

JUNE 2012

MUNICIPAL AUCTION RATE SECURITIES AND
VARIABLE RATE DEMAND OBLIGATIONS
Interest Rate and Trading Trends

Prepared by the MUNICIPAL SECURITIES RULEMAKING BOARD



MSRB

Municipal Securities
Rulemaking Board

INTRODUCTION

The MSRB began collecting information about municipal auction rate securities (ARS) and variable rate demand obligations (VRDOs) in early 2009 through its Short-term Obligation Rate Transparency (SHORT) System. In conjunction with related trade data collected through the MSRB's Real-Time Transaction Reporting System (RTRS), these systems create a comprehensive source of data for the ARS and VRDO markets. The MSRB's Electronic Municipal Market Access (EMMA[®]) website, at <http://emma.msrb.org>, provides free public access to this collected information. A description of ARS and VRDOs, as well as the MSRB market transparency programs, can be found at the end of this report.

This report summarizes key information for municipal ARS and VRDOs between 2009 and the first four months of 2012, including the following highlights:¹

Market Activity

- The size of the ARS market decreased nearly 30 percent to \$39 billion from April 2011 to April 2012, while the size of the VRDO market decreased 12 percent to \$283 billion during the same period.
- New issuance of VRDOs decreased to \$14.2 billion in 2011, the lowest levels since 1989 when it totaled \$13.6 billion.
- Liquidity facilities that support nearly 20 percent, or \$53 billion, of VRDOs outstanding are set to expire by the end of 2012.
- ARS par volume traded decreased more than 50 percent from 2010 to 2011 while the number of trades slowed nearly 40 percent.
- Nearly half of the total ARS transactions in 2011 were for trades of \$100,000 or less.
- VRDO par volume and number of trades decreased 21 percent and 17 percent, respectively, in 2011 as compared to 2010.

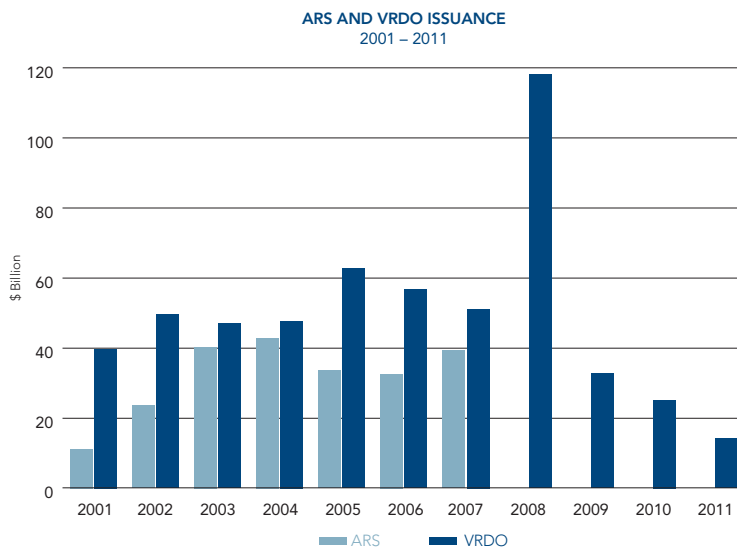
Interest Rate Resets

- Approximately 22,730 ARS rate resets were reported in 2011 compared to 28,250 rate resets in 2010.
- About 81 percent of ARS rate resets in 2011 were set at the maximum rate.
- Nearly half of all reported ARS rate resets in 2011 were for securities that reset every seven days.
- The number of municipal VRDO rate resets reported in 2011 decreased to 890,722.
- Approximately 67 percent of all reported VRDO rate resets in 2011 were for tax-exempt securities.
- Average interest rates for VRDOs with a seven-day reset frequency decreased to 0.33 percent in 2011 as compared to 0.44 percent in 2010.

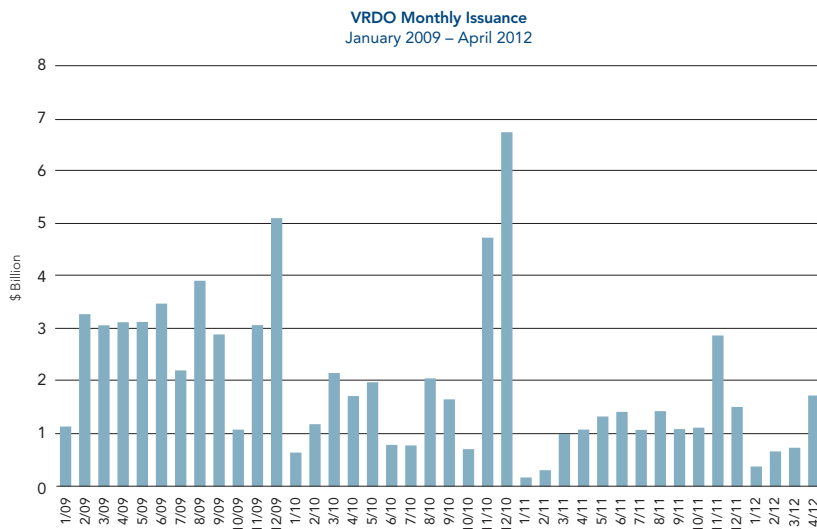
¹ ARS and VRDO data used in this report were derived from information collected through the MSRB's SHORT System. Certain reported ARS and VRDOs may have been excluded based on the lack of descriptive information available to the MSRB. The MSRB obtains some information on the characteristics of securities included in this report from Standard & Poor's Financial Services LLC and Thomson Reuters.

OVERVIEW OF ARS AND VRDO PRIMARY AND SECONDARY MARKET ACTIVITY

Annual issuance of VRDOs continued to decline after a record year in 2008, in which issuance reached nearly \$120 billion.² Since the municipal financial crisis in 2008, new issue volume of VRDOs has decreased significantly every year, dropping to \$14.2 billion in 2011, the lowest yearly volume since 1989. To date in 2012, the contraction in the VRDO market seems to be continuing. Monthly VRDO issuance averaged \$858 million in the first four months of 2012 compared to a monthly average of 1.2 billion in 2011. There has been no new issuance of auction rate securities since 2007.



Source: Thomson Reuters

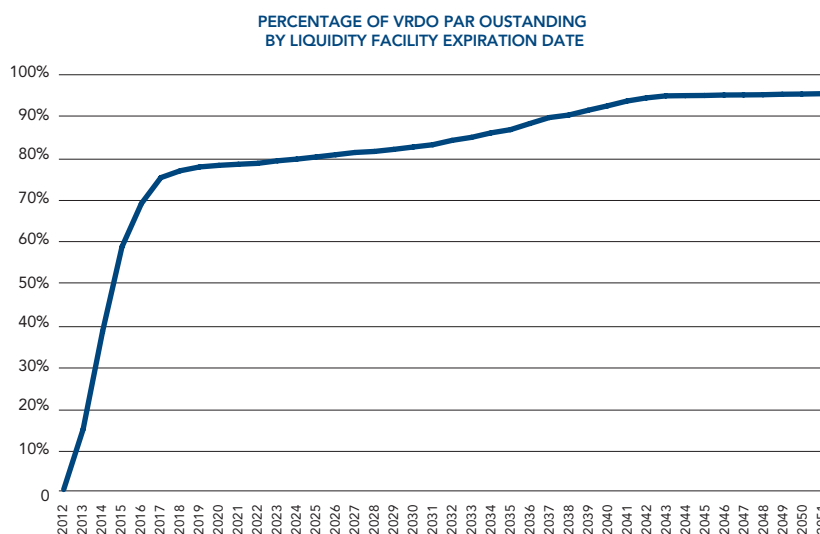


Source: Thomson Reuters

² Issuance data according to Thomson Reuters. Includes securities with 13 months or more in maturity.

Further evidence of contraction in the variable rate market is the rapid decline in the par amount outstanding of VRDOs and ARS.³ The size of the VRDO market decreased to an estimated \$283 billion as of April 30, 2012, compared to \$320 billion at the end of April 2011. Par amount outstanding for ARS decreased nearly one third to \$39 billion in that same period.⁴

VRDOs provide investors with confidence that they will be paid if they tender their securities through a “liquidity facility,” typically provided by a bank. This is done through one of two basic forms: (i) with use of a Letter of Credit (“LOC”) from the bank, which generally provides both a guarantee of liquidity and a guarantee that principal and interest will be paid for the life of the LOC; or (ii) with a Stand-by Bond Purchase Agreement (“SBPA”), in which the bank generally does not undertake the guarantee that principal and interest will be paid, but provides only that tendered securities will be purchased. According to information collected through the MSRB’s SHORT system, liquidity facilities that support approximately \$53 billion of VRDOs outstanding, or 18.7 percent, are set to expire by the end of 2012.⁵ By the end of 2013, approximately another 21.3 percent, or \$60 billion, are set to expire.

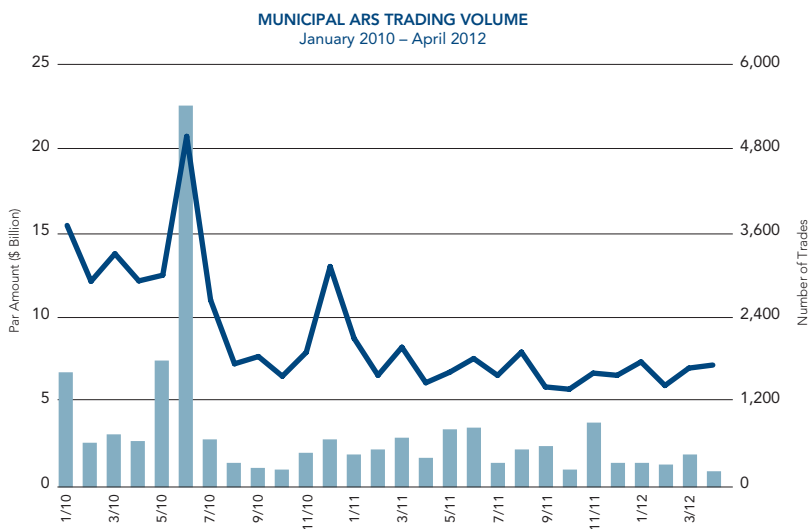
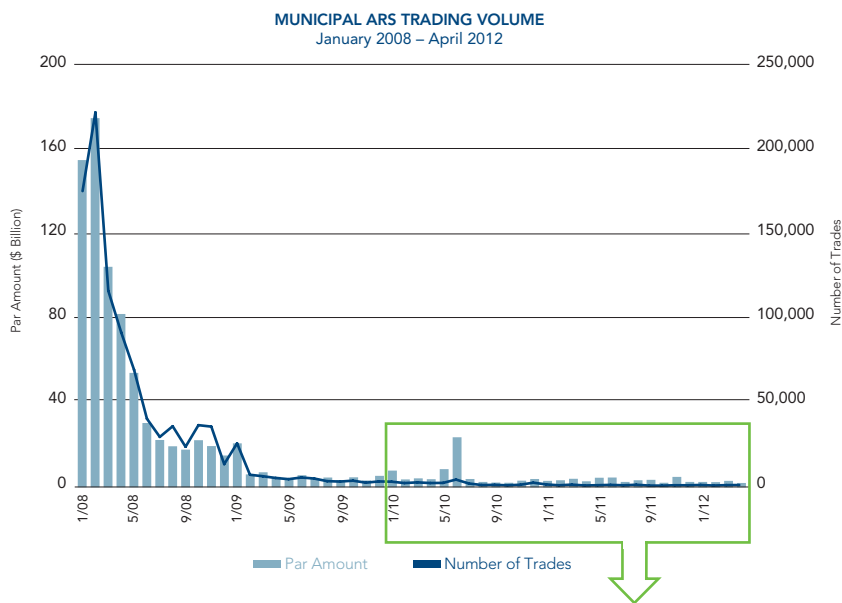


In 2011, trading of ARS decreased to \$26.4 billion, down 52.2 percent from the \$55.2 billion in 2010. During the first four months of 2012, ARS par amount traded totaled \$5.2 billion compared to \$8.3 billion during the same period in 2011. The number of ARS trades decreased from 34,483 in 2010 to 20,502 trades in 2011, approximately 40 percent lower. In 2011, approximately 87 percent of the ARS par amount traded was for trades of more than \$1 million, while only a very small percentage (2.0 percent) were for trades of \$100,000 or less. However, with nearly 50 percent of the ARS transactions being for trades of \$100,000 or less, retail investors may still be heavily involved in this market in 2011.

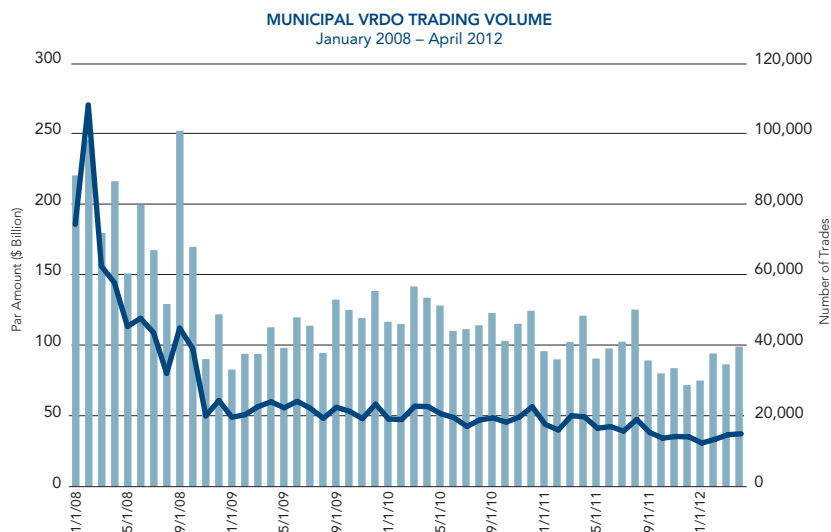
³ VRDOs and ARS represent the bulk of outstanding variable rate securities in the municipal market. Other forms of variable rate securities include securities with interest rates that are based on external indices and that typically do not provide investors with the same tender provisions as are available for VRDOs. The statistics included in this report generally do not include such indexed bonds.

⁴ VRDO and ARS outstanding estimates based on information submitted through the MSRB’s SHORT system and information from Bloomberg, LLC.

⁵ Amount outstanding of VRDOs with more than one type or multiple liquidity facilities may be counted more than once.

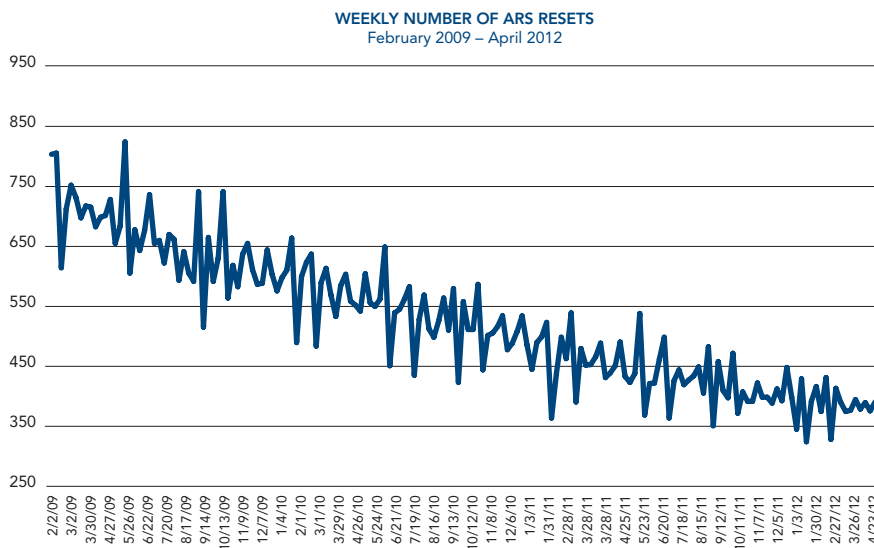


Par volume traded for VRDOs also decreased in 2011 from the previous year. A total of \$1.11 trillion was traded in 2011, down 20.5 percent from the \$1.41 trillion traded in 2010. The \$343.3 billion traded in the first four months of 2012 is also below the \$398.1 billion traded in the same period one year ago. The number of VRDO trades decreased to 198,035 in 2011, compared to 238,679 trades in 2010. Larger trades are much more prominent in the VRDO market with 97.1 percent of all par amount traded and 56.6 percent of all trades being of more than \$1 million in size in 2011.

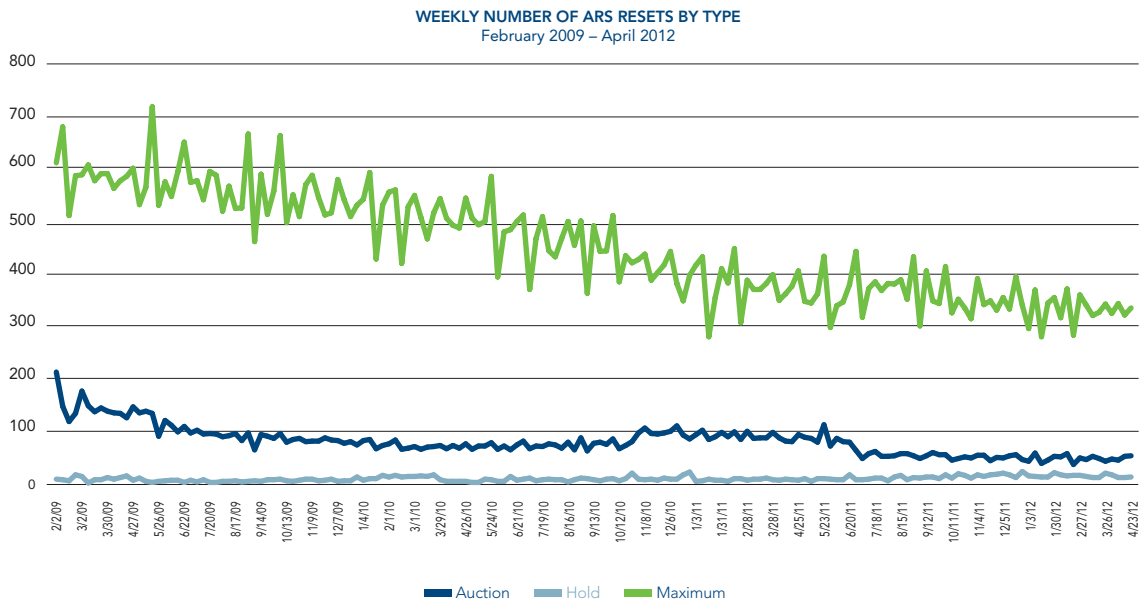


ARS INTEREST RATE RESETS

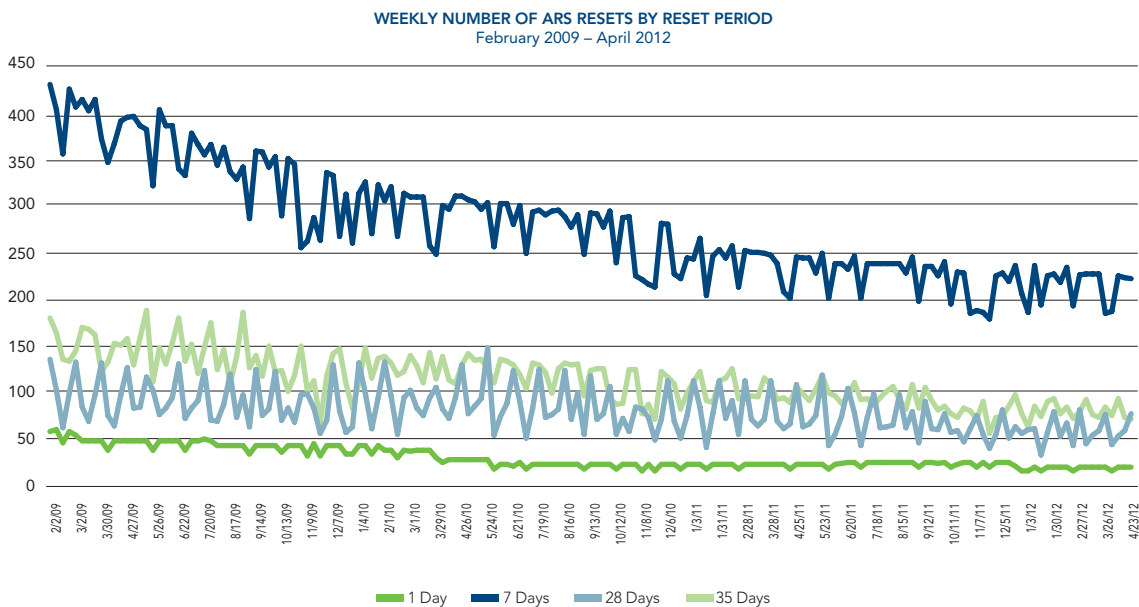
The number of ARS rate resets being reported to the MSRB’s SHORT system since early 2009 continued to decrease. Approximately 22,730 ARS rate resets were reported in 2011, down 19.5 percent from the 28,250 rate resets reported in 2010. During the first four months of 2012, the 6,617 reported rate resets were 16 percent lower than volumes in the same period in 2011. In 2011, approximately 18,497 resets, or about 81 percent, were identified as being set at the maximum rate, which may indicate a failed auction. Approximately 84 percent of the rate resets were set at the maximum rate in 2010. The number of ARS rate resets identified as being determined through a successful auction reached 3,609, or 15.9 percent, in 2011, as compared to 14.0 percent in 2010.⁶

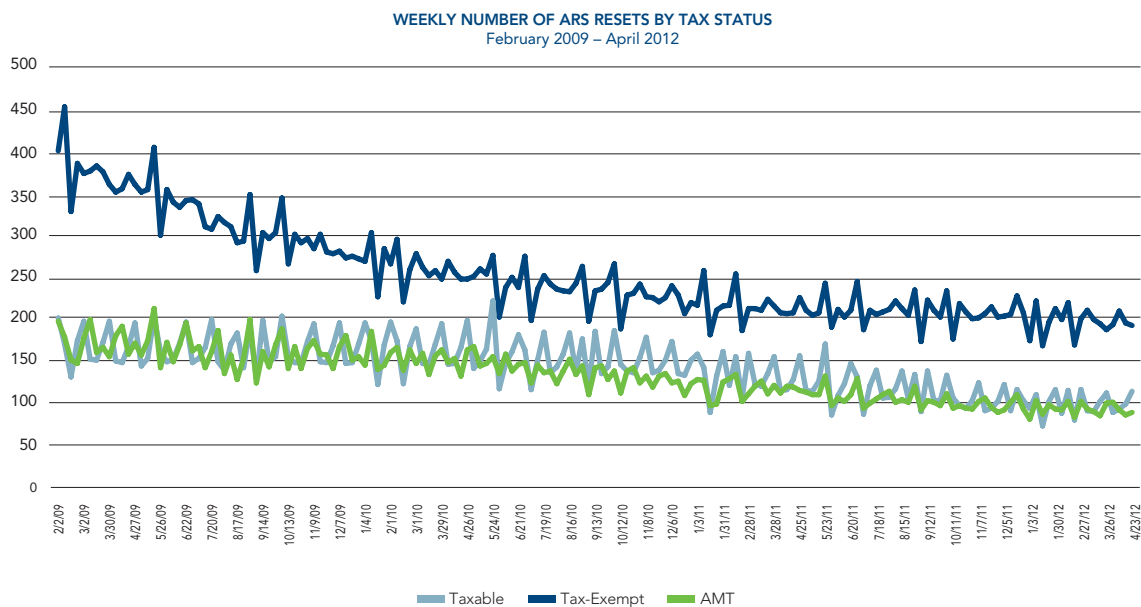


⁶ Approximately 624 rate resets were set at an “All Hold Rate” in 2011, indicating that all existing holders either did not place an order or decided to hold at any interest rate.



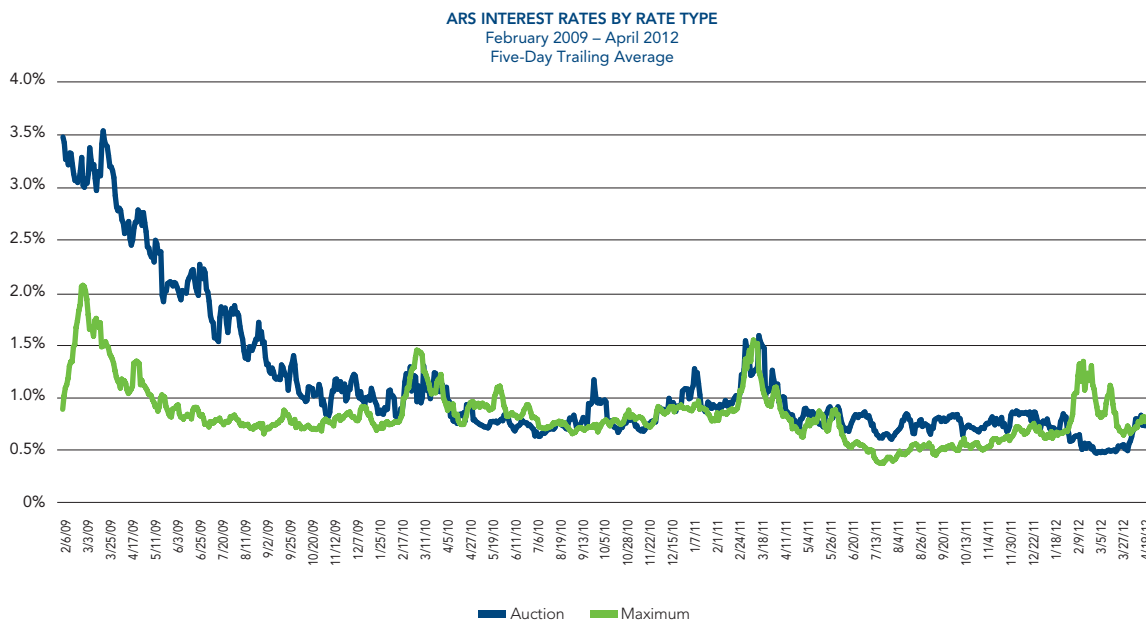
As expected, more than half, or 11,872, of all ARS rate resets in 2011 were for securities that reset every seven days. ARS with a 35-day reset accounted another 21 percent of all resets. Most of the reported ARS rate resets were for tax-exempt securities, accounting for 48 percent of all resets, while ARS subject to the alternative minimum tax and taxable ARS accounted for 25 and 27 percent, respectively.





ARS INTEREST RATES

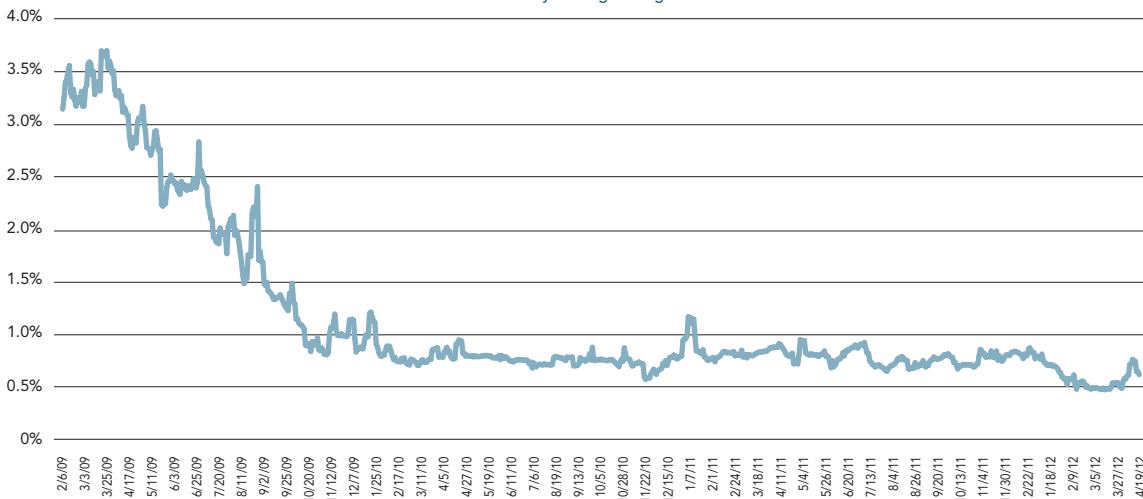
Interest rates for municipal ARS set at auction in 2011 averaged 0.85 percent, relatively unchanged from the previous year. However, ARS interest rates set at the maximum rate were more volatile in 2011 than previously. Spreads between ARS interest rates set at auction and those set at the maximum rate increased from less than one basis point in 2010 to over 15 basis points in 2011.



Average interest rates for tax-exempt ARS with a seven-day reset frequency set at auction have not varied significantly since 2010, with yearly averages of 0.79 percent in 2010 and 0.80 percent in 2011. Tax-exempt ARS with a seven-day reset frequency set at the maximum rate averaged 0.52 percent in 2010 and 0.39 percent in 2011.

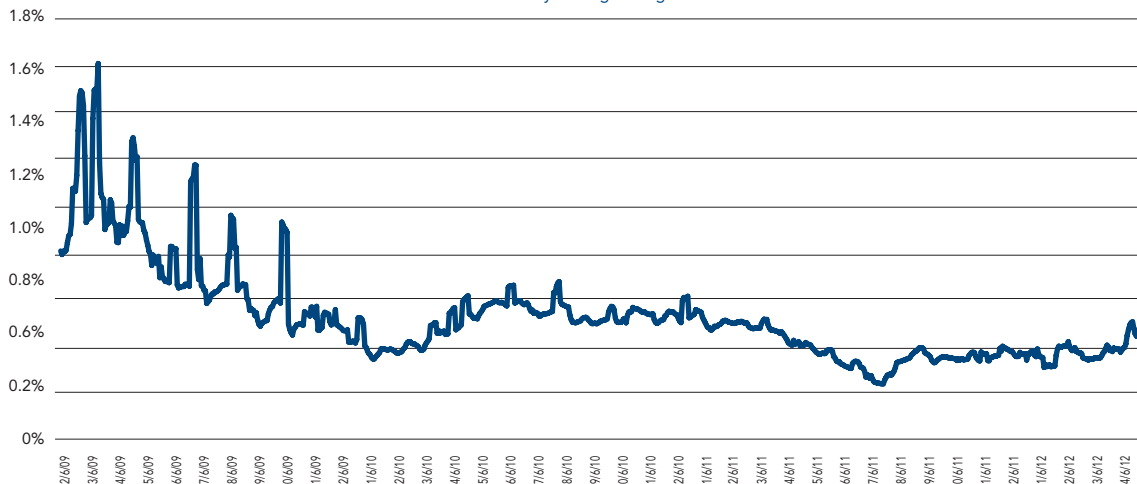
SEVEN-DAY TAX-EXEMPT ARS INTEREST RATES SET AT AUCTION

February 2009 – April 2012
Five-Day Trailing Average



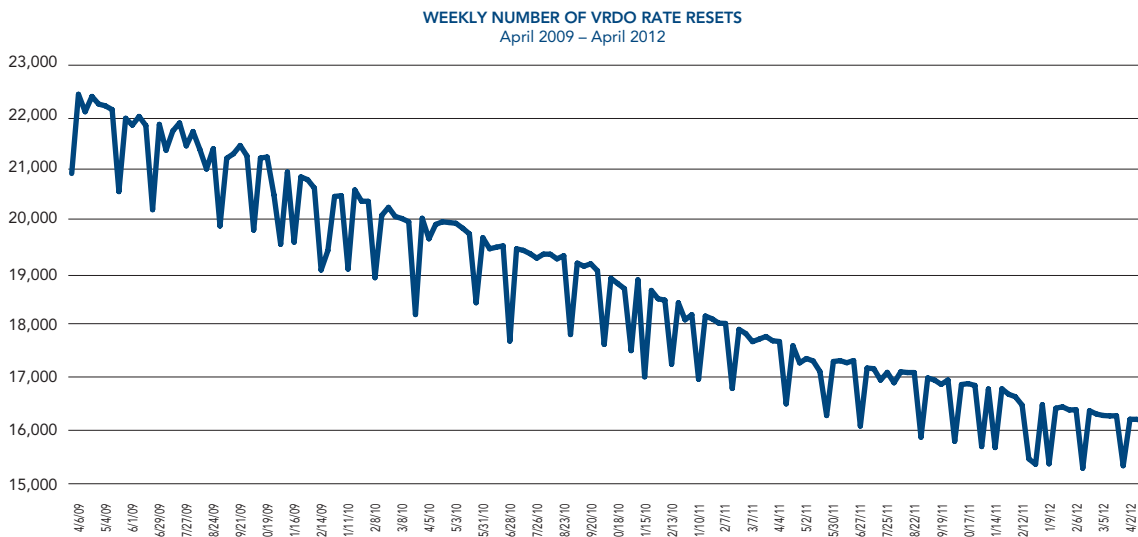
SEVEN-DAY TAX-EXEMPT ARS INTEREST RATES SET AT MAXIMUM

February 2009 – April 2012
Five-Day Trailing Average

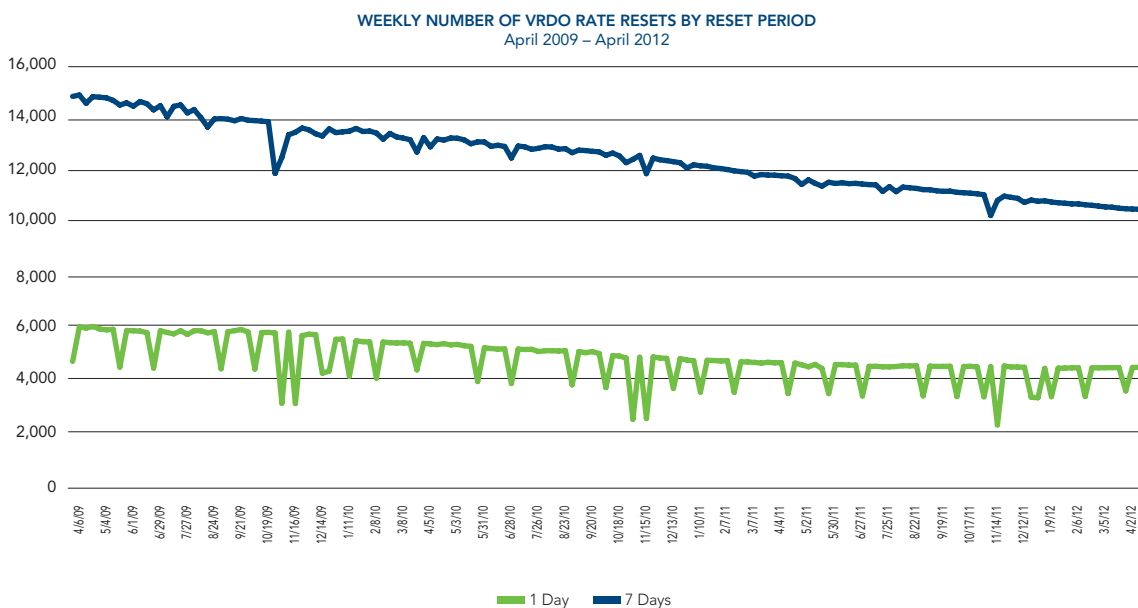


VRDO INTEREST RATE RESETS

The number of municipal VRDO rate resets decreased 11 percent in 2011 to 890,722, compared to nearly one million rate resets in 2010. During the first four months of 2012, 275,448 VRDO rate resets were reported, down from the 301,653 rate resets reported in same period of 2011.

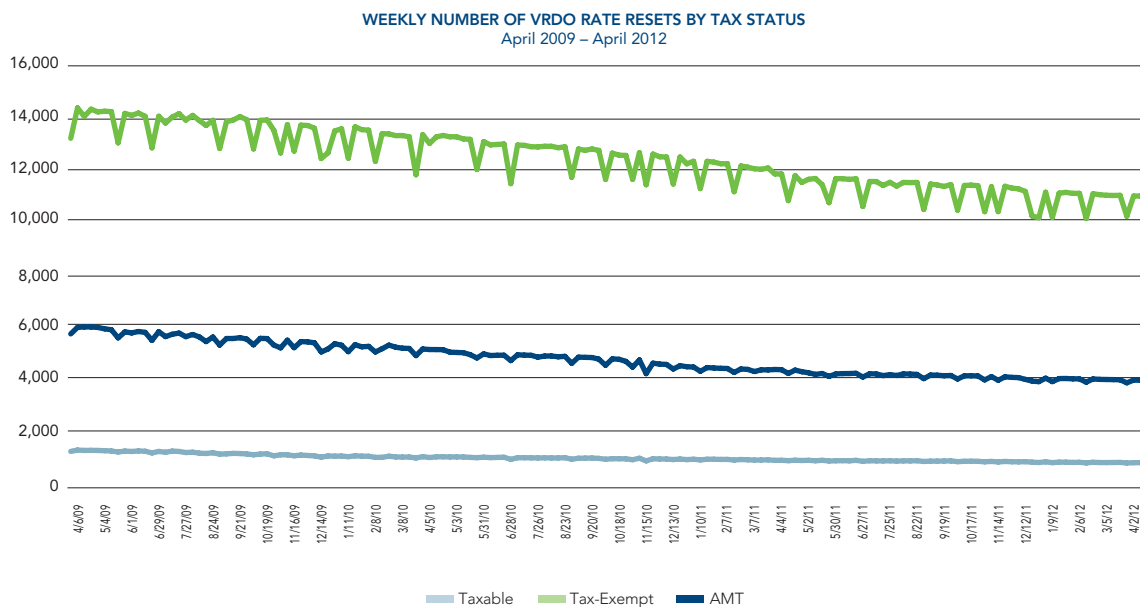


Approximately 67 percent of all reported VRDOs have a seven-day interest rate reset frequency and 26 percent with a one-day reset.⁷ Rate resets for tax-exempt VRDOs continue to account for the majority of the trades, or 67 percent, while approximately 25 percent of VRDO rate resets are for issues subject to the alternative minimum tax and six percent are for taxable issues.⁸



⁷ Remaining VRDO interest rate reset frequencies included resets that occurred between two and six days and greater than seven days.

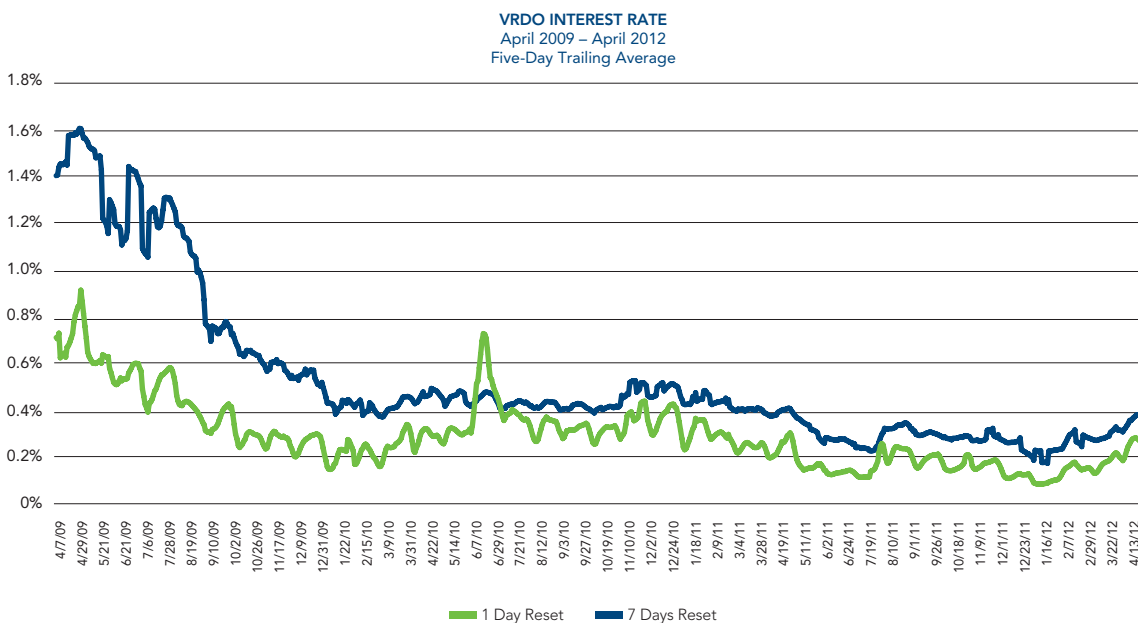
⁸ The remaining 2 percent of VRDO resets could not be categorized by tax status based on available information.



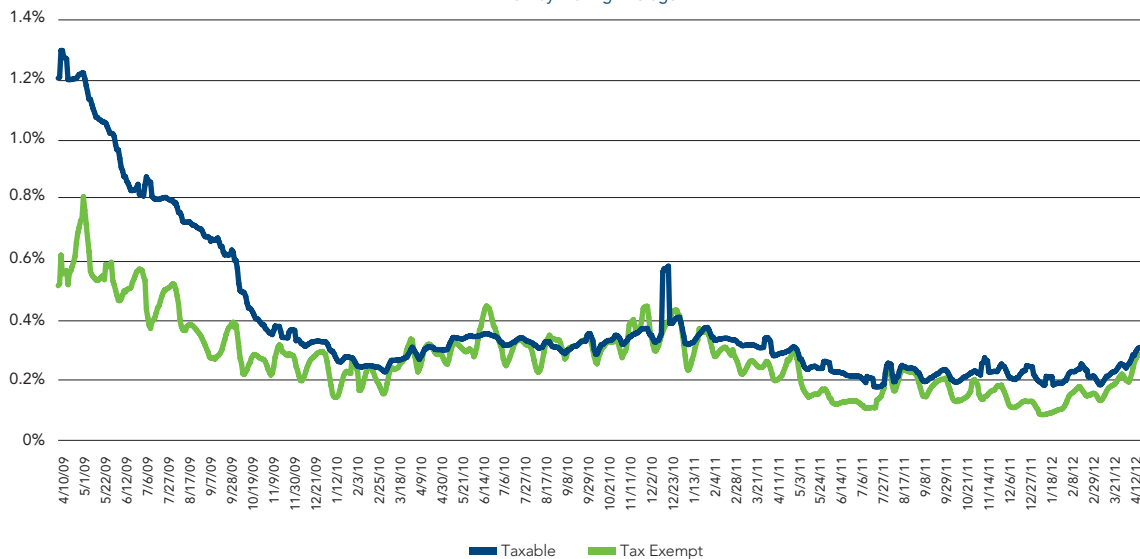
VRDO INTEREST RATES

Average interest rates for VRDOs with a seven-day reset frequency averaged 0.33 percent in 2011, compared to 0.44 percent in 2010 and 0.29 percent for the first four months of 2012. During the same period, interest rates of VRDOs with a one-day reset frequency averaged 0.20 percent in 2011 and 0.33 percent in 2010.

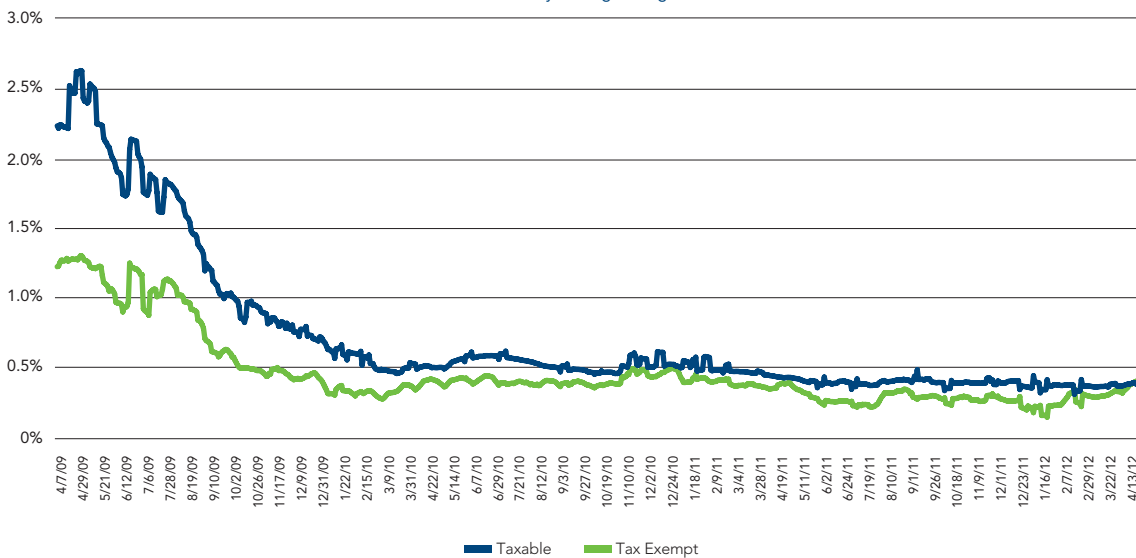
The average taxable-to tax-exempt spread for VRDOs with a one-day reset frequency increased from two basis points in 2010 to over six basis points in 2011. The average spread for tax-exempt VRDOs with a seven-day reset frequency decreased from 14 basis points in 2010 to 11 basis points in 2011.



ONE-DAY VRDO INTEREST RATES BY TAX STATUS
 April 2009 – April 2012
 Five-Day Trailing Average



SEVEN-DAY VRDO INTEREST RATES BY TAX STATUS
 April 2009 – April 2012
 Five-Day Trailing Average



BACKGROUND

A description of ARS and VRDOs, as well as of the MSRB transparency programs referenced in this report, is provided below.

AUCTION RATE SECURITIES

ARS are long term securities that have variable interest rates that reset on a short-term basis. The typical auction process is one referred to as a Dutch auction in which securities are sold at the lowest interest rate, or “clearing rate,” at which all of the securities that have been offered for sale by current holders of the securities will clear the market. Auctions are conducted by agents of the issuer of the auction rate security, called auction agents, and orders are submitted to the auction agent by certain dealers, called program dealers, that have rights granted to them through an agreement with the issuer to submit orders. ARS holders offering to sell their securities at auction are not guaranteed that sufficient bids will be entered to allow the auction to clear. If an auction fails to clear, holders seeking to sell their securities retain their ownership thereof. In some cases, the program dealer enters bids to purchase ARS in an auction, or offers to sell ARS it may own, but generally is not obligated to do so and any program dealer that does participate in the auction process as a buyer or seller may discontinue such participation. As the information in this report regarding ARS auctions indicates, most but not all auctions in ARS have failed to clear in recent years.

Official documents for ARS address situations that can occur when a clearing rate cannot be determined through the auction process. An “all hold” interest rate is set for auctions where existing holders either do not enter an order or instruct program dealers to hold at any interest rate. Such “all hold” rates often are linked to a market index and generally are intended to be lower than a clearing rate. In the event that all of the securities offered for sale in an auction are unable to be sold, the auction “fails” and a maximum rate is set. Maximum rates can be absolute values or linked to a market index.

VARIABLE RATE DEMAND OBLIGATIONS

VRDOs are long-term securities with short-term interest rate periods. Interest rates are reset periodically through programs operated by dealers, called remarketing agents, on behalf of the issuers of the securities. The interest rate is set to allow the securities to be sold at par.

A distinguishing characteristic of VRDOs is the existence of a “put” or “tender” feature that allows a holder to liquidate a position, at par, on a periodic basis. Through the put or tender feature, holders seeking to liquidate a position can put the securities to a tender agent. A specified amount of notice is required to be provided to the tender agent and during that notification period, the remarketing agent seeks to find a purchaser for the securities that have been tendered. If the remarketing agent is unable to find a purchaser for the tendered securities, the tender agent will draw on a liquidity facility, such as a letter of credit or standby bond purchase agreement, to fund the purchase price of the tendered VRDO if the remarketing agent does not otherwise purchase the tendered VRDO.

VRDOs typically have a high minimum denomination requiring a minimum investment of \$100,000 and historically have been purchased primarily by institutional investors.

SHORT-TERM OBLIGATION RATE TRANSPARENCY SYSTEM

The SHORT System provides a centralized source of information about municipal ARS and VRDOs. MSRB rules require ARS program dealers and VRDO remarketing agents to report to the MSRB current interest rates and other key information on the day that an ARS auction or VRDO interest rate reset occurs. Information collected by the SHORT System is posted to the EMMA[®] website in real-time and is available to subscribers, which include information vendors, in real-time.

Effective May 2011, the MSRB increased the information collected by the SHORT System to provide greater transparency for the ARS and VRDO markets. For ARS, the MSRB collects from program dealers information about all orders submitted for an auction and whether these orders were executed, as well as certain documents that define auction procedures and interest rate setting mechanisms for ARS. For VRDOs, the MSRB collects additional information from VRDO remarketing agents including information about current holders of the VRDO and the outstanding size

of the security, as well as documents detailing liquidity provisions, such as the letters of credit and standby bond purchase agreements.

REAL-TIME TRANSACTION REPORTING SYSTEM

The MSRB Real-Time Transaction Reporting System (RTRS) serves two major functions in the municipal securities market—price transparency and market surveillance. The implementation of RTRS in January 2005 created “real-time” transaction price transparency. MSRB rules require dealers to report to the MSRB transaction data on all municipal securities trades with customers and with other dealers within 15 minutes of the time of trade, with limited exceptions. Transaction prices are electronically disseminated immediately after transactions are received by the MSRB and automated error checking is completed. Information reported to RTRS is available to subscribers, which include information vendors, and to the MSRB’s EMMA® website, in real-time.

ELECTRONIC MUNICIPAL MARKET ACCESS WEBSITE

EMMA® is a centralized online database that provides free public access to official disclosure documents associated with municipal securities issued in the United States. EMMA also provides real-time trade data for more than one million outstanding municipal securities, current credit ratings available from Fitch Ratings and Standard & Poor’s Ratings Service, and current interest rates for ARS and VRDOs. EMMA provides transparency of information for investors in this important financial market and makes it easy—and free—for them to access bond disclosures and pricing data that can inform investment decisions. Information available on EMMA includes snapshots of daily trade data based on security size, sector, maturity and source of repayment, educational material about municipal securities and their associated documents, and a comprehensive glossary of municipal securities terms.

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