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U. S. GOVERNMENT SECURITIES

An Examination of Views Expressed About Access to Brokers' Services





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Comptroller General
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The President of the Senate and the
Speaker of the House of Representatives

This report discusses the availability of brokers' services in the secondary market for government securities. The report was undertaken in response to the requirement included in the Government Securities Act of 1986.

We are also sending copies of this report to the Chairman of the Board of Governors of the Federal Reserve System, the Secretary of the Treasury, the Chairman of the Securities and Exchange Commission, and to interested congressional committees and subcommittees.

for 

Charles A. Bowsher
Comptroller General
of the United States

Executive Summary

Purpose

The Department of the Treasury's ability to finance the public debt by selling government securities in an efficient and economical manner is directly related to the liquidity, safety, and efficiency of the decentralized resale (secondary) market for the securities. The Government Securities Act of 1986 required GAO to study the methods used by secondary market brokers in deciding which firms can use their services to (1) buy and sell (trade) securities or (2) obtain information about current market prices. Congress was concerned with whether the brokers, by restricting access to their services, had created a system that could be unfair and could harm the secondary market.

Background

The liquidity, safety, and efficiency of the secondary market is important to the government's ability to sell securities because the easier it is for dealers and investors to resell their securities, the more likely it is they will be willing to buy them in the first place. The reported 1986 volume of government securities traded each day was about \$100 billion, about half of which was arranged by brokers.

Most brokered trades are arranged by seven interdealer brokers which serve a customer base of 53 dealers having a special relationship with the Federal Reserve. Each interdealer broker installs video screens in customer offices which show the best prices available from that broker's customers, the quantities that can be bought or sold at those prices, and the prices and quantities of the most recently completed sales. Since all seven brokers have basically the same customers, the customers can choose the best price available and use the telephone to instruct the broker to execute transactions. Most trades through these brokers are done on a "blind" basis—that is, buyers and sellers do not learn with whom they are trading.

The seven brokers contend that the customers bear all the risks, although this assertion has not been tested in court. The biggest risk is that losses may occur if a customer goes bankrupt and cannot honor its trades. This situation, in turn, could disrupt overall confidence in the market. Because of this, each customer must be satisfied that all other customers are creditworthy or it would not participate in such a blind trading system. To ensure such creditworthiness, the seven brokers currently limit their trading and information systems to a customer base drawn from

- 40 "primary" dealers that the Federal Reserve System uses to conduct monetary policy and which the System believes are creditworthy, and

-
- 13 other dealers who have convinced the brokers that the Federal Reserve Bank of New York considers them to be aspiring primary dealers.

Some market participants which do not have access to the seven interdealer brokers' services say the above access criteria are unfair and make the market less efficient than it could be. These critics point out that two other brokers, known as retail brokers, also operate blind trading systems that serve more customers than the seven interdealer brokers. Retail brokers also make the information on their screens available to the investing public, and the critics maintain the market would benefit if the more extensive information contained on interdealer brokers' screens was also widely disseminated. Critics have, therefore, recommended proposals that would require government regulation to force the seven brokers to allow more dealers to trade on their systems (trading access) and/or to disseminate information from their screens to more firms (information access).

Results in Brief

Although the proposals GAO examined might bring about some improvements, GAO does not endorse any of the proposals to expand trading access because, in GAO's opinion, they do not make adequate provision for controlling risks. GAO believes that the possibility that these proposals could damage the market outweighs the potential benefits they might otherwise achieve. If a proposal can be developed which adequately controls risks, however, GAO sees no reason why primary or aspiring primary dealer status needs to be a necessary condition for trading on interdealer broker systems.

GAO supports expanded access to the information on brokers' screens, but prefers to give market participants more time to voluntarily expand such access before recommending additional federal regulation.

GAO's Analysis

Trading Access

Interdealer brokers, as well as the participating dealers, believe that firms which have achieved primary or aspiring primary dealer status are creditworthy because these firms are being monitored by and have met or are attempting to meet the Federal Reserve Bank of New York's credit standards. This perception of creditworthiness by all participants

reduces concern about default risks and thereby facilitates the "blind" trading aspect of the market. There are other firms in the secondary market who may be equally creditworthy but are not under the scrutiny of the Federal Reserve Bank of New York. These firms have chosen not to undergo this scrutiny and seek primary dealer status but some would like to trade through the interdealer brokers and have access to information on the brokers' screens. In order to expand access to these firms and maintain market safety, a new mechanism would be needed to ensure the creditworthiness of all market participants.

Economic theory suggests that, if risks could be adequately controlled, the addition of new firms to the trading system should increase market efficiency. However, the proposals for expanding access GAO evaluated did not provide sufficient detail to convince it that risks would be successfully controlled. To control risks, the proposals would (1) depend, in some fashion, on regulations and standards established by Treasury under the Government Securities Act, (2) require the Federal Reserve Bank of New York to monitor the additional firms similarly to the way it monitors primary dealers, or (3) have the interdealer brokers or some kind of an exchange monitor the activities of participating firms. None of the proposals were specific on how they would work or what the standards and regulations would be. (See pp. 55-64.)

In GAO's opinion, the fact that retail brokers serve a wider customer base does not resolve questions about how risks would be controlled if interdealer brokers were required to expand access. To serve more customers, the retail brokers have taken on increased risk by, in effect, guaranteeing the trades they broker. GAO is not convinced that this approach to risk control is desirable in the larger interdealer brokers' market. There is no accepted standard for deciding how much capital the interdealer brokers would need to maintain and there is no assurance that interdealer brokers would choose to expand access if they were required to accept and control more risk.

GAO does not maintain that the current system is without problems. GAO did not assess market operations or conditions, test transactions, or independently determine the effectiveness of current standards and monitoring for controlling risks. It did note, however, that there are risk control problems and uncertainties in the current system. For example, the Federal Reserve Bank of New York has not accepted aspiring primary dealers as meeting its creditworthiness standards and does not monitor them as closely as primary dealers. (See pp. 43-44.)

Information Access

GAO found no evidence to suggest that wider dissemination of information on the interdealer broker screens would introduce additional risk to the safety of the market. Economic theory suggests that expanded information access should contribute to greater efficiency and equity in the secondary market. However, not enough is known about the specific nature and speed of availability of the information that would be of most use to the market to justify requiring expanded information access at this time. (See pp. 72-76.)

Recommendations

GAO believes it would be premature to make recommendations. Not enough is known about how trading access could be expanded while effectively controlling risks or how information access should be expanded to best meet the needs of the market. Also, while gaining experience operating under the Government Securities Act, market participants themselves may develop mechanisms that result in expanded trading access, and there are indications that plans for expanding information access are already underway. Given this, GAO plans to revisit these issues, measure the progress made, and reconsider the need for recommending federal intervention as part of a required report to Congress in 1990 on implementation of the Government Securities Act.

Agency Comments

GAO coordinated and consulted with officials of the Federal Reserve System, the Treasury, and the Securities and Exchange Commission (SEC) throughout this study. In commenting on the draft report, all three agencies concurred with GAO's analysis and conclusions. However, the SEC suggested two ways in which GAO's conclusions could be strengthened.

SEC said that while requiring interdealer brokers to expand trading access is premature, brokers should be encouraged to make progress in this direction and that Congress and federal regulatory agencies should be concerned if progress does not occur within 2 years. (See p. 67.) SEC also said GAO should recommend that Congress set a deadline by which voluntary information access should be expanded (See p. 77.) GAO says it does not have a basis for recommending deadlines because it is not clear how much time is needed to deal with the issues involved. GAO also points out that the consensus among GAO, Federal Reserve, Treasury, and SEC that information access should be expanded may itself help to spur voluntary action. In addition, GAO plans to report on the progress made in expanding both trading and information access in about 2 years and will consider the need for federal intervention at that time.

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Abbreviations

FHLBS	Federal Home Loan Bank System
FHLMC	Federal Home Loan Mortgage Corporation
FNMA	Federal National Mortgage Association
FRBNY	Federal Reserve Bank of New York
FRS	Federal Reserve System
GAO	General Accounting Office
GNMA	Government National Mortgage Association
GSBA	Government Securities Brokers Association
GSE	Government-sponsored Enterprise
NASD	National Association of Securities Dealers
NASDAQ	Nat'l Assoc. of Securities Dealers Automated Quotations
PSA	Public Securities Association
SEC	Securities and Exchange Commission
SLMA	Student Loan Marketing Association

Introduction

This report presents the results of our study on the nature of the current trading system in the secondary market for government securities,¹ a task mandated by the Government Securities Act of 1986, (P.L. 99-571). As provided by the act (see app. I), we conducted the study in coordination and consultation with the Board of Governors of the Federal Reserve System (FRS), the Secretary of the Treasury, and the Securities and Exchange Commission (SEC). These agencies joined us in conducting a public hearing, also required by the act. However, the analysis contained in this report represents our independent judgment on which we asked the other agencies to comment.

Background on Secondary Market Trading and the Role of Brokers

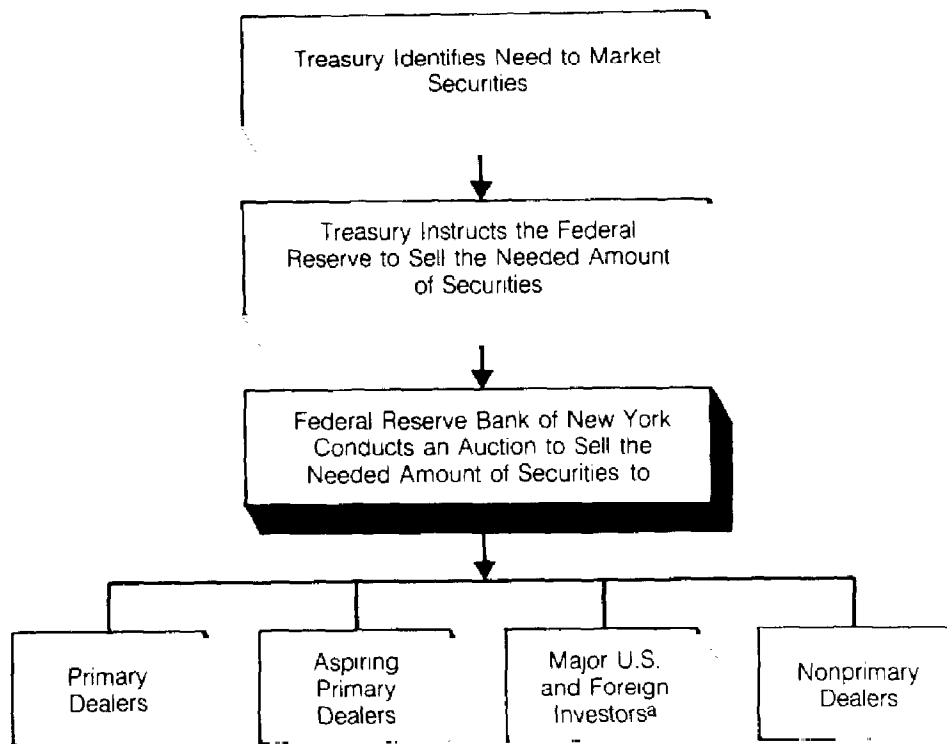
The government issues both marketable and non-marketable securities. This report deals only with marketable securities and, as background, this section explains how these government securities are initially sold and how they are subsequently resold in the secondary market. Within the secondary market, principal attention is given to the activities of dealers and brokers who are responsible for much of the high trading volume that characterizes this market.

Government Securities and How They Are Initially Sold

There are three types of government securities: Treasury, mortgage-backed, and agency. Treasury issues securities in the form of bills, notes, and bonds to refinance debt, to raise new funds needed to finance deficits, and to manage the government's cash flow. Treasury securities comprise about two-thirds of the \$2.5 trillion in government securities outstanding as of December 31, 1986. Treasury securities are auctioned to the public by the Federal Reserve System, which serves as Treasury's fiscal agent. Although investors, such as financial institutions, state and local governments, insurance companies, pension funds, and individuals, submit bids directly at auctions, the majority of Treasury securities are initially purchased by banks and securities firms operating as government securities dealers. Dealers purchase securities for their own account, on behalf of their investor customers, and for resale to other dealers and investors in the secondary market. The initial auction of U.S. Treasury securities is summarized in figure 1.1.

¹A description of the secondary market begins on p. 18.

Figure 1.1: Initial Auction of U.S. Treasury Securities



^aIncludes the following
Commercial Banks
State and Local Governments
Insurance Companies
Pension Funds
Other Financial Institutions
Foreigners
Individuals

Mortgage-backed securities are bond-type investment securities representing an interest in a pool of mortgages in which the timely payment of interest and principal has been guaranteed by the Government National Mortgage Association (GNMA), the Federal Home Loan Mortgage Corporation (FHLMC), or the Federal National Mortgage Association (FNMA). Mortgage-backed securities are issued by a variety of financial institutions which pool the mortgages, and are also issued directly by FHLMC and FNMA. Securities dealers purchase many of these securities. Mortgage-backed securities account for about 22 percent of the government securities outstanding as of December 31, 1986.

The third category is agency securities, which are debt obligations of Government-sponsored Enterprises (GSE) including Federal Home Loan Banks, FHLMC, FNMA, the Student Loan Marketing Association, and the Farm Credit System. These agencies typically issue the securities through groups of dealers who locate purchasers. Agency securities account for about 12 percent of the government securities outstanding as of December 31, 1986.

Secondary Market Trading

Once purchased, government securities can be resold to other parties. The buying and selling of previously issued securities is referred to as secondary market trading. Secondary market trading performs two important functions. First, it distributes the debt to the private investors who end up holding most of the government's marketable debt. These investors include commercial banks, state and local governments, insurance companies, pension funds, other domestic financial institutions, foreign governments and financial institutions, and individuals. Second, the secondary market makes it easier for these investors to resell the securities they own whenever they want to.

Most trading in government securities does not occur in a centralized place, such as a stock exchange. Instead, practically all of it occurs in a worldwide, 24-hour-per-day, decentralized market in which investors, dealers, and brokers are connected by telecommunication systems. Dealers and investors negotiate trades directly or conduct them through brokers—firms which do not buy or sell securities but specialize in arranging trades for others. The exchange of securities for cash to accomplish these trades typically occurs on the next U.S. business day through depository institutions located primarily in New York City.²

Liquidity is a characteristic of the secondary market that makes it particularly easy to resell securities.³ This means that those who want to sell do not have to wait a long time to find a buyer willing to pay a fair market price. The activities of dealers and brokers contribute to the liquidity of the market. Dealers provide investors a price at which they can immediately buy or sell securities.⁴ Dealers are willing to "make

²Mortgage-backed securities are the exception. Trades are usually settled 3-5 days later through a central clearing corporation.

³Liquidity is the ability to sell securities for cash at, or close to, the last sale price in the market.

⁴A dealer can also offer to locate the best price available and execute the transaction for the customer at the best price. The dealer's price to the customer may include a commission or mark-up depending on the dealer's business relationship with that customer.

markets" in this way because they expect to profit by buying or selling these securities later at a better price. Brokers enhance liquidity by enabling their dealer and investor customers to trade large quantities of securities quickly and anonymously. This anonymous trading, often referred to as "blind" trading, means that brokers arrange trades without revealing the identities of the buyers and sellers to one another.⁵

The safety, efficiency, and liquidity of secondary market trading systems have a direct impact on the rate of interest that must be paid on newly issued government debt. Easier resale opportunities lower investment risk which in turn lowers the rate of interest that must be paid to sell the public debt. This fact is important considering the large amounts of money—\$1.3 trillion in 1986—that Treasury must raise each year to finance current budget deficits and to refinance existing debt.

The liquidity of the secondary market also contributes to the Federal Reserve System's ability to conduct monetary policy. A central feature of monetary policy is the frequent purchase or sale of securities in the secondary market by the Federal Reserve Bank of New York (FRBNY). These transactions are known as open market operations. FRBNY buys securities in the market when the Federal Reserve System wants to inject money into the banking system, and it sells securities when it wants to reduce the banking system's money supply. Over the course of a year, a large volume of open market transactions occur. In 1986 about \$2.2 trillion in such transactions occurred, an average of about \$8.8 billion per business day.⁶ The more liquid the secondary market is, the easier and cheaper it is for the Federal Reserve Bank of New York to conduct this level of transactions.

Dealers

For purposes of this report, three classifications of dealers—"primary," "aspiring primary," and "nonprimary"—are relevant to the operation

⁵Treasury and agency securities are brokered on an anonymous basis. Brokering for mortgage-backed securities is not completely anonymous: names are divulged after about a week.

⁶These transactions, conducted by the Open Market Desk of the Federal Reserve Bank of New York for the System Open Market Account, are nearly all in the form of repurchase agreements and matched transactions. When the Federal Reserve makes a repurchase agreement with a government securities dealer, the Federal Reserve buys a security for immediate delivery with an agreement to sell the security back at the same price by a specific date (usually within 15 days) and receives interest from the dealer at a specified rate. This arrangement allows the Federal Reserve to temporarily inject cash into the economy to meet a temporary need and to withdraw these reserves as soon as that need has passed. Matched transactions are the reverse of repurchase agreements and are used to temporarily withdraw cash from the economy.

of secondary market trading systems. While any dealer can trade government securities, primary dealers play an especially important role in this market.

FRBNY conducts its open market transactions with a group of securities dealers and commercial banks known as primary dealers. Although there are defined procedures associated with FRBNY's primary dealer system, the system is an informal one in the sense that it is not specifically authorized in legislation. Dealers volunteer to become primary dealers, agreeing to meet certain standards and to provide the information FRBNY needs in monitoring compliance with these standards. FRBNY expects primary dealers to be creditworthy, to participate actively in Treasury auctions, and to contribute to market liquidity. The Federal Reserve expects primary dealers to stand ready to buy Treasury securities from FRBNY or to sell securities to FRBNY even during adverse market conditions. FRBNY also expects primary dealers to help the government securities market stay relatively liquid by entering into a high volume of transactions on a continuing basis with other dealers and investors.⁷ The number of primary dealers has grown over the years from 20 in 1970, to around 36 from 1981-1986, to 40 in 1987. Appendix II is a list of primary dealers as of June 18, 1987.

FRBNY conducts surveillance of primary dealers to provide assurance that it is conducting business with reliable dealers which are observing prudent business practices. Surveillance techniques include review and analysis of dealer financial statements and daily activity reports, telephone inquiries to obtain additional data or explanations for anomalies, and annual visits to dealers to enhance understanding of the dealers' operations. FRBNY also evaluates the adequacy of primary dealers' capital in relation to the credit and market risks they assume.

FRBNY surveillance is independent of and different from any formal regulatory oversight provided by a dealer's designated federal regulator—either the SEC, if a dealer is a regulated securities firm, or the Federal Reserve or Office of the Controller of the Currency, if a dealer is a commercial bank.

⁷ According to FRBNY, a primary dealer must adhere to the following requirements: actively engage in the distribution of U.S. Treasury securities to investors (this includes continuously bidding at Treasury auctions); demonstrate a willingness to make markets at all times in a full range of securities and have an adequate customer base and trading volume; have capable management of proven reputation and character; have sufficient business capacity, trained personnel, managerial controls, and expertise in trading and risk management; have an adequate capital base relative to the risks taken in fulfilling its marketmaking responsibilities; and show a long-term commitment to the market by devoting sufficient capital and other resources thereto.

SEC regulation of securities firms is usually implemented through self-regulatory organizations, such as the National Association of Securities Dealers and the New York Stock Exchange. This involves registration, recordkeeping and financial reporting requirements, examination of operations, and capital adequacy guidelines. Bank regulators focus on the bank dealers' securities trading activities to ensure that the banks properly manage their risks and conduct their operations on a sound and legal basis. The bank regulators' primary orientation is the safety and soundness of the banks as a whole. Neither SEC nor the bank regulators perform the type of daily government securities activity monitoring that FRBNY performs.

The Federal Reserve does not have regulatory control and enforcement power over primary dealers comparable to the SEC's power over registered dealers or the bank regulators' power over bank dealers. The Federal Reserve does, however, have the threat of revoking primary dealer status as a means to ensure voluntary compliance with its requirements. Primary dealers do not want to lose this designation because it enhances a dealer's reputation as an active and creditworthy market participant. Prior to implementation of the Government Securities Act of 1986, FRBNY surveillance was the only federal oversight provided to approximately nine primary dealers specializing in government securities who were not subject to either SEC or bank supervisory reviews. The act now also places these dealers under the jurisdiction of the SEC.

Aspiring primary dealers, the second category of dealers, are firms attempting to demonstrate their creditworthiness and other qualifications to FRBNY in order to become a primary dealer. According to FRBNY officials, the qualification process typically takes at least 1 year from the time the dealer begins providing FRBNY information. During this time, aspiring primary dealers are not formally recognized by FRBNY and they are subject to limited and differing degrees of FRBNY surveillance. FRBNY does not inform market participants of who these aspiring primary dealers are, whether they are reporting their trading activity on a daily or monthly basis, or if FRBNY has visited them for on-site review. Those dealers in the initial application stage report their trading activity monthly, while those who are closer to an approval decision file daily activity reports. Unlike primary dealer reports, which are verified for accuracy at least once a year, aspiring primary dealer reports are not verified for accuracy until an on-site review is conducted by FRBNY just prior to formal designation as a primary dealer. Since there is no public list, the marketplace learns from the dealers themselves that they are aspiring and the brokers then may decide whether to give them access

to their trading systems. As of February 11, 1987, 13 aspiring dealers had access to most of the brokers that traditionally served just primary dealers.⁸ In this report we have used the term aspiring dealer to refer only to dealers who have been recognized as aspiring dealers and accepted as customers by at least one interdealer broker.

The third category of dealers is nonprimary dealers. For purposes of this report, this category includes all dealers which are neither primary dealers nor aspiring primary dealers with access to the brokers that serve primary dealers. However, some dealers who we have categorized as nonprimary dealers may aspire to become primary dealers but have not been recognized as such by interdealer brokers. Nonprimary dealers include large securities firms and banks that participate actively in many aspects of the market, as well as smaller specialist firms whose business is limited to certain segments of the government securities market and/or certain investor groups. Nonprimary dealers may be just as large or as well-capitalized as certain primary dealers but, for their own reasons, have not aspired to become primary dealers.

Brokers

Brokers serve three important functions for their customers:

- current prices can be discovered rapidly,
- relatively large amounts of securities can be traded quickly on a blind basis, and
- last sale information is disseminated.

Until 1974, broker/dealer communication was conducted over telephone lines. Subsequently, some brokers used video display screens to link the increasing number of customers, and to improve communication of price quotation and trade activity information. While the screens, which the brokers install in the customers' trading rooms, show quotation and trade activity as it occurs, customers still provide quotations and trade execution instructions by direct phone links to the brokers.

⁸In identifying aspiring dealers, we have accepted the brokers' characterization that these dealers are aspiring primary dealers. We did not verify status with all the dealers themselves. We did determine, however, from discussions with FRBNY officials whether aspiring primary dealers that have been granted access report their activity to FRBNY monthly or daily. We did not cite specific numbers regarding the number of those reporting daily because we did not want to provide more information on aspiring dealers than FRBNY chooses to make available on its own.

As of February 11, 1987, nine screen brokers, which this report refers to as brokers, were in operation.⁹ Seven were interdealer brokers which, for Treasury and agency securities, restricted their services to a customer base drawn exclusively from the current list of 40 primary dealers and a group of 13 aspiring primary dealers.¹⁰ The addition of aspiring dealers is a recent occurrence, taking place over the last 3 years. The other two brokers permit access to a broader customer base and are sometimes called "retail" brokers to distinguish them from interdealer brokers.¹¹ Each retail broker told us it had from 150 to 200 customers including primary and aspiring primary dealers.

In the early 1970s, one broker, Cantor Fitzgerald Securities Corp. (Cantor), established itself as a retail broker for certain nonprimary dealers and large institutional customers, such as banks, insurance companies, pension funds, and municipal governments. A Cantor official told us that as screen technology was implemented, the firm entered into an arrangement to disseminate the information on its screens through Telerate Systems, Inc., an electronic financial information service in which Cantor held an ownership interest. This arrangement enabled Telerate subscribers to view the Cantor screens for information purposes and, if they were interested and qualified, to obtain status as a Cantor customer. Once they became a customer, they received the necessary phone lines to trade securities through Cantor personnel. The official said that over time Cantor also gained the acceptance of the primary dealers which now account for the majority of Cantor's trading volume.

There are three major differences between retail brokers and interdealer brokers.

- Retail brokers allow firms other than primary and aspiring primary dealers to have access to their blind trading systems. Interdealer brokers allow such access only to primary and aspiring primary dealers.

⁹In deciding the number of brokers, we did not separately count firms' affiliates which handle government securities transactions that are not brokered anonymously, such as repurchase agreements and mortgage-backed securities (see glossary at the end of this report for definitions of these terms). Affiliate activities have been included with the brokers listed.

¹⁰As of February 11, 1987, the interdealer brokers were: Chapdelaine and Co. Government Securities, Inc.; Fundamental Brokers Institutional Associates; Garban Ltd.; Hilliard Farber and Company, Inc.; Liberty Brokerage, Inc.; MKI Government Brokers, Inc.; and RMJ Securities Corporation.

¹¹The retail brokers are Cantor Fitzgerald Securities Corp. (information available to the public on Telerate Systems, Inc., an electronic financial information service) and Newcomb Securities Company, Inc. (information available to the public on the Reuter Monitor network, another financial information service).

- Retail brokers allow subscribers to financial information services to see information from their broker screens. Interdealer brokers allow only primary and aspiring primary dealers to see broker screen information
- Retail brokers in effect guarantee all of the trades they broker. The interdealer brokers, which claim only to be acting as agents for their customers, do not.

These differences are explained more fully in chapter 2.

Prior to implementation of the Government Securities Act of 1986, brokers were not subject to federal regulation. In addition, FRBNY does not monitor the performance of brokers as part of its dealer surveillance activity.

Summary of Trading Activity in the Secondary Market

The characteristics of dealers and brokers in the secondary market for government securities are summarized in table 1.1. Primary and aspiring primary dealers trade among themselves through the interdealer brokers as well as with other dealers and investors either directly or through the retail brokers. Nonprimary dealers trade among themselves and with primary and aspiring dealers and investors either directly or through the retail brokers. The significant difference in the trading opportunities available to the different types of dealers is that nonprimary dealers are not allowed to trade through interdealer brokers. This lack of access of the nonprimary dealers to the interdealer brokers is the basis of some complaints about the secondary market and is the principal focus of this report. The relationship of brokers to their dealer and nondealer customers is shown in figure 1.2. The secondary market trading alternatives available to a primary or aspiring primary dealer having access to the services of interdealer brokers and to a nonprimary dealer having access to the services of a retail broker are summarized in table 1.2.

Table 1.1: Characteristics of Dealers and Brokers in the Secondary Market for Government Securities

Dealers

Primary Dealers

- 40 large banks and securities firms have a business relationship with the Federal Reserve.
- Monitored for creditworthiness by the Federal Reserve.
- Agree to make markets and participate in auctions.

Aspiring Primary Dealers

- Dealers aspiring to become primary dealers.

Nonprimary Dealers

- All other dealers.
- May be as large as some primary dealers.

Brokers

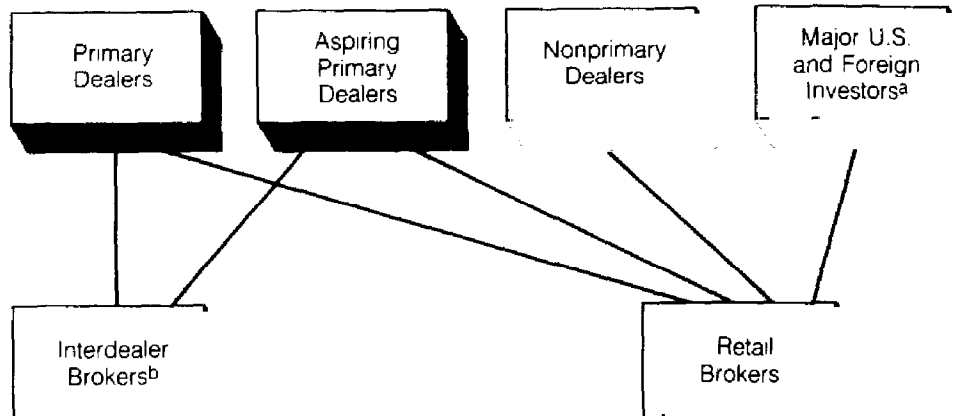
Interdealer Brokers

- Serve only primary and aspiring primary dealers.
- Act as agent only (i.e. do not guarantee the trades they arrange).
- Permit only their customers to view their screens.

Retail Brokers

- Serve any market participant that has met its credit criteria, including primary, aspiring primary, and nonprimary dealers.
 - Guarantee execution of all trades they arrange.
 - Permit public to see their screens by subscribing to financial information services.
-

Figure 1.2: Brokered Trades of U.S. Treasury Securities in the Secondary Market (About \$50 Billion Per Day)



^aIncludes the following:
 Commercial Banks
 State and Local Governments
 Insurance Companies
 Pension Funds
 Other Financial Institutions
 Foreigners
 Individuals

Table 1.2: Secondary Market Trading Alternatives Available to a Primary or Aspiring Primary Dealer and to a Nonprimary Dealer.

A primary or aspiring primary dealer can execute trades with:	A nonprimary dealer can execute trades with:
<ul style="list-style-type: none"> — other primary and aspiring primary dealers <ul style="list-style-type: none"> — directly — through interdealer brokers — through retail brokers. — investors <ul style="list-style-type: none"> — directly — through retail brokers — nonprimary dealers <ul style="list-style-type: none"> — directly — through retail brokers. 	<ul style="list-style-type: none"> — other nonprimary dealers <ul style="list-style-type: none"> — directly — through retail brokers. — investors <ul style="list-style-type: none"> — directly — through retail brokers. — primary and aspiring primary dealers <ul style="list-style-type: none"> — directly — through retail brokers.

Statistics are not kept on the total volume of trading throughout the market. However, primary dealers reported to the Federal Reserve Bank of New York that they conducted \$23.9 trillion worth of trades in 1986 (around \$100 billion per day) for Treasury securities, about a 9 fold increase over activity reported 10 years earlier. Primary dealers report

that about 50 percent of this volume now occurs through brokers, compared to about 32 percent 10 years ago. The trading volume of individual brokers is proprietary information but market participants have estimated that the volume of trades conducted in total through the seven interdealer brokers is considerably larger than the volume conducted through the two retail brokers.

The Government Securities Act of 1986

On October 28, 1986, the President signed the Government Securities Act of 1986. This law, a product of more than a year of legislative deliberation, brings all government securities dealers and brokers within a basic federal regulatory structure and tightens regulation applicable to previously regulated firms.¹² The rules and enforcement activities called for by the act are designed to reduce the incidence of fraud and ensure that firms maintain sufficient capital relative to the riskiness of their trading activities.¹³

The act's legislative history makes it clear that it was designed to address identified weaknesses in the market without creating duplicative requirements, impairing the operation of a market that appeared to be working efficiently, increasing the costs of financing the federal debt, or compromising the execution of monetary policy. Although its financial responsibility provisions, such as registration and financial reporting requirements, are similar to those contained in U.S. corporate securities law, the act continues to treat government securities differently than corporate securities by exempting government securities from certain regulatory requirements. The significance of this exemption for purposes of this study is that provisions in the corporate securities laws and in SEC regulations applicable to disclosure of prices or to

¹²See chapter 4 of GAO/GGD-86-80BR for a description of market regulation prior to passage of the act.

¹³The law authorizes and directs the Secretary of the Treasury to issue financial responsibility, recordkeeping, and financial reporting and audit rules. The Secretary must also regulate the possession and control of customer securities and funds. The law also requires dealers and brokers that were previously unregulated to register with the SEC and to join either an exchange or a registered securities association. Brokers and dealers previously subject to federal regulation—including SEC-registered broker/dealers, banks, and thrift institutions—are required to file notice of their status as government securities brokers or dealers with their primary regulators. The primary regulators are the SEC for securities firms and, for depository institutions, the Office of the Comptroller of the Currency, the FRS, the Federal Deposit Insurance Corporation, the Federal Home Loan Bank Board, or the Federal Savings and Loan Insurance Corporation. Enforcement and disciplinary actions are to be taken by a broker's or dealer's primary regulator. The registration and regulatory provisions of the act were in effect by July 23, 1987, as stipulated in the act.

selection of customers are generally not applicable to government securities brokers and dealers. The act also specifies that nothing in the act was to limit or impair FRBNY's relationship to the market.¹⁴

Treasury's authority under the act to regulate the market expires in 1991. In advance of that date, we, as well as a task force of the Treasury, SEC, and Federal Reserve, are to submit reports to Congress on the possible extension of Treasury's authority and other such recommendations as may be considered appropriate. Our report is due not later than March 31, 1990, and the task force recommendation is due not later than October 1, 1990.

Objectives, Scope, and Methodology

The overall objective of this study is to fulfill a mandate set forth in the Government Securities Act of 1986. The requirement for our study of the secondary market trading system was carried over into the act from the House bill. The House Report on the bill said the study requirement was included to better understand the complaints of certain dealers who did not have access to interdealer broker screen systems.¹⁵ Section 104 of the act directs us to study the availability of price information and brokers' services in the secondary market for government securities and determine whether they are available on terms which are consistent with the public interest; the protection of investors; and the maintenance of fair, honest, and liquid markets in such securities. (For the text of section 104, see app. I.)

In keeping with the legislative history of the act, our study concentrated on the limited access, blind trading systems operated by interdealer brokers. To facilitate our study, we made a distinction between what we termed "trading access" and "information access" to these systems. Trading access involves the granting of eligibility to execute trades anonymously on the basis of information contained on the interdealer brokers' screens. Information access involves the ability of others who cannot trade on the systems to view the interdealer broker screens' bid and ask quotations and completed sales information.

¹⁴See P.L. 99-571, Sec. 301(c), which reads, "nothing in this Act shall be construed to limit or impair the discretion or authority of the Federal Reserve Bank of New York to require reports or establish terms and conditions in connection with the Bank's relationship with any government securities broker or government securities dealer, including a primary dealer."

¹⁵U.S., Congress, House Committee on Energy and Commerce, The Government Securities Act of 1985, H. Report 99-258, to accompany H.R. 2032, Sept. 9, 1986, pp. 36 and 37.

In addition to describing the operations of the blind brokering systems, this study concentrates on (1) assessing risks and other issues associated with access to the services of interdealer brokers for trading or information purposes and (2) evaluating the proposals suggested by those seeking to change existing arrangements. The following sections describe our approach to each objective.

Understanding Current Brokering Arrangements and Identifying Perceived and Potential Problems

To understand how brokering works in the government securities market and to identify perceived and potential problems associated with this activity, we relied on a variety of information sources. Two sources of information were written comments and public testimony from market participants that were developed in connection with a public hearing held on February 4, 1987. Pursuant to the act, we held this hearing jointly with FRS, Treasury, and SEC. On January 2, 1987, we published a Notice of Public Hearing and Request for Comments in the Federal Register which contained 19 questions on which comments were sought. To focus attention on the issues, before the hearing we provided all witnesses the opportunity to review copies of the public comments we had received and urged them to be as specific as possible in commenting in support of their positions. More information about the public comments and hearing, including a summary of the views presented, is contained in appendix III. We also published the transcript of the public hearing.¹⁶ The public comment file will be available for public inspection until December 31, 1988.¹⁷

In addition to the information generated from the request for comment and public hearing, we conducted interviews in New York with each of the nine brokers and observed their brokering operations. We determined how the various types of government securities and related contracts are brokered and the different practices involved and discussed why and how access is limited. We interviewed 6 primary dealers, 2 dealers who considered themselves to be aspiring primary dealers, and 10 nonprimary dealers to obtain their views on access practices and to corroborate information we had obtained from brokers on the nature and extent of services provided. We selected these dealers for several reasons: some were outspoken on the issues, we were told some were particularly knowledgeable about trading practices for certain types of

¹⁶U.S. Government Securities: Expanding Access to Interdealer Brokers' Services (GAO/GGD-87-42, Feb. 1987).

¹⁷The public comment file will be available for inspection at the GAO Law Library, Room 7056, 441 G Street., N.W., Washington, D.C., between 8:30 a.m. and 4:00 p.m.

securities, and some were located outside of New York. Furthermore, we discussed access issues with officials from the Treasury, FRS, SEC, and the agencies that issue GSE securities or that issue or insure mortgage-backed securities. We also asked a consultant to review academic literature to identify studies relevant to blind trading systems in the government securities market. The consultant's statement is included in the public comment file.¹⁸ Finally, as measures of market activity, we used information and statistics compiled and published by FRS from reports submitted by primary dealers because such data are the most comprehensive available on the government securities market.

This report also draws on our prior work concerning the U.S. government securities market and the relationship between FRS and primary dealers. In particular, we used responses to a questionnaire we administered in April 1986, the results of which are discussed in a September 1986 report entitled U.S. Government Securities: Dealer Views on Market Operations and Federal Reserve Oversight (GAO/GGD-86-147FS). The products resulting from our work to date are listed at the end of this report.

These sources provided us with a great deal of information about the role of brokers in the government securities market. We considered this information in terms of five categories which we believe capture the principal criteria expressed in the act:

- efficiency (low cost execution of trades in highly liquid markets at prices as close as possible to the underlying economic value of the securities),
- safety (minimization of market disruption),
- equity (the fairness of distinctions among firms made by institutions operating in the market),
- investor protection (availability of accurate information and honest execution of transactions), and
- the ability of the Treasury and FRS to carry out their debt management and monetary policy functions.

We believe these five categories adequately capture the concerns for the public interest; the protection of investors; and the maintenance of fair, honest, and liquid markets that the act required us to examine.

¹⁸Public comment file, pp. 228-248b.

No precise criteria can be used to measure how well brokers perform in each of these categories. However, for each category we tried to assess the strengths and weaknesses of current brokering arrangements and to assess the consequences of expanding access to brokers' services. We did this by looking for areas of agreement and disagreement among various market participants and evaluating their views against our own observations of broker and FRBNY operations. Our discussion of trading and information access issues in chapters 3 and 4, respectively, present the results of our assessment.

Evaluation of Proposed Alternatives

Because our study originated from complaints to Congress by certain dealers, we confined our evaluation of specific proposals to the ones suggested by those arguing for change. We considered these proposals from several perspectives:

- ability to solve identified problems with the existing systems;
- possibility that the proposal could create problems that would damage the operation of the market, particularly by weakening control over risks; and
- the degree of government involvement required to implement the change.

To reach judgments on these perspectives, we evaluated the logic of each proposal against available data and our observations and knowledge of broker, dealer, and FRBNY operations.

An overall evaluation of each proposal necessarily involves weighing various considerations against each other—for example improved equity versus decreased market safety. We recognize that such judgments are, to a degree, subjective. In making our judgments we were guided by two basic assumptions which we felt were consistent with the approach taken by Congress in adopting the act.

First, we assumed that arguments for changing brokering arrangements by regulation should convincingly show that changes are warranted by the seriousness of the problems. We made this assumption because several legislators involved in designing the act said that the market, for the most part, works well and that new federal regulation, such as that

contained in the act, should be directed at correcting identified problems.¹⁹

Second, in examining possible alternatives to current arrangements for determining access to the services of interdealer brokers, we gave great weight to avoiding possible damage to the market. The secondary market for government securities involves a large dollar volume of trading activity and is central to management of the federal debt, to the conduct of monetary policy, and to the soundness of other national and international financial markets.

Coordination and Agency Comments

The act required that we conduct our study in coordination and consultation with the Board of Governors of the Federal Reserve, the Secretary of the Treasury, and the Securities and Exchange Commission. Officials from these agencies cooperated with us in several ways. They commented on the wording and content of the text and questions contained in the Federal Register Notice of Public Hearing and Request for Comments. They all actively questioned witnesses at the public hearing, and the SEC provided follow-up questions to which witnesses responded in writing. They also discussed their own views on access issues and commented on a draft of this report.

The SEC's comment letter is contained in appendix IV. Treasury and FRS comments were provided orally. These agency comments are discussed at the end of chapters 3 and 4. We did not provide the GSES, GNMA, or Commodity Futures Trading Commission a draft for official comment because our discussions with officials from these agencies revealed no significant concerns with current market operations. The Government Securities Brokers Association (GSBA) reviewed a draft of chapter 2 for factual accuracy and its suggested changes were made where appropriate.

¹⁹For example, at the time the act was before the Senate for final passage, the Chairman of the Subcommittee on Securities, Committee on Banking, Housing and Urban Affairs said,

"because the legislation addresses identified weaknesses in the government securities market, it would not result in excessive regulation that would impair the efficient operation of the market, increase the costs of financing the Federal debt or compromise the execution of domestic monetary policy."

(Statement of Senator Alfonse M. D'Amato, Vol. 132 Congressional Record, Oct. 9, 1986, pp. S15796-97.)

Limitations of the Study

Our work was performed primarily during 1986 and 1987 in accordance with generally accepted government auditing standards. Several limitations of this study need to be kept in mind while interpreting its results. These limitations relate to changes in the market, lack of quantitative information, the scope of our work, and antitrust issues.

A number of both realized and potential market and regulatory changes have a bearing on the topic of brokers' services: recent implementation of regulations required by the Government Securities Act of 1986; changes to the way securities and cash are transferred between buyers and sellers which are now being considered by both industry and government that could affect risks in the blind brokering system; and technological advances. Also, changes have been occurring in broker ownership. For example, in September 1985, one broker was acquired by a primary dealer which then shared ownership with a consortium of other primary dealers. In July 1986, one broker started to share profits with its dealer customers. In April 1987, one broker acquired the Treasury bill and coupon operations of another. The results of our study are necessarily limited by our inability to judge the rate of change or eventual effect of all the foregoing factors.

We urged those responding to our Federal Register notice, as well as the witnesses who testified at the public hearing, to be specific and cite, whenever possible, quantitative information in support of their positions. Little quantitative information was provided, although some respondents and witnesses offered examples to illustrate points.

Our work concentrated on access issues associated with blind brokering arrangements and does not constitute an overall assessment of the condition of the government securities market or of all the factors that could adversely affect the market in the present or the future. We did not independently assess market operations or conditions, test transactions, or independently determine the effectiveness of current standards and monitoring for controlling risks. Thus, the report does not address such potentially important topics as the vulnerability of the secondary market trading systems to trading abuses, to computer failures, or to economic conditions that would make investors less willing to purchase or hold U.S. government debt.

For some time, the Department of Justice has been conducting an investigation of antitrust concerns regarding the operation of government securities brokers. Our study was conducted independently of Department of Justice activities and did not attempt to reach conclusions about the federal antitrust implications of how the market is presently organized.

Availability of Price Information and Brokering Services

This chapter describes the availability of price information and brokers' services in the secondary market for U.S. government securities and emphasizes how screen brokers operate, the risks associated with blind brokering, and the differences between interdealer and retail brokers. Although the report focuses principally on brokers, the last part of this chapter discusses how the willingness and ability of dealers to quote prices to their customers is also an important characteristic of this vast, decentralized market.

Information Available on Broker Screens

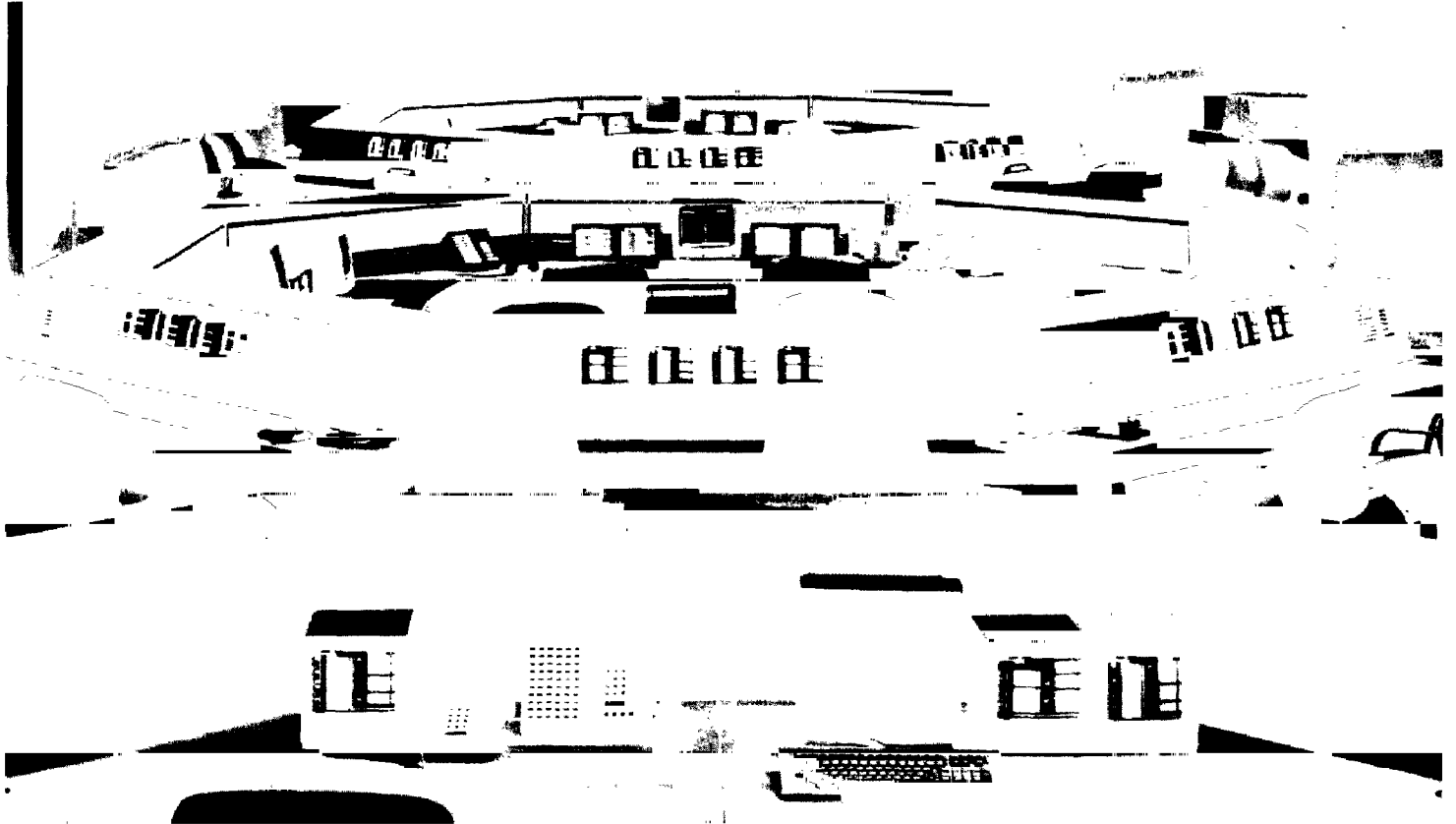
Each government securities broker's screen displays the best bid and offer quotation available from its customers for the issues shown. These quotations are binding commitments for the quantities and prices specified and, as such, constitute a market for each issue displayed.

Most brokers segment the government securities market as a whole into various trading centers, or "desks," which function independently of each other. Government securities brokers have as many as 10 trading desks or as few as 1. Except for the case where a broker has one desk, each desk specializes in a market segment, such as Treasury bills, Treasury coupon securities of short or long maturity, zero coupon securities, agency securities, or mortgage-backed securities. Figure 2.1 shows part of one broker's trading room.

Brokers display similar information but use various formats. Screen pages that customers see show securities' maturity dates, coupon rates (when applicable), issuing agency (when applicable), the best bid and ask prices quoted by customers for each issue, and the quantities of securities each customer who provides a quote is committed to sell or buy at the quoted price. The screens neither identify the customers whose quotations are displayed nor reveal the depth of the market, i.e., the number and size of other orders waiting to be executed at the displayed price. We developed table 2.1 to illustrate and explain the information typically found on one line of a broker's screen for a coupon-bearing Treasury security. Figure 2.2 expands on this explanation by showing the entire screen page for such securities from which the one line was taken.

Chapter 2
Availability of Price Information and
Brokering Services

Figure 2.1: A Broker's Trading Room



Source: Government Securities Brokers Association

**Chapter 2
Availability of Price Information and
Brokerage Services**

**Table 2.1: One Line as Shown on a
Typical Broker Screen for Treasury
Securities^a**

Coupon rate	Maturity date	Price bid	Price asked	Quantity bid	Quantity asked
12 5/8 ^b	5/86 ^c	100.30 ^d	101.02 ^e	2 ^f X	1 ^f

^aColumn labels have been added for clarity.

^bRepresents the interest rate set at the time the security was issued.

^cDate the security matures (i.e., May 1986).

^dPrice is shown as a unit price per \$1 million of face value and is expressed as a percentage. The decimal is stated in 1/32nds of a percent. The percentage is therefore 100 30/32 or 100.9375. Thus, the price for a \$1 million security is equal to 1.009375 x \$1,000,000 or \$1,009,375.

^eOnce again, unit price per \$1 million is shown as a percentage of the face value, \$1,000,000, with the decimal expressed in 1/32nds of a percent. The percentage is therefore 101 02/32 or 101.0625. Thus, the price is equal to 1.010625 x \$1,000,000 or \$1,010,625. The ask price is 4/32nds greater than the bid price. The spread is therefore 0.00125, which is 12.5 basis points or \$1,250. Sometimes, the digits to the left of the decimal of the asked price (i.e., 101 in this example) are assumed rather than displayed because market participants understand that price asked will always exceed price bid but not by more than 1 percentage point. A "-" separates the bid and asked prices and precedes the price asked even if there is no bid price.

^fQuantities are expressed in millions of dollars at face value. Thus "1" represents \$1 million and "2" represents \$2 million. Bid and ask prices and quantities are presented differently on certain broker screens, but bid data always precede ask data. An alternate expression of the same information shown above would be:

Coupon rate	Maturity date	Price bid	Price asked	Quantity bid	Quantity asked
12 5/8	5/86	100.30	(2)	.02	(1)

How Screen Brokers Operate

The various screen broker firms essentially use the same brokering process. The following describes how these firms operate:

- Customers have direct phone lines to the various desks at each of the broker firms. These desks—circular or horseshoe configurations of computer and phone consoles—are staffed by 10 to 25 employees (brokers) handling 1 or more computer screen pages which show a certain segment of the market. Each broker handles one to three customers depending on activity level. When customers wish to buy or sell a security, they call their broker at one firm or, if they choose to split their order, at more than one firm. The customer can either hit a bid or take an offer already shown on the screen or tell the broker to post a new bid or offer on the screen.

Figure 2.2: Sample Broker Screen for
Treasury Securities, Two-Column Format

Coupon Rate	Maturity Date	Price Bid	Price Asked	Quantity Bid	Quantity Asked	Coupon Rate	Maturity Date	Price Bid	Price Asked	Quantity Bid	Quantity Asked
12 5/8	5/86	100.30-101.02		2X1		9 7/8	12/86	101.20-24		5X1	
13 3/4	5/86	104.08-		3X		10	12/86	-101.30		X3	
13	6/86	104.08-12		10X5		9 3/4	1/87	101.10-14		6X8	
14 7/8	6/86					9	2/87	100.10-14		1X7	
12 5/8	7/86	104.05	HIT	8		10	2/87	*101.21-25		2X5	
8	8/86	99.29-01		3X5		10 7/8	2/87	102.29-01		12X8	
11 3/8	8/86	103.00-04*		5X5		12 3/4	2/87	TAK 102.07		7	
12 3/8	8/86	104.00-04		3X8		10 1/4	3/87	102.03-07		7X15	
11 7/8	9/86	-103.28+		X8		10 3/4	3/87	102.27-31		1X5	
12 3/4	9/86	104.05-09+		10X6		9 3/4	4/87	101.09-11		20X25	
11 5/8	10/86	103.19-19+		30X50		9 1/8	5/87	100.06-08		9X5	
6 1/8	11/86	97.20-98.20		1X1		12	5/87	105.00-04		2X5	
10 3/8	11/86	102.06-10+*		15X10		12 1/2	5/87	105.20	HIT	10	
11	11/86	102.29-01		1X1		14	5/87	-108.05		X6	
13 7/8	11/86	106.12+-16		7X10		8 1/2	6/87				
16 1/8	11/86	-109.21		X10		10 1/2	6/87	102.19-23		2X3	

Notes:

A "+" indicates an additional 1/64 is included in the price.

A "*" indicates that the first bidder/seller still has the right to trade more before others can execute at that price.

When a bid has been hit, the word "hit" appears on the screen; when the price asked has been taken, it appears as "tak." In each case the "hit" or "tak" flashes to draw the viewer's attention to the trade.

Source: Harris Trust and Savings Bank, *The U.S. Government Securities Market*, 2nd edition, (New York Institute of Finance) 1986, p. 63. (Notes and column headings added by GAO)

- Brokers call out their bids and offers as received from customers when the new bid is higher (or offer lower) than one already shown or if it is an acceptance of a posted price. (Otherwise, the brokers keep informal notes of customer quotations for later action should the market change.) Either the brokers or staff at the center of the desk enter this information so it is displayed on an internal computer screen or overhead projector. Simultaneously, similar information is transmitted via computer for instant display on each customer's video display screen. Code numbers or initials are used on the broker firms' internal systems to identify the customers who are buying and selling the securities. These codes are not visible to the customers.
- As a bid is hit or offer taken, the customer who made the initial offer is given the right of first refusal for additional trades at that price. The

broker who posted the customer's initial offer contacts the customer to determine if the customer would like to buy (or sell) more securities at that price. If so, the broker will call out additional quantities and these will be displayed on the screens. Once the initial customers have satisfied their needs at that price, other brokers may call out their customers' orders to complete the rest of the trade. Thus, the system operates on a first-come-first-served basis so that customers initially involved at a price can stay in until their needs are satisfied. Each trading desk employs a supervisor who mediates disputes over which broker called out an order first. Brokers compete with one another because their compensation depends, in part, on the volume of business each generates.

- When a bid is hit or an offer taken, "hit" or "tak" will be displayed on the screens and begin to flash. It will continue to flash until all transactions at that price are completed. After a few seconds of inaction, this annotation will disappear. Brokers will then display the new best bid and ask prices provided by customers.
- The customer who acted on the displayed quotation pays the price plus a commission, if buying, or receives the sale price less a commission, if selling.
- When a trade is completed, brokers verbally confirm the trade terms with their customers and the broker firm sends separate written confirmations to the buyer and seller. The respective confirmations show the broker firm as the seller and purchaser of securities, thus maintaining customer anonymity. The broker firm communicates instructions to its clearing bank which will perform the transfer of securities and cash. Broker firms often accumulate confirmations with particular customers during the trading day and offset purchases and sales in the same security so that only instructions for the net cash or securities transfer are sent to the clearing bank. This "netting" process is designed to reduce broker and customer clearing costs.

The brokers' trading systems have three important characteristics that bear on the subject of this report. First, customers frequently post quotations for relatively small quantities (\$10 million or less) so that the full intent of their transactions is not revealed on the screens. Then, as the market responds to that price, the customer can either stop trading or build the trade up to the full amount desired. This permits the customer to test the market at relatively low risk. However, it also creates uncertainty for customers who are seeking to trade a larger quantity than that shown on the screen because the underlying supply or demand behind the amount offered or bid is unknown.

Second, this incremental trade building process, when combined with the customer's ability to execute trades through more than one broker, also leads to the minimization of any differences between the quotations on different brokers' screens. When both buyers and sellers can see the competing quotations, they will try to trade where they can get the better price and will stop trading when they see that they are paying too much or selling for too little relative to others.

Anonymity is the third important characteristic. Anonymity enables customers to buy or sell large quantities of securities without other market participants interfering with their strategy. To illustrate the concern for anonymity, one broker told us that it does not let customers into the broker area and periodically changes the customer codes so that a customer could not piece together the identity of another customer by listening over the phone to the shouting in the trading room.

Importance of an Accepted Customer List

Brokers said the underlying premise in a blind brokering operation is that every bid and offer posted on the screen is good and that the terms of every trade will be honored. They said they need to have customers that all other customers will accept as creditworthy so that blind trading takes place efficiently with minimal credit concerns. They said changing their systems so that each customer could restrict its trading with particular customers would slow the speed of trading from split-seconds to several seconds and damage the efficiency and liquidity of the market. To avoid credit concerns, each interdealer broker maintains a customer list which it makes available to its customers.

Risks in Blind Brokering Trading Systems

Brokers, by definition, do not engage in transactions for their own account; rather, they act as agents for buyers and sellers. Brokers face risk because of circumstances that can cause them unexpectedly to own securities or to make good on trades. Three of the sources of potential financial loss are (1) transactions that are not delivered due to misunderstanding about the terms of a transaction,¹ (2) transactions that are

¹For example, as brokers shout and signal offers and acceptance to one another during an active trading period, two brokers might record that they have purchased securities for their respective customers when only one has, or the customer may believe its broker has purchased the securities when the broker did not. When the error is discovered a short time later as each broker's purchases are paired with sales or as each broker reviews transactions with its customers, the brokerage firm must decide, based on a review of the transaction, who is entitled to the securities. The brokerage firm may then satisfy the other customer by going into the market and purchasing the securities or by offering to cancel the transaction. Depending on whether the price of the security went up or down after the initial transaction, the brokerage firm either loses or makes money.

not delivered due to settlement problems,² and (3) a firm that goes out of business and fails to honor its obligations. Except in cases where fraud may cause even more serious losses, the magnitude of risk from a failure to honor obligations depends on the market risk of the securities involved—how much the value of the securities changes in the time between trade agreement and scheduled delivery—and the size of the transaction. Because Treasury securities trades are typically settled on the next business day, the values are not likely to change very much in that time. However, because transactions, particularly for Treasury bills, are frequently done in \$50 million to \$100 million sizes, small changes in value of individual securities can mean sizable gains or losses. The potential for loss is greatest in the when-issued market for Treasury securities. When-issued securities are traded between the announcement that they will be sold and the issuance date. When-issued trades normally involve a longer time period between the trading agreement and scheduled delivery than regular trades and thus allow more opportunity for prices to fluctuate.³

Brokers monitor and control the risks associated with misunderstandings and incomplete transactions. A certain level of expense associated with these occurrences is routine and is incorporated in the brokers' cost

²A certain percentage of transactions are not delivered because of the mechanics of the clearing process. In the clearing process, the delivery of a security triggers an immediate payment of cash that may result in an overdraft from the customer's account with the clearing bank. For example, at the time the Fedwire, the telecommunication system used by clearing banks to exchange securities and cash, stops each day, certain transactions are only partially completed. Securities have been received into and cash paid out from the broker's accounts to one customer, but the broker's clearing bank has run out of time before it could wire out the securities to another customer and receive payment. The broker must therefore borrow or obtain funds from other sources to cover this cost of purchasing the security. Clearing banks provide stopgap financing to brokers to cover such circumstances.

Such financing can be expensive when viewed on a per trade basis. For example, a \$100 million bond trade might generate \$3,900 in commission income for a broker at current rates. The overnight cost of financing a \$100 million transaction is about \$16,500 at a 6 percent interest rate (the approximate cost of overnight borrowing at the time of our public hearing). However, according to GSB, the annual aggregate expense incurred by all brokers is extremely small when compared to the volume of the securities they are responsible for trading during the same period.

³At our public hearing, a primary dealer representative provided an example that showed how over a 3-week when-issued period a 1.8 percent change in the price of a recently issued 30-year Treasury bond created an exposure of \$880,000 on a \$50 million trade.

of doing business.⁴ Brokers told us that so long as they are free to discontinue service to any customer, concern over maintaining a solid reputation will usually prompt a customer to be responsive to a broker's concerns about too many misunderstandings or incomplete trades. They said that losses associated with incomplete trades are often shared by brokers and customers on a negotiated basis.

Brokers and their customers told us the most critical risks for blind brokering are those associated with a sudden customer bankruptcy because of the potential magnitude of a customer's position at the time it failed. They said if the bankruptcy were accompanied by fraud, losses could be much higher because the entire value of a transaction is more likely to be at risk. They also said reactions to unexpected failures could disrupt confidence in the market, adversely affecting its liquidity.

Differences Between Interdealer and Retail Brokers

We observed that although all screen brokers employ comparable techniques and deal with essentially the same risk sources, interdealer and retail brokers differ in several ways. Relative to retail brokers, interdealer brokers (1) are less willing to accept the risks associated with a customer failure, (2) serve a smaller number of customers, (3) provide more complete coverage of the range of government securities, and (4) are more restrictive as to who may see their screens.

Accepting Risk: the Question of Agent or Principal

All brokers said that they act as "agent" in the conduct of trades. However, there appears to be some uncertainty in the marketplace regarding the implications of this role in the event of a customer failure. Counsel to the GSBA, whose membership includes one retail and six interdealer brokers, explained the brokers' role as follows:

"customarily an agent is liable as a principal when it acts on behalf of an 'undisclosed principal,' i.e. a principal whose existence and identity are unknown to the party with whom the agent conducts business This rule is inapplicable to interdealer brokers because 'blind' brokering services are provided to counterparties (who are the brokers' principals) that are known to each other in the sense of belonging to a limited defined group each member of which has agreed to deal 'blindly' with each other member. Therefore, in a blind brokering transaction each counterparty knows that (1) it is buying from or selling to another dealer and (2)

⁴To protect against losses, brokers review their trading records throughout the day, match the purchase and sale orders to ensure trades are accurately recorded, contact the dealers to review the list of completed trades, tape-record broker/customer communications and, where possible, offset customer transactions in the same securities so that only one set of instructions for the net amount of securities and cash needs to be sent to the clearing bank for settlement.

that the counterparty dealer belongs to a group that has been approved by each dealer as a party with which it has agreed to transact business.”

Thus, GSBA contends that the interdealer brokers' liability as agent is limited because their customers continue to bear the risk as principals. However, as noted on page 44, the question of who would bear the risk if a dealer failed is not clear.

Both retail brokers have said that they act as agent in the conduct of trades, though they stand behind the government securities transaction they broker as if they were the principal. Specifically, Cantor Fitzgerald explains its role as follows:

“Cantor Fitzgerald Securities Corp. stands behind the government securities transactions it brokers so that it is responsible for the consummation of all trades, as if it were the actual principal, without regard to the performance of the other side.”⁵

A Cantor official told us that the firm took this position, in part, so that its major customers, the primary dealers, would be more willing to trade anonymously with Cantor's “retail” customers. This official said that Cantor, as a matter of business practice, brokers all trades the same way. In other words, it stands behind even those trades done between primary dealers.

Access to Brokers' Systems

The seven interdealer brokers allow only primary and aspiring primary dealers to trade those securities which are brokered on a blind basis—Treasury securities, debt securities of GSEs, and when-issued contracts.⁶ The customer lists of the seven interdealer brokers are nearly, although not exactly, the same. The number of customers handled by interdealer brokers ranges from 46 to 53. Table 2.2 describes the customer base of each of the seven interdealer brokers. A total of 13 aspiring dealers have been granted access to the services of at least 4 interdealer brokers.

⁵Public comment file, p. 3.

⁶Each of the interdealer brokers has one customer list that is valid for all of the blind brokered securities and maturity dates. None of the firms allow customers to trade only certain securities or maturities—it is all or nothing.

Chapter 2
 Availability of Price Information and
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Table 2.2: Interdealer Brokers' Customer Base for Treasury and Agency Issues, February 1987

Customers	A	B	C	D	E	F	G
Primary	40	40	40	40	40	39	40
Aspiring primary	13	12	13	13	12	7	13
Total	53	52	53	53	52	46	53

A condition for being accepted for blind interdealer trading is recognition as a primary or aspiring primary dealer. Interdealer brokers told us that a dealer who is not already a primary dealer must first indicate to FRBNY that it wants to become a primary dealer and begin submitting reports to FRBNY before brokers will consider the dealer's request for access. If the broker chooses to consider a dealer as a customer, the broker may request that the dealer supply financial and operational information. The dealer will usually also provide such information to the broker's customers to enable them to evaluate the creditworthiness of the potential new participant. Once this process is complete and all credit concerns are satisfied, the dealer may be granted access.

Four of the interdealer brokers handling mortgage-backed securities extend trading privileges in these securities to two or three dealers that are not recognized as primary or aspiring primary dealers. Brokers told us that these firms were accepted because they are recognized as being significant participants in the mortgage-backed market and because trading in mortgage-backed securities is not completely anonymous—names are typically divulged after about a week and before settlement. The two interdealer brokers that handle repurchase agreements have a considerably broader base of customers for this instrument than do the group of primary and aspiring primary dealers. These two brokers said repurchase agreements are considered financing (credit) transactions and are not brokered anonymously—the customers are identified to each other before the trade is finalized. Regardless of the types of securities brokered, interdealer brokers make screen information available only to firms which can trade in securities on those particular screen pages.

Like interdealer brokers, each retail broker's customer approval process must satisfy the credit concerns of all customers or they will be reluctant to transact business anonymously. However, unlike the process usually followed by the interdealer brokers, potential new customers do not circulate information to existing customers because the retail broker accepts the risk of customer failure. Cantor Fitzgerald officials said that Cantor reviews the activity of all its customers daily. Cantor establishes

risk exposure limits for nonprimary dealers based on an independent assessment of each nonprimary dealer's creditworthiness. Cantor officials said that primary and aspiring primary dealers are normally not subject to the credit review process and risk exposure limits because Cantor, like the interdealer brokers, relies on FRBNY's approval and oversight process for these dealers.

Cantor Fitzgerald customers receive Cantor's screen pages in three different ways. First, about 60 customers who give Cantor sufficient commission business receive quotes free of charge by direct line feed on Cantor's "speed network," a process comparable to those used by interdealer screen brokers. Second, about 40 other Cantor customers purchase access to the speed network from Telerate, an electronic financial information network that has an exclusive arrangement to disseminate Cantor's screen pictures as part of its package of financial information services. Third, some Cantor customers receive Cantor quotes via the standard Telerate network. Cantor customers who use the speed system receive the advantage, for various technical reasons, of slightly faster data transmission than do those who obtain quotes via the standard Telerate network.

Firms which are not Cantor's customers but which subscribe to Telerate can see (but not trade on) Cantor's screens. Cantor officials told us that Telerate has about 50,000 monitors installed worldwide with about 13,000 customers paying to see the Cantor screen pages.

An official of Newcomb Securities, Inc., the other retail broker, told us the firm has 150-200 customers, including some primary and aspiring primary dealers. The official said Newcomb transmits its screens over the Reuter Monitor network, which has between 60,000 and 70,000 screens worldwide, and through its own recently developed system, which is analogous to the Cantor speed system. As with Cantor and Telerate, subscribers to the Reuter network can pay to view markets displayed on Newcomb's screens without being a Newcomb customer.

Securities Brokered

We observed that both interdealer and retail screen brokers tend to specialize in certain segments of the market. Thus, one interdealer broker does not handle bills, three do not handle agency securities, and one interdealer broker and one retail broker do not handle zero coupon securities. Table 2.3 summarizes the coverage of securities brokered by the various screen brokers.

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Brokerage Services

Table 2.3: Summary of the Secondary Market Activities of the Nine Government Securities Screen Brokers, February 1987

Type of broker service	Number of brokers providing service	Number of brokers who provide this type of service only to primary and aspiring primary dealers
Blind brokering		
Treasury securities		
Bills	8	6
Notes and bonds	8	6
Zero coupons	7	6
Agency issues	6	4
When-issued transactions	9	7
Brokering of mortgage-backed securities on delayed name disclosure basis	7	1 ^a
Brokering of repurchase agreements on immediate name disclosure basis	2	0

^aOf the six brokers that do not confine their services to the primary and aspiring primary dealer groups, one extends services to three additional dealers and four (including one retail broker) extend services to two additional dealers. The other is a retail broker who provides this service to all its customers.

Source: Data were compiled from interviews with brokers in the Spring and Fall of 1986. After our public hearing, we contacted selected brokers to ensure that the data presented describe the market as of February 11, 1987. As discussed on page 27, in April 1987 one broker acquired some of the operations of another.

Although market specialization exists, we found that among the seven interdealer brokers there is sufficient capacity to show quotations for every outstanding Treasury and agency security. The number of pages interdealer brokers devote to government securities varies among brokers because they format their screen pages differently. Whether or not an issue is actively traded, interdealer brokers provide space for every outstanding security in the markets in which they are involved with the more actively traded issues displayed prominently. For example, as of December 31, 1986, there were approximately 200 outstanding Treasury notes and bond issues.

Retail brokers choose to devote a specific number of pages to the markets in which they are involved and do not have the capacity to show quotations for every Treasury and agency security at one time. At the time of our hearing, Cantor Fitzgerald had four screen pages for Treasury and agency securities markets: one for Treasury bills, two for Treasury coupon securities, and one for agency issues. These pages also showed when-issued quotations. Because space is limited, Cantor Fitzgerald primarily shows the more actively traded issues for the various securities with some space devoted to other issues where there is less

market interest. Cantor Fitzgerald also displays and brokers GNMA securities but only to primary and aspiring primary dealers and two nonprimary dealers active in this market. Cantor had a zero coupon page but dropped it in July 1985 because of insufficient customer use. A Newcomb official told us it has one screen page on which it shows markets for the most active Treasury bills, Treasury coupon securities, and agency securities. If there is market interest in a less frequently traded issue, or in a mortgage-backed security, Newcomb substitutes the customer's quotation for a listed issue not active at that moment. The official said about 80 percent of Newcomb's business was in the active issues.

Availability of Price Information and Brokers' Services in Other Segments of the Market

The screen brokers serve the major dealers and investors active in the secondary market for government securities. However, screen brokers are not the only source of market price information. Whether or not it has access to brokers' screens, any market participant can seek the best market price available for its desired trade by calling dealers directly.⁷ The quotations obtained are comparable in meaning to those shown on brokers' screens because they guarantee execution of a specified quantity at a specified price. Customers can also ask the dealer to search the market for the best price. In this case, the customers give up immediate execution of desired transactions in hopes of getting a better price.

To find out if there were any problems in the quotation practices of dealers and brokers, we asked the SEC and the bank regulatory agencies to review their customer complaint and regulatory examination files for any evidence of problems since the beginning of 1985. Officials from these agencies told us that they found no record of any problems.

Sources of Price Information to Market Participants

In addition to the retail broker screen information available from Telerate and Reuters, some market information is also available through other financial information networks, such as Knight-Ridder Financial Information Service and Security Pacific Market Information. Furthermore, at least one dealer consolidates information from several interdealer screens and makes delayed price information available to its customers. Some price information is also available through financial

⁷Our discussion of screen brokers is not meant to imply that they are the only brokers operating in the government securities market. Other firms provide brokering services for at least some securities for particular groups of customers. Also, most Federal Reserve District Banks have a program which aims to help depository institutions buy and sell usually small quantities of securities. Our study did not seek to determine the full nature or extent of such services.

newspapers, such as The Wall Street Journal and Barron's. Several government bond dealers also publish daily quotation sheets giving closing market price information.

Market participants said and we observed that the information shown on the other information systems or newspapers is usually not comparable to "live" bid and offer prices shown on brokers' screens. Generally, information taken from these sources is historical rather than real time price data. In some instances, prices shown are quotations which represent one dealer's view of the market at a particular point in time. Other prices, such as those FRBNY provides each afternoon to news services, represent a composite or average of dealers' quotations. Since December 1986, last sale prices of government securities for trades conducted through Cantor Fitzgerald have been available over the Telerate System as part of Cantor Fitzgerald's Optional Information Services in U.S. Government Securities. However, at the time of our public hearing in February 1987, comparable last sale prices of trading through other brokers were not available through any source.

Trading Access

This chapter presents our views on the issues associated with interdealer brokers' trading access decisions and on the proposals for changing the present arrangements. Our discussion of issues begins with market safety because risk control is the interdealer brokers' principal justification for basing access decisions on primary or aspiring primary dealer status. We then discuss three other issues: market efficiency and liquidity, equity, and FRS' role in conducting monetary policy. In the last section of the chapter we discuss and evaluate the proposals for change

Market Safety Issues

We found widespread support among the agency officials and market participants we contacted and among those responding to our request for comments that the blind trading systems of interdealer and retail brokers contribute greatly to the efficiency and liquidity of the secondary market for government securities. We also found widespread support for the need to limit access to such systems to qualified firms so that the benefits of blind trading are achieved without unduly threatening market safety. Controlling risks in these systems of anonymous trading is complicated because individual customers cannot monitor their risk exposure to other individual customers as they can when they know the identity of the party on the other side of the transaction. A principal focus of this chapter is therefore the issues associated with the decisions by interdealer brokers to allow only primary or aspiring primary dealers to trade on their systems and whether the decisions are more restrictive than they need to be in order to control risks successfully.

There seems to be general agreement that the trading access decisions of interdealer brokers have provided a practical basis for the conduct of blind trading. These trading systems have been successful in retaining the confidence of the brokers' customers while handling significant increases in transaction volume. To date, none of the dealers with access have failed even though some of the firms may have experienced financial difficulty. Still, despite their close ties to primary dealer standards and FRBNY monitoring, existing interdealer broker arrangements are not free of risk because primary or aspiring primary dealers could fail and aspiring primary dealers have not yet met the primary dealer standards and are not monitored to the same degree as primary dealers.

An overall assessment of the soundness of interdealer broker systems was outside the scope of this assignment. However, our assessment of the trading access issue revealed two aspects of current arrangements which may be creating uncertainty about the risks in interdealer broker

systems. These aspects are: (1) uncertainty about the nature and degree of oversight needed to control risks in blind trading systems and (2) uncertainty about financial responsibility if losses occur.

The Nature and Degree of Oversight Needed

Uncertainty over the degree of oversight needed to control risks in blind trading systems is illustrated by the fact that dealers with trading access to the services of interdealer brokers are subject to different degrees of monitoring by FRBNY. For the past 3 years certain aspiring dealers have been granted trading access to interdealer brokers. FRBNY's oversight of these dealers is less rigorous than its oversight of primary dealers, and many only report their trading activity to FRBNY on a monthly basis. Thus, firms monitored less closely by FRBNY than primary dealers are trading on a blind basis through brokers who claim that their customers bear the risk if one of those firms should fail.

If FRBNY's daily monitoring is as essential in controlling risks as some defenders of the present system indicate, interdealer brokers' decisions to add aspiring dealers would, to some unknown extent, seem to have weakened the safety of their systems. However, if the addition of aspiring dealers has not made the system more risky, questions remain about the degree of oversight needed to keep blind trading systems safe.

These considerations are complicated by the fact that those commenting indicated that the ability of the existing interdealer broker system to control risks is based on three features of current arrangements, only one of which is FRBNY monitoring. These features include:

- use of primary dealer criteria for screening of firms allowed to enter the system,
- perceived close monitoring of risk positions by FRBNY, and
- perceived ability of the Federal Reserve System to persuade dealers to correct problems and to resolve crisis situations in ways that will protect dealers and brokers from excessive losses.

The comments also indicated that these features are closely interrelated and cannot be viewed in isolation. From the evidence available we had no basis on which to evaluate independently the effectiveness or relative value of these features as risk control measures. Neither did we determine what monitoring arrangements would be needed if the monitoring function for blind trading through interdealer brokers were to be undertaken apart from the other two features of the primary dealer system noted above.

Another reason for uncertainty about the degree of monitoring needed to control risks in blind brokering is that some of those dealers now monitored by FRBNY on a daily basis have expressed the belief that additional monitoring would be desirable. In our 1986 questionnaire of government securities dealers, 39 percent of the primary dealers responding to the survey felt that more surveillance of primary dealers' trading activities through blind brokers was desirable.¹

Uncertainty as to Who Bears Risk in Blind Brokering Systems

As discussed in chapter 2, GSBA contends that interdealer brokers are not agents in a way that requires them to bear the responsibility of a principal if a customer fails. However, other statements show that the matter of who would actually bear the risks if a dealer failed is not actually so clear. In response to a question at our public hearing regarding risk if a dealer failed, one interdealer broker said

"I believe we're an agent, and we would disclose both sides of the trades to the two principals and have them settle between themselves. Whether that would stand up, since we would probably be the only one left with money, whether we'd be sued, I think it would be tested in the courts."²

Another interdealer broker added

"The issue of agent and principal is an ongoing one. But the majority, if not all, of the current customers share the view of the broker as that of an intermediary. In a given situation in which there were a problem, we are confident that the problem could be monetarily worked out."³

Statements by a primary dealer at the public hearing confirm the existence of ambiguity in risk bearing. This dealer said

"the blind brokers' market requires that we also take this exposure to unknown individual firms within a closed set of counter-parties, and those are the risks of the system. They are borne first by the brokers and ultimately by the primary dealers themselves because of the limited capital that the brokers have. . . . I would suggest that . . . an expansion [of access] would, at a minimum, require a significant increase

¹See U.S. Government Securities: Dealer Views on Market Operations and Federal Reserve Oversight GAO/GGD-86-147FS, September 29, 1986, Appendix III, question 10 on p. 31. Of the then 36 primary dealers, 32 responded to this question.

²GAO/GGD-87-42, p. 90.

³GAO/GGD-87-42, p. 90.

in the capital of the individual brokers, because they do have some risk as principals, i.e., as agents for undisclosed principals in these trades, and because such an expansion would make this fact more evident."⁴

Because no primary or aspiring dealer has failed, the question of who bears risks is unresolved in a legal sense. However, if such a default were to occur, the question of ultimate financial responsibility could compound the problems associated with such an event, to the further detriment of market liquidity.

Uncertainty as to who bears the risks if a dealer fails involves more than the legal issue of whether the broker is serving as agent or principal. Even if the broker asserts that it will act as if it were principal if a customer fails, as in the case of a retail broker, this does not mean that it is necessarily capable of bearing such risk. In other words, customers may still bear some risk. We did not attempt to measure the capital adequacy of retail brokers because at the time we were preparing this report, Treasury, as part of its responsibility under the Government Securities Act, was considering what the appropriate capital adequacy measures should be. However, we found no reason to assume that retail brokers are any less dependent than interdealer brokers upon FRBNY's oversight of primary dealer risks. Cantor said most of its business is with primary dealers, and it neither monitors these customers as closely as it does nonprimary dealers nor imposes trading limits on them.

We believe efforts by the Treasury, SEC, and bank regulators under the new regulatory structure brought about by the Government Securities Act may help to better measure and control blind brokering risks. Under the act, Treasury promulgates the capital adequacy requirements for government securities brokers that are enforced by the SEC. Developing these guidelines requires that judgments be made about the specific risks faced by interdealer and retail brokers so that appropriate capital levels can be determined. In addition, as regulators gain experience in evaluating blind brokering risks, they should also be in a better position to determine the type and frequency of monitoring appropriate for firms engaged in blind brokering and how such monitoring could be accomplished.

Other Issues

This section summarizes our views on three issues associated with current trading access practices: efficiency and liquidity, equity, and the

⁴GAO/GGD-87-42, pp. 62-64.

FBS' role in the market. As discussed below, there are reasons to expect some benefits in market operations from expanded trading access. Given the growth in the size of the public debt and of the volume of secondary market trading, we believe expanding trading access is appropriate whenever such action does not entail undue risks. However, for the various reasons cited, it appears that the incremental gains to efficiency and liquidity that can be expected from expanding access are likely to be modest.

Efficiency and Liquidity

Although we did not evaluate the characteristics of the U.S. government securities market, others have often characterized it as highly efficient and liquid. However, this does not mean it is as efficient and liquid as it could be, nor should it be presumed that major disruptions to this market could not occur due to major economic changes or problems experienced by some of its major participants. Everything else being equal, economic theory suggests that more participants and free access into this market's major trading systems should help make it more efficient.

We concentrated on assessing opportunities for improving the market's efficiency and liquidity if trading access to the services of interdealer brokers was expanded. This assessment assumed that any arrangement for expanding access would continue to maintain a degree of control over risks comparable to that which exists now. Because there is little quantitative information available, our assessment involved an analysis of qualitative factors associated with market efficiency and liquidity. In particular, we examined arguments that expanded access would increase market trading volume, reduce transaction costs, or improve bidding at Treasury auctions. As explained in the next three sections, our work suggests that if risks are properly controlled, some improvements in market efficiency and liquidity are possible. However, our work also suggests that the resulting gains are likely to be more modest than has been suggested by some of those seeking to expand trading access.

Market Activity

Ultimately, brokers and dealers function as financial intermediaries, with the underlying demand for government securities transactions coming principally from the investors who hold or want to hold them. While increasing trading access can be expected to increase competition among firms with access, we found no evidence to suggest how much, if any, effect this increased competition would have on the volume of trading by the public at large. More than 50 dealers with access to

interdealer brokers' screens now compete for business. None of the respondents to our request for comments questioned the vigor of the competition among these dealers, many of whom have extensive networks with retail customers. Additionally, many retail customers' trading needs are served by nonprimary dealers who, in turn, may be customers of the primary dealers. Some nonprimary dealers might no doubt be able to participate more vigorously in the market if they had access. However, during our study we received no complaints from investors about an inability to execute trades. This lack of complaints from investors is consistent with, but does not prove, the proposition that the effect of expanding access could be largely a redistribution of current customer activity among primary and nonprimary dealers rather than a substantial increase in market volume.

One possible effect of expanded trading access through interdealer brokers would be an improvement in the markets for less actively traded Treasury securities, known as off-the-run issues, where retail brokers' coverage is limited. Expanded access would probably make the market for these securities somewhat more liquid because the additional dealers could seek out more investors interested in trading these securities. However, as discussed below, the nature of this category of securities would appear to limit the impact which expanded access is likely to have.

Securities become off-the-run issues because investors are not looking to buy or sell them as frequently as other securities. A broker told us there can be many reasons why a security issue is not actively traded, some of which would not be affected by expanded access. For example, some investors purchase securities so as to hold them in their portfolios until maturity or some other specified time (such as for an anticipated tax payment). Also, changes in market practices could lessen some sources of demand for off-the-run issues. For example, one source of demand for off-the-run issues is finding securities to deliver against futures and options contracts in those instances when delivery is called for. Futures markets are developing new means for satisfying these contractual obligations that do not rely so heavily on finding specific securities.

A consultant for this study said that brokers provide fewer benefits to investors in markets where trading is less frequent because investors have more time to find the best price on their own in such markets.⁵ This view was supported by two nonprimary dealers we interviewed who

⁵Public comment file, pp. 234-235.

said they felt they could give competitive prices to their customers for off-the-run issues by seeking the best price from competing primary dealers.

Transaction Costs

One of the arguments for expanding access put forward by nonprimary dealers is that executing trades directly on the screen would save them (and hence their customers) money by eliminating a middleman function that dealers with trading access now perform. Essentially, they claim that a dealer with access has little risk in quoting prices to its customers for many trades because such a dealer can simply take advantage of differences between the prices on the screen and the prices the dealer quotes. By being able to execute directly on the screen, those without access say they would save the dealer's "mark-up" and pay only the broker's commission, which they presume they are already paying indirectly to the dealer.

Not all dealers without access agree that expanded trading access would result in significant savings by eliminating the middleman role. Eight nonprimary dealers, some of whom responded to our request for comment (as summarized in app. III, table III.1), said they were satisfied with existing arrangements. They believed they were paying competitive prices for the services provided by primary dealers, although some would have liked to have had access to screen information. Some of these dealers noted that primary dealers not only executed transactions but also provided insights about market conditions.

The unnecessary middleman argument tends to overlook both the risk-taking element inherent in marketmaking and the relationship of transactions costs to volume of trading. If a primary dealer is acting as a marketmaker by purchasing a large quantity of securities from a nonprimary dealer, then any difference between the unit price it quoted to the nonprimary dealer and the unit price shown on the brokers' screens compensates the primary dealer for certain risks.⁶ In undertaking a small transaction for a nonprimary dealer, the primary dealer faces

⁶For example, if a nonprimary dealer wants to sell a \$100 million block of securities, it can obtain competing prices for an immediate sale by contacting several primary dealers. Dealers make these quotations based on their current inventory in that security, their desire to hold an inventory, the known interest of other customers, and the quotations available on the brokers' screens. We observe that because broker screen quotations are usually shown for smaller quantities, a primary dealer is not assured that it can sell the \$100 million it has purchased from the nonprimary dealer at the price shown on the screen. It might, for instance, only be able to sell \$25 million at the then current screen price and have to accept a lower selling price to sell the rest or decide to accept the risk of gain or loss by holding the unsold securities in its inventory.

much less risk in quoting prices to customers because the size of the entire transaction would be comparable to the quantities for which prices are shown on the interdealer screens. In these smaller transactions, however, one would expect prices to customers to be close to those on the screen because the competition between primary dealers would tend to discourage a primary dealer from over pricing a low-risk transaction.

If trading access were expanded, those firms acquiring access would have to pay the broker fees associated with their transactions. These fees could turn out to be higher than the ones these dealers are now paying implicitly as part of the cost of having primary or aspiring primary dealers execute their trades. The broker fees could be higher if the new dealer's trading volume is insufficient to qualify for the volume discounts brokers provide to primary dealers.

The preceding discussion shows why we believe the reductions in transaction costs that might accompany expanded trading access are likely to be modest. Nevertheless, one way the increased competition from additional dealers who gain trading access could benefit the market is by putting pressure on dealers which currently have access to reduce their costs (and hence their bid-ask spreads and charges to customers) in order to try to maintain or expand market share. The volume of trading in the secondary market is so large that even a reduction of \$1 in the cost per \$1 million traded could result in millions of dollars of annual savings to customers.⁷

Auction Results

We pointed out in chapter 1 that the efficiency and liquidity of the secondary market for government securities has a direct impact on the rate of interest that Treasury must pay on newly issued government debt. The easier the resale opportunities, the lower will be investment risks as well as rates of return investors are willing to accept. Therefore, if expanded trading access could make the government securities market more efficient and liquid, this should result in auction prices that lower

⁷One source of evidence on the potential for efficiency gains would be whether dealers with trading access to the services of interdealer brokers earn excess profits. Such an analysis was outside the scope of the work we performed for this assignment. An accurate study would, however, be difficult to do because of the problem of defining the concept of excess profits relevant to dealers trading on blind brokering systems and because of the varying organizational structures found among primary and aspiring primary dealers and others dealing in government securities.

the rate of interest on the public debt.⁸ Treasury and Federal Reserve officials told us that as long as risk controls are preserved, there are no specific debt management reasons for trading access to be limited to primary and aspiring primary dealers. However, these officials also said the market is already so efficient and liquid that any reduction in interest paid at auction resulting from expanded trading access would be small. These officials questioned whether the potential benefits are worth the risk since changes in existing arrangements could adversely affect the liquidity and efficiency of the market and therefore, also the rate of interest paid on the public debt.

An analysis we performed of bidding at Treasury auctions, undertaken in connection with another assignment, supports Treasury and Federal Reserve officials' statements regarding market efficiency. Our analysis showed that those dealers and investors who bid successfully at Treasury auctions bid within a few basis points (1/100th of a percent) of the average winning bid, enabling Treasury to sell the full amount of each issue at nearly the same price to all customers.⁹ Most (but not all) of these winning bids were submitted by primary dealers. No one provided us with a reason to conclude that if nonprimary dealers gained access to the same information and trading opportunities now available to primary dealers, they would submit bids that would be more favorable to Treasury than those currently coming from primary dealers given the fact that the bids are so tightly clustered. Still, we see no reason to assume that increased access will have absolutely no effect on the auction. The size of the government market is so large that, if risks can be controlled, even small improvements in market efficiency stemming from additional competition would reduce interest costs to some degree.

⁸Because the Treasury must sell over \$1 trillion of securities each year to raise new funds and refinance maturing debt, even a small reduction in the average rate of interest paid by the Treasury at each auction would save the Treasury millions of dollars. For instance, if the average rate of interest paid by Treasury at each auction was 1/100th of a percent lower, annual interest costs would be reduced by about \$80 million. In interpreting the \$80 million annual interest figure, it should be recognized that the majority of funds raised each year are in 3-month and 6-month bills that are themselves refinanced during the year.

⁹This analysis is contained in a hearing record insert in Status of the General Accounting Office's Work Concerning the Government Securities Market, U.S. Congress, House Committee on Banking, Finance, and Urban Affairs, Subcommittee on Domestic Monetary Policy. Hearing on September 29, 1986, 99th Congress, 2nd session, Washington, D.C., 1986 [Committee Publication No. 99-103], pp. 33-76.

Equity

Those seeking expanded trading access said or implied that they are at a competitive disadvantage by not having access to the anonymous trading services of interdealer brokers. The claim that those without trading access can be at a competitive disadvantage appears to have merit.¹⁰ However, the seriousness of this disadvantage and its equity implications need to be considered in relation to the several mitigating factors discussed below.

First, all nonprimary dealers may not necessarily want to play the type of marketmaking role characterized by complex, high volume trading strategies generally undertaken by those with trading access. Those dealers that do can seek to become primary dealers since, according to FRBNY officials, the primary dealer system is open to new aspiring dealers.¹¹ So long as additional dealers can become primary dealers, the use of primary or aspiring primary dealer status as a condition for trading access does not result in a system which is closed to new entrants. The requirement that new entrants meet (or aspire to meet) all of FRBNY's criteria for primary dealer status does, however, represent a barrier to gaining trading access. This requirement means that a firm may have to take on some responsibilities, such as participating in auctions or making markets in a full range of securities, that it would prefer not to have. However, since primary dealers are used by the FRS in carrying out its monetary policy and fiscal agent roles, the public presumably also benefits from the responsibilities assumed by primary dealers. On balance, therefore, there is room for judgment about whether requiring nonprimary dealers to take on special responsibilities is an unreasonable cost for acquiring access to blind trading systems where the risks, to some

¹⁰One of the frequently cited benefits of blind trading is that it allows participants to mask their trading strategies. While dealers without trading access can, to some extent, do this by executing trades directly with a number of different dealers, this is more time-consuming, cumbersome, and costly than using interdealer broker services. Furthermore, it is possible that some trades would be executed with a potential competitor (primary dealer) who can gain knowledge of the nonprimary dealer's current position and/or trading strategy which could then be used in the primary dealer's own trading decisions. Further, dealers with trading access are the only ones able to take advantage of arbitrage (the simultaneous purchase of securities in one market and their sale in another) opportunities between prices on the interdealer and retail screens. The several statements by primary dealers that they need blind brokering to carry out their marketmaking roles supports the view that those without such access are at a disadvantage. Also, our questionnaire survey of dealers in April 1986 showed that almost all responding primary and nonprimary dealers believed that access to the service of interdealer brokers conveyed at least some competitive advantage to such dealers, although nonprimary dealers felt the advantage was much greater than did primary dealers. See U.S. Government Securities: Dealer Views on Market Operations and Federal Reserve Oversight, (GAO/ GGD-86-147FS, Sept. 1986), pp. 39 and 55.

¹¹In December 1986, FRBNY announced a 6-month moratorium on naming more primary dealers. A FRBNY official told us the moratorium did not prevent nonprimary dealers from beginning the process of aspiring to primary dealer status.

extent at least, are being controlled by FRBNY monitoring of primary dealers.

Second, the question of fairness cannot be separated from arrangements for controlling risks. For a blind trading system to function with the broker acting as agent, a standard of creditworthiness and some means of monitoring and enforcement acceptable to all parties with trading access is needed because the customers are bearing some, if not all, of the default risk. Our 1986 questionnaire survey of dealers showed that the vast majority of nonprimary and primary dealers felt that in such a system dealer-imposed standards were highly relevant or very highly relevant in determining trading access.¹² As a practical matter, requiring all parties gaining trading access to be primary or aspiring primary dealers has provided the interdealer brokers a convenient common standard for access and a low cost way to monitor compliance. By relying on FRBNY, both primary dealers and brokers minimize their own costs associated with the control of credit risks.

Third, little specific evidence of economic harm due to lack of trading access was brought to our attention by firms during the course of our study. If a significant number of firms were experiencing reduced profitability or were being forced out of certain markets due to lack of trading access, then we would have expected an expressed desire on the part of more firms to gain access. Despite our efforts to solicit comments from such firms and other investor groups without access,¹³ only eight nonprimary dealer firms without trading access responded to our request for comment. Of these, half were satisfied with the status quo. However, because we do not know why other firms did not respond, we cannot determine the extent of economic harm that may exist.

While these factors raise questions concerning whether the equity issues associated with trading access are serious enough to mandate that the

¹²Primary and nonprimary dealers were asked how relevant, if at all, meeting the minimum credit requirements imposed by other dealers that trade through the brokers was for determining which dealers should have access to interdealer broker wires. Of the 37 nonprimary dealers responding, 79 percent felt this criterion was greatly relevant or very greatly relevant. Of 32 primary dealers responding, 88 percent felt this criterion was greatly relevant or very greatly relevant. (See GAO/GGD-86-147FS, pp. 38 and 54.)

¹³We mailed the Federal Register notice directly to the Public Securities Association; about 50 nonprimary dealers; 13 associations representing various categories of financial institutions, corporate case managers, government finance officers, school business officials, or futures market participants; and 6 self-regulatory organizations for the futures, options, or equity markets. At least one association and two self-regulatory organizations made separate notifications of our release to their members.

current procedures be changed, we did identify two equity issues associated with the present arrangement that point to weaknesses in the present system.

One of these equity issues concerns the aspiring dealer category. Although aspiring dealers say that they are seeking primary dealer status, as noted in chapter 1, FRBNY neither gives official recognition to aspiring dealer status nor monitors them as closely as it does primary dealers. Furthermore, although aspiring dealers have said they want to become primary dealers, there is no assurance when, if ever, they will achieve this status. Thus, there is no certainty that aspiring primary dealers are more creditworthy or are bearing more responsibilities for maintaining liquid markets than are some dealers which do not aspire to be primary dealers.

The second equity issue concerns the reliance on primary dealer standards as a basis for trading access determinations. There would seem to be less of a question among market participants as to whether existing arrangements are fair if the standards brokers used in selecting dealers were designed specifically for meeting the needs of a blind trading system as opposed to being a byproduct of FRBNY's primary dealer standards. For example, consider the situation of a nonprimary dealer specializing in one or more segments of the government securities market. Brokers' use of FRBNY designation as an access criterion means that firms who may be as creditworthy as primary or aspiring primary dealers must be participants in the broad range of government securities to have access to any interdealer broker. It appears to us that if risks can be adequately controlled, an opportunity for expanding access may exist if brokers grant specialist firms access to the screens covering the markets in which the firms specialize. Such action would be consistent with the way brokers segment their trading areas. Such an expansion would also not be completely without precedent since brokers already provide access to a few nonprimary dealers specializing in mortgage-backed securities.

FRS Operating Role

FRBNY has said that primary dealer designation should not be used as a substitute for credit decisions by market participants and has made other efforts to distance itself from private sector "piggy-backing" on the primary dealer designation. It is clear from our work, however, that dealers and brokers do, in fact, rely heavily on primary dealer status. This reliance has the effect of giving FRBNY what amounts to a de facto operating role in maintaining these private sector trading systems.

Beneficial spillover effects from FRBNY activities may help the government securities market function well, but certain problems are also created for FRBNY as a result of the current arrangement. FRBNY officials have emphasized to us that they would prefer to have flexibility in choosing those firms with whom they wish to have a business relationship and in defining and administering their standards. However, the de facto link between FRBNY and the blind trading systems has the potential for impairing FRBNY's flexibility. For example, if brokers continue to use FRBNY recognition as an access criterion and if access to the blind broking system is to be open to new entrants, it is then up to FRBNY to keep a system for designating new primary dealers open even if FRBNY needs to add additional firms for conducting monetary policy.

This de facto role can influence FRBNY's administration of the primary dealer system in other ways as well. Since FRBNY's monitoring of dealers is being relied upon to help control risks, decisions that FRBNY makes about the degree of monitoring of primary or aspiring primary dealers that it feels are necessary for monetary policy purposes could have consequences for the safety of the blind trading systems which might be difficult for FRBNY to ignore.

The close link between primary dealer status and trading access also involves a potential "moral hazard" associated with FRBNY's administration of its primary dealer system. Since FRBNY's qualification process, monitoring practices, and influence over dealers are being used by market participants, they may tend to reduce their own efforts to control risks in the blind brokering system. In organized exchange markets, such as the New York Stock Exchange, members have an ownership interest in the exchanges, must deposit funds with the associated central clearing corporation according to the size and risk of their trading position, and may be called upon to commit additional capital should an exchange or clearing corporation member fail or other crisis occur. Dealers and interdealer brokers typically have no such commitment to interdealer blind trading systems,¹⁴ and there is no central clearing mechanism. The absence of such a formal risk-sharing arrangement among participants in blind brokering opens up the possibility that FRBNY may have to play a large role in resolving market problems. Our April 1986 questionnaire survey indicates that there is some basis for concern in this area. One quarter of the primary dealers responding to the survey said primary

¹⁴It should be noted, however, that one interdealer broker is now owned by a consortium of primary dealers. One other broker has a profit-sharing arrangement with its dealer customers in return for a nominal payment. We do not know the extent to which, if at all, these arrangements imply financial backing by the dealers for the integrity of the brokers' respective blind trading systems.

dealer status denotes to their firm that the Federal Reserve will prevent some or all primary dealers from defaulting. Furthermore, 47 percent of the primary dealers said primary dealer status denotes to the public that the Federal Reserve will prevent some or all such firms from defaulting.¹⁵

FRS officials said they are aware of the potential problems of having too close an operational tie between FRBNY and private sector blind trading systems. They told us that from the perspective of FRBNY responsibility for implementing monetary policy, they would not be adverse to the market using different access criteria if risk controls could be preserved. FRS officials have also taken some steps to distance themselves from responsibility for aspiring dealers. This is why FRBNY will not comment on whether a firm is an aspiring dealer or disclose how frequently the firm is reporting its activities.

Analysis of Proposals for Change

An important part of our study involved analyzing proposals brought to our attention for broadening access to the trading systems of interdealer brokers. The record of public hearing and statements filed with us pursuant to our request for public comment shows that four parties (all nonprimary dealers) said that the link between primary dealer status and trading access should be weakened or severed. An additional five parties (two brokers, two associations, and a primary dealer) said that change was possible but not needed. (See app. III, table III.1.)

The statements of those advocating or consenting to change contained several suggestions about how broader access might be accomplished. We grouped the suggestions into three general proposals. The first would require brokers to change their access criteria so that primary or aspiring primary dealer status would not be necessary for obtaining trading access. The second would have FRBNY extend its monitoring to another tier of dealers who do not want to be primary dealers. The third, involving the most change, would replace existing brokers with a

¹⁵GAO/GGD-86-147FS, pp. 33 and 34.

nonprofit exchange and clearinghouse arrangement that would allow access to all firms meeting Treasury standards.¹⁶

The following discussion presents our evaluation of the proposals. We examined them from the perspective of our judgment of their ability to deal with the safety, efficiency, liquidity, and equity issues identified in the previous section; the possibility that the proposals might damage the secondary market; and the extent of additional federal government involvement in the secondary market which would be required to implement the proposals. Our ability to characterize and evaluate each proposal was limited by the fact that none of the proposals was presented in very great detail.

Require Brokers to Change Their Access Criteria

The suggestions to us in this general category reflected two different approaches to the goal of having brokers not require primary or aspiring primary dealer status as a condition for granting trading access. The first approach envisions the granting of selective additional access to large creditworthy institutions active in securities markets. The second based on the assumption that primary dealer status is "irrelevant" to the secondary market and has "no legitimate bearing" on access decisions, envisions reform of the current system by opening trading access up to "all qualified dealers."¹⁷ This latter position is reflected in the following statement:

"It is [our] position . . . that the capital standards of the Department of the Treasury (or, perhaps even more appropriately of the SEC. . .) are adequate to assure credit worthiness for those permitted access to trading through the brokers' screens. Although [our firm] would have no objection to increasing the capital requirements for those permitted access to trading, it also believes it is important not to restrict access to any greater extent than can be demonstrated to be necessary."¹⁸

¹⁶In addition to the proposals discussed in this section, one nonprimary dealer proposed that nonprimary dealers specializing in mortgage-backed securities that can meet extremely stringent requirements should have direct access to the brokers' screen for these securities. The firm asserted that some specialized firms do more business than certain primary dealers in the mortgage-backed securities market. We did not treat this suggestion as one of the proposed alternatives because our focus was on securities brokered on a blind basis where access was limited to primary and aspiring primary dealers. We found that most brokers for mortgage-backed securities have distinct customer lists which include some nonprimary dealers and do not include primary dealers who are not active in the market. (See table 2.3.)

¹⁷GAO/GGD-87-42, pp. 8 and 9.

¹⁸Public comment file, p. 274.

Those recommending or consenting to selective expansion of trading access were often not specific about how this access should be accomplished. The suggestion for more complete reform, however, is based on the view of those making the proposal that regulation of access decisions by the Department of the Treasury would be required.¹⁹

Market Safety

Earlier in this chapter, we pointed out two characteristics associated with the safety of blind trading systems that could be sources of risk in these systems. One of these was uncertainty about the degree of oversight that was needed to assure the safety of these systems. The other concerned uncertainty about who is bearing the risks inherent in blind trading systems. The following discussion explains that the proposal to require brokers to change their access standards addresses neither of these issues.

The proposal to require expanded access seems to assume that the risk monitoring function can safely be separated from the related aspects of the primary dealer system that help to control risk. As discussed previously, such aspects include the primary dealer qualification criteria and the persuasive influence of FRBNY over these dealers' activities. Furthermore, the proposal also seems to assume that someone—either the brokers, FRBNY, Treasury, or the SEC—will take on increased responsibility for monitoring risks.

Some critics argue that retail brokers could serve as a model for risk control because they have been successful to date in being able to enforce their criteria for admitting nonprimary dealers and investors to their trading systems, as evidenced by the absence of disruption caused by customer failure. We pointed out in chapter 2, however, that the retail brokers do not monitor primary dealers' trading activity closely and rely heavily on FRBNY's oversight of these dealers to control risks. Furthermore, if retail and interdealer brokers step up their monitoring efforts, it is uncertain whether their monitoring could be as effective as that now provided by FRBNY because FRBNY looks at the dealers' total government securities activity while each broker only sees the dealers' activity relative to that broker. For example, primary dealers report daily to FRBNY on their activity volume and net ownership positions for all maturity ranges of government securities—information important for monitoring the riskiness of a dealer's activity and determining their

¹⁹GAO/GGD-87-42, pp. 15 and 16.

compliance with FRBNY's capital adequacy criteria. At our public hearing, two primary dealers testified that it would be unlikely that any firm would provide such data to anyone other than FRBNY because of the proprietary nature of such information. Since FRBNY is a part of the National central bank, it is also likely to have greater access than would the individual brokers to dealers' books and records to verify the accuracy of dealer reports. Brokers dependent upon commissions for income also have an economic incentive in a competitive environment to encourage trading by not imposing limits which could reduce their own market shares.

We recognize that in the absence of a standard for the degree of monitoring needed to control risks in a blind trading system we cannot know whether, or to what extent, the proposal for expanded access would introduce new and unacceptable risk factors into such systems. However, we believe it would not be wise to risk damaging the market by requiring brokers to change their access criteria without having in place an acceptable risk monitoring mechanism.

One proponent of broker-established and -enforced standards observed that there seemed to be a general belief by the brokers that monitoring should be performed by an independent third party since the brokers neither wanted nor felt capable of performing this function. This proponent suggested that Treasury could monitor risks under the authority of the Government Securities Act of 1986 or, if this was not deemed feasible, the SEC would be the logical agency to perform the necessary oversight.²⁰

It seems reasonable that, in time, experience under the act may provide a basis for developing an alternative way to monitor the risks of blind brokering which does not depend on FRBNY's monitoring of primary dealers. In our judgment, however, requiring Treasury or SEC involvement at this time is premature because the amount of monitoring needed is unknown. SEC, in commenting on this report, said "at present, there is no regulatory or other body in a position to monitor effectively the financial responsibility of a larger number of non-primary dealer screen participants." (See p. 89.) SEC also said it was reluctant to recommend governmental imposition of such an obligation on interdealer brokers at this time.

²⁰Public comment file, pp. 261 and 262.

As discussed below under "other concerns," it cannot be assumed that requiring brokers to set different standards would necessarily result in much change in the firms that actually obtain trading access. Until more is known about the nature of specific access standards that would result from regulation, there seems to be little basis for making a decision about having Treasury or the SEC take on a detailed monitoring function which neither agency is seeking and which may do little more than duplicate FRBNY's oversight of the same set of dealers.

If access to brokers' trading systems were to come within a regulatory framework, it seems likely that such regulation would have to take into account the closely related topic of financial responsibility. The proposal that brokers be required to change their access standards seems to be linked to the proposition that brokers would have to be prepared to take more financial responsibility for their decisions than they presume to do now. One view we received on the responsibility for risk bearing suggested that interdealer brokers would, in effect, guarantee their trades by acting as if they were principals, just as retail brokers do now. Another view was that while brokers do not need to be explicit about the risks they are bearing, they would not be able to claim to be serving strictly in an agent capacity. Whichever view is taken, the proposal assumes that interdealer brokers need to be prepared to bear more risk than that associated with a strict agent role.

Since brokers would presumably be bearing greater risk under the proposal, the adequacy of interdealer brokers' capital becomes more important as an underlying source of stability for the market. However, we believe it is premature to adopt a proposal that would place such reliance on brokers' capitalization. Although Treasury has promulgated regulations concerning the capital adequacy of brokers, Treasury is still trying to determine the best way to measure brokers' capital adequacy based on their risks.²¹

Regulating a change in access standards also has the potential for damaging the market by weakening incentives for dealers themselves to control the amount of risk generated through blind trading on the systems

²¹Under the Government Securities Act of 1986, Treasury has promulgated minimum capital requirements for all government securities brokers and dealers which are not subject to the SEC's capital rule and which are not financial institutions. Interdealer brokers must comply with these requirements unless they elect, with Treasury's approval, to comply with an alternative capital rule designed specifically for them. Treasury said its capital rules should encourage interdealer brokers to monitor their exposure and to ensure that these brokers have some capital cushion. The Treasury said it intends to reexamine broker capital requirements after experience has been gained under the current rules.

of interdealer brokers. Interdealer brokers claim the dealers, not the brokers, are at risk in such trading. Although, as noted earlier, the brokers' claim has not been tested in court, removing this ambiguity by adopting a proposal which assumes the broker is no longer acting simply as agent could weaken incentives for dealers to be concerned about the creditworthiness of brokers' other customers. This could occur if dealers assume they are less at risk because brokers, who would be making all access decisions, are bearing some or all of the losses if a customer failed.

In pointing out the potential market safety problems associated with the proposal for requiring brokers to change access standards, we do not mean to imply that the system must remain as it is now. The existence of retail brokers demonstrates that some flexibility is possible in controlling risks within the existing market structure. However, in order to avoid potentially damaging the market, we believe it makes sense to gain more experience with capital adequacy regulation in the government securities market, especially in those aspects associated with blind brokering, before considering arrangements that rely much more heavily on new regulatory systems to maintain market stability.

Other Concerns

Earlier in the chapter, we discussed the possibility that expanded access could lead to improvements in market efficiency and equity. It is not clear, however, how much effect even the reform alternative of opening trading access to all qualified dealers would actually have on access and on the efficiency and equity concerns we identified. To make a determination about what would happen under regulation for such a system, much more needs to be known about the specific nature of the regulation being considered than is contained in the suggestions we examined.

When asked specifically about what action needed to be taken, a proponent of requiring brokers to change their standards responded

"The precise step that needs to be taken is for Treasury to issue regulations which would preclude brokers from arbitrarily denying access to trading on their screens."²²

The degree of access that would occur as a result of nondiscriminatory business decisions made by the individual brokers is not known. If account is taken of such factors as quality of broker services or control

²²GAO/GGD-87-42, p. 15.

of risks, under a nondiscrimination rule a broker could perhaps make a convincing case for standards that would result in less, rather than more, access. To illustrate this point, we can draw on the previous discussion noting that an expansion of access implies an increase in brokers' risks and associated need for capital. To reduce its risk exposure, a broker could define a level of capital for its customers that was so high that it resulted in access being granted to a smaller number of firms. It is therefore possible that reliance on FRBNY standards has brought about greater access than would be the case if interdealer brokers were required to set standards.

If each broker took a different approach to the concept of nondiscriminatory access, access standards of the brokers could be different from each other. In this situation, we would expect that some dealers would have access to some but not all broker screens. It is not clear that this situation would be satisfactory to all critics of the existing system. One proponent of reform said that "all qualified dealers in the secondary market should have complete trading access to permit competition on a fair and equal basis."²³ Common access criteria for all brokers would seem to be needed to accomplish such an objective.

An alternative approach to regulating access decisions would be to require each broker to adopt an access rule that would have to be approved by a regulatory body (Treasury, SEC, or a self-regulatory organization operating under federal supervision). By setting forth guidelines concerning acceptable standards, the regulatory body could then ensure some consistency of access.²⁴ This approach could also be used to require that all competing brokers adopt the same, or virtually the same, access criteria.

Either the nondiscriminatory standard or the common standard approach to regulating trading access decisions would appear to establish a framework in which any firm meeting certain standards is presumed to have a right to access. This presumed right would make it more difficult for a broker to deny access to a firm which, in the business judgment of the broker, posed a credit risk. However, the ability of

²³GAO/GGD-87-42, pp. 8 and 9.

²⁴The use of this approach is implied in a letter submitted to us in support of requiring brokers to change their standards: "What would need to be developed is not only basic capital requirements, but also guidelines governing the maximum position that could be taken within a particular level of capital." See public comment file, p. 274.

a broker to protect itself and its customers from possible losses by denying trading access to any firm the broker thinks is not capable of participating responsibly in a blind trading system is a principal means by which both interdealer and retail brokers now control risks.

Summary

This proposal does not specify how access would be determined or how risks would be controlled and monitored. The proposal will not necessarily result in additional trading access and it could damage the blind trading systems by increasing risks. The information provided to us was not convincing that problems in the market are so severe that the system of competing brokers, which are now free to make access decisions based on their business judgments, needs to be modified to the point that access standards common to all brokers would be set by regulation.

Extend FRBNY Supervision to Another Tier of Dealers

Under this proposal, the creditworthiness of dealers who do not aspire to become primary dealers would be monitored by FRBNY.²⁵ The assumption seems to be that interdealer brokers would extend access to a new tier of FRBNY-supervised firms. This proposal seeks to gain some of the efficiency and equity benefits presumed to be associated with expanding access while keeping in place existing risk control mechanisms that depend upon FRBNY. However, it seems to some extent to be based upon a misconception of aspiring dealer status.

Most of the increased trading access to interdealer brokers that has occurred over the past 2 years has resulted from adding aspiring primary dealers. However, as noted earlier, FRBNY neither publicly identifies aspiring dealers nor closely monitors their compliance with primary dealer standards because FRBNY dealer surveillance activities are primarily aimed at monitoring eligible trading partners. Since FRBNY performs only limited monitoring of aspiring primary dealers, it seems unlikely that it would voluntarily do more for a class of firms with even less

²⁵GAO/GGD-87-42, pp. 56 and 57.

basis for FRBNY concern unless it had a legislative mandate to perform a full-scale monitoring function.²⁶

In commenting on our draft, the Federal Reserve agreed with our concerns about expanded monitoring under current arrangements but said that if expanded monitoring were legislatively required, they would devote the increased resources necessary to perform an adequate review of all participants. We believe imposing such a requirement on FRS at this time would not necessarily resolve all the concerns with the current system. Giving FRBNY additional responsibilities for controlling risks among nonprimary dealers would result in FRBNY having an even greater operating role in private sector blind brokering systems. Increasing FRBNY's involvement would also further reduce the incentives for market participants themselves to work out solutions to access and risk control issues. Furthermore, even if FRBNY monitoring were to be expanded, there is nothing in this proposal that would require brokers to grant access to the new tier of dealers, just as not all brokers necessarily grant access to all primary or aspiring primary dealers now.

**Open Blind Brokering
Systems to All Firms
Meeting Specific Financial
Standards and Control
Risks Through Nonprofit
Exchange and
Clearinghouse
Arrangements**

The third change, proposed by one nonprimary dealer, was that all firms meeting financial standards for market participants being developed under the Government Securities Act of 1986 be allowed trading access to brokering services, with such services to be performed by new non-profit exchange and clearinghouse arrangements that would replace the brokers.²⁷ The exchange would provide a central system for posting the best bids and offers on all issues and would act as agent for all trades. The basic structure of competing private brokerage firms would be eliminated. The clearinghouse would monitor all dealers' net trading positions and charge a fee to all participants to cover costs—presumably also including any costs associated with the failure of any firm in the system.

²⁶A simple reporting relationship to FRBNY has already been demonstrated to be ineffective in controlling risks. In 1983 FRBNY introduced a voluntary monthly reporting program for dealers to help FRBNY better understand the operations of nonprimary dealers in the absence of a federal regulatory structure covering all government securities dealers. However, FRBNY did not intend to monitor risks through this program and did not supervise these dealers. Two of the dealers that failed in 1985—ESM Government Securities, Inc. and Bevil, Bressler and Schulman, Asset Management Corp.—were filing monthly reports with FRBNY. The Federal Reserve discontinued the monthly reporting program in August 1987.

²⁷Public comment file, pp. 15, 23, and 24.

We found this proposal difficult to evaluate because the proponent was not specific as to the financial criteria for access nor the risk control system that would be employed. It is conceivable that a formal, fully regulated exchange and clearinghouse system could function appropriately. The proposal was not, however, spelled out in enough detail to know exactly how it would work and whether such an industry-wide trading system would make the market more efficient or liquid while successfully controlling risks. Furthermore, as noted earlier, while there are reasons to be concerned about some aspects of the existing system, has not been demonstrated that these problems are pressing enough to warrant the virtual abandonment of private business decisions as a basis for determining access to blind brokering systems.

We observed that the market is taking steps to consolidate the clearing and settlement process while retaining the current brokering arrangements. A system is currently being developed which would match trades between a defined group of participants throughout the day so that at day's end only each customer's net commitments to receive or deliver securities or cash would be settled. In our request for comments, we asked whether development of such a netting system would affect trading access and the risks faced by brokers and their customers. Most respondents did not address this question. Of 10 who did (3 brokers, GSBA, 2 primary dealers, and 4 nonprimary dealers), 7 said netting could reduce risks and 6 said access could be affected. GSBA, one of the five which thought both risks and access could be affected, commented

"A properly designed and implemented netting system should reduce the risks in the settlement process for government securities for both the dealer and the broker. It would, for example, likely reduce the number of fails at the end of the trading day and likely reduce the amount of traffic on the Fedwire.

However, any proposed netting system should incorporate requirements for the following: the mandatory submission of all trades, the establishment of a properly calculated participants fund, and the development of a proper basis for calculating a transaction adjustment payments.

Without the inclusion of the foregoing, a netting system could increase rather than decrease the brokers' and dealers' exposure to risk.

The creation of a proper netting system could affect access to broker screens because it could provide another viable credit monitoring device that could be relied upon by market participants."²⁸

²⁸GAO/GGD-87-42, p. 225.

Conclusions

The proposals for expanding trading access need to be spelled out in more detail before they can be evaluated fully. In theory, if risks can be controlled, more access to the trading services of interdealer brokers should help improve the efficiency, liquidity, and equity of the secondary market for government securities. As presented to us, the proposals do not provide sufficient evidence that they can successfully control risks or that the benefits they might provide justify further extensions of the federal government's role in the secondary market. Therefore, at this time we do not endorse any of these proposals for expanding access by regulation.

We are not suggesting, however, that the existing access criteria be maintained indefinitely or that the existing blind trading systems are free of risk. Interdealer brokers' reliance on primary dealer status as a means for controlling risks tends to give the Federal Reserve System more of an involvement in maintaining the safety of, and determining accessibility to, blind trading systems than is desirable. Changes occurring in the secondary market may make it more feasible to develop alternative means for controlling risks in blind brokering systems by identifying the nature and degree of risks more carefully, by fixing responsibilities more clearly on market participants for bearing them, and by designing appropriate monitoring systems. One development that could lead to expanded access is experience currently being gained by implementation of a regulatory structure under the Government Securities Act of 1986. In time, confidence in this regulatory and supervisory structure could lessen the market's reliance on certain aspects of FRBNY's primary dealer designation. If a proposal can be developed which adequately controls risks, we see no inherent reason why primary or aspiring primary dealer status needs to be a necessary condition for trading on interdealer broker systems.

Agency Comments and Our Evaluation

The Treasury, Federal Reserve, and SEC all generally concurred with our analysis, although the SEC said that greater encouragement should be given to voluntary expansion of trading access to the interdealer brokers' trading systems. The Treasury, in its oral comments, said our analysis and conclusions were reasonable and suggested some changes, including adding an explanation of brokers' capital requirements contained in regulations promulgated by Treasury under the Government Securities Act. We incorporated these suggestions.

The Federal Reserve, in its oral comments, said our analysis and conclusions were reasonable. The Federal Reserve also suggested some

changes, which we made, to improve the accuracy of our description of the voluntary monthly reporting program for nonprimary dealers (see p. 63) and to clarify the Federal Reserve's view of current access arrangements (see p. 50). The Federal Reserve said it does not have a major problem with the current broker system but recognizes that access criteria are not perfect and that, if risks can be controlled, other arrangements could no doubt be acceptable.

The Federal Reserve was also concerned that a comment in the draft report about FRBNY's monitoring of a second tier of dealers might be misunderstood. The draft suggested that FRBNY would not be likely to monitor a second tier of dealers as closely as it now does primary dealers. We pointed out that FRBNY monitors aspiring dealers less closely than primary dealers and that FRBNY would not have a basis for wanting to monitor a second tier very closely. The Federal Reserve wanted to make it clear that it would be able to monitor such dealers as closely as primary dealers. However, the Federal Reserve believes monitoring a second tier of dealers who are not actual or potential trading partners would be inappropriate for FRBNY to undertake without specific direction from Congress to do so.

In its written comments, the SEC agreed with our conclusion that action to require interdealer brokers to expand trading access to their screen systems is premature, recognizing that there is no regulatory or other body in position at this time to monitor effectively the financial responsibility of a larger number of nonprimary dealer screen participants. Although it agreed substantively with our position, SEC said that we had imposed an inappropriately high burden on those nonprimary dealers seeking access by placing on them the responsibility to design a risk-free alternative to FRBNY designation. SEC also said it agreed with nonprimary dealers who said that increased competition, if subject to sound financial standards, should result in an even more efficient and liquid government securities market. Accordingly, SEC said it is anomalous for us to place unique burdens on nonprimary dealers to demonstrate that increased competition in the government securities markets is desirable.

We believe the SEC position is not much different from ours. Our report points out that if risks can be controlled, some gains in efficiency could result from expanding trading access. This also seems to be the SEC view. We have tried to make clearer that we are not placing a special burden on nonprimary dealers to demonstrate the value of greater competition. We simply point out that there are serious downside risks which must

be taken into account. The proposed alternatives did not convince us that they make adequate provision for controlling these risks.

SEC also said that interdealer brokers have acknowledged the limitations of restricting access to only primary dealers by permitting aspiring primary dealers access without the same assurance of active FRBNY monitoring. According to SEC, this practice raises concerns about the long-term soundness of continued reliance on FRBNY designation and highlights the apparently unnecessarily discriminatory effect of excluding other large, financially sound secondary dealers, at least some of which SEC understands to be better capitalized than some primary dealers. Our report also points out the equity and operational problems associated with the aspiring dealer category and with use of primary dealer standards for making trading access decisions.

SEC said that the feasibility of expanded access may increase as the government securities markets evolve for two reasons. First, the implementation of the act's registration and financial responsibility provisions in July and October of 1987, respectively, will provide interdealer brokers greater assurance that nonprimary dealers are not engaged in fraudulent activities and that they conform to required capital adequacy standards. Second, the implementation of enhanced clearing and settlement systems now being developed should provide a framework where private entities will have substantial incentives to establish more rigorous financial standards and to monitor compliance. In consideration of these developments, SEC believes interdealer brokers should be able to make progress toward developing financial standards and monitoring capability sufficient to provide trading access for select nonprimary firms. If progress is not forthcoming in the next 2 years, SEC said the relevant regulatory agencies and Congress should be concerned.

We agree with SEC that the developments mentioned, which we discuss in this chapter, may improve the feasibility for expanding access. We also believe that any efforts by interdealer brokers to responsibly expand access in this new environment should be supported. We are reluctant, however, to place a time frame on expanding access when it is unclear how quickly the developments will take place and how well they will deal with issues such as who bears the risk in blind brokered transactions, how much capital is necessary to protect against these risks, and how frequently blind brokering participants should be monitored. We are sympathetic to SEC's desire for encouraging voluntary expansion of trading access but, as SEC also recognizes in its letter, expansion requires assurances of the financial responsibility of all participants. We

Chapter 3
Trading Access

will consider the amount of progress made regarding the expansion of trading access to blind trading systems and related risk control changes if any, in our required 1990 report to Congress regarding implementation of the Government Securities Act of 1986.

Information Access

This chapter presents the results of our assessment of the issues associated with who can and cannot view the interdealer brokers' screens. It also includes our assessment of the alternatives proposed by those seeking to expand information access.

Assessment of Issues

Market participants and agency officials generally viewed information access differently than trading access because with information access maintaining adequate control over credit risks was not considered to be a critical issue. We found no evidence to suggest that wider dissemination of information would introduce additional risk into blind trading systems or have an adverse effect on the conduct of monetary policy or management of the public debt. Wider dissemination would not change the structure of blind brokering trading systems and, thus, brokers' and dealers' exposure to credit risk would remain the same. Because there are no apparent issues in terms of safety, monetary policy, or debt management, this section focuses on efficiency, investor protection, and equity issues.

Efficiency

Economic theory supports the idea that the more information available to market participants, the more efficient the market is likely to become in the sense that the market price will move more quickly to reflect the true underlying economic value of the security. There is thus a presumption that expanded access to information would be in the public interest if there is sufficient demand for the information to justify the cost of providing it.

The issue of information access in the secondary market for U.S. government securities takes on added significance because this market plays a unique and critical role in the U.S. financial system. This market affects all other financial markets because it affects the structure of interest rates throughout the economy.¹ Furthermore, it is directly linked to markets in futures, options, and options on futures for Treasury securities because it establishes the current market price for the securities.

Market participants who oppose greater disclosure of screen information assert that because currently available information is adequate, little or no gains can be made in efficiency. They said (1) dealers or other

¹Certain changes in government policy, events, or new information of any type lead to expectations of changes in interest rates. Actions by the dealers and other market participants will then transmit these expectations into changes in all interest rates. Then, through arbitrage between the market in Treasury securities and the debt and equity markets, other interest rates are affected.

parties who do not have access to the screens can obtain market prices from readily available information sources (other dealers, retail broker and financial information services) and (2) prices from these sources as good as ones that would be obtained from an interdealer broker screen. Although considerable information is available on retail screens for actively traded issues (see pp. 40-41), we could not independently determine whether this information is comparable to that available on interdealer broker screens. We considered testing the comparability of information from the various sources but could find no meaningful way to do this.² Primary dealers have stressed the importance of access to interdealer brokers in carrying out their responsibilities for auction participation and marketmaking. While this includes trading as well as information access, it nonetheless raises questions about whether the other sources of information are truly comparable. For zero coupon and many off-the-run issues, information comparable to that shown on interdealer screens is clearly not available on retail screens.

We found no way to quantify the gains in efficiency and liquidity that could result from expanded information. However, unless harm could result from greater information availability, it does not seem necessary to try to determine how much more market efficiency would be introduced by expanding information access.

Investor Protection

To protect themselves against making unwise decisions, investors want to be reasonably confident that they are paying a fair price to purchase securities. Currently, investors can evaluate trading terms by contacting a number of dealers or by viewing a retail broker screen. Without access to interdealer screens, one important source of information about trade prices is unavailable to investors.

In response to our request for comments, one nonprimary dealer said that price evaluation could be based on erroneous information because the retail screen can be manipulated by a primary dealer to show whatever the dealer wants it to show. According to this view, such manipulation can be accomplished because the retail screen does not account for the majority of business transacted and only primary dealers know firsthand what the majority of the market is doing. We are not in a position to determine independently whether the retail screen can be used

²Such characteristics as the split-second timing of trading activity on the screens and the dynamic interaction of price and quantity information in the bidding process cannot be captured by comparing information on different screens.

this way. However, the statement of a primary dealer at our public hearing confirms the view that access to only one broker (interdealer or retail) can give an incomplete picture of the market since the best bid could be on any one of the brokers' screens. This dealer also noted that because brokers vary in their volume of activity, those dealers with access only to less active brokers would not see as many large trades. Another primary dealer acknowledged that manipulation of the type described above could occur but said it would be relatively quickly corrected by competing primary dealers who would act on the out-of-line quote.

Regardless of whether the retail screen can be manipulated, being able to view a broader picture of the market through access to interdealer broker screens should make investors more confident that the prices they pay or receive in securities transactions fairly reflect the current market value of the securities. Such assurance would also tend to make markets more efficient and liquid since search costs to determine the fair, competitive market price would be reduced, presumably by more than the cost of obtaining the information.

Some respondents said that one reason additional information should not be disseminated is that less sophisticated market participants could become confused by price information. Therefore, they could unintentionally misuse the information, causing themselves harm. We do not find this argument to be persuasive. Certainly it could happen in some instances, but parties willing to pay for screen information are probably already relatively knowledgeable about the market. In any event, investors could learn from the dealers they must contact to execute trades the relationship between information on the screens and trading opportunities relevant to their particular circumstances.

Equity

Some respondents to our request for comment raised a concern over the equity of limiting access to the interdealer broker screen information to primary or aspiring primary dealers. They asserted that firms whose principal business is trading or investing in financial markets other than the secondary trading of government securities cannot obtain information they feel is necessary for competing with firms who do have trading access.

Several statements we received commented about perceived equity problems associated with existing arrangements. For example, the Mortgage Bankers Association of America said

"no system [is currently] in place to provide mortgage lenders with complete, accurate and current real price or last sale price information. Instead, lenders often rely on one of several financial reporting services While these financial reporting systems do offer a valuable service, the information they provide typically are based on informal surveys of primary dealers. None, at least with respect to mortgage-backed securities, are tied into the information available through the screen brokers."³

Several others said that futures or options markets are also affected, since dealers who view the interdealer broker screens may have an advantage in these other markets. According to a nonprimary dealer, the more sizeable trades in the secondary market are transacted in the interdealer broker screen market. Therefore, a dealer could notice a sizable trade in a deliverable security and execute a trade in the related futures market before participants who do not have access to brokers screen information would learn of the trade. This concern was echoed by an official of an options exchange who said that over-the-counter options markets in Treasury securities are made "upstairs" by the marketmakers who have access to more price information than do the exchange's marketmakers. The result, according to this source, is that marketmakers who are not also primary or aspiring primary dealers are at a competitive disadvantage.

As with the efficiency and investor protection matters discussed earlier, we are not in a position to know how serious the equity problems are that were brought to our attention. However, the practice of restricting information only to primary and aspiring primary dealers is questionable because expanded information access would not jeopardize market safety.

Analysis of Proposals

Two basic proposals for expanding information access were suggested to us by those who responded to our request for comment and participated at the hearing: expand access to all broker screen information or only completed sales data. As was the case in the previous chapter, we analyzed these proposals from the perspective of their ability to deal with identified problems, the possibility that the proposals might damage the secondary market, and the extent of additional government involvement that would be required. Because of the basic similarity of the proposals, we have combined our discussion of the two. Our analysis was limited by the fact that those making the proposals were not specific about how they were to be implemented.

³Public comment file, p. 141.

We think it is clear that either proposal would contribute to ameliorating the concerns about efficiency, investor protection, and equity identified earlier. We conclude this because the proposals would make available some or all of the information considered important by those seeking access. Of the two proposals, making all information available would obviously deal more comprehensively with these issues. However, we have no basis for judging how much the market would improve if information were made available or how much greater the benefits would be from having all information available rather than just that from completed sales.

We found no convincing evidence that expanding information access creates a risk of damaging the market. The only point raised during our study suggesting the possibility of damage was that some market participants might be confused by the information shown on interdealer broker screens. But, as noted earlier, we did not find persuasive arguments to support this point.

Because information access would help make the market somewhat more efficient and equitable, would help protect investors, and would pose no threat to market stability, we conclude that it would be desirable and in the public interest if information access were expanded. The principal issue is therefore not whether expanded information is desirable but how it should be achieved. Should it be accomplished by federal regulation or can it be accomplished through actions taken voluntarily by market participants?

Although we favor expanded information access, we found too much uncertainty about the costs, nature, and timing of information that would best serve market participants' needs to conclude that federal regulation is required at this time to accomplish expanded access. We base this conclusion on two factors. First, much of the detail concerning the nature of the information access that would be required by regulation has yet to be worked out. The value of such expanded information access to market participants, and hence the justification for any costs that the regulation would impose, would seem to depend heavily on what information is required to be disclosed and at what time.

While many market participants are restricted from viewing interdealer broker screens, not all of these participants perceive their informational needs the same way. We found three distinct groups: those firms who are satisfied with the information they currently receive and do not need or want additional information, those who want information access

but do not need or want trading access, and those who want information access but may not be fully satisfied with the expansion without an accompanying expansion of trading access. Market demand from the first group may be virtually nonexistent; market demand from the second and third groups could vary according to the information made available and the cost, speed, and form of availability. We think it would be desirable for market participants themselves to work out the best form or forms of information access.

The second reason federal regulation may be premature is that if the federal government were to require disclosure of information, it would represent a major additional step in the regulation of market practices in the government securities market. While the passage of the Government Securities Act of 1986 for the first time brought all firms operating in the government securities market within a basic federal regulatory framework, as noted in chapter 1 the act continued to exempt government securities from many provisions of U.S. securities laws. Furthermore, the rule-making authority given to the Department of the Treasury was concerned principally with the financial responsibility of brokers and dealers and their custody of customers' securities and not rather than with the structure of the market itself.

The fact that trading in the decentralized government securities market has thus far been exempt from disclosure requirements does not mean that it must always continue to be exempt from such requirements. But we think it does mean that the step of requiring information access by regulation should be taken only after other alternatives have been carefully considered and discarded. For government securities, any regulation would need to consider the role of brokers in the larger context of the government securities market because at least half of the trading volume takes place outside of the blind trading systems of the screen brokers.

In other regulated markets the government has imposed disclosure of completed sale information, but only in markets in which trading takes place exclusively or principally through facilities owned or operated by self-regulatory organizations such as the New York Stock Exchange or the National Association of Securities Dealers. Federal regulation does not require disclosure of information in over-the-counter markets such as that for corporate bonds or foreign currency.

For the reasons cited, we believe a voluntary private sector approach to expanding information would be preferable. We recognize, however,

that this approach also has potential problems. Statements and testimony of several witnesses indicated that the legal issue of who owns the information on the screens could complicate the ability of brokers to make quotations available to the public. A point of view was expressed that since brokers were acting as agents, the information displayed on brokers' screens properly belonged to the dealers and therefore could only be sold with their permission. Some felt that the ownership issue might be different for completed sale than for current price quotations. We did not attempt to determine which parties can legally distribute broker screen information to the public. However, we do not see why this should be an insurmountable problem. A precedent has already been established through the retail brokers: they allow both completed sale and current price quotations to be distributed to those without trading access.

Another potential problem with relying on voluntary action is that business could be withdrawn from a broker who expands information access on its own. Several witnesses suggested that such a development, which would serve to discourage voluntary information access, was a distinct possibility. SEC officials also said they are not certain that in the absence of regulations private parties can be relied upon to expeditiously expand information access. They point to the fact that public disclosure of real time, last sale data in over-the-counter corporate stock securities markets, a matter they now say is taken for granted as contributing to the efficiency of that market, was initially resisted by market participants and was only brought about by regulation.

The skepticism of some market participants and of the SEC staff may be well founded. We believe, however, it would still be reasonable to provide private parties an additional opportunity to expand information access before proceeding with new laws or regulations. In their comments on this report, the principal federal agencies involved in the government securities market—the Treasury, SEC, and FRS—all concurred with our analysis that there are no compelling reasons for information access to continue to be restricted. In our judgement, this consensus among federal agencies may well help to encourage private market participants to broaden access.

If market participants are not able to work out arrangements for broadening information access, federal regulators could consider measures within their current authority or seek new authority to make disclosure of information a condition of performing the blind brokering function in

the market. While this would represent a significant increase in the regulation of the government securities market, it could be done in such a way as to minimize the degree of federal control over brokers' business decisions. For example, such regulation could leave the details of how information is disclosed to be worked out by market participants themselves. Furthermore, the regulation of information access would have little or no effect on the trading access decisions that create the potential credit risks for the brokers.

As discussed earlier, the regulatory scheme of the Government Securities Act is targeted to specific areas of concern. Treasury has taken the position that the act's authority does not extend to issues such as open access to interdealer broker screens. We have not attempted to explore the limits of the powers given to Treasury under the act. We agree with Treasury, however, that it was not the principal motivation of the legislation to deal with issues such as information access.

Conclusions

On the basis of our analysis, we favor expanded information access. Although we were unable to quantify the potential benefits, we believe that expanded information access would contribute to the public interest through greater efficiency and equity in this and related markets and provide an enhanced measure of investor protection. In addition, we found no evidence to suggest that expanded information access carries a risk of damage to the market.

We also believe that market participants should be given the opportunity to make arrangements necessary to accomplish this expansion before regulatory intervention is pursued. Under the Government Securities Act of 1986 we are required to assess the Department of the Treasury's implementation of rules promulgated to regulate participants in this market and report on the results of our assessment no later than March 31, 1990. As part of that review we intend to review the status of the information access issue and report on the progress or lack of progress made. If federal intervention becomes necessary, the degree of regulation required should be less than that required for expanding trading access through regulation because risk factors are associated with trading access.

Agency Comments and Our Evaluation

The Treasury, FRS, and SEC all concurred with our analysis and conclusions with some exception taken by SEC. The Federal Reserve said our analysis was reasonable and provided no comments on this chapter.

Treasury also said our analysis and conclusions were reasonable. They suggested some changes to clarify the discussion and we incorporated Treasury's comments as appropriate. They did not want the report to imply that Treasury currently has the authority to require expanded information access. We noted Treasury's position and pointed out that we did not attempt to explore the limits of Treasury's authority under the act.

In its written comments, SEC emphasized its view that information access, in the form of transaction and quotation reports, should be made available to those participants willing to pay for it. SEC said that because the government securities market is properly characterized as the most liquid securities market in the world, access to trade and quote information is all the more vital to market participants. SEC pointed out that in the equity securities market, which it said is less liquid than the government securities market, there is a virtual consensus that trade and quote information should be made available. It saw no reason for continuing to limit the distribution of information in the government securities market. SEC also said it could not agree with our conclusion that interdealer brokers, with the acquiescence of the primary dealers, will necessarily disseminate information voluntarily. SEC said that it is not necessarily in the interest of the interdealer brokers or primary dealers to make trade and quote information available to their trading competitors and customers, and the issue of the potential proprietary nature of the information may present another obstacle in the path of voluntary dissemination of trade and quote information. For these reasons, SEC believes we should recommend that Congress set a date certain by which information access should be expanded. If, at that time, trade and quote information have not been made publicly available from interdealer brokers, Congress could consider designating a federal agency to establish rules that ensure that access is granted.

We agree that the highly liquid nature of the government securities market makes access to accurate, real time information important for market participants. For reasons stated in the text, we saw no compelling reason for continuing to limit information access, and, like SEC, we favor expanded information access. We did not, however, conclude that voluntary measures making such information available will necessarily be forthcoming. We concluded only that it would be reasonable to give the private sector an opportunity to expand information access given the uncertainty about the exact nature of the regulation that would be most appropriate and the precedent involved in extending regulation into this area of the government securities market.

Although, in principle, we would have no objections to setting a date certain for expanding access, we did not have a basis to recommend that Congress set such a date and do not believe a deadline is necessary at this time. We have no reason to doubt that SEC itself, together with Treasury, FRS, and market participants, will be in an excellent position to advise Congress when sufficient time for the industry to make a good faith effort to expand information access has elapsed. However, at the present time we continue to believe that federal intervention should be the last step. There are indications that some progress can be expected. Recently some interdealer brokers wrote the Justice Department seeking approval of a plan to make available last sale trading information. We intend to review the status of the information access issue as part of our mandate under the Government Securities Act of 1986 to review implementation of rules promulgated by Treasury and report the results of our assessment no later than March 31, 1990. At that time we will look again at the issue of whether federal intervention is needed.

**Appendix II
List of the Primary Government Securities
Dealers Reporting to the Market Reports
Division of the Federal Reserve Bank of
New York**

**Thomson McKinnon Securities Inc.
Westpac Pollock Government Securities, Inc.**

NOTE: This list has been compiled and made available for statistical purposes only and has no significance with respect to other relationships between dealers and the Federal Reserve Bank of New York. Qualifications for the reporting list is based on the achievement and maintenance of reasonable standards of activity.

Source: Market Reports Division Federal Reserve Bank of New York June 18, 1987

List of the Primary Government Securities Dealers Reporting to the Market Reports Division of the Federal Reserve Bank of New York

Bank of America NT & SA
Bankers Trust Company
Bear, Stearns & Co., Inc.
Brophy, Gestal, Knight & Co., L.P.
Carroll McEntee & McGinley Incorporated
Chase Manhattan Government Securities, Inc.
Chemical Bank
Citibank, N.A.
Continental Illinois National Bank and Trust Company of Chicago
Daiwa Securities America Inc.
Dean Witter Reynolds Inc.
Discount Corporation of New York
Donaldson, Lufkin & Jenrette Securities Corporation
Drexel Burnham Lambert Government Securities Inc.
The First Boston Corporation
First Interstate Capital Markets, Inc.
First National Bank of Chicago
Goldman, Sachs & Co.
Greenwich Capital Markets, Inc.
Harris Trust and Savings Bank
E. F. Hutton & Company, Inc.
Irving Securities, Inc.
Kidder, Peabody & Co., Incorporated
Kleinwort Benson Government Securities, Inc.
Aubrey G. Lanston & Co., Inc.
Manufacturers Hanover Trust Company
Merrill Lynch Government Securities Inc.
Midland-Montagu Government Securities Inc.
J. P. Morgan Securities, Inc.
Morgan Stanley & Co., Incorporated
Nomura Securities International, Inc.
Paine Webber Incorporated
Prudential-Bache Securities, Inc.
L. F. Rothschild & Co.
Salomon Brothers Inc.
Security Pacific National Bank
Shearson Lehman Government Securities, Inc.
Smith Barney, Harris Upham & Co., Inc.

Appendix III
Summary of Market Participant Views on the
Current Trading System in the Secondary
Market for U.S. Government Securities

Several parties defending current arrangements contended that the benefit that might result from greater trading access is more than outweighed by the risks involved. The commenters further defended the existing arrangements by pointing to the special efforts for underwriting the public debt and for making markets in good times and in bad that FRBNY requires of primary dealers. Primary dealers asserted that access to brokers' screens was essential for the marketmaking functions they perform but noted that the system was not closed: nonprimary dealers can choose to seek primary dealer status.

Changes Are Possible but
Not Necessary

Five respondents expressed their belief that a limited expansion in trading could prove beneficial. These respondents believe that well-conceived changes could potentially result in marginal increases in market liquidity or efficiency. The respondents who believe some changes could be made do not, however, necessarily advocate that the existing link between primary dealer status and trading access be broken because of the importance attached to the credit standards.

Market participants in this category discussed some potential developments that, in their minds, could eventually affect trading access. One of these developments would be the creation of a more centralized clearing arrangement for government securities trades, which is now being discussed by market participants. Commenters said this arrangement, if properly designed, could reduce clearing costs, reduce exposure of the brokers to risk, and provide another viable credit monitoring device. One participant in this category, a primary dealer, said it was confident that the rules adopted by Treasury will be able to serve as a basis of measurement when evaluating whether an institution is sufficiently creditworthy to be given access to broker systems, with the caveat that merely satisfying the minimum Treasury standards for market participation should not in and of itself be sufficient to warrant access to brokers' systems.

Weaken or Sever the
Primary Dealer Link

Four respondents believe that the current practice of linking trading access to FRBNY recognition should be either weakened or severed altogether. These firms maintain that brokers should not consider FRBNY recognition to be the only measure of creditworthiness; standards of creditworthiness other than what is presently used could be developed. They believe other creditworthy firms should be able to trade anonymously on interdealer screens because of the competitive advantage such access brings.

Summary of Market Participant Views on the Current Trading System in the Secondary Market for U.S. Government Securities

We asked those responding to our request for comments to provide their views on the current practice of limiting access to interdealer broker services, alternative arrangements that should be considered, and the consequences (good or bad) that would accompany changes in the existing system. We collected the views of 29 market participants on access issues through our request for comments and public hearing.

Access to Trading Systems

Twenty-five commented substantively on whether trading access should be linked to primary dealer status. In summarizing views, we grouped the 25 responses into 3 categories: preserve the link with primary dealer status, changes possible but not needed, and weaken or sever the link. (See table III.1.)

Table III.1: Position Taken by Respondents on Whether the Link With Primary Dealer Status Should or Should Not Be Maintained for Determining Trading Access

Respondent	Preserve the link	Changes possible but not needed	Weaken or sever the link	No comment
GSBA	0	1	0	0
Brokers	2	2	0	1
PSA ^a	1	0	0	0
Primary dealers	9	1	0	0
Nonprimary dealers	4	0	4	0
Nondealer investors and associations ^b	0	1	0	2
Exchanges	0	0	0	1
Totals	16	5	4	4

^aThe Public Securities Association (PSA) response comes from the Primary Dealers Committee of PSA, which includes all 40 primary dealers in U.S. government securities.

^bNondealer investors and associations responses were received from the Association of School Business Officials International, the Mortgage Bankers Association of America, and U.S. League Investment Services, Inc.

Preserve the Primary Dealer Link

Of 25 respondents on this issue, 16 favored preserving the link between FRBNY recognition as a primary or aspiring primary dealer and access to interdealer broker screens. They typically asserted that (1) market efficiency and liquidity is greatly enhanced by confidence in the safety of blind brokering arrangements and (2) the best assurance of the safety and high quality of firms in today's world is through FRBNY's process for the designation and oversight of the primary dealers.

Appendix III
Summary of Market Participant Views on the
Current Trading System in the Secondary
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**Maintain Restricted
Information Access**

Seven respondents argued that no additional information from interdealer screens should be disseminated to market participants without trading access. In taking this position, they all said that an adequate amount of comparable information is already available from the retail broker screens and other sources.

Two firms wanting to maintain the status quo also expressed the belief that dealers who view the interdealer screens probably do not have an advantage in other markets. According to a nonprimary dealer, however, if an advantage exists, "it is both needed and deserved." One respondent said that price and last sale information from broker screens could confuse other market participants because they would not know how to interpret the significance of this wholesale pricing information.

**Disseminate Some
Additional Information**

Two brokers and two primary dealers either advocated or were willing to accept dissemination of some additional information to those willing to pay for it. However, they favored limiting the information to completed sales. Two reasons were advanced for disclosing only last sale information: proprietary problems and the possibly confusing nature of price quotations. These firms also believe that much information is already available and it is sufficient for formulating investment strategies.

**Disseminate All Broker
Screen Information**

Eleven respondents argued for releasing all information. The arguments advanced were that (1) the currently available information sources (e.g., Telerate and Reuters) often do not provide the best available price—especially for inactive issues, (2) investors would be better protected given the ability to objectively verify price or volume information, (3) market efficiency would be improved by alerting more participants to investment possibilities and providing more accurate quotations to a greater number of firms, and (4) the advantage that dealers who view the interdealer screens have in other markets would be terminated.

**Appendix III
Summary of Market Participant Views on the
Current Trading System in the Secondary
Market for U.S. Government Securities**

All of the nonprimary dealers in favor of weakening such links believe that expansion of access would increase market liquidity or efficiency. Some of the current costs of the existing arrangement are described as denying the pairing of the best bid with the best offer and making the nonprimary dealers less efficient in dealing with their customer base. Firms seeking to change existing arrangements also emphasized that restricting access to primary dealers is inequitable and that benefits to the public resulting from primary dealers' marketmaking or auction participation activities are overstated.

**Access to Quotation
Information**

Of the 29 respondents, 22 commented substantively on the information access issue. We grouped these 22 responses into three categories concerning what, if any, information should be disseminated to a broader range of market participants: no information, some additional information, and all information. All the views received from market participants are summarized in table III.2.

**Table III.2: Position Taken by
Respondents on What Information
Should Be Disseminated to Those
Without Access to Interdealer Broker
Screens**

Respondent	All information^a	Some additional information^a	No additional information	No comment
GSBA ^b	0	0	0	1
Brokers	0	2	2	1
PSA ^c	0	0	1	0
Primary dealers	1	2	2	5
Nonprimary dealers	6	0	2	0
Nondealer investors and associations ^d	3	0	0	0
Exchanges	1	0	0	0
Totals	11	4	7	7

^aThe categories "all information" and "some additional information" include firms which either advocate the additional dissemination of information or are willing to accept such dissemination should it occur.

^bGSBA did not present an association viewpoint on this question. Instead, it presented a composite of the views of its members which are reflected in the classification of the responses from individual brokers.

^cThe PSA response comes from the Primary Dealers Committee of PSA, which includes all 40 primary dealers in U.S. government securities.

^dNondealer investors and associations responses were received from the Association of School Business Officials International, the Mortgage Bankers Association of America, and the U.S. League Investment Services, Inc.

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greater encouragement should be given to voluntary expansion of trading access to the interdealer brokers' trading systems. Second, the Division believes a date certain should be established for making trade and quote information publicly available from interdealer brokers.

I. Trading Access

We agree with the conclusion in the Report that the existing interdealer broker system provides opportunities for substantial competition among dealers and has resulted in extremely deep and liquid markets for government securities. In this connection, while the Report notes that expanded access could be useful, the Report concludes that continued reliance on the Federal Reserve Bank of New York's ("FRBNY") primary dealer 3/ designation to limit the number of dealers who have access to interdealer brokers' screens may be appropriate to ensure the creditworthiness of the participants. Although the Report considered other methods for assessing the creditworthiness of the potential participants, the Report places the burden of designing a risk-free system, into which non-primary dealers could be admitted, on the non-primary dealers. Using this standard, the Report concludes that those seeking expanded access have not met their burden of designing a risk-free alternative to FRBNY designation for granting access.

We agree that the anonymity provided by the interdealer brokers is of benefit in a market in which dealers must take extremely large positions. We also agree that interdealer brokers for government securities must assure their customers of the financial responsibility of all counterparties for the system to work. At present, monitoring by the FRBNY is an important foundation to that assurance of financial responsibility. While the FRBNY appropriately disclaims any assurance of financial responsibility for primary dealers, it is not inappropriate for interdealer brokers and their customers to take comfort in the sophisticated position and risk monitoring conducted by the FRBNY.

Nevertheless, we believe that the GAO has imposed an inappropriately high burden on those seeking access. Comments and testimony by secondary dealers declared that denial of access to the interdealer trading system imposed substantial

3/ The term "primary dealers," as used in the Report, includes aspiring primary dealers.

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Note: GAO comments supplementing those in the report text appear at the end of this appendix.



DIVISION OF
MARKET REGULATION

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

May 22, 1987

William J. Anderson, Esq.
Assistant Comptroller General
General Government Division
United States General Accounting Office
Washington, D.C. 20548

Re: Draft GAO Report Regarding Access to Government Securities
Brokers' Services

Dear Mr. Anderson:

Thank you for your letter to Chairman Shad, dated April 17, 1987, requesting comments on the draft report entitled U.S. Government Securities: An Examination of Views Expressed About Access to Brokers' Services ("Report"). The Report was undertaken pursuant to the Government Securities Act of 1986 ("1986 Act") 1/ and examines the current trading system for government securities, including: (1) the extent and form of the availability of government securities brokers' services in the secondary market; (2) the extent and form of availability of real-time transactions in, and bid and ask quotations for, government securities; and (3) whether market information for government securities and the services of government securities brokers are available on terms consistent with the public interest and the protection of investors. The Securities and Exchange Commission's ("Commission") Division of Market Regulation ("Division") as required by the 1986 Act, participated in the hearing held in anticipation of the Report and consulted with the General Accounting Office ("GAO") in preparation of the Report. 2/ The Commission has authorized the Division to submit these comments on the Report.

The Division commends the GAO for its careful and considered analysis of the many complex issues raised by the question of expanded access to the government securities brokers' services. On balance, the Division concurs with the GAO's analysis with two exceptions noted. First, while the Division concurs with the GAO's conclusion that governmental action to require interdealer brokers to expand access to their screen systems is premature, the Division believes that, in view of the changing nature of the government securities markets,

1/ Pub. L. No. 99-571 (September 3, 1986).

2/ See Section 104(a) of the 1986 Act.

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First, beginning in July, previously unregistered non-bank government securities dealers will be subject to Commission and self-regulatory organization examinations and, beginning in October, full financial responsibility requirements as promulgated by the Treasury Department. While this regulatory oversight does not duplicate the monitoring resulting from the business relationship between the FRBNY and primary dealers, it does provide interdealer brokers greater assurance that non-primary dealers are not engaged in fraudulent activities and conform to stringent capital adequacy requirements.

Second, there has been significant progress toward enhanced clearance and settlement systems for government securities. The Government Securities Clearing Corporation, an affiliate of the National Securities Clearing Corporation, plans to offer clearing facilities to net interdealer trades in U.S. Treasury securities, thereby reducing dealer settlement and delivery obligations. Also, the MBS Clearing Corporation, a wholly-owned subsidiary of the Midwest Stock Exchange, recently registered with the Commission as a clearing agency for government guaranteed certificated mortgage-backed securities. The potentially increased role of participant-controlled clearing corporations should provide a framework wherein private entities who have substantial incentives can establish rigorous financial standards and monitor for compliance with those standards.

The Division believes that the evolving regulatory and operational structure of the government securities markets should, in the future, substantially reduce the risks and burdens that may be associated with the expansion of trading access for experienced, well capitalized secondary firms. Accordingly, the Division is hopeful that the interdealer brokers will respond to this changed environment by developing financial standards and a monitoring capability sufficient to provide trading access for select secondary dealer firms. The Division believes that an absence of demonstrated progress toward responsible expansion of trading access during the next two years should be of concern to the relevant regulatory agencies and to Congress.

II. Information Access

With respect to access to information on interdealer brokers' screens, the GAO concluded that: (1) no compelling public interest exists for withholding the information from those willing to pay for access to the information; (2) no legislation or regulatory intervention is necessary at this time in that the market must be provided an opportunity to

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competitive burdens on them. 4/ A number of secondary dealers believe that lessening the dependence on the primary dealer-interdealer broker link would improve market liquidity and efficiency. These commentators emphasized further that the restricted access that benefits primary dealers is inequitable. This inequality, they maintain, does not benefit the public interest. The Division agrees with these commentators that increased competition, if subject to sound financial standards, should result in an even more efficient and liquid government securities market. 5/ Accordingly, the Division believes it is anomalous to place unique burdens on secondary dealers to demonstrate that increased competition in the government securities markets is desirable.

In this connection, the interdealer brokers themselves have acknowledged the limitations of a primary dealer restriction by permitting aspiring primary dealers access without the same assurance of active FRBNY monitoring. This practice raises concerns about the long-term soundness of continued reliance on FRBNY designation and highlights the apparently unnecessarily discriminatory effect of excluding other large, financially sound secondary dealers. 6/

While the Division, therefore, is concerned over the present operation of the interdealer brokers, it recognizes that, at present, there is no regulatory or other body in a position to monitor effectively the financial responsibility of a larger number of non-primary dealer screen participants. Moreover, we are reluctant to recommend governmental imposition of such an obligation on interdealer brokers at this time. Nevertheless, we believe that the feasibility of expanded access may increase as the government securities markets evolve.

4/ See GAO, U.S. Government Securities: Expanding Access to Interdealer Brokers' Services, Hearing Transcript ("Hearing Transcript") at 9, 129, 132-35 (testimony and written statement of Thomas F.X. Mullarkey, Lazard Freres and Company); 23, 29, 159-71 (testimony and written statement of Michael G. Stout, First Bank System Capital Markets Group).

5/ See, e.g., Fabozzi, "Bid-Ask Spreads for Over-the-Counter Stocks," 32 J. Econ. & Bus. 56 (1979); Logue, "Market-Making and the Assessment of Market Efficiency," 30 J. Fin. 115 (1975); and Stoll, "The Supply of Dealer Services in Securities Markets," 33 J. Fin. 1133 (1978).

6/ The Division understands that at least some nonprimary dealers may be better capitalized than some primary dealers.

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limit that information to completed sales. The reasons articulated for disclosing last sale information only, were possible proprietary problems that would restrict the availability of bid and ask information and a perception that an element of confusion would be injected if quotations were revealed.

Of the five remaining firms that argued against releasing any information from interdealer screens to market participants that do not have trading access, each took the position that there is no need to increase access as comparable information is presently available from the retail broker screens as well as from other sources. Again, it was suggested that last sale and quote information from interdealer broker screens would serve to confuse market participants. Specifically, it was argued that market participants would be unable to interpret the significance of wholesale market characteristics. In this regard, it should be noted that even among those firms that would prefer to see no additional information access there is agreement that the market information is itself valuable.

This general view that more market information provides for more informed investor decisionmaking is consistent with the Commission's experience regarding stock trading. For example, timely and accurate trade and quote information long has been a distinguishing characteristic of the market for exchange-traded stocks. Indeed, based on this history the Congress concluded, in connection with directing the Commission to facilitate the development of a national market system ("NMS"), that:

In the securities markets, as in most other active markets, it is critical for those who trade to have access to accurate, up-to-the-second information as to the prices at which transactions in particular securities are taking place (i.e., last sale reports) and the prices at which other traders have expressed their willingness to buy or sell (i.e., quotations). 8/

Accordingly, in the Securities Acts Amendments of 1975 ("1975 Amendments") the Congress specifically found that "[i]t is in the public interest and appropriate for the

8/ Senate Comm. on Banking, Housing & Urb. Affs., Report to Accompany S. 249: Securities Acts Amendments of 1975, S. Rep. No. 94-75, 94th Cong., 1st Sess. 9, reprinted in [1975] U.S. Code Cong & Ad. News 179, 187.

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expand without regulatory intervention; and (3) in the event regulation is needed, the degree of such regulation would be less than that for trading access because there are fewer risk factors associated with expanded information access than there are with expanded trading access.

The Division agrees with the GAO's conclusion that information access, in the form of transaction and quotation reports, should be made available to those participants willing to pay for such information. There was a virtual consensus among market participants commenting that additional information access, in the form of last sale information as well as bid and ask quotations, to interdealer brokers' screens would provide added value to the government securities market.

Unlike the issue of expanded trading access, where commentators argue that there is a clear need to adequately control certain risks associated with expanding access, the commentators seemed to agree that wider dissemination of information would not impose any additional risks on the system.

See comment 1.

Of the 23 respondents who commented on the issue of what, if any, additional information should be disseminated through the system, 18 were in favor of some form of additional information access. Of that number, 12 firms, including primary dealers, non-primary dealers, non-dealer investors and exchanges, recommended that all information currently available on the screens be made available to those willing to pay for the information. George Kegler, testifying for A. Webster Dougherty & Co., Inc., typified the sentiment in favor of information access when he stated: "In summary, greater information access hurts no one. To the contrary, it would serve best the vast majority of market participants i.e., investors." ^{7/}

Firms and organizations in favor of releasing all information argued that available information sources such as Quotron and Telerate do not always provide the best available price; that investors would be better able to verify objectively price or volume information and would thereby be better protected if additional information access were provided; and that such information would improve market efficiency.

Six respondents, made up of interdealer brokers and primary dealers, while in favor of increased dissemination of more information for those willing to pay for it, would prefer to

^{7/} Hearing Transcript, *supra* note 4, at 27-28.

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Since 1981, when OTC last sale reporting was first introduced, it has become an accepted element of the OTC stock market. In particular, institutional participation in the market has increased as institutional money managers have developed greater confidence in the pricing efficiency of the market as a result of increased information availability. ^{12/} Thus, despite initial resistance, professional market participants, as well as OTC investors, today believe that enhanced availability of trade and quote information for OTC stocks has increased the pricing efficiency of the OTC stock market and encouraged greater investor interest. ^{13/}

The market for corporate debt securities, however, has developed differently from the market for equity securities. In the debt market there is no dissemination of trade or quote information. This lack of information dissemination exists in part, because of the different structure and degree of liquidity of the debt market. Debt markets are primarily dealer markets; equity markets function with both brokers and dealers. Debt markets often are relatively illiquid. Access to trade and quote information in an illiquid market may not be as useful as it is in an active, liquid market and may impose greater risks on dealers in those securities.

The government securities market, in contrast to the corporate debt market, is an extremely liquid and active market. It is properly characterized as the most liquid securities market in the world, and as such, access to trade and quote information is vital to market participants. Participants with access to information have first-hand knowledge of the "market;" those without such access must rely on second- or

^{12/} See, e.g., Howe, "A Minor Market Becomes Major," Philadelphia Inquirer, Oct. 22, 1983; "Boomtime for America's Stockmarket of the Future," Nat'l Times, July 1, 1983; "Shifts in Investment Strategy," Fin. Times, Dec. 9, 1985, at 12.

^{13/} Indeed, the NASD, with the active support of the National Security Traders Association, petitioned the Commission to substantially expand the number of securities for which transaction information would be publicly disseminated. Letter from S. William Broka, Secretary, NASD, to George Fitzsimmons, Secretary, SEC, dated February 10, 1984. Subsequently, the Commission amended its NMS securities rule to provide for such expansion. Securities Exchange Act Release No. 21583 (December 18, 1984), 50 FR 730.

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protection of investors and the maintenance of fair and orderly markets to assure . . . the availability to brokers, dealers and investors of information with respect to quotations for and transactions in securities." 9/

In view of these Congressional findings, the Commission has worked with the securities markets to develop more efficient mechanisms for ensuring the widespread availability of trade and quote information. For example, originally stock information only was available from individual stock markets. There was no consolidated system for reporting all trades and quotes from all exchanges trading a stock. The Commission, working with the industry, built on existing reporting systems to encourage the development of consolidated transaction and quotation reporting systems to ensure that trades and quotes from any exchange market trading a stock were readily available to brokers, dealers and investors. Accordingly, today trades and quotes in any exchange-traded security, wherever they occur in the United States, are available on a real-time basis.

A similar experience occurred in the development of trade and quote reporting for over-the-counter ("OTC") stocks. Initially, the private sector developed the NASDAQ system to provide for more timely quote information regarding OTC securities. 10/ Such real-time quote information helped to increase visibility of the OTC market and enhance investor confidence in the integrity of the OTC market. Nevertheless, concerned over the differences between exchange and OTC competitive dealer markets, the OTC market participants initially were reluctant to develop real-time transaction reporting for that market. The Commission, therefore, had to take the lead in requiring the introduction of real-time last sale reporting, on a limited basis, for OTC stocks. 11/ While the Commission set the objective -- real-time last sale reporting -- it looked to the industry to develop the procedures for achieving that objective.

9/ Section 11A(a)(1)(C)(iii) of the Securities Exchange Act of 1934 ("Act").

10/ But cf., SEC, Report of the Special Study of the Securities Markets, 88th Cong., 1st Sess., H. Doc. No. 95, 658-59 (1963) (recommending the development of automated quote information to overcome the market's "inertia or resistance").

11/ See Securities Exchange Act Release No. 17549 (Feb. 17, 1981), 46 FR 13992.

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interdealer brokers or primary dealers to make trade and quote information available to their trading competitors and customers.

Second, some brokers, while not opposed to expanding access to information, raised the issue of the potential proprietary nature of the trade and quote information. The Commission has no opinion on the validity of this legal argument, but believes it may present another obstacle in the path of voluntary dissemination of trade and quote information.

Consequently, while access to trade and quote information is accepted by the majority of market participants, as well as the GAO and the Commission, as a positive development, these two factors seem to mitigate against excessive reliance on voluntary action by interdealer brokers and primary dealers to achieve this result. Therefore, we favor a recommendation from the GAO that Congress set a date certain within which information access will be granted to anyone willing to pay for the information. If no action is taken by that date, Congress should consider, in light of any outcome of the Justice Department's current investigation, designating an appropriate regulatory agency to act by rule to ensure this result in a timely manner.

The Division appreciates the opportunity to comment on this report and commends the GAO on its thorough and useful analysis. If you have any questions or comments, please call me at 272-3000 or Brandon Becker, Associate Director, at 272-2866.

Very truly yours,

Richard G. Ketchum / *RB*

Richard G. Ketchum
Director

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The following is GAO's comment on the Securities and Exchange Commission letter dated May 22, 1987.

GAO Comment

1. After SEC's review, we reevaluated the GSBA response and concluded that it reflected a composite viewpoint of its members rather than an association viewpoint. Therefore, the current total is 22 respondents. We also verified responses that were somewhat ambiguous in their viewpoint. This caused a recategorization of PSA and a nonprimary dealer. The new totals now appear in appendix III, table III.2, page 85.

Glossary

Agent	A firm that executes orders for or otherwise acts on behalf of another (the principal) and is subject to its control and authority. The agent may receive a fee or commission.
Ask	The price which a person is willing to accept for a security at a given time. Sometimes, this price is referred to as the offer.
Arbitrage	A situation in which a trader buys one security and sells a similar security with the expectation that the spread in yields between the two instruments will narrow or widen to the trader's profit.
Basis Point	A unit of measure for interest rate or yield movements equal to 1/100 of 1 percent.
Bid	The price which a person is willing to pay for a security at a given time.
Blind Trading	Trading conducted where the identities of the parties are not revealed.
Broker	Any person or firm engaged in the business of buying or selling securities on behalf of others.
Dealer	Any person or firm engaged in the business of buying or selling securities on its own behalf.
Futures	Contracts for future delivery of a commodity or a security.
Government-Sponsored Enterprises (GSEs)	<p>GSEs are financial intermediaries whose purpose is to direct funds to particular sectors of the economy. Their goals are accomplished by issuing their own securities, encouraging a secondary market that increases the liquidity of direct lenders in housing and education, and by direct lending in agriculture. They include</p> <ul style="list-style-type: none">• Federal Home Loan Banks;

Glossary

- Federal Home Loan Mortgage Corporation;
- Federal National Mortgage Association;
- Student Loan Marketing Association;
- Farm Credit System, composed of Banks for Cooperatives, Federal Intermediate Credit Banks, and Federal Land Banks and organizations.

Interdealer Broker A broker which arranges trades only among primary and some aspiring primary dealers.

Marketmaker A dealer that quotes bid and offered prices at which it stands ready to buy and sell.

Mortgage-Backed Securities Bond-type investment securities representing an interest in a pool of mortgages or trust deeds. Income from the underlying mortgages is used to make investor payments.

Options A contract sold for a price that gives the holder either the right to buy from or to sell to the writer of the option contract a specified amount of securities at a specified price over a specified period of time.

Options on Futures The right to buy or sell futures contracts at a given price for a set period of time.

Over-The-Counter The method of trading where securities are not bought and sold on a recognized securities exchange.

Principal One who acts as a dealer, buying and selling for its own account.

Repurchase Agreement An agreement that is comprised of two distinguishable acts but is part of a single transaction. Securities, most often U.S. government and/or federal agency securities, are sold by the first party with a simultaneous agreement that it will repurchase the same or substituted securities on a certain day; for a certain price, plus interest; or its equivalent at a specified rate.

Glossary

Retail Brokers	Brokers which arrange trades among all types of market participants that meet the brokers' credit criteria.
Secondary Market	The market in which previously issued securities are traded.
Spread	The size or amount of the price difference between the bid and the offer of a reported quotation.
Treasury Bills	Short-term U.S. Treasury securities issued in minimum denominations of \$10,000 and usually having original maturities of 3, 6, or 12 months. Investors purchase bills at prices lower than the face value of the bills; the return to the investors is the difference between the price paid for the bills and the amount received when the bills are sold or when they mature.
Treasury Bonds	Long-term U.S. Treasury securities usually having initial maturities of more than 10 years and issued in denominations of \$1,000 or more, depending on the specific issue. Bonds pay interest semiannually, with principal payable at maturity.
Treasury Notes	Intermediate-term coupon-bearing U.S. Treasury securities having initial maturities from 1 to 10 years and issued in denominations of \$1,000 or more, depending on the maturity of the issue. Notes pay interest semiannually, and the principal is payable at maturity.
When-Issued Securities	Security issues traded between the announcement that the issues will be sold and the issuance (settlement) date after the sale. The when-issued period can be anywhere from a few days to several weeks.
Zero Coupon Securities	Securities derived by "stripping" the interest coupons from a bond and making a separate security out of each one of them. The payment of face value of the bond at maturity is also sold as a separate security.

Related GAO Products

Discussion Paper

U.S. Congress, House Committee on Banking, Finance, and Urban Affairs, Subcommittee on Domestic Monetary Policy. Survey of the Federal Reserve's Supervision of the Treasury Securities Market. 99th Cong., 1st sess., 1985. Prepared by the General Accounting Office.

Reports

U.S. General Accounting Office:

U.S. Treasury Securities: The Market's Structure, Risks, and Regulation (GAO/GGD-86-80BR, Aug. 20, 1986).

U.S. General Accounting Office:

U.S. Government Securities: Dealers' Views on Market Operations and Federal Reserve Oversight (GAO/GGD-86-147FS, Sept. 29, 1986).

U.S. General Accounting Office:

U.S. Government Securities: Questions About the Federal Reserve's Securities Transfer System (GAO/GGD-87-15BR, Oct. 20, 1986).

U.S. General Accounting Office:

U.S. Government Securities: The Federal Reserve Response Regarding Its Market-making Standard (GAO/GGD-87-55FS, Apr. 21, 1987).

Testimony

U.S. Congress, House, Committee on Banking, Finance, and Urban Affairs, Subcommittee on Domestic Monetary Policy. Hearing on Regulation and Supervision of the Government Securities Market. 99th Cong., 1st sess., July 9, 1985. U.S. Congress, House, Committee on Banking, Finance, and Urban Affairs, Subcommittee on Domestic Monetary Policy. Hearing on Status of the General Accounting Office's Work Concerning the Government Securities Market. 99th Cong., 2nd sess., Sept. 29, 1986.¹

Hearing Transcript

U.S. General Accounting Office. U.S. Government Securities: Expanding Access to Interdealer Broker's Services (GAO/GGD-87-42). Transcript of a hearing held jointly by GAO, the Department of the Treasury, the Federal Reserve System, and the Securities and Exchange Commission on February 4, 1987, Washington, D.C.

¹The hearing record contains a GAO analysis of bidding at selected U.S. Treasury auctions, a GAO discussion of the standard regarding primary dealer participation at U.S. Treasury auctions used by the Federal Reserve in naming U.S. government securities dealers to its published list of daily reporting primary dealers, and FRBNY's response to GAO questions about the standard.



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