

**United States: Publication of Financial Sector Assessment Program Documentation—  
Detailed Assessment of Observance of the Fedwire Securities Service’s Observance of  
the CPSS-IOSCO Recommendations for Securities Settlement Systems**

This Detailed Assessment of Observance of the Fedwire Securities Service’s Observance of the CPSS-IOSCO Recommendations for Securities Settlement Systems for the United States was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in May 7, 2010. The views expressed in this document are those of the staff team and do not necessarily reflect the views of the government of the United States or the Executive Board of the IMF.

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FINANCIAL SECTOR ASSESSMENT PROGRAM

# UNITED STATES OF AMERICA

THE FEDWIRE SECURITIES SERVICE'S OBSERVANCE'S OF THE  
CPSS-IOSCO RECOMMENDATIONS FOR SECURITIES  
SETTLEMENT SYSTEMS

## DETAILED ASSESSMENT OF OBSERVANCE

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## GLOSSARY

BCP	Business Continuity Plan
BONY	Bank of New York Mellon
CCP	Central Counterparty
CFR	Code of Federal Regulations
CPSS	Committee on Payment and Settlement Systems
CSD	Central Securities Depository
CUSIP	Committee on Uniform Securities Identification Procedures
DTCC	Depository Trust and Clearing Corporation
DVP	Delivery-versus-Payment
EU	European Union
FMI	Financial Market Infrastructure
FDIA	Federal Deposit Insurance Act
FDIC	Federal Deposit Insurance Corporation
FSS	Fedwire Securities Service
FICC	Fixed Income Clearing Corporation
FICC-GSD	Fixed Income Clearing Corporation – Government Securities Division
FICC-MBSD	Fixed Income Clearing Corporation – Mortgage Backed Securities Division
FOMC	Federal Open Market Committee
FOP	Free of Payment
FR	Federal Reserve
FRA	Federal Reserve Act
FRB	Federal Reserve Bank
FRBNY	Federal Reserve Bank of New York
FRIT	Federal Reserve Information Technology
FSPC	Financial Services Policy Committee
GAO	Government Accountability Office
GSE	Government Sponsored Entity
ICSD	International Central Securities Depository
IMF	International Monetary Fund
IOSCO	International Organization of Securities Commissions
ISO	International Organization for Standardization
JPMC	J.P. Morgan Chase
OC	Operating Circular
OCC	Office of the Comptroller of the Currency
PRC	Payments Risk Committee
PSR	Payment System Risk
RCCP	Recommendation for Central Counterparties
RSSS	Recommendation for Securities Settlement Systems
SEC	Securities and Exchange Commission
SIFMA	Securities Industry and Financial Markets Association
SIPA	Securities Investor Protection Act
SOMA	System Open Market Account
SWIFT	Society for Worldwide Interbank Financial Telecommunication
TRADES	Treasury/Reserve Automated Debt Entry System
UCC	Uniform Commercial Code
USC	United States Code
WG	Working Group
WPO	Wholesale Product Office

**Table 1. Detailed Assessment of Observance of the Fedwire Securities Service’s of the CPSS-IOSCO Recommendations for Securities Settlement Systems**

<b>Recommendation 1.</b>	Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.
Description	<p><b>Accessibility of the regulatory framework (Q1)</b> Laws, regulations, rules, procedures, and contractual provisions governing the operations and activities of the Fedwire Securities Service (FSS) are public and readily accessible to system participants. This documentation is available on request and is accessible on Federal Reserve websites or, in some instances, other publically available websites.</p> <p><b>Legal basis (Q2)</b> Securities settlement activities are governed and regulated by specific laws and regulations, and by provisions in other financial legislation and regulations:</p> <ul style="list-style-type: none"> <li>• Section 15 of the Federal Reserve Act (FRA) authorizes the Federal Reserve Banks (FRB) to act as fiscal agents for the Treasury.<sup>1</sup></li> <li>• Several Federal statutes empower the FRB to act as agent for other federal and international issuers such as government-sponsored enterprises and multinational and regional development banks or other international organizations.</li> <li>• The Treasury promulgated the TRADES regulations to govern Treasury bonds, notes, and bills on the FSS. TRADES regulations provide that state law governs the rights and the obligations of the various parties with respect to the book-entry securities to the extent such state law is consistent with TRADES. Article 8 of the UCC is the primary state law that applies to book-entry securities and has been adopted in all 50 states.</li> <li>• Each Reserve Bank publishes identical Operating Circulars (OC) for the FRB’s various services that describe the terms agreed upon by participants. Under both UCC art. 8 and the TRADES regulations, these agreements have a special status as clearing corporation agreements and, therefore, govern the rights of FSS participants even if the agreement conflicts with UCC Article 8. (TRADES regulations, however, require the OCs to be consistent with TRADES.) Under the Supremacy Clause of the U.S. Constitution, federal laws are the “supreme law of the land” in the United States and pre-empt conflicting state law (U.S. Constitution, Art. VI, cl. 2). In addition, U.S. federal courts have recognized that a regulation promulgated by a federal agency pursuant to a statutory delegation of authority from Congress carries the “weight of federal law” and also pre-empts conflicting state law.</li> <li>• OC 7 sets forth the terms under which each FRB maintains securities accounts and effects transfers of FSS eligible assets for participants in the system. OC 7 also set forth the terms under which the FRBs hold book-entry securities in custody for the benefit of a state or local government or unit thereof to which the securities have been pledged.</li> <li>• OC 1 sets forth the terms for opening, maintaining and terminating a funds account with a Reserve Bank.</li> <li>• OC 5 sets forth the terms under which a participant may access FRB services, including FSS, by means of electronic connections.</li> </ul> <p><i>Legal Basis for Book-Entry Transfers</i> The book-entry transfers on FSS are governed by the laws, rules, and agreements described above, which provide certainty about dematerialization and immobilization</p>

<sup>1</sup> The Fedwire Securities Service is the mechanisms through which the Reserve Banks issue and maintain book-entry records evidencing ownership of Treasury and Federal agency debt.

and set out other rules governing book-entry transfers.

*Enforceability of transactions*

Transaction enforceability is governed by TRADES (and the equivalent regulations of other issuers), OC 7, and UCC Article 8. Article 8 of the UCC sets out rules regarding the rights and obligations of entitlement holders, securities intermediaries, and other parties in both direct and indirect systems for holding securities. Furthermore, TRADES regulations govern the rights and obligations of the U.S. government and the Reserve Banks with respect to the operation of the FSS and the servicing of Treasury securities.

*Customers' assets protection*

As a general matter in the United States, interests in dematerialized or book-entry securities are reflected through either direct or indirect holding systems. In direct holding systems, interests in securities are held in the books of the issuer or its official registrar. In indirect or tiered holding system, interests are reflected on the books of the securities intermediary. FSS is an indirect holding system, in which participants hold accounts with the FRBs, and non participants hold accounts on the books of a participant or some other intermediary. The Federal Reserve also operates a direct holding system (Legacy Treasury Direct) on behalf of the U.S. Treasury for investors in U.S. Treasury securities.

Generally under U.S. law, fully-paid for customer securities held in custody by an intermediary would not be deemed as assets of the intermediary. However, indirect holders are not entitled to claims against an issuer, but rather against the intermediary on whose records the Fedwire eligible security is reflected. For insured depository institutions, the process to distribute customer securities should the insured depository institutions become insolvent is governed by the liquidation provisions of the Federal Deposit Insurance Act (FDIA). These provisions generally provide that the beneficial owner of Fedwire eligible securities held by a failed bank normally would be entitled to the security if the customer's exclusive ownership is sufficiently documented. The failure of nonbank broker dealers, would require application of other statutes: the Securities Investor Protection Act (SIPA) and the U.S. Bankruptcy Code. Other entities would be governed by the U.S. Bankruptcy Code.

*Immobilization or dematerialization of securities*

All Fedwire-eligible securities are issued on a dematerialized basis. U.S. law supports the issuance of securities in a dematerialized form. See the answer above on the legal basis of book entry transfer.

*Netting arrangements*

U.S. law supports the validity of netting arrangements related to securities transactions. FSS, however, does not provide netting services.

*Securities lending arrangements*

Although U.S. law supports securities lending arrangements, FSS does not provide such services. However, there are well-developed and deep securities lending and reverse repo markets in Fedwire-eligible securities allowing participants to "borrow" securities to fulfill settlement obligations. Securities market lending operations, including the close-out of securities lending transactions and pledges of collateral underlying securities lending transactions, are explicitly protected in the event of an insolvency of a counterparty.

*Finality of settlement.*

OC7 states that, unless a transfer is rejected by FSS, all debits and credits with respect to a transfer become final at the time that debits and credits are posted to the participants' securities accounts and, if the transfer is against payment, the participants' master accounts. Notice of the transfer by the FSS is conclusive evidence that the debit(s) and

	<p>credit(s) were made.</p> <p><i>Delivery versus payment (DVP).</i> OC7 provides a clear and effective legal basis for DVP. In particular, a securities transfer may be either (1) a securities transfer that does not involve any funds credit or debit to the master account other than a transaction fee (free transfer) or (2) a securities transfer that is accompanied by a funds credit to a master account of the sender and a funds debit to the master account of the receiver, for the amount of the transfer (transfer against payment). A DVP transfer is completed under OC7 when the debits and credits associated with both the securities transfer and the funds movements are made.</p> <p><i>Challenges by a court</i> So far, no court in the jurisdiction has failed to uphold the legal basis for these activities/arrangements.</p> <p><b>Enforceability of rules and regulations in the event of a bankruptcy (Q3)</b> Rules and contracts related to the operations of the FSS are enforceable in case of participant insolvency. U.S. insolvency law does not include a zero-hour rule that allows the unwinding of securities transfers. Moreover, both the Bankruptcy Code and the FDIA generally uphold the enforceability of securities contracts even when the securities are held by a financial intermediary, notwithstanding the insolvency of one of the parties in the contract.</p> <p><b>Conflict of law issues (Q4)</b> The FSS does not permit participation by foreign banks without a U.S. presence. As a consequence, laws of non U.S. jurisdictions are not directly applicable to disputes involving FSS participants.</p>
Assessment	Observed.
Comments	Although FSS does not allow participation by non-resident foreign banks, participants in FSS may settle Fedwire-eligible securities cross-border through intermediaries that are participants in or custodians for other central securities depositories (CSDs) or international CSDs (ICSDs). For instance, ICSDs hold U.S. Treasury securities and have executed transfers in U.S. securities through their U.S. correspondent custody banks, which in turn hold the securities in FSS. Custodian banks that participate in foreign CSDs need to address potential conflict of laws between U.S. law and the laws in the foreign (I) CSD jurisdictions.
<b>Recommendation 2.</b>	Confirmation of trades between direct market participants should occur as soon as possible after trade execution, but no later than trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.
Description	<p><i>Confirmation of trades between direct market participants (Q1)</i> Trades between direct market participants are confirmed immediately after trade execution through a system provided by the Fixed Income Clearing Corporation (FICC). Trades submitted to FICC are matched in real-time on FICC's Real Time Trade Matching service. The RTTM service provides an immediate confirmation of the trade match to FICC's participants.</p> <p><i>Confirmation of settlement instructions (prior to settlement)(Q2)</i> The FSS does not require settlement instructions to be matched prior to settlement. Securities transfers over FSS, however, can be returned by the receiver through the initiation of a new transfer (and identified as a return with a reversal code). In 2008, less than 5 percent of transfers used the reversal code in FSS. Some of those transfers,</p>



	<p>however, were likely due to reasons other than unmatched settlement instructions.</p> <p><i>Confirmation between direct and indirect participants (Q3)</i>  FSS does not receive trade information (settlement instructions are not tied to specific trades, or may not be related to trading activity), and therefore does not provide or require trade confirmations. FICC, however, provides trade matching that accommodates both direct and indirect participants. A direct participant can submit trades for matching on behalf of an indirect participant through FICC's Executing Firm service. Currently, FICC has over 900 Executing Firms using the service. FICC monitors the use of its trade matching facility by direct members and knows who is submitting trades and for whom, because required data fields include contra-party identification (direct or indirect participants). FICC matches trades in real-time as they are submitted by participants. Thus, matching occurs on T+0 for direct and indirect participants of FICC. FICC rules require direct members to submit all their trades executed with another member to FICC.</p> <p>The SEC is the regulatory authority for FICC's trading matching service; the supervisors of relevant financial institutions have responsibility for checking the internal controls of intermediaries related to their securities clearance business.</p>
Assessment	Observed.
Comments	The FSS should explore the possibility of introducing an instructions matching mechanism prior to settlement.
<b>Recommendation 3.</b>	Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be assessed.
Description	<p><i>Rolling settlement cycle (Q1)</i></p> <p>The standard settlement period for trades in the secondary market for Treasury and agency securities is T+1. Market participants, however, may agree bilaterally to settle a particular trade on an earlier (same-day) or later (forward) date. Settlement of agency mortgage-backed securities occurs primarily on fixed monthly settlement dates established by the industry and administered through the Securities Industry and Financial Markets Association (SIFMA).</p> <p><i>Failed trades (Q2)</i>  Market participants may fail to deliver securities to discharge (settle) a trade for a variety of reasons involving economic incentives as well as securities inventory issues. For trades cleared by FICC, FICC would track and margin such fails (FICC clears the large majority of trades in the U.S. government securities market, especially high-value trades).</p> <p>Although the level of fails to deliver in the U.S. government securities market is extremely variable, it is typically a very small percentage of overall trades. Data provided by FICC, the CCP for the U.S. government securities market, indicates that in the most recent three months (September – November 2009) fails typically run between 0.0005 and 0.005 percent of gross trades and 0.001 and 0.013 percent of net obligations (in aggregate value terms, fails ranged from under US\$1 billion to just under US\$9 billion during the period compared to approximately US\$2 trillion in gross trades and over US\$750 billion in net obligations). Although FICC's data is not public, it largely tracks similar data on fails collected by the Federal Reserve from the primary dealers.</p> <p>The Federal Reserve publishes data on trades in U.S. Treasury, agency, MBS, and corporate securities that failed to settle as scheduled since 1990. The table below provides an overview of the fails for the week ending November 18, 2009 for the types</p>

of securities covered by the FSS.

Fails by primary dealers - week ended November 18, 2009		
Billions of dollars		
Type of security	Fails to receive	Fails to deliver
U.S. treasury securities	17.129	13.663
Agency debt securities	10.974	12.293
MBS	444.313	542.19

Source: [http://www.newyorkfed.org/markets/pridealers\\_failsdata.xls](http://www.newyorkfed.org/markets/pridealers_failsdata.xls)

#### *Facilities to smooth settlement process*

Securities transfer instruction to the FSS would be rejected if no securities are available in the originator's securities account at the Federal Reserve, and hence a failure to deliver would result. The FSS does not provide an automated securities lending facility that would potentially reduce settlement failure in such instances. However, there are well-developed and deep securities lending and reverse repo markets in Fedwire-eligible securities allowing participants to "borrow" securities to fulfill settlement obligations. Also, when fails have increased due to low supply of certain issues on "special" in the repo market, the U.S. Treasury has provided additional supply by re-opening certain issues and selling additional supply.

#### *Monitoring of fails (Q2)*

Outstanding fails for major dealers are monitored by Federal Reserve Bank of New York (FRBNY). Figures are publicly available. Risks implications of fails are analyzed by FICC, SEC, and FR and actions are taken to reduce the rates and mitigate the related risks (see below).

#### *Incentives to settle in due time(Q3)*

In 1988, the FR imposed a US\$50 million limit on Fedwire securities transfers to encourage government securities dealers to split large trades into multiple partial deliveries and, thereby, reduce subsequent book-entry securities-related daylight overdrafts. A secondary effect of this change was amendments to the industry's good delivery guidelines to accommodate partial deliveries on trades, with positive benefits on fails.

U.S. banking regulators take a balance sheet approach to unsettled transactions under their Basel I-based risk-based capital rules. A standard risk weight, based on the nature of the counterparty or any applicable guarantee or collateral, is applied to the on-balance sheet amount of a transaction that has failed to settle outside of a grace period (typically 5 days). Unsettled transactions in securities issued or guaranteed by the U.S. government or GSEs for which a positive margin of collateral is not maintained on a daily basis typically receive a 20 percent risk weight.

Under U.S. Basel II-based risk based capital rules, the capital requirement for unsettled DVP and PVP transactions increases as the duration of the fail increases. The bank's positive current exposure receives a risk weight that ranges from 100 percent to 1,250 percent based on the number of days past the settlement date. Unsettled non-DVP/non-PVP transactions are treated as wholesale exposures until the fifth business day after the counterparty delivery was due, after which the bank must deduct the current market value of the deliverables owed to the bank 50 percent from tier 1 capital and 50 percent from tier 2 capital.

For broker-dealers, SEC net capital rules require fails outstanding past a certain period to have additional capital held by the broker-dealer against those exposures.

	<p>FICC has also imposed penalties on its participants for fails outstanding for certain periods of time.</p> <p><i>Analysis of shorter settlement cycle (Q4)</i> Settlement of mortgage-backed securities occurs primarily on fixed monthly settlement dates. The market has evaluated whether a shorter settlement cycle was appropriate, given the risk reduction benefits that could have been achieved, the costs incurred and the availability of alternative means to limit pre-settlement risks, such as trade netting through a CCP. The conclusion was to establish a CCP and, as indicated below in the assessment of compliance with Recommendation 4, a proposed rule change to establish a CCP for MBS has been provided to the SEC. The issue may need to be examined again, after that the CCP has come into operation.</p> <p>The settlement cycle for non-MBS Fedwire-eligible securities is generally shorter than T+3.</p>
Assessment	Observed for non-MBS Fedwire-eligible securities. Broadly observed for MBS.
Comments	The recommendation is not fully observed for MBS for which the settlement occurs primarily on fixed monthly dates. For the compliance with this recommendation, MBS should be settled no later than T+3.
<b>Recommendation 4.</b>	The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.
Description	<p>Currently, the CCP for non-MBS securities settled in FSS is the Government Securities Division of FICC (FICC GSD). All securities settled in FSS are eligible for clearing by FICC-GSD, except for agency MBS.</p> <p><b>Cost-benefit analysis</b> Cost-benefits analysis for establishment of a CCP for MBS has been conducted by the industry. FICC has proposed to establish a CCP to clear agency MBS (FICC-MBSD). The proposal is currently being reviewed by the SEC.</p> <p><b>Risk management</b> The risk management procedures of the CCP for FSS eligible securities are assessed separately against the CPSS/IOSCO Recommendations for CCP (See FICC-GSD assessment).</p>
Assessment	Observed.
Comments	FICC-GSD acts as CCP for all FSS eligible securities except for agency MBS. In this regard, FICC has filed a proposed rule change with the SEC to allow FICC-MBSD to act as CCP for agency MBS.
<b>Recommendation 5.</b>	Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.
Description	<p><i>Legal and fiscal impediments to securities lending (Q1)</i> There are no fiscal impediments to the development and functioning of securities lending in the United States. There is a clear and effective legal basis for securities lending activities (see Recommendation 1). The U.S. tax regime does not differentiate between repo transactions and securities lending arrangements.</p>

	<p><i>Markets or facilities for securities lending (Q2)</i>  The United States has a very liquid and deep securities lending market. For securities lending transactions in Fedwire-eligible securities, settlement occurs through FICC, FSS, or on the books of a custodian. FSS does not provide securities lending services to participants, and there is no centralized automated securities lending facility in the United States. Rather, there are market conventions and procedures for securities lending and reverse repo transactions. Major market participants, including broker-dealers and large custodian banks, may engage in securities lending or reverse repo transactions in order to increase portfolio returns or meet delivery obligations (such as to facilitate settlement or cover a short position). Custodians and, in particular, the two major clearing banks, play a key role in the securities lending market. They provide custody account management services, securities valuation, and transfer administration services, notably investment and lending services on behalf of their clients.</p> <p>The Federal Reserve recognizes the importance of securities lending in reducing the risk of settlement failures in the settlement of Fedwire-eligible securities transactions. To mitigate such a risk, the FRBNY operates a securities lending program that lends securities from the Federal Reserve's portfolio, called the System Open Market Account (SOMA), to facilitate the smooth clearing of government securities. The Federal Open Market Committee (FOMC) sets the terms and conditions of such lending and provides general oversight of the SOMA. While these transactions may settle over the Fedwire securities, primary dealers bid to borrow securities and receive notification of awards through another application.</p> <p><i>Supervisory policies (Q3)</i>  The relevant supervisor (i.e., banking or securities supervisors) for these various market participants that lend/borrow securities (e.g., bank custodians, broker-dealers) review market participants' risk management practices regarding securities lending transactions.</p> <p>For securities loans from the Federal Reserve's SOMA program, The Federal Reserve Board (Board) and the FRBNY's internal audit department conduct reviews, among other things, of the internal controls and financial controls over the SOMA program on an annual basis.</p>
Assessment	Observed
Comments	
<b>Recommendation 6.</b>	Securities should be immobilized or dematerialized and transferred by book entry in CSDs to the greatest extent possible.
Description	<p><i>Dematerialization and immobilization (Q1)</i>  Securities settled in FSS are issued on a dematerialized basis. As of year-end 2008, of the approximately US\$5.8 trillion (par value) of Treasury securities held in custody by FSS, 99.9 percent are dematerialized. All securities held in FSS accounts are in book entry form.</p> <p>A limited number of Treasury securities issued before 1986 and certain real estate mortgages investment conduits (REMICs) issued by Ginnie Mae are eligible to be converted in certificated form. The trend however is towards the elimination of physical certificates. Since 1986, new offerings of Treasury securities have been issued without the option of conversion into certificated form. Securities issued prior to this date, which represent less than 0.01 percent of outstanding Treasury securities, may be held in certificated form at the investor's discretion and, hence, are not "immobilized."</p> <p><i>Legal Basis Governing Book-Entry Issuance, Custody, and Transfer (Q2)</i>  Under TRADES and corresponding agency regulations, a direct FSS participant obtains</p>

	<p>an interest in a Fedwire-eligible security when a Reserve Bank credits the book-entry security to the participant's account. (See also answers to RSSS7 and RSSS8).</p> <p>The Reserve Banks, as the CSD, operates an indirect account holding system. Securities are reflected in the accounts of direct FSS participants, which, in turn, may be holding the securities as intermediaries for their own customers. Rights relating to Fedwire eligible securities are created as a legal matter when such interests are reflected on the books of the relevant intermediary which may or may not be the CSD.</p>
Assessment	Observed.
Comments	
<b>Recommendation 7.</b>	Securities settlement systems should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.
Description	<p><i>Technical framework for DVP(Q1)</i></p> <p>The technical framework of the FSS ensures DVP. It processes securities transfers individually in real-time. Transfer of securities and associated payments occurs simultaneously and is final when the respective securities and master cash accounts are credited and debited.</p> <p>During a typical DVP transaction, the sending participant (sender) initiates the securities transfer message to the FSS requesting a transfer of securities to a receiving participant (receiver). The message identifies the sender and the receiver, the securities issue, and par amount to be transferred, and any payment information. The FSS checks the message for syntax errors and verifies that the sender has the correct security and necessary balance (par amount) in its securities account. Once verified the securities are automatically withdrawn from the sender's securities account and deposited to the receiver's securities account, and, simultaneously, the corresponding funds are withdrawn from the receiver's master account and deposited to the sender's master account. The FSS is not linked to the Fedwire real-time gross settlement (RTGS) system for funds transfer, but to the Fed centralized accounting system, where the master accounts are credited and debited. Once the transfer is complete, the FSS sends both the sender and the receiver notice acknowledging that instructions have been processed.</p> <p>DVP transactions may be settled both with positive cash balances in a receiving institution's funds account and on the basis of intraday credit (daylight overdrafts). As discussed in the assessment against recommendation 9, account holders must adopt or are assigned by their Reserve Bank a maximum limit on daylight overdrafts (net debit cap). The Federal Reserve expects accountholders to manage actively their accounts to avoid incurring daylight overdrafts in excess of their net debit cap.</p> <p><i>Amount of transactions settled on a DVP basis (Q2)</i></p> <p>In 2008, the average daily value of <i>transfers</i> (FSS statistics measure securities transfers, not trades) settled for direct participants and their customers on the FSS on a DVP basis was US\$1.66 trillion (Approximately 85 percent of total securities transfer volume). The remaining 15 percent of FSS transactions are free of payment (FOP) transactions that involve the delivery of securities with no corresponding payment leg. These transactions are primarily associated with intra-bank transfers (i.e., participants repositioning securities within their Reserve Bank securities account structure).</p>
Assessment	Observed.
Comments	
<b>Recommendation 8.</b>	Final settlement on a DVP basis should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.

Description	<p><i>Timing of settlement finality (Q1)</i> FSS provides for final settlement of securities transfer on a real-time basis throughout the settlement day. Timing of settlement finality is defined in the TRADES and corresponding agency regulations, UCC Article 8 and OC7. Pursuant to the TRADES and corresponding agency regulations, an interest in a Fedwire eligible security is created when a Reserve Bank credits, by book-entry, the security to a participant's securities account. OC7 Section 9.1 provides that, unless a transfer is rejected, all debits and credits in connection with a transfer become final and irrevocable delivery of securities and funds at the time a Reserve Bank posts the debits and credits to the sender's and receiver's accounts.</p> <p><i>Needs for Intraday finality (Q2)</i> The system provides for final settlement of DVP transfers on a real-time basis throughout the operating day. Real-time settlement supports monetary policy, credit extensions, and the smooth functioning of the Treasury securities market. It is critically important for market participants and CCPs in particular to have real-time finality in the receipt and delivery of securities over FSS and intraday finality is seen as an important risk management attribute of FSS.</p> <p><i>Unilateral revocation of settlement (Q3)</i> All securities transfers sent through FSS are processed and settled on a real-time basis. Therefore, no unsettled transfer messages exist in FSS that could be revoked by participants at any point in the settlement day.</p> <p>If a final settlement occurred on the basis of intraday credit not reimbursed at the end of the day the transactions cannot be revoked. Daylight overdrafts that are not eliminated by the end of the Fedwire funds business day become overnight overdrafts, unless the institution is eligible to access the discount window and requests an overnight discount window loan (the institution must have completed all the necessary agreements and posted collateral to get a discount window loan, which many institutions have done).</p> <p><i>Links to foreign CSDs (Q4)</i> FSS does not have any direct links with other CSDs.</p>
Assessment	Observed.
Comments	
<b>Recommendation 9.</b>	CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.
Description	<p><i>Extension of intraday credit and risk management procedures (Q1)</i> The FRB facilitates settlement of securities transfers by extending intraday credit to eligible participants. Rigorous risk controls, in particular, collateral requirements and limits are imposed to control potential exposures and losses. Part II of the Federal Reserve's PSR policy defines the limits, requirements, and fees for intraday credit extensions.</p> <p><b>Liquidity Risk</b> The Reserve Banks may extend intraday credit under certain terms and conditions, in the form of daylight overdrafts, to FSS participants, which facilitates the timely settlement of securities transfers against payment. Participants could incur securities-related funds overdrafts in their master accounts as a result of the debit of funds from their master accounts to pay for securities received. As the central bank, the Federal Reserve does not</p>

face liquidity risk from the FSS operations or the provision of intraday credit. However, a participant may face liquidity constraints if daylight overdrafts are not allowed by the FRBs. Intraday credit limits, as prescribed in Part II of the PSR policy, can constrain some participants' payment operations. Each participant is aware of these constraints and is responsible for managing its master account throughout the day.

The Federal Reserve expects participants to extinguish their daylight overdrafts by the end of the Fedwire Funds Service operating day (18:30 Eastern Time). A participant can extinguish daylight overdrafts with incoming payments to its master account, including payments from financing obtained in the money markets, or with funds borrowed from the Reserve Banks' discount window, the Reserve Banks' overnight credit facility. To obtain a discount window loan, a participant must have executed the appropriate legal agreements with and pledged adequate collateral to its Reserve Bank. A participant must contact its Reserve Bank and explicitly request a discount window loan, which is made at the discretion of the Reserve Bank. If a participant does not extinguish its daylight overdraft before the end of the Fedwire operating day, it will be charged for an overnight overdraft at a penalty rate. Overnight overdrafts are strongly discouraged, incur higher fees than discount window loans, and may be subject to supervisory attention.

### **Credit Risk**

The Reserve Banks' provision of intraday credit converts participant liquidity risk into credit risk borne by the Reserve Banks. If a participant were to fail and close before extinguishing its daylight overdraft, its Reserve Bank could face a financial loss. Part II of the PSR policy attempts to control and mitigate these exposures while providing sufficient liquidity to participants paying for the receipt of DVP securities transfers and other transactions.

Part II of the PSR policy requires that all participants incurring daylight overdrafts in their master accounts adopt a maximum limit on daylight overdrafts (net debit cap). The Guide to the Federal Reserve's Payment System Risk Policy on daylight credit (the last version being dated on March 26, 2009) provides for the way to calculate net debit caps. An institution's net debit cap is calculated as its cap multiple times its capital measure (Net debit cap = cap multiple x capital measure).

Given that the net debit cap is a function of an institution's capital measure, the amount of the cap varies over time with the change of the institution's capital measure.

Generally, net debit caps are based on creditworthiness, as determined by the participants' capital adequacy and the most recent supervisory ratings. All net debit caps are granted at the discretion of the Reserve Banks. Only participants with routine discount window access are eligible for a positive net debit cap. Participants that have access to the highest levels of intraday credit must annually assess their financial condition and operating environment.

The Federal Reserve expects participants to manage actively their accounts to avoid incurring daylight overdrafts in excess of their net debit cap. Reserve Banks employ ex-post and, in some cases, real-time monitoring of participants' daylight overdrafts. A participant exceeding its net debit cap may be contacted by its Reserve Bank and counseled. In addition, the PSR policy relies heavily on both periodic and ongoing assessments of participants' financial condition. The Federal Reserve has developed extensive guidelines to monitor internally the condition of participants that have access to Reserve Bank intraday credit.

The guidelines establish standard criteria and practices used by the Reserve Banks for account risk-management. These criteria help identify institutions that present high potential risk to the Reserve Bank and that, as a result, require special controls and

monitoring. Each Reserve Bank retains the right to protect its risk exposure from individual participants by reducing net debit caps, imposing collateralization or balance requirements, rejecting or delaying certain transactions, or in extreme cases, taking the institution off line or prohibiting it from using the FSS.

**Credit risk in execution of DVP settlement**

It is noted that in executing real-time DVP the Reserve Banks take some risks to the extent that the cash leg may be funded with uncollateralized intraday credit. In particular, there is a risk that the failure of a FSS participant could result in a credit exposure to a Reserve Bank if the failing participant were in an overdraft position. This risk is mitigated in several ways. Through legal agreements with the Reserve Banks, depository institutions grant a security interest to the Reserve Banks in all of their funds, securities, and other property held at the Reserve Banks (excluding any securities that the participant may not encumber under applicable law) as collateral for any overdraft. Additional protection is found in U.S. law which provides that the Reserve Bank's security interest automatically attaches to a Fedwire security held in a participant's account at the Reserve Bank if the purchase of that Fedwire security by the participant caused an overdraft in the participant's account. This security interest mitigates the Reserve Banks' risk in securities transactions. The Reserve Banks also mitigate their risk through condition monitoring of participants, which includes getting reports from the banks' supervisors as to their supervisory rating. If a Reserve Bank has concerns about a participant, the Reserve Bank may require that participant to explicitly hold extra collateral as an additional precaution.

**Collateral**

The PSR policy generally does not require participants to pledge collateral to the Reserve Banks to secure daylight overdrafts. The PSR policy allows certain healthy participants to pledge collateral to their Reserve Bank to secure daylight overdraft capacity in excess of their net debit caps, subject to Reserve Bank approval. The net debit cap plus the additional capacity is referred to as the "maximum daylight overdraft capacity." Collateral pledged for all Federal Reserve purposes, including intraday credit, is marked-to-market or internally valued and subject to haircuts in accordance with the Federal Reserve's methodology. The Reserve Banks may, however, require participants that pose exceptional risk, such as those in weakened financial condition or in imminent danger of failure, to pledge collateral to secure any daylight overdrafts.

**Other Reserve Bank Security Interests**

In addition to the security interest created by pledged collateral described above, Reserve Banks have a security interest in securities and other property maintained by participants at the Reserve Bank that may arise through legal agreements with the accountholders or as a matter of U.S. law, even without an express pledge by the participant. Pursuant to OC 1 the account holder explicitly grants to the Reserve Bank all of the account holder's rights, title, and interest in property, whether owned at that time or acquired in the future, in the possession or control of, or maintained with, any Reserve Bank, including securities, security entitlements, and securities accounts (but excluding any securities or security entitlements in the account holder's securities accounts at any Reserve Bank that the account holder may not encumber under applicable law) to secure any obligation of the account holder to any Reserve Bank. OC 1 provides that the Reserve Banks reserve the right to take any action authorized by law to recover the amount of an overdraft that is due and payable, including, but not limited to, the exercise of setoff without demand or notice and even if the obligations are contingent or unmatured, the realization on any available collateral, and the exercise of any rights the Reserve Bank may have as a creditor. In addition, under UCC Article 9–206, a security interest in favor of a securities intermediary has a security interest in the rights to any uncertificated securities ("securities entitlements") in a customer's account if the securities intermediary purchases the securities for that customer on credit and that customer has not paid.



	<p>Accordingly, a security interest in favor of a Reserve Bank attaches automatically to Fedwire-eligible securities when the securities are purchased through the use of the Reserve Bank’s intraday credit. This security interest arises as a matter of law and not as a result of a pledge by the Fedwire participant to a Reserve Bank. Under the UCC, such a security interest has priority over a conflicting security interest held by another secured party.</p> <p><i>Daylight overdraft fees</i>  Since 1994, the PSR policy has included a fee on daylight overdrafts intended to moderate the use of intraday credit. The Federal Reserve initially set the annual rate for the overdraft fee at 24 basis points and increased it to the current level of 36 basis points on April 13, 1995. The overdraft fee is applied to a measure of average daily overdrafts for each institution less a deductible amount related to the institution’s capital.</p> <p><i>Transfer-size limit on book-entry securities</i>  In 1988, the Board imposed a US\$50 million limit on the par value of individual book-entry securities transfers over the FSS. The purpose of this limit is to encourage dealers to split large trades into multiple, partial deliveries, and thereby reduce daylight overdrafts related to book-entry securities transactions.</p> <p><i>Overdrafts or debit balances in securities (Q2)</i>  Reserve banks do not permit participants to incur debit balances in securities accounts. The system will reject a transfer instruction if participant initiating the transfer does not have the securities in its securities accounts. Neither provisional nor partial delivery of securities is allowed.</p> <p><i>Evaluation of the probability and impact of multiple failures (Q3)</i>  A multiple participant failure would have limited effect, if any, on the operations of the FSS since the cash advance is central bank money and no securities overdraft is allowed. To minimize FRB credit risk in the case of a single or multiple institution failure, the FRBs monitor the financial condition of institutions and apply risk controls, which include eliminating access to intraday credit, if an institution’s condition deteriorates. FRBs consider supervisory and market information in monitoring institutions. Once an institution is close to failure, the FRBs work with the appropriate regulator, such as Federal Deposit Insurance Corporation or the National Credit Union Association, to facilitate an orderly resolution.</p>
Assessment	Observed.
Comments	<p>The recommendation states that the most reliable approach to controlling potential losses and liquidity pressures from participants’ failures to settle is a combination of collateral requirements and credit limits. The Fed’s net debit caps set limits on the amount of intraday credit used by participants. This will limit the Fed total exposures to credit risk. In view of eliminating the residual risk taken by the Fed when executing DVP whose cash leg is funded by Fed using uncollateralized intraday credit, the Fed should continue to monitor these risks and assess whether additional mitigation tools such as collateral is needed.</p>
Recommendation 10.	<p>Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.</p>
Description	<p><i>Settlement agent (Q1)</i>  Final settlement of DVP transactions is against payment of funds in central bank money through transfer of account balances held at a Reserve Bank. Only settlement of</p>

	<p>transactions denominated in U.S. dollar is settled in the FSS. Furthermore, only participants with Reserve Bank master accounts are allowed to send or receive DVP transactions in the FSS.</p> <p><i>Settlement banks and concentration of settlement flows among participants (Q2)</i> Settlement banks in FSS are the Reserve Banks, which are subject to general supervision by the Board and supervision and control by their own boards of directors.</p> <p>Among the approximately 2,600 depository institutions that use the FSS, there is a high concentration of settlement flows among participants. In 2008 the top 20 participants accounted for 97 percent of the total transfer value. As of year-end 2008, the two clearing banks (JPMC and BoNY) initiated approximately 71 percent of securities transfers by volume and approximately 80 percent by value, on the FSS.</p> <p>In addition to FSS transfers, the two clearing banks provide settlement for Fedwire-eligible securities for primary dealers and other major market participants, resulting in a high concentration of “on-us” transfers.</p> <p>The financial condition of the two clearing banks is monitored by relevant Federal and state banking supervisors. BoNY is regulated and supervised by the Federal Reserve and NY State Banking Department. As a bank holding company, JPMC is regulated and supervised by the Federal Reserve; its national bank unit is regulated and supervised by the OCC.</p> <p><i>Proceeds of securities settlement (Q3)</i> FSS direct participants have immediate access to the settlement proceeds credited to their accounts and can use these funds for other payments.</p> <p><i>Compliance of the relevant payment system with the CPSIPS (Q4)</i> FSS does not use the Fedwire RTGS payment system. It is connected directly to the Federal Reserve’s centralized accounting system.</p>
Assessment	Observed.
Comments	<p>There is a high concentration of securities clearing and settlement in the two clearing banks (JPMC and BoNY). In addition, they are the two main providers of tri-party repo facilities and serve as the two settlement banks for FICC. Today, tri-party repo facilities represent one of the main sources of funding for a broker-dealer’s inventory of securities. Tri-party repo transactions are processed at the end of the day. The day after, early in the morning, collateral is returned to dealers and cash is credited to lenders’ accounts. In order to facilitate settlement of buy-sell transactions, dealers heavily rely on intraday credit provided by JPMC and BoNY. This intraday credit is uncommitted but it is collateralized.</p> <p>Although the financial conditions of the settlement banks are monitored and evaluated by banking supervisors, a problem at one of the clearing banks or a refusal to extend credit to a market participant by one of the clearing banks could be disruptive to the functioning of the tri-party repo market and the settlement of securities transactions. Specific measures to mitigate the risks of the two clearing banks should be considered, including measures to increase the liquidity resilience of cash borrowers in the tri-party market, reduce the tiering of settlements, or address the nature and size of intraday credit extensions by the clearing banks.</p>

	<p>The authorities are aware of this issue and an industry task force sponsored by the Payment Risk Committee<sup>2</sup> is currently discussing possible solutions to increase transparency and mitigate risks associated with tri-party repos. In particular, four issues are being explored:</p> <ol style="list-style-type: none"> <li>1. how to reduce and mitigate risk exposures of the clearing banks (introduction of collateral substitution, asset margining and portfolio margining);</li> <li>2. how to reduce and mitigate the underlying funding risk of their customers, i.e., the fixed income securities dealers;</li> <li>3. liquidation issues (e.g., more transparency on type of collateral to liquidate and its valuation) as well as procedures for liquidation that do not create fire-sale conditions or severely constrain market liquidity; and</li> <li>4. Reduce and mitigate effects of pro-cyclicality of risk management procedures (including effects on valuation of collateral).</li> </ol> <p>A progress report from the task force has been released (<a href="http://www.newyorkfed.org/prc">www.newyorkfed.org/prc</a>). A final report from the task force is expected during 2010.</p>
<p><b>Recommendation 11.</b></p>	<p>Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for timely recovery of operations and completion of the settlement process.</p>
<p>Description</p>	<p><i>Process for identifying and managing operational risks (Q1)</i></p> <p>The Reserve Banks have processes for identifying and managing operational risks associated with the FSS. FSS operates in the context of the Federal Reserve's overall information technology environment. This environment consists of a defined architectural framework and defined policies regarding IT development, IT operations, and IT security.</p> <p>The information security program is designed to protect information from loss or misuse, and, therefore, minimize the risk of monetary loss, productivity loss, or embarrassment to the Federal Reserve. The program addresses areas of potential operational risk and personnel, facilities, and equipment security. The Federal Reserve information security program requires each Reserve Bank with management responsibilities for a business function, such as the FSS, to complete information security risk assessments to determine that the appropriate controls are in place to manage operational risk.</p> <p>FSS is also subject to several additional formal Reserve Bank risk assessment programs, including the Federal Reserve Bank of New York's enterprise risk management initiatives. In addition, FSS complies with the Federal Information Security Management Act of 2002 (FISMA).</p> <p>The Reserve Banks have processes for identifying and managing operational risks associated with the FSS. For example, FSS complies with Federal Reserve Bank of New York operational risk management program. This program is a methodology for management and monitoring of operational risks. In addition, on a day-to-day basis a team of dedicated technical and software specialists monitors the Fedwire applications to ensure efficient processing of transactions and addresses any technical issues promptly.</p>

<sup>2</sup> The Payments Risk Committee is a private sector group of senior managers from U.S. banks that is sponsored by the Federal Reserve Bank of New York. The Committee identifies and analyzes issues of broad industry interest related to risk in payments and settlement systems. It also seeks to foster broader industry awareness and discussion, and to develop input on public and private sector initiatives

The Reserve Banks also conduct robust application and network testing, including penetration and stress testing.

*Contingency plan and back up facilities (Q2)*

Reserve Banks maintain and regularly test contingency plans and back up facilities to ensure resilience of FSS and all integral support functions. FSS meets or exceeds the recommendations published in the U.S. Interagency Policy on sound practices to strengthen the resilience of the U.S. financial system. The Reserve Banks maintain multiple out-of-region backup data centers and redundant out-of-region staffs that support the data centers, FSS applications and customer testing facilities and support services. The Reserve Banks rotate production support among out-of-region staffs regularly. In addition FSS transmits and logs transactions and critical database changes to both the primary and the secondary backup data centers in real-time throughout the day. The Reserve Banks also conduct on-site and remote-site recovery tests at the out-of-region data centers each year. FSS will be able to resume its activities within a very short period of time.

The Reserve Banks provide two electronic access solutions to connect to FSS – FedLine Direct and FedLine Advantage. The two solutions for electronic access generally rely on separate telecommunications networks. In addition, the largest Fedwire customers must engineer their primary and backup FedLine Direct circuits to ensure that there is no single point of failure (e.g., ensure diversity). Finally, participants can originate securities transfers off line by providing transfer instructions to the appropriate Reserve Bank via telephone.

As outlined in the OC7, FSS participants are responsible for developing their own contingency and recovery plans, such as backup computer and operation facilities. The most active participants must participate in a minimum number of contingency tests each year, including tests from the customers' back up sites. In addition, the Reserve Banks maintain a customer testing environment for FSS participants. Participants are also expected to follow bank supervisory guidance for regulated depository institutions, among others, regarding business resumption and information system contingency planning.

In the event of a FSS processing disruption, participants have a process by which they reconcile their records of transfer messages sent with the Reserve Banks' records. After a disruption, the Reserve Banks issue reports to participants listing the securities transfers to identify any gaps in the sequence numbers assigned to each transfer initiated by the participants. These gaps represent transfers that were submitted but not accepted or processed by the FSS. Once FSS resumes processing, participants resend those transfer messages that fall within the gaps, flagged as possible duplicate message. Participants exercise this reconciliation process regularly during contingency tests.

The Reserve Banks' procedures to ensure the integrity of transfer messages are also outlined in OC7. The Reserve Banks require participants to implement appropriate physical and logical security measures to protect any access control, hardware and software. These security measures ensure that the initiation of a transfer message occurs from locations that the Reserve Banks have authorized and requires action by more than one of the participant's employees. The Reserve Banks also requires message to contain adequate identifying information and adhere to other media and format requirements.

Finally, the business continuity plan (BCP) has been designed in a way to take into account the potential operational interdependence between Fedwire Funds Service and FSS (different applications and no additional constraints, e.g., in terms of staff).

Although there is no direct link (system interdependence) between FSS and DTCC group

	<p>systems, the Securities Industry and Financial Markets Association (SIFMA) on an ad-hoc or as required basis coordinates testing among financial market participants and infrastructure providers such as FSS and FICC.</p> <p><i>Adequate management controls and periodic independent audit. (Q3)</i> Operational reliability issues are regularly reviewed by senior management with various roles in relation to FSS, including managers not responsible for the securities service operations.</p> <p>Senior management of the Wholesale Product Office (WPO) focuses on operational reliability as a part of ongoing management attention.</p> <p>Each Reserve Bank has an independent internal audit department reporting directly to that Reserve Bank's board of directors. Working co-operatively, the Reserve Banks' internal audit staffs conduct end-to-end audits of FSS activities on a risk-based schedule. The Board conducts periodic risk based reviews of FSS, including reviews of the IT systems. Independent external auditors also conduct risk based review of IT system.</p> <p><i>Availability and scalability of the system (Q4)</i> In 2008, the Fedwire securities application was available for 100 percent of its operating hours. The availability standard for Fedwire securities is 99.9 percent of operating hours. No major incident was report during last year. The Reserve Banks have dedicated staff that manage and test capacity to ensure that Fedwire securities can handle high volume levels. In addition to monitoring actual volume levels, staff considers market factors that could influence future volume levels. Staff increases the Fedwire securities capacity based on volumes experienced and these market factors, as appropriate. After a change in capacity, staff conducts high-volume stress tests.</p> <p>Fedwire Securities did not experience any sustained volume spikes or abnormal peaks during the recent financial market crisis—daily average volumes between 2007 and 2008 were essentially flat. During the Lehman crisis in Sept. 2008, volumes on Sept 15 and 16 increased about 30 to 40 percent from the August 2008 daily average of 91,000 transfers to about 120,000 and 130,000 transfers, respectively. Two other “peaks” occurred on September 22 of about 129,000 transfers and September 25 of about 125,000 transfers. On the other days in the September 12 to 29 timeframe, volumes were generally below August averages, ranging from 74,000 to 94,000 transfers a day. These volumes are well within the capacity of FSS, which is currently sized to accommodate up to 2 million transfers a day.</p> <p><i>External audits</i> Independent external auditors conduct annual risk based review of IT systems supporting FSS. The most recent review was completed as of September 30, 2009.</p>
Assessment	Observed.
Comments	
<b>Recommendation 12.</b>	Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.
Description	<p><i>Protection of customers' assets</i> The FSS is an indirect holding system, where securities (or interest in securities) are held for the sole benefit of the direct participants whose account has been credited and not for the benefit of any other party.</p> <p>Reserve Banks maintain records of the identities and interest of the direct participants on</p>

the FSS. Each direct participant, in turn, maintains records on its internal system of specific client holdings. FSS allows direct participants to have multiple securities accounts so that each direct participant can, to the extent desirable or required by law, segregate their customer holdings.

To ensure that Reserve Bank records are accurate and that securities accounts are not subject to theft, loss, or misuse, both physical and technical controls as well as periodic audits are performed.

UCC Article 8 provides that securities intermediaries, including the FRBs, are required to maintain a sufficient quantity of investment property (e.g., securities) to satisfy all of their customers' claims. In addition securities intermediaries are prohibited from using customer securities in their own business activities. Thus, by law, a securities intermediary is prohibited from pledging or selling a customer's security except as agreed to by the customer or to the extent UCC Article 8 creates a statutory lien in favor of the securities intermediary.

UCC art. 8 further provides that all interests in a particular security held by an intermediary are held for the benefits of its customer to the extent necessary to satisfy the claims of its customers and are not the property of the intermediary. Moreover, such interests are not subject to the claims of the creditors of the securities intermediary, unless the securities intermediary is a clearing corporation or the creditor has control over the financial assets. Creditors of a clearing corporation are given preference over the securities intermediary's customers to ensure that the clearing corporations can obtain the liquidity necessary to complete settlement. This exception is not relevant for the Reserve Banks because they do not face liquidity constraints.

This exception does expose a customer to the risk that its securities intermediary will wrongfully pledge or transfer its interest. This risk is mitigated because securities intermediaries are regulated entities and may not grant a security interest in a financial asset without the agreement of the entitlement holder. Moreover, if the creditor of the securities intermediary does obtain control of customer securities by acting in collusion with the securities intermediary and the intermediary is insolvent, the intermediary customer may bring a claim directly against the creditor to recover the securities entitlement.

Under U.S. law, the customer of an insolvent intermediary is generally able to obtain its fully-paid-for securities and move its positions to a solvent intermediary.

*Inventory control and reconciliation*

As a part of the reconciliation process, daily activity reports or clearing summaries are available to participants and provide information on those CUSIP numbers that had transaction activity on the respective date. Participants may also elect to receive periodic account holding reports providing detailed holding information for each securities account. Account holdings reports are provided as often as daily to facilitate reconciliation, but FSS cannot know when or how often participants reconcile their own accounting. This function is the responsibility of the securities regulators. The reports list total par balances for each account, along with the CUSIP numbers, and participants may use the reports to reconcile total outstanding balances. The Reserve banks will also respond to participants' requests for an audit confirmation that can be used by depository institutions and their regulators, internal audit departments, and external audit firms to verify a securities holding statement as of a particular date.

The FRBs also provide similar information to issuers to help reconcile activity in issuer accounts. The issuer accounts are affected by all new issuances, redemptions, and maturities. Reports are provided to all the issuers and contain information and amounts

	<p>representing the total par value of outstanding securities for each CUSIP number.</p> <p><i>Supervision and regulation of custodian entities</i>  Participants maintaining securities accounts for customers are subject to prudential supervision and regulation. Although U.S. law would not describe these activities as custodial, in the Fedwire Securities Service, the “custodian” and the system operator are the same entity – the Federal Reserve. By law, a securities intermediary is prohibited from pledging or selling a fully paid for customer security except as agreed to by the customer or to the extent UCC Article 8 creates a statutory lien in favor of the securities intermediary.</p> <p>Custodian activities of the two clearing banks are subject to supervision by the Federal Reserve, among other supervisors, as a part of normal banking supervision.</p>
Assessment	Observed.
Comments	
<b>Recommendation 13.</b>	Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.
Description	<p><i>Clarity and transparency of governance arrangements</i>  Reserve Banks operate the FSS on a consolidated basis through the FRBNY’s Wholesale Product Office (WPO). The WPO has responsibilities for operational management of the FSS, the Fedwire Funds Service, and the National Settlement Service. In this role, the WPO sets strategic direction for these services (subject to the review of the Financial Services Policy Committee), coordinates projects impacting the services and their customers, and ensures that wholesale operating sites meet their service level agreements for resiliency and performance.</p> <p>The WPO is a national function, meaning that the FRBNY is responsible for the WPO on behalf of all of the FRBs. The WPO has "outsourced" several critical activities to other Federal Reserve Banks. The FRBNY has service level agreements (SLAs) with these FRBs. These SLAs govern the services that these other Reserve Banks provide in support of FSS and other wholesale activities. The WPO focuses primarily on longer-term strategic issues related to FSS, the Fedwire Funds Service and National Settlement Service. WPO typically becomes involved in day-to-day activities only in the event of a non-routine event (e.g., internal operational problem, a problem at a large customer, and/or some other event that could impact the services, such as spillover effects at the height of the financial crisis). The WPO consists of 18 people organized into the following groups: (a) Fedwire Funds, (b) Fedwire Securities; (c) National Settlement and access channels (FedLine Direct/FedLine Advantage, etc); (d) data management; (e) finances; and (f) operations.</p> <p>As a manager of consolidated national services, the WPO reports key information regularly to the Financial Service Policy Committee (FSPC), a standing committee of the Conference of Presidents (COP).</p> <p>Finally, under a service agreement among the twelve Reserve Banks, the WPO must report certain information to the other 11 Reserve Banks, such as Fedwire service metrics, certain audit findings, etc., allowing the other Reserve Banks to monitor the WPO’s performance on behalf of their Reserve Bank, and to the extent each Reserve Bank feels necessary, informing their own Boards of Directors.</p>



The U.S. Treasury maintains general supervision over those FRB activities performed as fiscal agents for the United States, such as the portion of FSS that deals with U.S. Treasury securities.

#### *User participation*

The Customer Advisory Group (CAG), which was established 2008, includes Bank of New York-Mellon, JPMorgan Chase, State Street, Northern Trust, Fannie Mae, Freddie Mac, FHLBs, Treasury, and the FICC. These meetings are formally held twice per year and its discussions primarily focus on market needs that could be met through the FSS. Also during these meetings, the WPO solicits volunteers for testing new FSS Service functionality. In addition, this group has offered the WPO valuable insight into securities processing and served as a key communication mechanism in the aftermath of the crisis in 2008–2009. However, the WPO does not maintain an advisory group for smaller and midsize participants. That said, the WPO does have a few vehicles to incorporate small to midsize customer feedback. First, customers can provide feedback to the WPO through the financial services website, frbservices.org, in email form. Second, the small to midsize customers may communicate feedback to customer account representatives and customer support centers. These representatives would then pass the feedback to the WPO. Finally, the WPO makes itself available to industry groups on an as needed basis for FSS related discussion topics.

The advisory group and other forums enable gathering customer feedback. Customer's feedback is also sought by means of targeted market consultation on major changes in the system. In addition, the Federal Reserve will seek public comment on major policy issues and service changes. Requests for public comment are either published by the WPO on its public website or by the Board in the Federal Register.

#### *Disclosure of objectives and major decisions*

The role/objectives/policy related to FSS are publicly disclosed through a series of policies. Participants' concerns are addressed through various formal and informal means (e.g., public notice and comment), including the Customer Advisory group, although none of these advisory groups plays any formal role in the governance of the system. Customers may express their views in the various WGs as well as through Federal Reserve participation, in a non-voting capacity, on a SIFMA operations committee. Market consultations are organized before introducing major changes in the rules or functionality of the FSS.

#### *Management skills and accountability*

WPO submits periodic reports to the FSPC regarding service performance and trends



	<p>(beforehand annual goals and budget objectives are submitted for review and approval). Under the strategic direction of the Conference of Presidents, the FSPC provides overall direction of financial services and related support functions for the Reserve Banks, as well as for providing leadership for the evolving U.S. payments system. The FSPC is comprised of three Reserve Bank presidents and two Reserve Bank First Vice Presidents, one of whom is the Chairman of the Conference of First Vice Presidents. The Conference of Presidents appoints the members at large. In addition, a senior management representative of the Board of Governors; the chairman of the Information Technology Oversight Committee; the director of Federal Reserve Information Technology; and the product directors of the Retail, Cash, Wholesale, Customer Relations and Support, and Treasury Relations and Support offices serve as liaison members of FSPC.</p> <p><i>Board composition, expertise and representation of interests</i></p> <p>The Wholesale Product Office (WPO) is responsible for the FSS. The WPO is part of the FRBNY, and like all of the activities of the FRBNY, is under the supervision and control of the FRBNY board of directors. The FSS does not have a separate board of directors. The FSPC, which was described above, is not a board of directors, although some of its activities resemble the activities that might be provided by a board of directors. The FSPC provides overall direction of financial services and related support functions for the FRBs such as reviewing strategic plans, budgets, fees and performance metrics.</p> <p>Co-operation among the Reserve Bank is facilitated through the COP and its committees. The COP is composed of the twelve Reserve Bank presidents. The COP by-laws allow it to establish committees to coordinate activities among the Reserve Banks. Two of the main Committees established in this framework are the FSPC and the Information Technology Oversight Committee (ITOC). The FSPC provides strategic leadership for Reserve Banks' provision of financial services and acts as a policy review and senior decision-making body for the Reserve Bank on financial services issues. ITOC sets the strategic direction and policy for Reserve Bank information technology activities. The FRIT office manages most of the nationwide information technologies.</p> <p>Along with the WPO and the FSPC which are responsible for the FSS's business strategy, the FRIT plays a significant role in the IT and network of the FSS.</p> <p>There is a clear and legal separation between operators (the above mentioned Federal Reserve Banks) and the overseer (the Federal Reserve Board) of FSS.</p>
Assessment	Observed.
Comments	In order to ensure that the needs and interests of different kinds of participants are taken into account, the WPO should include representatives of smaller and midsize participants, and not just rely on feedback provided through the financial services website.
<b>Recommendation 14.</b>	CSDs and central counterparties should have objective and publicly disclosed criteria for participation that permit fair and open access.
Description	<p><i>Access rules and criteria</i></p> <p>Access rules and criteria for the FSS are objective and publicly disclosed. Applicants eligible to maintain a securities account with a Reserve Bank include: depository institutions, U.S. agencies and branches of foreign banks, member banks of the Federal Reserve, the Treasury and entities, such as certain international organizations, specifically authorized by federal statute to use Reserve Banks as fiscal agents or depositories, entities designed by the Secretary of the Treasury, Edge and agreement corporations, foreign central banks, foreign monetary authorities, and foreign governments.</p>

	<p>In order to receive or send securities against payment, a participant must also maintain a master account at the appropriate Reserve Bank. Master account eligibility is set forth in OC 1 and includes the entities listed above.</p> <p><i>Restrictions in access</i></p> <p>Same eligibility rules apply to all participants. Rules limit the types and location of entities that can access to the FSS. Current eligibility rules require applicants, other than official entities, to be resident in the United States. Foreign banks without a U.S. banking presence are not permitted access to FSS because they are not subject to supervision by U.S. banking authorities or U.S. restrictions on their nonbanking activities. Granting direct access to a foreign bank would raise issues of risk to the Federal Reserve as well as consistency with the International Banking Act, which was intended to provide a level playing field in the United States between U.S. and foreign banking organizations. A foreign bank with a physical presence in the United States may, however, operationally access the FSS from an overseas location. In addition governmental and multinational financial agencies are given access.</p> <p>With respect to the type of entities, statutes and policies preclude the direct access by entities other than those described above, such as nonbank broker dealers. Over the years, the Federal Reserve and the U.S. Treasury have studied the feasibility and appropriateness of allowing direct access to the FSS by nonbank broker dealers without granting access to Reserve Bank credit. The analysis revealed that, without this routine access to credit, providing direct access to FSS is of nominal value.</p> <p>Currently nonbank broker-dealers are prevented from direct access to Fedwire on the basis of non-risk-related limiting criteria (lack of a banking license). This limitation also precludes systemic payment, clearing, and settlement infrastructure, which are not chartered as a bank (e.g., FICC, the CCP for Fedwire eligible securities) to have direct access to Fedwire securities. Moreover, the fact that a physical presence in the United States is an access requirement for the Fedwire Securities Service de facto prevents foreign CSDs to establish of direct links with Fedwire securities.</p> <p><i>Exit procedures</i></p> <p>OC1 Section 2.8 details conditions for a participant to terminate its master account with a reserve bank: give advance notice of not less than 5 business days. Reserve banks can terminate a master account agreement at any time by giving notice to the account holder but generally will provide at least 5 business day in advance notice.</p>
Assessment	Partly observed.
Comments	<p>Certain key market participants such as nonbank broker dealers are not eligible to maintain accounts at the Federal Reserve. This prevents these participants from settling their trades in central bank money thereby increasing settlement risk. Moreover, some key infrastructures are not chartered as banks, and as a consequence they cannot use directly the services of FSS.</p> <p>The Federal Reserve should be given the legal authority to open accounts and provide services, at a minimum, for payment, clearing, and settlement infrastructures.</p>
<b>Recommendation 15.</b>	While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.
Description	<p><i>Mechanisms to review regularly costs and pricing (Q1)</i></p> <p>The Federal Reserve Banks have been provided payment services to the banking industry since shortly after the Federal Reserve System was established in 1913. Historically, these services were available only to banks that were members of the Federal Reserve,</p>

	<p>and they were generally provided without explicit charge.</p> <p>Congress expanded the Federal Reserve’s role in the payment system with the enactment of the Monetary Control Act of 1980 (MCA). The MCA subjected all the depository institutions, not just the member banks, to reserve requirements and gave all depository institutions access to the Federal Reserve’s payment services.</p> <p>The MCA requires the Federal Reserve Banks to set fees to recover, over the long run, all direct and indirect costs actually incurred in providing these services as well as the imputed costs that would have been incurred had the services been provided by a private-sector firm. MCA specifically identifies certain imputed costs that must be recovered via priced services fees, including taxes and return on equity (profit). Because of the similarity between the services provided by Reserve Banks and many of the services offered by private-sector correspondent banks, the Board historically has derived these imputed costs, collectively known as the PSAF, and offsetting imputed revenue, known as net income on clearing balances (NICB), using a correspondent bank model. The PSAF and NICB are estimated annually, and the resulting net cost is incorporated each year when setting priced services fees and measuring cost recovery. Fees are set on a national basis and do not vary between Reserve Banks.</p> <p>The Reserve Banks have in place cost controls such as an annual budget review and internal controls. The Board annually reviews and approves the Reserve Banks budgets, which include the cost of providing FSS. Treasury related costs are reviewed by the U.S. Treasury. Reserve Banks have internal controls to monitor and track costs and assess fees to the uses to cover the anticipated cost of providing the service over the long run. Fees are reviewed annually.</p> <p><i>Mechanisms to review service level and operational reliability</i>          Through the WPO, Reserve Banks regularly review service levels and seek to improve the efficiency and practicality of the FSS. Work is conducted both with internal/external stakeholders.</p> <p><i>Internal Stakeholders</i> – The WPO works with a number of Reserve Bank groups to review service levels. The WPO reports key information regularly to the Financial Services Policy Committee (FSPC) as described above. In addition, WPO meets regularly with members from FRB wholesale operation sites, the technical operations and testing staff for monitoring the system, and liaison from the Board, the Treasury, FRIT, the Federal Reserve’s Customer Relations and Support Office, and Reserve Bank legal, audit and system development functions.</p> <p><i>External Stakeholders</i> – The FRBs and the WPO periodically seek input on specific issues related to the FSS from the Treasury and through industry working groups and one-on-one interviews with external stakeholders. In 2008, the WPO established a FSS Customers Advisory Group to provide a venue for open dialogue between the WPO and the most active Fedwire securities participants.</p> <p>Capacity levels – Transaction capacity is now more than two times the highest number of transactions processed in one day. (In 2008, the highest daily volume of securities transfers processed was 482, 443).</p> <p>Efficiency is one of the themes addressed in the Federal Reserve Financial Services Strategic Plan for 2006-2010.</p>
<p>Assessment</p>	<p>Observed.</p>

Comments	<p>The core operating hours of FSS are 8:30 a.m. to 3:15 p.m. ET. On-line participants may initiate reversal transactions until 3:30 p.m. ET and move or reposition their securities among their securities accounts until 4:30 pm against payment and until 7 pm free of payments. Offline participants may initiate securities transfers or other requests from 9:00 a.m. to 1:30 p.m. ET for same day processing and until 4 pm ET for future day processing. Under special circumstances participants may ask the WPO to extend the operating hours.</p> <p>The operating hours of FSS are relatively short when compared to operating hours of other CSDs. The business case to extend operating hours should be re-assessed by the Federal Reserve.</p>
<b>Recommendation 16.</b>	Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.
Description	<p><i>Use of International communication procedures</i> FSS uses a proprietary message format that can be translated to and from international message standards. WPO participates in relevant securities industry standard groups such as SWIFT to maintain awareness about the developments and existing standards.</p> <p>The Reserve Banks have no plans to use SWIFT or ISO standards for the FSS. The Reserve Banks rely on their own propriety standards. The Reserve Banks have not received interest from customers to move toward international standards.</p>
Assessment	Observed
Comments	Since FSS participation requirements prevent direct remote access from foreign participants (banks or other infrastructure) the requirement for the use of international communication procedures for cross-border transactions is not as relevant. However, international standards could become relevant should remote access of other infrastructure be allowed. In general terms, global co-operation calls for adoption of (or compatibility with) common global standards for major infrastructures at the global level.
<b>Recommendation 17.</b>	CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.
Description	<p><i>Availability of rules, regulations, procedures</i> Laws, regulations, rules and procedures governing FSS activities are publicly available on the Federal Reserve, U.S. Treasury's Bureau of Public Debt, and other public websites. Key financial and operational risks are also publicly disclosed. Participation costs are public on the Federal Reserve's websites.</p> <p><i>CPSS/IOSCO disclosure framework</i> The FSS has not completed and disclosed its responses to the CPSS-IOSCO Disclosure Framework (CPSS-IOSCO 1997), as this framework has been superseded by the CPSS-IOSCO RSSS self-assessment. The self assessment in line with the CPSS/IOSCO assessment methodology has been published.</p> <p>PSR policy describes the Federal Reserve's expectation that the systemically important systems demonstrate the extent to which they meet the applicable principles or minimum standards by completing the self assessment and publicly disclosing the result.</p> <p><i>Accessibility of information</i> Information is made available in English on the Board website.</p> <p><i>Periodic review of accuracy and completeness of assessment</i></p>

	Federal Reserve reviews and updates this assessment every two years at minimum.
Assessment	Observed.
Comments	
<b>Recommendation 18.</b>	Securities settlement systems should be subject to transparent and effective regulation and oversight. Central banks and securities regulators should cooperate with each other and with other relevant authorities.
Description	<p><i>Regulation and oversight of the system</i></p> <p>FSS is subject to effective oversight by the Federal Reserve Board. The Board is statutorily responsible for general supervision of the Reserve Banks and in this capacity the Board monitors the smooth functioning of FSS, regularly assesses the system against CPSS-IOSCO recommendations (assessment is reviewed every two years and when significant changes are implemented), makes the assessment publicly available, and conducts on-site inspections and off-site monitoring.</p> <p>The Reserve Banks operating FSS are also subject to principles and requirements by the U.S. Treasury. The Treasury also has the right to examine and audit certain fiscal agency activities, such as certain aspects of the FSS done on behalf of the U.S. Treasury. The Treasury's Bureau of the Public Debt and Inspector General, for instance, has the right to examine those aspects of the FSS at their discretion.</p> <p>The Government Accountability Office (GAO) also can review certain Reserve Bank activities, including FSS, at the direction of the Congress. A list of audits performed or underway by the GAO is available in the Board's Annual Report.</p> <p><i>Roles and responsibilities</i></p> <p>Responsibilities, roles, and major policies of the oversight entities (as well as responsibilities of Treasury for Fedwire-eligible securities markets) are clearly defined and publicly available. In addition, the Board maintains policies, such as the PSR policy, that outline the types of oversight activities employed to ensure the effectiveness and efficiency of the FSS. These policies are publicly available.</p> <p><i>Oversight framework, resources, and cooperation</i></p> <p>The oversight framework for the FSS is based on the Federal Reserve Act. The regulatory framework for the U.S. government securities market is based on the Government Securities Act (as administered through regulations issued by the U.S. Treasury Department) and the Securities Exchange Act of 1934. The regulation of FICC is based on the Securities Exchange Act and the SEC rules and standards. Participants in FSS are supervised by Federal and state banking supervisors. However, U.S. law does not explicitly attribute oversight responsibilities over critical payment, clearing, and settlement infrastructure, such as FSS, to the Fed.</p> <p>There is clear separation between the oversight that is conducted by the Board and the operation of FSS by the Federal Reserve Banks, which hold accounts for the participants. A critical operational role is played by several Federal Reserve Banks.</p> <p>The statutory basis for oversight of the FSS is the Federal Reserve Act, which provides the Board with general supervision and examination authority over the Reserve Banks (see U.S. Code Title 12, Sections 248(j) and 485). In this regard, it is noted that the mentioned legal basis for oversight of FSS is derived from the legal authority of the Board to exercise general supervision over the Reserve Banks and not from a specific authority to oversee securities settlement systems.</p>

	<p><i>Resources for regulation and oversight</i> The Board has the ability and resources to carry out its regulation and oversight policies concerning FSS efficiently. As part of its oversight, the Board may rely in part on audits performed by the FRBNY internal audit department. At the Board, about 7 budgeted staff work full time on policy and oversight with respect to FSS, Fedwire Funds Service, and the National Settlement Service</p> <p><i>Co-operation between relevant authorities</i> FSS is overseen by the Board. No co-operation with other authorities is required for the oversight of the system.</p> <p><i>Cross-border cooperation</i> FRB staff participate actively in various international organizations and other policy for and standard-setting organizations for securities settlement systems. Cross-border cooperative oversight with regard to FSS activities does not exist at the moment as the system does not have direct links with foreign systems nor does it settle in currencies other than the U.S. dollar.</p>
Assessment	Observed.
Comments	<p>A clear legal basis for the Board supervision of FSS exists. However, it is based on the fact that the Federal Reserve is the operator of the system rather than the legal overseer more generally of payment, clearing, and settlement infrastructure.</p> <p>The Fed should be provided the legal basis to oversee systemically important payment, clearing, and settlement market infrastructure.</p>
<b>Recommendation 19.</b>	CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.
Description	The FSS does not have any cross-border direct link in place.
Assessment	Not applicable.
Comments	<p>No cross-border link is in place because foreign CSDs without a legal presence in the U.S. and a banking license are not allowed to open securities account at the Fed (see Recommendation 14).</p> <p>Fed should consider monitoring the smooth functioning of indirect links, where major custodians are involved in cross-border transfers of FSS eligible securities between FSS and foreign CSDs. The assessment methodology, however, does not provide clear indications on how assessment of indirect links should be conducted.</p>

**Table 2. Summary of the Detailed Assessment of the Observance of FSS with the CPSS-IOSCO Recommendations for Securities Settlement Systems**

Responsibility	Grading	Comments
<b>Legal risk</b>		
1. Securities settlement systems should have a well-founded, clear and transparent legal basis in the relevant jurisdiction.	O	Although FSS does not allow participation by non-resident foreign banks, participants in FSS may settle Fedwire-eligible securities cross-border through intermediaries that are participants in or custodians for other central securities depositories (CSDs) or international CSDs (ICSDs). For instance, ICSDs hold U.S. Treasury securities and have executed transfers in U.S. securities through their U.S. correspondent custody banks, which in turn hold the securities in FSS. Custodian banks, that participate in foreign CSDs need to address potential conflict of laws between U.S. law and the laws in the foreign (I) CSD jurisdictions.
<b>Pre-settlement risk</b>		
2. Confirmation of trades between market participants should occur as soon as possible after trade execution, but no later than the trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after trade execution, preferably on T+0, but no later than T+1.	O	The FSS should explore the possibility of introducing an instructions matching mechanism prior to settlement.
3. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be assessed.	O: Gov Sec BO: MBS	The recommendation is not fully observed for MBS for which the settlement occurs primarily on fixed monthly dates. For the compliance with this recommendation, MBS should be settled no later than T+3.
4. The benefits and costs of a central counterparty should be assessed. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.	O	FICC-GSD acts as CCP for all FSS eligible securities except for agency MBS. In this regard, FICC has filed a proposed rule change with the SEC to allow FICC-MBSD to act as CCP for agency MBS.

Responsibility	Grading	Comments
5. Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.	O	
<b>Settlement risk</b>		
6. Securities should be immobilized or dematerialized and transferred by book entry in CSD to the greatest extent possible.	O	
7. Securities settlement systems should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.	O	
8. Final settlement on a DVP basis should occur no later than the end of the settlement day. Intra-day or real-time finality should be provided where necessary to reduce risks.	O	
9. CSDs that extend intraday credit to participants, including CSDs that operate net settlement systems, should institute risk controls that, at a minimum, ensure timely settlement in the event that the participant with the largest payment obligation is unable to settle. The most reliable set of controls is a combination of collateral requirements and limits.	O	The recommendation states that the most reliable approach to controlling potential losses and liquidity pressures from participants' failures to settle is a combination of collateral requirements and credit limits. The Fed's net debit caps set limits on the amount of intraday credit used by participants. This will limit the Fed total exposures to credit risk. In view of the benefit of eliminating the residual risk taken by the Fed when executing DVP whose cash leg is funded by Fed using uncollateralized intraday credit, the Fed should continue to monitor these risks and assess whether additional mitigation tools such as collateral is needed.



Responsibility	Grading	Comments
<p>0. Assets used to settle the ultimate payment obligations arising from securities transactions should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect CSD members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.</p>	<p>O</p>	<p>There is a high concentration of securities clearing and settlement in the two clearing banks (JPMC and BoNY). In addition, they are the two main providers of tri-party repo facilities and serve as the two settlement banks for FICC. Today, tri-party repo facilities represent one of the main sources to fund a broker-dealer's inventory of securities. Tri-party repo transactions are processed at the end of the day. The day after, early in the morning, collateral is returned to dealers and cash is credited to lenders' accounts. In order to facilitate settlement of buy-sell transactions, dealers heavily rely on intraday credit provided by JPMC and BoNY. This intraday credit is uncommitted but it is collateralized.</p> <p>Although the financial conditions of the settlement banks are monitored and evaluated by banking supervisors, a problem at one of the clearing banks or a refusal to extend credit to a market participant by one of the clearing banks could be disruptive to the functioning of the tri-party repo market and the settlement of securities transactions. Specific measures to mitigate the risks of the two clearing banks should be considered, including measures to increase the liquidity resilience of cash borrowers in the tri-party market, reduce the tiering of settlements, or address the nature and size of intraday credit extensions by the clearing banks.</p> <p>The authorities are aware of this issue and an industry task force sponsored by the Payment Risk Committee is currently discussing possible solutions to increase transparency and mitigate risks associated with tri-party repos. In particular, four issues are being explored:</p> <ol style="list-style-type: none"> <li>1. how to reduce and mitigate risk exposures of the clearing banks (introduction of collateral substitution, asset margining and portfolio margining);</li> <li>2. how to reduce and mitigate the underlying funding risk of their customers, i.e., the fixed income securities dealers;</li> <li>3. liquidation issues (e.g., more transparency on type of collateral to liquidate and its valuation) as well as procedures for liquidation that do not create fire-sale conditions or severely constrain market liquidity; and</li> <li>4. Reduce and mitigate effects of pro-cyclicality of risk management procedures (including effects on valuation of collateral).</li> </ol> <p>A progress report from the task force has been released (<a href="http://www.newyorkfed.org/prc">www.newyorkfed.org/prc</a>). A final report from the task force is expected during 2010.</p>

Responsibility	Grading	Comments
<b>Operational risk</b>		
11. Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls, and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and back-up facilities should be established to allow for timely recovery of operations and completion of the settlement process.	O	
<b>Custody risk</b>		
12. Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.	O	
<b>Other issues</b>		
13. Governance arrangements for CSDs and central counterparties should be designed to fulfill public interest requirements and to promote the objectives of owners and users.	O	In order to ensure that the needs and interests of different kinds of participants are taken into account, the WPO should include representatives of smaller and midsize participants, and not just rely on feedback provided through the financial services website.
14. CSDs and central counterparties should have objectives and publicly disclosed criteria for participation that permit fair and open access.	PO	<p>Certain key market participants such as nonbank broker dealers are not eligible to maintain accounts at the Federal Reserve. This prevents these participants from settling their trades in central bank money thereby increasing settlement risk. Moreover, some key infrastructures are not chartered as banks, and as a consequence they cannot use directly the services of FSS.</p> <p>The Federal Reserve should be given the legal authority to open accounts and provide services, at a minimum, for other payment, clearing and settlement infrastructures.</p>

Responsibility	Grading	Comments
15. While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.	O	<p>The core operating hours of FSS are 8:30 a.m. to 3:15 p.m. ET. On-line participants may initiate reversal transactions until 3:30 p.m. ET and move or reposition their securities among their securities accounts until 4:30 pm against payment and until 7 pm free of payments. Offline participants may initiate securities transfers or other requests from 9:00 am to 1:30 pm ET for same day processing and until 4 pm ET for future day processing. Under special circumstances participants may ask the WPO to extend the operating hours.</p> <p>The operating hours of FSS are relatively short when compared to operating hours of other CSDs. The business case to extend operating hours should be re-assessed by the Federal Reserve.</p>
16. Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.	O	<p>Since FSS participation requirements prevent direct remote access from foreign participants (banks or other infrastructure) the requirement for the use of international communication procedures for cross-border transactions is not as relevant. However, international standards could become relevant should remote access of other infrastructure be allowed. In general terms, global co-operation calls for adoption of (or compatibility with) common global standards for major infrastructures at the global level.</p>
17. CSDs and central counterparties should provide market participants with sufficient information for them to accurately identify the risks and costs associated with using the CSD or central counterparty services.	O	
18. Securities settlement systems should be subject to regulation and oversight. The responsibilities and objectives of the securities regulator and the central bank with respect to SSSs should be clearly defined, and their roles and major policies should be publicly disclosed. They should have the ability and resources to perform their responsibilities, including assessing and promoting implementation of these recommendations. They should cooperate with each other and with other relevant authorities.	O	<p>A clear legal basis for the Board supervision of FSS exists. However, it is based on the fact that the Federal Reserve is the operator of the system rather than the legal overseer more generally of payment, clearing and settlement infrastructure. The Fed should be provided the legal basis to oversee systemically important payment, clearing, and settlement infrastructures.</p>

Responsibility	Grading	Comments
19. CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.	NA	No cross-border link is in place because foreign CSDs without a legal presence in the United States and a banking license are not allowed to open accounts at the Fed.  Fed should consider monitoring the functioning of indirect links, where major custodians are involved in cross-border transfers of FSS eligible securities between FSS and foreign CSDs. The assessment methodology, however, does not provide clear indications on how assessment of indirect links should be conducted.

**Table 3: Recommended Action plan to Improve Observance of Fedwire Securities of the CPSS-IOSCO Recommendations for Securities Settlement Systems**

<i>Reference Recommendation</i>	<i>Recommended Action</i>
<i>Recommendation 2: Trade confirmation</i>	The FSS should explore the possibility of introducing an instructions matching mechanism prior to settlement.
<i>Recommendation 3: Settlement cycles</i>	MBS should be settled no later than T+3.
<i>Recommendation 9: Risk controls</i>	In view of eliminating the residual risk taken by the Fed when executing DVP whose cash leg is funded by Fed using uncollateralized intraday credit, the Fed should continue to monitor these risks and assess whether additional mitigation tools such as collateral is needed.
<i>Recommendation 13: Governance</i>	In order to ensure that the needs and interests of different kinds of participants are taken into account, the WPO should include representatives of smaller and midsize participants.
<i>Recommendation 14: Assess</i>	The Federal Reserve should be given the legal authority to open accounts and provide services, at a minimum, for other payment, clearing and settlement infrastructures.
<i>Recommendation 15:</i>	The Fed should re-assess the operating hours of FSS.
<i>Recommendation 16: Communication</i>	International standards could become relevant should remote access of other infrastructure be allowed. In general terms, global co-operation calls for adoption of (or compatibility with) common global standards for major infrastructures at the global level.
<i>Recommendation 18 : Regulation and oversight</i>	The Fed should be provided the legal basis to oversee systemically important payment, clearing, and settlement infrastructures.

<i>Reference Recommendation</i>	<i>Recommended Action</i>
<i>Recommendation 19 : Cross-border links</i>	Fed should consider monitoring the functioning of indirect links, where major custodians are involved in cross-border transfers of FSS eligible securities between FSS and foreign CSDs.

### **Authorities' Response to the Assessment**

1. The U.S. authorities strongly support the FSAP program, welcome this independent review, and thank the assessors for all the work to produce this report. They appreciate the significant undertaking associated with a review of the biggest financial sector in the world, as well as the challenges that accompany the first assessment of a large advanced country in the wake of the crisis.
2. The authorities are pleased to note the assessment reflects the high degree of compliance of the Fedwire securities service with the CPSS-IOSCO Recommendations for Securities Settlement Systems, and are largely in agreement with the assessment's comments and recommendations. The authorities will explore the possibility of introducing settlement instruction matching in the Fedwire securities service, taking into account the relevant costs and benefits associated with such a matching feature. The authorities will also reassess the business case for extending Fedwire securities service operating hours and seek ways to ensure that the needs and interests of smaller and midsize participants continue to be taken into account.
3. The assessment also recommends that a rolling settlement period of no later than T+3 be adopted in the U.S. mortgage-backed securities (MBS) market. While the authorities agree in principle that reducing the settlement period reduces settlement risk, they note that such a change for the U.S. MBS market requires careful study and close consultation with market participants given the characteristics of the instruments being settled, existing trading practices, and significant operational changes that are likely to be needed. The U.S. authorities believe that near-term risk reduction efforts should focus on the industry proposal to implement a central counterparty for mortgage-backed securities.
4. With regard to the recommendation concerning residual risks associated with the provision of intraday credit to participants in the Fedwire securities service, the authorities note that a rigorous program for assessing, monitoring, and mitigating the risks associated with the provision of intraday credit to Fedwire accountholders is in place. Nevertheless, the authorities are further strengthening this program as a result of a comprehensive policy review conducted from 2006 to 2008 and the planned implementation of an explicit collateralization policy in late 2010 or early 2011. As a result, the authorities are confident that the residual risks noted in the assessment are adequately monitored and controlled.
5. Again, the authorities appreciate the significant undertaking associated with the assessment of the Fedwire Securities Service and the contribution that the assessment process makes to the stability and effective supervision of systemically-important payment and settlement systems.