

JUNE 2014

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

Prepared by the MUNICIPAL SECURITIES RULEMAKING BOARD

## INTRODUCTION

The MSRB collects information about municipal variable rate demand obligations (VRDOs) and auction rate securities (ARS) 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<sup>®</sup>) website, at [emma.msrb.org](http://emma.msrb.org), provides free public access to collected information.

This report summarizes key statistical information for municipal VRDO and ARS activity through March 2014, including the following highlights:<sup>1</sup>

- Between April 2012 and March 2014, the size of the VRDO market decreased nearly 22 percent to \$222 billion, while the size of the ARS market decreased 31 percent to \$27 billion during the same period.
- New issuance of VRDOs in 2013 decreased to \$13.2 billion, compared to \$15.2 billion in 2012. During the first quarter of 2014, issuance totaled \$1.49 billion, approximately 3 percent less than the amount in the first quarter of 2013. No new ARS has been issued since 2008.
- VRDO par volume and number of trades decreased 7 percent and 9 percent, respectively, in 2013 as compared to 2012.
- The number of trades of ARS decreased in 2013 to 16,049 from 17,394 trades in 2012.
- In 2013, nearly half of the total ARS transactions were for trades of \$100,000 or less.
- VRDO rate resets decreased 13 percent in 2013 to 703,268, compared to 810,488 rate resets in 2012.
- The number of ARS rate resets decreased 19 percent in 2013 to 15,274, compared to 18,770 in 2012.

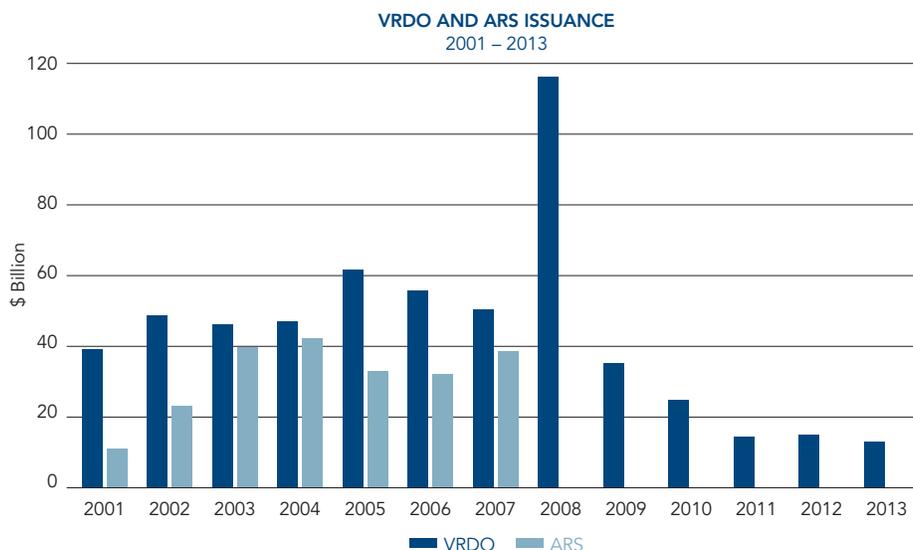
A description of ARS and VRDOs, as well as the MSRB market transparency programs, can be found at the end of this report.

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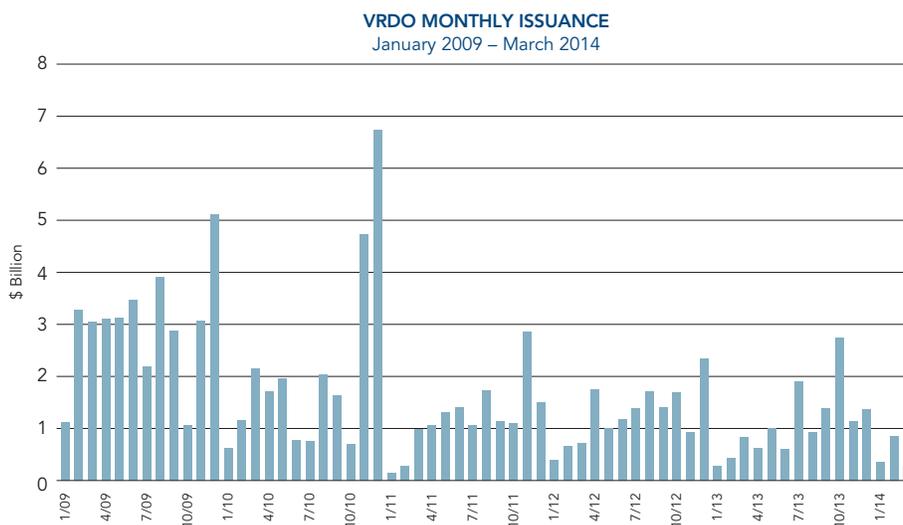
<sup>1</sup> VRDO and ARS rate reset data used in this report were derived from information collected through the MSRB's SHORT System since 2009. Also included in this report is VRDO and ARS trading information back to 2008 and new issuance back to 2001. Certain reported VRDOs and ARS may have been excluded 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 VRDO AND ARS PRIMARY AND SECONDARY MARKET ACTIVITY

New issuance of VRDOs has stabilized during the last three years, averaging approximately \$14 billion annually, albeit considerably lower than the record issuance of nearly \$120 billion in 2008.<sup>2</sup> Following the financial crisis in 2008, new issue volume of VRDOs decreased every year until 2011, when it reached \$14.6 billion and has remained fairly steady since then. In the first quarter of 2014, VRDO issuance totaled \$1.49 billion, close to the \$1.54 billion issued during the same period in 2013.



Source: Thomson Reuters



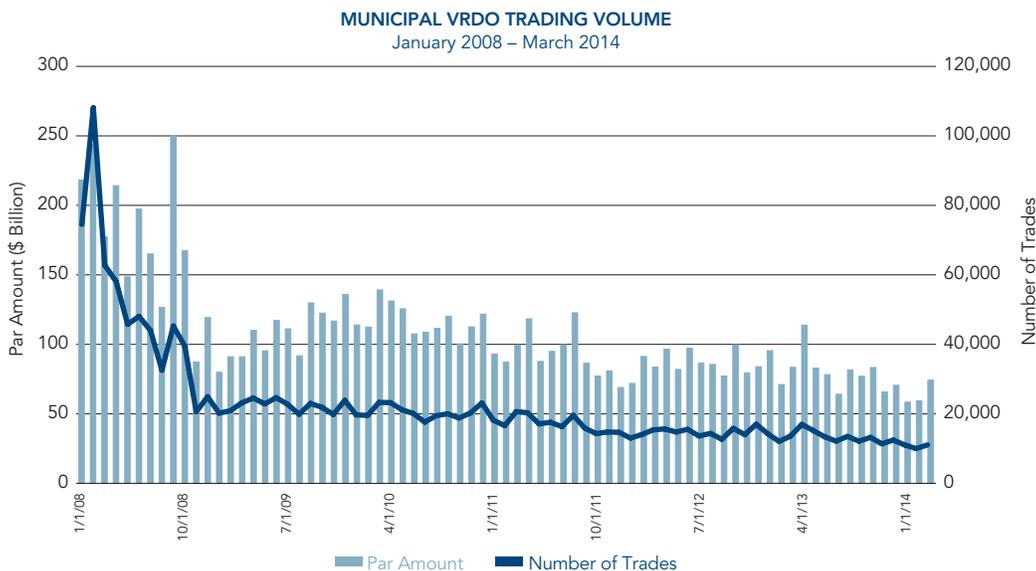
Source: Thomson Reuters

Because volume of new issues over the last three years has not offset overall redemptions, the size of the VRDO market had declined to an estimated \$222 billion as of March 2014, compared to \$283 billion in April 2012. Par amount outstanding for ARS decreased to \$27 billion from \$39 billion in that same period.<sup>3</sup>

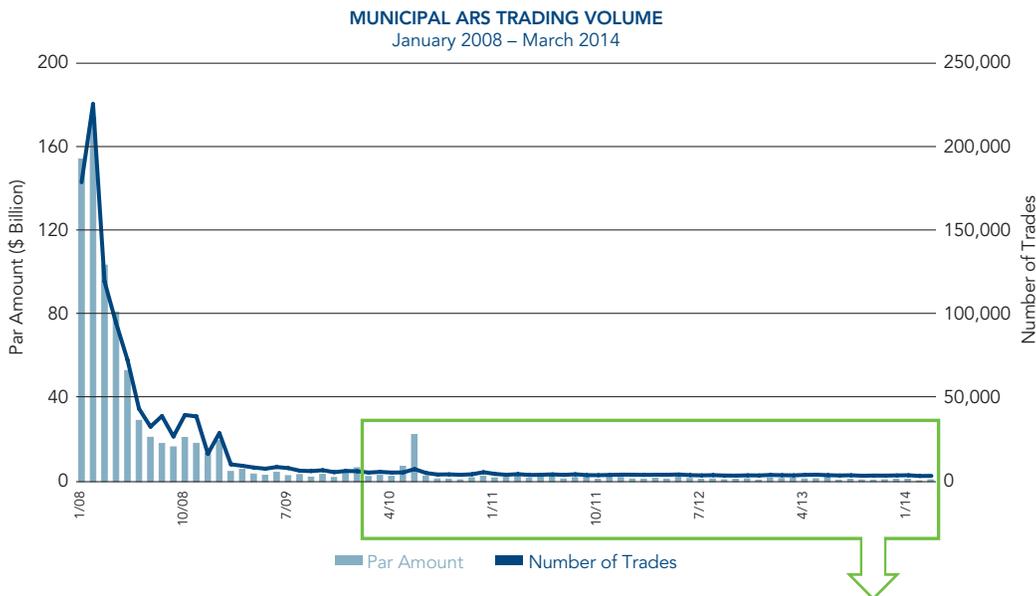
<sup>2</sup> Issuance data according to Thomson Reuters. Includes securities with 13 months or more in maturity.

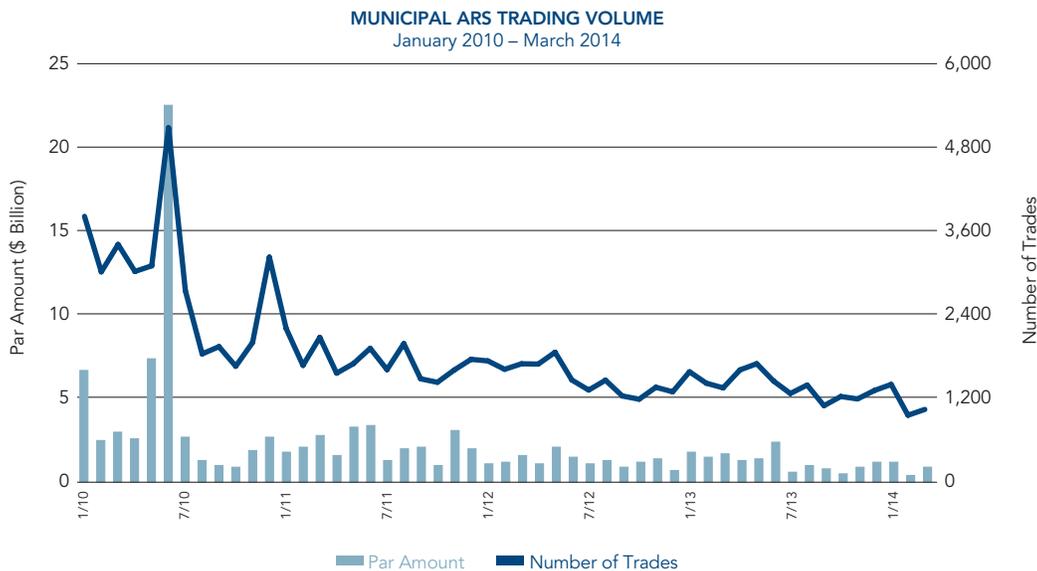
<sup>3</sup> VRDO and ARS outstanding estimates based on information submitted through the MSRB's SHORT System and information from Bloomberg, LLC.

Par volume and number of trades for VRDOs also decreased in 2013 from the previous year. A total of \$967 billion was traded in 2013, down 6.5 percent from the \$1.04 trillion traded in 2012. The \$192.1 billion traded in the first three months of 2014 is well below the \$250.1 billion traded in the same period one year ago. The number of VRDO trades decreased to 152,111 in 2013, compared to 167,825 trades in 2012. VRDO trades in the first quarter of 2014 decreased about 20 percent to 30,010 trades from 37,894 trades in the first quarter of 2013.



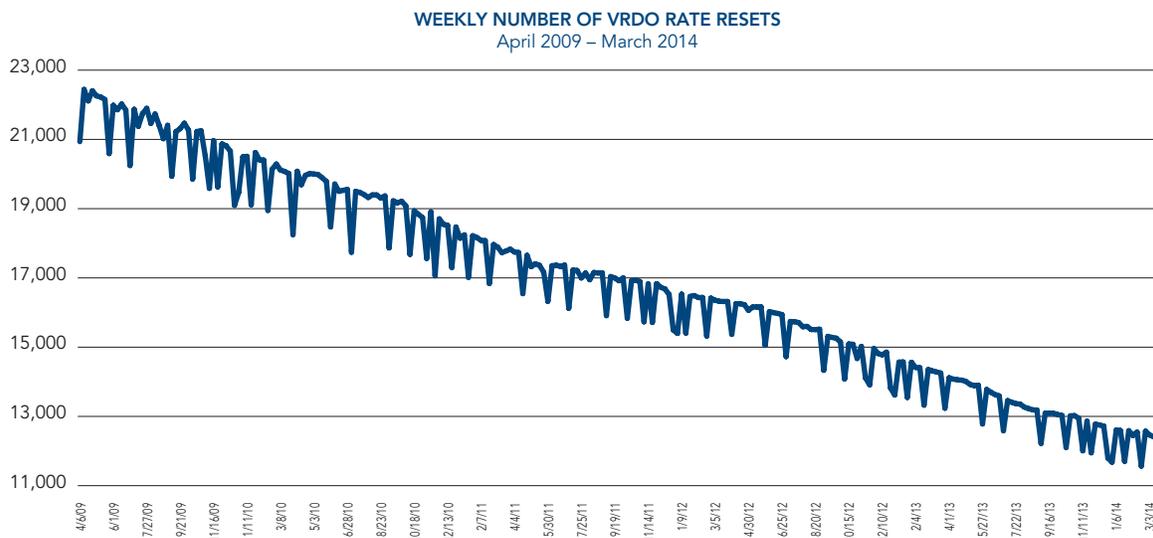
Trading of ARS continues to decrease both in terms of par volume and number of trades. During the first three months of 2014, ARS par amount traded declined by half to \$2.5 billion, compared to \$5.0 billion during the same period in 2013. In terms of number of trades, the 3,257 trades in the first quarter of 2014 is nearly 23 percent lower than the same period in 2013. While ARS par traded decreased only slightly for the entire 2013 year with \$15.2 billion traded, compared to the \$15.3 billion traded in 2012, the number of trades decreased to 16,049 trades in 2013 from 17,394 in 2012. In 2013 and 2012, approximately 45 percent of all ARS transactions were for trades of \$100,000 or less, a threshold sometimes used as a proxy for retail size trades, while only about three percent of par amount traded were for trades of \$100,000 or less.





## VRDO INTEREST RATE RESETS

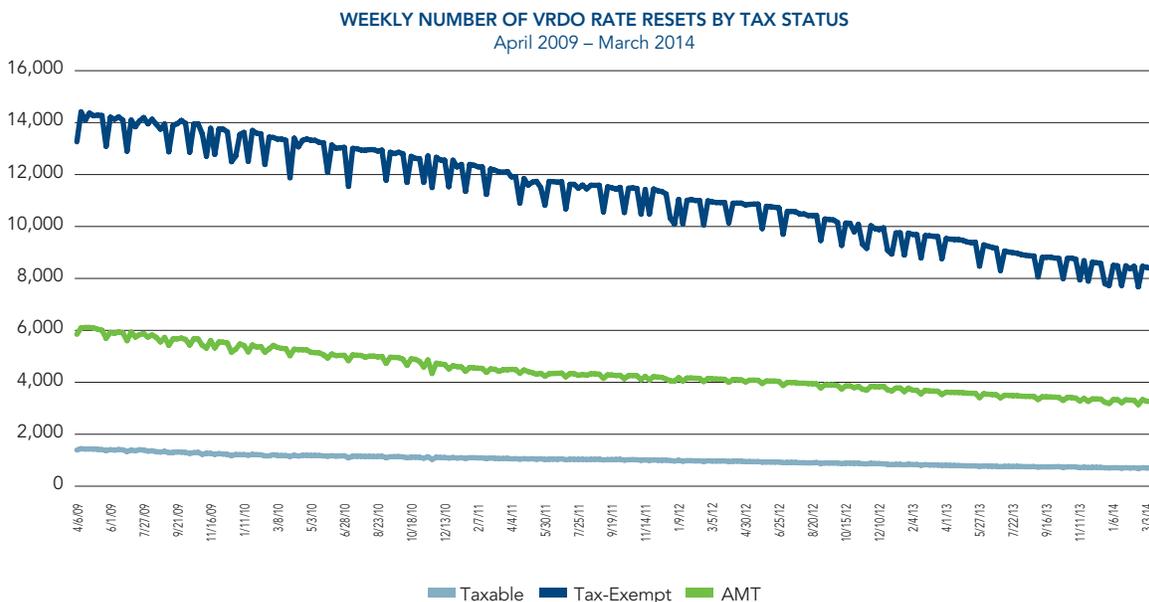
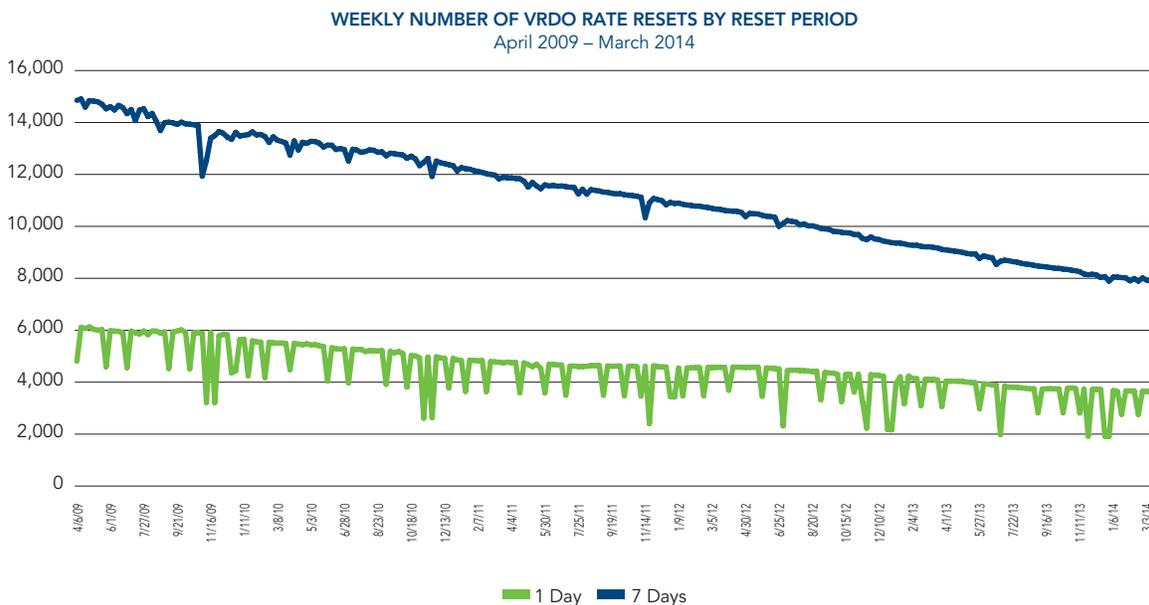
The number of municipal VRDO rate resets decreased 13 percent in 2013 to 703,268, compared to 810,488 rate resets in 2012. During the first three months of 2014, VRDO rate resets numbered 152,666, down from the 180,990 rate resets reported in same period of 2013.



Approximately 65 percent of all VRDOs reported to the MSRB in 2013 had a seven-day interest rate reset frequency and 27 percent had a one-day reset frequency.<sup>4</sup> Rate resets for tax-exempt VRDOs continue to account for the majority, or 67 percent, of all resets in 2013, while approximately 26 percent of VRDO rate resets in 2013 were for VRDOs subject to the alternative minimum tax and six percent were for taxable VRDOs.<sup>5</sup>

<sup>4</sup> Remaining VRDO interest rate reset frequencies included resets that occurred between two and six days and greater than seven days.

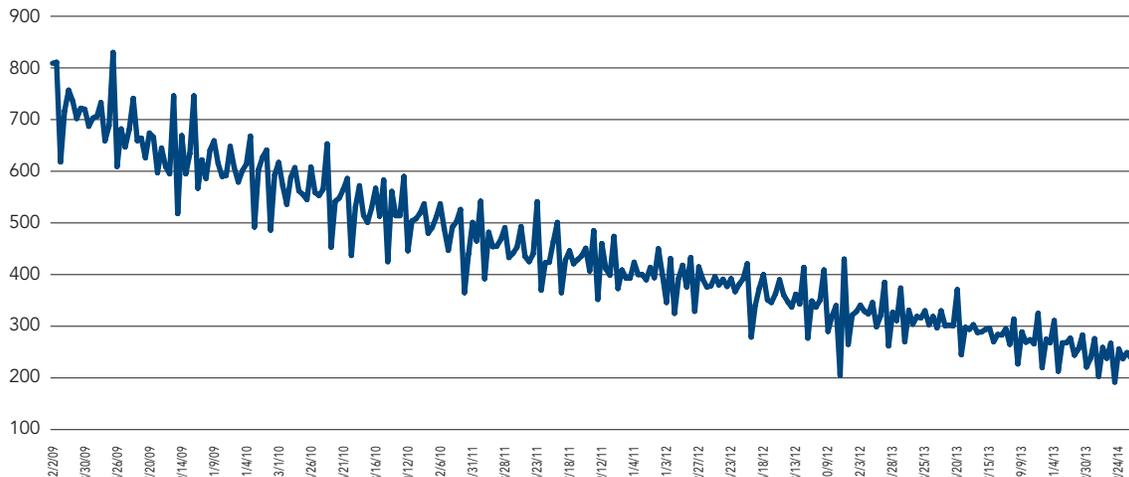
<sup>5</sup> The remaining 1 percent of VRDO resets could not be categorized by tax status based on available information.



## ARS INTEREST RATE RESETS

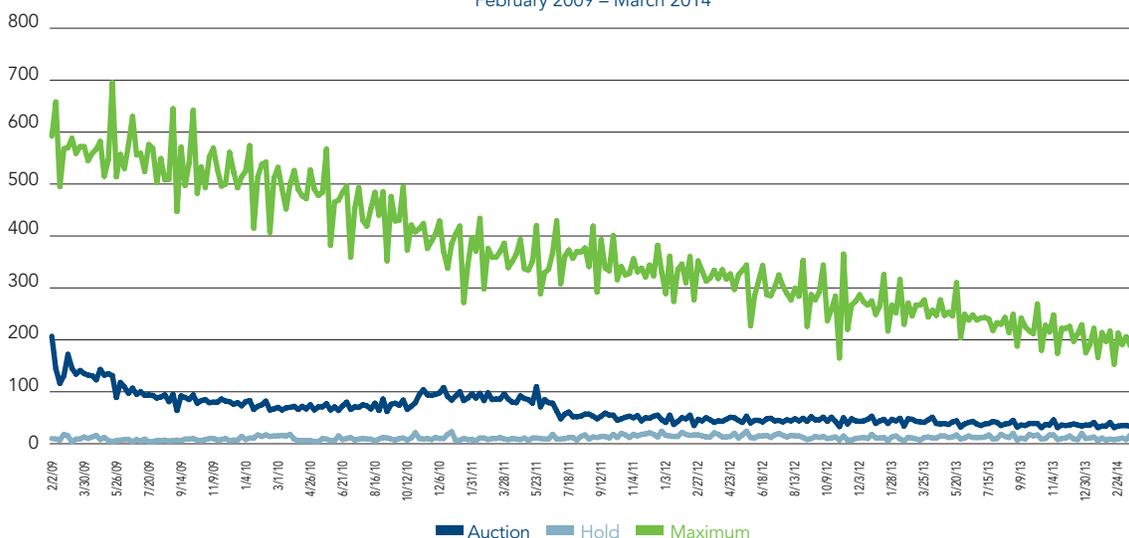
ARS rate resets being reported to the MSRB's SHORT System since early 2009 have steadily declined at a 19 percent annual average rate since 2011. Approximately 15,274 ARS rate resets were reported in 2013, down 18.6 percent from the 18,770 rate resets reported in 2012. During the first three months of 2014, the 3,021 reported rate resets were 26 percent lower than the level reported in the same period in 2013. At a pace of 19 percent annual decrease, which is the rate over the last three years, the number of ARS resets would be well below 10,000 in 2016, compared to 31,908 rate resets in 2009 when the SHORT System was first implemented.

WEEKLY NUMBER OF ARS RESETS  
February 2009 – March 2014



In 2013, approximately 12,563 ARS resets, or about 82 percent, were identified as being set at the maximum rate, which may indicate a failed auction. The number of ARS rate resets identified as being determined through a successful auction reached 2,069, or 13.5 percent, in 2013, compared to 12.7 percent in 2012.<sup>6</sup>

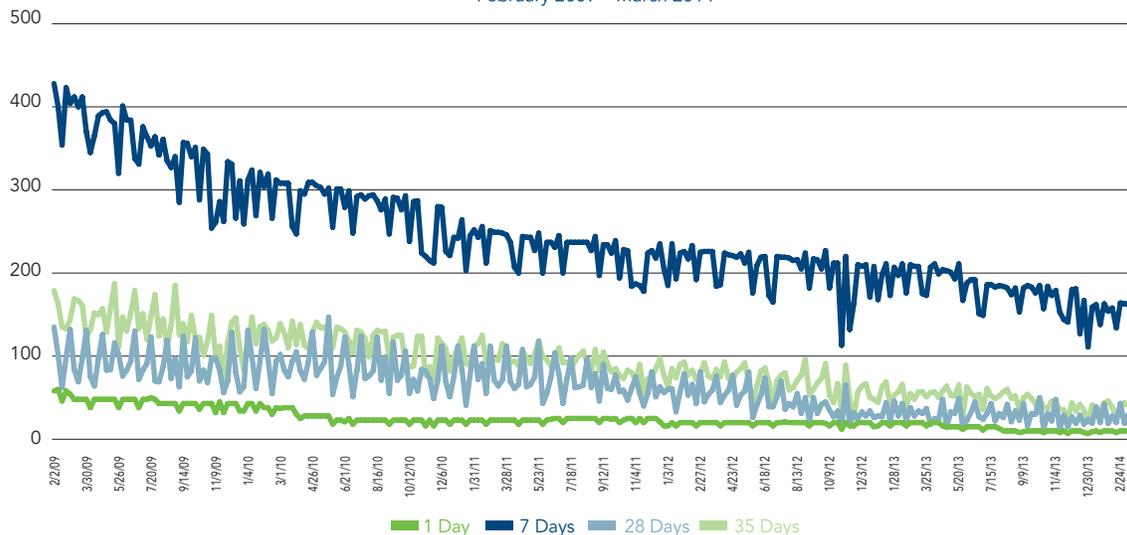
WEEKLY NUMBER OF ARS RESETS BY TYPE  
February 2009 – March 2014



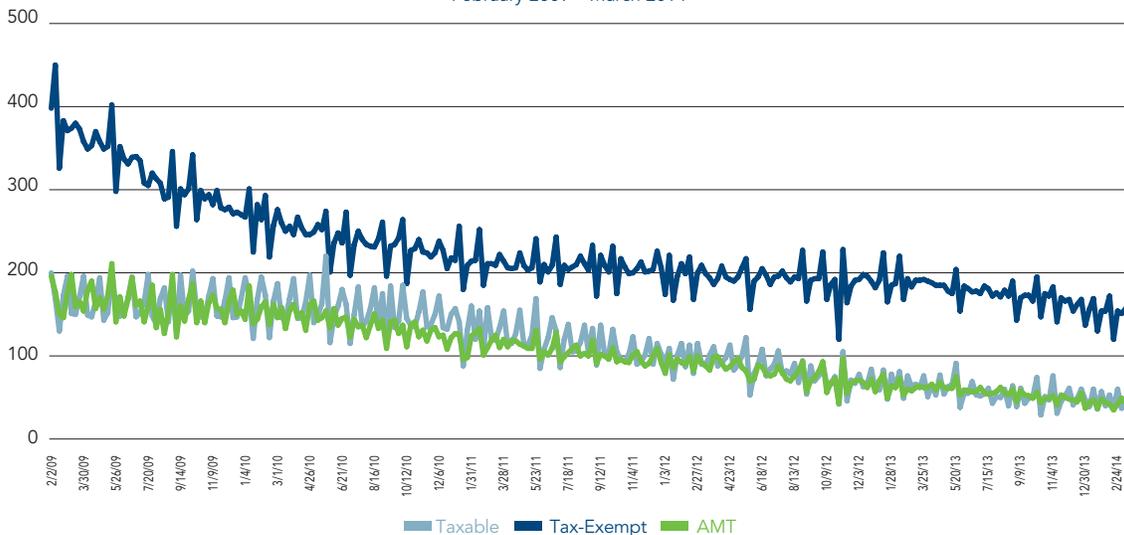
In 2013, approximately 62 percent, or 9,518, of all ARS rates were for securities that reset every seven days. ARS with a 35-day reset accounted for another 16.8 percent of all resets. Most of the reported ARS rate resets in 2013 were for tax-exempt securities, accounting for 61 percent of all resets, while taxable ARS and tax-exempt ARS subject to the alternative minimum tax accounted for 20 and 19 percent, respectively.

<sup>6</sup> Approximately 642 rate resets were set at an “All Hold Rate” in 2013, indicating that all existing holders either did not place an order or decided to hold at any interest rate.

WEEKLY NUMBER OF ARS RESETS BY RESET PERIOD  
February 2009 – March 2014



WEEKLY NUMBER OF ARS RESETS BY TAX STATUS  
February 2009 – March 2014



## BACKGROUND

### 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.

## 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 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 securities, 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.

## SHORT-TERM OBLIGATION RATE TRANSPARENCY SYSTEM

The SHORT System provides a centralized source of information about municipal VRDOs and ARS. MSRB rules require VRDO remarketing agents and ARS program dealers to report to the MSRB current interest rates and other key information on the day that a VRDO interest rate reset or ARS auction 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 VRDO and ARS markets. 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. 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.

## 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 reports of 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 and related documents for VRDOs and ARS. 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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