

**Assessment of the Compliance of the
Fedwire Securities Service with the
Recommendations for Securities Settlement Systems**

Revised July 2014

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Acronyms List

CCP	Central counterparty
CFR	Code of Federal Regulations
COP	Conference of Presidents
CFVP	Conference of First Vice Presidents
CPSS	Committee on Payment and Settlement Systems
CPSIPS	Core Principles for Systemically Important Payment Systems
CUSIP	Committee on Uniform Securities Identification Procedures
CSD	Central securities depository
DVP	Delivery versus payment
EPN	Electronic pool notification
ET	Eastern time
FDIA	Federal Deposit Insurance Act
FDIC	Federal Deposit Insurance Corporation
FICC	Fixed Income Clearing Corporation
FRA	Federal Reserve Act
FRIT	Federal Reserve Information Technology
FSPC	Financial Services Policy Committee
GAO	Government Accountability Office
GCF	General Collateral Financing
GSD	Government Securities Division
GSE	Government-sponsored enterprise
ICSD	International central securities depository
IOSCO	International Organization of Securities Commissions
ITOC	Information Technology Oversight Committee
MBS	Mortgage-backed security
MBSD	Mortgage-Backed Securities Division
MCA	Monetary Control Act of 1980
OCC	Office of the Comptroller of the Currency
OC	Operating circular
PFMI	Principles for Financial Market Infrastructures
PSR	Payment system risk
RTTM	Real-Time Trade Matching
SEC	Securities and Exchange Commission
SIFMA	Securities Industry and Financial Markets Association
SIPA	Securities Investor Protection Act
SIPC	Securities Investor Protection Corporation
SOMA	System Open Market Account
SSS	Securities settlement system

TBA	To be announced
TRADES	Treasury/Reserve Automated Debt Entry System
UCC	Uniform Commercial Code
U.S.C.	United States Code
WPO	Wholesale Product Office

Glossary of Terms¹

Central counterparty	An entity that is the buyer to every seller and seller to every buyer of a specified set of contracts.
Central securities depository	A facility (or an institution) for holding securities, which enables securities transactions to be processed by book entry. Physical securities may be immobilized by the depository or securities may be dematerialized. In addition to safekeeping, a central securities depository may incorporate comparison, clearing, and settlement functions.
Clearance	The process of calculating the mutual obligations of market participants, usually on a net basis, for the exchange of securities and money.
Clearing bank	A bank that facilitates the transfer of securities for its customers and the transfer of payments related to such securities transfers.
Confirmation	The process in which the terms of a trade are verified either by market participants directly or by some central entity.
Custody	The safekeeping and administration of securities and other financial instruments on behalf of others.
Delivery versus payment	A link between securities transfers and funds transfers that ensures that delivery of the security occurs if, and only if, payment occurs.
Dematerialization	The elimination of physical certificates or documents of title which represent ownership of securities so that securities exist only as accounting records.
Discount window	The Reserve Banks' lending facility through which the Federal Reserve provides primary credit, secondary credit, seasonal credit, or emergency credit to depository and other institutions. Credit extended through the discount window must be secured by collateral.
Fedwire-eligible securities	Securities issued by the U.S. Department of the Treasury, federal agencies, government-sponsored enterprises, and certain international organizations that are issued, maintained, transferred, and settled over the Fedwire Securities Service.
International central securities depository	A central securities depository that clears and settles international securities or cross-border transactions in domestic securities.

¹ Where possible, terms in the glossary are based on the definitions provided by the Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, *Recommendations for Securities Settlement Systems*, Bank for International Settlements, November 2001. See www.bis.org/publ/cpss46.htm.

Intraday credit	A negative balance in an institution's master account at any time during the Fedwire Funds Service operating day. Also called daylight overdraft.
Master account	An account with a reserve or excess balances, on the books of a Reserve Bank. Master accounts do not contain book-entry securities.
Matching	The process for comparing the trade or settlement details provided by counterparties to ensure that they agree with respect to the terms of the transaction. Also called comparison.
Overnight overdraft	Daylight overdrafts that have not been extinguished prior to the close of the business day.
Pool factor	A decimal value reflecting the proportion of the outstanding principal balance of a mortgage-backed security, which changes over time, in relation to its original principal value.
Repurchase agreement (repo)	A contract to sell and subsequently repurchase securities at a specified date and price.
Securities account	An account at a Reserve Bank containing book-entry securities.
Securities settlement system	The full set of institutional arrangements for confirmation, clearance, and settlement of securities trades and safekeeping securities.
Settlement	The completion of a transaction through final transfer of securities and funds between the buyer and the seller.
Settlement bank	The entity that maintains cash accounts used to settle payment obligations associated with securities transactions. The settlement bank may be either a commercial bank, the settlement system itself, or a central bank.

List of 2014 Revisions

The following is a summary of the revisions to this assessment. Additional minor editorial and technical changes were made throughout.

Section of the Assessment	Revision
Glossary	<i>Clearance, clearing bank, pool factor, and settlement</i> were added to the glossary.
Introduction	Information surrounding the publishing of the PFMI was added.
Introduction, Trading, Participants, Securities Account and Issue Maintenance, Transfer and Settlement, Recommendations 1, 6, 7, 10, 11, 15	Fedwire Securities Service statistics updated as of year-end 2013.
Issuance	Further background was provided on issuance in the text.
Trading	Information regarding TBA and “when issued” markets provided in the text and a footnote.
Clearance and Settlement	MBSD status as a CCP was updated; references to MBSD as a non-CCP were removed.
Recommendation 4	Section was updated to reflect MBSD status as a CCP.
Recommendation 9	Information on pledging collateral to cover extensions of intraday credit, as stated in the PSR policy, was added.
Recommendation 11	Additional background on what determines the availability statistics was provided within the section.
Recommendation 13	Additional detail surrounding the various governance arrangements was provided within the section.
Recommendation 18	Footnote inserted that references Recommendation 13 for more information regarding the Board’s role as a supervisor.

I. Introduction

In November 2001, the Committee on Payment and Settlement Systems (CPSS) and the Technical Committee of the International Organization of Securities Commissions (IOSCO) issued the *Recommendations for Securities Settlement Systems (Recommendations)*.² The *Recommendations* identified nineteen minimum standards that all securities settlement systems (SSSs) worldwide should meet to enhance international financial stability, reduce risk, increase efficiency, and provide adequate safeguards for investors.³ Following on this effort, in November 2002, the CPSS and the Technical Committee of IOSCO developed an assessment methodology to facilitate evaluation of SSSs against the minimum standards.⁴ In April 2012, the CPSS and the Technical Committee of IOSCO published the standards report *Principles for Financial Market Infrastructures (PFMI)*, which replaces the *Recommendations*, as well as the *Core Principles for Systemically Important Payment Systems* and the *Recommendations for Central Counterparties*.⁵ The PFMI strengthens and harmonizes the three sets of standards by raising minimum requirements, providing more detailed guidance, and broadening the scope of the standards to cover new risk-management areas.

In support of the international risk-management standards for SSSs, the Board of Governors of the Federal Reserve System (Board) incorporated the *Recommendations* into the Federal Reserve Policy on Payment System Risk (PSR policy), which addresses risk management in U.S. payments and settlement systems.⁶ The PSR policy was revised in January 2007 to set the expectation that systemically important SSSs conduct self-assessments against the *Recommendations* and disclose publicly the results.⁷

² Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, *Recommendations for Securities Settlement Systems*, Bank for International Settlements, November 2001. See www.bis.org/publ/cpss46.htm.

³ The *Recommendations* defined an SSS broadly to include the full set of institutional arrangements for confirmation, clearance and settlement of securities trades and safekeeping of securities. As such, the *Recommendations* as a whole are not focused on a particular type of system, but apply to a wide variety of different “systems,” institutional arrangements, and market practices that collectively provide the clearance and settlement infrastructure for a particular securities market.

⁴ Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, *Assessment Methodology for “Recommendations for Securities Settlement Systems,”* Bank for International Settlements, November 2002. See <http://www.bis.org/publ/cpss51.htm>.

⁵ Committee on Payment and Settlement Systems and Technical Committee of the International Organization of Securities Commissions, *Principles for Financial Market Infrastructures*, Bank for International Settlements, April 2012. See <http://www.bis.org/publ/cpss101.htm>.

⁶ The PSR policy is available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm. The Board has issued for public comment proposed revisions to part I of its PSR policy in light of the international risk-management standards in the PFMI. The Board also proposed revising part I in light of the enhanced supervisory framework for designated financial market utilities set forth in Title VIII of the Dodd-Frank Act.

⁷ The PSR policy also encourages system operators to refer to the assessment methodology for guidance on the minimum standards and to respond to the key questions included therein.

The Board, in close collaboration with the Federal Reserve Bank of New York, has completed this assessment of the Fedwire[®] Securities Service against the *Recommendations* pursuant to the PSR policy. The Fedwire Securities Service is a part of the institutional arrangements in the United States for the clearance and settlement of securities issued by the U.S. Department of the Treasury (Treasury), federal agencies, government-sponsored enterprises (GSEs), and certain international organizations. For the purposes of the assessment, these securities are collectively referred to as Fedwire-eligible securities. In this assessment, securities issued by the Treasury are referred to as Treasury securities and securities issued by all other Fedwire-eligible issuers are collectively referred to as non-Treasury securities. Other key components of the clearance and settlement arrangements for these securities in the United States include the Fixed Income Clearing Corporation (FICC) and the two clearing banks, The Bank of New York Mellon and JPMorgan Chase Bank.⁸

1.0 General

As the U.S. central bank, the Federal Reserve plays several roles in the payment and settlement system. These roles include acting as fiscal agent for the Treasury, federal agencies, GSEs, and certain international organizations, and providing settlement services. In their capacity as fiscal agents, the Federal Reserve Banks (Reserve Banks) act as the central securities depository (CSD) for securities issued by these entities through the Fedwire Securities Service. The Fedwire Securities Service is also the key interbank settlement system for Fedwire-eligible securities. The objective of this assessment is to determine the extent to which the Fedwire Securities Service meets the *Recommendations*.

1.1 Scope of the Assessment

This assessment focuses on one component of the institutional arrangements for clearance and settlement of securities in the United States – the Fedwire Securities Service, which provides for the issuance, maintenance, transfer, and safekeeping of Fedwire-eligible securities.⁹ Where relevant, this assessment refers to other key entities that perform critical clearance and settlement

“Fedwire” is a registered service mark of the Federal Reserve Banks.

⁸ FICC, a wholly owned subsidiary of The Depository Trust & Clearing Corporation, is a private-sector clearing corporation that facilitates the clearance and settlement of Treasury and non-Treasury securities transactions. The Bank of New York Mellon and JPMorgan Chase specialize in providing the clearing and credit services needed by the primary dealers and other financial institutions in this market.

⁹ Securities issued by certain international organizations are outside the scope of this assessment. The market for these securities is small in comparison to the other Fedwire-eligible securities. As of year-end 2013, the amount of these securities held in custody was about \$152 billion (par value), or 0.2 percent of total Fedwire-eligible securities (measured by outstanding par value). In 2013, these organizations accounted for less than 1% of the total value and volume of securities transfers. In addition, the legal framework for securities issued by international organizations inside the United States differs in some respects from the legal framework for the securities issued by the Treasury, federal agencies, and GSEs.

services or functions for the Fedwire-eligible securities market, but these entities are not evaluated as part of this assessment against the *Recommendations*.¹⁰

1.2 Institutional and Market Structure

Various institutional and market arrangements facilitate the issuance, trading, clearance, settlement, and maintenance of Fedwire-eligible securities. The Reserve Banks, through the Fedwire Securities Service, provide key issuance, maintenance, transfer, and settlement services. In addition, FICC and the two clearing banks perform clearance and settlement functions for market participants. Together, these entities constitute the core of the clearance and settlement arrangements for the Fedwire-eligible securities market. Although the scope of this assessment is limited to the Fedwire Securities Service, this section of the assessment discusses the Fedwire-eligible securities market more broadly. The life cycle of a security in this market has three stages – issuance, trading, and clearance and settlement.

Issuance

The Treasury, federal agencies, and GSEs use the Fedwire Securities Service to issue securities which have been sold publicly to investors in the primary market. Issuance on the Fedwire Securities Service refers to the crediting of the par amount of the purchased security to the securities account of the purchaser on the books of a Reserve Bank. Those investors or entities that are not Fedwire Securities Service participants hold securities indirectly through accounts at various intermediaries or directly with the issuer, such as the Treasury. The majority of primary market issuance activity involves primary dealers purchasing securities for themselves and their customers.¹¹

Trading

Brokers, dealers, and institutional and individual investors trade and invest in the market for Fedwire-eligible securities.¹² The majority of agency MBS trading occurs in the to-be-announced (TBA) market.¹³ Treasury securities are typically traded in the secondary market but

¹⁰ Among these entities, FICC has completed a self-assessment against the CPSS/IOSCO Recommendations for Central Counterparties. See <http://www.dtcc.com/>.

¹¹ Primary dealers are banks and securities broker-dealers that trade securities with the Open Market Desk at the Federal Reserve Bank of New York, which acts on behalf of the Reserve Banks in order to implement the Federal Open Market Committee's monetary policy directives. See www.newyorkfed.org/markets/primarydealers.html.

¹² As a general matter, *broker* is broadly defined in the Securities Exchange Act as “any person engaged in the business of effecting transactions in securities for the account of others.” See 15 U.S.C. § 78c(a)(4). Unlike a broker, who acts as an agent, a dealer acts as a principal. A dealer is defined in the Securities Exchange Act in general as “any person engaged in the business of buying and selling securities (not including security-based swaps, other than security-based swaps with or for persons that are not eligible contract participants) for such person’s own account through a broker or otherwise.” See 15 U.S.C. § 78c(a)(5). Broker-dealers may trade securities on their own behalf or on behalf of investors. For the purposes of this assessment, the term *broker-dealer* is used interchangeably with the term *dealer*.

can also be traded in the forward “when issued” market.¹⁴ In the secondary market, brokers, dealers, depository institutions, and investors buy and sell Fedwire-eligible securities that have been purchased on original issue. Secondary-market trades occur primarily between intermediaries such as dealers or through interdealer brokers, rather than through a recognized securities exchange.¹⁵ Participation in this market is concentrated among 22 primary dealers.

Clearance and Settlement

Once the trade is executed, dealers may use a number of market utilities and clearing banks to facilitate clearance and settlement of the trade.¹⁶ Clearance for the majority of Fedwire-eligible securities is performed by one of the divisions of FICC: the Government Securities Division (GSD) or the Mortgage Backed-Securities Division (MBSD). FICC members submit their trades through interdealer brokers, who are also FICC members, or directly to the GSD or the MBSD.¹⁷

The GSD provides trade comparison, trade netting, and risk-management services to its members for both Treasury and non-mortgage-backed non-Treasury securities.¹⁸ FICC, through the GSD, acts as a central counterparty (CCP), interposing itself between the buyer and seller in a trade. Members may submit trade data on an automated basis to the GSD intraday, as trades are executed. In the comparison process, the GSD uses FICC’s Real-Time Trade Matching (RTTM[®]) system to receive, validate, and report trade data on the buy and sell sides of a securities transaction.¹⁹ Only trades that the GSD reports as compared are eligible for netting.

¹³ Securities in the agency MBS TBA markets are traded based on certain parameters (that is, issuer, maturity, coupon, price, par amount, and settlement date) rather than on particular securities. The particular securities that are to be delivered in settlement of the trade are identified no later than 3 p.m. two business days before settlement date.

¹⁴ Treasury securities are also traded before issuance in the “when-issued” market. When-issued trading extends from the day a Treasury auction is announced until the issue date. Settlement of when-issued trades occurs on the issue date.

¹⁵ Interdealer brokers often operate electronic trading systems through which they collect dealer quotes, post them to electronic screen services, and execute trades between dealers. Trading through an interdealer broker is conducted on a blind basis; neither the buyer nor the seller is known to the respective counterparty.

¹⁶ The types of trades include dealer financing, including repurchase agreement (repo) or securities lending transactions, outright purchases and sales on behalf of customers, as well as transactions for the dealer’s own account.

¹⁷ Dealers that are not FICC members or that do not use an interdealer broker to submit trades to FICC may settle their trades on a gross basis either on the books of a depository institution or through the Fedwire Securities Service via a depository institution. Nonmember dealers may also submit trades to FICC through a dealer member with which they have a correspondent relationship.

¹⁸ GSD membership includes, but is not limited to, all of the primary dealers, banks and broker-dealers that are not primary dealers, and interdealer brokers. For additional information about GSD membership and services, see www.dtcc.com.

¹⁹ The RTTM service provides trade input matching for dealer-to-dealer trades and interdealer broker trades. RTTM enables participants to reduce the elapsed time between trade execution and the point at which legal and binding confirmation is achieved. The results of RTTM are reported on real-time screens available via a terminal service

The GSD's netting system then aggregates and, on a multilateral basis, offsets deliver and receive obligations for netting members to establish a single net deliver or receive obligation for a member's trade activity in each security. It is at this point that FICC, through the GSD, interposes itself as the counterparty between the buyer and seller for these net settlement obligations.²⁰

Net deliver and receive obligations must then be satisfied between the GSD and each counterparty. The GSD and the members instruct their clearing banks to deliver or receive securities to or from the GSD's settlement accounts maintained at FICC's two clearing banks, Bank of New York Mellon and JPMorgan Chase Bank. All securities deliveries, whether to or from one of the two clearing banks, are made against full payment over the Fedwire Securities Service or on the books of the clearing banks.²¹ The GSD employs risk-management services to address the liquidity and credit risks that may arise in the clearance and settlement process. The GSD's risk-management practices include membership standards, margin and clearing-fund requirements, and loss-allocation procedures.²²

The MBSD provides trade comparison, trade netting, and risk-management services to its members that trade in the forward and over-the-counter option markets for mortgage-backed securities issued by the Government National Mortgage Association (Ginnie Mae), Federal National Mortgage Association (Fannie Mae), and Federal Home Loan Mortgage Corporation (Freddie Mac).²³ FICC, through the MBSD, acts as a central counterparty (CCP), interposing itself between the buyer and seller in a trade. The MBSD also provides an electronic pool notification (EPN) and confirmation service, which is a real-time electronic communications network through which buyers and sellers are able to transmit mortgage-backed securities pool information.²⁴ MBSD members, typically dealers or interdealer brokers, submit trade details on trade date.

and through interactive messaging. "RTTM" is a registered service mark of The Depository Trust & Clearing Corporation.

²⁰ This process, in which FICC becomes the counterparty to every member, is known as novation (the substitution of a new legal obligation or contract for an old one, or the substitution of one party in a contract with another party).

²¹ Securities delivered to the GSD's account at one of the clearing banks are redelivered, within seconds, to the GSD's participants that are due to receive securities. The GSD's rules dictate that all deliveries whether to the GSD or from the GSD must be made by 3:00 p.m. Eastern time (ET), prior to the closing time of the Fedwire Securities Service at 3:15 p.m. ET.

²² For additional information on the GSD's risk-management practices, see www.dtcc.com.

²³ MBSD members can include banks, registered securities dealers, interdealer brokers, unregistered investment pools, U.S. government agencies and GSEs, insurance companies, registered clearing agencies, and registered investment companies. For additional information about MBSD membership, see www.dtcc.com.

²⁴ Sellers are required to submit pool information to the buyer at least forty-eight hours prior to delivery, either by telephone, facsimile, or EPN.

After trade details are submitted, the MBSD performs trade comparison, matching, and netting. Depending on when the trade details are submitted, results of the matching process and confirmations are available to participants either on trade date or on the business day after trade date (T+1). To enable its participants to submit executed trade terms and receive timely comparison results, the MBSD uses RTTM and interactive messaging. For most trades, the MBSD multilaterally nets the trades and provides members with their net settlement obligations for each mortgage-backed security three days before the settlement date. Some other trades will require settlement on a gross basis. Members are responsible for settling their obligations directly with FICC. On the predetermined settlement date, members will instruct their clearing banks to deliver securities against payment to their counterparties, with final settlement either on the Fedwire Securities Service or on the books of a clearing bank.

Prior to settlement, the GSD and the MBSD clear the majority of Fedwire-eligible securities traded in the forward and secondary markets. Settlement may then occur over the Fedwire Securities Service, on the books of a dealer, or on the books of a depository institution. Settlement of secondary market trades of Treasury securities typically occurs on T+1, but can, by agreement between counterparties, settle anytime from trade date to T+N, where N represents the number of business days between trade date and the future settlement date.²⁵ The final settlement of mortgage-backed securities occurs primarily on fixed monthly settlement dates, as designated by the Securities Industry and Financial Markets Association (SIFMA), in the settlement month that was contracted at the time of trade execution.²⁶

1.2.1 Fedwire Securities Service Overview

The Reserve Banks support the securities life cycle described above through the Fedwire Securities Service. The Fedwire Securities Service provides several critical services for the Fedwire-eligible securities market, including securities account maintenance, securities issuance and related fiscal agent services, transfer and settlement services, and support of certain collateral management programs. An overview of the Fedwire Securities Service follows.

Participants

Paragraph 3.12 of the Reserve Banks' Operating Circular 7 (Book-Entry Securities Account Maintenance and Transfer Services) (OC 7) specifically defines the types of entities eligible to become participants.²⁷ Fedwire Securities Service participants include depository institutions, as defined in section 19 of the Federal Reserve Act (FRA), and certain other institutions, including

²⁵ Other trading arrangements have different settlement cycles. With regard to the settlement of overnight repos, the initial sell side of the transaction settles on trade date, while the repurchase side, or buy back of the securities, settles on T+1. The settlement of repos with longer maturities, however, called term repos, may occur outside of the Fedwire Securities Service. Forward trades in Treasury securities settle on a T+N basis, where N is greater than or equal to two business days.

²⁶ For additional information about SIFMA and mortgage-backed securities settlement dates, see www.sifma.org.

²⁷ OC 7 is available at http://www.frbservices.org/regulations/operating_circulars.html.

U.S. branches and agencies of foreign banks.²⁸ As of year-end 2013, the Fedwire Securities Service had approximately 5,500 participants.

Access Methods

The Reserve Banks provide two types of electronic access solutions to connect to the Fedwire Securities Service – a computer-to-computer solution and a browser-based solution. Participants conducting large volumes of securities transfers typically use the computer-to-computer solution, called the FedLine Direct[®] access solution.²⁹ Participants that use the FedLine Direct access solution must either program their own internal systems or install third-party vendor software on their internal systems to interface with a Reserve Bank.

Participants conducting small to moderate volumes of securities transfers typically access the Fedwire Securities Service through the browser-based interface, called the FedLine Advantage[®] access solution. In contingency situations, participants that typically use the FedLine Direct access solution may also obtain access to the Fedwire Securities Service using the FedLine Advantage access solution if they have made the necessary arrangements. FedLine Advantage does not require participants to program their own internal systems to interface with the Reserve Banks. Instead, participants complete electronic browser-based forms provided by the Reserve Banks to format and initiate securities transfer messages and receive notices of credits and debits to their securities accounts in a browser-based application.

In addition to online access solutions, participants can originate and receive notice of securities transfers offline by telephone using the Reserve Banks' offline access channel. In the case of a securities transfer originated by an offline participant, once the appropriate Reserve Bank has authenticated the requested transfer instructions, it submits the transfer message to the Fedwire Securities Service for execution. Offline securities transfers require manual processing by the Reserve Banks and cost more than online transfers. In 2013, offline transfers accounted for less than 1 percent of all transfers originated in the Fedwire Securities Service.

Securities Account Maintenance

Fedwire Securities Service participants may maintain one or more securities accounts, which are classified as either unrestricted or restricted. Participants hold securities in unrestricted securities accounts either for themselves or on behalf of their clients. Participants typically use separate unrestricted accounts to segregate the securities they hold for their own account from those they hold for their clients, which may include nonbank broker-dealers. The Reserve Banks do not reflect in their records the interest of any person other than the Fedwire Securities Service participant in securities held in an unrestricted securities account. Restricted accounts are used to pledge collateral to secure obligations related to Treasury programs, Federal Reserve discount

²⁸ See 12 U.S.C. § 461(b)(1)(A) for the definition of depository institution.

²⁹ The FedLine Direct access solution replaced the legacy computer interface connections as of year-end 2008.

“FedLine Direct” and “FedLine Advantage” are registered service marks of the Federal Reserve Banks.

window loans, payment system risk requirements, state and local government deposits, and other government and federal agency purposes.³⁰ Withdrawals from restricted accounts typically require pledgee approval before securities are released. Neither the Treasury nor the Reserve Banks charge participants account maintenance fees for accounts containing only Treasury securities. The Reserve Banks, however, charge participants account maintenance fees for accounts containing non-Treasury securities.³¹

The Fedwire Securities Service charges participants for the number of individual non-Treasury securities held in their priced securities accounts. As of year-end 2013, there was about \$66 trillion (par value) of securities held in securities accounts maintained by the Fedwire Securities Service.

Securities Issuance and Fiscal Agent Responsibilities

The Reserve Banks, in their capacity as fiscal agents for the Treasury, federal agencies, and GSEs, facilitate the issuance of securities to Fedwire Securities Service participants. Original issuance of securities over the Fedwire Securities Service occurs between 8:30 a.m. and 2:30 p.m. ET each business day.

Once the securities are issued, the Fedwire Securities Service will make the related principal and interest payments. The holder of the securities on the Fedwire Securities Service as of a specified record date receives the principal and interest payable on the securities.³² On the payment date, the Fedwire Securities Service releases principal and interest payments for Treasury and federal agency securities before 9:15 a.m. ET.³³ All other Fedwire-eligible securities' principal and interest payments are released when the issuers have provided funding for their payments to designated funder accounts.³⁴ These issuers have the flexibility to pay holders of their securities on a flow basis with incremental payments based upon a pre-established percentage of the entire obligation. Participants' master accounts are credited for the principal and interest amounts followed by a notification confirming the completed payment.

³⁰ Treasury programs for which securities collateral may be pledged include Treasury Tax and Loan (see 31 CFR Part 203), Depositories and Financial Agents of the Federal Government (see 31 CFR Part 202) and Acceptance of Bonds Secured by Government Obligations in Lieu of Bonds with Sureties (see 31 CFR Part 225).

³¹ Accounts used to pledge collateral only to secure obligations relating to Treasury programs and Federal Reserve discount window loans are not charged these account maintenance fees.

Refer to table 2 in the answers to key questions for Recommendation 15 for a listing of Fedwire Securities Service fees.

³² Participants that do not have master accounts arrange for a correspondent depository institution to receive principal and interest payments on their behalf.

³³ Federal agency securities include those backed by the full faith and credit of the U.S. Government, such as those issued by the Department of Veteran Affairs or guaranteed by Ginnie Mae.

³⁴ For additional information on incremental principal and interest payments, see <http://www.frbservices.org/files/operations/fedwirememos/pdf/CM-247.pdf>.

The principal and interest payments for mortgage-backed securities vary from month to month. MBS issuers initiate the process of paying principal and interest by transmitting the pool factors electronically to the Reserve Banks. The Reserve Banks then validate principal and interest data from the issuers before the payment date. This process is referred to as factor file processing. Once this validation process is complete, the Fedwire Securities Service sends a notification of expected principal and interest payments to the holders of these securities on the Fedwire Securities Service.

Transfer and Settlement

Participants use the Fedwire Securities Service to transfer securities to settle secondary market trades and to move collateral to secure obligations. In 2013, the Fedwire Securities Service processed more than 19 million securities transfers, valued at more than \$295 trillion.³⁵ The average number of transfers per business day in 2013 was about 76,000, with an average daily value of approximately \$1.2 trillion.

The Fedwire Securities Service processes securities transfers on a gross basis in real time.³⁶ The transfers of securities and any related funds are final and irrevocable when a Reserve Bank makes the appropriate debit or credit entries to the respective sending and receiving participants' securities accounts and corresponding master accounts.³⁷ A notice of the transfer is conclusive evidence that the debit(s) and credit(s) were made. Securities transfers can be made as a delivery-versus-payment (DVP) transaction or as a free-of-payment transaction. Most securities transfers are DVP transactions.

In a typical DVP transaction, the participant sending securities (sender) initiates the securities transfer by sending a transfer message to the Fedwire Securities Service requesting a transfer of securities to a receiving participant (receiver). The message identifies the sender and receiver, the securities issue and par amount to be transferred, and any payment information. The Fedwire Securities Service checks the message for syntax errors and verifies that the sender has the correct security and necessary balance (par amount) in its securities account.³⁸ Once verified, the securities are automatically withdrawn from the sender's securities account and deposited to

³⁵ The value of \$295 trillion reflects the payment dollar amount, not the par value of the transaction.

³⁶ Although transfer messages are processed on a gross basis in real time, some of the transfer messages reflect net positions calculated by FICC. In addition, the Fedwire Securities Service generally limits the maximum value that can be sent in one transfer message (\$50 million in par value) and, as a result, trades greater than \$50 million (par value) may require several transfer messages.

³⁷ A master account contains all balances, including excess balances and balances maintained to satisfy reserve balance requirements. Additional information on reserve requirements can be found in the *Reserve Maintenance Manual*, available at <http://www.federalreserve.gov/monetarypolicy/reservereq-reserve-maintenance-manual.htm>.

³⁸ The Fedwire Securities Service only accepts messages in its proprietary message format. The key data elements of that message format include the message type/subtype code, the sender's routing number, the sender's securities account, the CUSIP number of the security being transferred, the par amount of the security being transferred, the payment or cash amount, the receiver's routing number, and the receiver's securities account.

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. Once the transfer is complete, the Fedwire Securities Service sends both the sender and the receiver notice acknowledging that the message has been processed.³⁹

Automated Claim Adjustment Processing

The Fedwire Securities Service's automated claim adjustment processing feature for mortgage-backed securities supports fails, interim accounting, and repo tracking. Claim adjustments are processed for securities when the appropriate beneficiary of principal and interest payments for these securities is different than the holder of those securities on the record date.⁴⁰ This optional feature allows participants to add information to transfer messages, using specific field tags in the transfer message format, which the Fedwire Securities Service uses to calculate and facilitate the payment of the adjusted principal and interest payments owed to counterparties in the related transfers.

Securities Stripping and Reconstitution

The Fedwire Securities Service provides securities stripping and reconstitution processing for certain securities. The securities stripping process separates the securities' principal and interest components so each component can be traded as a separate security in the secondary market. Participants can request that a security be stripped by transferring securities free of payment to a designated account at the Federal Reserve Bank of New York. Following receipt of the securities in the account, the Fedwire Securities Service creates separate securities for each principal and interest component, transfers these securities back to the sender, and, at the same time, retires the original security.

Participants may also reconstitute or reassemble the principal and interest components of a security. Once the security is reconstituted, it can then be traded and transferred as a whole in the secondary market. Participants can request that a security be reconstituted by transferring the principal and interest components free of payment to a designated account at the Federal Reserve Bank of New York. These transfers must contain a unique identifier, consisting of ten alphanumeric characters, which link the interest and principal components. The Fedwire Securities Service retires the principal and interest components and creates a reconstituted security.

³⁹ Although OC 7 allows a Reserve Bank to reject a transfer message for any reason, transfer instructions are generally accepted as long as security procedures are met and the instructions conform to proper syntax. A transfer message will be rejected if (a) the message does not designate which securities account is to be credited, (b) the sender does not have all of the required securities in its account, (c) the par amount of the transfer exceeds \$50 million (unless the transfer involves a restricted account), or (d) the appropriate identifying number of the sender or receiver is not used. The Fedwire Securities Service will inform the sender of a rejected transfer message, but will not inform the intended receiver of the rejection. A Reserve Bank reserves the right to debit or credit securities accounts, without further authorization or instruction, to correct any transfer errors.

⁴⁰ For additional information on the automated claim adjustment processing feature, see appendix D to OC 7 at http://www.frbservices.org/regulations/operating_circulars.html.

Operating Hours

The core operating hours for the Fedwire Securities Service are 8:30 a.m. to 3:15 p.m. ET, Monday through Friday, excluding designated holidays.⁴¹ Participants may originate online securities transfers during these core operating hours. Online participants may initiate reversal transactions until 3:30 p.m. ET and move or reposition their securities among their securities accounts until 4:30 p.m. ET against payment and until 7:00 p.m. free of payment.⁴² 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 4:00 p.m. ET for future-day processing. Under special circumstances, participants may ask the Reserve Banks to extend the Fedwire Securities Service operating hours.⁴³

1.3 Description of Regulatory Structure and Practices

Oversight, regulation, and supervision of the Fedwire-eligible securities market are conducted by the Federal Reserve, the U.S. Securities and Exchange Commission (SEC), the Treasury, and other state and federal agencies.

The Board is responsible for the general supervision of the Reserve Banks, which own and operate the Fedwire Securities Service. The Board conducts periodic exams of the Reserve Banks, approves Reserve Bank budgets, reviews pricing of Reserve Bank financial services, and engages an independent external auditor to audit the financial statements of the Reserve Banks. The Board also provides the Reserve Banks with an objective and independent assessment of Reserve Bank strategies for and ongoing operations of the Fedwire Securities Service. In addition, internal Reserve Bank auditors test control procedures for Reserve Bank operations, including the Fedwire Securities Service, and report the results of their audits directly to each Reserve Bank's board of directors.⁴⁴ As fiscal principal, the Treasury also oversees certain fiscal agency activities of the Fedwire Securities Service. The Government Accountability Office (GAO), the investigative arm of the U.S. Congress, may also examine activities of the Fedwire Securities Service.

The SEC is the primary regulator of the U.S. securities markets and regulates, among other things, clearing agencies, such as FICC, and market participants, such as nonbank broker-dealers.⁴⁵ SEC supervisory authority includes reviewing and approving new rules and proposed

⁴¹ A list of holidays is available in appendix B to OC 7 at http://www.frbservices.org/regulations/operating_circulars.html.

⁴² Transfers may be reversed only by a separate transfer effected by a transfer message using the reversal code.

⁴³ Guidelines pertaining to the extension of Fedwire Securities Service operating hours are provided in OC 7.

⁴⁴ For additional information on the Reserve Bank boards of directors, see the answers to key questions for Recommendation 13 or see www.federalreserve.gov/generalinfo/listdirectors/about.htm.

⁴⁵ In addition, the SEC is the functional regulator for U.S.-based broker-dealer affiliates of both foreign banks and bank holding companies. For additional information on the SEC, see www.sec.gov.

changes to existing rules of clearing agencies, examining registered clearing agencies and market participants, and investigating possible violations of securities law.

The Federal Reserve and the Treasury’s Office of the Comptroller of Currency (OCC) are the primary supervisors for The Bank of New York Mellon and JPMorgan Chase Bank, respectively—the two clearing banks.⁴⁶ The Bank of New York Mellon, as a state-chartered bank, is also supervised by the New York State Department of Financial Services.⁴⁷ These banking regulators have the power to examine banks and issue certain rules and regulations governing banking activities. The regulators may take supervisory actions against noncompliant banks or banks engaging in unsound activities by removing officers and directors, negotiating agreements to change practices, and issuing cease-and-desist orders, among other actions.

The Treasury and other federal agencies are responsible for promulgating the regulations governing Fedwire-eligible securities. The Treasury/Reserve Automated Debt Entry System (TRADES) regulations, which govern Treasury bonds, notes, and bills, are promulgated by the Treasury. Other federal agency securities are governed by regulations comparable to TRADES, as adopted by their respective issuer. Regulations governing GSE securities are promulgated by the issuer’s regulator.

1.4 Information and Methodology Used for Assessment

The methodology used for this assessment follows the guidelines provided in the CPSS-IOSCO *Assessment Methodology for Recommendations for Securities Settlement Systems (Assessment Methodology)*. Part II of this assessment provides an executive summary and a detailed assessment of the Fedwire Securities Service against the *Recommendations*. In the detailed assessment of observance, answers are provided, wherever applicable, for each of the key questions outlined in the *Assessment Methodology*. The *Assessment Methodology* provides detailed guidance for assigning an assessment category (observed, broadly observed, partly observed, nonobserved, and not applicable) for each recommendation based on the answers to these key questions. In addition, clarifying comments and other relevant information are included to inform the assessments because this guidance is not intended to be applied in a purely mechanical fashion. Although the Fedwire Securities Service may not strictly meet an assessment criterion, it may successfully address the safety or efficiency objectives that underlie the recommendation, key issues, and key questions. All sources of information used in this assessment, where appropriate, have been cited.

⁴⁶ The primary federal bank regulator for nationally chartered banks is the OCC. The primary regulators for state-chartered member banks are the Federal Reserve and the appropriate state banking department. The Federal Reserve is the consolidated regulator of bank holding companies.

For additional information on the OCC and its functions, see www.occ.treas.gov. For additional information on the Federal Reserve’s regulation and supervision role, see www.federalreserve.gov/bankinforeg/default.htm.

⁴⁷ For more information on the New York State Department of Financial Services, see <http://www.dfs.ny.gov/>.

II. Assessment of Observance

2.0 Executive Summary

The Fedwire Securities Service is mostly compliant with the standards outlined in the *Recommendations* and appropriately addresses legal, presettlement, settlement, operational, and custody risks and other issues. The Fedwire Securities Service observes thirteen of the nineteen recommendations. Recommendation 2 is broadly observed, and Recommendation 14 is partly observed, but residual risks in those areas are generally mitigated by other market utilities and industry practices. Four recommendations (Recommendations 3, 4, 5, and 19) are not directly applicable.

Legal Risk

U.S. law provides a well-established legal framework for the Fedwire-eligible securities market and, more specifically, the Fedwire Securities Service (Recommendation 1). This legal framework, which is based on statutes, regulations, and operating agreements, provides a high degree of legal assurance of transaction finality and asset security. The legal framework is public and readily accessible.

Presettlement Risk

Presettlement risk in the Fedwire-eligible securities market is addressed by other market utilities that provide trade confirmation, trade netting, and other post-trade services. In this context, the Fedwire Securities Service does not provide trade confirmation services or require participants to match settlement instructions (Recommendation 2). The Reserve Banks also do not interpose themselves as a CCP to trades in the market for Fedwire-eligible securities given the existence of FICC as an industry-owned CCP for Treasury, mortgage-backed securities, and other non-mortgage-backed non-Treasury securities (Recommendation 4). In addition, settlement cycles are determined by market conventions (Recommendation 3), and securities lending occurs outside the Fedwire Securities Service (Recommendation 5).

Settlement Risk

The Fedwire Securities Service's rules and procedures provide a number of tools by which the system mitigates settlement risk. The Fedwire Securities Service is a real-time settlement system that provides for DVP and final settlement in central bank money (Recommendations 7, 8, and 10). In addition, the Reserve Banks may extend intraday credit to Fedwire Securities Service participants to ensure timely settlement of securities transfers, while employing various risk controls to limit credit risk to the Reserve Banks (Recommendation 9). Finally, virtually all securities eligible for the Fedwire Securities Service are dematerialized, which reduces the cost and risk associated with the custody and transfer of securities (Recommendation 6).

Operational Risk

The Fedwire Securities Service maintains a high degree of security and operational reliability. The Federal Reserve manages an overall information security program that is designed to protect

information from loss or misuse and regularly tests extensive contingency arrangements. Additionally, the Fedwire Securities Service complies with the Federal Reserve Bank of New York's operational risk management program (Recommendation 11).

Custody Risk

Securities held in the Fedwire Securities Service are held in individual participants' accounts, and are subject to regular verification and a series of supervisory and internal controls (Recommendation 12).

Other Issues

Several other issues do not fit neatly into the aforementioned risk categories, including governance issues and risk disclosure. The Reserve Banks, as the CSD, are subject to a governance structure that includes the Board, the Treasury, and other government entities that is designed to pursue the public interest goals of settlement system security, efficiency, and accessibility (Recommendation 13). The Reserve Banks permit fair and open access to the Fedwire Securities Service to all eligible participants, although the types of entities that are eligible are generally limited to domestic and foreign depository institutions with operations in the United States and governmental entities authorized to use the Reserve Banks as fiscal agents (Recommendation 14). The Reserve Banks maintain safe, secure, and cost-effective operations by regularly reviewing service levels and improving the efficiency of the Fedwire Securities Service (Recommendation 15). The Reserve Banks are also subject to transparent oversight and regulation (Recommendation 18). The Fedwire Securities Service communication procedures and standards are easily convertible into international standards (Recommendation 16). The Fedwire Securities Service does not, however, have links to other CSDs to settle cross-border trades (Recommendation 19). Finally, this assessment, in conjunction with other publicly available information, is intended to assist Fedwire Securities Service participants in identifying and evaluating accurately the risks and costs associated with using the service (Recommendation 17).

With respect to broadly observed Recommendation 2 and partly observed Recommendation 14, no steps are recommended or currently contemplated to achieve full observance. In the case of Recommendation 2, trade confirmation is completed in a timely manner outside of the Fedwire Securities Service. FICC provides trade confirmation services to its participants for most Fedwire-eligible securities transactions. In the case of Recommendation 14, the Board and the Treasury have considered providing direct access to the Fedwire Securities Service to nonbank broker-dealers; however, the analysis concluded that, without routine access to credit, direct access to the Fedwire Securities Service for nonbank broker-dealers would be of limited value to them.

Table 1 provides a summary of assessment results by category.

Table 1: Collation of assessment results by assessment category	
Assessment category	Recommendations
Observed	1, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18
Broadly Observed	2
Partly Observed	14
Nonobserved	
Not Applicable	3, 4, 5, 19

2.1 Recommendation by Recommendation Assessment of Observance

Recommendation 1: Legal Framework

Securities settlement systems should have a well-founded, clear, and transparent legal basis in the relevant jurisdictions.

Answers to Key Questions

1. Are the laws, regulations, rules and procedures, and contractual provisions governing securities settlement arrangements public and readily accessible to system participants?

The laws, regulations, rules and procedures, and contractual provisions that constitute the legal framework governing the Fedwire Securities Service are public and readily accessible, via the Internet, to system participants and the general public.

2. (i) Does the legal framework demonstrate a high degree of legal assurance that:
 - (a) transactions are enforceable?

The legal framework governing the Fedwire Securities Service, and the Fedwire-eligible securities market broadly, offers a high degree of legal assurance that transactions are enforceable. The rights and obligations of parties to, and the enforceability of, transactions conducted through the Fedwire Securities Service are subject to a broad and detailed treatment in this legal framework. The statutes, regulations, and agreements relevant to the Fedwire Securities Service are clearly stated, understandable, internally coherent, and unambiguous.

Federal Statutes

Section 15 of the FRA directs the Reserve Banks to serve as fiscal agents for the United States as required by the Treasury.⁴⁸ The Reserve Banks are authorized by other federal statutes to act as fiscal agents for all of the other issuers of Fedwire-eligible securities in a similar capacity.⁴⁹ The Reserve Banks operate the Fedwire Securities Service pursuant to these authorities. The Fedwire Securities Service is the mechanism through which the Reserve Banks issue and maintain book-entry records evidencing ownership of the Treasury and certain non-Treasury debt.⁵⁰

⁴⁸ See 12 U.S.C. § 391.

⁴⁹ See 12 U.S.C. § 393 (Farm Credit System); 12 U.S.C. § 1435 (Federal Home Loan Banks); 12 U.S.C. § 1441(h)(2) (Financing Corporation); 12 U.S.C. § 1441b(h)(2) (Resolution Funding Corporation); 12 U.S.C. § 1723a(g) (Ginnie Mae and Fannie Mae); 12 U.S.C. § 1452(d) (Freddie Mac); 12 U.S.C. § 2279aa-3(d) (Federal Agricultural Mortgage Corporation).

⁵⁰ At the request of the Treasury, the Reserve Banks also issue certain other federal agency securities under section 15 of the FRA.

Treasury and Other Federal Agency Regulations

The Treasury promulgated the TRADES regulations to govern Treasury bonds, notes, and bills on the Fedwire Securities Service.⁵¹ In accordance with the TRADES regulations, federal law governs the rights and obligations of, and claims against, the U.S. government and the Reserve Banks with respect to the operation of the Fedwire Securities Service and the servicing of Treasury securities. TRADES regulations provide that state law governs the rights and obligations of the various parties with respect to book-entry securities to the extent such state law is consistent with TRADES. Federal agency issuers or, in the case of GSEs, their regulators have promulgated regulations comparable to TRADES.

State Statutes

In addition to federal statutes and regulations, transaction enforceability is governed by state securities and commercial law. Each of the fifty states, the District of Columbia, the Commonwealth of Puerto Rico, and the U.S. Virgin Islands have adopted Uniform Commercial Code (UCC) Articles 8 and 9 into state law.⁵² UCC Article 8 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. UCC Article 9 governs the rights and obligations of parties to a secured transaction.

Reserve Bank Operating Circulars

In addition to the aforementioned statutes and regulations, each Reserve Bank publishes identical operating circulars for the Reserve Banks' various services that describe the terms agreed upon by participants.⁵³ Under both UCC Article 8 and the federal regulations governing securities issued and maintained by the Fedwire Securities Service, these agreements have a special status as clearing corporation agreements.⁵⁴ Like TRADES and corresponding agency regulations, the operating circulars supersede inconsistent provisions of state law. The operating circulars that are directly relevant to providing the Fedwire Securities Service are OC 7, OC 1 (Account Relationships), and OC 5 (Electronic Access).

OC 7 sets forth the terms under which each Reserve Bank maintains securities accounts and effects transfers of Fedwire-eligible securities for participants in the Fedwire Securities Service.

⁵¹ See 31 CFR part 357, subpart B.

⁵² The UCC was developed and endorsed by the Uniform Law Commission (ULC) and the American Law Institute, two private-sector organizations that study and recommend statutory changes and promote uniformity among state laws. The UCC is not effective in a state until the state's legislature adopts it.

⁵³ Reserve Bank operating circulars are available at www.frbservices.org/regulations/operating_circulars.html.

⁵⁴ A clearing corporation is defined as a person registered as a clearing agency under the federal securities laws, a Reserve Bank, or any other person that provides clearance and settlement services with respect to financial assets that would be required to register as a clearing agency under the federal securities laws but for an exclusion or exemption from the registration requirement if such a person is subject to regulation by a federal or state governmental authority. See UCC § 8-102(a)(5).

In accordance with OC 7, a participant may hold Fedwire-eligible securities at a Reserve Bank in one or more securities accounts. In addition, OC 7 specifies the Fedwire Securities Service operating hours, rules for extending or shortening the operating hours, security procedures, format and media requirements for security transfers, charges for securities transfer services, automated claim adjustments for mortgage-backed securities, and contingency requirements. OC 7 also sets forth the terms under which the Reserve Banks 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 by a Fedwire Securities Service participant.

Under OC 7, a participant must establish and maintain a master account to send or receive securities transfers against payment. OC 1 sets out the terms for opening, maintaining, and terminating a master account with a Reserve Bank. With few exceptions, a participant may hold only one master account with a Reserve Bank. In addition, OC 1 contains provisions regarding an account holder's default on an obligation to a Reserve Bank. Pursuant to OC 1, the account holder grants its Reserve Bank all of the account holder's right, 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 security accounts.

OC 5 sets forth the terms under which a participant may access Reserve Bank services, including the Fedwire Securities Service, by means of electronic connections.

(b) customers' assets are adequately protected (particularly against the insolvency of custodians and intermediaries)?

The legal framework governing the Fedwire Securities Service, and the Fedwire-eligible securities market broadly, also offers a high degree of legal assurance that customers' assets are protected.

Interests in Fedwire-eligible securities are held in either direct or indirect holding systems. In direct holding systems, interests in securities are held on the books of the issuer or their official registrar. For example, individuals and entities may directly hold these interests on the books of the Treasury, through its TreasuryDirect[®] service. Although there is no equivalent to TreasuryDirect for non-Treasury securities, it may be possible to be a direct holder of non-Treasury securities at the official registrar in certificated form.

In indirect, or tiered, holding systems, interests in securities are recorded on the books of a securities intermediary. When securities are transferred in an indirect holding system, the transfer is reflected in accounts on the books of the securities intermediary. The Fedwire Securities Service is an indirect holding system, in which participants hold accounts with Reserve Banks and nonparticipants hold accounts on the books of a participant or some other intermediary.

In the Fedwire Securities Service, participants hold securities accounts with the Reserve Banks. The Reserve Banks are the custodians for participants' securities. As custodians, they maintain records of the identities and interests of each participant. Because participants' assets are held

directly with the central bank, those assets are adequately protected against a custodial insolvency. Also, participants have limited rights against the issuer of the security for principal and interest payments.⁵⁵

Nonparticipants hold securities accounts or interests on the books of a participant or some other intermediary that holds its interests with a participant. The Reserve Banks do not maintain records of the identities or interests of nonparticipants. Nonparticipants do not have any rights against the issuer or any intermediary other than their direct intermediary. While Reserve Banks, as part of the U.S. central bank, do not face liquidity constraints, nonparticipants' custodians may. As indicated below, however, U.S. law protects nonparticipants' assets held at a custodian or intermediary.

The process for distributing assets held by federally insured depository institutions that become insolvent is governed by the liquidation provisions of the Federal Deposit Insurance Act (FDIA).⁵⁶ The FDIA liquidation provisions generally provide that the beneficial owner of a Fedwire-eligible security held by a failed bank normally would be entitled to the security if the customer's exclusive ownership interest is properly documented.

The failure of entities other than insured depository institutions, such as nonbank broker-dealers, would require application of other statutes. The stockbroker liquidation procedures under the U.S. Bankruptcy Code and the Securities Investor Protection Act (SIPA) provide some protections to investors when a brokerage firm fails owing customers cash and securities that are missing from customer accounts. The Securities Investor Protection Corporation (SIPC) usually asks a federal court to appoint a trustee to liquidate the firm and protect its customers. With small brokerage firm failures, SIPC sometimes deals directly with customers. In general, a trustee for a failed broker-dealer will return to customers all securities that already are registered in their name or are in the process of being registered. After this step, the firm's remaining customer assets are then divided on a pro rata basis with funds shared in proportion to the size of claims. If sufficient funds are not available in the firm's customer accounts to satisfy claims within these limits, the reserve funds of SIPC are used to supplement the distribution, up to a ceiling of \$500,000 per customer, including a maximum of \$250,000 for cash claims. Additional funds may be available to satisfy the remainder of customer claims after the cost of liquidating the brokerage firm is taken into account.⁵⁷

For additional information on the protection of customer property, see the answers to key questions for Recommendation 12.

- (ii) Does the legal framework demonstrate a high degree of assurance that there is a clear and effective legal basis for:

⁵⁵ By contrast, under U.S. law, indirect holders are not typically entitled to claims against an issuer.

⁵⁶ See 12 U.S.C. § 1811 *et seq.* The process for distributing assets held by federally insured credit unions that become insolvent is governed by the liquidation provisions of the Federal Credit Union Act (12 U.S.C. § 1787).

“TreasuryDirect” is a registered trademark and service mark of the Bureau of the Public Debt.

⁵⁷ See 15 U.S.C. § 78fff.

- (a) arrangements for the immobilisation or dematerialisation of securities and the transfer of securities by book entry?

The legal framework provides a high degree of assurance that there is a clear and effective legal basis for the immobilization or dematerialization and transfer of Fedwire-eligible securities.

As indicated above, section 15 of the FRA and other federal statutes provide the legal basis for the Reserve Banks to issue, maintain, and transfer Fedwire-eligible securities. TRADES and corresponding agency regulations, UCC Article 8, and OC 7 explicitly and specifically set out rules governing transfers of interests in securities recorded in book-entry form by the Reserve Banks.

For additional information on immobilizing or dematerializing securities, see the answers to key questions for Recommendation 6.

- (b) netting arrangements?

U.S. law supports netting arrangements relating to securities transactions, but the Fedwire Securities Service does not provide netting services.

- (c) securities lending arrangements (particularly the ability to obtain a security interest in assets)?

U.S. law supports securities lending arrangements, but the Fedwire Securities Service does not provide securities lending services.

For additional information on securities lending arrangements, see the answers to key questions for Recommendation 5.

- (d) finality of settlement?

OC 7 defines finality of settlement for transfers through the Fedwire Securities Service. OC 7 states that, unless a transfer is rejected by the Fedwire Securities Service, all debits and credits with respect to a transfer become final at the time that the 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 is conclusive evidence that the debit(s) and credit(s) were made.

For additional information on settlement finality through the Fedwire Securities Service, see the answers to key questions for Recommendation 8.

- (e) arrangements for achieving delivery versus payment?

OC 7 provides a clear and effective legal basis for the DVP feature in the Fedwire Securities Service. Under OC 7, a securities transfer may be either (1) a securities transfer that does not

involve any funds credit or debit to a master account other than a transaction fee (free transfer) or (2) a securities transfer that is accompanied by a funds credit to the 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 participant must maintain a master account at a Reserve Bank to be a sender or receiver of transfers against payment. A DVP transfer is completed under OC 7 when the debits and credits associated with both the securities transfer and the funds movements are made.

For additional information on DVP through the Fedwire Securities Service, see the answers to key questions for Recommendation 7.

- (iii) Has a court in the jurisdiction ever failed to uphold the legal basis of these activities/arrangements? And if so, for what reasons?

No U.S. court has failed to uphold the legal basis of the Fedwire Securities Service.

3. Are the rules of the system and contracts between system participants enforceable notwithstanding the insolvency of a participant?

The rules governing the Fedwire Securities Service and contracts between participants are enforceable notwithstanding the insolvency of a participant. 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 contracts to deliver securities that involve a financial intermediary, notwithstanding the insolvency of one of the parties to the contract.

For additional information on the protection of a customer's position in the event of the custodian's insolvency, see the answers to key questions for Recommendation 12.

4. (i) Is there a significant level of cross-border participation in the SSS? If so, please describe and answer Question 4(ii).

As a general matter, the Fedwire Securities Service does not permit participation by foreign banks without a U.S. presence.⁵⁸ Fedwire Securities Service participants generally are either U.S. depository institutions or U.S. branches or agencies of foreign banks. Participants may, however, conduct cross-border activity through direct or relayed links to other central securities depositories (CSDs) or international central securities depositories (ICSDs).⁵⁹

⁵⁸ However, some foreign central banks, foreign monetary authorities, foreign governments, and certain international organizations participate in the Fedwire Securities Service.

⁵⁹ The *Assessment Methodology* contains a detailed description of direct, indirect, and relayed links. See www.bis.org/publ/cpss51.htm.

In addition, it is Federal Reserve policy to accept securities for the Fedwire Securities Service only if the offering documents for the securities specify that the securities are governed by U.S. law.⁶⁰

- (ii) Are other jurisdictions relevant for determining the adequacy of the legal framework? How has this been determined? Has the legal framework been evaluated for the other relevant jurisdictions? Are there conflict of laws issues and, if so, have they been addressed?

The laws of non-U.S. jurisdictions are not directly applicable to disputes involving Fedwire Securities Service participants.

Assessment

Recommendation 1 is observed.

⁶⁰ Although international organizations are beyond the scope of this assessment, securities issued by these organizations on the Fedwire Securities Service are also governed by U.S. law. The Reserve Banks act as fiscal agents and depositories for these international organizations, and these actions are governed by U.S. law.

Recommendation 2: Trade Confirmation

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.

Answers to Key Questions

1. What percentage of trades between direct market participants is submitted to a trade confirmation system on the trade date (T+0)? How soon after submission are problems communicated to the appropriate parties?

The Fedwire Securities Service does not provide trade confirmation services. As described in section 1.2 of the Introduction, trade confirmation services for most Fedwire-eligible securities are provided by FICC to its participants.⁶¹

2. Does the CSD require settlement instructions to be matched prior to settlement?

The Fedwire Securities Service does not require settlement instructions to be matched prior to settlement. The matching of settlement instructions is not seen as necessary given the existence of trade matching, confirmation, and netting services by FICC prior to settlement.

3. Are there trade confirmation procedures that are capable of comparing trade information between direct and indirect market participants by T+1? Is use of the system mandatory? For what types of indirect market participants? Of those trades involving indirect market participants for which confirmation is required, what percentage is confirmed by T+0, by T+1, by the contractual settlement date?

In the United States, trade confirmation is not required for transactions submitted for settlement in the Fedwire Securities Service. Trade matching between direct participants in FICC is required by FICC. Trade matching or confirmation between direct and indirect market participants outside of FICC and the Fedwire Securities Service is done at the discretion of the participants.

Assessment

Recommendation 2 is broadly observed.

⁶¹ For statistics on trade confirmations and a description of the trade confirmation process, see www.dtcc.com.

Comments

In assigning an assessment rating, the *Assessment Methodology* lists three key issues to consider: (1) confirmation of trades between direct market participants should occur no later than trade date; (2) settlement instructions should be matched prior to settlement; and (3) where confirmation of trades by indirect market participants is required by regulators, clearing systems, or market operators, it should occur as soon as possible after trade execution, preferably on trade date, but no later than T+1.

The guidance in the *Assessment Methodology* indicates that in some cases, a securities settlement system may not strictly meet the assessment criteria for observance but may successfully address the safety or efficiency objectives that underlie the recommendation and the key issues and key questions. The intent of Recommendation 2 is to ensure that settlement failures are avoided and risks and costs are managed effectively. Although the Fedwire Securities Service does not pre-match settlement instructions, the existence of prompt presettlement confirmation services provided by FICC, as well as delivery and receipt controls at settlement intermediaries, such as clearing banks and custodians, achieve the intent of Recommendation 2 in practice.

Based on the compensating controls in the market, the existing presettlement capabilities of FICC, and the overall objective of providing efficient services to the market for Fedwire-eligible securities, the Federal Reserve believes the Fedwire Securities Service broadly observes Recommendation 2.

Recommendation 3: Settlement Cycles

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 evaluated.

Assessment

Recommendation 3 is not applicable to the Fedwire Securities Service.

Comments

Rolling settlement is not applicable to the Fedwire Securities Service because the Fedwire Securities Service provides for real-time final settlement of Fedwire-eligible securities transfers on the day the transfers are submitted to the Fedwire Securities Service. While the Fedwire Securities Service may settle transfers as early as trade date, in most instances securities trades are compared, confirmed, and netted through FICC before final settlement.

In addition, the Federal Reserve does not have the authority to set the settlement cycle or establish parameters for fails, despite the Fedwire Securities Service's capability to settle on a rolling settlement cycle. Settlement cycle decisions for Fedwire-eligible securities are generally made by market participants and industry groups. For example, settlement of secondary market trades of Treasury securities typically occurs on T+1. Settlement can, however, by agreement between counterparties, occur anytime from trade date to T+N, where N is equal to the number of business days between trade date and the future settlement date. Additionally, the final settlement of mortgage-backed securities occurs primarily on fixed monthly settlement dates, as designated by the Securities Industry and Financial Markets Association (SIFMA), in the settlement month that was contracted at the time of trade execution.⁶²

⁶² Mortgage-backed securities notification and settlement dates are available at www.sifma.org. MBSD's Processing Schedules, which lists mortgage-backed securities settlement cycles and cash settlement schedules, are available at www.dtcc.com.

Recommendation 4: Central Counterparties (CCPs)

The benefits and costs of a central counterparty (CCP) should be evaluated. Where such a mechanism is introduced, the CCP should rigorously control the risks it assumes.

Assessment

Recommendation 4 is not applicable to the Fedwire Securities Service.

Comments

Given the real-time settlement system design of the Fedwire Securities Service and the existence of FICC, the Reserve Banks have concluded that a CCP is not necessary for the Fedwire Securities Service.

As described in section 1.2 of the Introduction, FICC, through the GSD and MBSD, acts as the CCP for Treasury, non-mortgage-backed non-Treasury, and mortgage-backed securities.

Recommendation 5: Securities Lending

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.

Assessment

Recommendation 5 is not applicable to the Fedwire Securities Service.

Comments

The Fedwire Securities Service does not provide securities lending services to participants. The securities lending market for Fedwire-eligible securities exists outside of the Fedwire Securities Service and has its own conventions and procedures. Major market participants, including broker-dealers and large custodian banks, may offer these services to parties seeking to finance their positions or meet delivery obligations (such as to facilitate settlement or cover a short position).

The Federal Reserve supports the practice and operations of securities lending and recognizes the importance of this practice in expediting the settlement of Treasury securities transactions. In support of this practice, the Federal Reserve Bank of New York lends Treasury securities from the Federal Reserve's portfolio, called the System Open Market Account (SOMA), to provide a short-term source of liquidity to repo markets and to facilitate smooth clearing of government securities.⁶³ While these transactions may settle over the Fedwire Securities Service, primary dealers bid to borrow securities and receive notification of awards through another application.⁶⁴

⁶³ In 2008, the Federal Reserve Bank of New York began lending Treasury securities from SOMA on a term basis through a temporary facility. This facility remained available to primary dealers until February 1, 2010. For additional information, see www.newyorkfed.org/markets/tslf.html.

Additional information on SOMA is available at www.newyorkfed.org/markets/soma/sysopen_accholdings.html.

⁶⁴ Additional information on securities lending is available at www.newyorkfed.org/markets/securitieslending.html.

Recommendation 6: Central Securities Depositories (CSDs)

Securities should be immobilised or dematerialised and transferred by book entry in CSDs to the greatest extent possible.

Answers to Key Questions

1. Are securities issued on a dematerialised basis or as a physical certificate? If the latter, are they immobilised in a CSD to facilitate settlement? What percentage of securities issued domestically is either immobilised or dematerialised, and what is the trend? Is the transfer of securities carried out by book entry or does it require any form of physical delivery?

Fedwire-eligible securities are issued on a dematerialized basis. As of year-end 2013, of the approximately \$11.9 trillion (par value) of Treasury securities held in custody on the Fedwire Securities Service, close to 100 percent is dematerialized. A limited number of Treasury securities issued before the mid-1980s are eligible to be converted into certificated form. Also, certain real estate mortgage investment conduits (REMICs) issued by Ginnie Mae may be converted into certificated form. The trend, however, is toward the elimination of physical certificates for Fedwire-eligible securities. All securities held in accounts on the Fedwire Securities Service are in book-entry form and securities transfers are electronic.

2. Is there a lag between settlement and registration and what are the implications of the time lag for finality? If the CSD is not the official registrar, does the transfer of securities in the CSD result in the transfer of securities in the official register?

There is no lag between settlement and the establishment of the security entitlement, which is the equivalent of registration in the indirect holding system. Under TRADES and corresponding agency regulations, a participant obtains an interest in a Fedwire-eligible security when a Reserve Bank indicates by book-entry that a security has been credited to that participant's securities account. The answers to the key questions for Recommendations 7 and 8 offer a more detailed description of settlement finality.

The Reserve Banks, as a CSD, do not act as an official registrar. The Fedwire Securities Service is an indirect holding system and maintains records only of the identities and interests of the participants on the Fedwire Securities Service. Investors that have interests in Fedwire-eligible securities held with an intermediary other than the Reserve Banks are reflected on the books of that intermediary and are not recognized by the issuers or by the Reserve Banks.

Investors, however, may hold their securities directly with the issuer or its official registrar. Investors holding their Treasury securities in the TreasuryDirect service, for example, have their interests recorded directly on the books of the Treasury, the official registrar. It may be possible to be a direct holder of non-Treasury securities in certificated form at an official registrar for the issuer of those securities.

Assessment

Recommendation 6 is observed.

Recommendation 7: Delivery versus Payment (DVP)

CSDs should eliminate principal risk by linking securities transfers to funds transfers in a way that achieves delivery versus payment.

Answers to Key Questions

1. Does the technical, legal and contractual framework ensure that delivery of securities takes place if, and only if, payment is received? If so, how?

The technical, legal, and contractual framework of the Fedwire Securities Service ensures delivery of securities against payment.

The Fedwire Securities Service is a DVP system that processes securities transfers individually in real time.⁶⁵ The transfer of securities and associated payment occurs simultaneously and is final when the respective securities and master accounts are credited and debited. Securities transfer messages identify the sending and receiving participants, the securities issue and par amount to be transferred, and the payment information. The system checks the transfer messages for technical acceptability and verifies that the sender has the securities in its securities account. Once verified, the securities are automatically debited from the sender's securities account and credited to the receiver's securities account, and simultaneously, the corresponding funds are debited from receiver's master account and credited to the sender's master account. Once the transaction is complete, the Fedwire Securities Service sends a notice acknowledging that the message has been processed to both the sender and the receiver. While most transfers are against payment, participants can make transfers free of payment.

The legal and contractual frameworks also support DVP transfers. As discussed in the answers to key questions for Recommendation 8, paragraph 9.1 of OC 7 provides that settlement finality occurs when a Reserve Bank debits and credits the participants' respective securities and master accounts.

2. What proportion of trades between direct participants of the CSD (by value) is settled on a DVP basis?

The Fedwire Securities Service settles the large majority of securities transfers on a DVP basis. In 2013, DVP transfers accounted for approximately 86 percent of total securities transfer volume. Transfers free of payment accounted for approximately 14 percent of all securities transfers. About 33 percent of the free of payment activity was associated with intrabank transfers (repositioning securities within a participant's family of securities accounts).

⁶⁵ The Fedwire Securities Service follows DVP Model 1, as described in the CPSS, *Delivery Versus Payment in Securities Settlement Systems*, Bank for International Settlements, September 1992. DVP Model 1 includes systems that settle transfer instructions for both securities and funds on a trade-by-trade (gross) basis, with final (unconditional) transfer of securities from the seller to the buyer (delivery) occurring at the same time as final transfer of funds from the buyer to the seller (payment).

Assessment

Recommendation 7 is observed.

Recommendation 8: Timing of Settlement Finality

Final settlement should occur no later than the end of the settlement day. Intraday or real-time finality should be provided where necessary to reduce risks.

Answers to Key Questions

1. Does the CSD permit final settlement of securities transfers by the end of the settlement day? Is the timing of settlement finality clearly defined for transactions within the CSD and for transactions over a link to another CSD?

The Fedwire Securities Service provides for final settlement of securities transfers on a real-time basis throughout the settlement day.

The timing of settlement finality is clearly defined in the TRADES and corresponding agency regulations, UCC Article 8, and OC 7. Pursuant to the TRADES and corresponding agency regulations and UCC Article 8, 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. Paragraph 9.1 of OC 7 provides that, unless a transfer is rejected, all debits and credits in connection with a transfer become final at the time a Reserve Bank posts the debits and credits to the participants' securities accounts and master accounts. The Fedwire Securities Service generally processes securities transfers and associated funds transfers immediately following the receipt of a transfer message.

2. Does the CSD permit final settlement of DVP transfers on a continuous basis throughout the day or at certain designated times during the day? If the latter, at what times do transfers become final? Is there a need for intraday or real-time finality to reduce risks? Do central banks use the SSS in monetary policy operations or to collateralise intraday credit extensions in a payment system? Do active trading parties or CCPs have a need for intraday or real-time finality to manage their risks effectively? Is there a need for intraday or real-time finality to facilitate settlement through links to other CSDs? Is there a need for intraday finality to facilitate the smooth functioning of some markets (for example, repurchase agreement markets)?

The Fedwire Securities Service 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.

The Open Market Desk of the Federal Reserve Bank of New York uses the Fedwire Securities Service to support monetary policy operations involving the outright purchase of Fedwire-eligible securities.⁶⁶ For the more frequent open market operations involving repos, the Open Market Desk settles via the triparty repo services provided by the clearing banks, JPMorgan Chase Bank and The Bank of New York Mellon. In addition, participants can use their securities

⁶⁶ Additional information on the Open Market Desk is available at www.newyorkfed.org/markets/openmarket.html.

holdings in the Fedwire Securities Service to collateralize intraday Reserve Bank credit, as well as overnight discount window borrowings.

For additional information on intraday credit, see the answers to key questions for Recommendation 9.

3. Does the CSD prohibit the unilateral revocation of unsettled transfer instructions late in the settlement day? Does the CSD receive provisional transfers of securities from any other CSDs? If so, does it prohibit retransfer of these securities until they become final? If not, what would be the consequences of an unwind of such provisional transfers for the CSD's participants?

All securities transfers sent over the Fedwire Securities Service are settled on a real-time basis. As a result, there are no unsettled transfer messages that could be revoked by participants at any point in the settlement day. The Fedwire Securities Service does not have direct, indirect, or relayed links to other CSDs or ICSDs and, therefore, does not receive provisional transfers from any other CSD.

Assessment

Recommendation 8 is observed.

Recommendation 9: CSD Risk Controls to Address Participants' Failures to Settle

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.

Answers to Key Questions

1. Does the CSD ensure that timely settlement can be completed in the event of an inability to settle by the participant with the largest obligation? If so, how? Are the credit exposures of the CSD fully collateralised? If not, what measures are in place to address risks stemming from granting uncollateralised credit? Are limits imposed on credit extensions by the CSD? Does the CSD have sufficient liquidity resources to ensure timely settlement?

The Fedwire Securities Service is a DVP Model 1 system, processing securities transfers on a gross basis in real time. The transfer of securities and the related funds, if any, is final and irrevocable when a Reserve Bank debits and credits the participants' securities and master accounts. The Reserve Banks facilitate settlement and mitigate participants' liquidity risk through the extension of intraday credit. Part II of the PSR policy defines the limits, requirements, and fees for intraday credit extensions. The PSR policy includes a voluntary collateral regime that encourages the pledging of collateral to cover extensions of intraday credit.⁶⁷

Liquidity Risk

The Reserve Banks may extend intraday credit, in the form of daylight overdrafts, to Fedwire Securities Service 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 face liquidity risk from Fedwire Securities Service operations or the provision of intraday credit. 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 Fedwire Funds Service operating day.⁶⁸

⁶⁷ In December 2008, the Board adopted major revisions to part II of the PSR policy that are designed to improve intraday liquidity management and payment flows for the banking system and help to mitigate the credit exposures to the Reserve Banks from daylight overdrafts. The changes include a new approach that explicitly recognizes the role of the central bank in providing intraday credit to healthy depository institutions, a zero fee for collateralized daylight overdrafts, a 50 basis point (annual rate) charge for uncollateralized daylight overdrafts, and a biweekly daylight overdraft fee waiver of \$150. These changes were implemented in March 2011. For more information on the revised PSR policy see http://www.federalreserve.gov/paymentsystems/psr_policy.htm.

⁶⁸ For additional information on Reserve Bank accounts, see the *Account Management Guide* and the *Reserve Maintenance Manual* at www.frb-services.org/regulations/accounting_guides_and_manuals.html.

The Federal Reserve expects participants to extinguish their daylight overdrafts by the end of the Fedwire Funds Service operating day.⁶⁹ 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' 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 Funds Service 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). Generally, net debit caps are based on creditworthiness, as determined by the participants' capital adequacy and the most recent supervisor ratings.⁷⁰ 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.⁷¹ 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 master 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.

⁶⁹ The Fedwire operating day discussed in the PSR policy refers to the operating day of the Fedwire Funds Service, which ends at 6:30 p.m. ET.

⁷⁰ Net debit caps are calculated by applying a cap multiple from one of six cap classes (zero, exempt-from-filing, de minimis, average, above average, and high) to an institution's capital measure. The different cap categories correspond to different degrees of permissible intraday credit usage. The calculation process and cap categories are described in detail in sections II and VI of the *Guide to the Federal Reserve's Payment System Risk Policy*. See www.federalreserve.gov/paymentsystems/psr_relpolicies.htm.

⁷¹ Discount window access is governed by the Board's Regulation A (12 CFR Part 201). See www.frbdiscountwindow.org.

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 to individual participants by unilaterally reducing net debit caps, imposing collateralization or clearing balance requirements, rejecting or delaying certain transactions, or in extreme cases, taking the institution off line or prohibiting it from using the Fedwire Securities Service.⁷²

Collateral

Although the PSR policy generally does not require participants to pledge collateral to the Reserve Banks to secure daylight overdrafts, the policy's voluntary collateral regime encourages the pledging of collateral to cover daylight overdrafts by providing collateralized daylight overdrafts at a zero fee and by charging 50 basis points (annual rate) for uncollateralized overdrafts.⁷³ The two-tiered fee for collateralized and uncollateralized overdrafts is intended to provide a strong incentive for a depository institution to pledge collateral to its Reserve Bank to reduce or eliminate the institution's uncollateralized daylight overdrafts and associated charges for its use of intraday credit. The PSR policy allows certain healthy participants to pledge collateral to their Reserve Banks 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."⁷⁴ 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 collateral valuation methodology.⁷⁵ 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.

⁷² The Reserve Banks can monitor in real time certain payment transactions of an individual depository institution. Under certain circumstances, the Reserve Banks may place the institution on the "real-time monitor," which rejects certain credit originations initiated by the depository institution if sufficient funds are not available in the institution's master account. The real-time monitor does not affect transactions conducted through the Fedwire Securities Service.

⁷³ The Reserve Banks' intraday credit exposure may be secured by collateral pledged to the Reserve Banks for discount window purposes.

⁷⁴ Participants are expected to manage their account to their maximum daylight overdraft capacity, that is, the lesser of their net debit cap plus collateral held or their approved maximum daylight overdraft capacity.

Under the revised PSR policy, the Board adopted a streamlined procedure for obtaining the maximum daylight overdraft capacity for certain foreign banking organizations. The streamlined procedure became effective in March 2009.

⁷⁵ Any type of collateral that is acceptable for discount window purposes is acceptable for collateralizing intraday credit. For additional information on the types and valuation of assets accepted as collateral, see www.frbdiscountwindow.org.

Security Interest in Securities Purchased with Intraday Credit

Under UCC Article 9, a security interest in favor of a securities intermediary attaches to a person's security entitlement if the securities intermediary purchases the security entitlement for that person on credit.⁷⁶ Accordingly, a security interest in favor of a Reserve Bank attaches to Fedwire security entitlements when the entitlements are purchased through the use of the Reserve Bank's intraday credit. Under the UCC, such a security interest has priority over a conflicting security interest held by another secured party.⁷⁷ The TRADES regulations clarify that a security interest in a security entitlement marked on the books of a Reserve Bank has priority over any other interest in the securities, except a security interest in favor of the United States.⁷⁸ Further, in 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 security accounts to secure any obligation of the account holder to any Reserve Bank.⁷⁹

Other Relevant PSR Policy Provisions

Daylight overdraft fees

Since 1994, the PSR policy has included a fee on daylight overdrafts intended to moderate the use of intraday credit.⁸⁰ The Federal Reserve initially set the annual rate for the overdraft fee at 24 basis points and increased it to 36 basis points in April 1995.

The current PSR policy implemented in March 2011 sets the fee for collateralized overdrafts to zero and for uncollateralized overdrafts to 50 basis points (annual rate).

Transfer-size limit on book-entry securities

In 1988, the Board imposed a \$50 million limit on the par value of individual book-entry securities transfers over the Fedwire Securities Service.⁸¹ The purpose of this limit is to

⁷⁶ See UCC § 9-206(a).

⁷⁷ See UCC § 9-328(3).

⁷⁸ See 31 CFR 357.12(e)(3).

⁷⁹ In addition, participants desiring access to the discount window must execute the letter of agreement in OC 10 (Lending). Under OC 10, collateral pledged by a participant to secure discount window advances secures both intraday and overnight credit.

⁸⁰ A detailed description of the fee and its calculation can be found in section IV of the *Guide to the Federal Reserve's Payment System Risk Policy*. See www.federalreserve.gov/paymentsystems/psr_relpolicies.htm.

⁸¹ The \$50 million limit does not apply to original issue deliveries of securities from a Reserve Bank to a depository institution or to transactions sent to or by a Reserve Bank in its capacity as fiscal agent. The \$50 million limit also does not apply to debits or credits to restricted securities accounts on a Reserve Bank's books.

encourage dealers to split large trades into multiple, partial deliveries, and thereby reduce daylight overdrafts related to book-entry securities transactions.⁸²

2. Does the CSD permit overdraft or debit balances in securities?

The Reserve Banks do not permit participants to incur debit balances in securities accounts. If a participant initiates a securities transfer and does not have the securities in its securities account, the Fedwire Securities Service will reject the transfer message.

3. Does the CSD evaluate the probability of multiple failures? Can settlement be completed in that event? If not, has the CSD evaluated the cost of ensuring settlement in the event of multiple failures?

Final settlement is completed at the time the transfer is accepted and processed by the Fedwire Securities Service. The failure of a Fedwire Securities Service participant could result in a credit exposure to a Reserve Bank if the failing participant were in an overdraft position.

Assessment

Recommendation 9 is observed.

⁸² Before the limit's introduction, dealers generally accumulated securities in the full amount of the trade before they delivered them. Partial deliveries, those for less than the full amount of the trade obligation, were typically returned to the sending institution. Dealers' practice of stockpiling large amounts of securities to meet large trade obligations until close to the end of the day often resulted in the use of daylight credit at their clearing banks. The clearing banks, in turn, had to hold positive balances in their master accounts or use Reserve Bank daylight credit to accommodate this practice.

Recommendation 10: Cash Settlement Assets

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.

Answers to Key Questions

1. Is the settlement agent the central bank that issues the currency? If the central bank is settling in a foreign currency, what steps has it taken as settlement agent to ensure that the settlement assets pose little or no credit or liquidity risk? If the central bank is not used, what steps have been taken to protect CSD members from failure of the cash settlement agent? Is the CSD itself organised as a limited purpose bank? Does it strictly limit any risks associated with non-settlement activities?

The settlement agents are the Reserve Banks, which are part of the U.S. central bank that issues the currency. Final settlement of DVP transactions on the Fedwire Securities Service occurs against payment of funds in central bank money, through the transfer of master account balances held at a Reserve Bank. The Fedwire Securities Service settles transactions denominated only in U.S. dollars.

2. Are settlement banks subject to prudential supervision by government authorities? Who determines which institutions can be used as settlement institutions? What are the criteria? If multiple settlement institutions can be used in principle, how many are used in practice? How concentrated are payment flows? On an average day, what percentage of total payments is credited to accounts at the institution that accounts for the largest share of the payment flows? What is the financial condition of that institution (for example, its capital ratios and its credit ratings)? Are the concentration of exposures and the financial condition of the settlement banks monitored and evaluated? If so, by whom?

Settlement Bank Supervision

The Reserve Banks are the settlement banks for Fedwire-eligible securities transferred over the Fedwire Securities Service. The Reserve Banks are subject to general supervision by the Board, as well as supervision and control by their own boards of directors. The Reserve Banks are also subject to internal and external audits. For additional information on Reserve Bank supervision and oversight, see the answers to key questions for Recommendation 18.

The clearing banks, The Bank of New York Mellon and JPMorgan Chase Bank, also serve as settlement banks for Fedwire-eligible securities transferred outside of the Fedwire Securities Service. The Bank of New York Mellon is subject to the regulation and supervision of the Federal Reserve and the New York State Department of Financial Services. JPMorgan Chase Bank is subject to the regulation and supervision of the Federal Reserve and the OCC.

Concentration of Payment Flows

While the key questions related to the concentration of payment flows are in the context of a settlement bank, the following summary statistics address the concentration of the volume and value of DVP securities transfers on the Fedwire Securities Service. As of year-end 2013, the top twenty five participants, in terms of volume, accounted for approximately 97 percent of the total transfer volume. The top twenty five participants, in terms of value, accounted for approximately 95 percent of the total transfer value. Additionally, the two clearing banks accounted for approximately 68 percent of total securities transfers volume and 73 percent of the value.

Financial Condition of Settlement Banks

As part of the U.S. central bank, the Reserve Banks do not face the risk of insolvency as a practical matter. The financial condition of the Reserve Banks is disclosed in the Board's *Annual Report*.

The financial conditions of the two clearing banks are monitored by the Federal Reserve, the OCC, and the Federal Deposit Insurance Corporation (FDIC).⁸³ If a credit or legal problem caused the market to lose confidence in one of the clearing banks, and no well-qualified bank stepped forward to purchase the problematic bank's clearing business, the Fedwire-eligible securities market would be seriously disrupted.

3. How quickly can recipients use the proceeds of securities settlements? On the same day? Intraday?

Participants of the Fedwire Securities Service have immediate access to the settlement proceeds credited to their master accounts and can use these funds for all other payments.

4. Does the payment system used for interbank transfers among settlement banks observe CPSIPS?

The Fedwire Securities Service achieves DVP through real-time simultaneous exchange of securities against payment; a separate interbank funds transfer system is not used. Other settlement banks may use the Fedwire Funds Service, which transfers funds between participants on a real-time gross basis and observes the *Core Principles for Systemically Important Payment Systems* (CPSIPS), or another funds-transfer system to effect payments in connection with securities transactions.⁸⁴

⁸³ For additional information on the FDIC and its functions, see www.fdic.gov.

⁸⁴ Committee on Payment and Settlement Systems, *Core Principles for Systemically Important Payment Systems*, Bank for International Settlements, January 2001. See www.bis.org/publ/cpss43.htm. For additional information on the assessment of compliance, see http://www.federalreserve.gov/paymentsystems/over_rbsystems.htm.

Assessment

Recommendation 10 is observed.

Recommendation 11: Operational Reliability

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 backup facilities should be established to allow for timely recovery of operations and completion of the settlement process.

Answers to Key Questions

1. Does the system operator have a process for identifying and managing its operational risks?

The Reserve Banks have processes for identifying and managing operational risks associated with the Fedwire Securities Service. For example, the Fedwire Securities Service complies with the Federal Reserve Bank of New York's operational risk management program. This program is a methodology for managing and monitoring 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. The Reserve Banks also conduct robust application and network testing, including penetration and stress testing.

The Fedwire Securities Service operates within the context of the Federal Reserve's overall information security program, which consists of defined policies and an architectural framework. This program is designed to protect information from loss or misuse, and thereby 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's information security program requires each Reserve Bank with management responsibilities for a business function, such as the Fedwire Securities Service, to complete information security risk assessments to determine that the appropriate controls are in place to manage operational risk. The Fedwire Securities Service, because of its critical role in the Fedwire-eligible securities market, is subject to several additional formal Reserve Bank risk-assessment programs, including the Federal Reserve Bank of New York enterprise risk-management initiatives, and compliance with the Federal Information Security Management Act of 2002 (FISMA).⁸⁵

2. Does the system operator have contingency plans and backup facilities for the failure of key systems, and are these tested and reviewed regularly with participants taking part? Do contingency plans ensure at a minimum that the status of all transactions at the time of the disruption can be identified with certainty in a timely manner? How long does it take to recover operations through backup systems? Do the procedures provide for

⁸⁵ FISMA provides the framework for ensuring the effectiveness of information security controls over information resources that support federal government operations and assets. See 44 U.S.C. § 3541-3549.

preservation of all transaction data? How does the system operator ensure the integrity of messages?

The Reserve Banks view the Fedwire Securities Service's business continuity as critically important. The Reserve Banks maintain and regularly test contingency plans and backup facilities to ensure resilience of the Fedwire Securities Service and all integral support functions. The Fedwire Securities Service meets or exceeds the recommendations published in the *Interagency Paper on Sound Practices to Strengthen the Resilience of the U.S. Financial System*.⁸⁶ The Reserve Banks maintain multiple out-of-region backup data centers and redundant out-of-region staffs that support the data centers, Fedwire Securities Service applications, and customer testing facilities and support services. The Reserve Banks rotate production support among out-of-region staffs regularly. In addition, the Fedwire applications transmit and log transactions and critical database changes to both the primary and 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.

As outlined in the Reserve Banks' OC 7, Fedwire Securities Service participants are responsible for developing their own contingency and recovery plans, such as backup computer and operations facilities. The most active Fedwire Securities Service participants are required to participate in a minimum number of contingency tests each year, including tests from the customers' backup sites.⁸⁷ In addition, the Reserve Banks' customer testing facilities are available to all Fedwire Securities Service participants. Participants are also expected to follow Federal Financial Institutions Examination Council guidance for regulated depository institutions regarding business resumption and information systems contingency planning.

In the event of a Fedwire Securities Service 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 that the Reserve Banks have processed. Participants reconcile this report and their own reports to identify any gaps in the sequence numbers assigned to each transfer initiated by the participant. These gaps represent transfers that were submitted but not accepted or processed by the Fedwire Securities Service. Once the Fedwire Securities Service resumes processing, participants resend those transfer messages that fall within the gaps, flagged as possible duplicate messages. Participants exercise this reconciliation process regularly during contingency tests.

The Reserve Banks' procedures to ensure the integrity of transfer messages are also outlined in OC 7. The Reserve Banks require participants to implement appropriate physical and logical security measures to protect any access controls, hardware, or software. These security measures ensure that the initiation of a transfer message occurs from locations that the Reserve Banks have

⁸⁶ The paper advises financial institutions on steps necessary to strengthen the overall resilience of and to protect the U.S. financial system in the event of a wide-scale disruption. See www.federalreserve.gov/boarddocs/srletters/2003/SR0309a1.pdf.

⁸⁷ In 2013, the most active Fedwire Securities Service participants were required to participate in either two or three of four Reserve Bank-coordinated contingency tests, depending on their level of activity. Participants were required to perform at least one of these contingency tests from their contingency site.

authorized and requires action by more than one of the participant's employees. The Reserve Banks also require messages to contain adequate identifying information and adhere to other media and format requirements.

3. Are operational reliability issues reviewed regularly by senior management, including review by persons not responsible for the relevant operations? Are periodic external audits of the IT (information technology) system conducted? Is there an independent internal audit function and does it review operational risk controls?

Operational reliability issues are reviewed regularly by senior management with various roles in relation to the Fedwire Securities Service, including persons not responsible for the securities service operations. Senior management of the Wholesale Product Office (WPO) focuses on operational reliability as a part of ongoing management attention.⁸⁸

Each Reserve Bank has an independent internal audit department that reports directly to that Reserve Bank's board of directors. Working cooperatively, the Reserve Banks' internal audit staffs conduct end-to-end audits of Fedwire Securities Service activities on a risk-based schedule. The Board conducts periodic risk-based reviews of the Fedwire Securities Service, including reviews of the IT system. As part of the annual external audit of the Reserve Banks, independent external auditors conduct risk-based reviews of the IT system.

4. How many times during the last year has a key system failed? What is the most common cause of failures? How long did it take to resume processing? How much transaction data, if any, was lost? Does the system operator have capacity plans for key systems and are key systems tested periodically to determine if they can handle stress volume?

The Fedwire Securities Service is considered unavailable when customers cannot send or receive Fedwire Securities transfers, regardless of whether the cause is related to a fault or failure in an application, environmental software, or the telecommunications network infrastructure the Reserve Banks rely on to effect Fedwire Securities transfers for customers.⁸⁹ The availability standard for the Fedwire Securities Service is 99.9 percent of operating hours. In 2013, the Fedwire Securities Service was available 99.95 percent of operating hours for those Fedwire customers that access the Fedwire Securities Service through the FedLine Advantage access solution, 99.99 percent of operating hours for those Fedwire customers that access the Fedwire Securities Service through the FedLine Direct access solution, and 100 percent of operating hours for those Fedwire customers that access the Fedwire Securities Service through the Reserve Banks' offline securities-transfer service.

The Reserve Banks have dedicated staff that manage and test capacity to ensure that the Fedwire Securities Service can handle high volume levels. In addition to monitoring actual volume levels, staff considers market factors that could influence future volume levels. Staff increases

⁸⁸ The WPO manages, operates, supports, and maintains the wholesale services on behalf of the Reserve Banks. For additional information on the WPO, see the answers to key questions for Recommendation 13.

⁸⁹ When measuring availability, the experience of the user community as a whole is considered. Outage events affect the majority of currently active customers and are not isolated instances.

the Fedwire Securities Service's capacity based on volumes experienced and these market factors, as appropriate. After a change in capacity, staff conducts high-volume stress tests.

Assessment

Recommendation 11 is observed.

Recommendation 12: Protection of Customers' Securities

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 claim of a custodian's creditors.

Answers to Key Questions

1. What arrangements are used to protect customers' securities from theft, loss or misuse and to ensure that they will not become subject to claims of the custodian's creditors (for example, are segregation, insurance, or compensation schemes used)? Are those arrangements based upon specific laws and regulations? In the event of the custodian's insolvency, do those arrangements enable a customer's positions to be moved by a receiver to a solvent intermediary?

The Reserve Banks maintain records of the identities and interests of the participants on the Fedwire Securities Service. Each participant, in turn, maintains a record of how its Fedwire Securities Service holdings are allocated between it and its direct customers, and this process is repeated throughout a tiered structure. The Fedwire Securities Service allows participants to have multiple securities accounts so that the participants can, to the extent desirable or required by law, segregate their customer holdings.

To ensure that the Reserve Banks' records are accurate and that securities accounts are not subject to theft, loss, or misuse, both physical and technical security controls are incorporated into the Fedwire Securities Service, and periodic audits are performed. In addition, participants receive a notice after each debit or credit to their securities account (except for the credit of a security upon original issue or the debit upon maturity). At the end of each day, each participant receives a summary of its net balances for each security issue for which there was activity.

UCC Article 8 provides that securities intermediaries, including the Reserve Banks, are required to maintain a sufficient quantity of investment property (for example, securities) to satisfy all of their customers' claims.⁹⁰ In addition, by regulation, 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 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 Article 8 further provides that all interests in a particular security held by an intermediary are held for the benefit of its customers to the extent necessary to satisfy the claims of its customers and are not the property of the intermediary.⁹¹ 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 asset.

⁹⁰ See UCC § 8-504(a).

⁹¹ See UCC § 8-503(a).

There are two exceptions to the general rule that customers have priority over claims of a securities intermediary's creditors. The first exception arises when the securities intermediary is a clearing corporation. Creditors of a clearing corporation are given preference over the securities intermediary's customers to ensure that clearing corporations can obtain the liquidity necessary to complete settlement.⁹² If a clearing corporation is unable to settle, there could be systemic consequences in the securities market. This exception is not a realistic possibility for the Reserve Banks because, as a part of the central bank, they do not face liquidity constraints.

The second exception arises when a creditor obtains control of the securities entitlement.⁹³ This exception does expose a customer to the risk that its securities intermediary will wrongfully pledge or transfer its interest.⁹⁴ 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's customer may bring a claim directly against the creditor to recover the securities entitlement.

If a failed broker has violated the customer protection regulations and does not have sufficient securities to satisfy its customers' claims, its customers generally will receive protection against loss by the SIPA. Under the act, a customer of a failed broker is entitled to a pro-rata share of any cash and securities held by the broker for its customers (other than securities registered in the name of a customer) and up to \$500,000 from the SIPA fund.

Under U.S. law, the customer of an insolvent intermediary is able to move its positions to a solvent intermediary.⁹⁵

⁹² See UCC § 8-511(c).

⁹³ See UCC § 8-511(b).

⁹⁴ U.S. law protects a customer of a securities intermediary from a claim by a third party that the third party has a property interest in the customer's security entitlement. Specifically, U.S. law does not recognize these adverse claims so long as the customer obtained its securities entitlement for value and without notice of the adverse claim. Under the TRADES regulations, a Reserve Bank is not liable to any person asserting an adverse claim to a book-entry security in a participant's securities account even when the claim arises as a result of a transfer or disposition of the Treasury security by a Reserve Bank, provided that the Reserve Bank acted pursuant to instructions that it reasonably believed to be genuine. Similar provisions are included in the equivalent corresponding agency regulations and OC 7. For example, paragraph 4.2 of OC 7 provides that unrestricted securities accounts are held for, and subject to, the sole order of the participant that owns the account. This is true regardless of the name used by the participant or the Reserve Bank to identify the account; such names are for convenience only and do not create legal rights and obligations.

⁹⁵ Under U.S. law, customer name securities are not part of the insolvent intermediary's estate and are not subject to claims by the insolvent intermediary's creditors. Therefore, when an intermediary becomes insolvent, these customer name securities may be transferred to the customer or to another intermediary. The governing law, however, depends on the type of institution acting as intermediary. See SIPA (15 U.S.C. § 78fff-2(c)(2)) and the U.S. Bankruptcy Code (11 U.S.C. § 751) for examples of insolvency frameworks that contemplate a trustee appointed for an insolvent securities intermediary transferring customer securities to the customer or, on behalf of the customer, to someone else, such as to a solvent intermediary.

2. How often do the entities holding securities in custody reconcile their records? Are the entities holding securities in custody subject to mandatory internal or external audit, or both, to determine if there are sufficient securities to satisfy customer claims?

As part of the account reconciliation process, daily activity reports or clearing summaries are available to participants that include information on those securities that had transaction activity on the respective operating date. Participants may also elect to receive periodic account holdings reports providing detailed holdings information for each securities account. The reports list total par balances for each security for each account, and participants may use the reports to reconcile total outstanding balances. The Reserve Banks will also respond to participants' requests for audit confirmations that can be used by participants and their regulators, internal audit departments, and external audit firms to verify participants' securities holdings as of a particular date.

The Reserve Banks 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 issuers and contain activity information and amounts representing the total par value of outstanding securities for each security. In order to balance the issuer accounts with the participants' securities accounts, the total par value of each outstanding security is compared to the total par value of the participants' securities holdings. For additional information on the internal and external audits of Reserve Banks, see the answers to key questions for Recommendation 18.

3. Are the entities holding securities in custody subject to prudential supervision or regulation? Do regulatory reviews examine the procedures and internal controls used in the safekeeping of securities?

Participants that maintain securities accounts for customers are subject to prudential supervision and regulation. Examinations of these entities include a review of the procedures and internal controls used in the safekeeping of securities.

For a discussion of the supervision and regulation of the Reserve Banks, see the answers to key questions for Recommendation 18.

Assessment

Recommendation 12 is observed.

Recommendation 13: Governance

Governance arrangements for CSDs and CCPs should be designed to fulfil public interest requirements and to promote the objectives of owners and users.

Answers to Key Questions

1. What are the governance arrangements of the CSD or CCP? What information is publicly available regarding the system, its ownership and its board and management structure, and the process by which major decisions are taken and management made accountable?

The Board exercises general supervision over the Reserve Banks and has broad policymaking powers, including the authority to issue regulations on certain topics. The Reserve Banks operate the Fedwire Securities Service in their role as fiscal agents for the Treasury, federal agencies, and GSEs. The Reserve Banks manage the Fedwire Securities Service operations on a consolidated basis through the WPO and various Reserve Bank management committees discussed below. In addition, the Treasury maintains general supervision over the activities of the Reserve Banks conducted as fiscal agents for the Treasury.

Board of Governors

Under the Federal Reserve Act, the Board of Governors has broad and comprehensive supervisory authority over the Reserve Banks, including the Reserve Banks' provision of payment and settlement services. The Board recognizes the critical role these services play in the financial system and is committed to strong and effective supervision of these services that is comparable to, or exceeds, the requirements placed on similar private-sector payment and settlement arrangements. The Board exercises this oversight in three ways—application of robust risk-management standards; a rigorous examination process; and review of key strategic initiatives, prices and service terms, proposed material changes, and ongoing operations.⁹⁶

Reserve Banks

The Reserve Banks serve as the operating arm of the central bank, providing a variety of services to financial institutions. The Reserve Banks generally are responsible for maintaining customer accounts and relationships, for implementing and updating operating circulars, and for managing and operating systems such as the Fedwire Securities Service in accordance with the FRA and Board policies.

Although stock in each Reserve Bank is held by its member institutions, the legal organization of the Reserve Banks includes elements of both public and private accountability. Member banks must subscribe to stock in their regional Reserve Bank.⁹⁷ Each Reserve Bank has its own board

⁹⁶ See http://www.federalreserve.gov/paymentsystems/over_rbsystems.htm

⁹⁷ For information regarding the formation of the Reserve Banks, see *The Federal Reserve System: Purposes & Functions*, available at www.federalreserve.gov/pf/pf.htm.

of directors, representing public and private interests, including members appointed by the Board as well as members elected by stockholding institutions in each District. Each Reserve Bank, in carrying out the powers specifically granted in the FRA and such incidental powers as are necessary, is subject to the supervision and control of its board of directors. The board of directors may form committees to assist it in carrying out its duties under the FRA. For example, the board of directors of the Federal Reserve Bank of New York has created an audit and risk committee, which is generally responsible for assessing and ensuring the effectiveness and independence of the Bank's internal audit function. The audit and risk committee discusses with Reserve Bank management reports concerning the Reserve Bank's compliance with applicable legal requirements and the effectiveness of the Reserve Bank's internal controls over various types of risk, including operational risk. Although each Reserve Bank is a separate legal entity, the Reserve Banks often agree to conduct operations on a centralized or consolidated basis, and to implement consistent policies and services.

Wholesale Product Office (WPO)

The WPO is responsible for the daily operational management of the Fedwire Securities Service. The WPO's mission is to foster the integrity, efficiency, and accessibility of the Reserve Banks' wholesale payments and settlement systems in support of domestic financial stability and economic growth in a global context. The WPO plays a leadership role in the development and enhancement of these payment systems within the domestic and international financial services communities. Changes to Fedwire services or prices are typically initiated through the WPO. The WPO is also responsible for initiating changes to operating circulars pertaining to Fedwire services, including OC 7.

The WPO submits periodic reports to the Reserve Banks' Conference of First Vice Presidents (CFVP) and the Financial Services Policy Committee (FSPC) regarding service performance and trends. Specifically, the WPO submits its annual goals and budget objectives, with subsequent status reports of the office's progress, to the CFVP for review and to the FSPC for approval.

Federal Reserve Bank Committees

Cooperation among Reserve Banks is typically organized under the Conference of Presidents (COP) and the CFVP, which, under their bylaws, may establish committees to coordinate activities among the Reserve Banks.⁹⁸ The COP established the FSPC and the Information Technology Oversight Committee (ITOC) to help set the strategic direction of the Reserve Bank financial services and IT, respectively. The CFVP supports the FSPC by monitoring and evaluating major Reserve Bank projects and project proposals and by providing views or making recommendations in advance of FSPC action. More generally, the CFVP may suggest or recommend specific policies or courses of action to the COP, the FSPC, the ITOC, or the Board, and participates with these bodies in strategic planning.

⁹⁸ Among other things, the COP, which includes the president of each Reserve Bank, meets to discuss issues of strategic interest to the Federal Reserve System and to discuss other matters of common concern to the Reserve Banks. The CFVP, which includes the first vice president of each Reserve Bank and a liaison from the Board and Federal Reserve Information Technology, meets to discuss policies or operational matters of common interest to the Reserve Banks. The CFVP is principally concerned with Reserve Banks' operations and support services.

Financial Services Policy Committee

Under the strategic direction of the COP, the FSPC provides overall direction of financial services for the Reserve Banks, as well as providing leadership for the evolving U.S. payments system. The Financial Services Council (FSC) is a standing committee established by the FSPC with the central purpose of addressing issues that have implications across more than one of the financial services provided by the Reserve Banks.

The Board has delegated authority for certain policy decisions, mostly regarding routine price- and service-change proposals, to the FSPC, which, in turn has delegated some of this authority to the product office directors. The FSPC approves key objectives developed by the WPO on behalf of the 12 Reserve Banks for the Fedwire Securities Service.

Information Technology Oversight Committee

ITOC is responsible for setting strategic direction and policy for Reserve Bank information technology, for approving Reserve Bank IT standards and security policies, and for overseeing the provision of national IT services to Reserve Banks and business functions, including the Fedwire Securities Service. National IT services include centralized computer and network services, enterprise architecture, and the development of enterprise IT standards and information security standards.

Department of the Treasury

As the Reserve Banks' fiscal principal, the Treasury has the right to exercise control over those activities undertaken on its behalf by the Reserve Banks.

2. Are the system's public interest, financial and other objectives clearly articulated and public? What are they? Do the system's objectives reflect the needs of users as well as owners? How is the public interest taken into account? Can the system's participants or the public influence the system's decision-making process? How are major decisions communicated to owners and users?

The Federal Reserve's role, objectives, and policies with respect to the payments system are publicly disclosed through a series of policies. One key policy, "The Federal Reserve in the Payments System," presents the Federal Reserve's objectives for participation in the payments system: to promote the integrity and efficiency of the payments mechanism, to ensure the provision of payment services to all depository institutions on an equitable basis, and to provide such services in an atmosphere of competitive fairness.⁹⁹ This paper also describes the Federal Reserve's financial objectives, providing background on the Federal Reserve's compliance with the Monetary Control Act of 1980 (MCA).¹⁰⁰

⁹⁹ See http://www.federalreserve.gov/paymentsystems/pfs_frpaysh.htm.

¹⁰⁰ See 12 U.S.C. § 248a.

The Federal Reserve plays a dual role in the payments system: The Reserve Banks are a service provider, and the Board is a regulator. The Congress reaffirmed its commitment to this dual role for the Federal Reserve in the MCA. The Federal Reserve exercises great care to avoid actual or apparent conflict between its role as a provider of payment services and its roles as a regulator, supervisor, and lender. The Congress, through the GAO, has periodically assessed the Federal Reserve's policies regarding conflicts between its dual roles and determined that reasonable safeguards exist to prevent conflicts of interest.¹⁰¹

The Federal Reserve also addresses participants' concerns and interests through various formal and informal means. The Treasury and the Board may use, as appropriate, formal procedures to obtain information and analysis from the public regarding proposed rules, regulations, policies, and changes to the Fedwire Securities Service that would have a significant longer-run effect. Promulgation of Board rules is subject to a federal statutory requirement for public notice and comment.¹⁰² Public notice is generally published in the Federal Register. In addition to the formal methods of consultation, the Reserve Banks use various informal methods as discussed in the answers to key questions for Recommendation 15.

3. What steps are taken to ensure that management has the incentives and skills needed to achieve the system's objectives and is accountable for its performance?

The WPO submits periodic reports to the FSPC regarding service performance and trends. Specifically, the WPO submits its annual goals and budget objectives, with subsequent status reports of the office's progress, to the FSPC for review and approval. For additional information on audit and oversight functions, see the answers to key questions for Recommendation 18.

4. How is the composition of the board determined? What steps are taken to ensure that board members have the necessary skills, and represent or take into account in their deliberations the full range of shareholder and user interests as well as the public interest?

The Fedwire Securities Service does not have a board of directors. The activities of each Reserve Bank, including the operation of the Fedwire Securities Service, are conducted under the control and supervision of that Reserve Bank's board of directors. By statute, each Reserve Bank's board of directors is composed of nine members representing a cross-section of banking, commercial, agricultural, industrial, and public interests within that Reserve District. Three of the nine directors are appointed by the Board. Daily operations and management of a Reserve Bank have been delegated by the board of directors to the president of that Reserve Bank.

Cooperation among the Reserve Banks is facilitated through the COP and its committees. The FSPC, with delegated authority from the COP, is responsible for the overall direction of financial services and related support functions for the Reserve Banks, as well as for providing strategic leadership for the evolving U.S. payment system. The FSPC is composed of three Reserve Bank

¹⁰¹ For additional information on the standards the Federal Reserve has adopted to avoid actual or apparent conflicts between its role as provider of services and its role as regulator, supervisor, and lender, see http://www.federalreserve.gov/paymentsystems/pfs_standards.htm.

¹⁰² See 5 U.S.C. § 553.

presidents and two Reserve Bank first vice presidents, one of whom is the chair of the CFVP. In addition, the director of the Board's Division of Reserve Bank Operations and Payment Systems, the chair of ITOC, the Federal Reserve's chief information officer, and the various product directors of the Reserve Banks' financial services serve as liaison members to the FSPC.

Assessment

Recommendation 13 is observed.

Recommendation 14: Access

CSDs and CCPs should have objective and publicly disclosed criteria for participation that permit fair and open access.

Answers to Key Questions

1. Are access rules/criteria objective and clearly disclosed to all potential applicants?

The access rules and criteria for the Fedwire Securities Service are objective and publicly disclosed. Applicants eligible to maintain a securities account with a Reserve Bank include the following:¹⁰³

- depository institutions, as defined in section 19(b)(1)(A) of the FRA (12 U.S.C. § 461(b)(1)(A));
- U.S. agencies and branches of foreign banks as defined in section 1(b) of the International Banking Act of 1978, as amended (12 U.S.C. § 3101(1) and (3));
- member banks of the Federal Reserve System pursuant to Regulation H issued by the Board (12 CFR Part 208);
- the Treasury and entities specifically authorized by federal statute to use the Reserve Banks as fiscal agents or depositories;¹⁰⁴
- entities designated by the Secretary of the Treasury in accordance with section 15 of the FRA (12 U.S.C. § 391);¹⁰⁵
- Edge or agreement corporations, as defined in section 25, paragraph 3, and section 25A of the FRA (12 U.S.C. § 601(third), 611);¹⁰⁶
- foreign central banks, foreign monetary authorities, foreign governments, and certain international organizations.

¹⁰³ In addition to the entities enumerated, OC 7 states that participants also include “any other entity authorized by a Reserve Bank to use the Fedwire Securities Service.” The Reserve Banks have not authorized any entities under this provision.

¹⁰⁴ See 12 U.S.C. § 393 (Farm Credit System); 12 U.S.C. § 1435 (Federal Home Loan Banks); 12 U.S.C. § 1441(h)(2) (Financing Corporation); 12 U.S.C. § 1441b(h)(2) (Resolution Funding Corporation); 12 U.S.C. § 1723a(g) (Ginnie Mae and Fannie Mae); 12 U.S.C. § 1452(d) (Freddie Mac); 12 U.S.C. § 2279aa-3(d) (Federal Agricultural Mortgage Corporation).

¹⁰⁵ The Treasury has used this authority to direct the Reserve Banks to open securities accounts for certain state treasurers.

¹⁰⁶ An Edge corporation is chartered by the Federal Reserve to engage in international banking. An agreement corporation is chartered by a state to engage in international banking but has entered into an agreement with the Board to limit its activities to those permitted for an Edge corporation.

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 allows the Federal Reserve Board to authorize a Reserve Bank to provide a financial market utility designated as systemically important by the Financial Stability Oversight Council access to Federal Reserve services, including the Fedwire Securities Service. Certain key market participants, such as nonbank broker-dealers, are not eligible to maintain a securities account.¹⁰⁷

In order to send or receive securities against payment, a participant must maintain a master account at a Reserve Bank. Additionally, participants with master accounts may be eligible for Reserve Bank credit. Any depository institution, Federal Reserve member bank, or otherwise eligible institution, including a U.S. branch or agency of a foreign bank, may maintain a master account with a Reserve Bank; however, certain nonbank market participants such as nonbank broker-dealers are not eligible to maintain a master account.¹⁰⁸ Reserve Bank credit can be used to complete DVP transactions once all reserve and excess balances have been extinguished. Eligibility for Reserve Bank credit is governed by Regulation A and the PSR policy.¹⁰⁹

2. Are the same rules applied regardless of the identity, type and location of the applicant? If not, what variations apply and why? Can differential restrictions on access to the system be justified in terms of the need to limit risks to the system operator or to other users?

The same eligibility rules apply to all applicants, but these rules limit the types and location of entities that can access to the Fedwire Securities Service.

With respect to types of entities, statutes and policies generally limit eligibility for a securities account, master account, and routine credit. The interaction of these statutes and policies effectively precludes certain key market participants, such as nonbank broker-dealers, from directly accessing the Fedwire Securities Service. This type of distinction is consistent with a concept that is described in *The Role of Central Bank Money in Payment Systems*, which states: Limits on access to banks can also reflect a conscious desire to maintain a balance of privileges and responsibilities between regulated and unregulated institutions. In such countries, access to central bank accounts is regarded as part of a “package” of privileges and burdens given to banks. The “privileges” – including access to accounts and to credit, and in some cases participation in deposit insurance schemes and the ability to

¹⁰⁷ Although not expressly provided by statute, the Treasury and the Reserve Banks could make broker-dealers eligible for a Fedwire Securities Service securities account as a fiscal agency service.

¹⁰⁸ To obtain an account, an applicant must execute an account agreement pursuant to OC 1, which outlines the terms and conditions for a master account.

¹⁰⁹ Regulation A broadly governs extensions of Reserve Bank credit and limits routine access to credit to depository institutions and U.S. branches and agencies of foreign banks that are subject to reserve requirements under the Board’s Regulation D. Regulation A also governs extensions of emergency credit to other entities. The PSR policy limits access to intraday credit to entities that have routine access to the discount window, in the event that overnight credit is needed to extinguish a daylight overdraft at the end of a Fedwire Funds Service operating day. This policy is designed to reduce and manage risk in the payments system, including risk to the Federal Reserve.

take part in monetary policy operations – are granted in part to give an incentive to institutions to undertake the “burdens” of banking regulation and supervision, including capital and reserve requirements.¹¹⁰

Over the years, the Federal Reserve and the Treasury have studied the feasibility and appropriateness of allowing direct access to the Fedwire Securities Service to nonbank broker-dealers without granting them routine access to Reserve Bank credit. The analysis revealed that, without this routine access to credit, providing direct access to the Fedwire Securities Services is of nominal value to nonbank broker-dealers. Even if nonbank broker-dealers enjoyed routine access to Reserve Bank credit, direct access to the Fedwire Securities Service may offer nonbank broker-dealers less value than the wide range of services currently provided to them by the private-sector clearing banks.¹¹¹

In addition, current eligibility rules require applicants, other than official entities, to maintain a physical presence in the United States. Foreign banks without a U.S. banking presence are not permitted access to the Fedwire Securities Service 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 under such circumstances 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. The extent to which these risks to the Federal Reserve can be mitigated is unclear. We believe, however, mitigating these risks would be costly and complex.

3. Under what conditions can participants terminate their membership? What arrangements does the system have in place to facilitate the exit of members who no longer meet the participation requirements? Are these arrangements publicly disclosed?

A Fedwire Securities Service participant can terminate its participation in the service by disposing of the securities it holds in its securities accounts (by transferring them to another Fedwire Securities Service participant) and directing its Reserve Bank to close its securities accounts.

Paragraph 7.2.1 of OC 7 permits the Reserve Banks to terminate participants’ access to the Fedwire Securities Service at any time without prior notice.

Separately, Reserve Banks have the authority under section 2.10 of OC 1 to terminate a master account upon notice to the account holder. This would effectively prevent Fedwire Securities Service participants from being able to send or receive transfers against payment.

Beyond the provisions already mentioned, the PSR policy provides a mechanism for termination of service. As described in the PSR policy, Reserve Banks retain the right to limit their risk

¹¹⁰ Committee on Payment and Settlement Systems, *The Role of Central Bank Money in Payment Systems*, Bank for International Settlements, August 2003. See www.bis.org/publ/cpss55.pdf.

¹¹¹ The clearing banks provide bundled service packages that include securities lending and triparty repo services.

exposure, including exposures from intraday credit resulting from a securities transfer. If a participant presents undue risk to a Reserve Bank, a Reserve Bank may take the participant off line or prohibit it from using the Fedwire Securities Service. For additional information, see the answers to key questions for Recommendation 9.

Assessment

Recommendation 14 is partly observed.

Comments

In assigning an assessment rating, the *Assessment Methodology* lists three key issues to consider: (1) criteria should be objective, clearly stated, and publicly disclosed, (2) criteria that limit access on grounds other than risks to the CSD or CCP should be avoided, and (3) procedures facilitating the orderly exit of participants that no longer meet membership criteria should be clearly stated and publicly disclosed. The Fedwire Securities Service observes key issues 1 and 3.

As described in the answer to key question 2, the Federal Reserve prohibits direct access to the Fedwire Securities Service by nonbank broker-dealers. In the past, the Federal Reserve and the Treasury have considered providing nonbank broker-dealers direct access to the Fedwire Securities Service without routine access to Reserve Bank credit. During these reviews, it became clear that nonbank broker-dealers view the settlement process as a set of related services that include sophisticated account management and information, securities borrowing and lending, and the provision of substantial intraday, and potentially overnight, credit. The clearing banks offer these services to nonbank broker-dealers, while the Fedwire Securities Service does not. Absent the availability of such services, there has been no clear interest by nonbank broker-dealers in direct access to the Fedwire Securities Service. Based on the partial satisfaction of key question 2, in that the governing access rules employ some non-risk-related limiting criteria, the Fedwire Securities Service partly observes Recommendation 14.

Recommendation 15: Efficiency

While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.

Answers to Key Questions

1. Does the system operator have in place procedures to control costs (for example, by benchmarking its costs and charges against other systems that provide a similar service and to analyse the reasons for significant differences)? Does the system operator have in place procedures to regularly review its pricing levels against its costs of operation?

Cost Controls

The Federal Reserve has procedures in place to control the costs of the Fedwire Securities Service, such as the annual budget review and internal controls. The Board annually reviews and approves the Reserve Banks' budgets, which include the cost of providing the Fedwire Securities Service. The Reserve Banks review cost projections with their largest issuer customers, including the Treasury. In addition, the Reserve Banks have internal controls to monitor costs.

The Reserve Banks assess fees to the users of the Fedwire Securities Service to cover the anticipated cost of providing the service over the long run. This cost recovery requirement imposes discipline on the Reserve Banks to control costs.

Pricing Procedures

Fees for the Fedwire Securities Service are reviewed annually by the Treasury and the Board. The Treasury sets fees associated with the transfer of Treasury securities. These fees reflect the cost to the Reserve Banks of providing the service. The Reserve Banks set fees, subject to the Board's approval, associated with non-Treasury securities services. Non-Treasury securities services are treated as a priced service, for which the Reserve Banks are expected to recover all direct and indirect costs of providing the service, as well as the imputed costs the Reserve Banks would have incurred and imputed profits they would have expected to earn if they were private-sector firms. Table 2 provides the basic fee schedule for the Fedwire Securities Service.¹¹²

¹¹² Table 2 does not include the fees that participants incur for electronic access connections to the Fedwire Securities Service and other Reserve Bank services. For additional information on Reserve Bank fees, see www.frbservices.org/servicefees/index.html.

Table 2: Fedwire Securities Service 2014 Fee Schedule
(effective January 2, 2014)

Description	Fee
Per-transfer fee for Treasury securities (origination fee and received fee)	\$ 0.67
Per-transfer fee for non-Treasury securities (origination fee and received fee)	\$ 0.54
Surcharge to originate or receive an off-line securities transfer (Treasury securities)	\$40.00
Surcharge to originate or receive an off-line securities transfer (non-Treasury securities)	\$66.00
Monthly account maintenance fees (for accounts holding non-Treasury securities):	
▪ Per securities account	\$40.00
▪ Per non-Treasury issue within each account	\$ 0.54
Claims Adjustment Fees (non-Treasury securities)	
▪ Fail Claim Adjustment Fee	\$0.75
▪ Interim Claim Adjustment Fee	\$0.75
▪ Repo Claim Adjustment Fee	\$0.75
Additional Fees	
▪ GNMA Serial Note CUSIP Fee	\$9.00
▪ Joint Custody Origination Surcharge	\$40.00
▪ Delivery of Reports – Hard Copy Reports to On-Line Customers	\$50.00

2. Does the system operator regularly review its service levels, including by regularly surveying its users? Does the system operator have in place procedures to regularly review operational reliability, including its capacity levels against projected demand?

The Reserve Banks, through the WPO, regularly review service levels and regularly seek to improve the efficiency and practicality of the Fedwire Securities Service.

Internal Stakeholders

The WPO works with a number of Federal Reserve groups to review service levels. The WPO reports regularly to the FSPC, which is the principal management body for Reserve Bank financial services. In addition, the WPO meets regularly with other groups that consist of members from Reserve Bank wholesale operation sites, the technical operations and testing staff responsible for monitoring the system, and liaisons from the Board, the Treasury, FRIT, the Federal Reserve’s Customer Relations and Support Office, and Reserve Bank legal, audit, and systems development functions.

External Stakeholders

The Reserve Banks and the WPO periodically seek input on specific issues related to the Fedwire Securities Service from the Treasury and through industry workgroups and one-on-one

interviews with external stakeholders. In addition, the WPO established a Fedwire Securities Customer Advisory Group in 2008 to provide a venue for open dialogue between the WPO and the most active Fedwire Securities Service participants.

Capacity Levels

The WPO and FRIT regularly review the transaction capacity of the Fedwire Securities Services to ensure adequate capacity and overall performance. Currently, the Fedwire Securities Service is designed to be able to handle a multiple of the highest number of transactions that have been processed in one business day.¹¹³

Assessment

Recommendation 15 is observed.

¹¹³ In 2013, the highest daily volume of securities transfers processed was 258,506.

Recommendation 16: Communication Procedures and Standards

Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.

Answers to Key Questions

1. Does the securities settlement system use international communication procedures or standards or is it able to easily convert domestic procedures and standards into the relevant international communication procedures and standards for cross-border securities transactions?

The Fedwire Securities Service uses a proprietary message format that can be translated to and from international message standards. Routing numbers, which are used for bank identification in the United States, can be converted to and from the global Bank Identification Code (BIC) standard through a simple lookup.¹¹⁴ Similarly, CUSIP numbers, which are used to identify U.S. domestic fixed income securities and other securities, can be translated to and from International Securities Identification Numbers (ISINs). The WPO also participates in relevant securities industry standards groups, such as SWIFT user and steering groups, to maintain awareness about the development of future standards and changes to existing standards.

Assessment

Recommendation 16 is observed.

¹¹⁴ Each depository institution or any other participant is assigned a routing number. The American Bankers Association governs the assignment, use, and retirement of routing numbers. Additional information is available at http://www.aba.com/Products/Pages/PS98_Routing.aspx.

Recommendation 17: Transparency

CSDs and CCPs should provide market participants with sufficient information for them to identify and evaluate accurately the risks and costs associated with using the CSD or CCP services.

Answers to Key Questions

1. Does the CSD or CCP make clear disclosures to market participants about its rules, regulations, relevant laws, governance procedures, risks, steps taken to mitigate risks, the rights and obligations of participants and the cost of participating in the system?

The operating circular governing the Fedwire Securities Service, OC 7, is publicly available on the Reserve Banks' financial services website.¹¹⁵ In addition, the regulations that apply to securities issued by the Treasury and others are publicly available.¹¹⁶ Together, these documents provide participants with sufficient information to identify and evaluate the risks and costs associated with using the Fedwire Securities Service. The legal foundation and governance structure for the Fedwire Securities Service is publicly available and sound. For additional information, see the answers to key questions for Recommendation 1.

Key financial and operational risks associated with the Fedwire Securities Service are also publicly disclosed. Any financial risks, and the steps taken to mitigate such risks, are clearly identified and discussed in the answers to key questions for Recommendation 9 and the PSR policy. Operational risk related to security and contingency policies is outlined in the answers to key questions for Recommendation 11 and OC 7.¹¹⁷ In addition, intraday operational issues, such as extensions and connectivity problems, are broadcast through the Reserve Banks' communication network.¹¹⁸

Lastly, the participation costs for the Fedwire Securities Service are highlighted in table 2 in the answers to key questions for Recommendation 15 and are made public on the Reserve Banks' financial services website. Annual pricing announcements are also available on the Board's website.¹¹⁹

2. Has the system completed and disclosed the questionnaire set out in the CPSS/IOSCO disclosure framework or the answers to the key questions set out in this assessment

¹¹⁵ The Reserve Banks' financial services website is <http://www.FRBservices.org>.

¹¹⁶ See appendix A to OC 7 for a list of applicable regulations.

¹¹⁷ The distribution of certain security policies and procedures, however, is limited to Fedwire Securities Service participants, which are required to take all reasonable measures to avoid disclosure and unauthorized use of the information.

¹¹⁸ For additional information on the Fedwire Securities Service operational status, see <http://www.frb services.org/app/status/serviceStatus.do>.

¹¹⁹ See <http://www.federalreserve.gov/newsevents/press/other/20131031a.htm>.

methodology? Have the authorities responsible for regulation and oversight publicly disclosed their answers to the key questions regarding implementation of the recommendations?

This assessment provides the answers to the key questions set out in the *Assessment Methodology* regarding the implementation of the *Recommendations*. The PSR policy describes the Board's expectation that systemically important systems demonstrate the extent to which they meet the applicable principles or minimum standards by completing self-assessments and publicly disclosing the results of their analyses.¹²⁰

3. How is this information made available? In what language or languages? In what form?

This information is available electronically, in English, at www.federalreserve.gov.

4. What steps are taken by the CSD or CCP to ensure that the disclosures are complete and accurate? Are there regular reviews to ensure they remain current?

The Federal Reserve plans to review and update this assessment every two years at a minimum.

Assessment

Recommendation 17 is observed.

¹²⁰ Part I of the PSR policy is available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm.

Recommendation 18: Regulation and Oversight

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.

Answers to Key Questions

1. How is the system regulated/overseen? Describe the laws that authorize and govern the system's operation, the applicable regulatory bodies and their respective authority concerning the system's operation.

Oversight of the Fedwire-eligible Securities Market

As mentioned in section 1.3 of the Introduction, a number of federal government entities, including the Board, the SEC, and the Treasury, regulate and oversee various components of the Fedwire-eligible securities market. The Board has general supervision of the Reserve Banks, which own and operate the Fedwire Securities Service.¹²¹ The SEC is responsible for regulating nonbank clearing agencies, including FICC, and the activities of certain market participants, including broker-dealers.¹²² The Treasury, as the issuer of Treasury securities, has the authority to promulgate regulations governing Treasury bonds, notes, and bills. As fiscal principal, the Treasury also has general oversight of those aspects of the Fedwire Securities Service that are performed by the Reserve Banks as fiscal agent of the Treasury. In addition, the two clearing banks are supervised by the appropriate banking supervisor.

Oversight of the Fedwire Securities Service

The Fedwire Securities Service is subject to effective regulation and oversight. The Reserve Banks are supervised by the Board.¹²³ The Fedwire Securities Service and other related fiscal agent activities provided to the Treasury are also subject to oversight by the Treasury and the GAO.

The Board is responsible for general supervision of the Reserve Banks.¹²⁴ Section 21(7) of the FRA requires that the Board order an annual examination of each Reserve Bank.¹²⁵ The Board's Division of Reserve Bank Operations and Payment Systems devotes significant resources to providing general supervision of Reserve Bank operations in order to render an independent assessment of internal controls, compliance with policies and procedures, and efficiency and

¹²¹ See 12 U.S.C. § 248(j).

¹²² See 15 U.S.C. § 78c(a)(34)(B), 78o.

¹²³ See Recommendation 13 on Governance.

¹²⁴ See 12 U.S.C. § 248(j).

¹²⁵ See 12 U.S.C. § 485.

effectiveness of operations.¹²⁶ The Board also uses the services of a major public accounting firm to perform an annual audit of the financial statements of each Reserve Bank as well as the combined financial statements of the Reserve Banks. The audited financial statements are published on the Board's website and in the *Annual Report*.

In addition, the Fedwire Securities Service is subject to oversight by the Treasury and the GAO. The Treasury and the GAO have the right to examine and audit certain fiscal agent activities, such as the provision of the Fedwire Securities Service. The Treasury's Bureau of the Public Debt and Inspector General have the right to examine the Fedwire Securities Service at their discretion. The GAO can review certain Reserve Bank activities at the direction of the Congress. A list of audits performed or under way by the GAO is available in the Board's *Annual Report*.¹²⁷

2. Are the responsibilities of the securities regulator, central bank and, where relevant, banking supervisor clearly defined with respect to securities settlement systems? Are their roles and major policies disclosed publicly? Are they written in plain language so that they can be fully understood by designers, operators and participants of securities settlement systems, and other relevant parties?

The responsibilities of the Board, the SEC, and the Treasury, as they relate to the regulation and oversight of the Fedwire-eligible securities market, are clearly defined by law and available to the public. In addition, the Board maintains policies, such as the PSR policy, that outline the types of oversight activities relevant parties employ to ensure the effectiveness and efficiency of the Fedwire-eligible securities market. These policies are also clearly defined and available to the public.

3. What is the regulatory and oversight framework based on? Is it a statute-based approach where specific tasks, responsibilities and powers are assigned to specific public authorities? Or a non-statute-based approach? Do the securities regulator and the central bank have experienced staff, proper resources and funding to carry out regulatory and oversight functions effectively?

The regulatory and oversight framework for the Fedwire-eligible securities market is primarily based on the FRA and the Securities Exchange Act. Key aspects of the framework are also set out in Board and SEC rules and policies. The regulatory and oversight framework for the Fedwire Securities Service is based on the FRA and Board policies. The regulation of FICC is based on the Securities Exchange Act and SEC rules and policies. In addition, the Treasury has regulatory authority over Treasury securities and general oversight of the Fedwire Securities Service. The Federal Reserve and either the OCC or the New York State Department of Financial Services have supervisory authority for the two clearing banks. The Board has experienced staff, proper resources, and funding to carry out its regulatory and oversight functions effectively.

¹²⁶ See http://www.federalreserve.gov/paymentsystems/over_rbsystems.htm.

¹²⁷ The *Annual Report* is available at <http://www.federalreserve.gov/publications/annual-report/default.htm>.

4. Is there a framework for cooperation between the securities regulator and the central bank, such as for the exchange of information and views on securities settlement systems? Is there such a framework for cooperation with relevant authorities both within and outside the country?

The Board's framework for cooperation with other regulators is outlined in the PSR policy. In working with other financial system authorities, the Board is guided, as appropriate, by Responsibility D of the *CPSIPS*, Recommendation 18 of the *Recommendations*, Recommendation 15 of the *Recommendations for CCP*, the Principles for Cooperative Central Bank Oversight of Cross-border and Multi-currency Netting and Settlement Systems (Part D) of the *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries* (Lamfalussy Report), and the Principles for International Cooperative Oversight (Part B) of the *Central Bank Oversight of Payment and Settlement Systems*.¹²⁸

Assessment

Recommendation 18 is observed.

¹²⁸ Committee on Payment and Settlement Systems and the Technical Committee of the International Organization of Securities Commissions, *Recommendations for Central Counterparties*, Bank for International Settlements, November 2004. See www.bis.org/publ/cpss64.htm.

Committee on Interbank Netting Schemes, *Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries* (Lamfalussy Report), Bank for International Settlements, November 1990. See www.bis.org/publ/cpss04.htm.

Committee on Payment and Settlement Systems, *Central Bank Oversight of Payment and Settlement Systems*, Bank for International Settlements, May 2005. See www.bis.org/publ/cpss68.htm.

Recommendation 19: Risks in Cross-border Links

CSDs that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlements.

Assessment

Recommendation 19 is not applicable to the Fedwire Securities Service.

Comments

The Fedwire Securities Service does not have direct, indirect, or relayed links to other CSDs or ICSDs to settle cross-border trades.¹²⁹ Settlement of any cross-border activity may occur through Fedwire Securities Service participants that provide global custodian services to their customers. Other CSDs or ICSDs may have indirect links to the Fedwire Securities Service through Fedwire Securities Service participants that act as their custodian bank.

¹²⁹ The *Assessment Methodology* contains a detailed description of direct, indirect, and relayed links. See www.bis.org/publ/cpss51.htm.