
Municipal Bond Market Issues: Recent Developments

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The municipal bond market seems to have been turned upside down, with serious repercussions for an important source of funding for public water supply, sewer and public power systems. Here is a story of one municipal issuer's tale of woe that ordinarily might be an amusing anecdote, except that it is indeed true.

The October 27, 2008, issue of *The Bond Buyer*, a municipal finance trade journal, describes an effort by officials of the Airport Commission of the City and County of San Francisco to “do the right thing” before liquidity in the municipal bond market was erased entirely this past spring.

Airport officials in May issued \$205 million of variable rate demand obligations (see the Appendix for descriptions of the various types of financing instruments) to restructure some of their auction rate securities, as that market was disintegrating. Kevin Kone, the airport's assistant deputy director for capital finance, was quoted in *The Bond Buyer* explaining that the issue “was backed up with liquidity from Depfa, insured by FSA, and hedged with a Lehman Brothers swap.” It looked like a really strong deal since Depfa was a respected Irish bank, FSA – Financial Security Assurance Inc. – was one of the two remaining municipal bond insurers with triple-A ratings from all three rating services, and Lehman Brothers was a venerable Wall Street firm.

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By the end of September, a mere four months later, Depfa had serious liquidity issues, FSA was on watch for a rating downgrade and Lehman had filed for Chapter 11 under the federal bankruptcy code. Needless to say, costs to the San Francisco International Airport increased significantly. Not so funny after all. And San Francisco wasn't alone.

A Primer on Muni Bonds

Municipal bonds are the primary way that states and municipalities finance capital projects. Municipal bonds generally pay interest that is exempt from federal tax and in many states the interest is exempt from state and local tax, too. Since 1913, when the federal income tax was imposed, tax exempt municipal bonds have been attractive investments.

Issuance of municipal bonds substantially expanded during the past 30 years or so. In 1975, about \$58 billion in municipal securities were issued annually throughout the United States. Most of those securities were straight-forward bonds backed by the “full faith and credit” of a state or local government. By 2007, municipal securities had become far more complex and, in

that one year, \$430 billion of long-term municipal bonds were issued. The total municipal bond market now has \$2.7 trillion outstanding.

Municipal debt is issued by large and small state and local governments. There are about 50,000 active state and local issuers who have municipal securities outstanding. The sizes of the individual bond deals range from less than \$100,000 to billions of dollars. Municipal bonds finance major new highways, the modest equipment needs of local fire districts, and almost any conceivable capital project in between. Although the majority of projects financed with municipal bonds are public, the bonds may also be used in certain circumstances for essentially private purposes associated with industrial development.

Purchasers of municipal bonds historically included commercial banks and property and casualty insurance companies, as well as trusts and individuals. Changes in federal law in 1986 removed the incentive – and actually imposed disincentives – for most commercial banks to purchase tax-exempt municipal bonds. Over time, mutual funds and hedge funds picked up some of the slack caused by the departure of the commercial banks from the muni bond market.

Now, individuals (frequently referred to as “retail”) have become major players in the municipal market both through direct purchases of bonds and through mutual funds. Approximately 35% of municipal debt is held by retail and another 35% is held through mutual funds. Hedge funds and property and casualty companies make up most of the remaining 30%. The municipal securities market is essentially entirely domestic because those who do not pay U.S. income tax cannot take advantage of the tax exemption of municipal bond interest. Therefore, foreign investors normally will not accept the lower interest that municipal securities pay compared to taxable instruments.

By 2007, municipal securities had become far more complex -- the muni bond market now has \$2.7 trillion outstanding.

How Did We Get Here?

Municipal bond insurance used to be a simple, straight-forward business. It started in 1971 when the American Municipal Bond Assurance Corp. (AMBAC) was formed as a subsidiary of a mortgage insurer. AMBAC’s initial rating was AA from Standard & Poor’s (S&P); it received its AAA rating in 1979. In 1974, Municipal Bond Insurance Association (MBIA) became AMBAC’s first competitor and received an initial S&P rating of AAA. The term “monoline insurers” or “monolines” refers to this kind of insurer whose focus is solely on insuring debt instruments. Defaults by municipal bond issuers were very few but, when New York City “deferred” interest payments on some of its notes in 1975, and when the Washington Public

Power Supply System (WPPSS) defaulted on \$2.3 billion of bonds in 1983, the value of municipal insurance was highlighted for many investors.

As investors sought insured bonds, the issuers benefited by paying lower interest rates, which more than offset the cost of insurance. A third municipal bond insurer was formed in 1983, Financial Guaranty Insurance Co. (FGIC), with a triple-A rating. Other bond insurers followed.

Over time, the municipal bond insurance business grew. In 1975, 1.8% of the municipal bonds issued carried insurance; by 2007, approximately 60% of new municipal bonds obtained insurance. The best current estimates are that approximately half of the \$2.7 trillion municipal bonds outstanding bear insurance.¹

By 2007, seven municipal bond insurers had triple-A ratings from the three major rating firms, S&P, Moody's, and Fitch. As of November 21, 2008, when Moody's downgraded the ratings of Assured Guaranty Corp. (Assured) and FSA, no municipal bond insurer was left with a triple-A from all three credit rating services. Like many others in the financial industry, the monolines were victims of the subprime mortgage debacle. To enhance earnings, and to some degree under pressure from the bond rating agencies to diversify their businesses, most of the monolines had begun insuring collateralized debt obligations (CDOs) that were based on mortgages, many characterized as subprime. As the value of the CDOs began to fall, the rating agencies – which themselves had considered the CDOs very secure – started to review the exposure of the monolines to the subprime market.

On December 14, 2007, Moody's issued a press release noting that two bond insurers were placed on review for possible downgrades; two bond insurers had their triple-A ratings affirmed but their ratings outlooks were changed to negative; and three triple-A insurers and one Aa3 insurer (which historically had less than a triple-A rating) had their ratings affirmed with a stable outlook. By the end of November 2008, none of these insurers had a triple-A rating from Moody's. Many had lost their triple-A ratings from S&P and Fitch, as well.

The lowered ratings on the insurers rippled outward. In addition to holders of the insured bonds having lost value in their investments, mutual funds are limited by SEC rules to holding only securities that are highly rated by the major rating

In 1975, only 1.8% of the municipal bonds issued had insurance. Today, about half of the \$2.7 trillion in outstanding bonds are insured.

¹ www.munibondadvisor.com

agencies. If the mutual funds, which are major purchasers of municipal bonds, held municipal securities where the ratings were based on insurance that was suddenly downgraded below the required levels, the funds had to divest those securities. The bond insurers needed to increase their capital relative to what they were covering in an attempt to stave off further downgrades.

In one fell swoop, municipal issuers saw significantly increased pressure on their costs going forward because triple-A rated insurance was available from fewer companies (if it was available at all), the market was becoming wary of all debt, and a major sector of municipal bond purchasers needed to divest certain holdings.

National bond rating agencies in the meantime had come under increasing pressure from many state and local officials to change the way they treated municipal securities relative to corporate securities. Led by California State Treasurer Bill Lockyer, a movement began in 2007 to get Moody's, S&P, and Fitch to move to a "global" rating scale, which would give more weight to historic default rates than the rating agencies had been doing. Mr. Lockyer claims that lower-rated municipal bonds default significantly less often than the highest rated corporate bonds.² If municipal credits were rated on a corporate-like scale, many government officials believe that the vast majority of state and local credits would be rated double or triple-A.

The rating agencies were under significant pressure not only from the state and local officials but separately from Congress and the U.S. Securities and Exchange Commission over the issue of having rated residential mortgage-backed securities and CDOs more highly than they ultimately obviously deserved. Whether as a capitulation or believing it was the right thing to do, Moody's and Fitch agreed to move to a global rating scale. They both, however, have deferred those moves purportedly because of the significant budgetary pressures state and local governments are under as a result of the current economic crisis.

Auction rate securities, which for years had provided interest rate benefits to their issuers, have now turned around and bitten those issuers. As financial firms were increasingly affected by the subprime mess, credit became tighter and tighter. The financial firms were under extreme pressure to build up their capital bases to cover the huge potential losses they faced. Financial houses that previously were more than willing to ensure that the periodic ARS auctions were successful – sometimes by buying the securities for their own portfolios – no longer had the will or capacity to do so. ARS

In 2007, seven muni bond insurers had triple-A ratings from all three ratings firms. By late Nov. 2008, no insurer had an AAA from all three ratings services.

² www.treasurer.ca.gov/fairbondratings/background.asp

auctions started to fail, resulting in interest rates moving to the maximum established in the bond documents that, sadly, many issuers had never paid sufficient attention to because they did not think they would ever be called upon.

The SEC and some state attorneys general have brought litigation against many providers of ARS and, in a number of circumstances, required financial firms to repurchase ARS that were sold to retail customers. Needless to say, most investors want to be as far away from these securities as they can get. While there are currently some ARS issues that are still outstanding, the market had been declared dead by many participants. No new ARS issuances are being made and state and local finance officials have been generally trying to refinance their old ARS deals as quickly as is possible.

If there is a bright side to ARS, it is that the market worked well for investors and issuers for a number of years. New Jersey State Treasurer David Rousseau issued a press release on October 29, 2008, claiming that even after paying the costs of refinancing most of the \$3.4 billion of ARS the state had issued since January 2003, New Jersey netted a savings of \$41.2 million compared to what it would have paid if it had issued fixed rate bonds instead of the ARS.

Most investors want to be as far away from auction rate securities as they can get.

The liquidity crisis has had a major impact on municipal bonds and the projects they finance. Tax-exempt money market funds have been seeing net outflows of funds throughout much of the past few months, with some minor exceptions. As of November 21, 2008, there was approximately \$495 billion in these funds, down almost \$2 billion from the week before. Property and casualty insurance companies are active players in the municipal market when they are profitable, when they can make use of the tax-exempt interest. For a company like American International Group, though, which has experienced extreme losses (again very much tied to the subprime problems), it has no reason to seek tax-exempt benefits. And hedge funds, which had been becoming more important investors in municipal bonds, are now reportedly also looking to conserve capital and may limit their activity in the municipal market.

These changes have put even more pressure on municipal bond interest rates and even on just finding sufficient investors to help a bond issuance succeed. Through the course of this fall, there was tremendous volatility in interest rates as investors tried to decide where to put their money. As November progressed, and with some of the actions that the federal government has taken to address the financial crisis, interest rates began to decrease a bit and to stabilize. In testifying before the House Financial Services Committee on November 18, Federal Reserve Chairman

Ben Bernanke said, “Interest rates on higher rated bonds issued by corporations and municipalities have fallen somewhat and bond issuance for these entities rose a bit in recent weeks.”³

The Securities Industry and Financial Markets Association (SIFMA) Swap Index shows what has been happening in the market. The SIFMA index reflects short-term municipal interest rates. It is produced weekly from a compilation of seven-day, high grade variable rate demand obligations selected from Municipal Market Data’s database. In January 2008, the index ranged from 2.20 to 3.06. Rates bounced around quite a bit through the beginning of September but did not seem out of line. Then the weekly index did the following:

<u>Date</u>	<u>SIFMA Swap Index</u>
September 3	1.63
September 9	1.79
September 17	5.15
September 24	7.96

Fortunately, after the end of September, rates began to fall and the SIFMA Swap Index as of November 12 was 3.09, but still nearly twice the prevailing level right after Labor Day.

Long-term rates have been somewhat less volatile. *The Bond Buyer’s* 20-Bond Index, which is based on double-A general obligation bonds maturing in 20 years, began 2008 at 4.32 on January 3. The index was up to 5.11 on February 28 and then trended down to 4.52 on May 22. Although reaching 4.83 by June 26, by September 11 it was at 4.54. After that, though, the index steadily moved up to 6.01 on October 16, dropped rapidly to 5.32 on October 23 and finished November 20 at 5.13.

Of particular note is that high-grade general obligation municipals usually trade at a discount to Treasury bonds because of the tax-exemption benefits. What has significantly altered in the current environment is that some high-grade municipals, especially those with shorter maturities, are trading at a *premium* to Treasuries. The *Wall Street Journal* reported, “In an extraordinary development, yields for 10-year munis now hover around 4%, a full percentage point higher than comparable Treasury notes.”⁴ Most analysts agree that this is a function of “the flight to quality.” In line with the focus on quality, some analyst are claiming that the interest rate reductions in the

³ www.house.gov/apps/list/hearing/financialsvcs_dem/hr111808.shtml

⁴ *Wall Street Journal*, November 28, 2008, page C-1.

various municipal indices are indicators only for higher grade municipal securities but that lower rated issuers may still be having a difficult time. *The Bond Buyer* reported on November 4 that, “Sources said the steady decline [of the SIFMA index] demonstrates how investors have bifurcated the short-term market by demanding the safest high-grade assets – which are in short supply and comprise the bulk of the index – while rejecting deals from lower-grade issuers.”

State and Local Bond Issuers Feel the Impact

Amidst the disruptions to the U.S. financial markets generally and the municipal securities market specifically, many bond issuers have through necessity or choice either changed the way they issue bonds or held back on completing bond deals in the latter part of 2008. Small issuers and issuers of general obligation bonds frequently sell their bonds in what are called “competitive” deals; that is, they announce the bond sale, provide the appropriate disclosures and then see who bids on the bonds and what interest rate they will pay. Many public officials believe that competitive bond sales are the least expensive way of issuing bonds and may achieve the best (that is, lowest) interest rates. However, issuers tend to opt for “negotiated” sales in situations when there are more complicated financing structures such as underlying pools of loans, where revenue streams to repay the bonds may be complex, where the issuer may not have a particularly strong bond rating, or there is some kind of “story” to tell. In these cases, an underwriter or underwriters are selected by the issuer to manage the sale of the bonds. Fees to the underwriters may be slightly higher by using this method but many issuers believe that the additional assistance the underwriters can provide both in helping to structure the bond products and in the actual sale itself are well worth the cost and save money over the long term. Negotiated sales are particularly beneficial in an uncertain market because the underwriters know in advance they will have access to the bonds and can assist in “pre-selling” a sizable portion of the deal.

A concern with a competitive sale is that no one will come.

A concern with either a competitive or a negotiated sale is that no one shows up. A failed sale may have implications not only for the current deal but also for the future. Investors may become shy about buying an issuer’s bonds if they feel that no one else wanted them. No doubt there is a tendency for “herd mentality” in the municipal market as much as elsewhere.

Unfortunately, 2008 has seen more than its share of failed deals and some of them are quite surprising and instructive. Some examples follow:

In late September, the Erie County, New York, Fiscal Stability Authority intended to issue \$75 million of revenue anticipation notes (RAN) to fund the necessary operations of Erie County. In a negotiated transaction, the authority was using an experienced underwriting firm that has done hundreds of deals in upstate New York. However, on September 25 when the deal was supposed to be priced, the underwriter could not find sufficient investors to buy all the RANs. Ordinarily that is not a problem and this underwriter expected that it would take some of the RANs into its own inventory. However, because of the credit crisis and rapidly failing liquidity for loans between financial institutions, the firm, which did not have sufficient cash on hand to purchase the bonds outright, found it could not obtain a loan from anywhere else and had to back out of the bond sale at the last moment. That could have left Erie County in a substantial fix and unable to pay its bills. Fortunately the county was able immediately to secure a private placement of the RANs as an alternative and at only a slight increase in price.⁵

The Solid Waste Authority of Palm Beach County (FL) went to market on November 13 to sell bonds for “a complete refurbishment of the Authority’s waste-to-energy facility....”⁶ The deal originally consisted of \$131.6 million in tax-exempt bonds and substantially more in bonds subject to the alternative minimum tax (AMT)⁷ or on which the interest would be taxable. Although the tax-exempt bonds sold, there were no takers for the AMT or taxable bonds.⁸

Similarly, on September 28, the San Jose (CA) Redevelopment Agency attempted to sell taxable bonds, its Series A-T, simultaneously with an \$80 million tax-exempt bond financing. Both series were to finance redevelopment activities within the authority’s boundaries. Although the tax-exempt bonds had three bidders and sold reasonably well and although the agency had indications that up to seven entities would bid on the taxable Series A-T, “no qualifying bids were received....” according to an October 28 Redevelopment Agency memorandum to its board.⁹ The memo explains also that past agency issues were sold using triple-A bond insurance.

⁵ www.buffalonews.com/cityregion/story/448465.html

⁶ Official Statement, Series 2008B Bonds.

⁷ Under federal law, state and local governments are allowed to issue “private activity bonds” for certain types of facilities that substantially benefit private entities. These facilities may include such things as airports, solid waste facilities, and facilities that assist in furnishing local electric energy. However, pursuant to the Tax Reform Act of 1986, private activity bonds may be subject to the alternative minimum tax.

⁸ Private correspondence.

⁹ www.sjredevelopment.org/inforMemos/BondSale10-28-08.pdf

However, the Series A-T bonds, rated at A-, A3 and A-, were not insured “due to the limited value of municipal bond insurance.” A key takeaway here is that the current market is being quite selective in what it is buying and is still adjusting to the new environment.

Some bond issuers are responding by changing the way they issue bonds. The State of Virginia determined to do a negotiated sale for \$265 million of general obligation bonds instead of its usual competitive sales, according to *The Bond Buyer* November 12 edition. In an earlier item on October 28, the newspaper reported that Thomson Reuters data showed that from September 15 to the last week in October, 93% of the volume in new municipal securities deals were done on a negotiated basis, which was a significant increase from 85% in the first three-quarters of 2008. The State of Florida’s Division of Bond Finance routinely uses competitive sales for its various programs, including revenue bonds backed by highway tolls. However, the division recently issued a request for proposals seeking underwriters for future bond deals. The October 20th RFP¹⁰ notes that:

“Extraordinarily difficult conditions exist in the credit markets, including the tax-exempt bond market. The tax-exempt bond market is characterized by weak demand for tax-exempt bonds from institutional investors, selling pressure from secondary market supply, limited primary market access to credit and extreme volatility in interest rates. The Division believes it is prudent to plan for negotiated bond sales in order to access the tax-exempt bond market at the lowest possible interest rate.”

Although some states, such as New Mexico and Louisiana, reportedly are delaying bond sales until the markets calm down a bit more, they apparently are not in immediate need of the funds for capital projects or immediate operating expenses.

The Big Deal(s)

The most poignant and lurid example of how the financial crisis might affect state and local governments involves Jefferson County, Alabama. Jefferson County, which includes the city of Birmingham, borrowed \$3.2 billion to build a new sewer system over the past decade. The system is now complete but the story of paying for it is far from over. It includes allegations of corruption and at least one guilty plea by a local official. But the big lesson to be learned from Jefferson County’s plight is how complicated financial products that initially looked like saviors can turn out to be the devil in disguise. Bankruptcy is still a possibility for Jefferson County.

***Complicated
financial
products can be
the devil in
disguise.***

¹⁰ www.sbafla.com/bond/pdf/notices/DBF_RFP_2008-3_UW.pdf

In addition to \$3.2 billion in sewer debt, Jefferson County has associated swaps that carry a notional amount of approximately \$5.4 billion (meaning the interest owed or received on the swap is based on a principal amount of \$5.4 billion even though no principal payments are exchanged). And to make the saga even more interesting, much of the \$3.2 billion debt is in variable rate demand obligations and auction rate securities. We won't focus here on whether corrupt practices were involved in getting Jefferson County to where it now finds itself because at this point, to the citizens of the county and perhaps even all of Alabama, the most pressing issue is what happens next.

On February 20 and 27, 2008, Jefferson County filed "material event notices" (required by Section 15c2-12 of the SEC rules) indicating among other things that two of the three companies that had provided insurance for its sewer debt had been downgraded below triple-A.¹¹ Those downgrades set in motion a series of cascading events, all of which would cost the county money through such impacts as increased interest rates, the need to post additional collateral and the requirement to make payments to cure or terminate its various agreements. To top things off, the county also disclosed that there had been two failed auctions on February 13 and 14 related to a total of more than \$200 million of its auction rate securities.

By March 4, 2008,¹² Jefferson County noted that its underlying bond ratings by both S&P and Moody's had been downgraded to below "investment grade." (Many institutional investors are prohibited from acquiring securities that are less than investment grade.) Further, the county said it would not post additional collateral or get insurance as required under its financing agreements, thereby allowing its counterparties to terminate their swap transactions. It added that the aggregate termination payments in accordance with its swap agreements would be \$184 million as of February 27, 2008. Adding to the substantial uncertainties, the county stated, "The County can provide no assurance that net revenues from the sewer system will be sufficient to permit the County to meet the interest rate and amortization requirements of the Liquidity Facilities." Various county officials have stated elsewhere that their sewer rates are already very high and cannot responsibly be raised further.

Since March, there have been a series of forbearance agreements between Jefferson County and its bankers, permitting deferral of certain payments. Not surprisingly, there is also litigation pending. The federal court on November 19 ordered a Special Master be appointed to develop recommendations on the case. The saga of Jefferson County is far from over. But it will undoubtedly have significant effects not only on future borrowings by the county but also may

¹¹ Jefferson County Alabama, Sewer Revenue Warrants, material event notices, February 20 and 27, 2008.

¹² Jefferson County Alabama, Sewer Revenue Warrants, material event notice, March 4, 2008.

affect all debt issuance by the State of Alabama. Obviously, any diminution of a state or county's ability to borrow in the long-term debt markets will have a severe impact on its capital program.

Finding Solutions in a Difficult Market

The most recent statistics from Thomson Reuters show that bond issuance in October 2008 was less than half the amount for October 2007. Year-to-date comparisons through October show a somewhat less dismal picture, with issuance down less than 10% compared to 2007. That doesn't tell the whole story, though, because there were a large number of deals aimed at refinancing auction rate securities. There were no new ARS transactions done in 2008 and through October, long-term "new money" deals were reduced more than 20% from 2007.

The good news is that interest rates are declining from the very high peaks earlier this fall. Municipal securities issuers who had put off transactions are beginning to get back into the market. Oklahoma's Department of Transportation successfully priced \$98.23 million of grant anticipation notes on November 18 after having waited for rates to improve.¹³ Hoping to generate substantial retail interest in a large deal being brought to market for the New Jersey Transportation Trust Fund Authority, New Jersey public finance officials established a new website, www.buynjbonds.gov to educate potential buyers. One can't argue with success: on November 14, the state priced more than \$1.12 billion of grant anticipation bonds, of which \$150 million was insured by Assured Guaranty Corp. Overall, there is a sense that retail participation is growing because of the attraction of relatively high interest rates.

Other sophisticated municipal securities issuers are keeping close watch on their outstanding debt and making moves as necessary. For example, the Southern California Public Power Authority has briefed its finance committee about its variable rate demand obligations. The authority staff explained at a meeting November 3, "Trading dislocation in early October was widespread and saw some improvement later in the month, but market hesitation persists." The authority is working with its financial advisor to determine whether to refinance some of its variable rate demand obligations and has already amended one agreement to eliminate an automatic termination clause.

The Virginia Resources Authority (VRA) recently announced¹⁴ it had just sold \$215 million in infrastructure revenue bonds, which it characterized as "a real triumph and nothing short of miraculous given the economic situation." The new financing is the largest transaction in VRA's

¹³ Official statement, Oklahoma Department of Transportation, Series 2008A, November 18, 2008.

¹⁴ Virginia Resources Authority press release, November 21, 2008.

pooled financing program. Of course, Virginia's double and triple-A ratings are no doubt very helpful. But it shows that in some cases, local governments that might not have the highest ratings can gain access to a tough market and achieve interest rate savings by financing through their states.

Going Forward What Can We Expect?

The future of the bond insurers is an enigma at this time. Moody's issued a report on November 20 which paints a bleak picture of the ability of bond insurers to obtain and maintain triple-A ratings in the future.¹⁵ Following Moody's November 21 downgrades of Assured Guaranty Corp. and Financial Security Assurance Inc., the only insurer it currently blesses with a triple-A rating is the Berkshire Hathaway Assurance Corp., Warren Buffet's 2008 entry into the business. The company also has a triple-A rating from S&P but is not rated by Fitch. Assured and FSA, which are merging, both continue to have triple-A ratings from S&P and Fitch. However, both rating agencies have FSA on negative watch.

The other new entry to the municipal insurance market is the Municipal and Infrastructure Assurance Corp. (MAIC). In a press release on October 21, 2008, New York Superintendent of Insurance Eric Dinallo announced that the New York Insurance Department has licensed MAIC to write financial guaranty insurance policies for municipal and infrastructure bonds. MAIC is sponsored by Macquarie Group, an Australian firm, which apparently is planning on entering into a joint sponsorship agreement with Citadel Investment Group to co-sponsor MAIC. MAIC does not yet appear to have received any credit ratings. Triple-A ratings will probably be necessary for MAIC to succeed in the current environment.

The emergence of the Berkshire Hathaway and MAIC insurers suggests that notwithstanding Moody's gloomy outlook, even if the historic bond insurers were to disappear, there will be newcomers to take their places. Also, a number of the historic insurers have indicated that they will either create new entities that will go back to solely insuring municipal credits or will clear their books of the so-called toxic assets as a way of regaining their triple-A status.

Even though Congress appears to be sympathetic, the immediate outlook does not look promising for federal assistance in improving state and local government liquidity.

Coupled with the possibility – although now somewhat slimmer than previously – that the rating agencies will upgrade most municipal credits to double or triple-A ratings, it is very hard to

¹⁵ www.anotherfp.com/newsite/story.php?id=634 and *The Bond Buyer*, November 21.

predict whether bond insurance will have a role going forward. But traditions die hard and it wouldn't be surprising if the municipal bond market will still value insurance in the future – those investors who were frightened away from municipals altogether in the past few months might be particularly interested if they are willing to trust the rating agencies in the future.

As for whether states and localities can expect federal assistance in improving liquidity and helping calm the municipal market, the outlook is still sketchy. The consensus seems to be that Treasury and the Federal Reserve are so focused on putting out major fires they don't have time to think much about the municipal market. Very recently, though, Federal Reserve staff has had some conversations about the municipal market with their Board of Governors and it appears that the board will at least consider whether it should provide assistance to the municipal market.

While Congress has much more sympathy for state and local governments, the focus there also seems to be primarily on developing a very large stimulus package that will include substantial funds for infrastructure improvements. Notwithstanding this, some state and local officials have been urging Congress to address the municipal market directly. One area where there has been some limited progress regards changing federal law to again allow commercial banks to take advantage of tax exempt municipal bonds. Many feel that if this change is made, the market for municipals would increase in a meaningful way. Rep. Barney Frank (D-MA), chairman of the House Financial Services Committee, in June proposed legislation, HR 6333, that would permit some greater commercial bank investment in the tax exempt bonds of certain small issuers. Now there are reports that Rep. Frank may support a larger measure to allow even greater participation by the commercial banks in the municipal market.

Another example of state and local proposals is that on November 21, the California State Treasurer and 19 major California bond issuers sent a letter to Congressional leaders outlining continuing serious dislocations especially in the short-term municipal market and especially for those bond issuers with lower ratings. The letter advocates the establishment of a new Federal Reserve program “to provide much-needed liquidity to the short-term municipal bond market.”¹⁶ Note that Speaker of the House Nancy Pelosi is from California.

Many national organizations that represent state and local officials have been particularly active in Washington, D.C., recently. Although it still seems like an uphill battle to get the federal government to step in to provide liquidity facilities for state and local debt or to have Treasury use some of the Troubled Asset Recovery Program to buy troubled auction rate securities,

¹⁶ http://www.treasurer.ca.gov/news/releases/2008/20081121_letter.pdf

representatives of state and local officials are likely to be important players in the development of a stimulus package that already has the conceptual support of the new Obama administration. That behooves state and local governments to take an active role. They need to ensure that the stimulus money will be well spent on infrastructure that can assist in the economic recovery that the future legislation will be designed to spark.

Appendix: Basic Municipal Finance Products

A variety of financial instruments are available to state and local governments. Some of the more widely used products are defined here:

General obligation bonds represent the unconditional pledge of a state or local government unit to repay the bond principal at maturity and pay periodic interest. The full taxing authority of the state or local jurisdiction backs these bonds. Because of these pledges, general obligation bonds ordinarily require a voter referendum to approve their issuance. The interest on these bonds is fully tax-exempt.

Revenue bonds are secured by the revenues of particular projects or programs. In many cases, states and localities have created public benefit corporations or public authorities to issue this type of debt. Revenues backing this kind of debt can come from many different sources: water and sewer fees, solid waste tipping fees, highway tolls, utility payments, mortgage payments, and student loan repayments. The precise source of principal and interest payments for revenue bonds is spelled out in detail, usually along with an official statement that must be available to purchasers of the debt. Although the interest on revenue bonds generally is tax-exempt, there are a number of situations that may restrict the extent of the tax-exemption or that will make the bond interest subject to the federal alternative minimum tax.

Municipal notes are short-term securities issued by state and local governments that have maturities of one year or less. They are primarily used to address cash flow fluctuations and may be issued specifically in anticipation of particular revenues. The alphabet soup of municipal notes includes bond *anticipation notes* (BAN), *revenue anticipation notes* (RAN), *tax anticipation notes* (TAN), *tax and revenue anticipation notes* (TRAN), and *grant anticipation notes* (GAN). In most instances revenues from these sources will be expected within a fiscal year.

Variable rate debt can take a variety of forms. The two types of variable rate debt that have been most in the news this year are *variable rate demand obligations* (VRDOs), which are also sometimes called *variable rate demand bonds* or *variable rate demand notes*, and *auction rate securities* (ARS). The key value of variable rate debt is to be able to make interest payments at short-term rates even while issuing long-term debt.

VRDOs are issued as long-term bonds but they have short-term interest rate reset periods. The primary feature of VRDOs is that they allow an owner periodically to “put” or “tender” his bonds back to a “remarketing” agent appointed by the issuer. Holders who

put their bonds back to the remarketing agent will receive par value of their bonds in return. VRDOs are intended for large, sophisticated investors and, therefore, are usually sold in minimum denominations of at least \$100,000. Each bond deal has a minimum denomination; some sales may have minimums of \$500,000 or \$1 million, but generally not less than \$100,000.

In most cases the reset period for VRDOs is one week. However, the reset period for this type of security can be as little as one day or as much as a month or more, but no longer than nine months. The remarketing agent will set an interest rate for the next period which ideally will allow it to resell all of the bonds that current holders want to put back to it. In many cases, the remarketing agent is the original underwriter and will provide a secondary market for the bonds as necessary. As added protection, VRDOs are backed by a letter of credit or a standby bond purchase agreement to ensure timely repayment of principal and interest and, importantly, to ensure that all tendered bonds will be paid. Municipal bond insurance may also be used to further enhance the security of the VRDOs.

Auction Rate Securities are similar to VRDOs in many ways. They are long-term securities with short-term interest rate reset periods. However, ARS do not have a guaranteed put or tender option. Instead, they are subject to periodic auctions, typically every 7, 28, or 35 days. Like VRDOs, a holder of ARS who sells his bond would receive a price of par. However, unlike VRDOs, ARS have tended to be sold in denominations of \$25,000 and up and, therefore, have had more retail participation.

Each ARS issue has a designated “auction agent” to conduct a so-called Dutch auction at each reset period. That is, the auction agent will collect information from program dealers regarding the face value of ARS bonds that holders wish to keep for the next period and whether the holders will keep the bonds at any new interest rate or, if not, what interest rate each holder is willing to accept. Also, the auction agent will receive information on potential buyers of the ARS, including the amount of bonds they want to purchase at specified interest rates. Then the auction agent matches those wishing to sell against those wishing to buy and determines the “clearing” interest rate for the next reset period that will award the ARS bonds based on the lowest interest rate that will fulfill sufficient orders to allocate all of the bonds. The new clearing rate determines the interest that will be paid to all holders of the security for the new reset period.

A significant risk in an ARS auction (which for years was ignored because it just didn't happen) is that an auction can fail; that is, there may not be enough bidders to clear the market or the clearing rate may be higher than a maximum rate established in the bond documents. In a failed auction the new interest rate for all holders of the bonds will become the maximum rate allowed, which will be higher than what would be expected in a successful auction. Even if the interest rate becomes relatively high, a failed auction may be problematic for an ARS holder who expected to have liquidity in his/her investment. Certainly, for the bond issuer who anticipated only having to pay short-term interest rates, a failed auction can be anything from inconvenient to disastrous. Bond insurance, which is sometimes used in conjunction with an ARS issue, only guarantees payment of principal and interest. It does nothing to insure against a failed auction.

Interest rate swaps are the most commonly used derivative products in the municipal bond market. The purpose of these derivatives is to hedge interest rate risk. Swaps are expressed in “notional amounts” – essentially the principal amount of the swap – because the principal never changes hands. Since each party to the swap would be paying each other equal amounts of principal, the principal amount is netted out to zero. Most municipal swap arrangements exchange a fixed interest rate on a bond for an effective “floating” rate. The bond issuer will set the fixed interest rate when the bonds are originally offered and then will simultaneously enter into an agreement with a counterparty who, in exchange for the fixed interest amounts, will agree to pay the issuer an amount equal to what the interest would be based on a selected index, usually the London Interbank Offered Rate (LIBOR). On each payment date, ordinarily twice a year, the interest payments will be netted against each other. The New York City Municipal Water Finance Authority provides a good example of how swaps work. In October 2007, the authority entered into two swaps for a total notional amount of \$401 million in conjunction with a bond sale. Under the swaps, the authority pays a fixed rate of 3.439% and in exchange receives a floating rate based on 67% of the one-month LIBOR.¹⁷ As of November 28, 2008, the one-month LIBOR rate was 1.90125%; for the prior two months, it was 3.92625% and 2.58125%, indicating how volatile short-term rates can be.

¹⁷ New York City Municipal Water Finance Authority Official Statement Fiscal 2009 Series A, p. D-35.