S. HRG. 108–888

# OVERVIEW OF THE REGULATION OF THE BOND MARKETS

## HEARING

BEFORE THE

## COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS UNITED STATES SENATE

ONE HUNDRED EIGHTH CONGRESS
SECOND SESSION

ON

THE REGULATION OF THE BOND MARKETS, FOCUSING ON FIXED INCOME MARKET TRANSPARENCY, TRADE REPORTING AND COMPLIANCE ENGINE (TRACE) ENABLING INVESTORS TO ACCESS CURRENT PRICE INFORMATION FOR U.S. CORPORATE BONDS, AND STATE, LOCAL, AND INTERNAL REVENUE SERVICE REGULATION OF MUNICIPAL ISSUERS

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# C O N T E N T S

## THURSDAY, JUNE 17, 2004



## WITNESSES

# AN OVERVIEW OF THE REGULATION OF THE BOND MARKETS

**THURSDAY, JUNE 17, 2004**

U.S. SENATE,
COMMITTEE ON BANKING, HOUSING, AND URBAN AFFAIRS,
*Washington, DC.*

The Committee met, pursuant to notice, at 10:10 a.m., in room SD–538, Dirksen Senate Office Building, Senator Richard C. Shelby (Chairman of the Committee) presiding.

**OPENING STATEMENT OF CHAIRMAN RICHARD C. SHELBY**

Chairman SHELBY. The hearing will come to order. This morning the Committee will examine the regulation of the corporate and municipal bond markets. This is an opportunity for the Committee to learn about current trends in the industry and to examine the market structure and regulatory framework.

It has been a number of years since this Committee held an oversight hearing on the regulation of the bond markets, and I look forward to today's testimony.

Although the bond markets have long been associated with large institutional investors, retail investors are a growing component of the debt markets, either through individual holdings or indirectly through mutual funds and pension accounts. Individual households now hold approximately 10 percent of the $4.6 trillion invested in the corporate bond market. Municipal individual households hold approximately 35 percent of all outstanding issues which equals about $670 billion. Mutual funds hold another 35 percent of the $1.8 trillion municipal bond market.

This expansion of retail investment in bonds makes it incumbent upon this Committee and the regulators to ensure that the bond markets operate efficiently and fairly. Many have criticized the lack of price transparency in the bond markets which may result in price swings and markups. I understand that the regulators have recently implemented trade and price reporting systems to better facilitate the flow of information to investors.

I look forward to hearing more about these programs and other efforts by the regulators to improve transparency.

On the first panel this morning we will hear from the regulators. Annette Nazareth is the Director of Market Regulation at the Securities and Exchange Commission. Doug Shulman is the President, Markets, Services and Information at the National Association of Securities Dealers. Finally, Christopher Taylor is the Executive Director of the Municipal Securities Rulemaking Board. Individually, each of these agencies plays a distinct role in the bond markets, but collectively they work to ensure transparency and fairness to all investors in the markets. In addition to questions concerning price transparency, I look forward to exploring the questions regrading the structure of the bond markets, disclosure practices, compliance programs and enforcement activities.

On the second panel we will hear from several witnesses representing different perspectives on the markets. Micah Green is the President of the Bond Market Association, which represents the broker/dealers involved in the bond markets. Chris Ryon is the Senior Municipal Bond Portfolio Manager at the Vanguard Group, finally in the second panel we will hear from Mr. Arthur Warga, Dean of University of Houston Business School and Finance Professor. Professor Warga has done extensive research on price transparency in the bond markets. I look forward to hearing from all of you at the proper time.

Senator Sarbanes.

Senator SARBANES. Thank you very much, Mr. Chairman. I guess we are fighting to get a quorum.

Chairman SHELBY. We are trying to get a quorum. We have a few nominations, all of them very important, however, one is especially important to this Committee.

Senator SARBANES. Two more would do it.

Chairman SHELBY. Need two more.

## STATEMENT OF SENATOR PAUL S. SARBANES

Senator SARBANES. Mr. Chairman, I want to commend you for holding this hearing with respect to the bond markets. It is another instance of where this Committee, under your leadership, continues its comprehensive oversight of the securities industry.

Today there is more than $20 trillion of outstanding bond market debt, and more than a million outstanding bond issues. The daily average trading volume of bonds exceeds $800 billion, several times the volume of stocks.

This morning the Committee will focus on the municipal and corporate bond markets in which an important issue is price transparency. In my view, transparency plays a very important role in inspiring investor confidence and promoting the fairness and the efficiency of the U.S. capital markets. Historically, price transparency in the bond markets has been an issue. As recently as 1998, an SEC staff study concluded that price transparency in the municipal bond markets was "difficult" and in the high-yield corporate bond market, relatively poor.

In recent years, many positive steps have enhanced transparency. The Municipal Securities Rulemaking Board moved so that municipal bond trades are now reported the next day, and the NASD's Trade Reporting and Compliance Engine System now reports trades in the most frequently corporate bonds within 45 minutes of execution.

While these are major steps forward many people argue that more is needed. An article in *Forbes Magazine* only a couple of months ago stated that: "transparency is the mantra of the day" from corporate accounting to executive compensation, yet it has skipped over the corporate bond market. And *The Bond Buyer,* back in December in an article, quoted a brokerage executive who said: “In terms of liquidity and price transparency, the municipal bond market is halfway between the New York Stock Exchange and the Oriental rug market.” It is my understanding that the SEC has a task force looking at transparency and markups, and the regulators plan to increase transparency in the near future. The Municipal Securities Rulemaking Board intends to report trades in real time—within 15 minutes of the time of execution—by next January, and NASD plans to report corporate bond trades within 15 minutes of execution by next year with certain exceptions.

These plans need to move forward on schedule. Further study may be needed to determine whether additional transparency is in the public interest.

I look forward to the testimony of the witnesses this morning, and I thank the Chairman of the Committee once again for focusing on this very important matter.

Chairman SHELBY. Thank you. We have established a quorum, and I would like to move the Committee to Executive Session and ask for a vote on the nomination of Alan Greenspan and two commemorative coin bills which are pending before the Committee. The Committee will first vote on the nomination of Alan Greenspan, who has been nominated for a fifth term as Chairman of the Board of Governors of the Federal Reserve System.

As we all know, Dr. Alan Greenspan appeared before the Committee earlier this week. Is there any discussion or debate at this time on the nomination?

[No response.]

Chairman SHELBY. All those in favor of reporting out the Greenspan nomination signify by saying aye.

[Chorus of ayes.]

Chairman SHELBY. All opposed, nay?

[Chorus of nays.]

Chairman SHELBY. In the opinion of the Chair, the ayes have it and the nomination will be reported to the floor.

The second item on the Committee’s agenda this morning is two commemorative coin bills, S. 894, The Marine Corps 230th Anniversary Commemorative Coin Act, and S. 976, The Jamestown 400th Anniversary Commemorative Coin Act. Each bill has more than 67 cosponsors.

Is there any comment or debate on either of the bills, coin bills?

[No response.]

Chairman SHELBY. I ask unanimous consent that we consider the bills en bloc. Hearing no objection, it is so ordered. All those in favor—

Senator SARBANES. Mr. Chairman, could I just make the observation, on both of these bills, that the Committee rule requiring 67 cosponsors was met in both instances of this bill. That is a rule that was put in place. We have held to that rule and I think it serves an important purpose.

Chairman SHELBY. Thank you.

All those in favor of reporting out the two coin bills, signify by saying aye.

[Chorus of ayes.]

Chairman SHELBY. All those opposed, nay.

In the opinion of the Chair, the ayes have it and both bills will be reported to the full Senate.

The Executive Session is now adjourned and at this time we will resume the hearing.

If no one else has an opening statement, we will go directly to the panel. We will start with you, Ms. Nazareth.

**STATEMENT OF ANNETTE L. NAZARETH**
**DIRECTOR, DIVISION OF MARKET REGULATION**
**U.S. SECURITIES AND EXCHANGE COMMISSION**

Ms. NAZARETH. Good morning, Senator Shelby, Ranking Member Sarbanes and Members of the Committee. I am delighted to be here today to discuss some of the significant issues and developments that the Securities and Exchange Commission are currently addressing with respect to the fixed income markets. Specifically, I plan to discuss the Fixed Income Market Transparency Joint Task Force, which was recently commissioned by Chairman Donaldson. I will also talk about other issues that the task force is currently considering.

In March 2004 Chairman Donaldson commissioned a joint task force to consider issues relating to bond market transparency and mark-up regulation. The task force consists of representatives of the Divisions of Market Regulation and Enforcement, the Office of Compliance, Inspections and Examinations, the Office of Economic Analysis and the Office of the General Counsel.

The task force was organized to summarize fixed income market transparency developments, identify current problems and generate potential solutions.

Preliminarily, the task force has found that transparency has improved to varying degrees in each of the fixed income markets over the last 20 years because of a continued focus on this issue by both Congress and the Commission.

To implement transparency in the corporate bond markets, the Securities and Exchange Commission persuaded the NASD to create systems to collect transaction reports and disseminate price information. Specifically, on January 23, 2001, the Commission approved the NASD's proposal to establish the Trade Reporting and Compliance Engine system known as TRACE for reporting and dissemination of last sale information on corporate bonds. On July 1, 2002, TRACE was officially launched. Under the current TRACE rules, dealers must report trades on U.S. corporate bonds to the NASD within 45 minutes.

Prior to TRACE real time transparency of investment grade corporate bonds was limited to those traded on exchanges, which was a very narrow segment of the market. TRACE currently disseminates transaction information on more than 4,200 securities, representing about 75 percent of the dollar value of trading activity in investment grade bonds. The NASD makes this information available at no cost to investors on a delayed basis with a minimum four-hour time lag.

It is important to note that the NASD is in the process of expanding price transparency in the corporate bond market in a new phase of the TRACE rollout, which will reflect the NASD's experience with earlier phases. The NASD plans to reduce the reporting period from 45 minutes to 30 minutes in 2004, and ultimately to 15 minutes in 2005. In addition, the NASD Board recently approved the recommendations of its advisory Bond Transaction Reporting Committee. Our understanding is that the NASD intends to file a proposed rule change with the Commission shortly. The NASD plan would make public, in near real time, 99 percent of all transactions and 95 percent of the par value in TRACE eligible securities with delayed publication of trades in certain new issues and of large transactions in infrequently traded high-yield securities. I understand the NASD intends to reconsider the need for the remaining restrictions in the near term.

With respect to the municipal bond market, the MSRB, with the Commission's active encouragement, first implemented a Municipal Securities Trade Reporting System in 1995, and proceeded thereafter in measured steps. The implementation date of real-time transaction reporting, which is currently scheduled to begin in January of 2005, has been delayed by the MSRB several times to ensure that dealers have sufficient time to make necessary changes in their bond processing systems. Real-time transaction reporting in the municipal market is defined as the requirement to report transactions within 15 minutes of the time of the trade.

In the Government securities market impetus for change began in the late 1980's when the GAO published a report recommending increased price transparency in this market. In 1990 the GAO recommended legislation to require inter-dealer/brokers to make transaction prices available to the public. The Commission supported the GAO recommendation and recommended that legislation require quotation information to be made available as well.

Partially in response to these calls for congressional action, a variety of data network providers have emerged that publicly disseminate quotation and transaction information on Treasury bonds and Federal agency securities. One of these providers is GovPX, a vendor created by a group of primary dealers in Government securities that publicly disseminates information regarding the U.S. Treasury market.

With respect to the markets for foreign, sovereign and mortgage-backed securities, the amount of transparency has not changed significantly in recent years. Dollar-denominated foreign sovereign bonds are largely traded through inter-dealer/brokers who post quotation and transaction information on their brokerage screens. This information is not generally disseminated outside of the dealer network. Pricing information on mortgage-backed securities is widely available through a variety of commercial vendors. Some vendors also offer analytical tools to value these securities. Dealers and some institutional investors have in-house analytical models in place as well.

Generally speaking, transparency plays a fundamental role in promoting fair and efficient pricing in the fixed income markets, thereby fostering investor confidence in those markets and encouraging greater participation. Transparency also contributes to efficient price discovery and aids investors in assessing the quality of prices being offered in the marketplace. In addition, transaction reporting has supplemented the ability of regulators to surveil the bond markets for unfair pricing and abusive mark-ups and markdowns. Finally, a soon-to-be-released study by the Commission's Office of Economic Analysis confirms that transaction costs decline with added transparency.

For any type of bond, mark-ups must be reasonable. While NASD has a maximum 5 percent guideline for equity securities, mark-ups are expected to be significantly lower for bonds. For different types of debt, what is recognized as reasonable depends on such factors as liquidity, credit rating and yield, and can range from less than one half of 1 percent for Government debt to higher amounts for high-yield bonds. For investors as well as regulators the difficulty lies in establishing the prevailing market price for a bond. This generally is the baseline that is used to assess whether a mark-up is reasonable. We believe that increased transparency should enhance the Commission's and the SROs' ability to determine the prevailing market for a bond, and thereby ascertain that investors are not being charged unfair prices or abusive markups.

Improved transparency will enable investors to better determine the fair price of a bond. This will make them better able to protect themselves against unfair pricing in the first instance.

In closing, I would like to note that we believe that transparency is an essential component of an efficient and fair market. In that regard the Commission has supported increased transparency in the fixed income markets and will work with market participants and regulators in the future to ensure that we can continue the trend of increasing transparency in the fixed income markets.

Thank you.

Chairman SHELBY. Mr. Shulman.

**STATEMENT OF DOUGLAS SHULMAN**

**PRESIDENT, MARKETS, SERVICES AND INFORMATION**

**NATIONAL ASSOCIATION OF SECURITIES DEALERS**

Mr. SHULMAN. Thank you. Chairman Shelby, Senator Sarbanes, Members of the Committee, my name is Doug Shulman. I am NASD's President in charge of Markets, Services and Information, and I appreciate the opportunity to address the Committee.

As you know, NASD's mission is to protect investors and ensure the integrity of markets. We have statutory authority over the 5,200 broker/dealers operating in the United States, as well as authority over the 660,000 individual brokers operating in the United States. We have the authority to take action against people who have broken our rules, Federal securities laws, and in the case of municipal bonds, the rules of the MSRB. We also run transparency facilities like TRACE, our bond reporting system.

In the case of bonds we are particularly focused on the interests of individual investors, in part because we have seen substantial growth in the number of those investors investing in bonds and bond funds. We believe the reason for this growth of individual investors in this market is two-fold. First, as baby-boomers reach retirement age, most financial planners and brokers are actively moving people out of stocks and into bonds for their asset allocation. Second, the major losses in the stock market during 2000 and 2001 have led many investors to look for places besides stocks to invest their money.

Measured in dollar volume, transactions in all U.S. bond markets in the first hour of any trading day exceeds those on the New York Stock Exchange for the entire day. Yet, while the stock markets have generally been open and transparent, information about bond markets traditionally has been murky and inaccessible to less sophisticated investors. Indeed, we have seen that many mainstream investors do not understand the basic principles of bond investing. A recent NASD survey found that 60 percent of investors do not understand the basic principle that when interest rates rise, the price of a bond declines.

To address investors' lack of knowledge of the bond markets we have several initiatives under way including investor education, as well as working with print and online media to improve their bond information. We also have a major initiative which we launched in July of 2002 at the urging of Congress and the SEC called TRACE. It stands for our Trade Reporting and Compliance Engine for corporate bonds.

Under the NASD rules, every transaction in the corporate bond market must be reported to TRACE. We receive pricing information on investment grade, high yield, and convertible debt. This is the first time that comprehensive information on corporate bond trades has been available either to regulators or investors. The purpose of TRACE is two-fold. First, we receive the information and send prices out to the investing public so they can do their job of policing their own trades, and second, we use this information for our regulatory programs, to look at trading behavior that may violate NASD rules or Federal securities laws.

As I mentioned a moment ago, Mr. Chairman, the ranks of individual bond investors are large and growing. Before we launched TRACE, in the corporate bond market we had only anecdotal evidence of this. After TRACE went live, we had a far better understanding of the retail activity in this market. Our data shows that 65 percent of trades in the corporate bond market are retail in size. That only accounts for 2 percent of the par value, but it is a lot of the trading activity. So, clearly the transparency and access to information that TRACE has brought to individual investors is badly needed. All NASD regulated firms must report their corporate bond transactions to TRACE within 45 minutes of an execution. As Ms. Nazareth mentioned, we plan to reduce the reporting time to 30 minutes later this year, and to 15 minutes in 2005.

Since we launched TRACE we have also moved aggressively to have a transition plan to get more and more information out into the hands of investors. Currently, as of today, we disseminate information on about 4,600 of the 23,000 bonds that are traded in the corporate bond arena. We recently filed a proposal with the SEC to disseminate 100 percent of bond trades to the public, with 99 percent of those being disseminated immediately upon receipt by the NASD. Under this plan, by the end of 2004, price information about all corporate bonds will be made available to the public. This means that when investors are considering purchasing a bond, they can review recent trades or trades in similar bonds and ensure that they are receiving a fair price.

NASD also uses the data submitted to TRACE and the data submitted to the MSRB for municipal bonds to review trades on these two markets for regulatory infractions. We combine this data from the trading systems with the data that we gather in our on-site examination process, and this enables us to monitor for issues such as commissions, mark-ups and potentially fraudulent conduct.

When NASD finds that firms have engaged in activities that violate our rules or rules of the Federal securities laws, we have a range of sanctions available to us, including censures, fines, suspensions, and expulsion from the industry. We also work hard to return money to investors in the form of restitution.

In conclusion, Mr. Chairman, as the retail presence in the bond market continues to grow, NASD will continue to champion transparency in this market, and we plan later this year to release last sale information on all corporate bond trades. We will continue to work with the SEC, the MSRB and the securities industry to ensure the fairness and integrity of the bond market.

Thank you for this opportunity to testify.

Chairman SHELBY. Mr. Taylor.

**STATEMENT OF CHRISTOPHER A. TAYLOR EXECUTIVE DIRECTOR MUNICIPAL SECURITIES RULEMAKING BOARD**

Mr. TAYLOR. Thank you, Mr. Chairman, Senator Sarbanes, other Members of the Committee. We appreciate the opportunity to discuss the MSRB and the municipal securities market.

We are a unique regulator of a unique market, and our mission is to protect investors and the integrity of this market which provides much of the capital for the infrastructure of this Nation.

The MSRB is a self-regulatory organization, an SRO, but we are very different from the other SRO's, such as the NASD and the New York Stock Exchange. We were created by Congress and given a mission by Congress to write rules for dealer behavior in the municipal securities market. Our very creation and charter set us apart from the other SRO's. We regulate only the municipal securities activities of dealers, and we are the only product line SRO. MSRB only sets the standards, which we believe are quite high, for dealer behavior.

We do not have examination and enforcement power. Those powers are vested in the NASD, the three Federal bank regulators and ultimately the SEC.

The market we regulate is unlike any other segment of the bond market. Allow me to illustrate with some of the statistics. There are more than 50,000 separate issuers who over time have issued more than a million and a half separately tradable securities. This can be contrasted with the corporate debt and equity markets where the number of outstanding and separately traded securities is less than 50,000.

There is an exceptionally wide range of deals that come to the market. Last month, the State of California sold $7 billion worth of bonds at one time. Around the same time, the Litchfield Airport Authority in Illinois sold $100,000 worth of bonds.

Trading activity in this market is extraordinarily thin. On any given day less than 1 percent of the outstanding issues actually trade, and over a whole year only about a third of all the outstanding issues trade. In some ways this lack of trading activity should not be a surprise. After all, this is a bond market, and in our case, one that is dominated by individual investors who generally buy and hold bonds until maturity.

Nonetheless, the MSRB has adopted rules to protect investors and the integrity of the market in keeping with the objectives laid down by Congress. We continue to modify our rules to adapt to this constantly evolving marketplace.

Several of our recent activities are notable. With regard to price transparency and trade reporting, we recognize that any market functions more efficiently with better information about what is traded and at what price. We have increased price transparency in this market in measured steps, and almost exactly 1 year ago today, investors in this market could see the details on every trade in our transaction reporting system on a next-day basis. For example, at 7 a.m. this morning any investor could see all the trade information that we collected last night.

We have been working diligently to implement a real-time transaction reporting system. We expect to be operational in January 2005. We have mandated that all dealers test their reporting systems with us beginning next month. Upon implementation, dealers will have to report trades to us within 15 minutes of execution. We will make that information, in its entirety, available immediately.

In another area of concern to us, over the past 3 years we have been reviewing our Rule G–37, which is designed to eliminate the perceived or real conflict of interest from the giving of political contributions and the awarding of municipal securities business, so-called pay-to-play. This rule has been quite effective in maintaining the integrity of the municipal financing process. A companion rule, Rule G–38, addresses the role of consultants hired by dealers to solicit municipal securities business. Rule G–38 has been effective in illuminating this practice.

But recent trends raise questions about the place for such consultants in this industry. We recently proposed for industry comment a ban on the hiring of such consultants. We have received lots of comment letters on our proposal, both for and against. The MSRB will consider those comments at its next meeting in mid-July. These proposals with regard to political contributions and consultants and our efforts with regard to transparency demonstrate the Board's vigilance in seeking to maintain the integrity of this industry.

This concludes my remarks, and I would be glad to take any questions you or Members of the Committee might have.

Chairman SHELBY. Thank you.

Some people have raised concerns that efforts to create real-time price disclosure may negatively impact the liquidity in the corporate and municipal bond markets, and may cause increased volatility. How would each of you respond to this assertion? Ms. Nazareth, we will start with your response.

Ms. NAZARETH. I know that position has frequently been maintained by the industry. I think because of the manner in which this transparency initiative has been rolled out, we have actually been able to study the impact on liquidity because of the manner, again, in which it was implemented to move toward greater transparency. We have not seen the negative impact on liquidity that people thought would occur. In fact, we have seen very positive benefits in terms of lower transaction costs, and I think as Senator Sarbanes mentioned in his opening, what you also find is greater investor confidence in a market when they know what a fair price is.

Chairman SHELBY. Mr. Shulman.

Mr. SHULMAN. Well, as a matter of principle, we believe that more transparency in markets is good for markets and potentially brings more liquidity into markets. The stock markets have seen this. We had this experience when we used to own Nasdaq in the early 1970's.

What we have tried to do is fashion a transition plan that allows a market that used to be totally opaque to move to one that is totally transparent, but to have steps along the way so that we could study this. We started with investment grade bonds that were $1 billion or greater. We looked at that, did not see any effects on liquidity. We moved to our phase two, which now has A−rated bonds, $100 million or greater, and we also put a sample of BBB bonds into the market. Again, we studied the issue. We are now moving to 100 percent transparency which will put, starting by the end of this year, a lot of high-yield bonds into the market, and as I mentioned, we will hold back 1 percent of the bonds which are the large transactions that are infrequently traded less than once a day.

And, again, as we fashion this transition plan, we are going to study the effect of that part of the market, and I will tell you the reason. We have heard concerns. It is at that very low end of the market where we have heard concerns not just of the dealers but also of the buy side.

Chairman SHELBY. Transparency is information to everyone, is not it, in a sense, open market.

Mr. Taylor, do you have a comment?

Mr. TAYLOR. Senator, as you may know, today, as I mentioned, we are releasing everything we have in our system as soon as we have it. And, in fact, we have a next-day system. It is providing information on the day after trade date.

We, too, were concerned about liquidity but did not over time find a significant problem with it, and our plans for the real-time system call for the release of all information. The Board at its February meeting considered possible liquidity effects from releasing all of the information available to us in the proposed real-time system and concluded that if there were liquidity effects, they would be short term and far outweighed by the benefits to the market and to investors.

Chairman SHELBY. Could you all address recent allegations regarding certain wide price swings and excessive markups in both the municipal and corporate bond areas? What are the rules concerning fair pricing and the size of markups? And how do the regulators monitor compliance? Finally, have you brought enforcement actions regarding excessive markups?

Ms. NAZARETH. One of the substantial advantages of this transparency is that we also receive this data for regulatory purposes, and Doug Shulman can speak more directly to this issue because it is the NASD that does the surveillance. But it has been a tremendously powerful tool in enabling the regulators to monitor for excessive markups. There have been cases that have been brought, and I think our ability to continue to monitor in this area will be improved, and we continue to work with the SROs to ensure that, we are doing a vigilant job in ensuring fair pricing to investors.

Chairman SHELBY. Mr. Shulman.

Mr. SHULMAN. There are rules on the books now that include NASD rules, SEC rules, MSRB rules, as well as case law. The basic rule is that investors have to get a fair price. It is a fact-and-circumstances analysis.

We brought cases in the past. Having TRACE data now allows us to really see a lot more. We used to bring cases based on going in and looking at the books and records of a firm in an on-site exam. We now have data, and we have built in surveillance alerts, so when there are big swings in prices in a given day, it will automatically kick out. We can give it to our investigators. They can find out if this is fair or not.

We have currently ongoing 20 investigations around markups in corporate and municipal bonds, and we are working with the SEC actively to get some clarification around markup rules, and we do anticipate some significant cases—we are in the final stages—coming to light, sometime in the near future.

Chairman SHELBY. Mr. Taylor.

Mr. TAYLOR. As you know, as Doug pointed out, we do have rules on the books for fair and reasonable pricing. The MSRB has believed for a long time that providing the tools such as the price reporting system to those that enforce our rules—the NASD, the bank regulators, and the SEC—is really part of our job. So we did believe that putting together the system not only provided price transparency but provided a very strong tool to the regulators.

We did publish a notice in January highlighting for dealers their responsibilities under our rules and a practice that we had observed in the data that suggested that during a single day investors might not be getting a fair and reasonable price in accordance with our rules. As Doug has pointed out, the NASD is currently investigating that.

Chairman SHELBY. In the recent past, we have seen a number of instances of conflicts of interest at work in the equity markets where insiders benefit at the expense of retail investors. The primary example that you are well aware of is the global settlement in which research analysts issued glowing reports of company-backed issuers while privately criticizing the companies.

What are the conflicts that regulators are examining in the bond markets? Could we see a crisis in the bond markets akin to events that led to the global settlement? Ms. Nazareth.

Ms. NAZARETH. Well, we are certainly looking at the issue. I think that the bond markets in this respect have been quite different. There is fixed-income research. Its function is a bit different than it is in the equity markets, obviously.

Chairman SHELBY. Well, the equity markets and bond markets are fundamentally different, aren't they?

Ms. NAZARETH. Right. In the equity market, the research, as you know, was used largely to promote the stocks and it had an impact on trading. In the fixed-income markets, there are so many other factors involved in the purchase of a bond, including, the creditworthiness of the issuer, interest rate spreads to Treasuries. It tends not to play quite the same role in the sales process. But there, nevertheless, are areas where there could be conflicts, for example, where firms' research analysts are involved with the trading desk—and the firm has a position and is also taking a public position with respect to the bonds.

The Bond Market Association, was very out front in recognizing that there were potential conflicts here and has recently finalized their guiding principles to promote the integrity of the fixed-income research. We really applaud that effort. We are eager to see the firms adhere to these voluntary principles and we will watch closely what the impact of adherence to those principles does.

Chairman SHELBY. Mr. Shulman.

Mr. SHULMAN. It is very similar to what Annette said. We have been looking at fixed-income research. The Bond Market Association has put forward guiding principles. We are talking with the people throughout our institution to make sure that we believe that there is independence of research.

We also always look at the firewall issues, especially between proprietary desks and desks that serve customers, and we will continue to keep a focus on making sure that there is appropriate information barriers and that these conflicts do not occur. It is an area that we are quite sensitive about and are being vigilant in looking really across firms at these issues.

Chairman SHELBY. Mr. Taylor.

Mr. TAYLOR. I do not think I could add very much to what has just been said by both Doug and Annette, but I would point out that in our market, we do have some issues that relate to the fact that information on such a wide variety of issuers is not broadly available to all participants in the market at the same time. And that does raise the possibility of people having information that should rightfully be in the possession of everyone in the market.

Chairman SHELBY. There are some studies indicating that small retail trades in municipal bonds are substantially more expensive than large institutional trades. What accounts for this disparity in trading costs? Also, would greater transparency eliminate the difference?

Ms. NAZARETH. You are correct about the studies. We think the seminal one in that area was actually done by the staff of the Office of Economic Analysis at the SEC. But what was very interesting about the findings was that, unlike the equity markets, where the costs to investors are less for smaller trades, here it is the inverse. The small retail investors have higher transaction costs, which we attribute to the lack of transparency. That universe of investors is least able to understand what a fair price is, and the costs to them are higher. And I think that we are very confident and are already seeing that in those circumstances where there is a greater transparency in the marketplace, the transaction costs are reduced.

Chairman SHELBY. Thank you. Do you have any comment on the same thing?

Mr. SHULMAN. I would agree. It basically changes the information dynamic, and someone is now going to be able to see where all the trades were and ask their broker, “Why did not I get this price?”

Chairman SHELBY. Why they did not get a better deal, sure.

Senator Sarbanes, thanks for your indulgence.

Senator SARBANES. Thank you, Mr. Chairman.

I wanted to follow up on the question before the last question the Chairman put. *The Wall Street Journal* in April published an article entitled “Bond Research Facing Probes Over Conflicts,” which identified, and I quote them,

> “potential conflicts involving bond research have been largely ignored, among them whether bond traders or bankers get advanced peeks at research before it is published, giving them a chance to trade ahead of the public or clients who paid for the reports and whether bankers or trades have influence over what analysts say in their research reports.”

How do you respond to this article?

Ms. NAZARETH. I think that there are, as you know, conflicts throughout this industry, and this was an area that obviously the industry and the regulators rightly should be focused on, particularly after the lessons learned in the equity research area. Surely there are opportunities for conflicts of interest. I think as Doug mentioned, it is important to have walls between the proprietary traders and the analysts. This is something where, again, the regulators were beginning to look at it. The industry decided to take the lead and to do a self-assessment. And I think that the guiding principles that they have come up with are really very rigorous.

What they did, I believe, was they started with the standards that had been put in place for the equity markets and decided to point by point determine whether those standards or more rigorous standards or similar but somewhat different standards were appropriate for the debt markets. And we are very interested in seeing what the impact of that will be, but I think it was a very important first step.

Senator SARBANES. When you say the impact of it, where are we on the implementation of the standards?

Ms. NAZARETH. I think the firms who were involved in that, which were the largest dealers in the marketplace, I believe have voluntarily agreed to comply. I believe that larger number of them are implementing those procedures.

Senator SARBANES. And who is monitoring their compliance? Is that you, Mr. Shulman?

Mr. SHULMAN. Yes.

Senator SARBANES. Why do not you respond to this article?

Mr. SHULMAN. Two issues. One is we get MSRB data. We have TRACE data. We have only had that data now for 2 years. What we do now is, if we see broad swings or if we see a trading desk—we can now see when a desk trades ahead of a customer, if they do. It is the first time we have been able to see this, and we will go do an investigation and enforcement action, if needed.

We also were actively in discussions with the Bond Market Association and NASD is in discussions now about whether these guiding principles, which we do look for adherence to, should be codified into rules.

Senator SARBANES. Was trading ahead of their customer a pretty prevalent practice?

Mr. SHULMAN. Not that we know of.

Senator SARBANES. I mean before or now, or neither?

Mr. SHULMAN. It is not something that has come to our attention often, but it is also something we did not have the data until about a year ago. We have just set up the parameters to actually look for that.

Senator SARBANES. Do you want to comment on this, Mr. Taylor?

Mr. TAYLOR. I actually think, Senator, that much of what that article was focused on was the corporate bond market and corporate research, because in the municipal area most research focuses in entirely on the issues that come before the dealers. As I noted in my opening remarks, only about 1 percent of the bonds trade on a given day, so the ability of a dealer to trade ahead of the market is almost an impossibility because you do not actually know what is going to flow into the market on that particular day from investors around the country. There is not an actively traded two-sided market that allows you to go in and position yourself ahead of a customer.

Senator SARBANES. On the panel that is going to be following you, Dr. Warga in his testimony states—and I quote:

> Even if a bond is rated, when the information about a change in credit risk is needed most, the rating usually fails to reflect it. Rating agencies often do not change ratings until several months after the event that triggers the need for a rating change.

And he cites as authority studies that he performed both in 1993 and in 1997.

What about this issue of how quickly credit rating agencies respond to events that would trigger the need for a rating change?

Ms. NAZARETH. Well, it is difficult to speak generally about it. It sounds like the professor is comparing the role of the research analyst to the role of the credit rating agency. He is saying that on a short-term basis they should be making an immediate change in the rating, whereas I think generally the credit rating agencies have a longer-term perspective on their ratings.

That having been said, obviously there have been circumstances where rating agencies have been slow in recognizing trends that would have both an immediate and longer-term impact. So, again, it is hard to make general statements. But I do think that I would not equate the credit rating process necessarily with the research process here.

Senator SARBANES. Mr. Shulman.

Mr. SHULMAN. We have no authority over credit ratings, the agencies that do that, so I wouldn't speak about that.

One thing that NASD does have authority over is to ensure that brokers make suitable recommendations to their customers, and, one thing that we encourage the brokers to do and monitor for is to make sure customers understand all of the risks of a bond, which can include the call feature, the term, the risk, and the rating. And we recently put a notice to members out reminding them of those obligations in bonds because we have seen more people in the bond market. And, this is an issue that we would be happy to look at.

Senator SARBANES. Mr. Taylor.

Mr. TAYLOR. Senator, in this regard, in the municipal market the issue is really one not so much of default—in the municipal area, the credit rating agencies are focused in on the probability of default. And default probabilities are very, very low in the municipal securities market.

Again, to echo what Doug said, we have rules, as does the NASD, on suitability and fair pricing, and I think what is important to dealers in this market and important to investors is knowing, for example, when a call on a bond, an outstanding bond, is going to take place. That is not something that rating agencies would necessarily concern themselves with but does affect very quick changes in value of the bonds and is affecting pricing.

I am not really in a position to comment on what changes the credit rating agencies have made since 1997, but certainly our conversations with them on an informal basis are that they are trying to do a much better job than they have done in the past.

Senator SARBANES. Would each of you describe the investor education programs you have for retail bond investors?

Ms. NAZARETH. Well, the SEC does have an Office of Investor Education, and I am not the internal expert on that, but we have a very active program. As you know, over the years we have had town hall meetings with investors. We have a number of very useful tools on our website that investors can look to. We also, hyperlink to a number of the tools that the industry has created for investors with respect to debt markets as well, debt securities.

Senator SARBANES. So when you talk about these investors, you are talking about retail bond investors?

Ms. NAZARETH. Yes, retail investors.

Senator SARBANES. Mr. Shulman.

Mr. SHULMAN. NASD had an active investor education program. We have brochures on bonds. We have our website, which has a variety of information just about investing, portfolio allocation, et cetera. As I mentioned in my oral testimony, we actually have a team of people actively working with popular print media and online websites to improve the information they have about bonds, and we found them to be quite receptive and anticipate some of the data that we have and other materials going up soon.

We hold town hall meetings around the country, and bonds is one of the issues we discuss. NASD just recently put $10 million into an investor education foundation.

Finally, our experience is that the time investors really start to understand something is when they are going to put their money to work. And so we have done a lot to work with the industry to make sure that brokers give investors the right information and all of the factors of a bond when the investment happens. And we will continue to try to make the TRACE data, the MSRB data, and other data useful to investors so they can watch the movement of the market and better understand the dynamics of the security they hold.

Senator SARBANES. Mr. Taylor.

Mr. TAYLOR. Senator, we do not have an active program targeted to retail investors. In fact, I think we would be hard pressed to improve upon what the NASD does, and, in particular, I will make a plug here for what the Bond Market Association has done in terms of trying to reach out to the retail investor in bonds, in particular municipal bonds.

One of the first things they did was to take all of our transparency data, put it up on their website, make it available free, and allow any retail investor to actually go in, type in their CUSIP number, which is the identifier, and see all of the trading activity over the last 6 months, if there was any, in that security.

We have worked to make our data readily available to anyone, not just the Bond Market Association, but any other data services that could use those data. But because the general education is being done by the NASD and the Bond Market Association, anything we would do would probably just duplicate what they are already doing.

Senator SARBANES. Are there other things you think would be helpful for them to do in this area?

Mr. TAYLOR. Raising the awareness of people who invest in bonds generally to the availability of data sources is probably the most difficult thing to do because bond investors, as I mentioned earlier, typically are buy and hold. So they buy the bond, stick it in their portfolio, expect to see the interest flow in, and eventually get their principal back. They are not sitting there monitoring the price, hoping the price goes up and they can see it and that is how they make their return. They are getting their return on interest. And so my experience, both personally, family, friends, and the like, is they are watching the flow of interest come to them. They are not looking at the price.

So it is at the initial decision point that you really want investors to be aware of what prices are in the market, what information is there, and what the alternatives are.

Senator SARBANES. Thank you, Mr. Chairman.

Chairman SHELBY. Mr. Taylor, would you briefly discuss how MSRB is evaluating the scope and application of Rule G–37 regarding political contributions and the award of underwriting business with respect to political contributions from affiliated companies within a holding company structure? I know that is a mouthful.

Mr. TAYLOR. Well, let me start with the basics. First of all, Rule G–37 requires dealers on a quarterly basis to provide us with information on their political contributions, the consultants they hire, and the business that they do, in a nutshell. And it is this information that the Board is reviewing constantly. As I mentioned, we have actually had an ongoing review of Rule G–37 and various aspects of it for more than 3 years.

With regard to your question about holding company organizations, I would point out that the rule presently prohibits a dealer from doing indirectly what he is forbidden to do directly.

Chairman SHELBY. Okay.

Mr. TAYLOR. We have put a notice out on that, and we have worked with the NASD and the regulators to highlight our concerns in that area so that when they are doing enforcement, they are particularly focused in on that.

Chairman SHELBY. We appreciate all three of your appearing here and your contribution to the Committee hearing. Thank you very much.

Chairman SHELBY. We will go to the second panel now: Mr. Micah Green, President, Bond Market Association; Mr. Chris Ryon, Principal, The Vanguard Group; Professor Arthur Warga, Dean, C.T. Bauer College of Business and Judge James A. Elkins Professor of Banking and Finance, University of Houston. We welcome all of you on our second panel. Your written testimony will be made part of the record in its entirety, and we will proceed when you are ready.

Mr. Green, we will start with you.

## STATEMENT OF MICAH S. GREEN

## PRESIDENT, THE BOND MARKET ASSOCIATION

Mr. GREEN. Thank you, Mr. Chairman, Ranking Member Sarbanes, and Members of the Committee, for the opportunity to testify. I am Micah Green, President of The Bond Market Association. I commend you for holding this hearing at this time. While this Committee has looked at many specific issues, it has been a while since there has been a broader review of the regulations of the bond markets. Much has changed in recent years to make the bond markets safer, more transparent, more electronic, more efficient for all market participants. In fact, much has changed at The Bond Market Association as these market and regulatory developments occurred. We have broadened to represent the full array of credit, debt, and structured capital markets. With our affiliated organizations, the Asset Managers Forum, and various securitization forums, we are better able to bring together the viewpoint of investors and issuers. Through our offices in Washington, New York, and now London, we are representing these markets on a global basis. The U.S. bond markets alone represent $22.6 trillion, the largest sector of the financial markets, or more than $880 billion of trades seamlessly on an average day.

From the schools and roads built by municipal bonds to the mortgages that are more affordable because of a mortgage-backed securities market, to the new jobs created as corporations raise investment capital with bonds to invest in new plants, the bond markets touch everyone. Unlike stocks, bonds do not trade on an exchange but in an over-the-counter, decentralized fashion. There are far too many bonds and far too many bond issuers, including a majority of bonds that rarely trade, to list them on an exchange and expect constant two-way prices. For the bond markets to function as they do, dealers must purchase bonds and hold them in inventory, an act that puts capital at risk. The less liquid a bond or the more difficult it is for a dealer to quickly resell it in the market, the less likely dealers are to purchase the bonds in the first place.

Probably the biggest change in the regulatory environment affecting the bond markets has been the introduction of rules seeking to protect the retail investor. Although most of the daily activity in the bond markets is dominated by large sophisticated investors since the stock market bubble burst, retail investors have sought out more diversity in their portfolios, either directly or through conduits like mutual funds. This is a welcome change as we always believe that a balanced asset allocation is much more responsible than putting your eggs in one basket.

And yet with all of this retail demand, specifically in the municipal and corporate securities marketplace, the vast majority of the volume of securities that trade every day are large institutional transactions. Even the NASD's own study that was cited in their testimony showing that 65 percent of daily trades of corporate bonds were trades under $100,000 in size, their research also indicated that all of those trades represented only 1.8 percent of the total dollar volume.

Having said that, it has been crucial to improve disclosure and transparency in the bond markets to give all market participants better information. This Committee, your House counterparts, the SEC, the NASD, and the MSRB should all be acknowledged for the developments of the last several years that have helped to make the bond markets safer and more transparent for all market participants, particularly the retail investor.

The Bond Market Association has worked hard to partner in these efforts in a manner that is supportive of ensuring that investors have all the necessary information they need to make responsible and informed decisions, but also to ensure that the large, more sophisticated institutional market has sufficient liquidity to ensure the ability to move capital freely and efficiently, regardless of the size or esoteric nature of the transaction.

In the early 1990's, The Bond Market Association and its membership created GovPX, which represented the first time some light was shone on the transactions in the Government securities market. We have also worked closely, as you heard earlier, with the MSRB in the municipal market and the NASD with the TRACE corporate system.

We have also tried to improve the knowledge level of the retail investor about bonds. Our award-winning retail investor website, which Kit Taylor mentioned, investinginbonds.com, gets over 3 million hits a month from retail investors, and it has understandable information about bonds and the bond markets, and it also has the MSRB and TRACE data system in a very usable form.

Additionally, the association's not-for-profit partner, The Bond Market Foundation, is reaching out to nontraditional investors such as young adults, women, and the Spanish-speaking community, with its websites *tomorrowsmoney.org*, *unwantedchange.org*, and *ahorrando.org*. The bond markets have also fostered the evolution of important and sophisticated tools like interest rate swaps and credit derivatives that allow market participants to segregate and manage risk more efficiently. These derivatives have made an unquestioned contribution to the safety of the overall system.

In the past year, as Ms. Nazareth indicated, we have also worked on several initiatives designed to promote safer and more efficient markets. In May, we issued the guiding principles to promote the integrity of fixed-income research. Neither regulators nor the public had called for it, but the association took the initiative to develop the principles as a way to help member firms manage potential conflicts that could arise from their debt research activities. And, Senator Sarbanes, I would note that the issue you raised a question on is actually on page 30, Section 4.8.1, hitting that point directly, and I appreciate your asking that question.

The SEC and the broader market have welcomed these principles, and they were approved by our membership.

Mr. Chairman, rising and falling interest rates are a reality of the bond markets. It is also a reality that as a result of the initiatives, both in the regulatory environment and in the marketplace, the bond markets are a dynamic, well-regulated part of the financial markets whose participants recognize the need for safety and efficiency and are eager to promote that goal.

I thank you for the opportunity to appear today.

Chairman SHELBY. Mr. Ryon.

**STATEMENT OF CHRISTOPHER M. RYON PRINCIPAL AND SENIOR MUNICIPAL BOND PORTFOLIO MANAGER, THE VANGUARD GROUP**

Mr. RYON. Gentleman, Chairman Shelby, Ranking Member Sarbanes, Members of the Committee. My name is Christopher Ryon. I am a principal and Senior Municipal Bond Portfolio Manager at the Vanguard Group, a mutual fund company based in Valley Forge, Pennsylvania. Vanguard is one of the world's largest mutual fund families, managing over $725 billion for nearly 18 million shareholder accounts. Vanguard offers 131 mutual funds to U.S. investors and over 35 additional funds in foreign markets.

Vanguard's offerings include 12 corporate bond funds with over $73 billion in assets and 14 municipal bond funds with over $43 billion in assets. Along with three other portfolio managers, four traders and a team of municipal bond analysts, I oversee the management of over $43 billion in Vanguard municipal bond assets. I am pleased to be here representing Vanguard to discuss the U.S. bond markets. My testimony will highlight the composition and structure of the bond markets. I will also provide an update on bond market transparency with respect to bond pricing and issuer financial disclosure.

Ownership in the bond market is diversified. There are significant individual institutional and foreign ownership across the markets. Unlike other segments of the bond market, investment in municipal bonds closely resembles that of the stock market. Individual investors and mutual funds own substantial portions of the market. In 2003, 36 percent of municipal bonds were held by individuals and 15 percent were held through mutual funds. These figures parallel the ownership of the stock market, where households own 37 percent and mutual funds own 20 percent.

Buyers and sellers in the bond market trade primarily over-the-counter. Unlike the stock market, there are no organized National exchanges for bonds. Over-the-counter trading dominates municipal bond markets to a greater extent than other segments of the bond market. Traditionally, municipal bond markets have existed in localized State and municipal markets, where there was a small community of buyers and sellers with little National interest.

Today, municipal bonds are a significant part of the U.S. financial markets, but the diverse and decentralized nature of the market still discourages development of an organized exchange.

Pricing transparency in the bond market has improved in the past 10 years. Unlike the stock market and the Treasury market, there is no real-time pricing for most bond markets. However, rules imposed by the Municipal Securities Rulemaking Board, the MSRB, have greatly enhanced the reporting of municipal bond trades much as the trade system has enhanced transparency of corporate bond trades.

As the fiduciary responsible for the investments of hundreds of thousands of municipal bond fund investors, Vanguard strongly commends the MSRB's efforts to improve municipal bond market price transparency. We also commend the recent progress at enhancing corporate bond market price transparency on the TRACE system.

There has been a steady effort to improve the disclosure relating to the financial condition of bond issuers. Corporate bond issuers are subject to the SEC regulation that requires registration and current disclosure for the benefit of investors. Disclosure of financial market condition of municipal bond issuers has been more of a challenge because of the diverse nature of the market. However, important steps to improve issuer financial transparency have been made.

We should all support the steps taken by issuers, self-regulatory organizations, and investors to improve price transparency in the corporate and municipal bond markets. Again, as a fiduciary responsible for hundreds of thousands of municipal bond investors, Vanguard strongly supports the MSRB's efforts to improve price transparency in municipal bond markets and believes that it is in the best interests of investors for these efforts to continue.

In addition to price transparency, efforts should continue to improve issuer financial condition transparency in the municipal bond market. The SEC's efforts to improve disclosure through rulemaking have been effective and beneficial. However, Vanguard recommends that lawmakers, regulators, industry participants continue to monitor developments and consider whether more may be done to improve issuer financial condition transparency.

Thank you, and I would be happy to respond to your questions.

Chairman SHELBY. Professor Warga.

**STATEMENT OF ARTHUR D. WARGA
DEAN, C.T. BAUER COLLEGE OF BUSINESS
JUDGE JAMES A. ELKINS, PROFESSOR OF BANKING
AND FINANCE, UNIVERSITY OF HOUSTON**

Mr. WARGA. Thank you, Chairman Shelby, for inviting me here to provide what I hope is a dispassionate outside academic perspective on the topic of today.

Chairman SHELBY. We welcome that.

Mr. WARGA. I would agree with previous speakers that, on the institutional side, the bond market has evolved into what I view is a relatively efficient competitive cost structure. The cost structure is such that dealers are able to capture implicitly the costs of providing various research and portfolio services to the large institutional buyers, and I think most institutional buyers, like Mr. Ryon next to me, will agree that the cost structure is very competitive and competitive even with the highest decile New York Stock Exchange transactions.

Fortunately, the recent transparency initiatives, TRACE, and MSRB initiative are providing the institutional market with perhaps its biggest—it is helping them solve their biggest problem, which was the issue of trying to mark, on a daily basis, the net asset values of their bond portfolios. I have always viewed the net asset value numbers produced by bond mutual funds and other bond portfolios as very problematic. Now, at least, there is a richer source of data that they can base some models on to improve that situation, which I think has been rather bleak in the past.

However, the transparency initiatives have not changed the costly trading environment for retail investors. In particular, I will say that in the written report that Mr. Ryon provides, he gives an update, 3 years past my own seminal paper on the municipal bond market, that confirms that transparency has had virtually no effect whatsoever on the costly retail structure, cost structure for retail trades and municipal bond market. They still remain extremely high, perhaps as much as 200 basis points or 2- percent above what an institutional buyer faces.

My own guess is that this is largely true for the corporate retail market. However, data on that market has been very dark, and we are anticipating some reports to be released shortly, but we still do not really know what the cost structure is in the retail corporate market. We have absolutely no idea. Data has not been released publicly to researchers like myself.

The studies that are forthcoming, and particularly the NASD study forthcoming on the cost structure for retail trades in the corporate bond market, I think need to have a comparison to the one exchange-traded retail market for corporate bonds, the automated bond system run by the New York Stock Exchange, for which we know what the cost structure is. We know that it is competitive with the institutional market, absent some commission charges, and it is incumbent upon the NASD to make that comparison.

Individuals need to understand the huge risk of buying individual bonds. I, personally, would be hard-pressed to recommend anybody buying an individual corporate or municipal bond in the existing trading structure. The real problem here I think has not been touched upon by the participants in these panels, and that problem is that the basic structure of this market is simply not set up to accommodate retail trades. There needs to be a focus and research on setting up a separate structure for retail purchases of individual municipal or corporate bonds. The structure, as I said before, is geared toward institutional buyers, and it is doing a very good job and has for many, many years.

I have a final comment, and that is just to give a brief answer to Senator Sarbanes' comment about my talking about credit rating changes occurring very slowly. They do, in fact, change slowly. They continue to change slowly, but there is a structural reason for that. The U.S. Government provides the rating agencies legally with the power to let their ratings be used in contracts.

And so if the rating agencies were to immediately change their ratings, and sometimes events happen to the bond markets where a price drops precipitously, but then it will come back. So, in fact, if they were to change their rating immediately, they would end up having to change it again. Unfortunately, some of those rating changes would, in the extreme, trigger events like bankruptcy and corporations and other events. So it is actually important that the rating agencies do not change their ratings quickly.

And my comment in the paper was simply to point out that in the existing market structure, dealers and institutional buyers need to be in touch with each other so they understand that something really has happened, in spite of the fact that the rating has not changed.

Those are my comments. Thank you.

Chairman SHELBY. We will start with you, Dr. Warga. Unlike trading in equities, bond transactions are not immediately reported and publicly disseminated. How would immediate real-time price reporting impact liquidity in the bond markets.

Mr. WARGA. Liquidity is generally correlated with the amount of underlying volatility in a security. For example, stock prices change quite often because little changes in information can have big effects on their prices because the price reflects the present value of all future cashflows to eternity for that company.

That is certainly not the case with highly rated AA-, A-, AAA-rated corporate or municipal bonds. However, for high-yield bonds, which can be thought of as a blend between equity and investment-grade debt, I think there is a real benefit, potential benefit, to increasing liquidity by providing that transparency, and I think we all look forward to that transparency appearing in the near future.

Chairman SHELBY. What are your thoughts, Professor, on the NASD's proposed carve-out from public dissemination through TRACE for illiquid and inactively traded bonds?

Mr. WARGA. It is certainly true that if I were the holder of an illiquid portfolio of bonds, and I received a margin call, and had to dispose of them, and that margin call had absolutely nothing to do with the underlying fundamentals of the company that issued those bonds, I would face a very punishing environment trying to sell them, and I would take a very steep discount. And on the face of it, transparency would not be a good thing. I would like to get rid of those in a market where nobody knew I was trying to get rid of them.

However, I will say that, since we are really talking about mostly corporate bonds and institutional situations where it is an institutional buyer or seller in that situation, I will say that that has occurred plentifully in the past, when there was not any transparency. So it is not clear to me that there will be any harm created by transparency, even in that circumstance.

Chairman SHELBY. Mr. Ryon, do you have any comments on this?

Mr. RYON. We believe that if there is any type of dislocation or illiquidity problem due to increased price transparency, it will be short-lived, that the profit motive will smooth that out rather quickly.

Chairman SHELBY. The market will take care of it?

Mr. RYON. Yes, sir, and that the market will be stronger given better price transparency for both actively and inactively traded bonds, that as individuals know that they are getting a fair price, they will be willing to commit more capital to the market, and therefore it will grow.

Chairman SHELBY. Mr. Green?

Mr. GREEN. Mr. Chairman, I will proclaim unequivocally we have been the watchdog for liquidity in this equation, and over the many years that this issue has been developed, both at the NASD and the MSRB, we have wanted to not prejudge whether or not transparency would affect the liquidity, but to make sure that premature disclosure of illiquid trade information does not affect liquidity. And if it does not go forward—and we have been supportive of each phase along the way, both in the municipal and corporate market—this last little carve-out that is in the proposal of the NASD not only affects the most illiquid and institutional trade, it is the largest trade that trades most infrequently.

Their proposal provides complete immediate dissemination for any smaller trade, any frequently traded or any high-quality trade. So we just want to make sure that in those markets where liquidity is most needed, it is not taken away.

Chairman SHELBY. During the prior panel—I believe all of you were here—the regulators discussed ongoing investigations into wide price swings and dealer markups. Would you describe pricing practices in the industry and whether you perceive any issues surrounding dealer markups.

We will start with you, Mr. Green.

Mr. GREEN. Thank you, Mr. Chairman. I think, as the previous panel said, one of the benefits of the transaction reporting system is that it is arming the regulators with the information they need to root out any problems, and we, as The Bond Market Association, support that. The fact is enforcement of rules is important. Because if rules are enforced, they do not necessarily have to be changed, and therefore wind up being excessive. So this information will help figure that issue out.

Chairman SHELBY. Mr. Ryon.

Mr. RYON. Sir, I believe the market will be the best policeman. If I receive trade information on something I have just sold, and I see that a dealer has taken what I believe to be an excessive markup, I am going to do whatever I can to show my displeasure, and I believe those types——

Chairman SHELBY. But you have got to know that to begin with, have you not?

Mr. RYON. Exactly, sir, and that is why I think price transparency is important, that the market will be its best policeman and that it will force——

Chairman SHELBY. It could be hurting and not really appreciate how much, huh?

Mr. RYON. I beg your pardon, sir?

Chairman SHELBY. It could be hurting and not appreciate it, but if you are informed, you know something is wrong.

Mr. RYON. I am informed, and I can take the appropriate actions.

Chairman SHELBY. Professor Warga.

Mr. WARGA. Well, you know, in the retail market for especially municipal bonds, it is quite likely that there will not be any price for the individual to see. They will have been the only purchaser of that bond more often than not, and so transparency is not going to provide any help at all.

And the websites also provide I think, if a retail investor really is looking at those websites carefully, a lot of puzzles that are not explained and probably need some explaining. Just casually looking over municipal bond trades for the previous day, 2 days ago I saw a trade in the State of Texas. Being xenophobic, I decided to check out Texas, and I saw a bond that traded perhaps a dozen times was sold to investors for price of par of $100, and there were four trades between dealers for $75. Now, I am willing to believe that it is a mistake, but it is not uncommon to see things like that. It probably is a mistake, but it sure needs explaining, and it would probably be helpful if those explanations went up contemporaneously with the posting of prices like that.

Chairman SHELBY. A little footnote people would read.

Mr. WARGA. Yes.

Chairman SHELBY. Thank you.

Mr. GREEN. Mr. Chairman, could I just supplement something Professor Warga said. Because even if a bond does not trade, knowing what the price was in that trade and it will be fully disclosed under the MSRB data, it would give that investor the relative value at the time—relative value as to other benchmark securities, like a Treasury security—so it still has value to the retail investor.

Chairman SHELBY. Well, all information has value. It depends on how much, does it not, and the quality of it.

The equity markets and bond markets have each developed their own trading systems and industry practices. Why should not the bond market have to operate under the same market structure as the equity market? Does it make sense to bring some of the innovations in the equity market, such as electronic trading platforms and real-time posting of bid and ask to the debt markets?

We will start with you, Professor.

Mr. WARGA. Well, in my report, I mentioned the ABS system only because it is an electronic system that exists and that I have been studying for about 15 years. I am not a proponent of it over any other electronic system, but it is a system that is geared toward the retail investor, and currently there are some very serious regulatory constraints to listing, to having a broad range of bonds listed there. There are constraints on that system that do not exist in the dealer market. So, while the dealer market is able to trade any bond it wants, pretty much, on the ABS system, the company that issued the bond has to be convinced by the underwriter that it is worth registering it in the first place, and this creates one impediment to an exchange-based system.

Chairman SHELBY. Mr. Ryon.

Mr. RYON. In a municipal market, the sheer number of volume of securities outstanding make such a move, a change quite problematic. We have tried electronic trading systems in the municipal market over the last few years, and none of them have been successful. They have all failed.

Whereas, in the corporate market and the treasury market, where you have got more of a homogeneous pool of securities, you have seen success with systems like TradeWeb.

Chairman SHELBY. Mr. Green.

Mr. GREEN. There have been significant developments in electronic trading in the fixed-income markets. And as Professor Warga's own study showed, the spreads in the over-the-counter market versus the ABS market are somewhat indistinguishable. So we do not, as the bond markets do not sit here saying the equity model is wrong, but I think it is also safe to say that the over-the-counter model in the bond markets is not wrong either because, frankly, as was just said, with the number of municipal issuers, there are 88,000 individually listed securities in the stock exchanges.

There are over 50,000 municipal issuers alone. There are tens of thousands of corporate issuers. The over-the-counter decentralized model provides access to capital to more issuers and more types of issues than the four walls of a building exchange would provide.

You need to make sure that California has access and a small community in Alabama has access to the same capital, and that is why this system actually works very well.

Chairman SHELBY. Mr. Ryon and Mr. Green, I will pose this to both of you.

Would you discuss how the regulators worked to improve the disclosure by municipal issuers. Given the Tower amendment, are there still ways to improve the uniformity and availability of issuer information.

Mr. RYON. Well, there have been some very good voluntary efforts that have been moving forward, particularly the Municipal Council, that is, 19 members, both issuers, buyside, and other organizations. Their first efforts are supposed to be coming on-line this summer. Things seem to be going very well up until this week, where I have read some articles that looks like we have hit a little bit of a dust-up. So I would say, if that works itself out, I would give those voluntary efforts time to succeed. If they do not, then maybe something else will have to be done to ensure disclosure of not only prices, but issuer financial conditions.

Chairman SHELBY. Mr. Green.

Mr. GREEN. Mr. Chairman, the Tower amendment limits the regulation of issuers in the municipal marketplace, which are States and localities, very much a division of levels of Government. I have got to hand it to the MSRB, and the SEC, and frankly the industry, too, of finding a way to provide deep primary disclosure and deep secondary market disclosure within that limitation.

The way the rules work right now, the imposition of the requirement on disclosure is imposed on the dealer. They cannot bring an issue to market if they do not do A, B, and C. And, ultimately, we have been able to work within that limitation under the MSRB's leadership to provide honest-to-goodness great disclosure in the primary and secondary market. But deciding whether or not to keep the Tower amendment in place or change it is not our job.

Chairman SHELBY. It takes legislation.

Professor, you have a comment on this, the Tower amendment?

Mr. WARGA. Not the Tower amendment, no.

Chairman SHELBY. Do you think it works?

Mr. WARGA. I have no opinion.

Chairman SHELBY. I appreciate all of you. We will keep the record open in case some other Senators might want to pose some questions to you. We appreciate your appearance here today.

Thank you. The hearing is adjourned.

[Whereupon, at 11:35 a.m., the hearing was adjourned.]

[Prepared statements supplied for the record follow:]

**PREPARED STATEMENT OF ANNETTE L. NAZARETH**

DIRECTOR, DIVISION OF MARKET REGULATION
SECURITIES AND EXCHANGE COMMISSION

JUNE 17, 2004

Good morning Chairman Shelby, Ranking Member Sarbanes, and Members of the Committee. I am delighted to be here to discuss some of the significant issues and developments that the Securities and Exchange Commission is currently addressing with respect to the fixed income markets. Specifically, I plan to discuss the fixed-income market transparency joint Task Force, which was recently commissioned by Chairman Donaldson, along with a number of issues that the Task Force is currently considering, including corporate bond market transparency, municipal securities market transparency, government securities transparency, and dealer mark-up practices in the fixed-income market. Finally, I will briefly touch upon the development of guiding principles for the fixed-income industry related to the mitigation of research analyst conflicts of interest.

In March 2004, Chairman Donaldson commissioned a joint Task Force to consider issues relating to bond market transparency and mark-up regulation. The Task Force consists of representatives of the Divisions of Market Regulation and Enforcement, the Office of Compliance Inspections and Examinations ("OCIE"), the Office of Economic Analysis ("OEA"), and the Office of the General Counsel. The Task Force was organized to summarize fixed-income market transparency developments, identify current problems, and generate potential solutions.

Preliminarily, the Task Force has found that transparency has improved to varying degrees in each of the fixed income markets over the last 20 years, because of a continued focus on this issue by both Congress and the Commission. Further, recent increases in the availability of information from these markets has enhanced the ability of regulators to surveil these markets for mark-up violations and other illegal activity.

To implement transparency in the corporate bond markets, the Commission persuaded the NASD to create systems to collect transaction reports and disseminate price information. On January 23, 2001, the Commission approved the NASD's proposal to establish the Trade Reporting and Compliance Engine ("TRACE") system for reporting and dissemination of last sale information on corporate bonds not traded on an exchange. On July 1, 2002, TRACE was officially launched. It is currently being implemented in phases, and has not yet been fully implemented. Under the NASD's TRACE rules, dealers must report trades on U.S. corporate bonds to the NASD within 45 minutes of trade execution, which was reduced from 75 minutes on October 1, 2003. Prior to TRACE, real-time transparency of investment-grade corporate bonds was limited to those traded on exchanges—a very narrow segment of that market.

Although all trades in TRACE-eligible bonds are reported to the NASD, not all TRACE data is disseminated to market users at this time, in part because of industry concerns about the adverse effects that dissemination might have on market liquidity. Dealers initially contended that immediate dissemination of transaction information on anything but the most liquid bonds could discourage dealers from committing capital and assuming risk positions by exposing their intentions to market participants. Thus far, on the basis of available evidence, these concerns remain unsubstantiated. In addition, resales of securities under Rule 144A of the Securities Act of 1933 are subject to reporting, but not dissemination because of the restrictions on resale contained in Rule 144A. Moreover, certain bonds, including bonds classified as "asset-backed", are excluded from TRACE-eligibility and transactions in such bonds are not currently reported to the NASD.

Under TRACE, the NASD currently disseminates transaction information on (i) investment grade corporate bonds rated "A3" or higher by Moody's Investors Service, and "A−" or higher by Standard & Poor's, with initial issuance size of $100 million or greater, (ii) investment grade corporate bonds rated "Baa/BBB" with initial issuance of $1 billion or greater, (iii) an additional 120 bonds designated by the NASD that are rated "Baa/BBB" at the time of designation and with initial issuance of less than $1 billion, and (iv) 50 high-yield securities. Transactions eligible for public dissemination are distributed to vendors immediately upon receipt by TRACE. Transactions larger than $5 million in investment grade bonds are reported as "5MM+;" transactions larger than $1 million in the roughly 50 reported high-yield bonds are reported as "1MM+."

TRACE data currently includes transaction information on more than 4,200 securities and represents about 75 percent of the dollar value of trading activity in investment grade bonds. Real-time price data is available from several third-party data vendors for a fee. Delayed data (minimum four hour delay) is available free on the NASD website.

The NASD is in the process of expanding price dissemination to cover additional bonds in a new phase of the TRACE rollout, which will reflect the NASD's experience with earlier phases. The 120 BBB/Baa bonds currently designated by the NASD for dissemination were selected in order to obtain empirical data about the impact that dissemination may have on the liquidity of such bonds. The 50 non-investment grade bonds designated for price dissemination were also chosen in part to obtain information about the impact on liquidity, if any. The NASD commissioned two studies to address this issue, both of which have been completed. Neither study provided significant evidence that transparency harms liquidity. However, neither study was extensive enough to address all concerns raised by dealers and other market participants.

The NASD's advisory Bond Transaction Reporting Committee ("BTRC") recently made recommendations to the NASD Board to enhance TRACE based on its review of the findings in these two studies. The NASD Board approved the BTRC recommendations, and our understanding is that the NASD intends to file a proposed rule change with the Commission shortly. The NASD plan would make public in near realtime approximately 99 percent of all transactions (and 95 percent of the par value) in TRACEeligible securities. For the remaining transactions in TRACE-eligible securities—in essence, newly-issued or infrequently traded lower-quality bonds—dissemination of transaction data would be delayed. I understand the NASD intends to reconsider the need for the remaining restrictions in the near term. Once filed with the Commission, the NASD's proposal will be published for public comment and processed according to statutory procedures. I also should point out that the NASD recently filed a proposal to reduce the reporting period from 45 minutes to 30 minutes in 2004, and, ultimately, to 15 minutes in 2005. There are no plans to reduce the reporting period to less than 15 minutes.

In addition, I should note that data for all TRACE-eligible securities is now available to regulators for surveillance purposes. The NASD is currently implementing a market surveillance plan designed to review market-wide and individual firm activity, monitor compliance with reporting requirements, and detect possible investor abuse and market manipulation. The availability of TRACE information to the NASD for surveillance purposes enhances the NASD's ability to protect investors by detecting abusive activity.

With respect to the municipal bond market, the drive for transparency began before the corporate debt markets. The Municipal Securities Rulemaking Board ("MSRB"), with the Commission's active encouragement, first implemented a municipal securities trade reporting system in 1995, and proceeded thereafter in measured steps. The MSRB started providing daily summary reports of interdealer municipal bond trades in 1995, and expanded the reports to include customer-trade data in 1998. In January 2000, the MSRB began publishing individual transaction data on frequently traded securities in addition to summarizing their high, low and average prices. The Bond Market Association now posts next-day MSRB municipal bond trading reports on its Internet site for all municipal bonds that traded at least once on the previous day. The trades reported represent both wholesale (dealer to dealer and dealer to institutional customer) and retail (individual investor) purchase and sale transactions. Each daily report typically includes about 30,000 trades in approximately 11,000 issues out of the 1.1 million issues that are outstanding. The daily report displays exact par value for all trades with a par value of one million dollars and under, and displays an indicator of ">$1,000,000" for those transactions with a par value greater than one million dollars.

The implementation date of real-time transaction reporting has been delayed by the MSRB several times to ensure that dealers have sufficient time to make necessary changes in their bond processing systems. Real-time transaction reporting in the municipal market—generally defined as within 15 minutes of the time of trade—is now scheduled to begin in January 2005. The MSRB has announced certain narrow exceptions to the requirement to report trades within 15 minutes, however, including an exception related to new issues and variable rate instruments. The MSRB intends to disseminate trades reported during the business day immediately upon receipt of the trade report.

In the government securities market, impetus for change began in the late 1980's, when the General Accounting Office ("GAO") published a report recommending increased price transparency in this market. In 1990, the GAO recommended legislation to require interdealer brokers to make transaction prices available to the public. The Commission supported the GAO recommendation, and recommended that legislation require quotation information to be made available as well. Partially in response to these calls for Congressional action, a variety of data network providers have emerged that publicly disseminate quotation and transaction information on treasury bonds and Federal agency securities. One example of this is GovPX, a vendor created by a group of primary dealers in government securities, that publicly disseminates information regarding the U.S. Treasury market.

With respect to the markets for foreign sovereign and mortgage-backed securities, the amount of transparency has not changed significantly in recent years. Dollardenominated foreign sovereign bonds are largely traded through interdealer brokers who post quotation and transaction information on their brokerage screens. This information is not generally disseminated outside of the dealer network. Pricing information on mortgage-backed securities is widely available through a variety of commercial vendors; some vendors also offer analytical tools to help value these securities. Dealers and some institutional investors have in-house analytical models as well.

Generally speaking, transparency plays a fundamental role in promoting fair and efficient pricing in the fixed-income markets, thereby fostering investor confidence in those markets and encouraging greater participation. Transparency also contributes to efficient price discovery and aids investors in assessing the quality of the prices being offered in the market. In addition, transaction reporting has supplemented the ability of regulators to surveil the bond markets for unfair pricing and abusive mark-ups and markdowns. The increased availability of information has contributed to greater awareness by SEC and NASD staff of wide variations in pricing and mark-ups. The Task Force, in conjunction with the NASD, is exploring whether these variations create the potential for abuse.

For any type of bond, mark-ups must be reasonable. While NASD has a maximum 5 percent guideline for equity securities, mark-ups are expected to be significantly lower for bonds. For different types of debt, what is recognized as reasonable depends on such factors as liquidity, credit rating, and yield, and can range from less than one-half of one percent for government debt, to higher amounts for high-yield bonds. For investors as well as regulators, the difficulty lies in establishing the prevailing market price for a bond. This generally is the base line that is used to assess whether a mark-up is reasonable. We believe that increased transparency should enhance the Commission's and SROs' ability to determine the prevailing market for a bond and thereby ascertain that investors are not being charged abusive markups. In addition, improved transparency will enable investors to better determine the fair price of a bond. This will make them better able to protect themselves against unfair pricing in the first instance.

In the recent past, Commission staff has held joint meetings with NASD staff in an effort to focus on mark-up practices in the fixed income markets and to develop appropriate surveillance and enforcement policies. Moreover, in February 2004, OEA publicly released a major study on municipal bond liquidity that used sophisticated econometric methods to analyze average transaction costs from a 1 year sample of all municipal bond trades that occurred in the 1999-2000 time frame. This study concludes that the effective spread for an average retail municipal bond trade was almost 2 percent, in comparison to 0.8 percent for a similarly sized equity trade. Among other matters, this OEA study is part of an ongoing research initiative that constitutes a comprehensive effort to measure the size of bond markups. The Commission has widely disseminated the findings of this staff study, so as to give municipal bond dealers an opportunity to compare for the first time the size of the markups they charge their clients to historical practices. Initial results on a similar analysis for corporate bonds (not yet released) suggest that transaction costs decline with added transparency. The magnitude of the results implies that making the rest of the bonds transparent has the potential to save investors more than $1 billion per year.

This January, after our review, the MSRB issued a Notice entitled "Review of Dealer Pricing Responsibilities." The Notice was occasioned by NASD's review of transactions with retail customers at prices that were not reasonably related to market value. The MSRB expressed concern with "transaction chains" where a block of securities was bought from a retail investor, and then, after a series of inter-dealer trades, was sold to another retail customer at a substantially higher price. While no single dealer involved may have made an excessive profit, the large intra-day price differential was absorbed by retail customers at the ends of the chain. Also in January, OCIE and the NASD initiated a coordinated review of municipal brokers' brokers. The firms selected for examination were based on the above-referenced NASD transaction review.

In addition, the NASD has filed a proposal to add a new Interpretation to its rules for transactions in nonmunicipal debt securities to address two issues. First, it would address how NASD members are to determine a debt security's prevailing market price, from which the amount of a mark-up is computed. Second, it would speak to when and how a debt security's prevailing market price may be determined by reference to transactions with institutions, or to transactions in "similar securities."

The NASD proposal would establish a rebuttable presumption that, in all cases, the prevailing market price for a debt security would be the dealer's contemporaneous cost. While this standard is already imposed on nonmarket making dealers, its universal application would eliminate a more forgiving standard that has been established for market-makers. Regulators and industry participants have found that in the bond market, where there is no sharp delineation between market making and nonmarket-making firms, the separate standard created a lack of clarity and was a frequent source of disputes.

Moreover, the proposal would list a set of default measures of prevailing market price in cases where the base standard should not apply. NASD's list includes well-established factors, as well as new ones that reflect particular attributes of the bond markets. For instance, it would recognize that the market price of a debt security may often be established by reference to others with similar characteristics, such as credit quality. The proposal would also acknowledge the significant role of non-dealer institutions in the bond markets by permitting NASD members to refer to transactions with institutions when determining the prevailing market price of a debt security. In light of the significance of the filing and the Commission's long-standing sensitivity with respect to the regulation of mark-ups, the staff has consulted with NASD and is closely reviewing the proposal.

Another important development in the fixed income market was the Bond Market Association's recent release of the final version of its "Guiding Principles to Promote the Integrity of Fixed Income Research," which is a comprehensive and detailed set of voluntary principles designed to help the BMA's member firms manage potential conflicts of interest that arise in their research activities. The Commission staff, analysts' groups, and a variety of other market participants reviewed drafts of the principles, which are intended to promote an independent flow of unbiased information to the global fixed income capital markets. The BMA's new principles are intended to provide member firms with a common set of standards they can use globally and to complement existing requirements both in the United States and Europe.

The final principles reflect that the nature and intensity of conflicts of interest affecting fixed income research are different than those affecting equity research, but that conflicts are possible in the preparation of fixed income research and needed to be addressed. Moreover, the guiding principles are intended to ensure research analysts are free from internal or external influences that could inhibit their ability to produce impartial assessments. For example, they recommend that analysts not participate in investment banking activities, which could raise questions about their independence. The BMA purposefully chose a flexible principles-based approach to ensure that differing organizational structures, various types and uses of fixed income research, and the unique aspects of different fixed income markets could all be encompassed within the framework.

Many of the guiding principles are designed to foster a firm culture that promotes the integrity of fixed income research and the ability of fixed income research analysts to express their views without inappropriate pressure from issuers, investment bankers and, significantly, other nonresearch department personnel, including traders and salespeople. In that regard, the BMA has noted its belief that the principles go further than the regulations or legal settlements covering equity research.

Specifically, the principles recommend that firms prohibit promises of favorable research in exchange for business, prohibit retaliation against analysts for publishing unfavorable research and ensure that research coverage decisions are made by research personnel. In terms of sales and trading activities, the principles recommend firms prevent analysts' recommendations from being prejudiced by the firm's trading activities. In addition, under the principles, traders should not know the content or timing of upcoming reports before they are issued.

The principles also address potential conflicts of interest that arise from the personal interests of analysts. For example, the principles recommend analyst compensation be structured to promote independence and that firms impose limitations on the personal trading activity of research analysts. Similarly, the principles recommend disclosures to assist investors in distinguishing fixed income research from analyses produced by trading desk personnel as part of their trade execution and/or market making functions. The Commission applauds the BMA for being proactive in connection with analyst conflicts and believes that the implementation of the principles is a positive development for market participants, regulators, and investors in the fixed-income market. The Commission will continue to consider whether further Commission initiatives in this area are needed.

In closing, I would like to note that we believe that transparency is an essential component of an efficient and fair market. In that regard, the Commission has supported increased transparency in the fixed income markets and will work with market participants and regulators in the future to ensure that we continue to increase transparency in the fixed-income markets. Thank you again for inviting me to speak on behalf of the Commission. I would be happy to answer any questions that you may have.

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## PREPARED STATEMENT OF DOUG SHULMAN

PRESIDENT, MARKETS, SERVICES AND INFORMATION
NATIONAL ASSOCIATION OF SECURITIES DEALERS

JUNE 17, 2004

### Introduction

Mr. Chairman and Members of the Committee: NASD would like to thank the committee for the invitation to submit this written statement for the record.

### NASD

NASD is the world's preeminent private sector securities regulator, established in 1939 under authority granted by the 1938 Maloney Act Amendments to the Securities Exchange Act of 1934. We regulate every broker-dealer in the United States that conducts a securities business with the public—nearly 5,400 securities firms that operate more than 92,000 branch offices and employ more than 665,000 registered representatives.

Our rules comprehensively address every aspect of the brokerage business. NASD examines broker-dealers for compliance with NASD rules, MSRB rules, and the Federal securities laws—and we discipline those who fail to comply. Our market integrity and investor protection responsibilities include examination, rule writing, professional training, licensing and registration, dispute resolution, and investor education. NASD runs market transparency facilities, such as its TRACE system for corporate bonds, which provide investors with information to help them make more informed decisions. NASD monitors all of the over-the-counter markets in equity and debt securities, including trading on the Nasdaq Stock Market—which is more than 100 million orders, quotes, and trades per day. NASD has a Nationwide staff of more than 2,000 and is governed by a Board of Governors comprising a majority of nonindustry and public members.

*Increased Retail Participation in the Bond Markets*

Corporate bonds have become an important retail investment vehicle as the activity level of individual investors purchasing bonds or bond funds has increased dramatically in recent years. According to data from the Federal Reserve, the percentage of household assets in corporate and foreign bonds grew 70 percent between 1995 and 1999. During this time frame, household holdings of corporate and foreign bonds eclipsed municipal bond holdings. And contrary to popular belief, newly available NASD trading statistics reveal that the bond market has substantial retail participation. In fact, approximately 65 percent of the transactions in the corporate bond market are in quantities of fewer than 100 bonds or amounts less than $100,000 in par value. We believe this trend of increasing retail participation in corporate bonds will continue as the 'baby boomer' generation reaches retirement age and shifts portfolios into fixed income investments.

While bonds and bond funds can play an important role in portfolio diversification, neither product is entirely risk-free. Bonds and bond funds may be viewed incorrectly as—and in some cases, marketed as—risk-free alternatives to equity securities. Purchasers of bonds and bond funds often believe that their principal is safe and that they are guaranteed a particular yield on their investment. Investors may also believe that bonds are inexpensive to purchase or sell because they may not realize that they pay a commission or other form of broker-dealer compensation—mark-ups or mark-downs—on the transaction. Moreover, the terms, conditions, risks, and rewards of bonds vary widely, and in some cases, such as high-yield bonds, the risks may be substantial.

As the activity level of individuals investing in bonds and bond funds grows, NASD is concerned that many individual investors many not fully appreciate the risks and costs associated with these products. A recent NASD survey showed that 60 percent of retail investors do not understand that, as interest rates rise, bond prices fall. Therefore, when interest rates rise, investors who decide to sell their bond fund may not recoup their full investment. In the same environment, investors who decide to sell bonds prior to a call or the maturity date also may not receive the full amount of their principal invested.

**TRACE**

Even educated investors cannot make wise investment decisions if they cannot access important transaction information such as comparable prices for investment products, including bonds. While investors are accustomed to having access to current last sale information in the equities markets, bond information, historically, has not been similarly available.

On July 1, 2002, NASD launched the first intraday 'consolidated tape' in the U.S. over-the-counter corporate bond markets. The Trade Reporting and Compliance Engine, commonly referred to as TRACE, enables investors to access current price information for U.S. corporate bonds. All broker-dealers regulated by NASD have an obligation to report transactions in TRACE-eligible corporate bonds under rules approved by the SEC.

As with the dissemination of the selling prices of equities, this capability provides a new level of information to bond investors who now have access to independent bond transaction data that can be used to help determine that they are getting a fair market price when they are buying or selling bonds. While information on all bond transactions that are reported to TRACE is not disseminated under provisions currently in place, the program will be expanded in the next phase so that prices of all reported transactions will be made available to the public. Because TRACE makes a great deal of important price information public and accessible, it helps to increase market fairness and integrity.

With this improved availability of market information, NASD now has a better view into the U.S. corporate bond market. For example, since the launch of TRACE, we have learned that the corporate bond marketplace is far more active than originally anticipated. On a typical day approximately $20 billion par value of corporate bonds "turn over" in approximately 25,000 transactions. Of the close to 5,400 broker-dealer firms regulated by NASD, more than 1,900 report transactions to TRACE. And of that number, approximately 500 broker-dealers report at least one trade every day. The top 10 firms account for approximately 60percent of the volume and the top 25 firms trade approximately 85percent of the volume. In addition, of the 23,000 publicly traded corporate bond issues, 20 percent trade at least one time per day with 5 percent trading more than 5 times per day. As a result of TRACE, NASD now possesses the information to identify trading patterns, trading volume, and market participation.

Both individual investors and investment professionals can access TRACE information. Most investment professionals access the trade data through market data vendors or their firm's proprietary applications. Retail investors typically access TRACE data through web sites such as NASD's nasdbondinfo.com or Investinginbonds.com, a part of The Bond Markets Association's web site. And in an effort to increase distribution of the data on a more widespread basis, NASD is actively finding additional ways to distribute the information.

*TRACE Reporting and Dissemination*

Currently, more than 29,000 corporate debt securities are subject to TRACE reporting requirements. Each firm regulated by NASD that is a party to a secondary "over-the-counter" market transaction in a TRACE eligible security has a reporting obligation under TRACE. As a general rule, the vast majority of dollar denominated corporate debt instruments must be reported to TRACE. Not included under TRACE are government debt securities such as U.S. Treasury bonds, municipal securities (which are subject to a separate reporting and dissemination regime managed by the MSRB), GSE securities, mortgage or asset backed securities, and money market instruments.

More specifically, TRACE eligible securities include the following classes:

- Investment grade debt
- High-yield and un-rated debt of U.S. companies and foreign private issuers
- Medium term notes
- Convertible debt not otherwise reported to an exchange
- Capital trust securities
- Equipment trust securities
- Floating rate notes
- Global bonds issued by U.S. and foreign private issuers

*TRACE Reporting Time*

During the past 2 years, NASD has worked with the bond trading community to expedite public reporting of TRACE data. Upon the inception of TRACE in July 2002, bond dealers had 75 minutes to report trades into TRACE. Since that time, NASD has moved aggressively to reduce the time frame for reporting to TRACE. Currently, broker-dealers must report trades to TRACE within 45 minutes. This requirement will be reduced to 30 minutes later this year and the reporting time will be reduced again to 15 minutes by mid-2005. Notwithstanding this requirement, in the first 5 months of 2004, 74 percent of trades were submitted within 15 minutes of execution and 85 percent within 30 minutes of execution.

NASD has worked hard to ensure that market participants have had the time to prepare their processes and systems for this new reporting regime, while moving aggressively to reduce reporting times.

*Trace Dissemination*

TRACE has gathered every secondary transaction conducted in the corporate bond market for regulatory purposes since its inception on July 1, 2002. NASD has taken an aggressive phased approach to dissemination of this data to investors and professionals. Phase I, which was launched at inception, provided for dissemination of all transaction data in investment grade bonds greater than $1 billion in original issuance and 50 representative high yield bonds. This phase gave investors access to approximately 31 percent of all transactions (34 percent of par value) and 38 percent of investment grade trades (45 percent of par value).

Phase II was introduced in April of 2003 and provided for dissemination of data on all investment grade bonds that were rated A or better and were at least $100 million in original issuance, as well as data on 120 representative Triple B rated bonds and 50 representative high-yield bonds. This phase, which is currently in effect, gives investors access to approximately 43 percent of all transactions (45 percent of par value) and 61 percent of investment grade trades (68 percent of par value).

In April 2004, NASD's Board of Governors voted to make all publicly traded TRACE eligible issues subject to dissemination. Under this proposal, information on 100 percent of TRACE eligible issues would be accessible to the public. Trade information on 99 percent of all corporate bonds will be disseminated immediately, thereby giving investors contemporaneous access to marketplace prices and transaction data. The transactions that would be disseminated on a delayed basis would be limited to certain transactions in lower rated securities executed during a short period after issuance and for trades over $1 million in par value in noninvestment grade securities that are infrequently traded.

The proposed increase in dissemination of corporate bond information previously described continues NASD's efforts to put more information in the hands of investors and other market participants. In a very short period of time, TRACE has brought unprecedented transparency to the corporate bond market. NASD will continue to work with the SEC and the industry to sustain this trend.

*Sales Practices*

In addition to having increased price information, NASD believes that it is imperative that investors understand the various risks, as well as the rewards, associated with debt securities. With the growing retail participation in bonds and evidence that investors may not fully understand the products (and particularly given that interest rates are likely to rise from their current and historically low rates), NASD recently issued a notice to the firms it regulates to remind them of their sales practice obligations in connection with bonds and bond funds.

These sales practice obligations include:

- Understanding the terms, conditions, risks, and rewards of bonds and bond funds they sell (performing a reasonable-basis suitability analysis);
- Making certain that a particular bond or bond fund is appropriate for a particular customer before recommending it to that customer (performing a customer-specific suitability analysis);
- Providing a balanced disclosure of the risks, costs, and rewards associated with a particular bond or bond fund, especially when selling to retail investors;
- Adequately training and supervising employees who sell bonds and bond funds;
- Implementing adequate supervisory controls to reasonably ensure compliance with NASD and SEC sales practice rules in connection with bonds and bond funds;
- Informing customers that brokers receive compensation for bond trades—that when a firm buys or sells a bond, the customer is charged for the service, in the form of either a commission, or a mark-up or mark-down.

NASD also regularly reminds firms that they need to take appropriate steps to ensure that their employees understand and inform customers about the risks as well as the rewards of the products they offer and recommend, including corporate bonds.

Investor education is another important tool. As part of our Investor Brochure series, NASD offers information on investing in bonds, the different types of bonds, and understanding bond prices, quotations, and ratings. This information can be found on the NASD Web site. We are also developing additional ways to help investors understand investing in bonds—along the lines of explaining what "junk" bonds are, how to use NASD BondInfo, and the importance of asset allocation and diversification within a bond portfolio.

**NASD Regulatory Functions Regarding Corporate and Municipal Bond Markets**

While TRACE applies to the corporate debt market, NASD's regulatory responsibilities extend to both the corporate and municipal bond markets. The MSRB imposes requirements on firms for reporting municipal bond transactions and NASD, as discussed above, imposes TRACE requirements for reporting corporate bonds transactions. These sources of data provide NASD with a comprehensive picture of these two markets with more than 50,000 daily transactions.

TRACE and the MSRB's transaction information enable NASD to create an audit trail of the activity in these markets and undertake comprehensive automated surveillance. NASD market surveillance systems utilize the TRACE and MSRB data to check for compliance with applicable rules and to detect potential violations. Compliance checks focus on the timeliness, completeness, and accuracy of the required reports. Ensuring timely, correct and complete reporting by the firms is a top priority because accurate reporting is essential to ensure the integrity of the information disseminated to the public and for effective automated market surveillance.

Automated detection patterns are used to address customer protection concerns such as the levels of commissions and markups or markdowns charged to investors. NASD and MSRB rules prohibit firms from charging customers prices that are not reasonably related to the current market price of a security. With the increasing level of retail participation in the fixed income market, this is clearly a high-priority concern.

The NASD surveillance systems are also used to detect potential market manipulation. Unlike equities, there is no centralized market structure for debt securities where quotes are published or transactions may be executed (or facilitated). Accordingly, the challenges when policing for potential market manipulation are somewhat different from those in the equity markets. Nonetheless, there are certain types of conduct that can result in prices that are manipulated or artificial market activity. We try to detect that type of activity through automated surveillance.

NASD's Nationwide staff performs routine examinations of each broker-dealer registered with NASD. For those firms participating in the corporate and municipal bond markets, the exams seek to determine whether such firms are complying with NASD and MSRB rules as well as applicable Federal securities laws. Examinations begin with a detailed review of data that is available through NASD systems, such as securities industry registrations, firm financial data, and firm trading data. The examiners review the firm's books and records, such as financial computation work papers and subsidiary ledgers, order tickets and confirmations, and complaint and correspondence files. Examiners check to see that the firm's records support the regulatory reports that the firm has made to NASD in the case of trade reporting and other filings.

NASD is also committed to supporting securities firms' compliance efforts by providing firms specific feedback in the form of performance statistics to enable firms to monitor their transaction reporting compliance on an individual and industry-wide basis. With a glance at the statistics, a firm can quickly see its actual rate of compliance with the reporting requirements. This is another way that NASD is working to ensure that there is integrity in the bond markets.

When NASD finds that broker-dealers have violated any of the applicable rules, it may take informal or formal action against firms and individuals, as appropriate. NASD rules provide for a range of formal sanctions including fines, disgorgement, suspension, and expulsion from the industry. NASD may also order restitution to investors.

**Conclusion**

NASD is committed to fulfilling its regulatory responsibility of ensuring that broker-dealers engaged in the bond markets comply with the Federal securities laws and regulations, including NASD's TRACE and other NASD rules and the rules of the Municipal Securities Rulemaking Board. We will continue to work with the SEC and the securities industry to increase access by the public and professionals alike to vital bond market data. This commitment is a vital part of our mission to protect investors and ensure market integrity.

## PREPARED STATEMENT OF CHRISTOPHER A. TAYLOR

EXECUTIVE DIRECTOR, MUNICIPAL SECURITIES RULEMAKING BOARD

JUNE 17, 2004

Chairman Shelby, Ranking Member Sarbanes and Members of the Committee:

As Executive Director of the Municipal Securities Rulemaking Board, I appreciate the opportunity to testify before the Committee concerning the municipal securities market and the MSRB's role in this market.

### Introduction

On June 9, 2004, Chairman Shelby requested that the Municipal Securities Rulemaking Board ("MSRB" or "Board") prepare testimony before the Committee addressing current issues concerning the municipal securities market, including market structure, regulatory framework, trade reporting, price transparency and related matters. This testimony has been prepared in response to that request. Part I provides a summary of the Board's structure, authority and rules. Part II provides background on the municipal securities market. Part III is a discussion of the MSRB's regulatory priorities and goals.

### Background on the MSRB's Structure, Authority and Rules

*MSRB Structure*

The MSRB is a self-regulatory organization ("SRO") established by Congress in the Securities Acts Amendments of 1975 to write rules with respect to transactions in municipal securities effected by brokers, dealers and municipal securities dealers (collectively "dealers"). The MSRB stands as a unique SRO for a variety of reasons. The MSRB was the first specifically established by Congress. Also unique is the fact that the legislation, now codified in section 15B of the Securities Exchange Act ("Exchange Act"), dictates that the Board shall be composed of members who are equally divided among public members (individuals not associated with any dealer), individuals who are associated with and representative of banks that deal in municipal securities ("bank dealers"), and individuals who are associated with and representative of securities firms.[1] At least one public member serving on the Board must represent investors and at least one must represent issuers of municipal securities. Further, the MSRB was created as a product-specific regulator, unlike most other securities regulatory bodies.

Members of the Board meet periodically throughout the year to make policy decisions, approve rulemaking and review developments in the municipal securities market. Day-to-day operations of the MSRB are handled by a full-time professional staff. The operations of the Board are funded through assessments made on dealers for initial fees, annual fees, fees for underwritings and transaction fees.[2]

*MSRB Authority*

The substantive areas of the Board's rulemaking authority are described in Section 15B(b)(2) of the Exchange Act, which lists several specific purposes to be accomplished by Board rulemaking with respect to the municipal securities activities of dealers and provides a broad directive for rulemaking designed to:

> prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling and processing information with respect to and facilitating transactions in municipal securities, to remove impediments to and perfect the mechanism of a free and open market and, in general, to protect investors and the public interest.

Like other SROs, the Board must file its proposed rule changes with the Securities and Exchange Commission ("SEC") for approval prior to effectiveness.

[1] Under Board Rule A–3, the Board is composed of 15 membership positions, with five positions each for public, bank dealer and securities firm members.
[2] These fees are set forth in Board Rules A–12 through A–14.

Although the Board was created to write rules that govern dealers' conduct in the municipal securities market, the Exchange Act directs that inspection of dealers for compliance with, and the enforcement of, Board rules be carried out by other agencies. For securities firms, the NASD, along with the SEC, perform these functions. For bank dealers, the appropriate Federal banking authorities, in coordination with the SEC, have this responsibility.[3] The use of existing enforcement authorities for inspection and enforcement of Board rules provides for an efficient use of resources. The Board works cooperatively with these enforcement agencies and maintains frequent communication to ensure both that: (1) the Board's rules and priorities are known to examining officials; and (2) general trends and developments in the market discovered by field personnel are made known to the Board.

While Section 15B of the Exchange Act provides the Board with broad authority to write rules governing the activities of dealers in the municipal securities market, it does not provide the Board with authority to write rules governing the activities of other participants in the municipal finance market such as issuers and their agents (that is, independent financial advisors, trustees, etc.). Municipal securities also are exempt from the registration and prospectus delivery requirements of the Securities Act of 1933 and are exempt from the registration and reporting requirements of the Exchange Act.

In adopting Section 15B of the Exchange Act, Congress provided in subsection (d) specific provisions that restrict the Board and the SEC from regulating the disclosure practices of issuers in certain ways. Paragraph (1) of subsection (d) prohibits the Board (and the SEC) from writing rules that directly or indirectly (for example, through dealer regulation) impose a presale-filing requirement for issues of municipal securities. Paragraph (2) of subsection (d) prohibits the Board (but not the SEC) from adopting rules that directly or indirectly require issuers to produce documents or information for delivery to purchasers or to the Board. Paragraph (2), however, specifically allows the Board to adopt requirements relating to such disclosure documents or information as might be available from "a source other than such issuer." The provisions of subsection (d) commonly are known as the "Tower Amendment."

*MSRB Rules Overview*

The Board has adopted a substantial body of rules that regulate dealer conduct in the municipal securities market. These rules address all of the subjects enumerated in Section 15B of the Exchange Act by Congress for Board action, including recordkeeping, clearance and settlement, the establishment of separately identifiable departments within bank dealers, quotations, professional qualifications of persons in the industry and arbitration of disputes.[4] The Board also adopted a number of rules in furtherance of the broad purposes of ensuring the protection of investors and the public interest. Among the most important of these are the Board's three primary customer protection measures—Rule G–17, on fair dealing, Rule G–19, on suitability, and Rule G–30, on fair pricing. These rules require dealers to observe the highest professional standards in their activities and relationships with customers.

Maintaining municipal market integrity is an exceptionally high priority for the Board as it seeks to foster a fair and efficient municipal securities market through dealer regulation. The Board engages in an on-going process of reviewing its rules and market practices to ensure that the Board's overriding goal of protecting investors and maintaining market integrity is not compromised by emerging practices.

The MSRB adopted Rule G–37 on political contributions in an effort to remove the real or perceived conflict of interest created when issuers receive political contributions from dealers and then award municipal securities business to such dealers in a practice that came to be known as "pay-to-play." In general, Rule G–37 prohibits dealers from engaging in municipal securities business with issuers if certain political contributions have been made to officials of such issuers; prohibits dealers and municipal finance professionals ("MFPs") from soliciting or bundling contributions for officials of issuers with which the dealer engages in business; and requires dealers to disclose certain political contributions to allow public scrutiny of political contributions and the municipal securities business of a dealer. The rule also requires dealers to disclose certain contributions to state and local political parties to

[3] These Federal banking authorities consist of the Federal Deposit Insurance Corporation, the U.S. Treasury Department's Office of the Comptroller of the Currency, and the Board of Governors of the Federal Reserve System, depending upon the specific bank dealer.

[4] The Board's arbitration program was established in 1978. Because of the small number of cases filed with the Board and the agreement of NASD to handle arbitration cases relating to municipal securities transactions brought by customers involving bank dealers as well as existing NASD dealer members, the Board discontinued its arbitration program in 1998.

ensure that such contributions do not represent attempts to make indirect contributions to issuer officials in contravention of Rule G–37.

Further, the MSRB adopted Rule G–38 relating to the use by dealers of consultants to solicit municipal securities business from issuers on the dealers' behalf. This rule is intended to deter and detect attempts by dealers to avoid the limitations placed on dealers by Rule G–37 through their consultants, as well as to require full disclosure to issuers and the public of relationships which could otherwise pose potential conflicts-of-interests or could result in potentially improper conduct by consultants. The rule currently requires dealers who use consultants to disclose to issuers information on consulting arrangements relating to such issuer, and to submit to the Board quarterly reports of all consultants used by the dealer, amounts paid to such consultants, and certain political contribution information from the consultant.

The impact of Rules G–37 and G–38 has been very positive. The rules have gone a long way toward severing the real or perceived connection between political contributions and the awarding of municipal securities business to dealers.

In its role as regulator for dealer conduct, the Board also operates data facilities to help ensure that dealers can comply with MSRB rules by improving the flow of information in the market about municipal issues, and to ensure that the inspection and enforcement agencies have the necessary tools to do their work. The Municipal Securities Information Library ("MSIL") system collects primary market disclosure documents from underwriters and makes them available to the market and the general public. The MSIL system also accepts and disseminates certain secondary market information provided by municipal issuers and trustees.

The MSRB's transaction reporting program for municipal securities serves the dual role of providing transaction price transparency to the marketplace, as well as supporting market surveillance by the enforcement agencies.[5] The market surveillance function of the MSRB's transaction reporting system provides the enforcement agencies with a powerful tool in enforcing the Board's fair pricing rules. In recent years, the MSRB has introduced increasing levels of transparency into the market in measured steps. This process is about to reach its ultimate goal in January 2005 with the implementation of the final phase of the transparency program, which will result in 15-minute reporting by dealers of their sales to and purchases from customers and other dealers and the real-time dissemination of transaction information to the marketplace.

**Background on the Municipal Securities Market**

*Market Overview*

When Section 15B of the Exchange Act was adopted in 1975, yearly issuance of municipal securities was approximately $58 billion.[6] Much of this total represented general obligation debt, which reflected the simple, unconditional promise of a state or local government unit to pay to the investor a specific rate of interest for a specific period of time. The investors in these bonds tended to be commercial banks and property/casualty insurers interested in tax-exempt interest.

The municipal securities market has grown into a much larger and more complex market. Total municipal debt outstanding through the first quarter of 2004 is approximately $1.9 trillion, or approximately 8.6 percent of the outstanding U.S. debt market.[7] Last year, a total of 14,973 long-term municipal securities issues were issued for a total par value of $384.0 billion of long-term bonds, a record figure. Approximately 49.5 percent of the par amount of municipal bonds issued in 2003 carried municipal bond insurance, which translates to 44 percent of the overall number of issues.[8]

In the United States, there are approximately 80,000 State and local Governments, about 50,000 of which have issued municipal securities. The market is unique among the world's major capital markets because the number of issuers is so large-no other direct capital market encompasses so many borrowers. The issues range from multibillion dollar financings of large state and city governments to issues less than $100,000 in size, issued by localities, school districts, fire districts and various other issuing authorities. The purposes for which these securities are issued include not only financing for basic government functions, but also a variety of public needs such as transportation, utilities, health care, higher education and

[5] Surveillance data is made available to regulators with authority to enforce MSRB rules, including the NASD and the SEC.

[6] See The Bond Buyer/Thomson Financial 2004 Yearbook at 10. Approximately half of this figure represents short-term debt maturing in less than 13 months.

[7] See The Bond Market Association Research Quarterly (May 2004).

[8] See The Bond Buyer/Thomson Financial 2004 Yearbook at 2–5.

housing as well as some essentially private functions to enhance industrial development. In the last two decades debt issuance has become an important management tool for many municipalities, allowing flexibility in arranging finances and meeting annual budget considerations. The terms and features of municipal securities have evolved over time to meet a multitude of issuer borrowing and investment needs.

Issuers' budgetary and risk management needs have also lead to derivative transactions, especially swaps, becoming an increasingly common aspect of municipal finance. These derivative transactions are not transactions in municipal securities, and the MSRB does not have the authority to regulate dealer conduct in connection with derivative transactions. In addition, many nonregulated entities effect derivative transactions with municipal issuers, or advise municipal issuers with respect to these transactions.[9]

The municipal securities market has a significant retail orientation, with approximately 35 percent of municipal debt held by households.[10] There is great diversity in the types of municipal securities that are issued today. Tax-exempt municipal securities are popular investments that offer a wide range of benefits, including income free from Federal and, in some cases, state and local taxes; relative safety with regard to payment of interest and repayment of principal; and a wide range of choices to fit an investor's objectives with regard to credit quality, maturity, choice of issuer, type of bond, and geographical location.

There are over 2,400 dealers registered with the MSRB to engage in municipal securities activities. These dealers range from large, securities firms with Nationwide presence to small local shops. Approximately 500 to 600 of these dealers underwrite new issues.

*Trading in Municipal Securities*

Municipal securities are bought and sold in the over-the-counter market rather than on an organized exchange. Unlike the experience in the over-the-counter market for equity securities, there has been no evolution of firm, two-sided quotations or a formal market maker structure. In fact, a primary characteristic of the municipal securities market is the lack of any core group of issues that trade frequently and consistently over sustained periods of time. One reason for this is the "buy and hold" philosophy of most municipal securities investors. Another reason is that, for most issues, there is a very small or nonexistent "float" of securities available to be the subject of trading. Making a market in a conventional sense is difficult, if not impossible, for these issues. In addition, the tax treatment of borrowing tax-exempt securities effectively prevents the "shorting" of an issue. The inability to manage risk in this fashion is a disincentive for making markets even in those issues where "float" might be available.

Another distinction between the municipal securities and the equity markets relates to the frequency of trading. In exchange-listed and Nasdaq markets, the continuous daily pattern of frequent trades in most stocks means that "last sale" transaction prices generally provide reliable information on market values for most stocks. However, even when the MSRB reaches its ultimate goal of disseminating comprehensive and contemporaneous pricing data,[11] "last sale" prices generally will not provide reliable indicators of market value for most municipal securities. One reason for this is that, even on the heaviest trading days, less than 1 percent of all outstanding municipal issues trade at all and most of those issues trade only once or twice during the day. Furthermore, MSRB transaction reporting data suggests that only about one-third of the total issues outstanding during a given year are traded even once at any time during that year.

**Regulatory Priorities and Goals**

*Long-Range Plan*

The Board continues to review and refine its rules in light of new products, changes in marketing practices and other developments. Apart from this fine-tuning

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[9] The Commodity Futures Modernization Act of 2000 clarified the status of OTC derivatives and hybrid instruments under U.S. commodities and securities laws. Among other things, it provides that swap agreements are not securities under the Federal securities laws. Swap agreements that are based on securities prices, yields or volatilities are, however, subject to specific antifraud, antimanipulation and antiinsider trading provisions of the Federal securities laws as if they were securities. Neither the SEC nor the MSRB may, however, impose reporting or record keeping requirements or other prophylactic measures against fraud, manipulation or insider trading with respect to securities-based swap agreements.

[10] See The Bond Buyer/Thomson Financial 2004 Yearbook at 84.

[11] As discussed above, the MSRB will begin disseminating real-time price transparency for municipal securities in 2005.

process, the Board also has taken a broader look at more basic changes in the market and has formed long-range regulatory priorities and goals.

The Board has established under its long-range plan the goal of fostering and promoting a fair and efficient municipal capital market. To help reach this goal, the Board seeks to exercise market leadership through promoting education and responsible behavior among all participants; providing mechanisms for information flows; having simple, cost effective rules; and adapting to changes in conditions. Recently the Board has taken a number of major actions to further its goal through these priorities and objectives.

*Promoting Education and Responsible Behavior Among All Participants—Outreach*

One of the significant challenges that the MSRB faces in working to foster and promote a fair and efficient capital market is that the MSRB only regulates one participant in the market, the dealers. Therefore, the MSRB recognizes that it cannot regulate away all problematic market practices and inefficiencies. To address this complexity, the MSRB has been very aggressive in the past few years in an outreach program designed to promote education and responsible behavior among all market participants.

The MSRB's outreach program has focused on bringing market participants together to develop common understanding and voluntary solutions to industry issues, even though the MSRB may not have regulatory authority over these issues. For example, the MSRB convenes on a regular basis a roundtable of the key constituencies in the municipal securities markets—representing dealers, issuers, investors, indenture trustees, independent financial advisors, lawyers and other market participants—to promote open lines of communications among such groups and to educate all market participants on issues and concerns important to each segment of the industry. The MSRB has also hosted numerous marketplace forums to explore disclosure practices where the issuer community and other unregulated market participants have played a crucial role in the discussions. These and similar outreach efforts have often served as the catalyst for different constituencies to come together to work on issues of common interest. In many cases, significant voluntary initiatives among unregulated market participants to improve the efficiency and integrity of the municipal securities market have been outgrowths of these open lines of communications.

The MSRB expects to undertake aggressive outreach in the future on issues such as the use of derivatives in public finance to assist in the development of responsible practices that protect the integrity of the municipal securities industry. This outreach would involve not only educating the dealers that the MSRB regulates, but also the issuer community and other unregulated market participants. Outreach to the industry on issues of great importance to the MSRB that are beyond our regulatory reach will continue to be a key tool used by the Board to achieve its ultimate statutory calling to protect investors and the public interest.

*Providing Mechanisms for Information Flows—Disclosure and Real-Time Transaction Reporting*

Fundamentally, the MSRB believes everyone is better off with more information about the market. This includes information about issuers, information about their securities, and transaction prices.

In the area of issuer disclosure in the municipal market, the MSRB's focus over the past few years has been on voluntary improvements. To this end, the MSRB was instrumental in the formation of the Muni Council, a voluntary group comprised of 19 municipal market participants representing issuers, investors, dealers, lawyers, indenture trustees, independent financial advisors and other market participants. The Muni Council has been working over the past several years to improve secondary market disclosure in the municipal markets and is in the late stages of putting into place a formal structure which the Muni Council expects will improve the flow of disclosure information to investors.[12] In addition, a number of the Muni Council participants and related organizations have established their own initiatives and best practice guidelines on disclosure.

The MSRB has a long-standing policy to increase price transparency in the municipal securities market, with the ultimate goal of disseminating comprehensive and contemporaneous pricing data. The MSRB implemented a limited transaction re-

[12] The Muni Council recently announced that the Municipal Advisory Council of Texas has opened beta testing of its Central Post Office (CPO). The CPO is expected to serve as a one-stop filing place for issuers' secondary market disclosure documents and to improve the flow of information to the existing Nationally recognized municipal securities information repositories (NRMSIR's).

porting facility for the municipal securities market in 1995 and has since increased price transparency in the municipal market in a series of measured steps. By 2000, the MSRB was making all trade data public on a delayed basis and was giving out T+1 transaction data free. The market's reaction to the increasing levels of transparency has been positive. The use of the data in reports by market professionals and pricing services indicates its value and suggests the additional value that will be derived from real-time price data.

On June 1, 2004, the MSRB filed with the SEC a proposed rule change that represents the final stage in the evolution of price transparency in the municipal securities market, which is a system for comprehensive, real-time price dissemination. The gradual change to real-time reporting by dealers has eased operational and cost concerns on the part of the industry, since it has been possible for dealers to plan for the extensive system changes that have been required. In particular, it has been possible to include these changes within a normal planning cycle, as the securities industry moved toward straight through processing.

This real-time price transparency will offer several benefits to the market. Because of the lack of market-makers and a centralized exchange, it is not uncommon to see fragmented markets and relatively wide intra-day price spreads. Existing transaction data suggests that the efficiency of pricing in some cases might be improved substantially if prices are made accessible on a real-time basis. In general, real-time price transparency should benefit the market by helping to ensure that information relevant to the value of municipal securities issues is incorporated more quickly and reliably into transaction prices. For both institutional and retail investors, the availability of market prices should instill greater confidence that pricing mechanisms in the market are fair and efficient. [13]

The MSRB recognizes that, because of the unique features of the municipal securities market, real-time price transparency for municipal securities will not necessarily function in the same manner as in the major equity markets or even the moreliquid market for Treasury securities. For the majority of municipal securities that are not traded daily, an investor will not be able to consider "last sale" information as a reliable means of obtaining an exact market price, as generally can be done for exchange-traded or Nasdaq listed stocks that trade frequently throughout the day. This is because such last sale may have occurred some time in the past under different market conditions and material changes may have occurred since that last sale which might affect the value of the security. Nevertheless, real-time prices will provide extremely important information on the market conditions for individual securities that are trading on a given day, and this information often can be extrapolated to assist in the accurate valuation of similar municipal issues that are not actively traded that day. The continued and increased use of transaction data in this manner is another major benefit of transparency that will allow for more timely and accurate valuations of municipal securities portfolios.

*Having Simple Cost Effective Rules—Review of Rules G–37 and G–38*

In order to have simple, cost effective rules the MSRB works diligently to promote understanding of its rules. The MSRB also continually engages in a process of reviewing its rules. For example, in an effort to ensure that Rule G–37, on political contributions and prohibitions on municipal securities business, and Rule G–38, on consultants, continue to be effective in promoting a fair and efficient capital market, the Board has been engaged in an extensive review of these rules.

As a consequence, the Board has reacted to increasing signs that individuals and dealers subject to the rules may be seeking ways around Rule G–37 by publishing a notice to dealers reminding them that Rule G–37, as currently in effect, covers indirect as well as direct contributions to issuer officials, and alerting dealers that the MSRB has expressed to the enforcement agencies our concern that some of the increased political giving may indicate a rise in indirect Rule G–37 violations.[14]

Similarly, while the MSRB believes that its consultant disclosure requirements have been effective in bringing to light many aspects of dealer practices with respect to the use of outside consultants to solicit municipal securities business, the MSRB believes that some consultant practices may present challenges to the integrity of

[13] *InvestingInBonds.com*, a retail-oriented web site carrying data from the MSRB's existing Transaction Reporting Program, has been very successful in attracting users. The Bond Market Association operates InvestingInBonds.com.

[14] While Rule G–37 was adopted to deal specifically with contributions made to officials of issuers by dealers and municipal finance professionals, and PACs controlled by dealers or MFPs, the rule also prohibits MFPs and dealers from using conduits-be they political parties, PACs, consultants, lawyers, spouses or affiliates-to contribute indirectly to an issuer official if such MFP or dealer can not give directly to the issuer without triggering the rule's ban on business.

the municipal securities market.[15] As a result, the MSRB is considering the possibility of rulemaking that would ensure that the basic standards of fair practice and professionalism embodied in MSRB rules are applied to the process by which municipal securities business is solicited. Thus, the MSRB has recently published for comment a draft amendment to Rule G–38 that would repeal existing Rule G–38 relating to consultants and replace it with a requirement that paid solicitations of municipal securities business on behalf of a dealer be undertaken only by persons associated with the dealer. The Board currently is considering a broad range of comments received from industry participants and remains open to all reasonable alternatives that might prove effective at addressing the Board's concerns in this area.

*Adapting to Changes in Conditions—529 Plans*

An important area in which the MSRB has adapted its rules to ensure investor protection in a rapidly evolving market has been the Section 529 college savings plan market. Although in outward appearance greatly resembling mutual funds, 529 plans are municipal securities issued by state entities as savings vehicles for paying college costs. Because they are not debt instruments—like bonds and notes—but instead are in effect shares in a pooled investment fund, many of the MSRB's longstanding customer protection rules originally crafted for debt securities were updated to reflect the new reality of the ever-diversifying municipal securities market created by the advent of 529 plans.

The MSRB has in place a broad array of customer protections under its rules for 529 plans marketed by dealers.[16] These include rules on suitability, fair and reasonable commissions and sales loads, advertising, disclosure and sales practices. In addition, the Board has just published for comment two rulemaking proposals to further strengthen customer protections by establishing requirements for including standardized performance data in dealer advertisements of 529 plans and by placing limitations on sales incentives that can be given or received by dealers in connection with the sale of 529 plan shares and other municipal securities. Since—just as in the case of municipal bonds—529 plans operate in a political environment, the MSRB's political contribution and consultant rules also apply to dealers seeking to engage in the 529 plan business. The Board has also created a licensing exam designed to test specifically for a thorough understanding of the 529 plan products and relevant MSRB rules.

As in the municipal bond market, the MSRB has worked to provide education on 529 plans to the dealer community and to create a dialogue with all parties active in the market—not just the regulated dealers—to help foster an understanding of the fundamental need to ensure investor protection in this wholly retail market. The Board has long been an advocate for thorough and timely disclosure by state 529 plans. The MSRB applauds the College Savings Plan Network's recent effort in establishing voluntary disclosure guidelines for state 529 plans. We look forward to reviewing their draft guidelines and are hopeful that they will greatly increase the quality, comparability and accessibility of information available to customers seeking to save for the rising costs of college education.

**Conclusion**

The MSRB will continue to monitor the municipal securities market as it further evolves to include more diversified and complex new structures and techniques, as dealers, issuers, investors and others increasingly rely on new technologies. As it has in the past, the Board will remain vigilant and will not hesitate to modify its rules and information systems to deal with the ever-changing marketplace.

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[15] The MSRB has noted in recent years significant increases in the number of consultants being used, the amount these consultants are being paid and the level of reported political giving by consultants. The MSRB is concerned that some of these political contributions may be indirect violations of Rule G–37. The MSRB also is concerned that increases in levels of compensation paid to consultants for successfully obtaining municipal securities business may be motivating consultants to use more aggressive tactics in their contacts with issuers. These activities suggest that disclosure may not be sufficient to ensure that those who market the dealer's services to issuers act fairly.

[16] However, unlike in the municipal bond market, many state 529 plans by-pass dealers to directly market to customers using state personnel. These state personnel are not subject to the MSRB's investor protection rules. In addition, some banks that market 529 plans may, as a result of the definitions of "broker" and "dealer" under the Gramm-Leach-Bliley Act, not be subject to our investor protection rules.

*June 17, 2004*

*Statement of Micah S. Green*
*President*
*The Bond Market Association*

*Testimony before*
*The Committee on Banking, Housing and Urban Affairs*
*United States Senate*

**Oversight Hearing on Bond Market Regulation**

## I. Introduction – The Bond Market Association Mission

Thank you Chairman Shelby, Ranking Member Sarbanes and members of the committee for this opportunity to provide an update on the bond markets. With offices in Washington, New York and London, The Bond Market Association represents securities firms and banks that underwrite, trade and sell debt securities and other financial products on a global basis. Our members account for the overwhelming majority of bonds underwritten and dealt in the United States and also include the 23 primary dealers of U.S. Treasury securities as recognized by the Federal Reserve Bank of New York. Our affiliate organizations, the American Securitization Forum and the European Securitization Forum, represent all classes of participants—including issuers, investors, dealers and others—in the fast-growing securitization markets on the two continents. The Asset Managers Forum, another Association affiliate, represents the operational, accounting and regulatory interests of firms that manage bond investments, or "buyside" participants in the fixed-income markets.

As the voice of the fixed-income markets, the fundamental mission of The Bond Market Association is to advocate public policies before Congress and regulators that will enhance market efficiency and safety. The Association also plays an important role in establishing standard market practices and documentation for common transactions as well as promoting guidelines for the business conduct of market participants. In addition, the Association is fully committed to the goal of investor education, both through the Association itself and through The Bond Market Foundation, our educational, 501(c)3 partner. The Association maintains an award-winning website, *investinginbonds.com*, with a wealth of information—including up-to-date bond prices—for individual investors. The Foundation has created websites including *unwantedchange.com* and *tomorrowsmoney.org* (also available in Spanish at *ahorrando.org*) to help educate the public on the fixed-income market and the need for basic financial planning. The Foundation is currently working with several state treasurers on financial literacy campaigns.

## II. The Bond Markets

### Market Structure and Participants

#### The Primary Market

The principal purpose served by the bond markets is to link those with money to lend through the purchase of debt securities—pension funds, insurance companies, banks, mutual funds, individuals and others—with those who seek to borrow money to finance investment—homebuyers, corporations, states and localities, the federal government and others. Lenders in the bond markets are investors and borrowers are issuers. Bonds can be thought of as loans in the form of securities.

The bond markets are overwhelmingly dominated by institutional investors who held 89 percent of the market in 2003. (See Appendix.) Of the $880 billion in trades on an average day in 2003, approximately $760 billion was conducted on the behalf of large, sophisticated institutional investors such as investment companies, pension and hedge funds. These market participants have the necessary expertise to value fixed-income securities and maintain relationships with bond dealers. Although recent studies have shown the actual numbers of smaller "retail-type" trades are increasing, these trades continue to represent a small portion of overall volume.

Bond issuers include any entity with a need for financing and the capacity to attract investors. On the public side, this includes all levels of government: federal, state and local. Public schools and public institutions such as hospitals also have the authority to issue bonds, as do other state and local authorities. For federal, state and local governments, who are unable to raise equity capital by issuing stock, bonds are the principal sources of long-term capital available to finance investment. Corporations also issue bonds to meet funding needs, typically in far greater volumes than stock.

For corporations, bonds can provide a lower cost source of capital than bank borrowing, and an attractive solution to the financing of long-term projects. For large corporations, the bond market is the only practical way to raise significant volumes of debt capital to finance investment. But, they also carry a contractual obligation for the issuer to make certain payments. Dividends paid on stocks, by contrast, are generally declared at the discretion of the company. Bond issuers and investors (in most non-sovereign bonds) enter a formal contract, called an indenture. This agreement describes certain requirements the issuer must satisfy, known as covenants. Usually intended to protect investors, a covenant might, for example, require a company to maintain a certain minimum cash flow to ensure sufficient funds will be available to make the bond's interest payments.

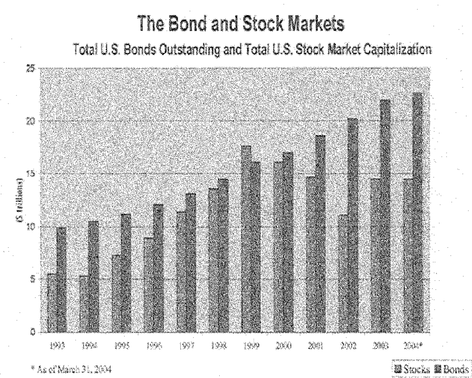
Bond dealers are securities firms or—in the case of U.S. government and agency securities—departments of commercial banks engaged in the underwriting, trading and sale of debt securities. Investment bankers work with issuers to develop the structure and price of a bond issue in order to minimize the issuer's financing cost. Structure includes elements such as the bond's maturity, the frequency of interest payments, and the seniority of the debt relative to the issuer's other financial obligations. Any credit enhancement, such as a guarantee or bond insurance, is also considered part of a bond's structure. Pricing a bond issue entails gauging investor interest in the transaction and pricing the bond so its interest rate is attractive to both the issuer and the investor. This process takes into account the credit quality of the bond issuer and current market interest rates among other factors.

Because the investors know the return on a bond held to maturity, they may consider it a more predictable investment than a stock. The return on stocks is based on dividends and capital appreciation. Investors cannot be certain the company will pay a dividend or how the market will value the stock over time. Investors cannot be certain how the market will value a bond over time either, but they can remain confident the bond issuer is contractually obligated to make interest, or coupon, payments and ultimately a principal payment.

Bonds offer all investors the opportunity to diversify the risk in a portfolio. Investment advisors recommend that investors invest in a mix of both bonds, or bond mutual funds, and stocks. Not only do bonds provide a steady stream of income, but they also provide a hedge against the volatility of stocks.

**The Secondary Market: Bonds do not Trade Like Stocks**

The return that bonds provide investors is usually based on interest and principal payments. Bond prices rise and fall inversely to their yield, which is a function of a bond's price and interest rate. A bond issued with a 5 percent yield will drop in price if market conditions require a higher yield. If market interest rates fall below 5 percent, the price of the bond will rise to bring the yield, once again, in line with the market.




With $22.6 trillion in outstanding securities, the bond markets dwarf the $14.5 trillion equity markets. Yet, generally, the $880 billion in bond trades that take place on a daily basis do not occur on a centralized, organized exchange or trading system as does the $85.5

billion in daily stock trades. Instead, the secondary market for bonds is a decentralized, over-the-counter (OTC) market.

U.S. securities exchanges are based on the concept that market makers will continuously offer to buy and sell securities by quoting a bid (buy) and offer (sell), because there is a steady stream of other customers who are willing to buy and sell the same securities. However, it is practically impossible for dealers to quote continuous two-way prices in the debt markets.

First, with varied maturities, yields and other structural features, bonds are far less homogeneous than stocks. Consequently, it would be impossible for a single dealer—or even all dealers combined to be able to make continuous price quotes in all outstanding debt securities. This is made even more difficult by the fact that the number of bonds is orders of magnitude greater than the number of stocks. The same company whose stock is available for purchase by the public might also have issued dozens or hundreds of separate bonds each with a unique set of features. Ford Motor Company, for example, has $28 billion in stock outstanding but $180 billion in long-term debt. There are approximately 4.4 million mortgage- and asset-backed, municipal, corporate and government securities outstanding while there are just 8,159 securities listed on the major stock exchanges.

Second, dealers are less willing to make continuous price quotes because bonds are inherently less liquid than stocks. The vast majority of bonds rarely trade. To take the corporate market as an example, a 1996 estimate by the Association revealed that of then 400,000 corporate bonds outstanding, only 4 percent or 16,000 traded at any point during that year. The $3.7 trillion Treasury market is the most actively traded, or liquid, of all the bond market sectors. Yet even among Treasuries, trading is mostly concentrated in freshly issued or "on-the-run" securities. This means that the secondary market for most bonds is inherently less liquid than for equity securities. The vast majority of investors are "buy-and-hold" investors—they tend to hold on to bond investments for significant periods rather than trade them actively—and because the objective of investors is a particular structure, level of interest income and credit risk, and there is a large number of new issues, older issues are less attractive than new issues. Secondary market investors are more willing to purchase bonds that are part of large issues (those over $1 billion), because they are more likely to already own bonds from such an issue.

For these reasons, the dealer market is a more likely source of liquidity for the secondary bond markets than a centralized exchange would be.

In recent years, market participants and entrepreneurs have developed electronic trading platforms to execute trades in fixed-income and other credit market products online. The Bond Market Association publishes an annual review of electronic transaction systems for fixed-income securities, which may be found on our website at http://www.bondmarkets.com/research//ecommerce/ETS_Report_1103.pdf.

Some of these are inquiry systems, which enable an investor to seek prices simultaneously from a number of dealers and others with respect to named securities. Cross-matching systems generally bring both dealers and institutional investors together in electronic trading networks that provide real-time or periodic cross-matching sessions. Buy and sell orders are automatically executed when matching buy and sell orders are entered at the same price or when the posted prices are "hit" or "lifted." These matching systems have achieved only limited acceptance and success.

Multi-dealer systems, on the other hand, represent one of the most successful models for electronic bond trading. They link dealers and their institutional customers. Examples include platforms such as MarketAxess and Tradeweb. These platforms provide price discovery and trade execution and processing. To the extent that some of the securities traded on these platforms are not publicly registered (having been issued privately under a special exemption), the systems in such cases are only available to qualified institutional buyers (QIBs).

In sum, there are several important characteristics distinguishing the bond markets from the stock markets. These differences have resulted in a market structure and regulatory system for bonds that is distinct from the same systems for stocks. These characteristics include:

- Market diversity – There are many millions more different bonds outstanding than stocks.

- Market structure – Bonds trade almost exclusively on an over-the-counter, dealer-based, principal market rather than on an exchange or national market system.

- Issuance – A significant portion of bond issues are sold as private placements under the Securities and Exchange Commission's Rule 144A, which puts them out of the reach of individual and small institutional investors. In 2003, 144A bonds accounted for 30 percent of corporate bond issuance.

- Liquidity – Most bonds rarely trade, and most investors are "buy and hold" investors.

- Institutions – The vast majority of bonds outstanding are owned by institutions in portfolios managed by professionals. The vast majority of trading volume involves institutions.

**Bond Dealers and Capital at Risk**

The willingness of dealers to put capital at risk is critical to the bond markets and is the source of market liquidity. When an investor wants to sell a bond in the secondary market, he or she usually sells the bond to a dealer. The dealer then attempts to resell the bond to another investor. This function is known as "market-making." The period between a dealer's purchase of a bond and when the dealer sells the bond is described as the time the bond is in the dealer's "inventory." As long as a dealer holds a bond in inventory, the dealer is at risk of a market loss if the bond's price falls. An active and liquid market depends on the willingness of bond dealers to buy and sell bonds actively and put capital at risk. As compensation for this risk, a dealer attempts to earn a "spread" between the price paid for a bond and the price at which it is resold. By contrast, brokerage firms in the equity markets are usually compensated by a commission for purchasing stock on the behalf of an investor, as agents rather than principles.

Integral to this process and overall efficiency in the market is inter-dealer trading and the role of the inter-dealer broker. Competing dealers often want to trade bonds with each other, and prices in the inter-dealer market help determine prices for non-dealers. However, dealers do not want to communicate directly with their competitors. Inter-dealer brokers intermediate trading between bond dealers. By posting inventories with an inter-dealer broker, bond dealers are able to find the best prices from other dealers without revealing their positions or strategies. The functions and services of inter-dealer brokers have become automated to a significant degree, especially in the markets for more liquid products such as Treasury securities, and a large volume of inter-dealer transactions are executed electronically.

**Current Market Conditions and Derivatives**

For several years now, interest rates have remained at historic lows. Conditions are changing, however, and many market observers anticipate that interest rates will continue to rise in the coming weeks and months, with a resulting drop in bond prices. Already, for example, the yield on the 10-year Treasury note, a benchmark for bond market performance, has risen from 3.11 percent at its lowest point in the current market cycle on June 13, 2003 to 4.68 at market close on Tuesday, June 15, 2004. (Of course, for investors considering entering the market today, higher yields translate into higher interest payments than were available previously.)

The bond markets have experienced rising-rate environments numerous times in the past. Rates were also at a low point in 1993 before a rapid rise led to extraordinary losses in many fixed-income portfolios. Much has changed since 1994, suggesting the market is better prepared than 10 years ago to weather rising interest rates. Hedging and risk management have improved significantly. The undeniable trend in the financial markets over the last decade has been the development of products, strategies and technologies which allow market participants to parse various types of risk and price, hedge and manage them separately. Market participants use these tools to implement sophisticated risk management practices which reduce overall systemic risk and increase market efficiency.

Credit derivatives, or the commitment of a "seller" of protection to make certain payments if a given credit event—such as a default—occurs, are one example. These contracts permit bond dealers and portfolio managers to hedge against, or buy protection from, certain credit events. Financial contracts, such as interest rate swaps, provide similar protection against movements in interest rates. Products such as credit derivatives and interest rate swaps have made it much cheaper, safer and more efficient for all issuers, investors and dealers to manage risk.

By redistributing risk, derivatives aid liquidity in the bond markets. A bond dealer who is exposed to a significant concentration of risk associated with a company or an issuer can use a credit derivative to limit potential losses. In a credit default swap, for example, the buyer of protection could receive payment upon an issuer's default on bonds owned by the protection buyer. Armed with such protection, the dealer is more likely to continue to put capital at risk by actively dealing in the same or similar bonds, aiding liquidity in that security.

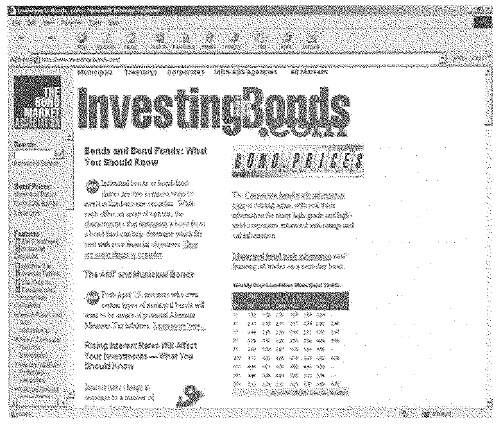
The ability to better manage risk has been aided by laws and regulations, such as the Commodity Futures Modernization Act of 2000, which recognize the importance of instruments such as swap contracts in enhancing risk management. Federal Reserve Board Chairman Alan Greenspan has been an ardent supporter of derivatives as a risk management tool. In 2002 he noted, "these increasingly complex financial instruments have especially contributed, particularly over the past couple of stressful years, to the development of a far more flexible, efficient, and resilient financial system than existed just a quarter-century ago."

Even with these mitigating factors, however, it is likely that total rates of return on many bond investments will not keep pace in the coming months with the stellar performance that most bonds offered over the past several years. All investments carry the risk of loss, bonds included. It is simply not possible to predict with certainty the effect of interest rate changes on the portfolios of the thousands of public and private investors in the United States.

**The Bond Market Association's Investor Education Initiative**

The Association, along with our educational not-for-profit partner, The Bond Market Foundation, addresses the need of the general public to have more knowledge and information about savings and investment planning, especially given the present market conditions. We have constructed interactive and educational internet-based tools to help typical investors as well as underserved audiences—women, young adults and Americans who speak Spanish—access basic quality information on saving and investing, including bonds, and their role in the economy, communities and in retirement and financial planning.

The Association is continually updating the content of *investinginbonds.com,* with new data, information and features. These sites have become a daily source for bond price information in the municipal, corporate and government bond markets. Articles explaining the implications of the anticipated increase in interest rates and new fixed-income products such as Treasury Inflation-Protected Securities (TIPS) continue to drive traffic to the site. In May alone, *investinginbonds.com* registered 70,000 unique visitors. A recent addition is the Income Calculator with which investors can test various yield and price scenarios, calculate convexity, duration and various yield values, and map cash flows. The calculator was provided in cooperation with BondDesk Analytics and TIPS, Inc.




**A screenshot of *Investinginbonds.com*.**

Produced by the Foundation, *tomorrowsmoney.org* is a step-by-step guide to help people start saving and investing today. It is presented as a public service, targeted at two audiences—women and young adults just starting out—and anyone else who needs motivation, confidence and beginning skills to build a saving and investing plan. *Ahorrando.org* is the Spanish-language version of *tomorrowsmoney.org*. The Foundation's other website, *unwantedchange.org*, provides important financial information for individuals faced with the stress of sudden change in their lives such as the loss a spouse.

## III. Regulation of the Bond Markets

There are multiple levels of regulatory scrutiny and oversight of the U.S. bond markets and bond market participants. Government and industry regulation of bond market participants is undertaken mainly by the Securities and Exchange Commission (SEC), the National Association of Securities Dealers (NASD) and the Municipal Securities Rule Making Board (MSRB) in addition to the oversight of municipal issuers by state and local officials. In addition, the New York Stock Exchange (NYSE) serves as a frontline regulator as well, enforcing NASD, SEC and MSRB rules on its members. Along with the NYSE, the MSRB and the NASD are self-regulatory organizations, or SROs. The NASD enforces many of the SEC's and all of the MSRB's rules in addition to some rules of its own rules on member broker-dealers. The Treasury Department is the principal rule maker in the market for its securities as well as the debt instruments of certain government-sponsored enterprises. Federal bank regulators oversee the securities operations of most banks.

It is the Association's view that the bond markets need strong and sufficiently funded regulators to assure integrity, efficiency, fairness and safety. The scope and nature of regulation, however, should not dilute the markets' dynamic ability to create a structure that best meet the needs of all participants for a fair and efficient system. Innovation within the parameters of fundamental regulation should be embraced. Rules that arbitrarily restrain the market without a corresponding benefit should be avoided.

### Government Regulation

Under the Securities Act of 1933 and the Securities Exchange Act 1934, the SEC is charged with protecting investors by maintaining the integrity of the securities markets. As broker-dealers, bond dealers are supervised in several ways by the SEC. Net capital rules require bond dealers to maintain a certain amount of liquid capital—cash or assets easily converted into cash—depending on their level of indebtedness. The rule is intended to ensure broker-dealers can meet obligations to other market participants or retail customers. Broker-dealer internal controls and risk management capacity are also supervised by the SEC. Rules on books and records detail what sort of documentation broker-dealers should create in the course of doing business and which of those records should be preserved.

Under the SEC's suitability rules as applied to retail investors, broker-dealers must "know their customer," or make assurances that the financial products recommended to retail customers are consistent with the customer's investment goals, risk tolerance and other factors. Broker-dealers are also fully subject to the anti-fraud provisions of the federal securities laws that generally prohibit the misrepresentation of facts in the course of securities transactions, as are all participants in the bond markets, including governmental entities. The anti-fraud rules apply to purchases and sales of all bonds including corporate, municipal, federal agency and Treasury. Violations of the anti-fraud provisions can lead to civil and criminal penalties. Bond dealers are also subject to periodic examinations to ensure compliance with regulations.

The Securities Act of 1933 also requires the registration of many securities issues, and the Securities Exchange Act of 1934 requires periodic financial disclosure by many issuers of securities. Both requirements are also subject to the SEC's anti-fraud authority. Under rule 144 and 144A, an exception is made if the securities are not offered to the public, but in a private placement.

The SEC's anti-fraud authority also applies to the municipal market, including state and local government bond issuers. In addition, while generally prohibited from regulating the ability of state and local governments to offer debt securities to the public, the SEC has rules requiring underwriters of municipal securities to obtain and review disclosure documents, known as Official Statements, from issuers and make them available to investors and other market participants before offering securities for sale.

The Treasury Department's authority over the market for its securities was established by the Government Securities Act of 1986 and amendments enacted in 1993. The Treasury Department requires that government securities dealers be registered with the SEC and maintains extensive rules related to government securities auctions or, in the case of bank dealers, the bank's principal banking regulator.

### Self Regulation

As SROs, the MSRB and NASD craft market rules with input from the public and the boards of both entities include public representatives. The rules are subject to approval by the SEC, but the organizations have a heavy influence on broker-dealers as frontline regulators for the corporate and municipal debt markets.

The MSRB was created under the Securities Acts Amendments of 1975. The law specifically extended the SEC's authority to broker-dealers in municipal securities. The MSRB's mandate is the promulgation of market rules for dealers, dealer banks and brokers, but not issuers of municipal securities.

While issues such as record keeping, clearing and settlement and quotation conventions are addressed by the MSRB's 39 general rules, the regulation of fair practices has dominated the MSRB's agenda. Generally, the fair practice rules prohibit deceptive and unfair practices in the conduct of the municipal securities business. Dealers are subject to suitability requirements with respect to their retail customers similar to those articulated in the SEC rules. The MSRB also sets out a process for the arbitration of dealer-customer disputes. Issues such as political contributions to municipal issuers and the use of consultants to solicit municipal underwriting business are also covered by the MSRB's fair practice rules.

The majority of firms doing business with members of the public are required under federal securities laws to become a member of the NASD. The NASD serves as the enforcement arm of the SEC and the MSRB and also promulgates some of its own rules. As part of its powers, the NASD reviews its member firms for compliance with its rules and can sanction those found in violation.

### State, Local and IRS Regulation of Municipal Issuers

While neither the federal securities laws nor the MSRB have direct regulatory authority over issuers of municipal bonds—except with respect to the application of anti-fraud rules—such securities offerings are carefully overseen in a variety of ways depending on the nature of the issuing entity. State constitutions routinely prescribe limitations on the level of debt a state may incur. Similarly, political subdivisions of the states such as cities, counties and school districts have their own rules on bond issuance. Some jurisdictions require an affirmative vote—even a super-majority in some cases—by the public before a bond issue can be authorized. In some states, local bond issues must be approved by a state body.

Municipal issuers also face oversight in the form of the auditing powers of a superceding political authority. Cities and counties, for example, may be subject to audits by a state agency. School districts may have their balance sheets and budgets examined by a state education authority.

Because municipal bonds are exempt from federal income tax, the Treasury Department and the Internal Revenue Services (IRS) also have oversight authority. The IRS has the power to strip a municipal bond of its tax-exemption if, for example, it is found to be issued for a prohibited purpose or for other violations.

## TBMA "Voluntary Regulation"

### Setting Standards of Practice

The Association at times identifies issues that regulators are not addressing that affect a sector of the bond markets. In such an instance, or if the Association identifies the opportunity to improve market efficiency or liquidity by standardizing an approach to a given transaction, Association members work together to develop a set of uniform practices or a model agreement. Examples of this type of voluntary regulation exist across the sectors of the bond markets.

For repurchase agreements (repo), for example, Association members developed the Master Repurchase Agreement (MRA) and the Global Master Repurchase Agreement (GMRA). These agreements cover such issues as events of default and timing of payments and transfers. For a market where billions of dollars in contracts are traded daily, the MRA and GMRA eliminate much of the legal risk in repo transactions allowing market participants to operate more efficiently.

In the mortgage-backed securities (MBS) sector, participants rely on the Association's Uniform Practices to guide them through the questions that might arise on trading, delivery, clearance and on settlement guidelines and calculation formulas for the mortgage- and asset-backed markets. The guidelines are intended to serve the needs of back-office, trading, research and compliance professionals.

Other examples of the Association facilitating the standardization of a fundamental transaction are the Master Agreement Among Underwriters (MAAU) and the Master Selling Agreement (MSG) for municipal offerings. There are thousands of state and local governing bodies with authority to issue municipal bonds. The MAAU and MSG reduce the administrative and compliance burdens municipal underwriters can face when dealing with a variety of issuers.

### *The Guiding Principles to Promote the Integrity of Fixed-Income Research*

A current example of the Association moving proactively to address an issue of interest to participants in the fixed-income markets is the recently completed set of principles on integrity in fixed-income research. In the wake of the controversies in the equity markets around the question of research independence, the Association set out to create a guide for research on fixed-income securities. *The Guiding Principles to Promote the Integrity* *of Fixed-Income Research* is the result. It is a comprehensive set of voluntary principles designed to help the Association's member firms manage potential conflicts of interest that arise in their research activities.

Regulators, analysts' groups and a host of other market participants have extensively reviewed the principles which are intended to promote an independent flow of unbiased information to the global fixed-income capital markets. Association members collectively undertook the development of these principles independent from regulators, despite an apparent lack of abuse in the fixed-income sphere. The Association purposefully chose a principles-based approach to ensure that differing organizational structures, various types and uses of fixed-income research and the unique aspects of different fixed-income markets could all be accommodated within the framework.

The *Guiding Principles* seek to ensure research analysts are free from internal or external influences that could inhibit their ability to produce impartial assessments. For example, they recommend analysts not participate in investment banking activities, which could raise questions about their independence. The *Guiding Principles* also address potential conflicts of interest that arise from the personal interests of analysts recommending that firms impose limitations on the personal trading activity of research analysts.

Firms are encouraged to prohibit promises of favorable research in exchange for business, prohibit retaliation against analysts for publishing unfavorable research and ensure that research coverage decisions are made by research personnel.

In some ways, the *Guiding Principles* go further than the U.S. regulations or legal settlements covering equity research, by addressing conflicts between research and sales and trading activities. Specifically, the *Guiding Principles* recommend firms prevent analysts' recommendations from being prejudiced by the firm's trading activities. In addition, traders should not know the content or timing of upcoming reports before they are issued.

**Guidance for Credit Derivatives and Debt Securities Markets**

As a member of the Joint Market Practices Forum, a group of four financial market trade associations representing a wide range of credit market participants, the Association worked to develop a set of principles and recommendations for the handling and use of material nonpublic information when managing credit risk. The document is intended as a set of guidelines for use by financial institutions that use securities and securities-based swaps to manage and hedge their credit portfolios. The Forum issued an exposure draft of these recommendations in May 2003, and considered comments on that draft in producing the final version.

The recommendations are meant to ensure material nonpublic information obtained by financial services firms in the ordinary course of their lending or other relationships with a company is not inappropriately shared with or used by other business units or personnel within the same institution that transact in the securities and credit derivative markets. Material nonpublic information is information that is not available to the public and that can be considered important in making investment decisions.

### The Municipal Council

The Municipal Council is comprised of 19 municipal market participants, and works to improve secondary market disclosure in the municipal markets. One recent initiative was the development of an information clearing house that is expected to serve as a one-stop filing place for issuers' secondary market disclosure documents and to improve the way the documents are indexed at the existing nationally recognized municipal securities information repositories and state information depositories.

## IV. Policy Issues in the Sectors of the Bond Market

### Mortgage- and Asset-Backed Securities

Debt securities whose interest and principal payments flow from secured assets, such as loans, comprise a relatively new sector of the bond markets. Securitization, as the process is known, got its start in the early 1970s with the first issuance of mortgage-backed securities. Today, it is the largest and fastest growing sector of the bond markets with $7 trillion in securities outstanding.

In a securitization transaction, investors purchase the rights to receive payments made on a group, or pool, of loans or other cash-producing assets. Securitization increases the efficiency of the financial markets by speeding the reallocation of capital. For example, if a bank can sell the home mortgages it holds to investors, it can use the money it receives in return to make other mortgages. Securitization can also smooth out geographic differences in supply and demand of funds available to loan. And by attracting funds from a variety of investors, securitization effectively expands the pool of capital available to lend and helps reduce rates on car loans, student loans, home mortgages and a variety of other consumer lending.

Congress accommodated development of the securitization markets in several ways. First, Congress created Ginnie Mae, Fannie Mae and Freddie Mac to bolster the market for home mortgage loans by buying pools of mortgages and selling securities backed by the pools. In the case of Ginnie Mae, these securities are backed by the full faith and credit of the federal government. In addition, Congress sanctioned a vehicle called a real estate mortgage investment conduit, or REMIC, designed to facilitate the issuance of mortgage-backed securities (MBS). These efforts are examples of public policies with positive effects on the financial markets and more importantly, on consumers, investors and others who benefit from efficient markets.

More recently Congress and the Financial Accounting Standards Board (FASB) examined the legal underpinning of the securitization trust—also called the special-purpose entity, or SPE—following the Enron bankruptcy. Enron had used SPEs to inappropriately remove liabilities from its balance sheet when it retained the economic risk and the control of the assets. FASB drafted new rules on the use of SPEs that alter the circumstances under which a corporation would be required to consolidate the assets in an SPE on its balance sheet. The Association worked with both Congress and FASB during this process to assure the ability of corporations to conduct appropriate transactions would not be limited by rules seeking to curb abuses.

The Association is also working with Congress on a common-sense solution to predatory lending that will not impair the secondary market for mortgage-backed securities. Several state and local anti-predatory lending statutes extend liability for lending abuses to loan purchasers, or assignees. The varying laws make securitization of loans in the affected jurisdiction more risky and less attractive to secondary market participants. Association members believe Congress should enact a single preemptive predatory lending law that holds loan assignees responsible only for those lending violations that can be detected by a review of a standard loan file.

**Municipal Bonds**

Municipal bonds are one of the most popular sectors of the bond market among retail investors. These securities are issued by state and local governments and government authorities for their own benefit and the benefit of non-profit hospitals, schools, colleges and universities. Presently, there are about $1.9 trillion in municipal bonds outstanding. Over the years, these bonds have funded millions of miles of roads, 90 percent of public school construction and countless improvements to public infrastructure, among other projects.

The Internal Revenue Code confers a special tax-exempt status on most bonds issued by state and local governments. Investors who buy the securities pay no federal income tax on the bonds' interest payments. And if an investor resides in the state where the bond is issued, state income tax is usually waived as well. The federal tax-exemption on state and local government bonds is a form of financial assistance from the federal government to states and localities. Because they pay no taxes on their interest income, municipal bond investors accept a lower pre-tax rate of return on their investments. Issuers, then, can pay lower interest rates and still keep the after-tax return on municipals on par with similar taxable bonds. The tax-free status makes municipal bonds the lowest cost financing available for most governments.

The municipal bond market is most retail of all the U.S. market sectors. Unique among the bond markets, about one-third of municipal bonds are owned by individuals directly or through mutual funds. The majority of municipal bonds, however, do not trade every day and prices for municipal bonds are not as readily available as stock prices. Since 1995, the Association has worked with the MSRB to bring greater price transparency to the municipal bond market with real-time trade reporting. The Bond Market Association makes municipal bond prices available on its website, *investinginbonds.com,* on a next-day basis. The retail nature of the municipal market makes it especially important that price transparency help ensure dealers are executing municipal bond transactions at prices that reflect current market yields. At the same time, the Association has stressed the need to balance the benefits of transparency with the costs to liquidity. Some market participants, dealers and investors, are concerned that price transparency may do more harm to the market than good when imposed on the least liquid segment of the market or those bonds that rarely trade.

Bonds that have been outstanding for a long period of time or have uncertain credit standings can be difficult to value. Dealing in and holding such bonds presents greater market risk for dealers than bonds that trade frequently and can quickly be resold. In addition, quoting prices on illiquid securities—especially those that are unique in terms of credit or cash flow—can be more labor intensive than for more liquid securities. A bond that traded this morning will not necessarily trade this afternoon, tomorrow or next week. Disseminating price information immediately following a large transaction in bonds of this type signals other market participants that a seller is disposing of a large block of bonds. Knowing the bond holder is eager to sell may cause market participants to understate prices for the bonds. In turn, these circumstances may limit dealer participation in illiquid securities. The Association supports immediate price dissemination for nearly all municipal bond transactions. For a narrow set of bonds that comprise about 5 percent of the market, however, such disclosure could have a negative effect on liquidity. The Association has asked the MSRB to withhold dissemination of price information for these bonds pending further study to verify the benefits of dissemination outweigh any negative effect on liquidity.

**Investment-Grade Corporate Bonds**

Corporate bonds are debt obligations of private and public corporations. Companies use the proceeds from selling bonds for a range of purposes including financing new investment and creating jobs. At the end of March 2004, there were $4.6 trillion in investment grade and high-yield corporate bonds outstanding. Investors are generally institutions such as pension funds, endowment funds, mutual funds and insurance companies seeking the steady income and low credit risk bonds can provide.

Similar to the MSRB's effort to develop a real-time price reporting system for trades in municipal bonds, the NASD, as of July 1, 2002, began requiring its members to report corporate bond trades. Through its Trade Reporting and Compliance Engine, or TRACE, the NASD maintains a database of transactions for about 25,000 bonds. TRACE-eligible securities include most U.S. dollar-denominated corporate bonds. Mortgage- and asset-backed securities are specifically excluded from TRACE reporting. Initially, TRACE provided real-time price information for 500 of the largest investment-grade bonds or those with an original issue size greater than $1 billion—responsible for about 50 percent of market volume. In 2003, the NASD increased the number of bonds for which it disseminated information to 4,200 and has a pending proposal to release price information on an immediate basis for approximately 23,000 bonds—enough to account for 99 percent of market volume. This information is available to the public on a delayed basis. The NASD makes the real-time information available on a fee-basis through vendors.

The Association has supported the NASD's development of the TRACE system and provided comment on each phase of the system's implementation. Indeed, the TRACE system represents a good example of a partnership between a regulator and the industry being regulated. TBMA and the NASD, for example, each provide representation to the Bond Transaction Reporting Committee (BTRC), the group of industry professionals that advises the NASD Board on TRACE implementation issues. The Association has particularly appreciated the NASD's gradual approach to increasing price transparency. As with municipal bonds, it is possible the adverse effect on liquidity for bonds that do not trade frequently could outweigh the benefits of price transparency.

**Securities Lending and Repurchase Agreements**

Repos and securities lending transactions are important for liquid capital markets. They represent a secure method of obtaining funding and securities for market participants. Economically, a repo is a loan secured by a Treasury security or other financial instrument. The loan is structured as a sale of a security for cash with an agreement to repurchase the security at some time in the future. Repos can be as short as overnight or as long as several months. Most repos are very short term. If the borrower of funds fails to repay the loan, the lender can liquidate the securities held as collateral to repay the debt. The repo lender is able to make a safe, short-term investment. By providing a ready source of funding, repos and securities lending are critical to bond market liquidity, particularly the Treasury markets. The ability of participants in the wholesale capital markets to finance and hedge positions with repos and securities lending transactions is a fundamental reason for the efficiency of the U.S. capital markets and ultimately help keep borrowing costs low.

Approximately $1.7 trillion in repo and securities lending transactions were outstanding per day on average in 1996 while today an average $4.49 trillion per day are outstanding. Hundreds of billions of dollars in repo transactions are conducted daily to fund the positions of bond market participants and repos are the principal means used by the Federal Reserve to conduct open market operations.

For several years, Congress has discussed improvements to the bankruptcy and banking laws that would simplify the treatment of financial contracts such as repos and securities lending transactions in the event of the insolvency of one of the parties to the transactions. The changes would facilitate closeouts and netting so counterparty obligations could offset one another. The resulting market certainty would improve efficiency in the broader capital markets. In addition, the bill would expand the list of repo collateral eligible for special treatment under the bankruptcy code. Both the House and Senate have approved these financial contracts provisions several times as part of comprehensive bankruptcy reform legislation, but have failed to agree on a final bill because of unrelated issues. Most recently, the House approved such legislation in March 2003. The Senate, however, has yet to consider the legislation.

The Association is also focused on the potentially negative effect the Basel Committee on Banking Supervision could have on the repo market with its efforts to draft a new bank capital accord. The current approach, the Third Consultative Paper (CP3), issued in April 2003, fails to account for methods widely used to mitigate risk exposures. Actual capital charges for banks would not reflect true balance sheet risk under the proposal. The undue capital charges would inhibit bank activity in the repo market and ultimately result in less efficient and more costly markets.

**Treasuries**

The estimated $3.7 trillion in publicly held securities issued by the U.S. Treasury play a huge role in the world of finance. The fact that Treasury securities are denominated in U.S. dollars and are backed by the full faith and credit of the federal government have made these debt instruments the safest investment in the world. As a result, the financial markets view Treasury securities as a benchmark, or a guide to interest rates, and use Treasuries to set prices on many other types of debt securities.

Treasury securities are held by U.S. and foreign investors and by central banks and governments throughout the world. This universal acceptance extends to Wall Street where financial engineers use Treasury securities in a variety of investment and risk management products. The Treasury market is the most liquid in the world with over $400 billion in transactions per day, and well over $1 trillion per day including securities bought or sold under repurchase agreements.

A significant participant in the Treasury market is the Federal Reserve, which uses the securities to implement monetary policy. The Fed either buys and sells Treasuries outright—these operations are known as coupon passes and happen relatively infrequently—or enters into Treasury-backed repo transactions to influence the amount of money in circulation, which occur on an almost daily basis. The New York Federal Reserve Bank also acts as agent for the Treasury Department in its auctions of bills, notes and bonds. In addition, the Fed operates Fedwire, the clearing and settlement system for trades in Treasury securities, and serves other important functions.

The Treasury market—especially for its size—operates efficiently and generally free of problems. The market is supported by a complex and sophisticated automated infrastructure for clearing and settling the huge volumes of transactions executed daily. Regulation of the market began with the enactment of the Government Securities Act of 1986, which brought previously unregulated government securities dealers under the SEC's supervision for the first time, and subsequent amendments enacted in 1993.

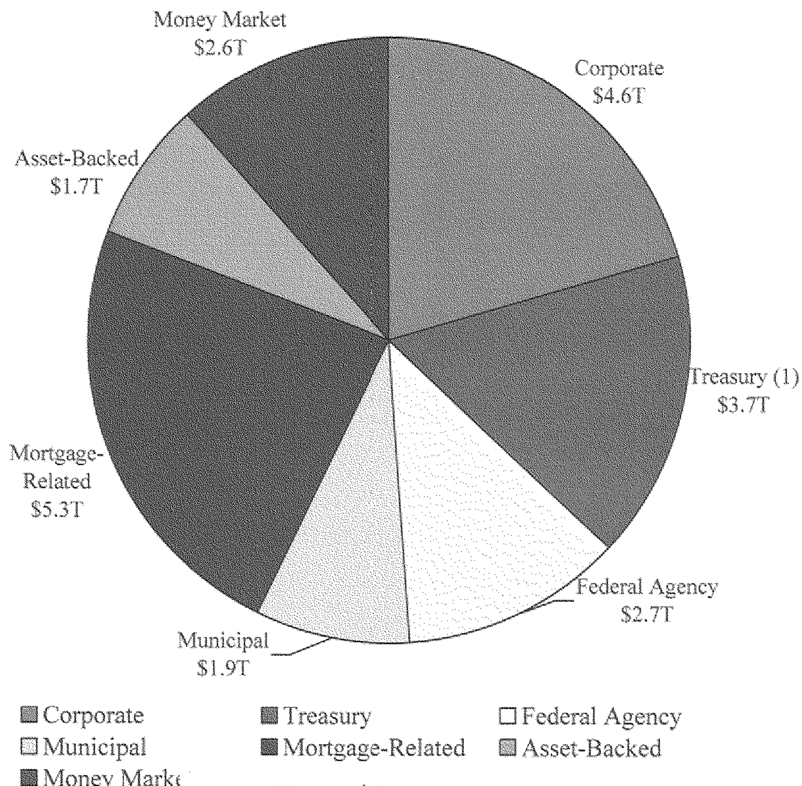
Shortly after the 1986 law policy makers grew concerned that—despite its size—prices in the Treasury market were not sufficiently transparent. Investors could be denied the best prices because the information flow in the Treasury market was not robust. An investor would have had no way of knowing whether a dealer's prices matched the best offer available for that particular security. In response to the concerns of regulators and Congress, in 1990 major bond dealers and other industry participants formed GovPX, an information service designed to bring real-time price information on a 24-hour basis to market participants around the world. Today, real-time Treasury bond prices are available widely to all market participants, and the market is truly price transparent. This development was achieved without the direct intervention of policy makers.

## V. Conclusion

The bond markets are a dynamic, well-regulated part of the financial markets that facilitate trillions of dollars in capital formation for both public and private entities. Bond market participants foster financial innovations that help mitigate risk and lower costs for consumers and robust competition helps ensure this will continue to be the case. Over the years the diverse sectors of the bond markets, ranging from the well-known Treasury market to the less known market for repurchase transactions, have always come together in the face of a marketplace or regulatory challenge. Working through the Association, market participants have offered their expertise to regulators and lawmakers in the development of countless rules and legislative initiatives. The result has been better informed regulation that minimizes unnecessary market inefficiencies. The Association looks forward to continuing its partnership with Congress and the regulatory agencies.

**Appendix: A Statistical Picture of the Bond Markets**

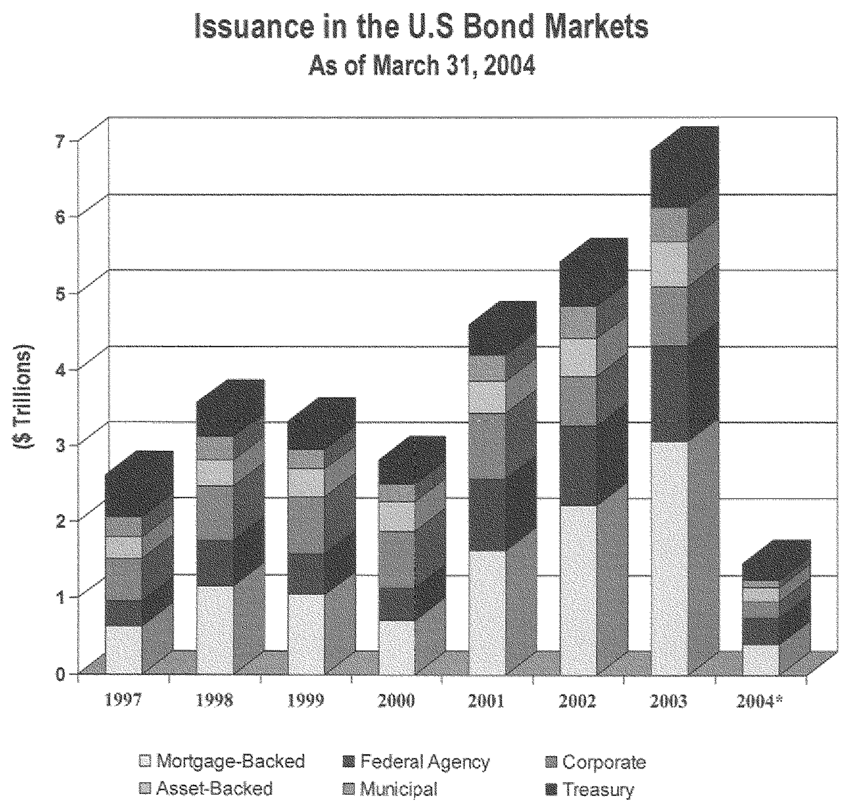
## Outstanding Bond Market Debt
### As of March 31, 2004*




**Total: $22.6 Trillion**

(1) Includes marketable public debt
* The Bond Market Association estimates

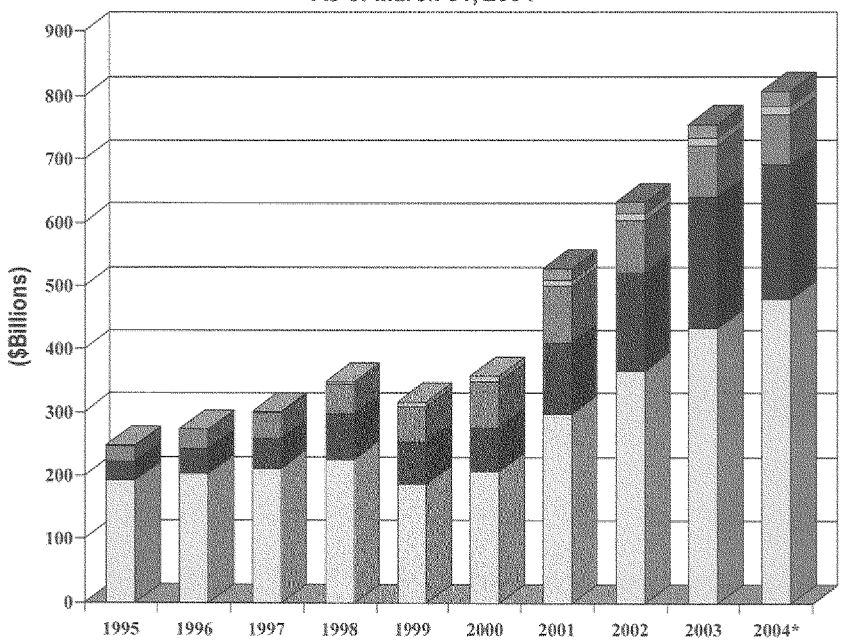
Sources: Federal Reserve System, U.S. Treasury, GNMA, FNMA, FHLMC




Sources: U.S. Treasury, Thompson Financial Securities Data, Federal Agencies, Inside MBS& ABS

## Known Average Daily Trading Volume****

### As of March 31, 2004




Treasury***
Agency Mortgage Backed Securities ***
Federal Agency ***
Municipal
Corporate**

** Includes corporate securities trading data after 2001.
*** Includes only trades involving primary dealers.
**** Does not include asset-backed or private-label mortgage-backed securities.

Sources: Federal Reserve Bank of New York, Municipal Securities Rulemaking Board

## Household Holdings of Fixed-Income Securities
### As a Percentage of Total Debt Outstanding

| | 1997 | | 1998 | | 1999 | | 2000 | | 2001 | | 2002 | | 2003 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $ | % | $ | % | $ | % | $ | % | $ | % | $ | % | $ | % |
| Treasury (1) | $585.9 | 16.3% | $547.4 | 15.5% | $620.2 | 17.0% | $401.5 | 12.0% | $296.5 | 8.8% | $187.6 | 5.2% | $214.7 | 5.4% |
| Agency (2) | 298.7 | 10.5% | 268.3 | 8.1% | 301.0 | 7.7% | 348.3 | 8.0% | 269.9 | 5.4% | 95.4 | 1.7% | 269.6 | 4.4% |
| Corporate and Foreign Bond (3) | 535.0 | 14.8% | 633.6 | 15.2% | 822.2 | 17.6% | 892 | 17.6% | 1,009.7 | 17.7% | 1,175.0 | 19.0% | 980.4 | 14.3% |
| Commercial Paper | 56.1 | 5.9% | 57.6 | 5.0% | 67.7 | 4.8% | 72.6 | 4.5% | 41.8 | 2.9% | 47.6 | 3.5% | 46.0 | 3.6% |
| Municipal | 473.7 | 35.9 | 491.5 | 35.0% | 450.2 | 30.9% | 460.7 | 31.1% | 511.9 | 31.9% | 618.3 | 35.1% | 680.6 | 35.8% |
| | | | | | | | | | | | | | | |
| **Total** | **$1,949.4** | **15.8%** | **$1,998.4** | **14.7%** | **$2,261.3** | **15.0%** | **$2,175.1** | **13.7%** | **$2,129.8** | **12.5%** | **$2,123.9** | **11.5%** | **$2,191.3** | **10.9%** |

(1) Excludes savings bonds.
(2) Includes agency debt and agency MBS.
(3) Includes corporate bonds, ABS, private-label MBS and Yankee bonds.

## PREPARED STATEMENT OF CHRISTOPHER M. RYON

PRINCIPAL AND SENIOR MUNICIPAL BOND PORTFOLIO MANAGER
THE VANGUARD GROUP

JUNE 17, 2004

### Introduction

Chairman Shelby, Ranking Member Sarbanes, Members of the Committee, my name is Christopher Ryon. I am a Principal and Senior Municipal Bond Portfolio Manager at The Vanguard Group, a mutual fund company based in Valley Forge, Pennsylvania.

Vanguard is one of the world's largest mutual fund families, managing more than $725 billion for nearly 18 million shareholder accounts. Vanguard offers 131 mutual funds to U.S. investors and over 35 additional funds in foreign markets. Vanguard's offerings include 12 corporate bond funds with over $73 billion in assets and 14 municipal bond funds with over $43 billion in assets. Appendix A shows the number of shareholder accounts, the number and types of mutual funds, and the total assets under management at Vanguard.

Along with three other portfolio managers, four traders, and a team of municipal bond analysts, I oversee the management of over $43 billion in Vanguard municipal bond fund assets. I am pleased to be here representing Vanguard to discuss the U.S. bond market. My testimony will focus on the following four areas:

**1) Bond ownership:** I will review how ownership in the municipal bond market closely resembles that in the stock market, with individual investors and mutual funds owning substantial portions of the market.

**2) Bond trading:** I will discuss briefly how the bond market and, in particular, the municipal bond market continues to trade primarily over the counter. Unlike the stock market, there are no organized National exchanges in the municipal bond market, and there is little prospect of change in the future.

**3) Bond pricing transparency:** I will briefly review how pricing transparency in the bond market has improved in the past 10 years. Other than in the Treasury market, there exists no real-time pricing in the bond markets as there is in the stock market. However, rules proposed by the Municipal Securities Rulemaking Board (MSRB) would greatly enhance the reporting of municipal bond trades much as the TRACE system has started to enhance transparency of corporate bond trades. As a fiduciary responsible for the investments of hundreds of thousands of municipal bond fund investors, Vanguard strongly commends the MSRB's efforts to improve municipal bond market price transparency. We also commend the recent progress in enhancing corporate bond market transparency through the TRACE system.

**4) Issuer financial condition transparency.** I will explain that there have been important and beneficial steps in the past to improve municipal issuer financial disclosure (most notably, SEC rule 15c2-12). However, Vanguard recommends that lawmakers, regulators and industry participants continue to consider whether more may be done to improve issuer financial condition transparency in the municipal bond market for the protection and benefit of municipal bond investors.

### Background

*Bond Market Segments*

The bond market can be divided into four market segments: Treasury, government agency, corporate/foreign, and municipal.

- The Treasury bond market is a multitrillion dollar market of securities issued by the U.S. government.
- The U.S. government agency market consists of bonds issued by various Federal agencies such as the Government National Mortgage Association or GNMA.
- The corporate/foreign bond market consists of bonds issued by companies seeking to raise capital for plant, equipment, or other types of investments.[1]
- The municipal bond market consists of bonds issued by states, municipalities, and state-created taxing authorities. Municipal bond proceeds are used by municipalities to finance projects ranging from school, road and sewer construction to industrial development. In the past, municipal bond buyers and sellers consisted primarily of individuals who were attracted to the tax benefits of municipal bonds

[1] For reporting purposes, corporate and foreign bonds are categorized together. The category includes debt obligations of U.S. financial and nonfinancial corporations and foreign entities.

(municipal bonds pay interest exempt from Federal and sometimes local taxation).[2]

*Bond Ownership*

Appendix B shows the ownership interests of households, mutual funds, and other entities in the corporate equities market and in the four segments of the bond market. It underscores the degree to which individual investors are significant owners in the municipal bond market, both directly and through mutual funds.

Mutual funds provide investors with a distinct advantage over direct investment in the bond market. Mutual funds give investors low-cost access to the market and give them access to professional portfolio management. They also provide investors with diversification that will mitigate the risk of loss in the event certain bonds lose value. Finally, mutual funds provide investors with liquidity.

As shown in Appendix B, there are significant differences in the ownership makeup of municipal bonds on the one hand and Treasury, government agency, and corporate/foreign bonds on the other. For instance, the Treasury bond market has substantial foreign ownership, with owners outside the U.S. representing 37 percent of the market. And the government agency and corporate/foreign bond markets have significant institutional ownership, with commercial banks and life insurance companies representing 22 percent of the agency market and 30 percent of the corporate/foreign market.

In contrast, ownership in the municipal bond market more closely resembles that of the stock market, with the majority of the market owned by households and mutual funds. In 2003, 51 percent of municipal bond holdings was attributable to individuals owning municipal bonds either directly (36 percent) or through mutual funds (15 percent). These figures parallel ownership in the stock market (where households own 37 percent and mutual funds own 20 percent). By comparison, the corporate/foreign bond market has only 22 percent individual ownership, either directly or through mutual funds, down from 25 percent in 1999.

*Bond Trading*

Unlike the stock market, trading in the U.S. bond market is done primarily over the counter (OTC). The OTC market is quite different from the organized exchanges on which most stocks trade. There is no central location or computer network in the OTC market. Rather, the OTC market is comprised of a large number of brokers and dealers who deal with each other by computer or telephone on behalf of buyers and sellers. Over-the-counter trading dominates the municipal bond market to a greater extent than other segments of the bond market. Traditionally, the municipal bond market has existed in localized state and municipal markets, where there was a small community of buyers and sellers and little National interest.

Today, municipal bonds are a significant part of U.S. financial markets, but the diverse and decentralized nature of the market still discourages development of an organized exchange. Several overriding characteristics of the municipal bond market make it likely that OTC trading will continue to dominate going forward:

- **Market size and trading volumes.** Notwithstanding its growth in recent years, the municipal bond market is considerably smaller in value relative to the stock and corporate/foreign bond markets. Appendix B shows that at the end of 2003 the corporate stock market totaled $15.5 trillion; the combined corporate/foreign bond market was $6.8 trillion; and the municipal bond market was $1.9 trillion. The municipal bond market is also considerably smaller in terms of trading volumes. The daily buying and selling of municipal bonds involves less than 1 percent of the market. There are about 30,000 daily trades involving 10,000 issues in municipal bonds compared to an average of 4 billion shares traded daily on major equity markets.
- **Number of issuers.** The municipal bond market is significantly more diverse and larger than the stock and corporate/foreign bond markets in terms of the numbers of issuers. The stock market, for example, consists of approximately 8,500 issues that trade electronically or on the New York, Nasdaq and American Stock Exchanges. The corporate bond market consists of about 7,300 issuers. By contrast, the municipal bond market is comprised of over 51,000 issuers and has about 1.3 million different securities outstanding.
- **Lack of concentration.** The municipal bond market is significantly less concentrated than the corporate bond market in terms of underwriting activities. Ap-

[2] Because of their tax-exempt status, municipal bonds generally carry a lower yield than their taxable counterparts. Institutions and wealthy individuals who pay high marginal tax rates have been the largest buyers of municipal bonds because the tax benefits outweigh the decreased yield.

pendix C lists the top 10 underwriters in the corporate and municipal bond markets. In the corporate bond market, the top 10 underwriters account for 84.85 percent of the underwritings, compared to 69.05 percent in the municipal bond market. The average issue size in the corporate bond market ($ 122,938,000) is nearly five times larger than the average issue size in the municipal bond market ($ 26,659,000).

The diverse and decentralized features of the municipal bond market make it difficult to centralize trading at a limited number of trading locations, and it is unlikely that an organized National exchange will evolve in the municipal bond market in the immediate future.

**Bond Pricing Transparency**

Substantial progress has been made with respect to price transparency in both the corporate and municipal bond markets.[3]

*Corporate Bond Market Price Transparency*

Price transparency in the corporate bond market has traditionally been problematic, particularly for individual investors.[4] Until recent years, corporate bond buyers had to rely on broker/dealer bid/ask spreads to obtain pricing information. Buyers had no way of knowing whether the bid/ask spread they were being given was reasonable or if they were being asked to overpay. There was no centralized exchange where recent trade prices were reported. Large institutional investors had a distinct advantage over smaller investors because they had access to multiple dealers. They could "shop" for bonds by calling on a number of dealers and purchasing from the dealer that was offering the lowest price.

In recent years, price transparency has improved because of the central reporting system developed by the National Association of Securities Dealers, called the Trade Reporting and Compliance Engine (TRACE). Recent improvements to TRACE have resulted in a greater number of corporate bond trades being reported to the market in a shorter period of time following execution. Brokers and dealers who are members of the NASD are required to report corporate bond transactions on a same-day basis for both investment grade and a very limited number of high-yield securities. Thinly traded corporate bonds remain difficult to price as they are not continuously traded and, therefore, not frequently reported on TRACE.

*Municipal Bond Market Price Transparency*

The MSRB has made important progress on pricing transparency in the last 10 years. Efforts by the MSRB to improve reporting began in 1994 when inter-dealer transactions were first required to be reported. In 1998, dealers began reporting customer trades, and the MSRB began reporting next-day price information on both inter-dealer and customer transactions involving bonds that traded four or more times per day. Price transparency developed further in 2000 when individual trade data was reported. In 2003, the MSRB began T+1 reporting for municipal bond transactions and eliminated the threshold that only mandated reporting on bonds that traded four or more times per day. And, finally, a new MSRB rule (Rule G–14), which is scheduled to become effective in the beginning of 2005, would require brokers and dealers to report transactions in municipal securities within 15 minutes of the time of trade. We believe that increasing municipal bond market price transparency and comparability to other over-the-counter fixed income markets will improve investor confidence in the municipal market.

There are many potential benefits to improved price transparency. Mutual funds, for example, would be able to use reported bond prices to improve pricing of fund portfolios. Also, enhanced price transparency would likely narrow bid-ask spreads and give consistency to spreads among large and small investors. It would also allow regulators to better monitor the market. Data suggests that limited price transparency disadvantages small investors because spreads are bigger when trades are smaller. Appendix D demonstrates how bid/ask spreads narrow as trade sizes increase. As shown on Appendix D, a trade between $0 and $50,000 on a randomly selected day in September 2003 was an average of 190 basis points wider than trades of over $1 million.

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[3] Price transparency refers to a buyer's and seller's ability to obtain current and accurate valuation information and bid/ask spreads on a particular bond.

[4] In contrast, price transparency in the Treasury market has been excellent as it is a highly liquid, single issuer market with several trillion dollars in frequently traded outstanding debt. All levels of investors from institutions to individuals have access to reliable and thorough Treasury bond information.

Some municipal market participants do not support the MSRB in its efforts to increase pricing transparency, especially for inactively traded securities (which often are of lower quality). They argue that the market liquidity of these issues would decrease as dealers become concerned about competitors knowing the approximate price of their newly acquired positions. We disagree. Any short-term dislocations would be inconsequential compared to the long-term benefits offered by enhanced pricing transparency. The interests of the millions of mutual fund shareholders and individual bondholders are best served with the highest degree of price transparency.

Appendix E summarizes the efforts by the NASD to increase price transparency in the corporate bond market through the TRACE central reporting system, and the recent MSRB initiative to implement real-time reporting of pricing information in the municipal bond market.

**Issuer Financial Condition Transparency**

*Historical Context*

Although considerable progress has been made with respect to pricing transparency in recent years, issuer financial condition transparency is proceeding slowly in the municipal bond market. The cost of mandating issuer financial condition disclosure has been considered prohibitive for smaller issuers; however, technology may afford new and unprecedented opportunities to provide institutional and individual investors with consistent and appropriate financial information to make informed investment decisions.

At the time Congress was enacting sweeping new securities laws in the 1930s, municipal bonds were largely exempted from Federal regulation. They were made subject to the securities laws' general antifraud provisions so that market participants could be disciplined for misleading and fraudulent behavior. However, municipal securities were not subject to the same registration and reporting requirements that applied to equity and corporate issuers. At the time the new securities laws were enacted, municipal securities were deemed to be local in nature and relatively straightforward general obligation bonds. There had been no large-scale municipal securities defaults that threatened the integrity of the market, as had happened in other segments of the financial markets.

Since the 1930s, all of the factors that convinced lawmakers to impose limited Federal oversight of the municipal bond market have changed. The localized nature of the market is gone and municipal bonds trade on a Nationwide scale. The market no longer consists solely of straightforward general obligation bonds but also is now comprised of complex instruments. There are sophisticated varieties of revenue bonds that are not backed by governmental full faith and credit. And, finally, the municipal bond market was touched by a number of defaults that caused legislators and regulators to take action.

*The MSRB and the Tower Amendment*

In the 1970's, Congress responded to a large-scale fiscal crisis involving municipal debt obligations in New York City. The Securities Acts Amendments of 1975 resulted in unprecedented Federal intervention into the municipal bond market. The 1975 amendments created the MSRB, a self-regulatory agency designed to enhance investor protection subject to SEC oversight. However, in order to balance investor protection with states' rights, Congress placed restrictions on Federal regulators by including the Tower Amendment with the 1975 amendments.

The Tower Amendment limits the SEC's and MSRB's ability to regulate municipal bond issuers in the same way that the SEC regulates stock and corporate bond markets. Issuers cannot be required to file with the SEC or MSRB ″prior to sale″ any application, report, or document in connection with issuance, sale, or distribution of securities.

*SEC Rule 15c2–12*

In the late 1980's, there was another large crisis in the municipal bond market, this time resulting in a bond default by the Washington Public Power Supply System. In response, the SEC took steps to improve municipal bond financial disclosure by mandating certain limited disclosures by municipal bond underwriters and dealers under SEC rule 15c2–12. Because the SEC is restricted by the Tower Amendment from directly regulating municipal bond issuers, rule 15c2–12 regulates only bond underwriters and dealers.

SEC rule 15c2–12 requires primary bond offerings over $1 million to be accompanied by certain limited financial information. Specifically, rule 15c2–12 requires that municipal bond underwriters obtain "official statements" from issuers and review them before the initial distribution. Underwriters are obligated to provide investors with the "official statement" so that investors can obtain certain limited information about a particular bond before purchasing it.

Under rule 15c2–12, there is also a unique, albeit limited, requirement for secondary market disclosure with respect to long-term debt. Underwriters, pursuant to written agreements by issuers, are required to obtain limited annual financial information and notice of certain material subsequent events. Secondary market information is distributed through a private network of information repositories, known as Nationally Recognized Municipal Securities Information Repositories. An issuer selling directly to investors without assistance of underwriters or dealers is not subject to rule 15c2–12.

**Conclusion**

Voluntary steps taken by issuers, self-regulatory organizations and investors to improve price transparency in the corporate and municipal bond markets should be commended. As a fiduciary responsible for the investments of hundreds of thousands of municipal bond fund investors, Vanguard strongly supports the MSRB's efforts to improve price transparency in the municipal bond market, and Vanguard recommends that these efforts continue as they have enhanced investor protection.

In addition to price transparency, efforts should continue to improve financial condition transparency in the municipal bond market. We commend voluntary efforts by industry participants to enhance secondary market disclosure concerning issuer financial conditions, and encourage such work to continue. The SEC's previous efforts to improve disclosure through rule 15c2–12 have been effective and beneficial. However, Vanguard recommends that lawmakers and regulators continue to monitor developments and consider whether more may be done to improve issuer financial condition transparency in the municipal bond market for the protection and benefit of municipal bond investors.

## Appendix A

Vanguard Fund Information

| | Taxable Money Market | Treasury/ Gov't Bonds | Corporate Bond | Municipal Bond | Municipal Money Market | Balanced (Stock/Bond) | Stock | Total |
|---|---|---|---|---|---|---|---|---|
| Number of Shareholder Accounts | 2,134,373 | 848,880 | 1,401,891 | 391,762 | 181,719 | 2,858,293 | 11,389,768 | 19,206,686 |
| Number of Funds | 5 | 6 | 12 | 14 | 6 | 22 | 63 | 128 |
| Total Net Assets | $73,248,319 | $42,220,340 | $73,374,276 | $43,696,770 | $25,712,622 | $57,928,295 | $412,162,900 | $728,343,522 |

*All Data as of May 31, 2004*

## Appendix B

Market Ownership Data
Selected Markets and Selected Segments in Dollars: 2003

**Billions of Dollars; amounts outstanding end of period, not seasonally adjusted**

| | Corporate Equities* | Treasury Securities | Agency Securities | Corporate and Foreign Bonds | Municipal Securities and Loans |
|---|---|---|---|---|---|
| **Holdings at market Value / Total Assets** | $15,498 | $4,008 | $6,096 | $6,840 | $1,900 |
| **Household sector** | $5,709 | $419 | $270 | $980 | $681 |
| **State and local governments** | $138 | $344 | $221 | $88 | $4 |
| **Rest of the world** | $1,618 | $1,489 | $682 | $1,294 | $0 |
| **Commercial banking** | $15 | $134 | $999 | $506 | $133 |
| **Savings institutions** | $30 | $12 | $199 | $71 | $6 |
| **Bank personal trusts and estates** | $213 | $11 | $32 | $40 | $98 |
| **Life insurance companies** | $956 | $85 | $361 | $1,597 | $21 |
| **Other insurance companies** | $187 | $66 | $125 | $219 | $201 |
| **Private Pension funds** | $1,873 | $67 | $237 | $341 | $0 |
| **State and local govt. retirement funds** | $1,319 | $207 | $160 | $363 | $1 |
| **Federal governments retirement funds** | $80 | $54 | $7 | $3 | $0 |
| **Mutual funds** | $3,062 | $147 | $444 | $548 | $291 |
| **Closed-end Funds** | $53 | $6 | $0 | $67 | $90 |
| **Exchanged Traded funds** | $146 | $2 | $0 | $2 | $0 |
| **Brokers and dealers** | $98 | $38 | $84 | $228 | $25 |
| **Other** | $0 | $928 | $2,276 | $493 | $349 |

**Source: Federal Reserve Statistical Release, "Flow of Funds Accounts of the United States, release date 3/4/2004**

* Excludes mutual fund shares

## Appendix B - Continued

Market Ownership Data
Selected Markets and Selected Segments by Percentage: 2003

Percentage of amounts outstanding end of period, not seasonally adjusted

| | Corporate Equities* | Treasury Securities | Agency Securities | Corporate and Foreign Bonds | Municipal Securities and Loans |
|---|---|---|---|---|---|
| Holdings at market Value / Total Assets | 100% | 100% | 100% | 100% | 100% |
| Household sector | 37% | 10% | 4% | 14% | 36% |
| State and local governments | 1% | 9% | 4% | 1% | 0% |
| Rest of the world | 10% | 37% | 11% | 19% | 0% |
| Commercial banking | 0% | 3% | 16% | 7% | 7% |
| Savings institutions | 0% | 0% | 3% | 1% | 0% |
| Bank personal trusts and estates | 1% | 0% | 1% | 1% | 5% |
| Life insurance companies | 6% | 2% | 6% | 23% | 1% |
| Other insurance companies | 1% | 2% | 2% | 3% | 11% |
| Private Pension funds | 12% | 2% | 4% | 5% | 0% |
| State and local govt. retirement funds | 9% | 5% | 3% | 5% | 0% |
| Federal governments retirement funds | 1% | 1% | 0% | 0% | 0% |
| Mutual funds | 20% | 4% | 7% | 8% | 15% |
| Closed-end Funds | 0% | 0% | 0% | 1% | 5% |
| Exchanged Traded funds | 1% | 0% | 0% | 0% | 0% |
| Brokers and dealers | 1% | 1% | 1% | 3% | 1% |
| Other | 0% | 23% | 37% | 7% | 18% |

Source: Calculated from above
* Excludes mutual fund shares

**Appendix C**

Top 10 Underwriters of Municipal Debt (Competitive and Negotiated): 2003

| Underwriter | Amount | Percentage of Total | Rank | Issues | Average Issue Size |
|---|---|---|---|---|---|
| Citigroup Global Markets Inc | $52,350,300 | 13.63% | 1 | 691 | $75,760 |
| UBS Financial Services | $44,742,700 | 11.65% | 2 | 849 | $52,700 |
| Merrill Lynch & Co. | $29,391,500 | 7.65% | 3 | 304 | $96,683 |
| Morgan Stanley | $26,529,100 | 6.91% | 4 | 274 | $96,821 |
| Lehman Brothers | $24,626,400 | 6.41% | 5 | 232 | $106,148 |
| Bear Stearns & Co. | $22,396,600 | 5.83% | 6 | 183 | $116,816 |
| J.P. Morgan Securities Inc. | $21,377,500 | 5.57% | 7 | 193 | $110,764 |
| Goldman Sachs & Co. | $20,348,100 | 5.30% | 8 | 175 | $116,275 |
| Banc of America Securities LLC | $12,646,100 | 3.29% | 9 | 355 | $35,623 |
| RBC Dain Rauscher Inc. | $10,793,800 | 2.81% | 10 | 665 | $16,231 |
| Total Top Ten | $265,202,100 | 69.05% | | 3,921 | $67,636 |
| Total market | $84,010,300 | 100.00% | | 14,404 | $26,659 |

Note: Figures are based on issues maturing in 13 months or longer. Dollar amounts are in thousands of dollars. Private placements and remarketings of variable-rate bonds are excluded. Underwriters get credit only for issues for which they were lead or sole manager. Issues with multiple senior managers divide the par amount equally among the managers. Source: Thomson Financial

## Appendix C – Continued

### Top 10 Underwriters of Corporate Debt: 2003

| Underwriter | Amount | Percentage of Total | Rank | Issues | Average Issue Size |
|---|---|---|---|---|---|
| Citigroup Global Markets Inc | $142,070,730 | 16.90% | 1 | 685 | $207,403 |
| J.P. Morgan Securities Inc | $109,113,190 | 13.00% | 2 | 578 | $188,777 |
| Lehman Brothers | $74,392,230 | 8.80% | 3 | 338 | $220,095 |
| Morgan Stanley | $73,752,990 | 8.80% | 4 | 1,169 | $63,091 |
| Banc of America Securities LLC | $66,616,810 | 7.9% | 5 | 1,246 | $53,465 |
| Merrill Lynch & Co. | $63,201,890 | 7.5% | 6 | 404 | $156,440 |
| Credit Suisse First Boston | $56,344,290 | 6.70% | 7 | 329 | $171,259 |
| Goldman Sachs & Co. | $56,276,020 | 6.70% | 8 | 245 | $229,698 |
| Deutsche Bank AG | $47,120,430 | 5.60% | 9 | 282 | $167,094 |
| UBS Financial Services | $25,828,680 | 3.10% | 10 | 181 | $142,700 |
| Total Top Ten | $714,717,260 | 84.85% | | 5,457 | $130,972 |
| Total market | $842,369,000 | 100.00% | | 6,852 | $122,938 |
| Source: Bloomberg, (in Thousand of dollars) | | | | | |

## Appendix D

Spreads in the Municipal Bond Market
As of a randomly selected day in September 2003

| Trade Size | Number of Trades | Bid-Ask Spread (in basis points) | Spread Relative to Trades of More Than $1 Million (in basis Points) |
|---|---|---|---|
| More than $1,000,000 | 138 | 23 | |
| $100,000 - $1,000,000 | 292 | 103 | +80 |
| $50,00 - $100,000 | 203 | 121 | +98 |
| $0 - $50,000 | 988 | 213 | +190 |

Source: Vanguard Fixed Income Group and MSRB Trade Data

## Appendix E

Price Transparency in the Corporate and Municipal Bond Markets

| | Corporate Bond Market (TRACE) | Municipal Bond Market (MSRB) |
|---|---|---|
| Goals | • Create a comprehensive regulatory database (e.g. from the TRACE database, NASD market regulators perform various reviews including commission markup and volatility reviews)<br><br>• Continue to provide faster pricing transparency for investors and market participants | • Support enhanced market surveillance<br><br>• Provide price transparency for investors and market participants |
| Real-time reporting | The following corporate securities are subject to real-time reporting:<br>• Investment grade debt - including Rule 144a and DTC-eligible bonds (Investment grade debt includes bonds rated by Moody's as "A3" or higher or by S&P as "A-" or higher.)<br>• A limited number of high-yield and un-rated securities of U.S companies and foreign private companies, including Rule 144a and DTC-eligible securities (For TRACE purposes, high-yield debt includes bonds rated Baa/BBB or lower)<br>• Medium term notes<br>• Convertible debt<br>• Capital trust securities<br>• Equipment trust securities<br>• Floating rate notes<br>• Global bonds issued by U.S. and foreign private companies | • Currently, there is no real-time reporting requirement<br><br>• Investor protection principles require that transactions should be reported in real-time and MSRB efforts to do real-time reporting are underway |
| Timing | • TRACE currently disseminates information on about 5,000 issues<br><br>• TRACE covers the sell side of dealer to dealer transactions and all customer transactions<br><br>• TRACE covers bonds with maximum outstanding par value of $5 million for investment grade bonds and $1 million for high yield bonds | • Proposed MSRB rule change (Rule G-14) is scheduled to become effective in January 2005<br><br>• Rule would require brokers, dealers and dealers to report transactions in municipal securities within 15 minutes of the time of trade |

## PREPARED STATEMENT OF ARTHUR WARGA

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The purpose of this report is to provide the Senate Banking committee with my perspective of the domestic corporate and municipal bond markets with regard to current issues including market structure, regulatory framework, trade reporting and price transparency. My focus will be on the potential benefits of greater price transparency, but I will also comment briefly on several of the other issues.

### Overview

The bond markets have evolved into an over-the-counter system geared to institutional-sized transactions. The cost structure for both corporate and municipal securities in this market appears to be competitive for institutional-sized trades.[1] The cost of transacting retail-sized trades carried out in this dealer-market can best be described as "punishing", and are five times the size of those found for institutional-sized trades.[2] In the dealer market, about 65 percent of corporate bond trades are retail-sized, but these trades only generate 1.8 percent of the dollar volume of trade in the market. This contrasts with the municipal market, where retail trades also comprise the majority of activity, but account for 40-50 percent of the dollar volume.

Trades carried out on the NYSE's Automated Bond System (ABS)[3] are almost exclusively retail-sized and reveal a cost of trade similar to the institutional-sized trade costs in the dealer market[4], although commissions can significantly increase the net cost for very small trades (say five bonds or less). It would be helpful if the NASD included a comparison of the known trading costs on ABS with the yet-to-be-revealed (as least publicly) trading costs in the dealer market in their current study of the trading environment. This comparison will also aid the SEC in determining potential benefits of removing obstacles to retail-trade activity on the ABS or like system.[5]

### The Value of Transparency

To begin, I believe it is important to understand that in any market transparency is of greatest potential value when the underlying security is one that the marketplace has a structural need to trade on a frequent basis. I believe that even in a transparency-enhancing environment in which all bond transactions are reported centrally and publicly in a short period of time after they occur, there will always be large segments of the bond universe for which a lack of transparency and liquidity remains because of the fundamental characteristics of bonds.

Liquidity is the ability to transact over a short period of time without adversely affecting the price of a security. It has been suggested that liquidity can be enhanced by introducing price transparency because the market has pent up demand for trading securities and that transparency leads to greater willingness to trade. The opposite contention is also likely to be true. That is, a fundamental lack of demand to trade can create a lack of transparency that is wholly independent of the presence of a transparency-enhancing environment. Trade and liquidity in bonds declines rapidly a short period after a bond is first issued. This is because bonds are for the most part what is referred to as "buy and hold" securities.

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[1] See Hong and Warga (2000) for evidence on cost structure in the corporate bond market. There is no formal definition of an institutional versus retail trade. For the purpose of this discussion we call any trade of less than or equal to 100 bonds ($100,000 par value) retail, and any trade equal to or greater than 500 bonds (.5 million par) institutional. The grey area will go unnamed.

[2] The factor 5 refers to median bid/ask spreads. The most trustworthy evidence for this claim comes from studies of retail-sized trades in the municipal bond market. An article forthcoming in the Journal of Fixed Income by Hong and Warga (2004) and a study by the SEC (Harris and Piwowar (2004)) both reveal bid-ask spreads (cost of a round-trip transaction) for retail-sized transactions averaging well over 2 percent of par value. There is no published evidence on retail-sized bid-ask spreads in the dealer market, but based on my discussions with NASD and my involvement with the bond market transparency initiatives there I believe the cost structure to be similar to that found in municipal securities.

[3] See Appendix A for a description of this market.

[4] See Hong and Warga (2000)

[5] According to newswire reports I have read recently, registration requirements mandated by the ABS's exchange status (and that are not imposed on the dealer market) are viewed by the NYSE as a significant hurdle to achieving levels of liquidity that would help make ABS a more viable market for retail trades.

Figure 1 provides typical values of volatility for a variety of securities. Volatility generally correlates positively with the value of adding transparency. If there is an underlying demand to trade frequently then transparency can help a market be more liquid. Volatility causes portfolio holdings to need readjustment, which in turn generates a need to trade.

There are markets where transparency has the potential to add liquidity, but the market is young and hasn't evolved into and efficient form. Prime examples are the energy markets. While exchange-traded products currently exist for oil and gas, there are still many nonexchange traded securities for which the markets are virtually opaque or dependent on newsletter-like surveys for price discovery (that is Platts). At the extreme, the market for power several months to several years out into the future lacks any transparency, and yet the potential benefits of transparency are (I believe) very large. In the very least, the payoff of more credible marked-to market accounting calculations in the energy sector would seem to be worth the effort of fast-forwarding transparency in this market sector.

Within the bond markets, the greatest potential benefit of transparency is in the high yield sector. It is interesting that the NASD's TRACE initiative remains to this day silent in its public reporting of high yield transactions,[6] although I am aware that such reporting is inevitable. The NASD is to be commended on their TRACE initiative in that they have developed a powerful reporting tool capable of providing nearly immediate trade reports for a broad range of bonds. This initiative follows in the heels of the MSRB's price reporting initiative, and the two projects have created a sea-change in terms of the bond markets' ability to provide transparency for actual transactions. These price reporting initiatives do not provide transparency in terms of supply and demand schedules. That is, unlike a system such as ABS, they do not allow potential buyers and sellers to view actual firm offers to buy or sell a given quantity of a bond at a given price.

One of the main benefits of TRACE and the MSRB price reporting systems is that quality data will be more broadly available for market participants to employ in models that help determine estimated prices for securities that trade infrequently (the vast majority of bonds fall under this category). Net Asset Value (NAV) calculations for bond mutual funds have always been (in my mind) a very problematic exercise carried out with prices supplied by bond pricing services[7] that are naturally handicapped by the lack of immediate access to actual transaction prices.[8]

**Investment-Grade Bond Trades**

Corporate and municipal bonds, especially investment grade issues, are purchased primarily as nonspeculative investments. On the institutional buy-side, bonds are purchased because they satisfy certain criteria that a bond portfolio manager seeks. Their behavior is much more predictable than stocks, and so it is possible to know a lot about how they will fit into the manager's portfolio over much of their life. Portfolio managers rarely purchase investment-grade corporate bonds with the intention of selling them in the near term. As bonds age past their issuance date and are absorbed into portfolios, their liquidity rapidly disappears.[9] The fact is most bonds do not trade on any given day (or week, or even month) because there is no reason for them to trade.

It is worth noting the historical evolution of both stock and bond markets in the United States. The New York Stock Exchange, which provides a central and immediate reporting system, originally began as a bond exchange. The simple fact is that the speculative nature of stocks and high demand for frequent trading in them naturally led to a market system vastly different from bonds. In the natural evolution of markets transparency is a consequence of the type of security being traded and investor's demand for frequent trade. If the securities being traded do not by their nature require frequent trading, then it is perfectly reasonable to find that the market for those securities has evolved into a system with less apparent transparency than, say, a stock market.

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[6] I ignore the long-standing FIPS high yield trade reporting initiative that has been based on only 50 issues representing the most liquid portion of the high yield market because of the small number of bonds and representation by issues least likely to have information problems in the market.

[7] A partial list of examples are Merrill Lynch Bond Pricing Service (for corporates), Mueller and J.J. Kenny (for municipals).

[8] Because of liquidity effects, bond price is also properly viewed as a function of quantity purchased or sold, and it is not clear that adequate information is provided in the current TRACE system to add much value to pricing algorithms that account for quantity effects. This is more of a problem for high yield than for investment grade issues.

[9] This is documented, for example, by Schultz (2001). This effect is also apparent with U.S. Treasury issues. See Sarig and Warga (1989) for documentation of this effect.

It is important to reemphasize the point that for corporate bonds, institutional buyers account for 98 percent of the dollar volume of trade. These buyers are professionals, often with the staff necessary to call multiple dealers. Dealers in turn often call upon professional staffs to provide additional portfolio services demanded by buyers. Indeed, bid-ask spreads often include implicitly costs for services required by buyers (such as solving portfolio, research, and strategy problems)[10]. Markets have evolved in a manner to permit dealers to bundle these portfolio services, which often require near-immediate trade execution.[11] Electronic trade and reporting systems are not capable of providing this bundle of services that is demanded by institutional investors. This provides at least a partial explanation as to why the NYSE's Automated Bond System (ABS) has succeeded only in attracting retail-sized trades.[12]

If bid-ask spreads are restricted to institutional sized trades of at least 500 bonds (.5 million par value), bid-ask spreads[13] for corporate bonds are in the range of 7 to 15 basis points (100 basis points equals 1 percent). The bid-ask spreads for these trades, which are in fact typical of corporate bond market activity, rival the bid-ask spreads of about 10 basis points found for the highest capitalization stocks on the New York Stock Exchange.

For investment grade bonds it is usually the case that price can be estimated within a narrow range of the correct value. The real question of interest to a buyer is what type of bond would his/her portfolio optimally require to meet its investment goal, and where would an appropriate inventory of that type of bond be found. Investment grade debt is characterized by the fact that there are often many near-perfect substitutes available. In other words, the demand by a portfolio manager is not necessarily for, say, a bond issued and backed by Citigroup, but in fact for an issue from an "A" corporate financial institution. Dealers therefore often play the role of providing the service of solving a portfolio strategy-related problem for a client, and then having in inventory certain classes of bonds (along with information about the covenants and other qualifying characteristics) so that the buyer will be assured of carrying out their fiduciary responsibility.

**Non-investment Grade Bond Trades**

Non-investment grade debt contains a greater level of price risk, and this translates into more situations where the owner no longer finds that the bond qualifies for his/her portfolio. Also, the speculative motive to trade is greater than for investment grade issues.[14] Unlike stock or investment grade bonds, the noninvestment grade corporate bond universe contains many issues from companies that are private. This means that information is harder to come by, and credit analysis becomes critical (this latter point is true even for public issues). Dealers maintain research departments to track changes in such companies, and this is a function that institutional buyers are not always equipped to carry out because of the great expense.

High credit risk is often claimed to be captured in bond ratings. However, even if a bond is rated, when the information about a change in credit risk is needed most, the rating usually fails to reflect it. This is because bond ratings are only confirmatory in nature (and by design). Rating agencies often do not change ratings until several months after the event that triggers the need for a rating change (see Warga and Welch (1993)). Ratings can change 5–6 months after the marketplace has already acknowledged a change in credit risk through significant price moves (Hite and Warga (1997)).

The discussion above points to why institutional buyers often have established relationships with dealers, and the reason is the "value-added". Dealers can provide important services without charging an explicit fee because their costs can be embedded in their bid-ask spreads. While some of the services sought by buyers can be unbundled and provided by third parties, it is often convenient to have "one-stop shopping". For all of the aforementioned reasons, it is not surprising to find that retail trades carried out in the dealer market face a cost structure that is much higher than it probably needs to be.

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[10] Examples are creating a dedicated portfolio meant to meet pension fund obligations, or a portfolio that is immunized against adverse interest rate movements.

[11] The largest and most sophisticated buy-side firms carry out most of their portfolio analysis with proprietary systems built in-house, and probably would prefer a market structure where broker-dealers offer as few services as possible.

[12] See the Appendix for a description and further discussion of ABS.

[13] Hong and Warga (2000) calculate bid-ask spreads of 13 basis points for investment grade, and 20 basis points for noninvestment grade issues. Consistent results are found in Schultz (2001) and Chakravarty and Sarkar (2003) using the same data base.

[14] See Blume, Keim, and Patel (1991).

**Municipal Bond Trading**

The Municipal Bond market differs greatly from the corporate bond market in several respects. The prime differentiator is that a significant portion of this market involves retail-sized trades (100 bonds or less) for individual accounts. According to the Bond Market Association (BMA) as of 2 years ago there were 1.4 million Municipal issues outstanding (about 10 times the number of corporate issues). The tax advantages enjoyed by many munis and their low degree of risk (most are "AAA", a rating often achieved through "prerefunding" or insurance) make them an attractive investment for many individuals as a hedge against their stock and other investments. There is often little speculative motive in their purchase, even less than for high-grade corporates. Relatively small issue sizes and obscure details about specific revenue projects or taxing authority rights and privileges make these securities even less transparent than most corporates.

The muni market underwent a dramatic change in the level of price transparency beginning in 1999. The Municipal Securities Rule Board (MSRB) through the Bond Market Association (BMA) has made next-day pricing and quantity available through a web site and data service.[15] Aside from price and quantity of each transaction, it is also possible now to obtain the time of the transaction and whether the trade was a dealer buy, a dealer sale, or dealer-dealer. In a short period of time the muni market went from being one of the more opaque markets to one of the more transparent ones.

The effects of muni transparency provide a cautionary tale for those purporting dramatic changes in the corporate market. Munis remain relatively illiquid, as illustrated by the persistence of bid-ask spreads to remain at or above their previous levels. In research I have conducted based on a complete record of muni transactions in May of 2000, and for transactions in Texas and Florida in September of 2000, it is clear that spreads are at or above the levels cited for comparable issues in the study by Chakravarty and Sarkar (2003) that is based on transactions from 1995–1997. This observation is also confirmed in work described recently in *The Wall Street Journal* by the SEC Chief Economist Lawrence Harris and staff economist Michael Piwowar (2004) who also examine data from the year 2000.

While an update through 2004 is needed to confirm the continued high cost of transacting in the muni market (for retail trades), it is safe to say that the transparency added by the price reporting system put in place by the MSRB is at best having a slow-moving effect on the cost structure for municipal trades. This simply reflects the fact that the market is geared to institutional trading and/or is dealing with complex securities that require a costly trading environment.

[15] See *www.investinginbonds.com.* The service started out reporting high-low prices for the day and quickly proceeded to add individual trade details. It is my understanding that near real-time reporting of municipal bond transactions is imminent.

## APPENDIX A—THE NEW YORK STOCK EXCHANGE'S ABS SYSTEM

Since 1976–77 bonds have traded on the NYSE's Automated Bond System (ABS), which can be described as a fully automated electronic trading and information system whose schedules of bid and ask prices are fully transparent. In general, trading on ABS is relatively thin and trades on the ABS are typically retail-sized (under one hundred bonds).

Despite the small size of the ABS market, the most actively traded issues not only rival the dealer market in terms of both frequency of trade and dollar volume of trade, but in some cases even dominate the dealer market. In a recent paper examining hourly trade reports from the Nasdaq-based Fixed Income Pricing System (FIPS), Hotchkiss and Ronen (2002) find that fourteen ABS-traded bonds have median transaction frequency equal to twenty-five percent of the entire dealer market, with a high figure of eighty-one percent. Based on actual transaction data collected over the 1995–1997 period, Kalimipalli and Warga (2002) find more direct evidence that frequently traded bonds on ABS often have volume equal to or exceeding the entire dealer market. Frequently traded bonds on ABS are almost exclusively non-investment grade.

Unlike its counterpart stock market, there is no specialist in the NYSE bond market. Instead, there are brokers who are subscribing members of the ABS. As of 2002, there were 58 ABS member brokers operating on about 210 terminals. The member brokers usually trade on behalf of their customers, though at times they could trade for their own account. Member brokers receive limit orders from the public and enter the corresponding bid-ask quotes and the respective quantities into the automated system. They also enter their own quotes into the system. Liquidity to the ABS market is therefore jointly supplied by public limit orders and dealers' own quotes. The ABS matches the orders automatically and informs the member brokers once an order is executed. The ABS is thus a limit order market with a strict price-time priority. The ABS market is also very transparent. All subscribers to the ABS market have full access to the complete order schedule, which they can divulge to investors upon request.

## REFERENCES


Bloomfield, R., and M. O'Hara, 1999. "Can Transparent Markets Survive?" *Journal of Financial Economics.*

Blume, M.,D. Keim, and S. Patel, 1991. "Returns and Volatility of Low Grade Bonds, 1977-1989." *Journal of Finance,* vol.46, no.1, March.

Chakravarty, S. , and A. Sarkar, "Trading Costs in Three U.S. Bond Markets," *Journal of Fixed Income,* 2003 June, Vol.13, No.1.

Harris, Lawrence and M. Piwowar, "Municipal Bond Liquidity." SEC manuscript. 2004.

Hite, G., and A. Warga, "The Effect of Bond Rating Changes on Bond Price Performance" (with G. Hite), *Financial Analysts Journal,* Vol. 53, No.3, May/June 1997. . Abstracted in CFA Digest.

Hong, G. and A. Warga. "An Empirical Study of Bond Market Transactions," *Financial Analysts Journal,* March/April 2000.

Hong, G. and A. Warga (2004), "Municipal Marketability," forthcoming, *Journal of Fixed Income.*

Hotchkiss, E. and T. Ronen, 2002. "The Informational Efficiency of the Corporate Bond Market: An Intraday Analysis." *Review of Financial Studies.,* Vol. 15, No.5

Kalimipalli, M. and A. Warga, 2002. "Bid/Ask Spread and Volatility in the Corporate Bond Market." *Journal of Fixed Income,* March.

Madhavan, A, 1995. "Consolidation, Fragmentation, and the Disclosure of Trading Information," *Review of Financial Studies,* Vol. 8, No. 3; Fall.

Sarig, O. and A. Warga. "Bond Price Data and Bond Market Liquidity," *Journal of Financial and Quantitative Analysis;* September 1989, Vol.24, No.3.

Schultz, Paul, "Corporate Bond Trading Costs: A Peek Behind the Curtain," *Journal of Finance,* 2001, v56(2), 677–698

Warga, A., and I. Welch. "Bondholder Losses in Leveraged Buyouts," *Review of Financial Studies,* Vol. 6, No. 4; December 1993.

Figure 1: Value of Transparency is Related to Underlying Volatility