

ABA FISC SIA

July 11, 1985

Ms. Angela Desmond
General Counsel
Municipal Securities Rulemaking Board
1150 Connecticut Avenue, NW
Washington, DC 20036

Dear Ms. Desmond:

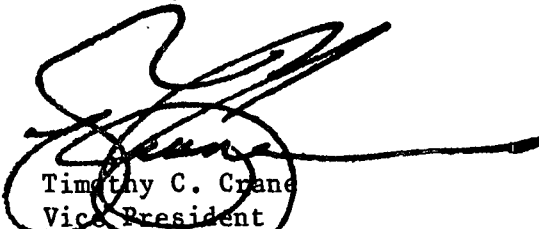
Re: **Financial Industry Securities Council
Same Day Funds Settlement Task Force
Recommendations and Report**

Attached is a copy of the initial conclusions of the above Task Force along with the report of the Task Force's consultant, Arthur Young & Company.

As indicated in the Task Force report, your comments and observations are actively solicited. The Task Force is most interested in receiving responses from all major industry groups, regulators and interested parties to determine whether implementation is desired and if so, to initiate creation of both short and long term implementation plans.

We would appreciate your written responses which should be directed to the FISC Same Day Funds Settlement Task Force, c/o Ms. Ann Siegel, Operations/Administration Group, American Bankers Association, 1120 Connecticut Avenue, NW, Washington, DC 20036 on or before October 1, 1985.

Sincerely,



Timothy C. Crane
Vice President
Manufacturers Hanover
Trust Company
Co-Chairman



Bruce Geismar
Managing Director
Bear Stearns & Company
Co-Chairman

Enclosure

FINANCIAL INDUSTRY SECURITIES COUNCIL

ABA • 1120 CONN. AVE. N.W. WASH. D.C. 20036

SIA • 120 BROADWAY • NEW YORK, N.Y. 10271

ABA FISC SIA

July, 1985

FINANCIAL INDUSTRY SECURITIES COUNCIL SAME DAY FUNDS SETTLEMENT TASK FORCE

TO: Interested Parties and Participants in the Securities
Processing Industry

Dear Colleagues:

RE: Report and Recommendations of the Same Day Funds Settlement
Task Force

Approximately one year ago, the above Task Force was created by the Financial Industry Securities Council (FISC) to perform an analysis of the business issues effecting conversion to a uniform Same Day Funds Settlement environment for all securities transactions.

By way of background, FISC is a joint cooperative group formed by two major financial industry associations, the American Bankers Association and the Securities Industry Association to address joint operating issues affecting the securities processing industry. The membership of FISC is composed of operations executives involved in securities processing and drawn equally from each sponsoring industry association. The American Bankers Association represents nearly 13,000 member banks nationwide whose combined assets account for approximately 95% of the industry total. The Securities Industry Association represents the brokerage and underwriting industry. The primary purpose of FISC is to discuss, analyze, recommend and sponsor solutions to improve the efficiency of securities processing. FISC, through consensus, formed the Task Force to examine the settlement process.

The Task Force itself is composed of knowledgeable people from a diverse spectrum of firms who are members of either the American Bankers Association or the Securities Industry Association. A list of the membership of the Task Force is attached.

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We were asked to compare the existing settlement process for those securities which commonly settled in next day funds to that involving same day funds settlement and to assess the positives and negatives of both processes and the impacts across industry segments, products and operational procedures.

The Task Force engaged the services of Arthur Young & Company, in conjunction with Treasury Strategies Inc., to gather information, identify issues and assess the impacts of any change.

The Task Force has carefully considered the proposal using the information and analysis provided by Arthur Young & Company in their report on the issues and on the settlement process, a copy of which is attached. As a result, the Task Force has reached the following initial conclusions and recommended courses of action:

It is apparent that all segments involved in the study to date agree that uniform funds settlement is desirable in the long term. We are already seeing an inevitable trend in terms of the way new instruments are treated and the slow but inexorable conversion of securities settlement to more and more uniform procedures. The settlement process is operationally very complex and involves substantial dollar amounts. Changes in the operating environment will involve careful thought and substantial costs for many participants. Prudence dictates, therefore, that any changes will likely be evolutionary in nature and will take place over an extended period of time. We anticipate that many of the newly developed financing vehicles will be designed to settle in same day funds. As a greater percentage of tradeable securities settle in same day funds, there will be fewer reasons to leave the remaining securities in a next day funds settlement mode. We believe that both short and long term implementation programs can and should be developed for the eventual benefit of the entire securities industry.

The Task Force has concluded that depository eligible products should continue to be encouraged and recommends that depositories should further develop same day funds settlement capabilities. The Task Force also encourages development of electronic payment mechanisms for security settlement to supplement and, if necessary, replace current Street settlement practices.

The Task Force has recommended the distribution of the attached report along with our initial conclusions and a solicitation of comment by the Task Force. Initial distribution has been to interested industry groups and regulators. As you are

aware if you are a member of one of the sponsoring organizations, all ABA and SIA members have been given the opportunity to receive the report upon request and have been advised of its availability.

We suggest that this report can be used by industry participants as a means of assessing the potential monetary and non-dollar consequences of same day funds settlement on their respective organizations. This is particularly important in the area of operational considerations, where each organization differs.

It should be noted that a detailed analysis of operational costs could not be included in the study due to the widely differing systems used by participants and the consequent decision by the Task Force that it would not be cost-effective to attempt to provide a detailed analysis of individual or market segment operating costs. Individual participants are in a better position to do this themselves, using the report to point out important areas.

Additionally, the Task Force points out that the study focused on the settlement process only and did not attempt to address the concentration systems in use in the industry through which funds are assembled for the settlement process. Concentration systems have recently received considerable publicity, particularly as to the creation of uncollected funds or float. As long as checks remain the primary payment instruments of investors, float will probably continue to exist in concentration systems regardless of the type of funds used in settlements.

With the distribution of this report, we are actively soliciting comments not only from the securities industry, but also from all interested parties and request that the comments be directed to the Task Force so that any industry consensus can be confirmed and eventually organized into action plans.

We ask each of you to consider the effects and impacts of Same Day Funds Settlement on your own organization and to advise whether you agree that a work plan for eventual conversion from Next Day to Same Day should be developed. We also solicit comment as to whether we have correctly identified all of the major issues and impacts or whether in your analysis other matters of a substantial nature have arisen.

The Task Force is grateful to FISC for their support during the course of this project. In particular, thanks are given to Ms. Ann Siegel of the American Bankers Association and Mr. Neil Johnson, special consultant to the SIA for their active assistance. The Co-Chairmen of the Task Force also deeply appreciate the time, effort and knowledgeable participation of all of the members of the Task Force and of the institutions who provided information for the study.

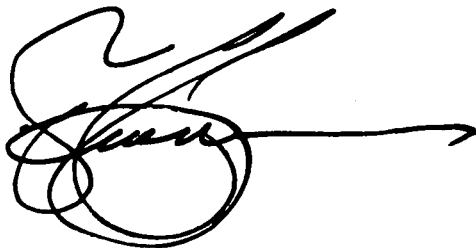
The Task Force also gratefully acknowledges the efforts of Arthur Young & Company and Treasury Strategies Inc., in assembling, reviewing and analyzing the enormous amount of information made available to them and the Task Force, particularly Mr. John J. Goodwin, Arthur Young & Company Project Director.

The Task Force is most interested in receiving responses from all major industry groups, regulators and interested parties to determine whether implementation is desired and if so, to initiate creation of both short and long term implementation plans.

Your written responses should be directed to the FISC Same Day Funds Settlement Task Force, c/o Ms. Ann Siegel, Operations Administration Group, American Bankers Association, 1120 Connecticut Avenue, NW, Washington, DC 20036 on or before October 1, 1985.

Very truly yours,

Financial Industry Securities Council
Same Day Funds Settlement Task Force



Timothy C. Crane
Vice President
Manufacturers Hanover
Trust Company
Co-Chairman



Bruce Geismar
Managing Director
Bear Stearns &
Company
Co-Chairman

**Financial Industry Securities Council
Same Day Funds Settlement for Securities Transactions
Task Force**

Co-Chairmen

Timothy C. Crane
Vice President
Manufacturers Hanover
Trust Company
New York, NY

Bruce Geismar
Managing Director
Bear Stearns & Company
New York, NY

Members

William Barron
Vice President
Irving Trust Company
New York, NY

Gerald R. Broz
Vice President
Midwest Securities
Trust Company
Chicago, IL

Joseph Coriaci
Senior Vice President & Cashier
Continental Illinois Bank &
Trust Co.
Chicago, IL

William Crawford
Vice President
Security Pacific National Bank
Glendale, CA

Charles Ducie
Senior Vice President
Bank of Boston
Boston, MA

John F. Elberfeld
Senior Vice President
National Securities
Clearing Corporation
New York, NY

Herbert Friedman
Vice President
Salomon Brothers
New York, NY

Arthur Goldsmith
Senior Vice President
Johnson, Lane, Space,
Smith, & Company, Inc.
Savannah, GA

Alexander VR Halsey
Senior Vice President
U.S. Trust Company of
New York
New York, NY

Madeline E. Miller
Vice President
Merrill Lynch Pierce
Fenner & Smith
New York, NY

Sharon Noordewier
Senior Vice President
Pacific Securities Depository
Trust Company
Pacific Clearing Corporation
New York, NY

Richard J. Prahler
Chief Financial Officer
Wedbush, Noble, Cook, Inc.
Los Angeles, CA

James V. Reilly
Vice President
Depository Trust Company
New York, NY

American Bankers Association
Ann M. Siegel
Assistant Director
Operations/Administration
Group

Securities Industry
Association
Joseph F. Morley
Vice President
Operations & State Legislation
New York, NY

Special Consultant
Neil Johnson
514 Ritter Avenue
South Plainfield, NJ 07080



A MEMBER OF ARTHUR YOUNG INTERNATIONAL

ARTHUR YOUNG

277 Park Avenue
New York, New York 10172
Telephone: (212) 407-1500
Telex: TRT-177704

July, 1985

Same Day Funds Settlement Task Force
Financial Industry Securities Council

Members:

Arthur Young & Company is pleased to submit our analysis of issues related to same day funds settlement of securities transactions.

We are grateful to the many individuals and firms who made time available for interviews and provided the consultant team with a variety of information. Without this generous support, the study could not have been prepared.

We especially appreciate the opportunity we have had to work with the Same Day Funds Settlement Task Force. The commitment of Task Force members to understand and address issues related to same day funds settlement was clearly evidenced by the amount of time and energy contributed to the project. More importantly, your business experience and insight were essential in helping the consulting team to work effectively.

Very truly yours,

Arthur Young & Company

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I. EXECUTIVE SUMMARY

Arthur Young & Company, in conjunction with Treasury Strategies, Inc., was retained by the Same Day Funds Settlement Task Force to analyze business issues related to implementation of same day funds settlement for securities transactions. The study was conducted in close cooperation with the Task Force. Firms from all segments of the financial services industry were contacted during the study both for formal interviews and informal information. The participating firms ranged widely in size. For brokers, the firms interviewed ranged from the largest firms down to firms with \$400,000 in capital. For banks, participating firms ranged from the major clearing banks down to banks with assets of \$250 million.

Several areas of concern emerged through this study which may be categorized into seven major groupings:

- Uniformity: Most institutions believed that conversion to same day funds settlement would increase uniformity in the system and that this was a benefit. The greatest benefits would stem from eliminating existing differences between instruments settling in next day funds and instruments settling in same day funds. This results in simplification of the investment environment. Generally, uniformity in funds used for settlement is expected to simplify operations. This was considered a significant benefit by firms of all sizes across industry segments.
- Operational Issues: In the long run, uniform same day funds settlement may improve operational efficiency and effectiveness. In the short-term, major changes may be required and may involve significant costs.
- Exposure: While a major source of concern among banks, it does not appear that next day funds settlement involves major credit risks. "Float" attributable to next day funds settlement is estimated at approximately \$3 billion nationwide. Eliminating this float would produce a relatively small improvement in the capitalization ratios of major clearing banks.

- Financial Impacts: There are a number of financial impacts associated with conversion to same day funds settlement. Under certain circumstances, banks and brokers could face a reduction in cash available for investment and for payment of loans.
- Competitive Positioning: While conversion to same day funds settlement may emphasize existing competitive trends, it is not expected to have a major impact on competitive positioning. Regional banks and brokers may find some additional opportunities to participate in securities settlements open to them.
- Electronic Funds Transfer: Same day funds settlement may force changes in the administration of electronic funds transfer transactions by banks in order to meet the demands of late day settlements. There was wide concern among firms interviewed that existing transfer capabilities would not meet the needs of same day funds settlement. Delays of an hour or more, which may be experienced in the current environment between initiation of a FedWire and notification of funds receipt, could be a problem given current settlement schedules. In addition, access to electronic funds transfers would be needed later in the day. While the FedWire system and other electronic funds transfer systems appear to have the necessary capacity, bank administration of transfers will need to be changed.
- Regulatory/Accounting: There do not appear to be major regulatory obstacles to same day funds settlement.

Generally, a movement to same day funds for settlement of securities transactions is consistent with existing trends toward an acceleration of processing and reduction of float. However, many potential problems will need to be addressed in developing any specific recommendations for implementation. The matrix on the next page summarizes benefits and drawbacks of same day funds settlement for different segments of the industry affected.

SUMMARY OF SAME DAY FUNDS SETTLEMENT EFFECTS

<u>Issue/Area</u>	<u>Banks greater than \$20 billion</u>	<u>Banks less than \$20 billion</u>	<u>Brokers greater than \$200 million</u>	<u>Brokers less than \$200 Million</u>	<u>Depository/Clearing Organizations</u>	<u>Investment Banks</u>
Uniformity	+	+	+	+	+	+
Operations:						
Long-term	+	+	+	+	+	+
Short-term	-	0	-	0	-	0
Exposure:						
Certifications	+	0	0	0	0	0
Float	++	+	0	0	0	0
Financial:						
Financial statements	+	0	0	0	0	0
Reduction in cash availability						
- No payment change	-	0	-	0	-	0
- Same day pay	--	-	--	-	-	-
Service pricing	-	0	-	0	-	0
Electronic Funds Transfer	-	+	+	+	+	+
Competitive Positioning	0	0	0	0	0	0
Regulatory/Accounting	0	0	0	0	0	0

Key:

++ Very Positive	- Negative
+ Positive	-- Very Negative
0 Neutral/mixed	

Organization of the Report:

This report is organized into several major sections and appendices.

- Section II - History: Provides an overview of developments affecting the settlement environment during the last decade.
- Section III - Description of Current Settlement Practices: Provides a brief overview of current procedures for buying, selling and settling securities.
- Section IV - Current System Issues: Describes major concerns with the current next day funds settlement environment.
- Section V - Overview of Findings and Conclusions: Summary of results of analysis of issues and impacts associated with implementing same day funds settlement.
- Appendix A - Study Scope and Methodology: Brief description of study.
- Appendix B - Assessment of Major Issues: Description of results of analysis of major issues and impacts related to same day funds settlement.

II. HISTORY

In June of 1973, a study was conducted by the National Coordinating Group for Comprehensive Securities Depositories concerning standardization of funds used for settlement of securities transactions. The overall focus of the study was to review industry practices in settling securities transactions. It recommended implementation of a uniform system of settlement using next day funds.

This recommendation was adopted for securities which clear through depositories. However, not all brokers could deliver next day funds due to the nonavailability of clearing house instruments in some parts of the country. Thus, some problems have remained.

Recently, additional issues have been raised regarding securities settlement practices. These issues relate, in part, to concerns regarding credit risks and exposures in a next day funds environment. To assess the present issues, the Same Day Funds Settlement Task Force, a subcommittee of the Financial Industry Securities Council, is conducting an in-depth study of the matter.

To understand the current interest in same day funds settlement, we need to examine some of the changes which have occurred in the industry over the last ten years. These changes can be summarized in three broad categories.

- Improvements in the underlying infrastructure of the securities industry and the payments system.
- Proliferation of trading instruments and increased dollar volumes of trading activity.
- Regulatory, industry and banking concern over issues of float, exposure, liquidity and interest rate volatility.

Key changes in each of these categories are summarized as follows.

History 1974-1984

There have been improvements in the underlying infrastructure of the securities industry and the payments system.

- The proportion of book entry items to items outside the book entry environment has increased.
- Government securities and municipal bonds are moving to a book entry environment.
- Money market funds for the retail brokerage customer were established and became popular, allowing access to good funds by settlement date. This enabled access to a deposit base previously not available to brokerage firms. Growth in the funds has fluctuated along with interest rates.
- There has been an evolution of new payment and receipt vehicles at banks such as automated clearing house transfers (ACH). Currently, these vehicles are not widely used in the securities industry, but operational fine-tuning is expected to increase their attractiveness.
- The Federal Reserve wire transfer system (FedWire) has been enhanced throughout this period.
- Banks have improved their services and unbundled their price structures. New services over the period include terminal-based wire transfer initiation, automated balance reporting and electronic cash concentration.
- Technology has resulted in advances in computerization of the industry's operating systems and communications.

The industry has experienced a proliferation of trading instruments and a large increase in the volume and dollar value of trading activity.

- The trading volume, both in transactions and dollar amounts, of corporate and municipal securities has increased substantially over the period, magnifying a host of credit exposure issues.

- Trading volume of government securities, both in transactions and dollar amounts, has increased substantially over this period. A host of new issues trading outside the depository/clearing organization environment has presented some problems and concerns.
- There has been an increase in the diversity and availability of new trading instruments. Some of these settle in same day funds (SDF) while others settle in next day funds (NDF):
 - Commercial paper (SDF)
 - Money market funds (SDF)
 - Options (NDF)
 - CDs/Secondary market (SDF)
 - Futures (SDF)
 - Quasi Governments (SDF and NDF)
 - Mortgage backed securities (SDF)
 - Tax shelters (NDF)

Regulators, securities firms, and banks have expressed increasing concern over issues of float, exposure, liquidity and interest rate volatility.

- Various federal programs to reduce float have been instituted (e.g., the Monetary Control Act of 1980, noon-presentment, fractional day funds availability, etc.).
- Various programs are currently being considered or have been instituted to reduce payment system exposure. These include efforts to reduce daylight overdrafts such as bilateral credit agreements, net debit caps and guaranteed finality of payment.
- CHIPS, the Clearing House Interbank Payments System, reduced overnight exposure by moving to same day funds settlement in 1982. This occurred with relatively little operational impact and reduced overnight exposure and float significantly.
- High and volatile interest rates have caused increased emphasis on asset/liability and float management at banks and brokerage firms.
- Expanded trading volumes and expanded use of cash concentration systems by brokers and major corporations have affected banking practices and introduced new elements of float and risk into the banking system.

The move toward uniform settlement of transactions using next day funds recommended in 1973 was based on a consideration of the need for uniformity in practices to avoid arbitrage and simplify operations. It was not an endorsement of next day funds as an instrument. Specifically, the National Coordinating Group's report concluded:

"...that the question of funds valued today or tomorrow should not be the primary focus of the securities industry. Instead, the focus should be on a standard funds settlement system that will be applicable to current capabilities and adaptable to changes in the future."¹

The Committee's recommendation to standardize on the use of next day funds was based on its desire to minimize the operational impacts associated with establishing uniform procedures. However, it also identified anticipated developments which it believed might permit a future conversion to same day funds settlement.

The variety of changes which have occurred in the industry during the last decade have led many to the conclusion that it is now time to consider converting to a uniform policy of using same day, rather than next day, funds for the settlement of transactions.

¹. National Coordinating Group for Comprehensive Securities Depositories, "Standardization of funds settlement for securities transactions: Report of the Funds and Settlements Subcommittee," June 4, 1973, p.6.

III. DESCRIPTION OF CURRENT SETTLEMENT PRACTICES

To provide a framework for discussing issues associated with the use of next day or same day funds for settlement of securities transactions, it is first necessary to provide a basic description of current settlement practices.

Using equities settled through a depository/clearing organization as an example, the process of buying and settling a transaction has several steps.

Customer Purchase or Sale:

Typically, a customer will purchase a securities through a broker/dealer. The broker/dealer buys the securities in the market, based on the customer's instructions, from among shares offered through other broker/dealers. Once the trade has occurred, it must still be settled. On the fifth business day following the trade (T+5), the customer purchasing the securities must pay the purchasing broker/dealer. This payment may be made using a personal or bank check, cash or equivalent good funds such as wire transfer or available balances in a cash account, or credit, to the extent available, in a margin account.

Broker Transaction:

The selling broker/dealer presents the securities to the purchasing broker/dealer on T+5. The purchasing broker/dealer must then pay the agreed upon price using a certified check or equivalent valued in good funds on the following day (T+6).

In settlements administered through a depository/clearing organization, the account of the purchasing broker/dealer is credited with the securities and debited for the amount owed. The account of the selling broker/dealer is credited with cash and debited for the securities.

The transaction may not be completed as a result of either a "fail" or a "DK." A fail occurs when the selling broker/dealer is unable to deliver the required securities. A DK occurs when the purchasing broker/dealer indicates that it has no record of the trade.

Clearing the Purchase/Sale:

At the end of the day, each firm participating in the depository/clearing organization must settle its position. This settlement occurs on a "net" basis. For each broker/dealer, the depository/clearing organization aggregates the total due from and due to payments recorded during the day. If, on balance, the broker/dealer is owed funds, it is paid by the depository/clearing organization using next day funds. If, alternatively, the broker/dealer owes funds to the depository/clearing organization, it must pay using certified next day funds. While there are variations in practices among depository/clearing organizations, these settlements typically occur between 3:00 and 5:00 pm.

Each depository/clearing organization establishes its own rules governing participation and settlement. Several hundred broker/dealers and banks participate directly in one or more depository/clearing organizations. These firms settle transactions on behalf of their own operations and may also provide settlement or clearance services to other correspondent firms.

The major depository/clearing organizations involved in settling next day funds trades include:

- Depository Trust Company of New York (DTC)
- National Securities Clearing Corporation (NSCC)
- Midwest Clearing Corporation and Midwest Securities Trust Company (MSTC)
- Pacific Securities Depository Trust Company (PSDTC)
- Options Clearing Corporation (OCC)
- Philadelphia Depository Trust Company

Based on information obtained during this study, we estimate that approximately 80 percent of trades involving securities settled in next day funds through a depository/clearing organization are settled through DTC or NSCC.

Settlement Payments:

The tradition of settlement in next day funds grew largely out of the practices of New York clearing banks. To take advantage of the predictability of these practices, DTC, for example, will only accept certified next day funds drawn on one of 12 New York banks for settlement of positions. While NSCC requirements are different, the overwhelming majority of their check receipts are also drawn on these 12 banks. As a result of these two factors, it is probable that approximately 75 percent of all next day funds certifications for book entry settlement of securities transactions are processed through 12 New York banks.

In other parts of the country, different procedures are followed governing acceptance of settlement payments. However, the total number of banks involved in directly certifying payments to the depository/clearing organizations identified above remains relatively small.

Settlement Schedule:

To support the certification process, broker/dealers and banks participating in depository/clearing organizations must concentrate their funds into one or more of these certifying banks. Given the timing of the settlements process, this necessarily involves substantial funds movement late in the day with very tight time constraints. A typical schedule for settlement might be as follows:

- 3:15 pm All participants notified of closing positions.
- 4:30 pm Certified next day funds presented by participants owing funds for settlement.
- 5:00 pm Next day funds issued by the depository/clearing organization to participants receiving settlement payments.

Participants have approximately one hour to obtain certified funds to cover amounts owed for settlement. Before issuance, the certifying bank will normally require some mix of collected (good) funds or certified next day funds on deposit, or availability of funds through a credit relationship.

Assembling Funds for Settlement:

While participants prepare estimates of their anticipated end of day positions throughout the day based on their own information and information from the depository/clearing organizations, volatility in the settlements process may result in an actual position significantly different from that estimated. In addition, the funds required by the broker/dealer to finance settlement typically come from a number of sources including, potentially, more than one lending bank, and must be concentrated into the certifying bank. Uncertainty in the timing of the receipt of these funds may create temporary imbalances between the amounts which must be paid to the depository/clearing organization and the amounts effectively concentrated into the certifying bank by the time funds must be certified. Participants, certifying banks, and depository/clearing organizations have developed a variety of business practices for managing these uncertainties.

IV. CURRENT SYSTEM ISSUES

The current system of next day funds settlement involves a number of benefits and difficulties. Some of these issues can only be resolved effectively by moving to same day funds settlement. Others, however, may reflect business practices which would change in a same day funds settlement environment but could also be changed within the current environment.

For purposes of discussion, we have summarized the major issues related to next day funds into three groupings.

- Uniformity
- Exposure and float
- Operational impacts

Uniformity:

As indicated previously, the primary objective in standardizing book entry settlement practices around the use of next day funds was to provide a uniform vehicle for settlement. Uniformity was considered essential to simplify broker and bank operations and limit opportunities for participants to gain interest advantages by moving settlements between next day and same day funds settlement environments.

These objectives were met with regard to settlement of securities trades through depository/clearing organizations. However, the resulting system is by no means uniform.

Within banks, separate procedures are needed to deal with the different types of funds movements involved. Outside of New York and a few other regions, there are no formal vehicles for next day funds transactions. This introduces geographic differences

which affect settlement as well as complicating bank and brokerage operations. Banks and brokers must move funds through one of a limited number of clearing banks in order to settle transactions. For both brokers and banks, the volume of instruments settling in same day funds further complicates the situation. For example, if governments, which settle in same day funds, are sold to purchase equities, which settle in next day funds, it is necessary to evaluate the two different funds flows involved as a component of the investment decision. Several firms indicated that this complicates investment decisions.

Exposure and Float:

There are three types of exposure often attributed to the use of next day funds for settlement.

- Risk related to certifying checks for settlement.
- Float directly related to settlement in next day funds.
- Float related to customer practices which have evolved in response to next day funds settlement.

Certification Risk:

A relatively limited number of banks now are responsible for certifying funds used for settlement of positions in depository/clearing organizations. Because of the issues associated with funds movement, these certifications may create a significant credit exposure for the banks involved. Given normal bank practices, however, this exposure has tended not to be evaluated in credit terms.

Settlement Float:

The use of next day funds for settlement creates balances on the books of banks involved which are not collected until the following day. In particular, the next day funds paid out by

depository/clearing organizations and deposited into banks will represent uncollected funds, or "float" on the banks' books. This reduces the capital ratios of the banks and, since the deposits are uncollected and not producing income, reduces the reported return on assets.

Other Related Float:

Less directly, next day funds settlement has contributed to practices in some banks which may increase uncollected funds on balance sheets. Those banks which are certifying funds for payment of settlement positions may accept deposits of next day funds to cover the checks issued. To the extent this happens, the deposits will result in float. In a limited number of cases, banks purchasing instruments which settle in next day funds for their customers may only require that good funds be deposited on the day following settlement. This may involve some degree of credit exposure.

A number of banks believe that uncollected balances directly and indirectly related to the use of next day funds for settlement may represent a significant proportion of the total float on the balance sheets of the major banks involved. While a shift to same day funds settlement would eliminate much of the float, it would not necessarily eliminate it all. In addition, much of the reduction in float associated with next day funds settlement could be achieved within the current settlement environment.

This issue is addressed in greater detail in Section V and Appendix B of this report.

Operational Impacts:

Operationally, current practices of next day funds settlement involve a number of benefits and drawbacks.

Dual Systems:

On the negative side, there is a significant cost associated with maintaining "dual" systems: one for next day funds settlement and one for same day funds settlement. While some firms have adapted their systems to meet this need, others operate without sufficient systems support and are unable to track their positions effectively.

In banks, special procedures must be managed to segregate next day and same day funds instruments. This sometimes results in confusion and error.

Depository/Clearing Organizations:

In depository/clearing organizations, the lack of uniformity in funds used for settlement is a source of some problems. In DTC and NSCC, this has hindered the development of systems supporting use of these depository/clearing organizations for net settlement of trades which settle in same day funds. Midwest does have systems supporting same day funds settlement for some instruments and some efforts have been initiated in other organizations in this area.

On the positive side, next day funds settlement provides time to assemble all sides of a trade, to resolve liquidity problems, and to plan investment positions. While all trades must settle and payments be made by 3:00 to 5:00 pm, settlement participants do not have to obtain Fed funds until the following morning. The leeway provided by this overnight delay increases the ability of participants in the settlement process to deal with problems which may arise.

V. OVERVIEW OF FINDINGS AND CONCLUSIONS

The interviews and analysis during this study resulted in the identification of a number of advantages and disadvantages potentially associated with the use of same day funds for settlement. These are summarized in this section of the report and discussed in greater detail in Appendix B. Appendix A presents information concerning the firms interviewed to obtain information for the study.

During the interview process, several broad areas of potential impact were addressed. The most important of these, excluding operational issues which were beyond the scope of this study, were then analyzed in greater detail to assess the magnitude of potential effects.

The results are summarized in seven broad categories:

- Uniformity
- Operational Impacts
- Exposure and "Float" Issues
- Financial Impacts
- Competitive Positioning
- Electronic Funds Transfer Issues
- Regulatory/Accounting Issues

Uniformity:

Throughout the interview process, participating firms identified increased uniformity as a significant advantage to the use of same day funds for settlement. This advantage was noted by firms across all industry segments, but was of particular importance to regional brokers and banks.

Currently, many instruments such as governments and commercial paper settle in same day funds. Others, such as equities and options, settle in next day funds. This duality creates operational problems and complicates investment decisions.

Standardization on same day funds settlement would eliminate this problem. Participants also believed that it was important that same day funds be used for both physical and book entry settlement to avoid creating new difficulties.

Operational Impacts:

Numerous operational concerns related to implementation of same day funds settlement were identified during interviews. Analysis of these issues was outside the scope of this study and there should be further consideration of the operational advantages and disadvantages of same day funds settlement before implementing changes in current practice.

Long-term Advantage:

In the long-term, implementation of same day funds settlement was seen as an operational advantage. Elimination of dual settlement systems was expected, by many participating firms, to improve operating efficiency while reducing confusion and opportunities for error. Smaller firms, in particular, viewed this as an advantage. However, it was seen as a benefit of same day funds settlement by firms of all sizes across industry segments.

Significant Short-term Change:

While possibly a long-term benefit, participating firms (particularly the larger firms) believed that implementation of same day funds settlement may require a number of significant and potentially costly operational changes. Areas of concern included:

- Forecasting positions: Reduction in the amount of time available to ensure liquidity for settlement will make accurate forecasts and timely information on settlement and cash positions more important. Significant changes may be required to meet this need.

- **Funds Movement:** Rapid funds movement will be needed late in the day in order to concentrate funds needed for settlement. This will require expanded access time to FedWire transfers and an acceleration of bank procedures for initiating wires and notifying customers of receipts. This could involve significant costs for major banks, but would represent a benefit to other firms.
- **Monitoring Intraday Overdrafts:** Systems for monitoring daylight overdrafts will need to be enhanced to support needs for accelerated processing and to manage risk.
- **Resolution of Settlement Problems:** Depository/clearing organizations may need to develop new procedures for resolving settlement problems to accommodate the shorter time frames available in a same day funds environment.
- **Physical Settlements:** Systems and procedures used for physical settlements may need modification in order to permit same day funds settlement.

Exposure and "Float" Issues:

At the beginning of this study, exposure and float associated with the current next day funds settlement process was identified as a major area of concern. In addition, several of the firms interviewed believed that use of same day funds might actually increase settlement risk. Four major areas of concern were identified:

- Certification risk
- Settlement float
- Float not related to settlement
- Same day risk

Certification Risk:

Payments to depository/clearing organizations total an estimated \$2.3 billion a day in certified next day funds. A limited number of banks are responsible for certifying payments to the depository/clearing organizations. To the extent that these

certifications are not supported by collected funds, a credit risk is involved which would disappear with same day funds settlement. However, based on the results of our analysis, this risk appears to be capable of being managed by policy and practice in the current settlement environment. With relatively few exceptions, certifications are backed by collected funds, certified next day funds, or credit instruments.

Settlement Float:

Major clearing banks expressed concern with float which they attributed to the use of next day funds for settlement. Based on the analysis in this study, it is estimated that uncollected balances, or float, associated with next day funds settlement totals less than \$3 billion nationwide. This is primarily attributable to the deposit of next day funds by depository/clearing organizations into the accounts of brokers and banks participating in the settlements process. These deposits are concentrated in a limited number of major clearing banks. For 12 New York banks, which receive approximately \$2.3 billion in settlement related next day funds deposits, this would reduce checks in process of collection by approximately 15 percent. The current settlement related float represents approximately 0.5 percent of the assets of these 12 banks. For banks certifying payments to depository/clearing organizations outside of New York City, similar effects exist, although specific data were unavailable. The estimates of settlement float are explained in Appendix B.

Float Not Related to Settlement:

Substantial float may result from activities which are directly or indirectly related to securities trading. These issues are discussed more explicitly in Appendix B. A major source of float is the use of cash concentration systems by brokers and other major corporations in order to mobilize funds into one or more locations. In concentration systems, funds received around the country are deposited into local banks. Using a variety of

vehicles, these funds are then moved into regional and central concentration banks where they may be used to meet corporate needs. This process of concentration may generate substantial float on the balance sheets of the banks involved. However, this float would not be affected by a conversion to same day funds settlement and is not considered in this study.

Same Day Risk:

Some participating firms believe that use of same day funds may increase the risk involved in settlement. Currently, depository/clearing organizations have until the following day to resolve participant liquidity problems which may affect final settlement of the day's positions. This may involve arranging financing for a temporarily illiquid participant or "unwinding" transactions which occurred during the day. In a same day funds environment, the amount of time available to arrange temporary financial assistance will be reduced from overnight to only a few hours.

Financial Impacts:

The primary financial effects of same day funds settlement fall into three categories:

- Impact on bank financial statements
- Reduction in available cash
- Service pricing

Financial Statement Impact:

Elimination of the float on bank balance sheets which is directly related to next day funds settlement has a favorable effect on bank capitalization ratios and reported bank returns on assets. Information concerning the magnitude of this impact was available for the 12 New York clearing banks primarily involved in certifying payments to DTC and NSCC. Capitalization ratios would be increased by two to three "basis" points, or 0.02 to 0.03 per-

centage points. Specific information was not available for banks outside of New York City.

Reduction in Available Cash:

If implementation of same day funds settlement results in an acceleration of payments to customers without a compensating acceleration in collections, brokers and banks will face a reduction in cash available for investment or for reduction of borrowings. Any changes in customer payment mechanisms will need to be analyzed in terms of their impact on the timeliness of collections as well as their effect on disbursements. Areas of principal importance include retail customer collection and disbursement, redemptions of bonds, and interest and dividend payments.

Service Pricing:

Many bank and brokerage services are now supported, at least in part, by interest earned on related float. To the extent that this interest income is reduced by same day funds settlement, fees charged for services may increase. This could affect brokerage fees, clearance fees, and bank charges for trustee and paying agent functions.

Competitive Positioning:

Several areas of potential competitive impact were identified by participating firms related to implementation of same day funds settlement. Generally, however, conversion is unlikely to introduce new competitive pressures; it may emphasize existing pressures in several areas:

- Reduction in intermediate concentration accounts may result from broker efforts to reduce the number of separate transactions involved in concentrating funds.
- Increases in the number of regional brokers and banks participating directly in depository/clearing organizations may weaken some correspondent relationships. Funds transfers to depository/clearing

organizations will no longer need to be processed through an "approved" clearing bank.

- West coast firms may face some competitive disadvantages due to the time zone differences.
- Thinly capitalized brokers may face greater obstacles in settlement due to temporary liquidity problems.

Electronic Funds Transfer Issues:

Settlement in same day funds will increase the need for rapid funds movement late in the day in order to finance settlement positions. The current FedWire system appears to have sufficient capacity to handle this need. However, it will be necessary for banks to provide later access to FedWire transfers to support the movement of funds for settlement. In addition, bank systems and procedures for initiating wires and notifying customers of receipts will need to be accelerated.

Regulatory/Accounting Issues:

Implementation of same day funds settlement may require some changes in section I5C3-3 governing broker reporting of "free credits" and may also require some changes in Regulation T concerning acceptance of funds for deposit. Changes would only be required if policies concerning collection of customer funds were changed as a result of implementation of same day funds settlement. This is not anticipated. In any event, however, regulatory requirements do not appear to be an obstacle to implementing same day funds settlement.

Summary:

Over the long-term, implementation of same day funds settlement appears to present a number of advantages. It reduces the need for maintaining dual settlement systems for different types of instruments and simplifies the investment and settlement environment.

For major clearing banks, the implementation of same day funds settlement would result in some reduction in risk and some reduction in float. However, neither of these factors appears to be as important as many firms have previously assumed. The advantages must, therefore, be weighed carefully against the costs and risks of implementing a change.

The settlement process is currently one which involves several hundred banks and brokers as direct participants. Retail customers, and most brokers and banks, do not participate directly in settlements. Implementation of same day funds settlement appears to be relatively manageable if done in a manner which does not affect existing investor collection and disbursement practices. If these policies change, however, there could be significant operational and financial effects for both banks and brokers.

Even assuming no change in collections and disbursements, significant operational changes may be required to implement same day funds settlement. The costs and timing of these changes, and any benefits associated with them, need to be considered in evaluating potential modifications to the current settlement process.

STUDY SCOPE AND METHODOLOGY

In November 1984, Arthur Young & Company, in conjunction with Treasury Strategies, Inc., was retained by the Same Day Funds Settlement Task Force of the Financial Industry Securities Council (FISC) to assist in analyzing issues related to the use of same day funds for settlement of securities transactions. This study has involved two major components.

- An identification of major business issues associated with converting from the current practice of settling securities transactions in next day funds to settlement in same day funds.
- An assessment of impacts of such a conversion in those areas identified as most important in the first phase of the study.

The primary focus of the study, in accordance with the Request for Proposal prepared by the Task Force, has been on securities which currently settle in next day funds and which are eligible for book entry settlement. The study does not address, except as general business issues, the operational implications of a conversion to same day funds settlement. As a result, it also does not consider alternative strategies for implementation since these can only be evaluated effectively based on a detailed analysis of operational issues.

In order to identify issues associated with same day funds settlement, interviews were conducted with senior management staff from a cross-section of financial services firms throughout the country. Altogether, 37 firms have participated in formal interviews. Additional firms, organizations and individuals have been contacted informally as part of this study.

Interviews followed a structured guide developed for each major industry segment: banks, brokers, and depository/clearing organizations. Outlines of these guides were developed in draft form and reviewed with the Same Day Funds Settlement Task Force. The guides were then refined during our initial interviews.

The firms identified for participation in the study were selected to provide a representation of the breadth of issues which might be associated with implementation of same day funds settlement. Seven groupings of organizations were identified:

- Banks with over \$20 billion in assets
- Banks with under \$20 billion in assets
- Brokers with over \$200 million in capital
- Brokers with under \$200 million in capital
- Investment banks
- Depository and clearing organizations
- Other (e.g., institutional investor)

The brokers interviewed as part of the study ranged in size from capital positions of \$400,000 to capital positions exceeding \$700 million. The banks interviewed ranged in asset size from \$250 million to over \$60 billion.

Institutions to be interviewed formally were selected by the consultant in conjunction with the Task Force. Contacts were identified by consultant staff and members of the Task Force. The table on the next page presents a distribution of the firms interviewed by industry segment and by geographic area.

All interviews were conducted during the period from December, 1984 through February, 1985. Initial contacts were made with each participating firm by telephone. In this first conversation, the firm was provided information concerning the background of the study and an indication of the types of questions to be addressed. Once a meeting was scheduled, a confirming letter was generally sent including a description of the study and an overview of the types of issues and areas of their firm potentially affected by implementation of same day funds settlement.

DISTRIBUTION OF STUDY PARTICIPANTS

INDUSTRY SEGMENT

Broker	- Over \$200 million capital	4
	- Under \$200 million capital	8
Bank	- Over \$20 billion assets	7
	- Under \$20 billion assets	7
Depository/Clearing Organization		6
Investment Bank		2
Other		<u>3</u>
TOTAL		<u>37</u>

REGION

Northeast	16
Southeast	2
Midwest	7
Southwest	3
West	8
Canada	<u>1</u>
TOTAL	<u>37</u>

Note: Brokers interviewed included firms with as little as \$400,000 in capital. Banks included firms with as little as \$250 million in assets.

Overall, the quality of information obtained in these interviews was very good. Participating firms committed significant senior management time to the interviews and to preparations for the interviews. Reactions to the issues involved in implementing same day funds settlement were generally thoughtful and reflected an understanding of the potential complexities involved.

The firms interviewed did not express unanimous opinions with regard to any of the issues identified. We believe that this lack of unanimity stems from several factors.

- Information was gained through structured interviews rather than through questionnaires. In several instances, respondents considered an issue to be minor and did not express any position.
- Even within a single industry segment, the business interests of respondents were not uniform and respondent firms had different capabilities.
- In some circumstances, respondents did not have sufficient information concerning their own operations to evaluate an issue.

From our experiences, however, we believe that the lack of unanimity stems primarily from the fact that there is no single "right" answer for the issues analyzed in this study. Furthermore, there do not appear to be any uniform industry perspectives. Some have tended to characterize same day funds settlement as a "bank versus broker" issue. Our study does not support this characterization.

The issues identified in Phase I of the study were discussed in detail with the Task Force. Based on these discussions and the information obtained in the interviews, key areas were identified for additional analysis to assess the impact of a conversion to same day funds settlement. In these areas, additional information was gathered from public sources, interviews, and data provided confidentially by participating firms to qualify and quantify, to the extent feasible, the implications of conversion.

All interviews were confidential and were conducted by a senior member (Partner/Principal) of the consultant team. Most interviews involved more than one interviewer. Typically, several members of the staff of the participating firms were involved in the interview process. In some cases, this was done in a single meeting; in others, several meetings and telephone conversations were involved. Meetings generally lasted 2-1/2 hours.

ASSESSMENT OF MAJOR ISSUES

A. Introduction

The objective of this Appendix is to discuss issues related to the implementation of same day funds settlement (SDFS) and estimate, to the extent feasible, the magnitude of effects. The analysis in this section is based on information obtained through formal interviews with 37 firms as described in Appendix A, on discussions with the Task Force, and on both public and confidential data gathered during the study.

For purposes of presentation, we have organized these issues into seven categories:

- Uniformity
- Operational Issues
- Exposure and "Float" Issues
- Financial Impacts
- Competitive Positioning
- Electronic Funds Transfer Issues
- Regulatory/Accounting Issues

B. Assumptions

In assessing these major areas, certain assumptions have been made regarding the operational environment:

- Schedules for settling trades will remain unchanged.
- Settlement will continue to be in the late afternoon at depository/clearing organizations.
- Money markets will be capable of supplying sufficient Fed funds late in the day.
- No regulatory obstacles exist to prevent conversion to SDFS.
- Physical settlements of securities trades will be in same day funds.

C. Uniformity

Uniformity was highlighted as an advantage of the implementation of SDFS for securities transactions by a majority of the interviewees. Uniformity was defined as a major issue in two areas:

- Uniformity Across Instruments

Uniformity in settlement procedures across instruments such as governments, equities, etc., is viewed as a benefit. It would reduce complexity and eliminate interest considerations in transactions between instruments settling in next day funds, such as corporates and municipals, and instruments settling in same day funds, such as governments. Elimination of this distinction between types of funds used for settlement for various instruments was also seen as simplifying operations.

A broad range of brokers, investment banks and banks support the concept of uniform settlement procedures across different types of instruments.

- Uniformity for Physical and Book Entry Securities

Uniformity related to settlement procedures for both physical and depository/clearing organization transactions was considered necessary by a majority of those interviewed to improve overall internal and market efficiency and to prevent arbitrage between settlement environments.

Uniformity was a major benefit of SDFS for smaller firms. However, it was also identified as a significant benefit by other firms interviewed.

D. Operational Issues

The operational impact of implementation of SDFS was identified as having the most far reaching and broadest impact on the banking and brokerage industry. Operational issues varied widely and included issues ranging from impact on current operations to an

increase in technological support and systems required in both the banking and the brokerage industries. While some operational issues relate to procedural and operational changes, others may involve substantial investments in improved and expanded data processing capabilities within banking and brokerage organizations to accommodate SDFS. The operational changes required to support SDFS may result in long-term operational improvements. In the short-term, however, significant costs may be involved, particularly for the larger firms.

Detailed analysis of operational issues was outside the scope of this study. However, the primary issues identified by respondents during interviews are outlined below.

- Improved Long-term Efficiency

Settlement and brokerage activity at banks and brokerage houses may be more efficient in an SDFS environment as a result of the elimination of the current dual systems. The merging of same day and next day funds settlement procedures into a single system may improve back office efficiency by providing for cleaner tracking of transactions, reduced manual intervention and reduced errors associated with confusion related to dual settlement systems.

- Significant Systems and Operational Changes May Be Required

- Forecasting Positions:

Regardless of the system and operational changes involved, forecasting settlement positions will become increasingly important and more time sensitive under SDFS. The importance of forecasting settlement positions is particularly significant as brokers and banks need to position themselves early in the day to ensure liquidity. The current process allows for an overnight planning horizon. This would be sharply reduced with SDFS.

- Intraday Overdrafts:

Recently there has been increased emphasis on tracking of intraday overdrafts positions for banks. Banks interviewed indicated that it is mechanically difficult to track intraday positions for brokers. This situation might be aggravated in a SDFS environment and may result in additional investment in systems and tracking procedures for banks.

- Resolution of Settlement Problems:

Depository/clearing organizations indicated a concern regarding problem resolution in a SDFS environment. This problem would occur should a settlement participant not be able to settle wire transactions at the end of the day. The next day environment provides an overnight capability to provide liquidity or resolve settlement problems prior to final settlement. This settlement cushion would be reduced with SDFS.

- Increased DKs May Result from Implementing SDFS

Some brokers indicated that SDFS may increase the potential for "DKs." No increase in DKs is likely to arise due to limitations of operating systems and procedures since SDFS would not alter the current settlement schedule. However, some brokers believed that DKs may increase if undercapitalized brokers DK transactions to provide for a balance in short-term liquidity.

- Problems May Arise in Physical Settlements

Some brokers and banks indicated concern regarding the ability of New York banks to process physical settlements and handle the volume of funds movement efficiently in a SDFS environment. Current problems and inefficiencies would be aggravated in a SDFS environment.

E. Exposure and "Float" Issues

A number of banks have identified issues related to exposure in a next day funds settlement environment.

To assess the impact on exposure of a conversion to same day funds settlement, we have subdivided this issue into two principal components for consideration.

- Float - Uncollected funds on the balance sheets of clearing banks heavily involved in settlement transactions.
- Risk - Credit risk to clearing banks resulting from certification of funds for securities transactions settlements.

Throughout the interview process, the magnitude of both the float and risk elements of exposure were not quantified and the specific elements of exposure were not clearly defined. In order to understand these issues a review of funds flow related to securities settlement is necessary.

E-1. Float

Clearing banks typically have substantial uncollected funds on their balance sheets associated directly or indirectly with securities trading activity. Not all of this float would be affected by a conversion to same day funds settlement. Rather, much of the float results from other bank and broker activities, such as the management of trust accounts and cash concentration systems, which are not affected by the type of funds used for settlement of securities transactions.

This subsection describes the basic issues associated with float and estimates the impact on float of a conversion to same day funds settlement. It is organized into several subsections.

- Funds Flow for Securities Settlement
- Sources of Settlement Float
- Depository/Clearing Organizations Settlement Float
- Settlement Outside of Depository/Clearing Organizations
- Magnitude of Settlement Float

Funds Flow for Securities Settlement:

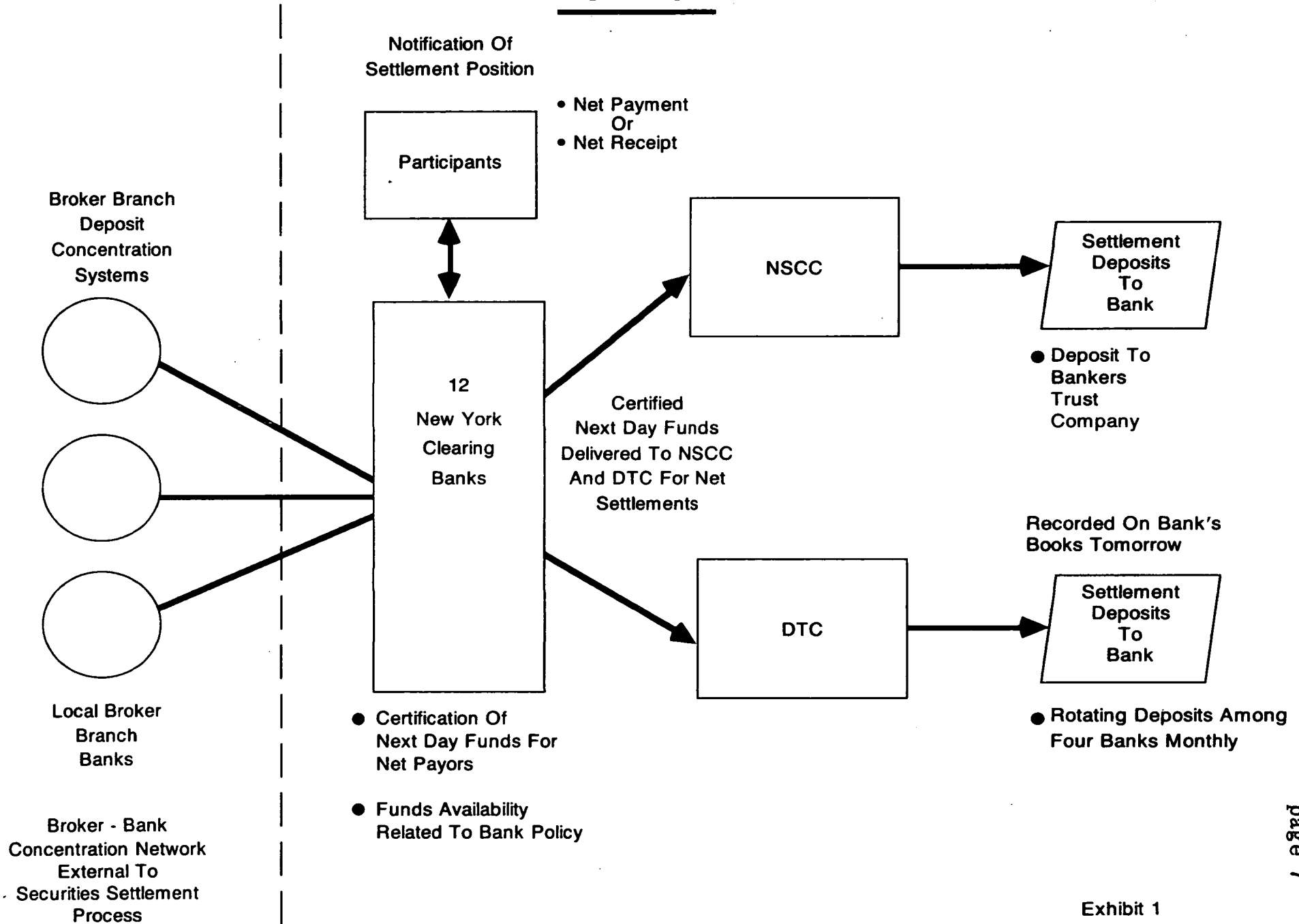
The purpose of this section is to describe the basic process of collection and disbursement of funds for securities settlement to identify sources of float in clearing banks. The process described is based on the New York settlement process which we believe represents over 80% of all next day funds settlement activity through depository/clearing organizations. However, similar effects exist for other clearing banks involved in certifying next day payments to depository/clearing organizations.

The funds movement process includes the following steps which are illustrated in Exhibit 1.

- Regional brokers and branch locations of national brokers deposit receipts daily into local banks. National brokers operate branch concentration networks and move funds daily from local depository accounts into major clearing banks. The concentration of these funds into clearing banks is similar to that used by many major corporations.
- Clearing banks receive broker deposits by wire transfers, depository transfer check or other deposit mechanism, and credit them to the broker daily. The funds deposited represent a mix of immediately available and delayed availability items. These delayed availability items are recorded as checks in process of collection (CIPC) on their balance sheets.
- Direct participants in depository/clearing organizations, which include both banks and brokers, receive notification of their settlement positions at approximately 3:00-3:30 P.M. If a net payment is required, it must be made in next day funds certified by a bank authorized by the depository/clearing organization.

SECURITIES SETTLEMENT PROCESS - COLLECTIONS

New York



- Each clearing bank determines its own policies for certification of next day funds. If sufficient collected funds do not exist in the account, the bank may charge the customer for use of uncollected funds, provide a loan, or agree to certify next day funds at no cost.
- In New York, NSCC and DTC have similar procedures for handling their daily receipts. These receipts are deposited as night deposits to be opened and processed the following day. The effect of this is that checks deposited to NSCC and DTC accounts are not recorded on the depository banks' balance sheets until the following day which coincides with the actual collection of the items deposited. Different policies are followed by other organizations which may result in float.

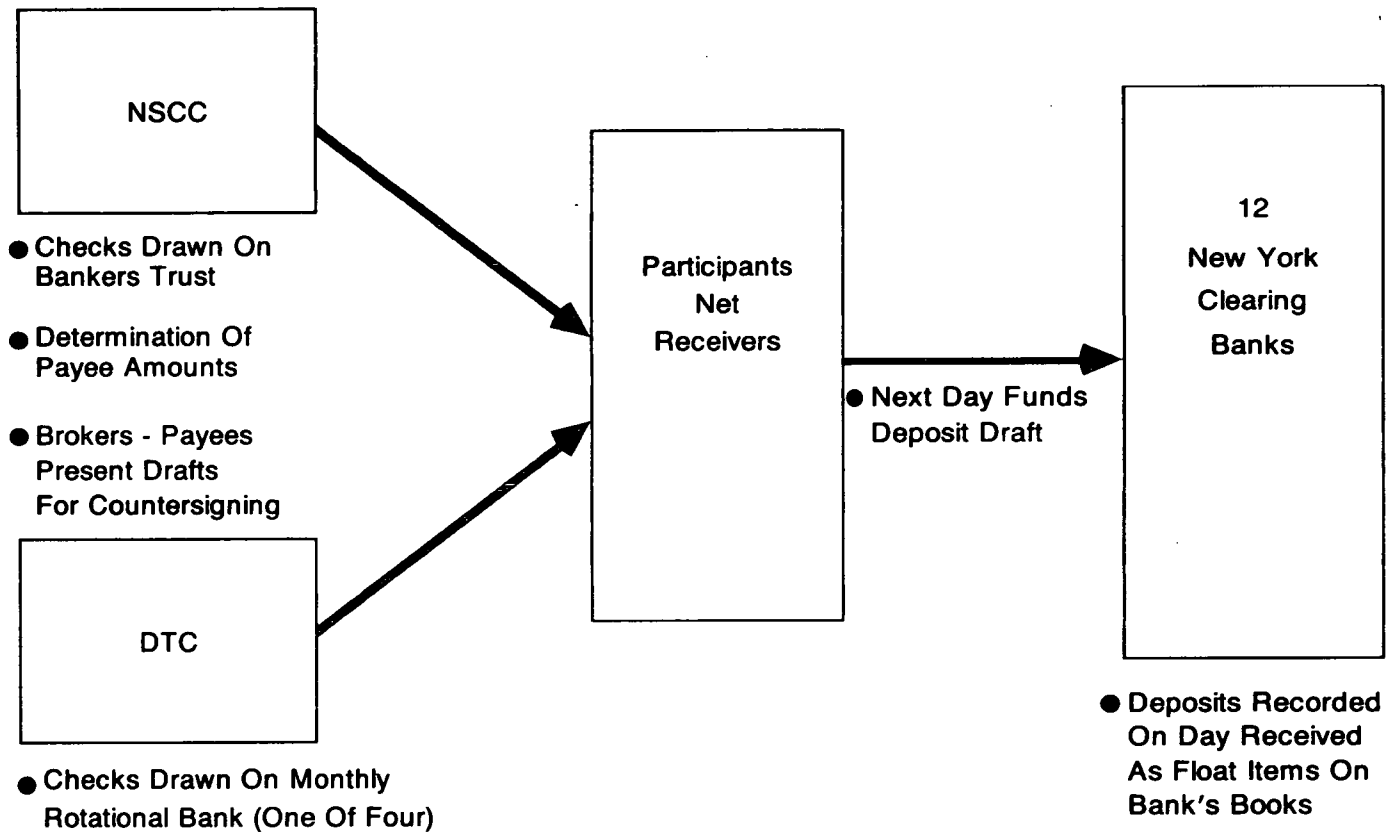
Exhibit 2 illustrates the basic process for disbursements from depository/clearing organizations to settlement participants. This disbursement process creates float for the banks involved. Next day funds payments are recorded as deposits to participant accounts on settlement day. Actual collection occurs on the following day. As a result, there are uncollected balances at the clearing banks overnight.

Sources of Settlement Float:

Several banks interviewed as part of this study expressed concern over the size of "broker float" attributed to the use of next day funds for the settlement of securities transactions. This float is largely concentrated in major clearing banks directly involved in certifying next day funds for settlement. In New York, this represents 12 banks which certify almost all funds for settlements at NSCC and DTC. Other banks are involved with Midwest, PSDTC, and other depository/clearing organizations. To the extent that this float exists, it depresses reported return on assets and primary capitalization ratios.

SECURITIES SETTLEMENT PROCESS - DISBURSEMENT

New York



While this issue is typically described as "broker float", it is actually related to all participants in next day funds securities settlements. While the majority of settlements through depository/clearing organizations involve broker participants, bank participants are responsible for a large proportion.

There are four basic ways in which current practices of next day funds settlement may create uncollected balances at clearing banks. These are:

- Trades settled through depository/clearing organizations:
 - Depository float: Float associated with the deposit of depository/clearing organization checks into clearing banks.
 - Collection float: Float related to the movement of funds into clearing banks to cover securities settlements.
- Trades settled outside of depository/clearing organizations:
 - Receipts for securities deliveries: Float associated with next day funds paid into banks against deliveries of securities settled outside of depository/clearing organizations (bank/bank, bank/broker, broker/broker).
 - Collection float: Float related to movement of funds into clearing banks to cover settlements outside of the depository/clearing organizations.

The distinction between trades settling through depository/clearing organizations and those settling outside of the depository/clearing environment is a critical one.

Within the depository/clearing environment, trades are settled on a "net" basis as described in Section III. For every dollar actually paid out to settlement participants, we estimate that there are \$8 to \$10 of securities delivered. Outside of the depository/clearing environment, trade settlements are much less likely to be "netted" against each other. As a result, a dollar paid out for settlement may only be associated with \$1 or \$2 of securities delivered.

Depository/Clearing Organizations Settlement Float:

There are two types of float associated with next day funds settlement administered through depository/clearing organizations: depository float and collection float.

- Depository float: Based on information collected for this study, we estimate that next day funds payments made by depository/clearing organizations for settlement of trades average \$2.3 billion per day of which \$1.8 billion, or 80 percent, is paid out by NSCC and DTC. These payments are deposited into a limited number of banks. In New York, where data was most readily available, almost all deposits are made into 12 clearing banks. Assets for these banks total \$493 billion. From information obtained through the Federal Reserve, we estimate that "float" for these banks, as measured by checks in process of collection (CIPC), totals \$16 billion. The depository float of \$1.8 billion, therefore, represents less than 0.4 percent of total assets and approximately 11 percent of CIPC.

Conversion to SDFS would eliminate this depository float.

- Collection float: Collection float related to next day funds settlements through depository/clearing organizations will exist to the extent that settlement payments made through the bank are supported by deposits of checks or other next day instruments.

For illustration, a broker which anticipates making a settlement payment on T+5, may deposit a check into its account to cover this transaction on T+4. On T+5, the bank collects good funds for the check deposited. It then certifies a next day funds payment to the depository/clearing organization on T+5. This payment will actually clear on T+6. In this example, the bank has no credit exposure since collected funds are in the account before a settlement check is certified. On T+4, however, the bank will have uncollected funds on its balance sheet since the initial deposit was by check.

It is not possible to estimate accurately the amount of float associated with such deposits of next day funds instruments to cover settlement positions.

For purposes of analysis, float directly and indirectly related to the collection of funds for settlement is attributable to four different types of bank functions:

- Bank as trustee
- Bank as certifying agent
- Bank as settlement or clearance agent
- Bank as concentration agent

- Trustee: Within trust departments, banks initiate trades for their trust accounts. This involves facilitating purchase and sale of securities and their settlement through a depository/clearing organization. Transactions on behalf of these customers are accumulated as part of the net settlement position of the bank at the depository/clearing organization. It is likely that significant float is associated with check deposits into the bank's trust accounts. However, this float is unlikely to be affected by a conversion to same day funds settlement.

- Certifying agent: Depository/clearing organizations require that next day funds used for payment of settlement positions be certified by an approved bank. Each bank has its own policies governing certification. Banks do accept deposits of next day funds to cover certifications and these deposits involve some amount of float. The only way to eliminate this float would be to refuse check deposits. Conversion to same day funds settlement, by itself, would not necessarily achieve this result.

- Settlement/Clearance Agent: Clearing banks may provide settlement services on behalf of other banks and brokers which are not direct participants in depository/clearing organizations. Transactions on behalf of these customers are accumulated as part of the net settlement position of the bank at the depository/clearing organization. It is likely that these accounts generate some collection float but that this would not be affected substantially by conversion to same day funds settlement.

- Concentration agent: The bank may act as a depository for funds concentrated from transactions throughout the country for corporations and other organizations which wish to mobilize funds into a single location. Large retail brokers, with offices throughout the country, utilize concentration systems to mobilize their funds into one or more bank concentration accounts. All or a portion of these funds may be used to support check certification for settlement of securities trades. Substantial float may be associated with this mobilization and concentration process. However, this float is related only to the concentration process and would not be affected by a conversion to same day funds settlement.

For each of these four activities, the clearing bank incurs float on its balance sheet to the extent that deposits are made using checks. This float, with the potential exception of that related to the certification function, is a product of the bank's normal business operations. While the amount of float may be very large, it does not appear that a conversion to same day funds settlement would have a very significant effect. Some reduction in this float may be achieved through changes in bank policies.

Settlement Outside of Depository/Clearing Organizations:

Trades settled outside of depository/clearing organizations may also involve float. This is related to the deposit of next funds received against deliveries of securities and collection float related to the movement of funds into the bank to cover the cost of securities purchased.

The issues associated with these two types of float are identical to those described for trades settled through depository/clearing organizations. However, less information is available on which to base an estimate of magnitude.

Firms contacted during this study indicated that the volume of trade activity settling outside of depository/clearing organizations was very small. Since these trades are not "net" settled, however, they could represent a disproportionate share of total float.

We estimate, as indicated previously, that settlement payments made by depository/clearing organizations average \$2.3 billion/day. These payments represent the "net" product of approximately \$20 billion/day in activity.

If we assume, for illustration, that only \$1 billion in securities are delivered daily, outside of the depository/clearing environment and without "netting", against payment in next day funds, the resulting float from deposit of these funds would be \$1 billion. In this way, a relatively small volume of trading activity can have a significant impact on float.

We cannot estimate the volume of next day funds transactions settled outside of depository/clearing organizations. However, from information obtained through interviews, this does not appear to be a major issue.

Magnitude of Settlement Float:

From this analysis, we estimate that the magnitude of float which would be eliminated directly as a result of conversion to same day funds settlement is approximately \$3 billion.

\$2.3 billion of this reduction results from converting current next day funds deposits of depository/clearing organization checks into same day funds. It is conceivable that a similar effect could be achieved by treating these checks as "night deposits" to be opened and processed the following day.

The remaining reduction is simply an "order of magnitude" estimate based on the discussion of sources of float above. Concrete, publicly available information does not exist in this area.

E-2. Risk of Check Certification

Depository/clearing organizations generally require participating firms to make payment using bank certified next day funds.

Bank policies for certifying these funds vary. Banks will generally certify against available funds or against certified checks on deposit even if not collected. Certification risk exists where the bank certifies for a broker when collected funds or another certified check are not on deposit. There are circumstances in which some banks will, for business reasons, certify against uncollected and uncertified funds. This is a credit decision on the part of the bank. From our interviews, however, certification in these circumstances appears unusual.

Banks vary in how they view the risks associated with these certifications. Some banks do not consider there to be any exposure once they have collected funds from the drawee bank. However, others believe that exposure continues until the time period has elapsed during which the originating bank can recall the funds based on insufficient funds, stop payment orders, etc.

The maximum risk associated with securities settlement is approximately \$2.3 billion as this represents the average daily next day funds certifications for settlement. However, the actual risk appears to be a relatively small fraction of this amount. Other securities settlements which take place in a direct broker to broker environment may also utilize certified funds from clearing banks. Based on interviews, however, it appears that the magnitude of these certifications is relatively small.

Conversion to same day funds settlement would eliminate the risks associated with certifying funds for settlement. However, it appears that this risk is manageable.

F. Financial Impacts

There are a number of areas of financial impact associated with a conversion from next day to same day funds settlement. Many of these are related to costs associated with operational changes outside the scope of this study. Three areas are discussed in this section:

- Financial Statement Effects
- Reduction in Available Cash
- Service Pricing Impact

F-1. Financial Statement Effects

Eliminating float currently associated with securities settlement in next day funds will affect the balance sheets of the major clearing banks. The greatest impact would be on the 12 New York clearing banks which certify payments to NSCC and DTC. Our analysis focuses primarily on these New York banks since this data was mostly readily available and represents 80 percent of the estimated national total.

Assuming, based on the analysis of float magnitude, that conversion to same day funds would eliminate \$3 billion in float nationally and \$2.5 billion in float for the 12 New York clearing banks, the effects would be:

- A total reduction of 15 percent in CIPC.
- Capitalization ratios would be increased by an average of two to three "basis" points, or 0.02 - 0.03 percentage points.
- FDIC premiums would be reduced.
- Return on assets would increase slightly, although this would probably be offset by losses in corporate trust operations.

F-2. Reduction in Available Cash

A concern expressed repeatedly in interviews was that implementation of same day funds settlement may result in financial institutions being required to disburse same day funds to institutional and retail customers on settlement day using electronic funds transfer mechanisms. This could result in a loss of cash available for investment or for reduction of borrowings. The magnitude of this effect would depend largely on whether or not the bank or broker could also accelerate the collection of customer funds to cover securities purchases.

Efforts during this study to obtain detailed information concerning the potential impact of same day payment provided insight into the magnitude of the issue for individual firms but did not provide a basis for estimating industrywide effects. Based on interviews, it appears that the impact on major banks and retail brokers could be substantial. Alternative scenarios could include:

- Payments to institutional customers in same day funds for securities trades -- This would probably not be a major source of loss.
- Payments to retail customers with margin or cash management accounts -- This would probably not be a significant source of loss.
- Payments to retail customers now electing to be paid by check -- Average loss of 3-4 days in "mail float." This could be significant.
- Payments for interest and dividends by paying agents --Significant impact for paying agents.
- Payments for bond redemptions -- Possibly a significant impact on bank corporate trust departments.

In brokerage firms, customers generally have options concerning how they receive payments related to the sale of securities. For customers now electing to use cash or margin accounts, same day payment would have minimal effect. For those customers now electing to be paid by check, however, conversion to a same day collection and disbursement vehicle would have significant financial and operational impacts for the brokerage firm. From an operational perspective, it would be necessary to establish effective instruments for same day retail receipts and disbursements. Existing electronic funds transfer mechanisms would require significant improvements to be used for general retail collection and payment.

F-3. Service Pricing Impact

The principal concern regarding service pricing impact is the extent to which implementation of same day funds settlement will affect various participants in the pricing of their services to their customer base. Float associated with settlement of securities transactions has, over time, been used to reduce the cost of certain services. Major participants affected include

retail and discount brokers, institutional service suppliers, clearing organizations, and bank trustee and paying agent functions.

- Brokers: Brokers will experience a decrease in interest income to the extent that disbursement float is eliminated through SDFS. To the extent that these organizations have maintained low or reduced brokerage fees through investment income from disbursement float, there is a potential impact in pricing to retail customers in this area.
- Clearing Brokers/Banks: For institutions providing clearing services to other brokers or banks, prices for these services will be increased. Many of these customers now pay the clearing bank or broker in same day funds while the clearing bank or broker receives the benefit of disbursement float. Implementation of SDFS may cause some shift in pricing.
- Depository/Clearing Organizations: Organizations such as NSCC, DTC, PSDTC and Midwest currently invest dividend and interest payments received in good funds overnight for next day distribution. "Rebates" are then credited to direct participants based on interest earnings. These income rebates would be eliminated as a result of SDFS. Funds will also be received one day earlier by participants. While this should be a "wash," it is likely to result in a loss to participating firms if they are then required to pay out these funds to their customers one day earlier.
- Banks: Banks offering trustee and paying agent functions sometimes include the benefits of disbursement float in pricing services. The float generated can be significant. In a SDFS environment, it is reasonable to assume that the services offered will be unbundled in terms of pricing. Given competitive pressures, it may not be possible to increase charges sufficiently to offset losses.

In the areas discussed above, insufficient information was available to support good estimates of the total financial impact.

G. Competitive Positioning

There are a number of issues related to SDFS which may impact the relative competitive positions of banks, brokers, and depository/clearing organizations. These effects could be minimized through

a careful phase-in of SDFS. Furthermore, while SDFS may serve to increase the awareness of competitive forces, most of these forces already exist in the marketplace.

In a SDFS environment, the mechanics of securities settlements will change. Many participants in the clearing process anticipate that changes will occur in three distinct areas; funds movement to clearing organizations and depositories, retail customer policies, and time sensitivity of settlement transactions. In this section, we assess the relevance and magnitude of these issues as they relate to competitive positioning among the participants in the securities settlement process.

G-1. Funds Movement

Concerns were raised by some participants that a move to SDFS would cause firms to change the methods they use to concentrate funds from field depository accounts, thereby affecting the relative importance of regional and national concentration banks. Of further concern was a feeling that non New York firms would bypass their New York correspondents and diminish the role of the major correspondents.

Clearly, a change to SDFS would make brokerage firms more conscious of the need to accelerate the inflows of cash from field bank accounts. Firms that fail to mobilize their field deposits quickly would be further penalized in a SDFS environment. However, good cash management practices already suggest that firms should mobilize their funds as quickly and efficiently as possible. In the current environment, firms which do so are rewarded with either increased interest income or reduced borrowing. Thus, we see no change in the policies of brokerage firms as they relate to cash concentration.

There may be an increased tendency for brokerage firms with nationwide operations to seek out the most efficient concentration banks. Again, however, these same pressures exist in the current system. Thus, we see no change in the relative competitive positions of concentration banks which are solely attributable to SDFS.

SDFS may increase incentives for regional brokers and banks to settle directly with the clearing organizations and depositories, by-passing their New York correspondents. This would be possible since it would no longer be necessary to have settlement payments certified by an approved clearing bank. This could weaken certain correspondent relationships and, longer term, cause some New York banks to lose some correspondent business. However, the only measurable loss would be the current settlement transaction volume. Since these are in the form of a few hundred wire transfers and checks daily, distributed among several major banks, we believe that the financial impact is minimal.

G-2. Retail Customer Policies

There is a strong feeling that some retail brokers may use policy changes related to SDFS as a competitive tool to improve market position. A corresponding concern is that existing competitive pressures are so great that the entire industry itself may not be able to adjust its retail customer policies in ways which will compensate it for a one day earlier settlement in good funds.

A move to SDFS would certainly lead retail brokers to reexamine their customer policies. A constraint on policy change is that there is no cost effective or convenient transaction mechanism which would permit retail customers to pay their brokers any earlier. As a result, it is unlikely that customers will pay for their securities purchases any earlier in an SDFS environment.

This leaves the brokers with essentially two options; continue settling with retail customers on a next day funds basis, or begin charging for cash debits and/or paying interest on cash credits. Without discussing the merits of either option, it is possible to conclude that, as long as policy changes are uniformly applied by all brokers, the impact on relative competitive positions will be minimal.

SDFS may provide financially strong firms with a convenient opportunity to use their financial strength for competitive advantage. However, it is their financial strength, not SDFS, which creates this competitive advantage. These firms could use their financial strength for the same competitive advantage in the current environment. In SDFS, customer payment policies would be the mechanism used to gain the advantage. In the current system, other mechanisms, such as commission rate, could be the tool.

G-3. Time Sensitivity of Settlement Transactions

Concerns were raised regarding the ability of West Coast firms to adapt to SDFS in their dealings with East Coast clearing organizations and depositories. Time zone differences would require these firms to make adjustments to their operations and their information systems to settle same day in New York.

Time zone differences could cause West Coast firms some difficulty in meeting East Coast settlement requirements in same day funds. These firms would have to shift their work burden earlier in the day. New operating procedures and information systems

may need to be implemented. This could place West Coast firms at a competitive disadvantage to other firms which do business on the West Coast but are headquartered elsewhere.

G-4. Summary

It is possible that competitive positions of some firms would change with implementation of SDFS. After carefully evaluating the kinds of changes which are likely to take place and the factors causing those changes, we do not believe that those changes would be attributable to SDFS. A move to SDFS may accelerate some existing trends. However, the underlying currents producing such changes exist with or without SDFS.

H. Electronic Funds Transfer Issues

Perhaps the single, most frequently raised concern regarding the adoption of SDFS was the adequacy of the FedWire system and other electronic funds transfer systems, as administered through banks, for handling an increased volume of high dollar transactions late in the day. The electronic funds transfer concern can be examined in terms of three critical issues: the operational capability of the Fed and the banks, credit risks and exposures, and costs of doing business.

For purposes of this analysis, we have assumed that FedWire will not be used for payments to retail customers. This would require tens of thousands of additional wires each day. Not only would it be prohibitively expensive, but it would clearly overwhelm the operational capabilities of the Fed, the banks and the brokers. For these reasons, it was deemed infeasible and excluded from further analysis.

H-1. Operational Capability of Electronic Funds Transfer Systems

Considerable concern was expressed regarding the ability of the FedWire system, other funds transfer systems, and banks to handle an increased volume of high dollar, time critical wires occurring during a relatively short time frame late in the day. These concerns include slow execution of outgoing wires, delays in notification for incoming wires, down time, delays, and the need for frequent extensions of the FedWire window.

To assess the magnitude and impact of these concerns, it is useful to list the steps which take place in the execution of a FedWire. There are five steps which take place in a typical wire transfer of funds.

1. Customer gives wire transfer instructions to its bank.
2. Bank debits customer's account and gives instructions to the local Fed.
3. Local Fed debits bank's account and credits the account of the receiving Fed. It notifies receiving Fed.
4. Receiving Fed credits receiving bank and gives notification.
5. Receiving bank credits receiving customer's account and sends notification.

The original communication from the customer to the bank (1) is either by phone or terminal and takes place instantaneously. The bank (2) may hold the instruction until it determines that the customer has sufficient funds or access to funds. This may require personal authorization from the customer's credit officer and could take from just a few seconds to half an hour.

The transfer of funds between Federal Reserve banks (3) is a function of volumes and the queue rarely lasts more than a few minutes during peak periods. Problems do arise when inter-district communication lines are down. Notification of the receiving bank (4) is virtually instantaneous if the receiving bank is on line with the Fed. This is likely to be the case for those banks involved in the settlements process. Finally, the receiving bank credits the customer's account (5) and notifies the customer. Time delays of up to half an hour could be involved, depending upon the degree of automation of the bank and the bank's capacity during peak periods. Thus, the total elapsed time required to execute a wire transfer could range from a few minutes to an hour during normal periods. Longer times are involved when there are computer or communications problems.

As this relates to the settlements process, the problem is compounded since additional intermediaries become involved. For example, correspondents may add additional steps to the chain as more wires are required to complete the same settlement.

Capacity of the Federal Reserve system does not appear to be a limiting constraint. Currently, the system processes approximately 150,000 wires per day. In New York alone, the system has a peak capacity of 35-50,000 incoming wire transactions per hour. The incremental demand on the system associated with SDFS may range from 500 to 5,000 new wire transactions. While these would be concentrated in the late afternoon, the volume appears to remain within the capacity of the system.

Capacity of banks to administer these transactions effectively may become a significant problem. As has been indicated previously in this report, funds supporting settlement must be mobilized quickly to meet settlement schedules. Delays of an hour or more between initiation of a wire and notification of receipt

could generate liquidity problems in completing settlements. We believe that several developments are likely:

- The securities settlement schedule may be extended to provide more time to resolve difficulties.
- Schedules for accessing electronic funds transfer systems established by banks and by the Fed may need to be extended.
- Brokers and regional banks may reduce the number of intermediaries used in mobilizing funds to reduce opportunities for delay.
- Funds flows associated with settlements are likely to gravitate to those banks with the most efficient wire operations.

H-2. Credit Risk in Same Day Funds Settlement

Two types of credit risk may exist in the settlement process as it relates to FedWire. The first is the risk associated with sending out a wire before notification of the incoming wire has been received. The second is the daylight overdrafts risk.

A FedWire is a final payment. It cannot be returned or recovered. Thus, when a bank permits a customer to wire out funds in anticipation of, but not confirmation of, incoming funds, the bank has made a credit decision. We anticipate that, in an SDFS system, banks will develop internal credit guidelines to facilitate the settlement process. Banks may require back up credit lines or may issue day loans to their credit worthy customers. This may have a negative effect on thinly capitalized firms.

Daylight overdrafts do not appear to be a material issue. It is widely anticipated that the settlement process would take place late in the day under SDFS. It is also late in the day that the major banks are covering their daylight overdrafts and returning to a positive reserve position with the Fed. The total dollar

value of the net settlement positions of the brokerage firms and banks average approximately \$2.3 billion daily. The resulting potential overdrafts is immaterial in light of the capital positions, reserve requirements, and other funds flow of the major settlement banks.

H-3. Cost of Business

The overall cost of business is likely to increase slightly in an SDFS environment. These new costs will lead to greater wire system efficiency and reduced credit risks.

Operational improvements will be required on the part of banks. There will be pressure to reduce the queue for execution and notification. However, the benefits of these improvements will accrue to all of the bank's customers and not just settlement participants.

Brokers may face additional financing costs as backup credit lines are required. This is not likely to be a significant additional cost as most brokers currently maintain adequate credit capacity.

There may, over time, be some pressure on the part of brokers to improve their operational efficiency to the point where settlements could take place earlier in the day. These costs would be partially offset by the benefits of better overnight investment returns resulting from earlier cash position management. However, current trends are directed more at extending the trading day and this may reduce the likelihood of earlier settlement.

I. Regulatory/Accounting Issues

Regulatory and accounting issues which may be affected by SDFS were discussed during the interview process. No major obstacles were identified, although it was believed that some changes might be required for brokers in 15C3-3 reporting and Regulation T to accommodate SDFS. Industry-wide changes for customer deposits might require a change to Regulation T while the 15C3-3 calculation may be affected by increased free credits on the brokers' balance sheets. It may be possible to resolve these issues without regulatory change. In any event, these regulations are not expected to be an obstacle to SDFS.