

FEDERAL RESERVE SYSTEM

[Docket No. R-1122]

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34-45879; File No. S7-15-02]

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Interagency White Paper on Structural Change in the Settlement of Government Securities: Issues and Options

AGENCIES: Board of Governors of the Federal Reserve System and Securities and Exchange Commission

ACTION: Concept release; request for comment

SUMMARY: The Board of Governors of the Federal Reserve System (“Board”) and the Securities and Exchange Commission (“Commission”) (collectively, the “agencies”) are publishing for comment an interagency White Paper titled: Structural Change in the Settlement of Government Securities: Issues and Options (“White Paper”). The White Paper is designed to facilitate the discussion of possible structural changes in the settlement of government securities transactions. The White Paper is not intended to suggest that any of the approaches represent an improvement over current arrangements or that structural change is necessary. The goal of the White Paper is to provide a framework for discussion by identifying issues and questions that need to be further explored.

DATES: Comments should be received on or before August 12, 2002.

ADDRESSES: Comments should be sent to both agencies at the addresses listed below.

BOARD: Comments should refer to Docket No. R-1122 and should be submitted in triplicate to Ms. Jennifer J. Johnson, Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, N.W., Washington, D.C. 20551, or mailed electronically to regs.comments@federalreserve.gov. Comments addressed to Ms. Johnson may also be delivered to the Board's mail facility in the West Courtyard between 8:45 a.m. and 5:15 p.m., located on 21st Street between Constitution Avenue and C Street, N.W. Members of the public may inspect comments in Room MP-500 of the Martin Building between 9:00 a.m. and 5:00 p.m. on weekdays pursuant to §261.12, except as provided in §261.14, of the Board's Rules Regarding Availability of Information, 12 CFR 261.12 and 261.14.

SEC: All comments concerning the White Paper should be submitted in triplicate to Jonathan G. Katz, Secretary, Securities and Exchange Commission, 450 5th Street, NW, Washington, DC 20549-0609. Comments can be submitted electronically at the following E-mail address: rule-comments@sec.gov. All comment letters should refer to

File No. S7-15-02; this file number should be included on the subject line if E-mail is used. All comments received will be available for public inspection and copying in the Commission's Public Reference Room, 450 5th Street, NW, Washington, DC 20549. Electronically submitted comment letters will be posted on the Commission's Internet Web site (<http://www.sec.gov>).¹

FOR FURTHER INFORMATION CONTACT:

BOARD: Patrick Parkinson, Associate Director, (202) 452-3526, and Patricia White, Assistant Director, (202) 452-3620, Division of Research and Statistics; and Jeff Stehm, Assistant Director, (202) 452-2217, Division of Reserve Bank Operations and Payment Systems, Board of Governors of the Federal Reserve System, 20th and C Streets, N.W., Washington, D.C. 20551. Telecommunications Device for the Deaf (TDD) users may contact (202) 263-4869.

SEC: Robert L.D. Colby, Deputy Director, at (202) 942-0094; Larry Bergmann, Senior Associate Director, at (202) 942-0770; Jerry Carpenter, Assistant Director, at (202) 942-4187; Jeffrey Mooney, Senior Special Counsel, at (202) 942-4174, and Jennifer Lucier, Attorney, at (202) 942-0173, Division of Market Regulation, Securities and Exchange Commission, 450 Fifth Street, NW, Washington, DC 20549-1001.

SUPPLEMENTARY INFORMATION:

After the September 11, 2001, terrorist attacks, discussions were held with market participants to learn their perspectives on vulnerabilities in settlements of government securities. Three options for addressing vulnerabilities were explored: (1) the clearing banks and key market participants implementing more robust contingency arrangements; (2) each primary dealer establishing a backup clearing arrangement at a bank other than its existing clearing bank; and (3) implementing structural change such as by establishing a utility to conduct settlement. The discussions revealed consensus on two points -- contingency planning should be enhanced but market participants felt that a backup clearing account would be of little value. Market participants were interested in exploring structural changes in the provision of settlement services for government securities, including the concept of creating a utility, but the discussion was unfocused because of the absence of specific proposals.

The purpose of this White Paper is to facilitate discussion of issues relating to the settlement of government securities transactions by describing more concretely ways in which a utility might be organized. The staffs of the agencies believe that further discussion of a utility is warranted because enhanced contingency planning alone does not eliminate the vulnerabilities that have been identified in the settlement process for the government securities market. The White Paper identifies possible structural approaches for a utility and possible evaluation criteria for assessing the approaches. The White Paper also offers a preliminary assessment of the various approaches. The agencies

¹ The Commission does not edit personal, identifying information, such as names or electronic mail addresses, from electronic submissions. Submit only information you wish to make publicly available.

request the views of market participants on the analysis in the White Paper and the next steps to be taken in evaluating structural change further.

The White Paper in its entirety is set forth below.

Interagency White Paper²
Structural Change in the Settlement of Government Securities:
Issues and Options

Introduction

Payment and securities settlement systems have been marked by increasing consolidation of the institutions providing those services. During the 1980s and early 1990s, for example, mergers and exits reduced the number of banks providing settlement services for government securities trades, and today only two banks--JPMorgan Chase (Chase) and The Bank of New York (BONY)--provide the full range of services required by major market participants. Though these changes in the settlement of government securities are only one aspect of broader developments in financial markets, they are of particular interest to makers of public policy because of the key role that government securities play in the monetary policy process and as collateral in a wide array of financial market transactions.³

The business of settling trades in government securities involves the provision of a range of services: the transfer of government securities against funds (settlement), the provision of intraday credit to facilitate these settlements, position management services for primary dealers (including the matching of settlement instructions with incoming securities, automated options for handling mismatches, and the real-time reporting of transactions), and overnight and term financing through triparty repurchase agreements (repos). Settling trades, providing intraday credit, and providing tools (software) for position management are sometimes referred to as "core clearing."⁴ The financing provided through triparty repos also is critical to the functioning of the government securities market. Triparty services for government securities currently are provided by the same banks that provide core clearing, but different entities may be able to offer the two types of services, as is the case for other types of securities.⁵

² Prepared by staff of the Federal Reserve Board, the Federal Reserve Bank of New York, and the Securities and Exchange Commission. Staff at the U.S. Treasury Department were consulted and provided comments.

The agencies whose staff contributed to the drafting of this paper have not concluded that structural change is necessary.

³ The Group of Ten, "Report on Consolidation in the Financial Sector," January 2001, provides a detailed look at the ongoing consolidation of financial institutions and the potential effects on the contours of the financial system.

⁴ Some view the use of the term "clearing" for these activities as a misnomer. The Government Securities Clearing Corporation (GSCC) serves as the clearing utility and central counterparty for trade comparison and netting in the U.S. government securities market. Trade comparison and trade netting services are also traditionally referred to as "clearing." Because of the prevalence of the use of the term "clearing" for settling trades in government securities, however, its use is continued here.

⁵ Triparty programs cover various securities for which core clearing is provided by the Depository Trust Company (DTC) or Euroclear Bank.

All the primary dealers depend critically on either Chase or BONY for core clearing services and triparty repo arrangements, which are integral to the dealers' financing, and institutional investors rely on these clearing banks to place large volumes of funds in the highly secure and liquid triparty repos. The Federal Reserve also is dependent upon the clearing banks' records for open market transactions conducted through triparty arrangements, and the U.S. Treasury relies on the clearing banks for the settlement of a major portion of its securities at issuance.

This concentration in the provision of clearing services gives rise to operational, financial, and structural vulnerabilities.

(1) Operational problems at either of the two clearing banks can significantly impede the settlement of dealers' trades and the reconciliation of their positions. Market participants settling through a clearing bank with operational problems could not easily move to another service provider because of differences in the technology used by the clearing banks. Even if a switch in banks were technologically feasible, firms would be hampered because they would not know their securities and funds positions or have access to them at the clearing bank with operational problems.

(2) Financial vulnerabilities arise from the potential for a clearing bank's financial condition to become impaired, perhaps because of losses from activities unrelated to the clearing business. Involuntary exit because of financial problems could force regulators to transfer the clearing operations to a bridge bank.⁶ Moreover, market participants might be uncomfortable with the uncertainty associated with a bridge bank, particularly because the ability to fashion a permanent solution (through, for example, the sale of the business) may be limited.

(3) The current concentration in clearing has resulted in part from voluntary decisions by banks to exit the clearing business. A business decision to exit by either clearing bank would concentrate risk and market power in a single, full-purpose, commercial bank. This concentration of risk would likely be unacceptable to market participants and public policy makers and might be unacceptable to the remaining clearing bank.

As part of the stocktaking after September 11, staff from the Federal Reserve, the Commission, and the Treasury held discussions with market participants to learn their perspective on the vulnerabilities of the government securities market. The discussants explored three options for addressing vulnerabilities: improving the operational resiliency of clearing banks, establishing backup securities accounts with the second

⁶ The use of a bridge bank might be consistent with a least-cost resolution; but if it were not, authorities would need to consider a systemic-risk exception to least-cost resolution, with the attendant increased costs in terms of moral hazard and diminished market discipline on large complex banks. The Federal Deposit Insurance Corporation generally must resolve failed institutions using the least costly method that meets its obligations to insured depositors. It can employ a method that is not least cost only if the Federal Reserve Board and the board of the FDIC recommend that step and if the Secretary of the Treasury (in consultation with the President) makes an explicit determination that a least-cost resolution would have adverse effects on economic conditions or financial stability and that the more costly method for resolution would avoid or mitigate those adverse effects. This is known as the "systemic-risk exception."

clearing bank, and instituting structural change, for example, by creating an industry utility to conduct settlement.

These discussions indicated consensus on two points. First, clearing banks as well as other market participants needed to improve their contingency backup arrangements.⁷ Second, backup securities accounts would be difficult to arrange and likely would be of little value. The technology used by the two clearing banks is sufficiently different to make it difficult and costly to establish and maintain such accounts. More important, quickly moving activity to another account would likely be difficult because of the need to determine positions at the bank with problems, transfer these positions to the backup account, and alter standing settlement instructions with counterparties to direct new transactions to the backup account.

Market participants were interested in exploring structural change, including the concept of an industry utility. Discussions of such a utility were hampered, however, by different conceptions of how it might be organized and lack of systematic consideration of the concept on the part of most market participants.

This paper facilitates exploration of structural change in settlements of government securities by describing more concretely some approaches to organizing an industry utility. The agencies believe further discussion of structural change is warranted because enhanced contingency backup arrangements alone do not eliminate the financial and structural vulnerabilities that the market faces. Indeed, the cost of improved contingency arrangements could exacerbate structural vulnerability by reducing the profitability of core clearing. This paper also identifies possible criteria for assessing the approaches and, to encourage further discussion, offers a preliminary evaluation of the various approaches using the assessment criteria.

The agencies whose staff have contributed to the drafting of this paper have not concluded that any of the approaches described below represents an improvement over current arrangements. Nor is this paper intended to resolve that issue. Rather, the agencies believe that a broad industry discussion of these issues is timely and that such a discussion would benefit from a document that furnishes it with a framework. This paper, therefore, provides that framework and identifies issues and questions that need to be explored further.

Approaches

One of the difficulties in discussing the establishment of a utility is the wide variety of forms that such an entity could take. The structure of the utility determines how risks will be shared and costs will be borne. An important dimension along which utilities often differ is their ownership and governance. A utility can be organized as a private-sector entity, perhaps owned and governed by market participants but subject to oversight

⁷ A complementary interagency group is working with private-sector firms and utilities to improve the resiliency of financial market participants' backup arrangements. Goals of the group include developing guidance on business continuity issues, organizing industry testing, and addressing telecommunications issues, particularly switching and routing diversity.

by a public-sector body. Alternatively, clearing and settlement functions might be performed by a governmental entity. Other important characteristics of a utility include how credit is supplied in the clearing process (by individual banks, by the utility itself, by the central bank) and how the operational infrastructure is supplied (by competing service providers, by a single private utility, by the central bank). To focus discussion on the specific characteristics that meet market needs and address market vulnerabilities, this analysis is limited to only three of the many ways in which a utility might be structured.

Old Euroclear model

A utility can be structured as an industry-owned depository and settlement entity that contracts with a commercial bank for the provision of most services.⁸ This model for a utility is similar to the original Euroclear model in which, until 2001, an industry-owned company contracted with Morgan Guaranty Trust Company for operational and credit services. Shareholders of a utility organized along these lines would largely be securities and banking industry participants. The governing body typically would be elected by shareholders, and it would establish membership criteria, prices, operating budgets, and investment priorities. The utility would contract with a bank (or banks or other service providers) for the operation of the settlement and depository services. Settlements would take place on the books of this bank, which would furnish securities and cash accounts to dealers. It would also furnish intraday financing, subject to risk controls it would establish. Overnight financing, including triparty repo services, would be provided either by the bank supplying the operational support or perhaps by other banks.

A private limited-purpose bank

A private limited-purpose bank (like the Depository Trust Company [DTC] or the new Euroclear Bank) is an alternative type of industry-owned depository and settlement mechanism.⁹ Key features distinguishing this model from the old Euroclear model are the means of providing depository and settlement services and the sources of liquidity support. Rather than contracting with a commercial bank, the utility itself would furnish the operational support. Settlements of government securities currently require aggregate extensions of hundreds of billions of dollars of intraday credit to dealers, and a private limited-purpose bank would need to arrange a backup liquidity facility to ensure final settlement in the event one of its participants failed to cover an overdraft. Based on the experience of other utilities in arranging facilities a fraction of that size, a private limited-purpose bank might find arranging sufficient backup liquidity support difficult, other than possibly from the Federal Reserve. Overnight funding, including triparty repo services, could be provided by the limited-purpose bank or perhaps by other commercial banks.

Enhancement of Federal Reserve services

A third alternative is a public utility in which the Federal Reserve provides depository and settlement services. The Federal Reserve and the Commission generally

⁸ Contracting with multiple banks for these services may be possible.

⁹ This option could be implemented by expanding an existing depository such as DTC or by creating an organization de novo.

prefer private-sector solutions to policy problems unless a market failure suggests a clear need for government intervention. In evaluating potential structural changes, however, it is important to discuss the widest possible set of ways to address the vulnerabilities for the government securities market, which includes enhancing Federal Reserve services.

In a simple version of this model, the Federal Reserve would need to provide nonbank securities dealers, as well as the GSCC (and possibly interdealer brokers), direct access to securities accounts, funds accounts, and secured credit. As noted earlier, dealers routinely use substantial intraday credit, which would need to be supplied by the Federal Reserve. A dealer also might find itself unable to fund its holdings of government securities in a financial crisis, and in that event, the Federal Reserve would need to provide liquidity support in the form of overnight credit. For this model to be effective, the Federal Reserve would have to furnish operational support by developing products that replicate at least some of the position management and information services currently provided to the dealers by the clearing banks. Dealers would continue to need the overnight funding supplied by triparty repo services. These services might be provided by commercial banks. Alternatively, the Federal Reserve could develop the product. In this case, the Federal Reserve would need to consider how triparty services might be offered without also extending accounts to nonbank institutional investors, perhaps by using these investors' accounts at their custodian banks.

Variants on this simple model of enhanced Federal Reserve services also might be explored. For example, the Federal Reserve could provide direct operational interfaces with the dealers, but the dealers' transactions could settle through accounts held at depository institutions. In this way, depository institutions would intermediate the intraday credit used in the settlement process.

Evaluation Criteria

Operational, financial, and structural vulnerabilities

Any proposal to restructure government securities settlements must address the operational, financial, and structural vulnerabilities that are inherent in the current arrangements. Arguably, no utility could be designed to eliminate all these vulnerabilities. Rather, the relevant criteria for evaluating options are the extent to which the utility can reduce existing vulnerabilities. Proposals thus should be evaluated on their ability to improve the operational resiliency of government securities clearing, to better insulate the clearing process from the risks of financial problems at a key service provider, and to reduce the vulnerability of the clearing process to voluntary exit by firms that provide critical services. In the addressing of these vulnerabilities, however, it is equally important that new ones not be introduced, and evaluations of structural change should take this concern into account.

Efficiency and innovation

Other criteria that are critical for evaluating any restructuring proposal are the proposal's implications for the efficiency and innovativeness of the settlement process and related financing transactions. Existing arrangements in which the clearing banks compete in the provision of services to dealers create a mechanism both for holding down

costs and for fostering innovation. The development of triparty repo services illustrates how clearing banks, in responding innovatively to market demands, have reduced dealers' financing costs and benefited investors. Proposals for structural change, therefore, should be evaluated on their ability to replicate the strengths of the existing system, encourage ongoing innovation, and deliver services in a cost-effective manner.

Fully evaluating proposals may be difficult because the evaluations will depend on the governance structures adopted, which will determine pricing and investment decisions. In general, various proposals' governance structures (and the transparency of those structures) will have implications for a range of important issues, from the robustness of the risk-management system to the fairness (particularly with respect to access) of the system. Furthermore, assumptions about the initial investment required and the potential for savings on operating costs over time are necessary for making judgments about the efficiency of proposals.

Implications for Federal Reserve policies

Proposals to restructure the settlement process will have implications for Federal Reserve services and policies. The implementation of some proposals would require the Federal Reserve to broaden dramatically the scope of services that it provides market participants and, most important, change policies with respect to the types of firms that are granted access to accounts and to credit. Consideration of these proposals should entail an assessment of the Federal Reserve's legal and operational ability to deliver the required services. Proposals also should be evaluated to determine whether broader access and the provision of credit to nondepositories poses significant risk to the Federal Reserve or entails significant moral hazard. Other proposals raise the possibility that the Federal Reserve would greatly reduce its role in settling secondary market transactions for government securities, and the implications of that possible outcome also should be assessed.

Evaluations of approaches

Old Euroclear model

This model's ability to address the vulnerabilities in the current system is mixed; though operational vulnerabilities could be addressed, financial vulnerabilities would not, and the effects on structural vulnerabilities would be unclear. Operationally, the utility would contract with one or more entities to provide support for depository and settlement activities, and its resiliency would depend upon the standards it set for firms providing the services. There is no reason to believe that the operational resiliency of this model would not be on par with that of the current system, and it might be possible to hold the banks providing services to higher standards because the costs would be more transparent and, therefore, dealers might be more willing to bear them.

The ability of this model to address financial and structural vulnerabilities is much more limited, however. The utility would be exposed to the risk that a bank providing operational and credit services could involuntarily exit the business because of financial difficulties unrelated to clearing activities. This risk would be diversified if more than one firm provided these services. However, given the economies of scale and

scope in clearing, the willingness of multiple banks to provide the critical services and, therefore, the potential for diversifying the risks may be limited. The extent to which the structural vulnerabilities are addressed depends on the ability of the utility to negotiate long-term contracts with suppliers of critical services at terms that the supplier will find sufficiently attractive to remain in the business.

Because of the critical role of triparty activity in the financing of dealers, the market would be vulnerable to operational, financial, or structural problems if triparty services continued to be concentrated among only a few providers. Dealers might be able to manage these risks by requiring standardization of software that would enable them to move their accounts more easily in the event of operational problems or exit, but the challenges of reconciling positions in such events would remain.

The ability of this model to deliver innovative services cost effectively will depend critically on the governance structure of the utility and the standards it sets for banks supplying services. The utility may be able to foster competition similar to that of the current system by contracting with multiple banks for services. Product innovation would be dependent upon the utility's policies as well. The management and board of the utility clearly would have to be mindful of these issues if this model of utility were to retain these features of the current system.

This model would not require any changes in Federal Reserve policies. The model continues to rely on private banks to provide operational and credit support for settlements; the utility itself would be a vehicle for administration and governance rather than a provider of services.

A private limited-purpose bank

The creation of a limited-purpose bank to function as the utility would concentrate depository and settlement activity within one entity, thereby concentrating operational risk. The ability of this model of utility to improve the operational resiliency of government securities settlements thus will depend upon the resources it devotes to backup facilities. The current system requires each clearing bank to incur these costs; so conceivably, a limited-purpose bank could devote more resources to backup facilities than an individual clearing bank but would still offer a cost savings. A limited-purpose bank is, by construction, less exposed to financial problems from unrelated activities than a full-service bank because of limits on the scope of its activities. Similarly, it is unlikely to voluntarily exit the business of clearing, having been created solely for that purpose.

The assessment of the ability of a limited-purpose bank to address financial and structural vulnerabilities in the government securities market is less sanguine if the utility does not provide triparty services and these services remain concentrated among a few banks. Triparty services are so integral to the financing of dealers in government securities markets that these markets will be operationally, financially, and structurally vulnerable to the banks that provide such services. These banks, which have broader business lines than a limited-purpose bank, will be vulnerable to losses in activities unrelated to clearing and triparty services. They are also free to make the business

decision to voluntarily exit the triparty business. If the separation of core clearing from triparty services lowers the barriers to entry and attracts entrants to the triparty business, however, structural vulnerabilities would be ameliorated with a reduction in concentration.

The ability of this model to deliver services efficiently and innovatively will depend upon the governance structure of the limited-purpose bank. Assuming that users own the bank and control the governance structure, these users will have incentives to monitor costs and to create mechanisms for developing new products. In recent years, triparty repo services have been the area of most innovation in the clearing of government securities. Undoubtedly, the competition between the clearing banks has spurred the innovation. Some of this pressure to innovate thus might be lost if triparty services were provided exclusively by the utility. Over time, a failure to innovate in the triparty area could have adverse implications for dealer financing.

This model has several important implications for Federal Reserve policy. As was noted in the description of the limited-purpose bank, the Federal Reserve may be the only feasible entity to provide a backup liquidity facility of large enough size. Providing this facility to a limited-purpose bank would entail a change in policy with respect to discount window access for limited-purpose banks or trust companies. But it is not clear whether risk to the Federal Reserve or moral hazard would increase. With the current arrangements, the Federal Reserve effectively provides back-stop liquidity to the clearing banks. Providing the same liquidity to a utility might, in fact, entail less risk and moral hazard because of the restrictions on the utility's activities, more intense supervision of the utility, and greater transparency. The creation of this type of utility would also reduce (and might eliminate) the Federal Reserve's role in settling secondary market transactions for government securities. The vast majority of transactions would be settled on the books of the limited-purpose bank, particularly if it were providing triparty repo services as well as core clearing.

Enhancement of Federal Reserve services

If the Federal Reserve provides accounts, credit, and services directly to dealers, the existing vulnerabilities in the government securities market would be reduced. Under this model, the Federal Reserve would be providing the operational support for the settlement process, and these enhanced products would be integrated into the existing backup contingency arrangements for the Fedwire system. The Federal Reserve's arrangements have been more robust than those of private-sector firms and other market utilities, and the Federal Reserve has spent appropriate amounts to meet contingency requirements. Federal Reserve services are not vulnerable to disruption because of financial difficulties.

To address vulnerabilities fully, the Federal Reserve may need to develop triparty repo as well as core clearing services. Alternatively, if the Federal Reserve limits its enhanced services to core clearing, there may be opportunities for a wider set of firms to offer triparty services, reducing structural vulnerability in the triparty market. A separation between core clearing and triparty repos, however, would require an additional

transfer of securities from the dealer to the triparty provider, as in the current process with DTC-eligible securities used for triparty repos. The number of additional transfers could be reduced through the creation of a facility to transfer securities in blocks (bulk transfers) rather than security by security.

It is not clear whether this model could deliver services as cost effectively as the current system or how product innovation would be affected. Although the Federal Reserve is required to price services to cover its costs over the long run, the benefits of competition would be lost. Perhaps more significant in the long run, innovation would no longer be spurred by competition. Because the Federal Reserve is not subject to the same profitability constraints that a private-sector business is, some industry participants may view its assumption of the role of service provider for settlement services negatively.

Providing direct access to dealers would be a marked departure from existing Federal Reserve policy. The Federal Reserve would need to provide accounts and hundreds of billions of dollars of credit to nondepository institutions routinely during the day and, in a crisis, overnight. From a risk-management perspective, however, credit extensions presumably would be collateralized with highly liquid securities, and government securities brokers and dealers would be subject to federal regulation by the Commission or the Treasury.

Direct access to dealers could be perceived as providing dealers with broad access to liquidity support from the Federal Reserve. Any adverse effects on market discipline would be mitigated by federal regulation of the dealers, collateralization of the credit extensions, fees for intraday and overnight credit, and the potential for the Federal Reserve to impose quantity constraints on the amount of intraday credit extensions. Still, expansion of access could raise concerns about moral hazard. Perception of a safety net extension might be further attenuated through some variant of this model that leaves the dealers' accounts in a depository institution. In addition, if the Federal Reserve were to provide triparty repo services, the issue of accounts for a broad set of institutional investors might arise unless market practices changed.

Questions for Further Discussion

1. Have the vulnerabilities in the government securities market been identified correctly? Are there other vulnerabilities that should be considered in evaluating the need for structural change?
2. Are there other structural approaches to a utility that should be given serious consideration besides the three basic options described in this paper? If so, what are they?
3. Are the evaluation criteria set out in this paper the relevant ones for assessing the merits of an industry utility? If not, what other criteria are relevant?
4. Can concerns about efficiency, innovation, and competition be addressed through governance? If so, how?

5. Is it feasible to separate the provision of core clearing from the provision of triparty repo services? Would the separation of core clearing from triparty repo enable other banks to compete more effectively in the provision of triparty services? Can triparty repo services be provided by a utility?
6. How much intraday credit would a utility need to provide in the settlement of government securities trades? Would a utility likely be able to arrange backup liquidity through committed lines of credit at commercial banks of the magnitude necessary to ensure timely settlement in the event a participant failed to cover an intraday credit extension?
7. What is the likely size of the initial investment to create an industry utility? What factors determine the effects of a utility on costs generally? On costs to dealers of core clearing services? On financing costs to dealers?
8. Who should own a private utility? How should its board of directors be chosen? What legal form should it take (for example, a bank, registered clearing agency, an Edge Act corporation)?
9. What should be the next steps in evaluating alternative structures? What type of decisionmaking framework should be created, and which groups should be represented in that process?

Appendix 1

Clearing and Settlement Arrangements for Government Securities

1. Within the universe of about 1,700 dealers, the trading of U.S. government securities is concentrated largely among 22 primary dealers and a handful of interdealer brokers (IDBs).
 - Interdealer brokers collect dealer quotes, post them to electronic screen services, and execute trades between dealers, thereby facilitating price discovery, liquid markets, and anonymity in the interdealer market; about one-third of dealer-to-dealer trades are executed through an IDB.
 - Among the primary dealers, most trading activity is concentrated in five to ten dealers.
 - Trading activity includes dealer financing (repo) transactions and outright purchases and sales on behalf of customers and for the dealer's own account.
2. After a trade is executed, counterparties to the trade must compare trade details and determine settlement obligations (clearance).
 - The Government Securities Clearing Corporation (GSCC) serves as the clearing utility and central counterparty for trade comparison and netting in the U.S. government securities market.
 - GSCC is registered with and supervised by the Commission.
 - Through trade comparison, netting, and central counterparty guarantees, GSCC decreases its participants' counterparty settlement risk and helps ensure orderly settlement in the marketplace.

- Each day, GSCC compares trades valued at more than \$1.3 trillion. About one-third of these trades are for outright purchases and sales, and the remaining two-thirds are repo transactions.
- GSCC has 122 direct participants -- consisting of dealers, interdealer brokers, investment managers, and banks -- one-quarter of which use trade comparison services only.
- GSCC participants also clear trades for another 468 dealers, banks, and investment managers, through correspondent relationships. Generally, these correspondent relationships are for trade comparison services only.

3. Following the clearance process, securities must be exchanged for funds (settlement) on either a gross or a net basis.

- Government securities are transferred against funds (settled) through depository institutions acting as agents for nonbank dealers. Interbank settlement occurs through the Fedwire securities transfer system.
- Settlement typically occurs one business day after the trade (T+1), either through transfers on the books of a depository institution or, if settlement must occur between two depository institutions, on the books of the Federal Reserve through the Fedwire securities transfer system. Repo transactions generally settle on a same-day (T) basis.
- More than \$800 billion in securities is transferred through the Fedwire securities transfer system each day.
- The two banks, Chase and The Bank of New York (BONY), that provide settlement services to primary dealers account for more than three-quarters of the value of Fedwire settlement activity. On a typical day, these two banks settle more than \$600 billion in government securities transactions through Fedwire. The clearing banks apparently settle another \$200 billion to \$300 billion per day internally, excluding triparty repo transactions.
- GSCC settles net obligations valued at about \$415 billion per day through its accounts at the two clearing banks.
- Chase's and BONY's client bases consist of the primary dealers, other dealers and banks, and GSCC.

4. The settlement of financing (repo) transactions occurs either through bilateral exchanges (delivery-versus-payment or DVP repos) of securities and funds between a dealer (borrower) and an investor (lender) or through the use of triparty repos on the books of the clearing banks.

- DVP repos are generally settled over Fedwire between 8:30 a.m. and 12:00 p.m., Eastern time.
- Triparty repos are settled after the close of the Fedwire securities transfer system, generally between 5:00 p.m. and 7:00 p.m., Eastern time. The two clearing banks estimate that together they settle on their books between \$600 billion and \$1 trillion in triparty repos each day.

Appendix 2 Triparty Repo

The Market

Understanding the role of the clearing banks in the clearance of U.S. government securities requires an appreciation of the triparty repo market and the critical role that such banks play in facilitating triparty repo transactions. Essentially, these transactions involve the secured financing of broker-dealer securities inventories by a large number of cash investors, with settlement occurring on the books of the clearing banks. Over the last decade, the importance of the triparty repo market grew significantly, so that now it is integral to the financing methods of all major broker-dealers and involves nearly \$1 trillion per day in transactions.

The success of the triparty repo market is due to its ability to meet the needs of both the broker-dealers who need secured financing and the cash investor community, who desire highly secure and liquid outlets for the investment of cash on a short-term basis. The cash investors in triparty repo consist of money market mutual funds and other institutional money managers such as pension funds. Both the pool of funds that such institutional investors need to invest and the size of the broker-dealer securities inventories have grown significantly in recent years, with no signs of a slowdown yet apparent. The clearing banks also benefit from providing triparty repo services as a profitable line of business and as an opportunity to cross-sell other custody and banking services to cash investors.

Settlement: The Critical Role of the Clearing Banks

In a typical triparty repo transaction, a broker-dealer contracts with a cash investor to provide a certain amount of securities in exchange for cash at the outset of the transaction, with the transaction to be unwound at the end of its term. All movements of cash and securities are to take place on the books of the broker-dealer's clearing bank. That is, both the broker-dealer and the cash investor will use cash and securities accounts at the clearing bank, and the clearing bank will play a critical role in settling the transaction. It is typical for the broker-dealer to pay for the setting up of accounts at its clearing bank on behalf of all its cash investors.

Triparty transactions are typically arranged early in the morning so that dealers can be assured of meeting their financing requirements. Importantly, however, these transactions typically do not specify the individual securities that the broker-dealer will provide as collateral. Rather the transactions are based on broad categories of collateral, such as U.S. government or agency securities. Different qualities of collateral engender different financing rates, and the triparty market has been steadily expanding beyond U.S. government securities to encompass a wide range of mortgage-backed securities, corporate bonds, and non-U.S. securities. However, U.S. government and agency securities remain the dominant form of triparty collateral, accounting for more than two-thirds of the total market.

The fact that triparty transactions do not uniquely specify individual securities is central to their appeal for the broker-dealer community. This flexibility allows the broker-dealers to trade their securities inventory during the normal business day, settling whatever transactions come due, without significant concern regarding their financing arrangements. For example, settlement of cash-market U.S. government and agency securities continues until 3:30 p.m. on a normal day, the time when the Fedwire book-entry transfer system closes. Soon after this point, the clearing banks begin to process the broker-dealer's triparty repo transactions. This processing involves comparing the generic triparty transactions that the broker-dealers have submitted with the specific securities that now reside in their accounts at the clearing bank. The clearing banks have developed routines for optimizing the allocation of specific collateral to individual triparty transactions to minimize the financing costs for the broker-dealers.

The collateral optimization and allocation routines run in the late afternoon, with settlement of the triparty transactions on the books of the clearing bank typically occurring in the early evening. The efficiency of these procedures, together with the familiarity of the broker-dealers with them, means that the need for residual financing (that is, securities to finance that cannot be financed through triparty repos) is generally only very small, on the order of 1 percent or less of their total eligible inventory.

Benefits to Investors and Dealers

Triparty arrangements between a broker-dealer and a cash investor may be either on an overnight or on a term basis. Importantly, however, even if the transactions are done on a term basis, all collateral is typically unwound on a daily basis (early in the morning). This daily unwinding has two implications. First, the cash investors get access to their funds on the books of the clearing bank on an intraday basis. Second, the broker-dealers get access to their securities inventory and thus can effectively "substitute" other collateral into the agreements as their inventory shifts over the term of the agreement.

From the cash investors' perspective, the triparty repo market provides a great deal of liquidity and safety for their cash holdings. During the day, the cash resides in deposit accounts at their clearing bank (or elsewhere if they choose to wire it back and forth, although most do not). Overnight, they are exposed to the credit risk of their broker-dealer counterparties but are protected by the presence of collateral held in their accounts at the relevant clearing bank. Moreover, the flexibility of the triparty arrangement allows them to frequently adjust the size of their cash investments as their pool of available funds fluctuates. For the broker-dealer, the triparty repo market obviously provides a highly flexible mechanism to minimize the costs of financing.

Triparty Repo an Important Source of Intraday Overdrafts

For the clearing banks, the triparty repo mechanism is an important complementary service to their core clearance activities in the underlying securities. However, a major implication of the triparty mechanism as currently designed is the presence of extremely large intraday overdrafts in the deposit accounts of the broker-

dealers at the clearing banks. That is, because all the cash is returned to the cash investors daily, the entirety of a dealer's inventory is effectively financed by the clearing bank on an intraday basis. Still, the clearing bank is secured to the extent that the broker-dealer's securities remain at the bank. These figures can approach \$100 billion for the largest individual dealers on peak days.

Board of Governors of the Federal Reserve System,
May 7, 2002.

(Signed) Jennifer J. Johnson

Jennifer J. Johnson
Secretary of the Board.

By the Securities and Exchange Commission.

(Signed) Margaret H. McFarland

Margaret H. McFarland
Deputy Secretary

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