

# Chicago Fed Letter

## Explaining the decline in the auction rate securities market

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Auction rate securities are an example of a relatively obscure financial market instrument that has been caught up in the recent negative sentiment affecting the financial markets. This article examines these securities and sheds some light on recent events.

Auction rate securities are long-term securities, but with time-varying interest rates that are reset periodically at fixed intervals via an auction process.

Until recently, the market for auction rate securities (ARSs) was a thriving, if little-known, segment of the capital markets. Auction rate securities are long-term securities, but with time-varying interest rates that are reset periodically via an auction process. As U.S. financial markets have struggled to absorb the problems of subprime mortgages and tightened credit conditions, the ARS market has attracted a good deal of negative attention. Auctions to reset the rates of these instruments repeatedly failed, resulting in numerous lawsuits in which ARS investors claimed that the nature of the risks of these securities had been misrepresented.<sup>1</sup> The U.S. Securities and Exchange Commission (SEC) and several state attorneys general have also initiated investigations of several major underwriters of ARSs. These developments are but one example of a relatively obscure portion of the capital markets falling victim to the recent credit crisis.

In this article, we describe these securities and the market in which they operate. We then examine the collapse of this market, starting in February of 2008, and the aftereffects that are still being felt.

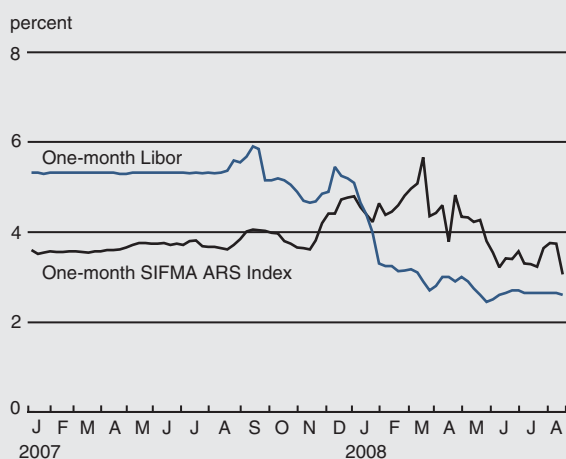
### What are auction rate securities?

The ARS market started in 1984 as an alternative to long-maturity debt for entities needing long-term funding. The market for these securities expanded

significantly during the current decade and was estimated to have reached about \$330 billion in 2007. The idea behind an ARS is to create a funding instrument that behaves like a long-term bond for the issuer but resembles a short-term security, such as commercial paper, for the investor. Specifically, ARSs are long-term securities (typically 20 years or longer), but with interest rates that are reset at fixed intervals through a so-called Dutch auction, which we describe later. These interest rate resets are typically done at intervals of one, four, five, or seven weeks, although other reset intervals are possible. When functioning as designed, these periodic auctions give the bonds a degree of liquidity comparable to very short-term assets. Because of the frequent interest rate resets, ARSs normally trade at close to par value (the face value or issue price of the bond). Often, an ARS includes a provision that allows the issuer to convert the ARS to a more conventional long-term security, such as a fixed-rate bond.

Historically, ARSs have usually been issued by municipalities, student loan finance authorities, and other tax-exempt entities. Prior to the recent financial turmoil, most municipal ARSs earned high credit ratings from the rating agencies, often benefiting from credit enhancement in the form of insurance. Another important class of ARS issuers

## 1. SIFMA ARS Index vs. Libor



NOTES: SIFMA ARS Index means the Securities Industry and Financial Markets Association's Auction Rate Securities Index, and Libor means the London interbank offered rate. The horizontal axis is in calendar months.

SOURCES: Securities Industry and Financial Markets Association and Haver Analytics.

is closed-end mutual funds. These mutual funds use auction rate debt as a way of enhancing returns via leveraging.

### The auction process

The interest rate on ARSs is reset through an auction process. In this auction, securities are supplied to the auction by existing holders of the ARS issue who wish to sell. Potential purchasers (including existing holders who wish to reinvest) bid for securities by specifying both the quantity of securities they wish to buy and the minimum interest rate they will accept. The lowest rate that clears the market is called the “clearing rate.” The entire supply of securities is allocated to those bidders who specified a minimum acceptable interest rate at or below this clearing rate. (If the total number of bids at or below the clearing rate exceeds the quantity of securities offered for sale, the bids at the clearing rate are allocated on a prorated basis.) These investors all receive the clearing rate, regardless of the specific rate they bid. No securities are allocated to bidders who specified a minimum rate above the clearing rate. If the auction process works correctly, it gives ARSs a high degree of liquidity for investors, since the investors can choose to redeem their ARS holdings at par at the next scheduled auction.

While ARSs are clearly long-term bonds, these periodic auctions allowed holders

to treat them as short-term securities. As described in a newsletter from August 2004 published by the State of California, “[Auction rate securities] are priced and traded as short term instruments because of the liquidity provided through the interest rate reset mechanism.”<sup>2</sup> Indeed, the investors (typically high-net-worth individuals and corporate treasurers) viewed these instruments mainly as a vehicle to park short-term cash.

One of the keys to the growth of this market was the belief on the part of investors that these instruments were the equivalent of a money market fund. In the earlier years of this market, most buyers classified ARSs for accounting purposes as cash equivalents. Starting in 2005, the Big Four accounting firms<sup>3</sup> required their clients to reclassify ARSs as short-term, and, in a few cases, long-term holdings per FAS (Financial Accounting Standard) 95.<sup>4</sup> However, many financial service firms continued to show ARSs on client statements as cash equivalents, in violation of FAS 95.

### Failed auctions

An auction fails when there are insufficient bidders to cover the number of securities offered for sale. In this case, the securities are priced at a penalty rate as specified in the prospectus. The penalty rate typically equals the state usury maximum or a certain spread over a reference rate (generally the London interbank offered rate, or Libor). Failed auctions result in the investors’ not being able to redeem their money and the issuer paying a higher rate.

Before the recent turmoil, auctions for ARSs rarely failed. In part, this was because the banks that specialized in running auctions would step in with their capital to prevent failures when bidding faltered. Starting in fall 2007, there were

anecdotal reports that these banks—as they suffered significant credit losses and mortgage write-downs stemming from the subprime mortgage collapse—were less willing to commit their money to supporting auctions in danger of failing.

By February 2008, fears of auction failure became self-fulfilling as potential investors withdrew from the ARS market. The resulting widespread auction failures significantly increased borrowing costs for many municipalities and corporate entities. For example, following a failed auction on February 12, 2008, the interest rate on the New York Port Authority’s ARS issues jumped up to 20% from 4.3%.<sup>5</sup> Although that rate subsequently came back down to 8%, it remained significantly higher than it was before the market turmoil. Similarly, rates on auction rate debt of University of Pittsburgh Medical Center topped 17% the week ending February 15, 2008, following a failed auction. During this period the ARS market displayed chaotic behavior, with significantly different rates produced for virtually identical ARSs. For example, the East Bay Municipal Utility District in California issued two ARSs with virtually identical terms, except for the original underwriter—one was underwritten by Merrill Lynch, the other by Citigroup. On February 19, 2008, the reset auction for the Merrill Lynch issue produced a clearing rate of 7.98%, while that for the Citigroup issue produced a clearing rate of 5%. (The previous week’s auctions for the same securities had produced interest rates of 4.25% for the Merrill issue versus 7% for the Citigroup issue.)<sup>6</sup>

These examples of higher ARS rates due to failed auctions illustrate a more general pattern: The average spread between the one-month ARS rate and the one-month Libor has increased markedly during the recent market turmoil, as can be seen in figure 1. Prior to the onset of the crisis, the average ARS rate was about 175 basis points below the Libor. Once the turmoil started, this pattern reversed. The rates converged on January 9, 2008, and subsequently the average ARS rate exceeded the Libor—a historical anomaly. In the course of the turmoil, the Libor fell by about 300 basis points as the U.S. Federal Reserve eased monetary

policy, while the average ARS rate rose by about 200 basis points. The ARS rate peaked in mid-March around the time of the near collapse of investment bank Bear Stearns. While this rate fell somewhat thereafter, as of mid-August, the ARS rate was still about 80 basis points above the Libor, a very large spread by historical standards.

The rash of failed auctions in the ARS markets starting in February 2008 has

disclosure, and 2) illegal allocation of securities. In particular, it was charged that certain respondents “exercised discretion in allocating securities to investors who bid at the clearing rate instead of allocating the securities pro rata as stated in the disclosure documents.”<sup>9</sup> Following these actions, SIFMA (the Securities Industry and Financial Markets Association) issued a “best practices” document.<sup>10</sup> The best practices dealt with

agreements to pay fines and buy back a total of \$56 billion of these securities. In addition, the State of Massachusetts announced settlements in mid-August with UBS and Merrill Lynch. A number of other investigations by various state and national entities, including the Financial Industry Regulatory Authority and the attorneys general of Mississippi and Alabama, are ongoing.

## Conclusion

Auction rate securities represented an ingenious attempt to square a particular financial circle: to create a funding instrument that appears long term from the borrower’s perspective but short term from the lender’s perspective. We now see what should have been obvious before: Such an arrangement is impossible. If a funding instrument is long term for one party, it also must be long term for the counterparty; any appearance to the contrary must be an illusion. The collapse of the ARS market is but one example of how the recent liquidity crisis in our financial markets has adversely affected all arrangements that funded long-term investments with short-duration liabilities. Because such arrangements are inherently unstable, their failure can cause great discomfort for borrowers or lenders or both.

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prompted issuers to consider a variety of potential solutions, including: finding buyers for ARSs in the secondary market;<sup>7</sup> converting ARSs to variable-rate demand notes; and replacing ARSs with short-term debt funding. These efforts have met with limited success. In addition, some closed-end mutual funds with ARS liabilities sold other fund assets to raise money for auction rate redemptions. As the number of failed auctions rose, the value of these securities fell, with many dealers marking down the value of these securities on client statements by amounts ranging from 10% to 50% over the past few months.

The failure of the ARS market has affected many different sectors of the economy. In particular, it has put additional pressure on the already stressed municipal bond market. In addition, ARSs were a preferred funding vehicle for many state student loan organizations. The collapse of this market has limited the amount of loans available for the coming school year.

## Legal developments

Even before the recent financial turmoil, practices in the ARS market were subject to scrutiny from the SEC, which regulates securities markets. In May 2006, the SEC levied fines of \$13 million against 15 broker-dealers<sup>8</sup> for auction practices that were not adequately disclosed to investors, which constituted violations of securities laws. Among the violations listed were: 1) interventions in auctions to prevent failed auctions without adequate

the mechanics of the auction process, but also stressed the need to educate both issuers and investors about the material features of auction rate securities.

Not surprisingly, the failure of the ARS market in February 2008 has increased the pace of legal action, mainly lawsuits by investors against ARS brokers and funds. The main thrust of these lawsuits is that “broker-dealers and issuers materially misrepresented the liquidity and risks of the auction rate securities to individual investors and corporations by labeling these securities as ‘cash equivalents,’ in press releases, monthly account statements, individual communications with investors, and other investment guidance material.”<sup>11</sup>

In addition many state securities regulators and state attorneys general have filed civil fraud charges against ARS dealers. These investigations involve allegations that dealers were misrepresenting ARSs as cash-equivalent securities and failed to disclose the risks associated with potential auction failure. For example, the attorney general of New York charged investment bank UBS with “falsely selling and marketing auction rate securities as safe, highly liquid, and cash-equivalent securities.”<sup>12</sup> As a result of these investigations, some firms have been subjected to fines and have agreed to buy back the securities from investors at par value. Specifically, starting in early August 2008, UBS, Citigroup, JPMorgan Chase, Morgan Stanley, Wachovia, and Merrill Lynch, among others, have announced

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<sup>1</sup> A Texas law firm even started a website ([www.auctionratesecuritieslawsuit.com](http://www.auctionratesecuritieslawsuit.com)) in an effort to find potential plaintiffs.

<sup>2</sup> Douglas Skarr, 2004, "Auction rate securities," California Debt and Investment Advisory Commission, issue brief, August, available at [www.treasurer.ca.gov/Cdiac/issuebriefs/aug04.pdf](http://www.treasurer.ca.gov/Cdiac/issuebriefs/aug04.pdf).

<sup>3</sup> The Big Four accounting firms are Deloitte Touche Tohmatsu, PricewaterhouseCoopers, Ernst and Young, and KPMG.

<sup>4</sup> FAS 95 was set by the Financial Accounting Standards Board (FASB)—the designated organization in the private sector for establishing standards of financial accounting and reporting. The FASB's standards are

officially recognized as authoritative by the SEC. See [www.fasb.org/facts/](http://www.fasb.org/facts/).

<sup>5</sup> Martin Z. Braun, 2008, "Auction-bond failures roil munis, pushing rates up," *Bloomberg.com*, February 13, available at [www.bloomberg.com/apps/news?pid=20601087&sid=aVE0T47ZqK5c&refer=home](http://www.bloomberg.com/apps/news?pid=20601087&sid=aVE0T47ZqK5c&refer=home).

<sup>6</sup> Floyd Norris, 2008, "Auctions yield chaos for bonds," *New York Times*, February 20, available at [www.nytimes.com/2008/02/20/business/20place.html](http://www.nytimes.com/2008/02/20/business/20place.html).

<sup>7</sup> A secondary market is a market where an investor purchases an asset from another investor rather than from the original issuer.

<sup>8</sup> See the SEC's press release, No. 2006-83, available at [www.sec.gov/news/press/2006/2006-83.htm](http://www.sec.gov/news/press/2006/2006-83.htm).

<sup>9</sup> See the SEC's administrative proceeding file, No. 3-12310, available at [www.sec.gov/litigation/admin/2006/33-8684.pdf](http://www.sec.gov/litigation/admin/2006/33-8684.pdf).

<sup>10</sup> See [www.sifma.org/services/pdf/AuctionRateSecurities\\_FinalBestPractices.pdf](http://www.sifma.org/services/pdf/AuctionRateSecurities_FinalBestPractices.pdf).

<sup>11</sup> See [www.girardgibbs.com/auctionrate.html](http://www.girardgibbs.com/auctionrate.html).

<sup>12</sup> See [www.oag.state.ny.us/media\\_center/2008/jul/july24a\\_08.html](http://www.oag.state.ny.us/media_center/2008/jul/july24a_08.html).