory action, the MSRB bowed out of a formal role on the Muni Council it had established.

Adding urgency to the Muni Council’s efforts to find a non-regulatory solution, the SEC published a small-scale study in 2002 that found, for 30 randomly selected bond issues from 1996–1997, only 32 percent of audited financial statements in the NRMSIR system for those issues were available from all then-existing NRMSIRs, and only 16 percent of annual reports from those issues were available from all NRMSIRs.¹⁵ In addition, in some cases, issuers had been late or had not filed at all their annual reports or audited financial statements. Finally, SEC staff concluded that individual investors had meaningful access to continuing disclosures through only one NRMSIR’s web-based interface,

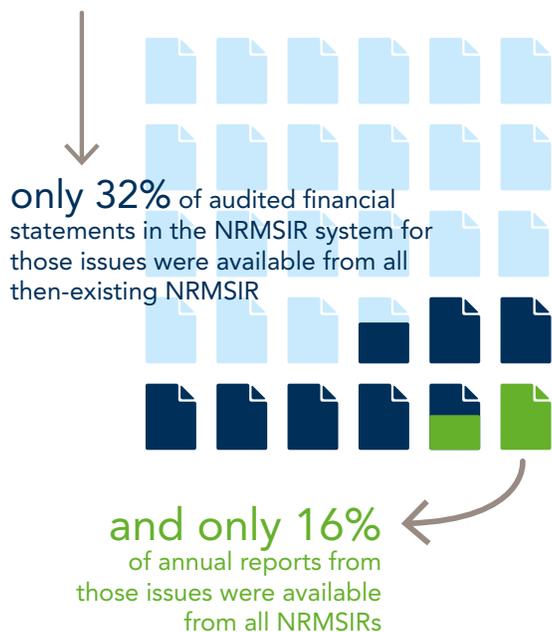
¹⁴ The MSRB and the Muni Council Announce a Long-Range Planning Session on the Municipal Securities Market Disclosure System, MSRB Notice 2001–27 (July 25, 2001). The Muni Council initially consisted of the MSRB, American Bankers Association, Association for Investment Management and Research (now known as the CFA Institute), Council of Infrastructure Financing Authorities, Government Finance Officers Association, Healthcare Financial Management Association, Investment Company Institute, Investment Counsel Association of America (now known as the Investment Adviser Association), Municipal Advisory Council of Texas, National Association of Bond Lawyers, National Association of Independent Public Finance Advisors (now known as the National Association of Municipal Advisors), National Association of State Auditors, Comptrollers and Treasurers, National Association of State Treasurers, National Council of Health Facilities Finance Authorities (now known as National Association of Health and Educational Facilities Finance Authorities), National Council of State Housing Agencies, National Federation of Municipal Analysts, and The Bond Market Association (now known as SIFMA).

¹⁵ Hume, Lynn, “SEC Exposes Deficiencies in Disclosure Problems Apparent Throughout System,” *The Bond Buyer*, March 15, 2002.



Inefficiencies in NRMSIR System

In 2002, the SEC published a small-scale study that found of 30 randomly selected issues from 1996–1997



provided background assistance to the Muni Council in the development of its request for proposals. At the time, Muni Council members recognized that, if the Muni Council could not establish a viable private-sector solution, it might then need to turn to the MSRB.¹⁶

In November 2003, the Muni Council selected the Municipal Advisory Council of Texas, a SID, to develop and operate the central post office, which began operation in September 2004. In support of the central post office, the SEC issued a no-action letter to the effect that SEC staff would not recommend enforcement action with respect to Exchange Act Rule 15c2-12 if issuers were to submit continuing disclosures through the central post office rather than directly with the NRMSIRs.¹⁷ While use of the central post office was voluntary, the level of use became appreciable in its second year of operation, and some industry participants felt that its use should be made obligatory in the future.

but individual investors were largely unaware of the existence of and access to continuing disclosures.

Private-Sector Solutions

To advance a private-sector solution, the Muni Council sought to establish a central submission and retransmission utility, which would be the single venue where issuers could choose to submit their continuing disclosures and receive assurances that the documents would be routed to all NRMSIRs on an equal basis with consistent indexing information. The Muni Council issued a request for proposals in early 2003 for the establishment and operation of a continuing disclosure “central post office.” The MSRB

MSRB Takes on Centralized Disclosure

A turning point in the market’s willingness for the MSRB to provide a centralized transparency venue came with the movement toward an “access equals delivery” standard, first proposed by the SEC for the corporate market in 2004¹⁸ and finalized in 2005.¹⁹ “When I got on the Board in 2005 it was pretty clear to me that the MSRB had a mandate to help with the efficiency of the market,” said Frank Chin. “There was a need and a goal to improve communications among all market participants, and the MSRB had the regulatory mandate to do it.”

The “access equals delivery” standard for registered offerings²⁰ is premised on, among

¹⁶ Hume, Lynn, “No Role for MSRB in Muni Council RFP – Board Will Not Respond or Review,” *The Bond Buyer*, December 30, 2002.

¹⁷ Letter dated September 7, 2004 from Martha Mahan Haines, Chief of the Office of Municipal Securities, Division of Market Regulation, U.S. Securities and Exchange Commission to W. David Holland, Chairman, Texas MAC, and John M. McNally, Hawkins Delafield & Wood LLP.

¹⁸ See Securities Act Release No. 8501 (Nov. 3, 2004), 69 FR 67392 (Nov. 17, 2004).

¹⁹ See Securities Act Release No. 8591 (July 19, 2005), 70 FR 44722 (Aug. 3, 2005).

²⁰ This standard is not available to certain classes of registered securities, including, but not limited to, mutual fund shares.

“We commend the MSRB’s initiative in promoting an ‘access equals delivery’ standard for the dissemination of primary market offering materials for municipal securities.”

National Federation of Municipal Analysts’
Comment Letter to the MSRB, 2006

other things, the immediate, free and public availability of prospectuses and other filings through the SEC’s Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system. To move the municipal securities primary market disclosure system to an “access equals delivery” standard much like the SEC’s, the MSRB published a concept proposal in July 2006.²¹

With regard to accessibility by the public at no cost, the MSRB believed that investors would be best served if official statements were made available through a centralized website and sought comment on whether the MSRB itself or some other party should create and operate a centralized website. However, sensitive to previous concerns from some industry participants over having a regulator operate a disclosure system for documents produced by unregulated issuers, the MSRB also sought comment on alternatives to a central repository, such as the creation of a central directory that would permit investors to navigate to official statements posted for free in a more decentralized manner (e.g., on various websites operated by issuers, financial advisors, underwriters, information vendors or other parties).

With limited exceptions, industry participants responded to the concept proposal with strong support for the move to the “access equals delivery” standard, as well as for the MSRB serving as the central venue for posted official statements. The National Federation of Municipal Analysts, for example, said, “We commend the MSRB’s initiative in promoting an ‘access equals delivery’ standard for the dissemination of primary market offering materials for municipal securities.” Taking into account industry input, the MSRB published a notice for comment on January 25, 2007, specifically proposing that the MSRB establish and operate a central access facility at which official statements would be available to the public at no cost for the life of the securities.²² The MSRB observed that this portal might include additional items beyond official statements, such as indicative data, transaction pricing data, secondary market information and analytical tools, and that it might be used for other purposes such as accepting voluntary submissions of preliminary official statements.²³

In light of the near unanimous support for “access equals delivery” and an MSRB central portal, the MSRB moved forward with requesting SEC approval on the proposal in November 15, 2007.²⁴ Initially, a pilot version of the portal would operate as a public information venue during a period of testing until the effective date of rule changes that were needed to implement the “access equals delivery” standard, at which time the permanent central disclosure platform would be launched. In addition to providing direct access to the official statements and advance refunding documents collected by the MSRB and dating back to January 1, 1990, the

²¹ MSRB Seeks Comments on Application of ‘Access Equals Delivery’ Standard to Official Statement Dissemination for New Issue Municipal Securities, MSRB Notice 2006-19 (July 27, 2006).

²² MSRB Seeks Comments on Draft Rule Changes to Establish an Electronic Access System for Official Statements, MSRB Notice 2007-05 (Jan. 25, 2007). The MSRB proposed that other MSIL/Access portals, in addition to the MSRB’s central portal, could be established by information vendors or other market participants so long as they met certain basic parameters.

²³ Id.

²⁴ See Exchange Act Release No. 57004 (Dec. 20, 2007) (SR-MSRB-2007-06); 72 FR 73941 (Dec. 28, 2007); MSRB Files Pilot Portal for On-Line Dissemination of Official Statements and Related Information and Seeks Comments on Revised Draft Amendments to Establish an Access Equals Delivery Standard Under Rule G-32, MSRB Notice 2007-33 (Nov. 15, 2007).

pilot portal would provide basic identifying information for the securities in the issue, real-time and historical price information for municipal securities trades, educational information to assist investors in understanding the documents and data that they would have ready access to for the first time, and investor-friendly search functionality.

While the MSRB did not formally propose in its November 2007 SEC filing for its pilot portal to include continuing disclosures, the MSRB stated that it stood ready to expand its planned system to also serve as the central electronic submission system for free filings of all continuing disclosures, upon the SEC making the necessary amendments to Exchange Act Rule 15c2-12. This would allow the MSRB to integrate continuing disclosure information with its official statement and advance refunding document collections, as well as its trade data, to provide a free comprehensive centralized public access portal for primary market disclosure information, continuing disclosure information and transaction price information, as the MSRB had suggested in its January 2007 notice.

Only days after the MSRB's filing with the SEC for the pilot portal for primary market disclosures and trade price data, then SEC Chairman Christopher Cox wrote to the MSRB that he had instructed SEC staff to prepare a proposal, for consideration by the SEC Commissioners, to amend Rule 15c2-12 to provide for submission of continuing disclosures to the MSRB rather than to the NRMSIRs.²⁵ "I write to reiterate my support for the Board's plan to streamline the existing municipal securities disclosure system by creating a centralized filing venue similar to the Commission's EDGAR system," Cox said. "Replacing the multiple paper filing venues

"...I write to reiterate my support for the Board's plan to streamline the existing municipal securities disclosure system by creating a centralized filing venue similar to the Commission's EDGAR system. Replacing the multiple paper filing venues of the existing system with an electronic filing system that is freely accessible to the investing public on the Internet would be a significant step forward to increase public access to municipal securities disclosure."

SEC Chairman Christopher Cox, in a letter to the MSRB, 2007

of the existing system with an electronic filing system that is freely accessible to the investing public on the Internet would be a significant step forward to increase public access to municipal securities disclosure."

With this clear indication of Chairman's Cox's support, the MSRB published, on January 31, 2008, a notice seeking industry comment on various aspects of the continuing disclosure submission process that would be implemented in the planned MSRB portal.²⁶ In a nod to the portal's similarity to the EDGAR system for corporate securities, the portal was christened with a name, EMMA, for "Electronic Municipal Market Access."

The MSRB Establishes EMMA®

In recognition of the unmet needs of retail investors in the municipal securities market, the MSRB adopted, in 2007, the core principle that would guide EMMA's development:

[EMMA] will be designed to serve as a comprehensive centralized on-line

continued on page 16

²⁵ Letter dated November 21, 2007 from Christopher Cox, Chairman, Securities and Exchange Commission, to Frank Y. Chin, Chairman, Municipal Securities Rulemaking Board.

²⁶ MSRB Begins Planning for Continuing Disclosure Component of the New Electronic Municipal Market Access System (EMMA), MSRB Notice 2008-05 (Jan. 31, 2008).



Milestones in Municipal Market Transparency

The multi-trillion-dollar municipal securities market connects investors with communities in need of capital to finance infrastructure. As the self-regulatory organization dedicated to safeguarding the integrity of this critical capital market, the Municipal Securities Rulemaking Board (MSRB) has promoted price transparency and access to public disclosures about municipal securities by developing the Electronic Municipal Market Access (EMMA®) website.

Road to Price Transparency

Going Digital

Goodbye, bearer bonds; hello, electronic clearing and settlement.

1980s

Price Transmission

MSRB pilots electronic collection of trade prices.

1994

Daily Dose of Data

MSRB streams daily digital data to professionals.

1995

Real-Time Speed

Data gain speed with MSRB's Real-Time Transaction Reporting System.

2005



MSRB Creates

EMMA® merges with important disclosure documents.

CAUTION

Low Visibility to See if You're Getting a Fair Price for Municipal Bonds!

Fax it In

MSRB collects continuing disclosures about bond issuers' financial health.

1993

Check it Out

MSRB's Municipal Securities Information Library houses offering documents.

1990

Setting a Standard

Investors get available offering documents under MSRB rules.

1978

Road to Public Disclosure

CAUTION

Barriers to Access Information on Features and Risks of Municipal Bonds!



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THE ROAD AHEAD

Learn more at MSRB.org



Seeing the Big Picture

Expanded market-wide statistics and interactive tools visualize market trends.

2017

Flagging Special Conditions

See when trades are executed on an alternative trading system, for example.

2016

Construction Work Ahead

Comparing Securities

See trade prices of municipal securities with similar characteristics.

2014

ates EMMA®
real-time trade data

ments.

2008

Plugging in Variables

MSRB integrates data on variable rate demand obligations and auction rate securities.

2009

Bank on It

EMMA makes it easier to see issuers' bank loans.

2016

Policing Pay to Play

Financial firms' political contribution disclosures are integrated into EMMA.

2013

Visit **EMMA**

EMMA.MSRB.org

2007

Access Equals Delivery

MSRB paves way for online repository of offering documents.

2001

Muni Council Convenes

MSRB hosts discussion on improving disclosure practices.

2010

Tracking Securities

Investors can receive alerts when disclosure documents are posted.

2011

Credit Check

EMMA provides free access to municipal credit ratings.

2013

Tool for Timeliness

Email reminders help bond issuers keep up with disclosure filing deadlines.



Upon full implementation, EMMA will provide a permanent, centralized and comprehensive Internet-based system for free real-time public access to all primary market, secondary market and trade price data for municipal securities submitted to the MSRB. In furtherance of our mission of investor protection, we are pleased that the MSRB can provide this important utility to investors in our market.”

*Frank Chin, then-Chair of the MSRB Board of Directors,
in a statement upon EMMA’s launch in 2008*



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source for primary and secondary market disclosure documents and transaction pricing data provided free of charge to investors and the public on a real-time basis with a specific aim of serving the needs of retail investors who are not expert in financial and investing matters and of other infrequent investors in or holders of municipal securities.²⁷

On March 31, 2008, the EMMA pilot went live.²⁸ On that date, 38 new official statements and three advance refunding documents were received by the MSRB and posted onto the EMMA pilot for offerings then in the market, which became available alongside the full historical collection of official statements and advance refunding documents for the previous two decades. EMMA also made public 28,517 trades that occurred on March 31, 2008, in most cases posted on a real-time basis, along with the historical collection of trade data since January 2005. This information was embedded in an overall website framework that included educational information about the municipal marketplace as well as information on how to find and understand the data and documents available on the EMMA website, all specifically oriented toward individual investors.

“Upon full implementation, EMMA will provide a permanent, centralized and comprehensive Internet-based system for free real-time public access to all primary market, secondary market and trade price data for municipal securities submitted to the MSRB,” MSRB Chair Chin said at the time. “In furtherance of our mission of investor protection, we are pleased that the MSRB can provide this important utility to investors in our market.”

In developing EMMA, the MSRB constructed a data, software and hardware infrastructure that would not only achieve the immediate goals of the EMMA pilot but also would set the stage for providing access to additional disclosures, market-wide data and interactive tools. The MSRB designed the EMMA website to eliminate the barriers between individual investors and the critical information about their investments.

The MSRB understood that other market participants could benefit from the new accessibility to market data and disclosure, including issuers, their municipal advisors, bond counsel and others. The MSRB also understood its responsibility to promote the ability of municipal securities dealers to perform their marketplace and regulatory duties in the

²⁷ MSRB Long-Range Plan for Market Transparency Products, January 27, 2012, available at <http://www.msrb.org/msrb1/pdfs/Long-Range-Plan.pdf>.

²⁸ MSRB Press Release, “EMMA: Electronic Municipal Market Access is Launched Today,” March 31, 2008; Ackerman, Andrew, “MSRB Ready to Launch Pilot Version of EMMA Just 4 Months After Start of Development,” The Bond Buyer, March 31, 2008.



most effective and efficient manner possible. Thus, the MSRB continued to provide paid subscription products, permitting the streaming to subscribers of the full set of documents and data presented on the EMMA website. The structured manner allowed information vendors and others to repackage the information for their industry products, while not creating barriers to professionals from using the functionality offered on the EMMA website. In keeping with the fundamental principle of making information available to all market participants on an equal basis, the EMMA system and its related subscription feeds were designed to ensure that documents and data appeared simultaneously on the EMMA website and in the subscription feeds.

Finally, the MSRB recognized the importance of supporting efficiency through straight-through processing by feeding data into EMMA from existing industry sources, to the extent possible, to minimize burdens on data submitters. As an additional benefit to this approach, individual investors and others who received their information primarily through the EMMA website would be able to “speak the same language” as their investment professionals that might be accessing the data from a different industry source.

The launch of the EMMA pilot represented a fundamental change in access to core municipal market disclosures and data. Yet it was a surprise to the MSRB that perhaps the first use of EMMA by the non-professional population that came to its attention was not in connection with individual investors in municipal securities. Instead, the MSRB found that a community activist in a small Tennessee city had, just three days after its launch, found on the EMMA website the city’s most recent official statement and posted several excerpts

on a community blog in a discussion of city finances and governance practices. It quickly became apparent to the MSRB that, in addition to making a significant improvement in access to key information in the municipal securities market, the EMMA website would prove to be a critical tool for citizens across the country and researchers of all kinds to whom a new window had opened into state and local government finance, infrastructure development and governance processes.

EMMA Becomes Official Source

Within a year, EMMA had completed its pilot phase and become the official source of municipal securities data and disclosure documents. On December 5, 2008, the SEC approved, for an effective date of July 1, 2009, amendments to its Rule 15c2-12 to eliminate the NRMSIR system of disclosure dissemination in favor of centralized disclosure through the EMMA system,²⁹ as well as the MSRB’s filing to establish the continuing disclosure component of the EMMA system as an official facility of the MSRB.³⁰

On July 1, 2009, the MSRB — through its EMMA website — assumed the role as the centralized, electronic repository for all municipal bond disclosure documents and trade data. Lynnette Kelly, MSRB President, said at the time, “This is a historic day for the municipal bond market. The MSRB’s creation of EMMA and the market transparency it provides catapults municipal bond disclosure decades ahead of the fragmented and cumbersome system that preceded it,” she said. “With EMMA, we have created a system that promotes public access to disclosure documents and shines light on the disclosure practices of issuers.”

²⁹ See Exchange Act Release No. 59062 (Dec. 5, 2008); 73 FR 76104 (Dec. 15, 2008).

³⁰ See Exchange Act Release No. 59061 (Dec. 5, 2008) (SR-MSRB-2008-05); 73 FR 75778 (Dec. 15, 2008).



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Lynnette Kelly, MSRB President, in a statement in 2009



Consistent with the core principle guiding EMMA's development, the website incorporated key tools designed to make the information available on EMMA more readily accessible and understandable. This included enhancements to the educational information and search functionality initially included in the EMMA pilot, as well as the introduction of email alerts that would automatically inform EMMA users of the posting of new documents and daily trade activity (see *Appendix*).

EMMA's Impact

EMMA and the related MSRB transparency systems that transmit municipal market data and documents to the public, have brought about considerable changes. Early academic studies provide evidence of EMMA's positive impact on the pricing of municipal securities. One study found that the introduction of EMMA to the municipal market over the period from March 2008 through June 2009 "enhanced the efficiency of trade pricing in municipal securities secondary markets as average daily price differentials and volatility both declined market-wide," although the effect was more pronounced for institutional-sized trades than for retail-sized trades.³¹ An earlier study focused specifically on the

introduction by the MSRB of real-time trade price information through RTRS in 2005, which, while pre-dating EMMA's launch, significantly decreased mark-ups on secondary market trades market-wide.³² Another study undertaken on behalf of the MSRB focused on the impact of making the RTRS data available on EMMA and found that the data's availability reduced mark-ups on municipal securities transactions.³³ The MSRB has worked to encourage further academic research into the municipal securities market by facilitating access by researchers to its RTRS data in a manner designed to allow them to more closely analyze trading patterns and other relationships in the marketplace.

As planned, EMMA has effectively ended the use of paper documents as the core means of disseminating disclosure information to the marketplace, with physical deliveries now limited to individual cases at the investor's request. Real-time trade price information about virtually every security in the market is now broadly available with no barriers. This impact reaches far beyond allowing an investor to understand the nature of a specific investment — now the entire landscape of the market is open to viewing, comparison and deeper analysis.

³¹ Dzigbiede, Komla, "Regulatory Disclosure Interventions in Municipal Securities Secondary Markets: Market Price Effects and the Relative Impacts on Retail and Institutional Investors," July 2017, available at <https://www.brookings.edu/wp-content/uploads/2017/04/dzigbiede.pdf>.

³² Schultz, Paul, "The Market for New Issues of Municipal Bonds: The Roles of Transparency and Limited Access to Retail Investors," January 2012, available at <http://ssrn.com/abstract=1988548>.

³³ Sirri, Erik, "Report on Secondary Market Trading in the Municipal Securities Market," July 2014, available at <http://www.msrb.org/msrb1/pdfs/MSRB-Report-on-Secondary-Market-Trading-in-the-Municipal-Securities-Market.pdf>.



“[EMMA] enhanced the efficiency of trade pricing in municipal securities secondary markets as average daily price differentials and volatility both declined market-wide.”

Study by Komla Dzigbede, PhD,
Binghamton University, 2017

“Given the enormous number of municipal credits, the ability to easily access all this information in one place has created tremendous efficiencies for the market,” said Thalia Meehan, former Managing Director and Portfolio Manager at Putnam Investments.

For their part, issuers can see how other state and local governments are funding their capital needs and at what cost, significantly broadening their perspective on their own options. In addition, municipal entities armed with knowledge are better able to make informed choices when accessing the capital markets and when engaging with other market professionals. Alan Anders believes issuers also are more likely to approach disclosure as a tool for improving communications with investors. “One of the great things that EMMA did was to change the culture of disclosure. Originally, issuers thought of disclosure as a

legal requirement. Now, they recognize and take advantage of the value of good disclosure from an investor relations perspective,” he said. “That happened because of the MSRB’s willingness to respond to issuer feedback and improve the disclosure filing process for issuers. EMMA made issuers think that disclosure wasn’t an onerous thing but something they could do as a matter of course.”

Meanwhile, EMMA also has provided municipal advisors, bond lawyers and other market participants — whose direct experience might be limited to particular regions or types of transactions — the ability to access information about other regions, structures and projects.

The market transparency offered by EMMA has had a significant secondary impact on transparency into the operations of state and local governments that has been embraced by the public. Citizens and good government groups can access detailed information about the financial condition and capital plans of states, municipalities and any entity that issues bonds. Journalists regularly cite EMMA and information derived from EMMA in their statehouse and local reporting.



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*Alan Anders, Deputy Director of the
New York City Office of Budget and Management*



IV.

Closing Information Gaps: The Future of EMMA

Throughout EMMA's first decade, the MSRB has continued to focus on making tools and other resources available to individual investors, municipal entities and other market participants who do not have ready access to the resources used by market professionals. The MSRB has continuously updated core navigational features to improve the usability of the EMMA website, and has kept pace with the evolving information needs of municipal market participants and the increasing appetite for market-wide information to assist in evaluating and monitoring broader trends. Refer to the Appendix for a full list of enhancements since EMMA's launch as a pilot service in 2008.

Long-Range Plan for Market Transparency

To most effectively and efficiently prioritize and implement EMMA's evolution, the MSRB, in January 2012, published a Long-Range Plan for Market Transparency Products. The plan was designed to guide the marshaling of MSRB resources to improve transparency in the most cost-effective manner to achieve the greatest positive impact on the protection of investors, municipal entities, obligated persons and the public interest.

The long-range plan laid out a series of potential enhancements that would pave the way to an EMMA 2.0, which was designed to close gaps and address inequalities in information services for certain market participants, such as individual investors and smaller municipal entities. Among the priorities noted in the long-range plan are enhanced search functionality and greater access to tools and utilities. Many of the enhancements made by the MSRB in the following years can find their roots in the long-range plan. Later in 2012, the SEC published its Report on the Municipal Securities Market, which endorsed continued enhancements to EMMA specifically oriented toward retail investors.³⁴

³⁴ SEC Report on the Municipal Securities Market (July 31, 2012), available at <https://www.sec.gov/news/studies/2012/munireport073112.pdf>.



Long-Term Vision and Guiding Principles

As the EMMA website enters its tenth year, the MSRB has published a renewed long-term vision and set of guiding principles to shape the website's evolution into a comprehensive transparency platform. The long-term vision, released in 2017, states:

Promoting transparency in the municipal securities market is part of the mission of the Municipal Securities Rulemaking Board (MSRB). Our Electronic Municipal Market Access (EMMA®) website is designed to support a transparent market and serve the evolving information and decision-making needs of market participants and the public. EMMA provides free data, disclosures and interactive tools that promote a fair and efficient municipal securities market. Enhancing the availability of pricing-related market data by creating a Central Transparency Platform (CTP) on EMMA and helping market participants comply with regulatory obligations are future-state goals.

To achieve the vision for EMMA, the MSRB must evaluate and prioritize many possible investments, developments and improvements. The following guiding principles are intended to aid the MSRB in determining the future development of and investment in EMMA.

Promote fair municipal security transactions and support investment and issuance decisions by making comprehensive pricing and disclosure information readily available at no cost

Facilitate efficient access to and submission of municipal market data, disclosures and information through an interface that is intuitive and dynamic

Prioritize potential enhancements based on the public interest, cost, benefit and size of target audience

Ensure that data storage and delivery are reliable and secure without sacrificing availability

The MSRB has begun implementing this vision by making usability enhancements to the navigation and presentation of information on EMMA in 2018, which were derived from extensive input from an almost year-long series of focus groups with market participants and stakeholders. The MSRB will also continue to add interactive tools, such as additional third-party yield curves, to support users' understanding of market trends.

transparency
information disclosure research
pricing

V. Conclusion

The MSRB has taken an evolutionary approach to establishing and enhancing EMMA as a market transparency platform that helps fulfill the MSRB's statutory mandate to promote a fair and efficient municipal market. The EMMA website provides public access to the data, disclosures and tools that help level the playing field, enabling investors and issuers to independently research, compare and verify information provided by financial professionals.

EMMA's first decade has proven transformative for the municipal market. The MSRB remains committed to assessing the evolving information needs of municipal market participants and exploring new ideas and technologies to further enhance the value and effectiveness of the EMMA website and the transparency of the municipal market for decades to come.

Appendix

The Municipal Securities Rulemaking Board (MSRB) periodically adds new features to its Electronic Municipal Market Access (EMMA®) website. EMMA houses information on approximately 1 million outstanding municipal securities.

Read about enhancements to EMMA since its inception in 2008.

2018

Enhanced Design and Navigation

April 2018

The MSRB unveiled a series of investor-focused improvements to the design and navigation of EMMA. Streamlined homepage navigation provides direct access to an interactive map to search for information by state, as well as quick links to information for new EMMA users, interactive tools and setting up MyEMMA® alerts. An enhanced display of information about each specific security includes a transparent overlay to point out key features and tools for investors.

2017

Market-wide Statistics

September 2017

The MSRB enhanced its extensive set of municipal market statistics on EMMA with the addition of new views showing the top 20 most actively traded securities and most active issuers by par amount or number of trades. The enhanced statistics also provide a state-by-state view of trading in the primary and secondary market. Search results can be filtered by date range, state, tax status and trade type.

Municipal Market Yield Curves and Indices

July 2017

The EMMA website provides free public access to municipal market yield curves and indices from third-party providers. Each market indicator on EMMA is based on tax-exempt bonds and can be useful for understanding the general level and direction of municipal bond interest rates and comparing the relative yields of specific municipal securities. The dynamic functionality available on EMMA gives users the ability to view the actual curves or values in table format and filter by date range and credit quality.

Improved EMMA Alerts

February 2017

EMMA alerts help users stay up to date when new information becomes available on EMMA for a security or group of securities. Users can now modify their alerts preferences to subscribe to specific types of continuing disclosure filings, such as audited financial statements or bond calls. Previously, users could opt to receive all financial disclosure filings and all event notices but could not narrow their selection to particular events or documents. An improved email design provides more descriptive information about the security and the trade activity or newly filed disclosure documents that triggered the alert.

New Issue Calendar

January 2017

Among the free tools and resources available on the EMMA website is a new issue calendar listing the municipal bond issues scheduled to come to market, as well as those recently sold. This dynamic tool enables individual investors, issuers and other market participants to see the breadth and depth of new bond issues coming to market as well as final pricing information for bond issues sold through competitive and negotiated sales.

2016

Bank Loan Disclosure

September 2016

To facilitate the filing of bank loan disclosures on the EMMA website, the MSRB has improved the submission process for issuers and enhanced the ability of investors to locate available bank loan disclosures on EMMA. If submitted, issuers' voluntary bank loan and alternative financing disclosures will now be displayed under a separate tab on their customized EMMA issuer homepages. Bank loan disclosures will also be integrated in the other security and issuer detail views on EMMA, as well as in the advanced search function. The availability of bank loan disclosures

enables current bondholders and prospective investors to assess a municipal entity's creditworthiness and evaluate the potential impact of these financings.

Special Condition Indicators

July 2016

To help investors better understand municipal securities trade data, EMMA now includes an indicator that identifies inter-dealer trades that are executed with or using the services of an alternative trading system (ATS). A second new indicator flags customer trades that do not include dealer compensation in the reported trade price.

Economic Calendar

June 2016

EMMA's tools and resources now include an economic calendar that provides users with free, convenient access to information about key macroeconomic developments that could have an impact on the trading and issuance of municipal securities. Municipal securities issuers, investors and their financial professionals may want to consult the economic calendar when assessing market activity.

ABLE Program Disclosures

June 2016

Alongside program disclosure documents for 529 college savings plans, the EMMA website now provides access to disclosures for Achieving a Better Life Experience (ABLE) programs, which help individuals with disabilities save for qualified disability expenses.

2015

Display of Bank Loan Disclosures

August 2015

To support investor access to full disclosure about an issuer's indebtedness, the EMMA website makes it possible for issuers to display bank loan disclosures on their customized homepages, integrating these voluntary disclosures with all other disclosure documents and recent trade activity of an issuer.

Access to Full Universe of Disclosures for a Municipal Security

June 2015

To facilitate the ability of investors and others to see the full universe of disclosure information for a municipal security, the EMMA website now provides a link between a bond and any new identification (CUSIP) numbers assigned to portions of the bond after the initial issuance. The assignment

of new CUSIPs can occur when, for example, a bond is partially "called" in connection with a current refunding. In this case, the original CUSIP will be retired and new CUSIPs are assigned to the refunded and unrefunded portions. Investors in the new securities may want to refer to the official statement or other disclosures associated with the retired security. To find these disclosures, investors can go to EMMA's "Security Details" for a bond then click the "Related Securities" tab to find links to any new (or former) CUSIPs.

Moody's Credit Ratings on EMMA

June 2015

Credit ratings from Moody's Investors Service, Inc. are presented alongside trading and disclosure information for each municipal security on EMMA, and are integrated into EMMA's advanced search function and price discovery tool. EMMA is the only source of free access to ratings from the largest municipal securities ratings agencies presented in a consolidated format with all other key information about every municipal security.

Asset-backed Securities (ABS) Disclosures

January 2015

EMMA accepts and provides free public access to continuing disclosures for municipal asset-backed securities required under Securities Exchange Act Rule 15Ga-1.

Users can easily locate ABS disclosures using EMMA's Advanced Search and Browse Issuers functions and set up MyEMMA Alerts to receive an automated email when new ABS disclosures are posted on EMMA.

2014

New Bond Ratings on EMMA

September 2014

EMMA provides free access to public finance ratings from Kroll Bond Rating Agency (KBRA), giving market participants additional resources to make more informed decisions about municipal bonds. Ratings from Fitch Ratings and Standard & Poor's became available on EMMA in 2011.

EMMA Help

July 2014

Resources to assist users with navigating EMMA and utilizing EMMA tools are consolidated in EMMA Help. Users seeking educational resources about the municipal market can refer to the MSRB Education Center, accessible from the EMMA homepage, EMMA Help and directly from msrb.org. The MSRB Education Center includes multimedia resources for investors, state and local governments, and others interested in the municipal market.

Graphical Display of Yield Data

July 2014

A graphical display of yields on municipal securities transactions allows users to visualize historical prices and yields for a particular security. From the Security Details page of any security on EMMA, select the Trade Activity tab and then click the “Trade Price and Yield Graphs” link in the lower left corner to open a graph of a particular security’s trade prices and yields over time. Yield graphs are also available in EMMA’s price discovery tool for multiple securities with similar characteristics. These graphs display a summary of the daily high and low yield for selected securities.

Price Discovery Tool

June 2014

A free tool on EMMA makes it easy for investors and other municipal market participants to find and compare trade prices of municipal securities with similar characteristics. EMMA’s price discovery tool can help investors get a sense of the price of a security that trades infrequently. By entering the CUSIP of any security, users can quickly find others that share its key characteristics and view a side-by-side comparison of their prices and yields. Users can also graph trade prices of up to five securities for a visual representation of prices over time.

Improved Display of Trade Data

June 2014

A graphical view of trade prices over time, available for every municipal security on EMMA, allows users to visualize historical pricing and analyze trends. The “Trade Price Graph” link, located in lower left corner of the Trade Activity tab on every Security Details page of EMMA, provides access to a graph that displays a summary of the daily high and low price for a security, as well as a graph of the security’s trade prices over time.

The grid display of trade data for individual securities has also been enhanced to provide a daily summary of trade prices, yield, principal amount and other trade information.

Enhanced EMMA Homepage

February 2014

Enhanced organization and presentation of the EMMA homepage helps all municipal market participants discover new ways to use EMMA. From the new homepage, users can easily and quickly find prices, disclosures and other important information about a specific municipal security, browse all municipal securities issuers in a particular state, explore market trends and access multimedia educational materials about the municipal market and using EMMA. In addition, the homepage features a snapshot of the most actively traded fixed rate municipal securities from the previous trading day.

The homepage provides direct links to essential EMMA tools and resources, including recent trades, official statements for new issues, continuing disclosures and daily summaries of market transactions. The homepage also maintains the quick search function and EMMA Dataport, the application through which municipal market participants submit data and disclosures to EMMA.

Easier Browsing

February 2014

A pilot feature enables users to more quickly and easily find municipal securities issuers and access consolidated information about all of their securities. Using a simple interactive map, users can browse a comprehensive list of state, city, county and other issuers in a particular state. Each issuer has a unique “homepage” that consolidates information about that issuer, including its bond issues, trade data, official statements, financial and event-based disclosures, refunding escrows and contact information, if provided by the issuer.

2013

EMMA 101 Video

August 2013

A new video geared toward first-time EMMA users explains how investors can use EMMA to learn about the municipal market, evaluate municipal bond features, risks and prices, and monitor the health of their municipal bond investments over time.

Email Reminder Tool for State and Local Governments

July 2013

To assist state and local governments in meeting their obligations to make financial information available to municipal bondholders on a timely basis, EMMA now provides a service to allow state and local governments to schedule automated email reminders about an approaching deadline for providing annual and quarterly financial disclosures.

Initial Offering Price and Yield Information

May 2013

Additional primary market data on now EMMA displays both the initial offering dollar price and yield for a bond, when available. These changes provide more meaningful primary market information to market participants about the initial offering price and facilitate comparisons to trade data, which is normally displayed with both a dollar price and yield.

Continuing Disclosure Monthly Statistics

March 2013

EMMA now provides statistics on the number and type of disclosure filings that issuers of municipal securities make available to investors throughout the life of a bond. The continuing disclosure statistics on EMMA represent monthly volumes since 2010 and can be viewed by types of disclosure and by category, such as annual financial information, bond calls and credit rating changes, for example.

Political Contribution Disclosures

February 2013

The MSRB's electronic library of political contribution disclosures is now available on EMMA, allowing users to view the information alongside other municipal market disclosures, trade prices, official statements and market statistics. Disclosures submitted to the MSRB by dealers in connection with contributions to governmental issuer officials, state and local political parties and bond ballot campaigns help investors and others assess any financial relationships and potential conflicts of interest between dealers and the issuers with which they are doing business.

2012

Auction Rate Security Calculation Improvement

December 2012

EMMA improves the calculation of bid-to-cover ratios for auction rate securities (ARS) to provide a ratio that is more consistent with bid-to-cover ratios calculated for Treasury auction results. EMMA has displayed bid-to-cover ratios since 2011, which provide an indication of demand for ARS in ARS auctions.

MyEMMA

November 2012

MyEMMA is a free tool that provides customized access to municipal disclosures and trade data available on the EMMA website. With MyEMMA, users can create, view and manage alerts to learn when new information becomes available on EMMA about individual securities, groups of securities and 529 college savings plans. Users can also limit searches to groups of securities and save frequently used sets of search criteria.

Additional Search Capabilities

October 2012

Users can enter a combination of descriptive characteristics about municipal securities into EMMA to search for specific bonds using the Advanced Search menu on the primary navigation bar on every page in EMMA. Advanced search

filters help users identify municipal securities that meet certain criteria such as maturity date, credit rating and interest rate. EMMA users can also search for bonds that traded during a certain period of time and at a particular price and yield.

The enhanced search provides a powerful tool for finding securities. It supplements the "Quick Search" feature provided on each page of EMMA for conducting CUSIP-based or text searches, as well as the search functions that focus on market activity data, such as trade activity.

529 Plan Display

September 2012

An interactive map accessible from the primary navigation bar on every page in EMMA allows individuals interested in learning about 529 college savings plans to quickly and easily access information about plans in each state. EMMA provides access to 529 plan disclosure documents that describe each plan's investment options, fees and expenses and any state tax benefits.

New Issue Data and Revamped Market Statistics

September 2012

EMMA now provides public access to monthly data on new issuance of municipal securities. The addition of the data is part of an overall redesign of EMMA's Market Statistics section, which includes information on the amount and volume of municipal market trading.

Yield Data for Inter-Dealer Trades

May 2012

Yield information for municipal securities transactions between dealers is available for the first time on EMMA. The public now has free access to the same price and yield information for all of the municipal securities transactions that occur in the market, both those between customers and dealers, and those between dealers.

Trade Email Alerts

February 2012

Investors and others now have the ability to be notified through an end-of-day email when a specific bond trades in the municipal market. Investors can also subscribe to alerts about the availability of disclosure documents such as ratings changes or financial statements for particular securities, and can now specify whether they want to receive financial-based or event-based disclosures, or both.

EMMA Mobile

February 2012

A mobile version of the EMMA website optimizes certain elements of the site for display on mobile devices. EMMA Mobile allows direct access and improved navigation to municipal bond trade price information, EMMA's search function and market statistics. EMMA users accessing the site from a mobile phone will be redirected to EMMA Mobile but still have access to the full site.

2011

Credit Ratings Available on EMMA

November 2011

EMMA provides free access to municipal credit ratings from Fitch Ratings and Standard & Poor's for all individual municipal securities that have ratings assigned by one or both agencies. The display of ratings on EMMA is consistent with the MSRB's goal of supporting individual investors' free access to municipal bond information.

New Voluntary Disclosure Options for Issuers

May 2011

Municipal securities issuers can make pre-sale documents associated with new bond issues available directly to the public by submitting them to EMMA. Issuers and obligated persons can also voluntarily provide investors with information about the timing and accounting standard used to prepare annual financials. The changes allow issuers to provide key documents to investors at the early stages of a bond offering and additional continuing disclosure information about existing bonds.

Additional Information for Municipal Variable Rate Securities

May 2011

Liquidity facility documents for variable rate demand obligations (VRDOs) such as letters of credit and stand-by bond purchase agreements are now available on EMMA. Public information on municipal variable rate securities allows investors to assess the level of demand, liquidity provisions and auction procedures for the securities.

Indicator for Expected Timing of Continuing Disclosures

February 2011

Municipal securities investors can get information about the expected timing of continuing disclosures made by municipal bond issuers and easily identify the most recent disclosures on EMMA. The enhancements provide broad and timely access to key municipal market documents and data.

2010

Additional Municipal Securities Disclosures Available on EMMA

December 2010

EMMA begins collecting additional ongoing disclosures made by municipal securities issuers and obligated persons about their bonds. These disclosures are required for issuers to comply with amended Securities and Exchange Commission Rule 15c2-12.

Search Function Upgrade

August 2010

Enhancements to EMMA's search capabilities help investors more easily locate municipal market data and documents on the site. Investors can now conduct searches for real-time trade data for a period of up to a month rather than for a single day, allowing for review of data over a particular time period. Another improvement makes it easier to run a search on a single category of information on EMMA, such as continuing disclosures.

Enhanced Bond Disclosure Alerts

April 2010

New bond disclosure alerts on EMMA allow users to set up a customized alerts dashboard and begin receiving email alerts about newly available bond disclosure documents produced by municipal bond issuers throughout the life of a bond.

Enhanced Market Statistics

March 2010

A new date-range functionality for EMMA's market statistics allows users to view municipal trading patterns between any two available dates. EMMA also provides the ability to view trade activity based on coupon type.

Continuing Disclosure Submission Video

February 2010

A step-by-step video tutorial for continuing disclosure submission provides an overview of the submission process and demonstrates how to make a continuing disclosure submission. The instructional video is geared toward municipal securities issuers and others who submit continuing disclosure documents to EMMA.

2009

Continuing Disclosure Search Function

October 2009

A new dedicated search function on EMMA helps investors find a particular continuing disclosure document using a combination of search criteria such as date of posting, issuer name, state, CUSIP number and category of filing.

Bond Disclosure Email Alerts

September 2009

Investors can sign up to receive email alerts when primary market and continuing disclosure documents for individual municipal securities are posted on EMMA. Investors who track particular securities identified by their unique "CUSIP" numbers can receive an email notification from EMMA every time a disclosure document is posted for the security.

Enhanced Continuing Disclosure Submission Process

August 2009

A new feature on EMMA automatically saves lists of securities so that future submissions can be easily and quickly applied to those securities. The enhanced feature makes it easier to submit continuing disclosure documents. In addition, users now also can search for securities directly from the EMMA submission screen and easily make a submission against a large number of securities — as many as 6,000.

EMMA Becomes Official Central Repository for Municipal Securities Information

July 2009

EMMA becomes the official repository for all municipal bond disclosure documents and trade data as the MSRB provides electronic access to market-wide continuing disclosure documents. Previously these documents were collected by private enterprises that charged investors for the information.

Voluntary Issuer Disclosures

June 2009

EMMA now collects and disseminates voluntary issuer disclosure documents from municipal bond issuers. Quarterly financial statements, budgets, changes in accounting standards, disclosures on related derivatives transactions and other disclosures are available for free to retail investors.

Collection and Publication of Continuing Disclosures

June 2009

EMMA begins collection and publication of electronic continuing disclosure documents from municipal bond issuers. Issuers, obligated persons and those that act on their behalf must voluntarily submit continuing disclosure documents to EMMA during its pilot period.

All-Electronic Standard for Municipal Bond Official Statements

June 2009

All official statements and advance refunding documents associated with new bond offerings are filed electronically and posted on EMMA.

Continuing Disclosure Pilot Phase

May 2009

EMMA begins a one-month pilot phase for collecting continuing disclosures from municipal bond issuers. Issuers and their agents will be able to create a submission account on EMMA, upload documents and get acquainted with the system before its mandatory launch.

Variable Rate Demand Obligation Transparency

April 2009

Interest rate information for municipal variable rate demand obligations is available to investors on the EMMA website. The addition of variable rate demand obligations interest rate data on EMMA will allow investors to perform a side-by-side comparison across securities. In addition, investors can view trade data and official statements for each security. Municipal securities dealers are required to provide interest rate data on variable rate demand obligations on the day that an interest rate reset occurs.

Auction Rate Securities Transparency

February 2009

Current interest rate information for municipal auction rate securities is available to investors on EMMA. Dealers are required to submit interest rate information the day auctions take place and then immediately publish the data on EMMA. All municipal auction rate transactions are displayed together on EMMA so investors can compare interest rates from program to program.

Municipal Market Statistics

January 2009

EMMA launches market statistics for investors to view snapshots of daily municipal trade data based on municipal security characteristics such as size, sector, maturity and source of repayment. Daily statistics on EMMA provide investors with more extensive data on municipal bonds to help them better understand the market.

2008

SEC Designates EMMA as Official Repository for Continuing Disclosure

December 2008

The Securities and Exchange Commission designated EMMA as the central repository for ongoing disclosures by municipal issuers. EMMA operates as a consolidated, online portal where investors can instantly access free information produced by municipal bond issuers about their bonds.

Pilot Version of EMMA

March 2008

The MSRB launches EMMA as a pilot website to provide official statements for new issues of municipal securities and related documents for advance refunds of outstanding municipal securities, together with real-time municipal securities trade price data. EMMA provides a permanent, centralized and web-based system for free real-time public access to all primary market, secondary market and trade price data for municipal securities submitted to the MSRB.

2007

SEC Chair Supports MSRB's Creation of Central Website for Municipal Securities Information

November 2007

In a letter to the MSRB, Securities and Exchange Commission (SEC) Chairman Christopher Cox supports the MSRB's proposal to establish a pilot internet-based disclosure portal to provide free public access to official statements for new issues of municipal securities, related documents for advance refundings of outstanding municipal securities and real-time municipal securities trade price data. The municipal securities disclosure system would be similar to the SEC's Electronic Data Gathering, Analysis, and Retrieval (EDGAR) system.



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