CHAPTER 1

Overview of the Municipal Bond Market

INTRODUCTION

Municipal bonds, or municipal securities, represent a promise by state or local governmental units (called the *issuers*) or other qualified issuers to repay to lenders (*investors*) an amount of money borrowed, called *principal,* along with *interest* according to a fixed schedule. Municipal bonds generally are repaid, or *mature,* anywhere from one to 40 years from the date they are issued. At the end of 1999, there were $1.5 trillion in municipal bonds outstanding, representing the cumulative issuance of bonds over many years. These bonds have been used to finance a vast array of projects, a small sample of which includes

- Elementary and secondary school buildings
- Streets and roads
- Government office buildings
- Higher-education buildings, research laboratories, and dormitories
- Transportation facilities, including bridges, highways, roads, airports, ports, and surface transit
- Electric power–generating and –transmission facilities
- Water tunnels and sewage treatment plants
- Resource recovery plants
- Hospitals, healthcare and assisted living facilities, and nursing homes
- Housing for low- and moderate-income families

The municipal bond market is composed of thousands of dedicated professionals throughout the United States who have the diverse skills needed to raise money in the capital markets for state and local governments. Distinct roles are played by state and local government officials, public finance investment bankers, underwriters, salespeople, traders, analysts, lawyers, financial advisors, rating agencies, insurers, commercial bankers, investors, brokers,

technology developers and vendors, the media, and regulators; yet all are working together toward the common goal of providing funds to state and local government units to build needed public projects and infrastructure.

Municipal bonds are also commonly called *tax-exempts,* because the interest paid to the investor is subject neither to federal income taxes nor (sometimes) to state or local taxation. With regard to tax exemption, it must be noted that each household and organization's tax status is unique and different. Although this book delineates the general principles of municipal bonds, investors should consult with their own financial advisors when considering the purchase or sale of municipal securities. There has developed, however, a market for taxable *municipal bonds,* issued by state and local governments or other qualified issuers and on which the interest income is taxable. This is because there are certain uses for municipal bonds that are not eligible for tax exemption due to limiting provisions in the U.S. tax code. Throughout this book, references to municipal bonds are to tax exempt securities, except where it is expressly stated that they are taxable.

One of the statistics that is key to understanding the municipal bond market is the dollar volume of new bond issues that are sold each year. Fluctuations in volume can reflect national economic trends as well as events that are unique and specific to the municipal bond market. The causes and effects of volume changes in the municipal market will be examined in great detail throughout this book, and there will also be a general discussion of the overall level of interest rates. Table 1.1 tracks 25 years of new-issue volume.

The municipal bond market consists of the primary market, which deals in the new securities of issuers, and the secondary market, where securities are bought, sold, and traded after they have been issued. Figure 1.1 presents the flow of funds through the primary market.

The process begins when an issuer sees a need for money to pay for capital improvements or to fill gaps in its cash flow. The issuer then takes a series of steps that lead to the primary market. There, the municipal bond dealer, who may be independent or part of a securities firm or a bank, purchases the issuer's bonds through a process called *underwriting.* The bonds are resold to institutional and individual investors, who pay the dealer directly for the debt they have purchased. The dealer uses these funds to reimburse itself for its capital that was used to purchase the bonds from the issuer. If an issue is underwritten and there are no buyers, the underwriter assumes the risk of holding the bonds in inventory until they are eventually sold. Both principal and interest are paid to the investors by the issuer, usually through a bank acting as paying agent, on a fixed schedule.

The secondary market consists of the activity and trading in securities after they have been sold as new issues. This market also supports the primary market by providing liquidity to investors who are more likely to buy a security if they know they can sell that security at a fair market price prior to its

TABLE 1.1 Total Long-Term and Short-Term Municipal Issuance 1975–1999 ($ billions)

Year	Long-Term Issuance	Short-Term Issuance	Total Municipal Issuance
1975	25.3	0.6	26.0
1976	33.2	0.3	33.5
1977	42.3	0.3	42.6
1978	46.3	0.2	46.5
1979	41.2	0.1	41.3
1980	46.3	9.0	55.4
1981	45.6	14.2	59.8
1982	77.9	16.6	94.5
1983	85.5	19.3	104.8
1984	105.6	23.4	129.1
1985	206.9	22.4	229.3
1986	150.7	22.2	172.9
1987	105.1	20.8	125.8
1988	117.4	23.9	141.3
1989	125.0	30.0	155.0
1990	128.0	35.3	163.3
1991	172.8	44.7	17.5
1992	234.7	43.4	278.1
1993	292.5	47.8	340.3
1994	165.1	40.6	205.7
1995	160.0	38.5	198.5
1996	185.0	42.2	227.2
1997	220.6	46.3	266.9
1998	286.2	34.8	321.0
1999	226.8	37.1	263.8

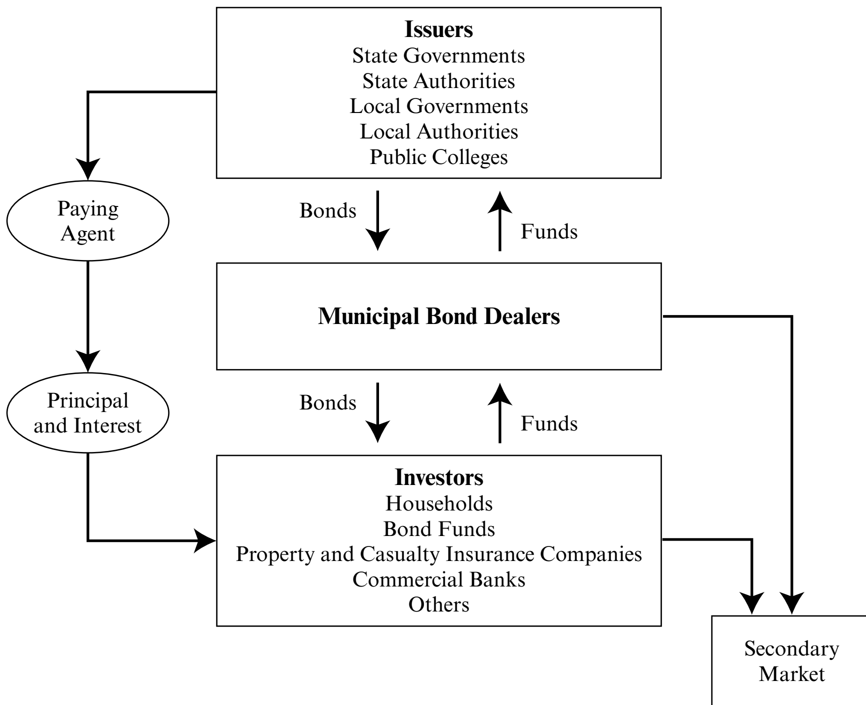
Source: Thomson Financial Securities Data.

stated maturity. Most municipal bond dealers have trading departments that make secondary markets in outstanding bond issues.

THE ISSUERS

According to the 1997 U.S. Census, there were more than 87,500 units of state and local governments. The Census categorizes governmental units as states, counties, municipalities, towns and townships, school districts, and special districts. Municipal bonds are issued by state and local governmental units, either directly under their own names or through a special authority. An *authority* is a separate state or local governmental issuer expressly created

FIGURE 1.1 Flow of Funds in the Primary Market



Source: The Bond Market Association.

to issue bonds or to run an enterprise, or both. Authorities such as those for transportation or power can issue bonds on their own behalves. Other authorities can issue bonds for the benefit of other, qualified, nongovernmental parties, such as not-for-profit hospitals, private colleges, and private companies engaged in pollution-control activities.

Municipal bonds are authorized and issued pursuant to express state and local laws, which impose restrictions on the size and financial structure of the debt. Moreover, each new issue requires the approval of the legislative body of the issuer, often through an ordinance or resolution. Bonds are generally sold to provide funds for capital improvement projects—for the bricks and mortar that infrastructure needs. With few exceptions, bonds are not sold to finance the normal, everyday operating expenses of government, such as employees' salaries and benefits. States and local governmental units—such as counties, municipalities (which include cities), and school districts—issue bonds for roads, parks, courthouses, and schools. These securities are usually general obligation bonds (*GOs*) for which the full faith, credit, and taxing power of the issuer is pledged to and

obliged to be used for the repayment of the bonds. Depending on the governmental issuer approval by voter referendum is frequently required for the issuance of GOs. The public purpose projects funded by GOs provide benefits for the common good and so are repaid by taxes on everyone who is subject to taxes in that governmental unit. There are times when it is not feasible or possible to provide a general obligation pledge, so other forms of *tax-backed* or *tax-supported bonds* have been developed to provide a financing structure. Tax-backed bonds are discussed in greater depth throughout the book.

State and local governments also sell securities for which specific revenues, not the governments' full faith, credit, and taxing power, are the source of repayment. These obligations are known as *revenue bonds*. The issuer can be the government itself or a separate authority. Revenue bonds have been issued for the construction of facilities and plants that provide electric power, water, wastewater treatment, and resource recovery and transportation. Revenues and user fees that can be pledged to the bonds include electric rates and charges, water and sewage usage fees, waste disposal and tipping fees, and tolls and landing fees.

Table 1.2 shows the average issuance in each of five broad categories of state and local governmental issuers in the 10-year period from 1989 through 1999, as a percentage of the total new-issue market, by dollar volume. Local governments, which include cities, towns, villages, counties, parishes, and districts, is the largest single category of issuer, followed by state authorities, local authorities, state governments, and public colleges.

Although municipal bonds are issued for hundreds of unique projects, they can be classified in a few broad categories. One way of analyzing the development of the market is by looking at the purposes for which bonds were issued in 1979 and comparing those to the purposes for which bonds were issued in 1999, as shown in Table 1.3. In 1979 the top two categories, "general purpose/public improvement" and "education," accounted for 31 percent of debt issuance. By 1999, the share of debt sold to support projects in these two categories had increased to 47 percent. Although there is still a

TABLE 1.2 Issuers of Long-Term Municipal Bonds, 1989–1999

Issuers	Issuance (%)
Local governments	39.5
State authorities	30.0
Local authorities	18.6
State governments	9.7
Public colleges	1.7
Total	100

Source: Thomson Financial Securities Data.
Note: Average annual issuance as a percent of dollar volume.

TABLE 1.3 Major Uses of Municipal Debt, 1979 and 1999

Use of Proceeds	1979 (%)	1999 (%)
General purpose/public improvement	19	26
Education	12	21
Healthcare	8	10
Public power	8	2
Water, sewer, and gas	8	7
Pollution control	6	4
Other	38	29
Total	100	100

Source: Thomson Financial Securities Data.

huge unmet need for infrastructure projects, these snapshots of issuance over 20 years clearly show that general governmental purposes and education have remained the dominant share of the market. This, however, does not mean that those bonds have been issued with only a traditional, general obligation security. Many of the developments in tax-backed bonds have occurred precisely to create new security structures for general governmental purposes, without a general obligation pledge.

MUNICIPAL BOND DEALERS

In order to raise money in the market, the issuer works with a municipal bond dealer. The *municipal bond dealer* is most often found in a department of a securities firm or bank that provides other financial services. Public finance investment banking, underwriting, marketing, and trading municipal securities are the jobs that are undertaken by the municipal bond departments of securities firms and banks. Some municipal bond departments are fully integrated as one department, with all the functional areas organized as one business unit. In other firms those areas are divided between a firm's fixed income division and the investment-banking division. There can also be any number of other organizational combinations. Because of the broad and regional nature of the business, there are dealers that operate solely in the municipal bond market, sometimes concentrating in one market sector. Others do mostly retail business, working with individual or household investors. Still other firms trade only for dealers; these are the municipal bond brokers or "brokers' brokers."

Public Finance

Public finance is the investment-banking arm of the municipal bond business. The investment bankers work with existing clients and develop new business with other issuers. Public finance specialists, with information from the un-

derwriting and trading side, respond to the issuers' needs and the needs of investors with traditional and innovative financing structures. The investment bankers are responsible for coordinating and responding to the many written and oral "Requests for Proposals" (*RFP*s) that are sent to them by issuers. These RFPs, which include detailed plans and financial analyses of the issuer, form the basis of the issuer's selection of a municipal bond dealer in a negotiated underwriting (discussed in greater detail in the underwriting section). This selection of underwriters for a negotiated sale is highly competitive, as many firms vie for an issuer's business.

Public finance departments can be organized along geographic, market-sector, or product lines. Sometimes they also perform financial advisory work.

Underwriting

The underwriters set prices and yields on new issues. The two main ways that an underwriter can purchase bonds from an issuer are through a competitive sale or a negotiated sale. In a *competitive sale,* a sealed bid for the bonds is submitted to the issuer at a specific time on a specific date. Normally, more than one underwriter will submit a bid to the issuer. The bonds are awarded to the underwriter who offers to pay the issuer the lowest interest cost. Underwriters will often bid on bonds as part of a *syndicate,* a group of two or more underwriters from competing firms who agree to make a bid together to an issuer. Competitive sales are also called *advertised sales* or *sealed bid sales.*

In a *negotiated sale,* the issuer, prior to the public sale date, selects the *lead underwriter* or *senior manager,* whose job will be to coordinate and manage the financing through all of its many stages. The selection process (sometimes for one deal and sometimes for a series of deals), which usually includes completing the written RFP, often also entails an oral interview at which the public finance investment bankers, underwriters, and other key members of the firm present and defend their proposed financing strategies. The issuer often selects other managers from competing firms to act as co-managers. The managers, acting together or with more firms through a syndicate, make an offer to purchase the bonds from the issuer at a price that will both produce the lowest interest cost to the issuer and sell the bonds to investors. There is greater flexibility in structuring the bonds and in reacting to the most current market conditions in a negotiated sale. As in a competitive sale, the underwriters work closely with traders and salespeople to determine the right price for a new issue.

Trading

Traders maintain the secondary market for securities by actively buying bonds from, and selling bonds to, other dealers and investors. A good trader

is familiar at all times with the bonds available in the municipal market, their credit worthiness, as well as with the overall conditions in the other fixed income markets. Typically, traders specialize either in one sector of the market, such as hospital bonds; in certain bond maturities, such as one to 10 years; or in *dollar bonds* (bonds that are quoted and traded in dollar prices rather than in terms of yield).

Sales

The salespeople develop and maintain direct contact with institutional investors. They sit in the trading room close to the underwriters and traders. In addition to selling new issues that the firm has underwritten, the salesperson is familiar with the investor's portfolio and looks for opportunities to serve the investor in the secondary market. The sales force can be organized in various ways: geographically, by client relationships, by the maturity of the bond, or by a combination of any of these.

Sales Liaison

Securities firms that have a client base with many individual investors often have a retail sales liaison force. The *sales liaison* staff is normally located in the trading room and works with the account executives (variously known as stockbrokers, registered representatives, account executives, or private client service representatives) in the firm's main and branch offices. The account executive calls the sales liaison with inquiries and orders, and the liaison works with the underwriter or trader to fill the investor's needs. Several large securities firms also have regional trading departments similar to their main office trading operations on a smaller scale. The salespeople and liaison staffs in these regional offices work in much the same way as they do in the main office.

Research and Credit

The complexity of the municipal market and the financial difficulties of some state and local governments have led municipal bond dealers to place greater emphasis on the creditworthiness of municipal issuers. Dealers have *research and credit specialists* who are responsible for reviewing and following issuers in the primary and secondary market. Research analysts may prepare a short opinion that can be distributed internally (within the firm) or externally to investors on competitive or negotiated issues coming to market, or they may write comprehensive reports on specific market sectors or on market strategy. In some firms, research and credit work extensively with the public finance

investment bankers on RFPs and, once the firm is awarded the negotiated business, on credit issues and rating issues as well. Research and credit are responsible for reviewing offering statements under the disclosure rules in many firms.

The rating agencies, the bond insurers, and institutional investors also employ research and credit professionals.

Capital Markets

Capital markets blend investment banking and market expertise. They are responsible for creating financial and investment products such as derivatives, swaps, and synthetic securities that are used by both municipal issuers and investors. These products are created with information from the users and with the firm's own risk management team. They may also create financial products for the firm's own proprietary trading. A firm will often have a special, more highly rated subsidiary that enters into derivative transactions to offer the issuer the most secure counterparty structure.

Operations

Operations involves the complex processing involved in the buying and selling of municipal securities. The adoption of industry-wide requirements for orders, record keeping, and confirmations has significantly standardized the functions of the operations group. Its duties include processing orders and payments, verifying and delivering securities, issuing confirmations, and maintaining customer accounts and other required documentation. These operations rules of the Municipal Securities Rulemaking Board (MSRB, a self-regulatory organization) are discussed in detail throughout this book.

BOND BROKERS

Municipal bond brokers, or *brokers' brokers,* trade only for municipal bond dealers and dealer banks; they do not work directly with either institutional or individual investors. Brokers are able to facilitate trades in a more efficient way than if the dealers did the trades themselves. For example, dealers often try to sell bonds in their inventories through brokers by asking a broker to seek bids from other dealers. This is known as the *bid-wanted* business. In other cases, a dealer may be looking for particular bonds for a customer and tells the bond broker the specified yield or price at which he or she would be willing to buy the securities. In this instance, the broker will seek these bonds from other dealers.

THE LAWYERS

Bond Counsel

Essentially every municipal security is accompanied by an opinion of *bond counsel* who represents the legal interests of the bondholders. That opinion addresses the main legal issues: that the bonds constitute legal, valid, and binding obligations of the issuer, and that interest on the bonds is exempt from federal income taxation under applicable tax laws. In rendering the opinion, bond counsel (1) undertakes a review and examination of all applicable laws authorizing the issuance of securities, (2) ascertains that all required procedural steps have been completed to assure proper authorization and issuance of the securities, and (3) determines that all federal tax laws governing the issuance of the bonds. In connection with a review of laws and procedure, bond counsel assembles all relevant documentation into a *transcript of proceedings*. The transcript serves as a permanent record and reference of the steps taken to issue the bonds and of the underlying payment and security arrangements.

The Bond Buyer's Municipal Marketplace®, popularly known as *The Red Book,* is an industry-wide directory that includes listings of municipal bond dealers and attorneys, among others. The market gives greater weight to the opinion of nationally recognized bond counsel listed in the Red Book than that of one that is not included. According to the editors of the Red Book, to be eligible for inclusion a law firm must have accomplished at least one of the following during the two-year period preceding publication of that year's directory:

- Rendered a sole legal opinion in connection with the sale of state and/or municipal bonds, or
- Served as underwriter's counsel, co-counsel, or issuer's counsel for a municipal bond offering.

Underwriter's Counsel

Underwriter's counsel represents the underwriters in a negotiated issue. Underwriter's counsel conducts a thorough due diligence analysis of the issuer. *Due diligence* involves questioning the issuer and any important related parties about their financial condition, plans, reports, and other factors that are important for a purchaser to know in order to make an investment decision. At the closing, underwriter's counsel provides a 10-b-5 certificate to the underwriter stating that nothing material to the transaction has been omitted from the disclosure process and that everything material to making an investment decision has been included. Underwriter's counsel also prepares the

bond purchase agreement or *contract,* pursuant to which the debt is sold to the underwriter.

Other Counsel

Because of the diverse and complex nature of the municipal market, some issues may require opinions in addition to those normally provided by bond counsel and underwriter's counsel. These opinions may include those of special tax counsel, bank counsel, disclosure counsel, outside bond counsel, and/or borrower's counsel. Chapter 4 discusses in detail the roles of the counsels.

FINANCIAL ADVISORS, SPECIALISTS, AND OTHER CONSULTANTS

State and local governments often seek the advice of a financial advisor and other professional experts. Financial advisors perform a variety of tasks, including (1) analyzing the financing needs of the issuer, (2) helping to choose an underwriter or organize a competitive sale, (3) structuring the issue, (4) working with the rating agencies and credit enhancers, and (5) advising on other matters related to the issuer's debt and capital plans. The scope of the advisors' work overlaps that of the underwriters, particularly in a negotiated sale. A financial advisor can act as the underwriter for an issue, although this practice is becoming increasingly rare for large issues because conflicts of interest can arise.

Capital improvement projects often require the advice of specialists in addition to that given by the financial advisor. Some consultants, for example, advise solely on the feasibility of healthcare projects; others take on the financial, engineering, and architectural aspects of airports; still other specialists evaluate toll roads or public utilities. The issuer's accountants also play a part in the financing process. The opinions of consultants are important not only for establishing the merits of a particular project but also for attracting voter approval and promoting investor acceptance and confidence in the bonds.

Municipal derivatives specialists are typically part of a larger investment-banking firm, insurer, or law firm, or they may be stand-alone organizations. They provide a wide range of services, including acting as a counterparty in an interest rate swap, municipal reinvestment, hedging strategies and other derivative services. *Arbitrage rebate specialists* also may be part or a larger organization or stand along, and they provide compliance with arbitrage regulations and with reporting services. They will work with issuers on bond rebate calculations, bond verifications, allocations of commingled funds, cash flow models, yield computations, and reporting systems.

A broker, dealer, or municipal securities firm may engage consultants on their behalves under MSRB Rule G-38. A written consultant agreement must be entered into before the consultant engages in any direct or indirect communication with an issuer on behalf of the broker, dealer, or municipal securities dealer. The use of a consultant must also be disclosed to the issuer and to the MSRB.

THE RATING AGENCIES

There are tens of thousands of municipal issuers. Because of the large number of issuers and the variety of security structures in the market, bond or debt ratings play a more prominent role in the municipal market than in the other markets where there are fewer issuers. A *rating* is an alphabetic and/or numeric symbol used to give relative indications of credit quality. A rating is considered obligatory for the sale of any major issue. Some issues may be marketed on a nonrated basis if they cannot achieve an investment-grade rating or if favorable market circumstances exist.

Underwriters or financial advisors are often involved in preparing and making presentations to rating agencies on behalf of issuers prior to a bond sale. The rating agencies also review their ratings periodically and analyze the issuer's current financial and operational information. In addition, the agencies provide a review process for municipalities seeking an *upgrade* or improvement to their ratings; lists of bonds with potential rating changes; analyses of credit trends; and other rating services.

The three dominant rating agencies for municipal securities are Moody's Investors Service, Inc., Standard & Poor's, and Fitch. All three are headquartered in New York City. Moody's has been rating municipal bonds since 1909, Standard & Poor's since 1940, and Fitch since 1913. All three rate long-term issues, short-term notes, commercial paper, and obligations secured by insurance, bank, and other credit enhancements. Although each agency has unique features in its own rating scale, triple-A is the highest rating for each one, and each scale descends down the alphabet as the opinion of creditworthiness declines. Moody's ratings within certain categories are modified by numbers (1, 2, and 3), whereas those of Standard & Poor's and Fitch are modified by "+" and "–" symbols. The lowest investment grade rating for Moody's is Baa3, and for Standard & Poor's it is BBB–.

Ratings can be classified in the general categories listed in Table 1.4.

THE CREDIT ENHANCERS

Credit enhancement is a term denoting the credit of a stronger, more highly rated entity that used to strengthen or enhance the credit of a lower-rated entity. Credit enhancement has grown substantially in the past decade for many

TABLE 1.4 Credit Ratings

Credit Quality	Moody's	Standard & Poor's	Fitch IBCA
Investment Grade			
Prime	Aaa	AAA	AAA
Excellent	Aa	AA	AA
Upper medium	A	A	A
Lower medium	Baa	BBB	BBB
Non-investment grade			
Speculative	Ba	BB	BB
Very speculative	B,Caa	B,CCC,CC	B,CCC,CC,C
Default	Ca, C	D	DDD,DD,D

Source: The Bond Market Association.

reasons, including (1) investor concerns about the credit quality of underlying issuers, (2) increasingly complex security features, (3) use in the short-term market, and (4) cost efficiency in the pricing of insurance. The major forms of credit enhancement are private bond insurance, bank letters, and lines of credit and are discussed in this section. Public forms of credit enhancement are discussed in Chapters 3 and 7. A bond is said to be *unenhanced* if it carries only its own rating and not that of private or public insurance.

Bond Insurers

Bond insurance is a legal commitment by an insurance company to make payments of principal and interest on debt in the event that the issuer is unable to make those payments on time. Generally, such payments will be made as originally scheduled, and the principal will not be accelerated (paid earlier than its scheduled date). Bond insurance typically covers the full maturity range of the bonds.

The role of municipal bond insurance in the market is threefold: (1) to reduce interest costs to issuers, (2) to provide a high level of security to investors, and (3) to furnish improved secondary-market liquidity and price support. There has been a tremendous growth in the use of bond insurance since 1980. Table 1.5 illustrates this trend. Bond insurance grew from 2.5 percent of the $46.3 billion new-issue, long-term market in 1980 to more than 46 percent of the $226.8 billion new-issue, long-term market in 1999. In the earliest years of municipal bond insurance, most of the new insured issues were general obligation bonds, whereas now most insured issues are revenue bonds.

In 1999, four major insurers accounted for 97 percent of the new-issue insured market. Bonds traded in the secondary market, municipal unit investment trusts, and private portfolios can also be insured. The major insur-

TABLE 1.5 Bond Insurance as a Percentage of the Long-Term New-Issue Market, 1980–1999

Year	Long-Term Issuance with Bond Insurance ($ billions)	Percent of Long-Term Issuance Insured	Long-Term Issuance Amount ($ billions)
1980	1.2	2.5	46.3
1981	2.4	5.3	45.6
1982	6.9	8.8	77.9
1983	12.9	15.1	85.5
1984	16.4	15.5	105.6
1985	44.8	21.6	206.9
1986	24.0	15.9	150.7
1987	19.2	18.3	105.1
1988	27.1	23.1	117.4
1989	31.0	24.8	125.0
1990	33.7	26.3	128.0
1991	52.0	30.1	172.8
1992	80.8	34.4	234.7
1993	108.1	36.9	292.5
1994	61.5	37.3	165.1
1995	68.5	42.8	160.0
1996	85.7	46.3	185.0
1997	107.5	48.7	220.6
1998	145.1	50.7	286.2
1999	104.7	46.2	226.8

Source: Thomson Financial Securities Data.

ers of municipal bonds are the Municipal Bond Investors Assurance Corporation (MBIA Corporation), successor to the Municipal Bond Insurance Association, founded in 1974; the Ambac Financial Group (AMBAC), founded in 1971; the Financial Guaranty Insurance Company (FGIC), founded in 1983; and the Financial Security Assurance Inc. (FSA) Company, founded in 1985. Standard & Poor's, Moody's, and Fitch rate all bonds insured by these four companies triple-A. Other primary insurers are Asset Guaranty and Capital Markets Assurance Corp. (CapMAC). In 1997, a new bond insurer, American Capital Access (ACA), was formed. ACA, which is rated single-A by both Standard & Poor's and Fitch, specializes in credits that are unrated or have an underlying credit quality ranging from A-rated to below investment grade.

Although bond insurance provides significant additional security to the investor, the issuers are the first source for payment of principal and interest on their bonds. For that reason (and for other technical and tax-related considerations), not all insured bonds carry identical prices and yields.The perceived strength of the insurer by the market is a major determinant of that

insurer's trading value. The relative quality of insurers is evaluated by their financial strengths and by the portfolios of bonds that they have previously insured.

Banks

Bank letters and bank lines of credit are other forms of credit enhancement. *Bank letters of credit* are typically written for a much shorter term (anywhere from one to ten years) than bond insurance. A letter of credit will pay the investor principal and accrued interest if an event of default has occurred. It is stronger than a *line of credit,* which has many more conditions that must be satisfied before it will pay the investor principal and interest. Issues with bank letters of credit will receive the rating of the bank. This may be the short-term rating, the long-term rating, or both. Issues with lines of credit will not necessarily get the bank rating. Analysts look at the conditions under which the line will pay in addition to the financial condition of the issuer.

The use of letters of credit has fluctuated greatly since 1980, as shown in Table 1.6. The use of letters of credit grew from 0.2 percent of the $46.3 billion new-issue long-term market in 1980 to its peak of 18.6 percent in 1985. This usage grew during this period for a number of reasons including high long-term interest rates, which spurred the development and growth of short-term products such as variable-rate demand obligations. With these products, the investor needed to be assured of the ability of the issuer to have sufficient liquid funds on hand in case of a *put* (the ability to sell the security back to the issuer and receive 100 percent of the principal). The letter of credit provided that liquidity. In 1999, the use of letters of credit to enhance new-issue municipal bonds had declined to 5.4 percent of the $226.8 billion new-issue market. The variability in bank credit enhancement is related to many factors, including (1) the credit quality of banks, making the credit substitution less cost efficient when credit quality declines; (2) cost of the letter of credit; and (3) availability of alternative forms of credit enhancement.

THE TRUSTEES AND PAYING AGENTS

The *trustee* is responsible for carrying out the administrative functions that are required under the bond documents. These functions include establishing the accounts and holding the funds relating to the debt issue, authenticating the bonds, maintaining a list of holders of the bonds, paying principal and interest on the debt, and representing the interests of the bondholders in the event of default. There are times when a paying or fiscal agent carries out some of these functions.

The Depository Trust and Clearing Corporation (DTCC) is a securities depository and is a national clearinghouse for the clearance and settlement

TABLE 1.6 Letters of Credit as Percentage of the Long-Term New-Issue Market, 1980–1999

Date Range	Long-Term Issuance with Letters of Credit	Percentage of Long-Term Issuance with Letters of Credit	Long-Term Issuance Amount ($ billions)
1980	0.1	0.2	46.3
1981	4.8	10.6	45.6
1982	6.3	8.1	77.9
1983	6.3	7.4	85.5
1984	17.4	16.5	105.6
1985	38.4	18.6	206.9
1986	13.0	8.6	150.7
1987	14.3	13.6	105.1
1988	15.8	13.4	117.4
1989	11.8	9.4	125.0
1990	13.9	10.8	128.0
1991	10.2	5.9	172.8
1992	8.2	3.5	234.7
1993	11.1	3.8	292.5
1994	12.3	7.4	165.1
1995	11.4	7.1	160.0
1996	12.1	6.5	185.0
1997	14.7	6.7	220.6
1998	11.9	4.1	286.2
1999	12.1	5.4	226.8

Source: Thomson Financial Securities Data.

of trades in corporate and municipal securities. Members of the financial industry who are its users own it. Trustees and paying agents make a single interest and principal payment per maturity to DTCC, and DTCC distributes those payments to participating banks and securities firms for the benefit of their clients.

THE INVESTORS

Three classes of investors dominate the municipal marketplace: (1) households, consisting of individuals acting directly or through investment counsel; (2) household proxies, that is, bond funds such as managed closed-ended funds, open-ended mutual funds, money market funds, bank personal trusts, and unit investment trusts; and (3) institutions, particularly commercial banks and property and casualty insurance companies. The principal characteristic of all buyers of municipal bonds is that they are in a sufficiently high tax bracket that they can benefit from the tax exemption.

TABLE 1.7 Holdings of Municipal Bonds by Category of Investor, 1980–1999 (percent)

Category	1980	1989	1999
Households	26.2	48.2	35.0
Mutual fund totals*	1.6	15.9	33.7
Bank personal trusts	6.5	6.4	5.8
Commercial banks	37.3	11.8	7.2
Property and casualty insurance companies	20.2	11.9	13.7
Other	8.3	5.8	4.6

Source: Federal Reserve System.
*Includes mutual funds, money market funds, and closed-ended funds.

In 1980, there were $399.4 billion in bonds outstanding; by the end of 1999 that figure had grown to nearly $1.5 trillion. Table 1.7 illustrates the key trends in the holdings of municipal securities from 1980 to1999. Two changes over this time are particularly striking. First, in 1980, households both directly and through household proxies represented 34.3 percent of all municipal holdings. By 1999, they had grown to represent 74.5 percent of all holdings. Second, in 1980, commercial banks plus property and casualty companies accounted for 57.5 percent, and by 1999 their share of holdings had declined to 20.9 percent. This is mostly due to the Tax Reform Act of 1986, which removed many incentives to commercial banks for owning municipal debt.

INFORMATION AND TECHNOLOGY

Like other markets, the municipal market has been recast by the extensive and growing use of technology. The information that is now available to participants in the market allows them to manage positions, make decisions, and do their jobs better and more efficiently. Dealers, issuers, investors, and other market professionals maintain their own websites, giving up-to-date information to their clients. Both the primary and secondary markets make extensive use of technology and information, and a discussion of technology is included in Chapter 5.

THE REGULATORS

The Securities and Exchange Commission

The Securities and Exchange Commission (SEC, or the "Commission") is an independent, nonpartisan, quasi-judicial regulatory agency with responsibility for administering the federal securities laws. It was created by Congress un-

der the Securities Exchange Act of 1934. There are five commissioners, all of whom are appointed by the President of the United States, with advice and consent of the Senate, for fixed five-year terms. The terms are staggered, with one expiring in June of each year. Not more than three members may be of the same political party. The president also designates the Commission's Chair.

The SEC enforces federal securities laws to provide protection for investors, to ensure that they have access to disclosure of material information, and to see that the securities markets operate fairly and honestly. The laws that are enforced are the

- Securities Act of 1933
- Securities Act of 1934
- Public Utility Holding Company Act of 1935
- Trust Indenture Act of 1939
- Investment Company Act of 1940
- Investment Advisors Act of 1940

The Commission also serves as advisor to federal courts in corporate reorganization proceedings under Chapter 11 of the Bankruptcy Reform Act of 1978. There are eleven regional and district offices of the SEC, staffed by lawyers, accountants, financial analysts, and other professionals.

The Municipal Securities Rulemaking Board

The Municipal Securities Rulemaking Board (MSRB) was established in 1975 by Congress to develop rules and set standards regulating securities firms and banks involved in underwriting, trading, and selling municipal securities. The MSRB is a self-regulatory organization that is subject to oversight by the SEC.

The fifteen-person board is composed of five representatives from bank dealers, five representatives from securities firms, and five representatives from the public. At least one public member must be representative of issuers and one of investors to ensure that all perspectives of the municipal securities market are represented. The MSRB has authority to make rules regulating the municipal securities activities of banks and securities firms only; it does not have authority over either issuers of municipal securities or investors.

The MSRB's rule-making authority includes the areas of professional qualification standards; fair practice; record keeping; confirmation, clearance, and settlement of transactions; the scope and frequency of compliance examinations; the nature of securities quotations; arbitration of disputes involving municipal securities transactions; and the dissemination by dealers of information supplied by issuers of new-issue securities.

One of the first rules the MSRB adopted requires that all persons in-

volved with "any transaction" in municipal securities must pass a qualifying examination. The National Association of Securities Dealers administers the exams.

The National Association of Securities Dealers

The National Association of Securities Dealers (NASD) was established under authority granted by the 1938 Maloney Act Amendments to the Securities gulations, conducts regulatory reviews of members' business activities, and designs and operates marketplace services and facilities. The NASD has a governing board with a majority of governors chosen from outside the securities industry. Working with the governing boards of the NASD and its subsidiaries are various corporate committees, advisory boards, and standing committees that advise their respective boards regularly and make recommendations.

NASD Regulation was established in 1996 as a separate, independent subsidiary of NASD. Its creation was part of a restructuring of NASD in which the goal was to separate the regulation of the broker/dealer professional from the operation of a stock market. NASD Regulation performs many functions, including education, registration, and testing of securities professionals; field examinations of securities firms to determine their compliance with federal securities laws, the rules of the MSRB, and NASD rules and regulations; surveillance of Nasdaq markets; and other services.

Continuing Education

In 1995, the SEC approved Rule 1120 of the NASD Membership and Registration Rules, which sets the requirements for the Securities Industry Continuing Education Program. NASD, the MSRB, the American Stock Exchange, the Chicago Board Options Exchange, the New York Stock Exchange, and the Philadelphia Stock Exchange developed a two-part continuing education program that is a uniform requirement across the securities industry. NASD Regulation administers the first part, the Regulatory Element, for municipal professionals. The Regulatory Element is a computer-based training program required for all persons on the second, fifth, and tenth anniversaries of their initial securities registration. This training relates to registration and reporting requirements, ethics and sales practices, business conduct, trade and settlement practices, and securities distributions. The second part of the program is the Firm Element, in which individual firms must prepare and implement an annual training plan for registered employees. The plans focus on keeping employees current on the investment products offered by their firms. Changes to these amendments have been proposed.

OTHER PARTICIPANTS

Information Repositories

A NRMSIR is a Nationally Recognized Municipal Securities Information Repository. With amendments to SEC Rule 15c2-12, the role of the NRMSIR expanded to include not only the dissemination of final official statements but also the dissemination of secondary-market continuing disclosure information. A NRMSIR can be a private information vendor, which must meet certain conditions to be recognized by the SEC. The NRMSIR does not verify the information that is given to it by the issuer to disseminate. A SID is a state information depository which also collects and disseminates data. Disclosure requirements are more fully discussed in Chapter 9.

CUSIP

The CUSIP (Committee on Uniform Security Identification Procedures) Service Bureau was established in 1964 and is operated by Standard & Poor's for the American Bankers Association. The CUSIP Service Bureau assigns unique numbers and standardized descriptions to practically every sector of the financial markets, including the municipal market. A CUSIP number will have a combination of nine numbers and letters.