Testimony of Christopher M. Ryon
Principal
and
Senior Municipal Bond Portfolio Manager
The Vanguard Group

Before the United States Senate
Committee on Banking, Housing, and Urban Affairs

Hearing
on
"An Overview of the Regulation of the Bond Markets"

June 17, 2004

I. 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.

II. Background

A. 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 multi-trillion 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 (municipal bonds pay interest exempt from federal and sometimes local taxation).[2]

B. 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.

---

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

[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.

C. 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 one 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. **Appendix 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% of the underwritings, compared to 69.05% 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.

III. Bond Pricing Transparency

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

A. 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.

B. 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

---

[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.

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.

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.

IV. Issuer Financial Condition Transparency

A. 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 anti-fraud 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.

B. The MSRB and the Tower Amendment

In the 1970s, 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.

C. SEC Rule 15c2-12

In the late 1980s, 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.

V. 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) • Continue to provide faster pricing transparency for investors and market participants	• Support enhanced market surveillance • Provide price transparency for investors and market participants
Real-time reporting	The following corporate securities are subject to real-time reporting: • 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.) • 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) • Medium term notes • Convertible debt • Capital trust securities • Equipment trust securities • Floating rate notes • Global bonds issued by U.S. and foreign private companies	• Currently, there is no real-time reporting requirement • 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 • TRACE covers the sell side of dealer to dealer transactions and all customer transactions • 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 • Rule would require brokers, dealers and dealers to report transactions in municipal securities within 15 minutes of the time of trade