

## **FEDERAL RESERVE SYSTEM**

**Docket No. OP-1191**

### **Policy Statement on Payments System Risk**

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Policy Statement; Request for comment.

**SUMMARY:** The Board requests comments on proposed changes to part II of its Policy Statement on Payments System Risk (PSR policy) addressing risk management in payments and securities settlement systems. The purpose of these revisions is to update the policy in light of current industry and supervisory risk-management approaches and new international risk-management standards for payments and securities settlement systems. The key changes include an expansion of the policy's scope to include the Federal Reserve Banks' (Reserve Banks) payments and securities settlement services, revised general risk-management expectations for all systems subject to the policy, and the incorporation of new international risk-management standards for systemically important systems. The Board is also proposing to reorganize the PSR Policy, reversing the current order of parts I and II to provide a more coherent framework for the overall policy and better communicate the Board's objectives with regard to payments system risk. No changes, however, are proposed to the current part I, Federal Reserve Daylight Credit Policies.

**DATE:** Comments must be received by July 26, 2004.

**ADDRESSES:** Comments should refer to Docket No. OP-1191 and may be mailed to Jennifer J. Johnson, Secretary, Board of Governors of the Federal Reserve System, 20<sup>th</sup> Street and Constitution Avenue, N.W., Washington, DC 20551. Please consider submitting your comments through the Board's web site at [www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm](http://www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm), by e-mail to [regs.comments@federalreserve.gov](mailto:regs.comments@federalreserve.gov), or by fax to the Office of the Secretary at 202/452-3819 or 202/452-3102. Policies proposed by the Board and other federal agencies may also be viewed and commented on at [www.regulations.gov](http://www.regulations.gov). All public comments are available from the Board's web site at [www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm](http://www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm) as submitted, except as necessary for technical reasons. Accordingly, your comments will not be edited to remove any identifying or contact information. Public comments may also be viewed electronically or in paper in Room MP-500 of the Board's Martin Building (20th and C Streets, N.W.) between 9:00 a.m. and 5:00 p.m. on weekdays.

**FOR FURTHER INFORMATION CONTACT:** Jeff Stehm, Assistant Director (202/452-2217), or Doug Conover, Senior Analyst (202/452-2887), Division of Reserve Bank Operations and Payment Systems; for the hearing impaired only: Telecommunications Device for the Deaf, 202/263-4869.

### **SUPPLEMENTARY INFORMATION**

## I. Background

Since the early 1980s the Board has published and periodically revised a series of policies encouraging the reduction and management of risks in payments and securities settlement systems.<sup>1</sup> In 1992, the Board issued its “Policy Statement on Payments System Risk,” which provided a comprehensive statement of its previously adopted policies regarding payments system risk reduction.<sup>2</sup> Part I of that policy statement covered the provision of intraday credit to Federal Reserve accountholders and Part II of that policy statement covered previous policies on risk management in private large-dollar funds transfer networks, private delivery-against-payment securities systems, offshore dollar clearing and netting systems, and private small-dollar clearing and settlement systems.

In this same period, the Federal Reserve also worked with other central banks and securities regulators to develop standards to strengthen payments and securities settlement infrastructures and to promote financial stability. These efforts initially produced the Lamfalussy Minimum Standards, which were incorporated into the Board’s PSR policy in 1994.<sup>3</sup> More recently, this work resulted in the publication of the Core Principles for Systemically Important Payment Systems (Core Principles), as well as the Recommendations for Securities Settlement Systems (Recommendations).<sup>4</sup> The Core Principles extend and replace the Lamfalussy Minimum Standards, while the Recommendations provide, for the first time, explicit standards for securities settlement systems.<sup>5</sup>

In addition to establishing specific standards, the Core Principles and Recommendations call for central banks to state clearly their roles and policies regarding payments and securities settlement systems, assess compliance with the Core Principles and the Recommendations when overseeing relevant systems, and coordinate with other authorities in overseeing systems. Moreover, the Core Principles and Recommendations are intended to apply both to systems operated by central banks and the private sector.

## II. Discussion of Planned Policy Changes

The policy changes proposed by the Board include changes to the scope of the policy to include payments and securities settlement systems operated by the Reserve Banks, establishment of clearer risk-management expectations for all systems subject to the policy based

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<sup>1</sup> See 50 FR 21120, May 22, 1985; 52 FR 29255, August 6, 1987; and 54 FR 26104 and 26092, June 21, 1989.

<sup>2</sup> 57 FR 40455, September 3, 1992.

<sup>3</sup> 59 FR 67534, December 29, 1994. The Lamfalussy Minimum Standards were set out in the “Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries,” published by the Bank for International Settlements in November 1990.

<sup>4</sup> The Core Principles were developed by the Committee on Payment and Settlement Systems (CPSS) of the central banks of the Group of Ten countries, and the Recommendations were developed by the CPSS in conjunction with the Technical Committee of the International Organization of Securities Commissions (IOSCO). The full reports on the Core Principles and the Recommendations are available at [www.bis.org](http://www.bis.org).

<sup>5</sup> Both sets of standards are part of the Financial Stability Forum’s Compendium of Standards that have been widely recognized and endorsed by U.S. authorities as integral to strengthening global financial stability. Both sets of standards were published by the relevant committees for public comment before being adopted in their final form.

on current industry and supervisory risk-management concepts, and incorporation of the Core Principles and Recommendations as the Board's risk-management standards for systemically important payments and securities settlement systems, respectively. The Board is also proposing a new introduction to and reordering of the current parts of the PSR policy in order to provide a more coherent framework for the overall policy and better communicate the Board's concerns and objectives regarding payments system risk. The proposed changes do not affect the current Part I of the PSR Policy that concerns Federal Reserve daylight credit policies except to renumber this part of the policy as the new Part II.

The Board believes that these proposed structural and substantive changes more clearly ground the PSR policy in the Board's high-level objectives, provide a more coherent structure for the overall policy, and better communicate the Board's concerns about risks in the nation's payments and securities settlement system and the implications of these risks for the Federal Reserve. In particular, the introduction to the overall policy was revised to include a clear statement of the Board's public policy objectives and provide a general discussion of the types of risks encountered in settling payments and securities transactions, how those risks arise, and why the Board believes they must be controlled.

#### **A. Changes to the Policy's Scope, Definitions, and Application**

The proposed policy extends its scope to include payments and securities settlement systems operated by the Reserve Banks, which is consistent with the Core Principles and the Recommendations. The scope continues to cover those private-sector payments systems that expect to settle an aggregate gross value exceeding \$5 billion on any day during the next twelve-month period and extends the same threshold to private-sector securities settlement systems and Reserve Bank payments and securities settlement systems. While the direct application of the policy will be limited to those systems above the threshold, the Board encourages all payments and securities settlement systems to consider the risk-management approach set out in the policy.

The proposed policy also clarifies the definition of a "system" for purposes of applying the policy, defining a system to be a "multilateral arrangement (three or more participants) among financial institutions for the purposes of clearing, netting, and/or settling funds or securities transactions among themselves or between each of them and a central party." This definition also identifies three key characteristics of systems, which would be used individually or in combination, to determine if an arrangement qualifies as a system for purposes of the policy: (1) a set of rules and procedures, common to all participants, that govern the clearing (comparison and/or netting) and settlement of payments or securities transactions, (2) a common technical infrastructure for conducting the clearing or settlement process, and (3) a risk-management or capital structure in which credit losses are ultimately borne by system participants rather than by the system operator, a central counterparty or guarantor, or the system's shareholders. Futures and options clearing organizations and correspondent banking services continue to be excluded from the coverage of the policy.

Finally, new language clarifies how the policy will be applied by the Board, both when the Board exercises its existing authority and, if it does not have direct or exclusive authority, when it works work with other authorities to promote the aims of the policy.

## **B. Changes to the General Policy Expectations**

The proposed policy sets out revised risk-management expectations for all systems covered by the policy, including those deemed as systemically important. Under the current policy, systems are asked to identify the risk factors present in their systems, assess whether the system's policies and procedures adequately address the identified risks, and, if necessary, improve their policies and procedures such that risk-management controls are proportional to the nature and magnitude of the risks in the system. The current policy provides limited illustrative examples of risk-management controls that a system might employ to address various risks (for example, credit, liquidity, operational, and legal risks), but does not provide guidance for addressing risk management in an integrated manner. The current policy's general approach was intended to provide flexibility, with an expectation that systems would implement a risk-management framework appropriate for the risks the system poses to the system operator, system participants, and the financial system more broadly. In practice, however, the Board has found that the current policy's approach lacks sufficient structure to provide useful guidance to systems. The proposed revisions continue to provide flexibility but set out four key elements of a sound risk-management framework that the Board believes will provide systems with more structured guidance. These elements are based on a review of current industry and supervisory concepts of sound risk management: (1) clearly identify risks and set sound risk-management objectives; (2) establish sound governance arrangements; (3) establish clear and appropriate rules and procedures; and, (4) ensure the employment of the resources necessary to implement the system's risk-management objectives and implement effectively its rules and procedures.

## **C. Incorporation of the Core Principles and Recommendations**

The proposed policy adopts the Core Principles and the Recommendations with no modifications and presents them as the Board's standards for systemically important systems. Private-sector systems currently expected to meet the Lamfalussy Minimum Standards would, under the proposed policy, be expected to comply with the Core Principles. Similarly, private-sector systems currently subject to the Board's policy requirements for delivery-against-payment systems would be expected to comply with the relevant portions of the Recommendations. As noted below, the Core Principles and the Recommendations would apply to Reserve Banks' payments and securities settlement systems that meet the relevant policy criteria.

The proposed policy introduces six characteristics that would be used by the Board, on a case-by-case basis, to identify systems, including Federal Reserve systems, that would be considered systemically important. In applying the standards to systemically important systems, the policy seeks to be flexible, recognizing that systems differ in the specific instruments they settle, the markets and institutions they serve, and the legal and regulatory constraints under which they operate. The policy states that these factors will be considered when assessing the way in which a systemically important system addresses any particular standard.

### **III. Request for Comment**

The Board requests comment on the proposed revisions to its Policy on Payments System Risk. In particular, the Board requests comment on whether the scope and application of the revised policy is sufficiently clear and provides the appropriate coverage to achieve the policy's intended objectives. The Board also requests comment on the following specific questions:

1. Do the benefits of a bright line quantitative threshold based on a system's daily gross settlement value outweigh the costs of using more complex factors to determine whether a system is covered by the policy? Should more qualitative or judgmental criteria be used instead? If a quantitative threshold is appropriate, does a threshold of \$5 billion a day continue to be reasonable? Should other quantitative criteria be considered?
2. Is the definition of what constitutes a system, and explicit exemptions from this definition, reasonable and appropriate?
3. Do the general policy expectations of a sound risk-management framework, laid out in part B of the revised policy, give more structure and specific guidance to system operators and participants than the current policy's primary focus on types of risks and the general need to manage these risks?
4. In applying the Core Principles and the Recommendations, do the six criteria presented in the proposed policy appear reasonable for determining if a system is systemically important? Are there other factors that the Board should consider when determining whether a system is systemically important?

### **IV. Regulatory Flexibility Act Analysis**

The Board has determined that this proposed policy statement would not have a significant economic impact on a substantial number of small entities. The proposal would require payments and securities settlement systems to address material risks in their systems. The policy would apply to relatively large systems, i.e., those that expect to settle an aggregate gross value exceeding \$5 billion on any day during the next twelve month period. Thus, the proposal is designed to minimize regulatory burden on smaller systems that do not raise material risks. Although small financial institutions may participate in payments or securities settlement systems that are subject to the proposed policy, the compliance burden largely falls on system operators and not on individual participants.

### **V. Competitive Impact Analysis**

The Board has established procedures for assessing the competitive impact of rule or policy changes that have a substantial impact on payments system participants.<sup>6</sup> Under these

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<sup>6</sup> These procedures are described in the Board's policy statement "The Federal Reserve in the Payments System," as revised in March 1990 (55 FR 11648, March 29, 1990).

procedures, the Board will assess whether a change would have a direct and material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve in providing similar services due to differing legal powers or constraints, or due to a dominant market position of the Federal Reserve deriving from such differences. If no reasonable modifications would mitigate the adverse competitive effects, the Board will determine whether the expected benefits are sufficient to warrant proceeding with the change despite the adverse effects. The proposed policy revisions provide that Reserve Bank systems will be treated similarly to private-sector systems and thus will have no material adverse effect on the ability of other service providers to compete effectively with the Federal Reserve Banks in providing payments and securities settlement services.

## **VI. Paperwork Reduction Act**

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. ch. 3506; 5 CFR 1320 Appendix A.1), the Board has reviewed the policy statement under the authority delegated to the Board by the Office of Management and Budget. No collections of information pursuant to the Paperwork Reduction Act are contained in the policy statement.

## **VII. Federal Reserve Policy on Payments System Risk**

### **INTRODUCTION [Revised]**

### **RISKS IN PAYMENTS AND SECURITIES SETTLEMENT SYSTEMS [New]**

#### **I. RISK MANAGEMENT IN PAYMENTS AND SECURITIES SETTLEMENT SYSTEMS [Revised]**

- A. Scope
- B. General Policy Expectations
- C. Systemically Important Systems
  - 1. Standards for Systemically Important Payments Systems
  - 2. Standards for Systemically Important Securities Settlement Systems

#### **II. FEDERAL RESERVE DAYLIGHT CREDIT POLICIES [No Change]**

- A. Daylight Overdraft Definition and Measurement
- B. Pricing
- C. Net Debit Caps
- D. Collateral
- E. Special Situations
- F. Monitoring
- G. Transfer-size Limit on Book-Entry Securities

#### **III. OTHER POLICIES [No Change]**

- A. Rollovers and Continuing Contracts

## INTRODUCTION

Payments and securities settlement systems are critical components of the nation's financial system. The smooth functioning of these systems is vital to the financial stability of the U.S. economy. Given the importance of these systems, the Board has developed this policy to address the risks that payments and securities settlement systems present to the financial system and to the Federal Reserve Banks (Reserve Banks).

In adopting this policy, the Board's objectives are to foster the safety and efficiency of payments and securities settlement systems. These policy objectives are consistent with (1) the Board's long-standing objectives to promote the integrity, efficiency, and accessibility of the payments mechanism; (2) industry and supervisory methods for risk management; and (3) internationally accepted risk-management standards and practices for systemically important payments and securities settlement systems.<sup>7</sup>

Part I of this policy sets out the key risk-management expectations of the Board that public- and private-sector payments and securities settlement systems should meet in designing and operating such systems. Under the policy, all payments and securities settlement systems that expect to settle an aggregate gross value exceeding \$5 billion on any day during the next twelve months are expected to implement a risk-management framework that is appropriate for the risks they pose to the system operator, system participants, and the financial system more broadly. Systemically important payments and securities settlement systems are also expected to meet more specific standards based upon the Core Principles for Systemically Important Payments Systems (Core Principles) and the Recommendations for Securities Settlement Systems (Recommendations), respectively.<sup>8</sup>

Part II of this policy governs the provision of intraday or "daylight" overdrafts in accounts at the Reserve Banks and sets out the general methods used by the Reserve Banks to control their intraday credit exposures.<sup>9</sup> Under this part, the Board expects depository institutions to manage their Federal Reserve accounts effectively and minimize their use of Federal Reserve daylight credit.<sup>10</sup> Although some intraday credit may be necessary, the Board

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<sup>7</sup> For the Board's long-standing objectives in the payments system, see "The Federal Reserve in the Payments System," September 2001, FRRS 9-1550, available at <http://www.federalreserve.gov/paymentsystems/pricing/frpaysys.htm>.

<sup>8</sup> The Core Principles were developed by the Committee on Payment and Settlement Systems of the central banks of the Group of Ten countries (CPSS) and the Recommendations were developed by the CPSS in conjunction with the Technical Committee of the International Organization of Securities Commissions (IOSCO). The full reports on the Core Principles and the Recommendations are available at [www.bis.org](http://www.bis.org).

<sup>9</sup> To assist depository institutions in implementing this part of the Board's payments system risk policy, the Federal Reserve has prepared two documents, the "Overview of the Federal Reserve's Payments System Risk Policy" and the "Guide to the Federal Reserve's Payments System Risk Policy," which are available on line at [www.federalreserve.gov/paymentsystems/PSR](http://www.federalreserve.gov/paymentsystems/PSR) or from any Reserve Bank. The "Overview of the Federal Reserve's Payments System Risk Policy" summarizes the Board's policy on the provision of daylight credit, including net debit caps and daylight overdraft fees. The overview is intended for use by institutions that incur only small and infrequent daylight overdrafts. The "Guide to the Federal Reserve's Payments System Risk Policy" explains in detail how these policies apply to different institutions and includes procedures for completing a self-assessment and filing a cap resolution, as well as information on other aspects of the policy.

<sup>10</sup> The term "depository institution," as used in this policy, refers not only to institutions defined as depository institutions" in 12 U.S.C. 461(b)(1)(A), but also to U.S. branches and agencies of foreign banking organizations, Edge and agreement corporations, trust companies, and bankers' banks, unless the context indicates a different reading.

expects that, as a result of this policy, relatively few institutions will consistently rely on intraday credit supplied by the Federal Reserve to conduct their business.

## **RISKS IN PAYMENTS AND SECURITIES SETTLEMENT SYSTEMS**

The basic risks in payments and securities settlement systems are credit risk, liquidity risk, operational risk, and legal risk. In the context of this policy, these risks are defined as follows.<sup>11, 12</sup>

**Credit Risk.** The risk that a counterparty will not settle an obligation for full value either when due or anytime thereafter.

**Liquidity Risk.** The risk that a counterparty will not settle an obligation for full value when due.

**Operational Risk.** The risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. This type of risk includes various physical and information security risks.

**Legal Risk.** The risk of loss because of the unexpected application of a law or regulation or because a contract cannot be enforced.

These risks arise between financial institutions as they settle payments and securities transactions and must be managed by institutions, both individually and collectively.<sup>13</sup> Multilateral payments and securities settlement systems, in particular, may increase, shift, concentrate, or otherwise transform risks in unanticipated ways. These systems also may pose systemic risk to the financial system where the inability of a system participant to meet its obligations when due may cause other participants to be unable to meet their obligations when due. The failure of one or more participants to settle their payments or securities transactions, in turn, could create credit or liquidity problems for other participants, the system operator, or depository institutions. Systemic risk might lead ultimately to a disruption in the financial system more broadly or undermine public confidence in the nation's financial infrastructure.

These risks stem, in part, from the multilateral and time-sensitive credit and liquidity interdependencies among financial institutions. These interdependencies often create complex transaction flows that, in combination with a system's design, can lead to significant demands for intraday credit, either on a regular or on an extraordinary basis. Some level of intraday credit is appropriate to ensure the smooth functioning of payments and securities settlement systems. To the extent that financial institutions or the Reserve Banks are the direct

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<sup>11</sup> The term "financial institution," as used in this policy, includes a broad array of types of organizations that engage in financial activity, including depository institutions and securities dealers.

<sup>12</sup> These definitions of credit risk, liquidity risk, and legal risk are based upon those presented in the Core Principles and the Recommendations. The definition of operational risk is based on the Basel Committee on Banking Supervision's "Sound Practices for the Management and Supervision of Operational Risk." See these publications at [www.bis.org](http://www.bis.org) for a fuller discussion of these risks.

<sup>13</sup> Several existing regulatory and bank supervision guidelines and policies also are directed at institutions' management of the risks posed by interbank payments and settlement activity. For example, Federal Reserve Regulation F (12 CFR 206) directs insured depository institutions to establish policies and procedures to avoid excessive exposures to any other depository institutions, including exposures that may be generated through the clearing and settlement of payments.

or indirect source of such intraday credit, they may face a direct risk of loss if daylight credit is not extinguished as planned. In addition, measures taken by Reserve Banks to limit their intraday credit exposures may shift some or all of the associated risks to private-sector systems.

The smooth functioning of payments and securities settlement systems is also critical to certain public policy objectives in the areas of monetary policy and banking supervision. The effective implementation of monetary policy, for example, depends on both the orderly settlement of open market operations and the efficient distribution of reserve balances throughout the banking system via the money market and payments system. Likewise, supervisory objectives regarding the safety and soundness of depository institutions must take into account the risks payments and securities settlement systems pose to depository institutions that participate directly or indirectly in, or provide settlement, custody, or credit services to, such systems.

Through this policy, the Board expects financial system participants, including the Reserve Banks, to reduce and control settlement and systemic risks arising in payments and securities settlement systems, consistent with the smooth operation of the financial system. This policy is designed to fulfill that aim by (1) making financial system participants and system operators aware of the types of basic risks that arise in the settlement process and the Board's expectations with regard to risk management, (2) providing explicit risk-management standards for systemically important systems, and (3) establishing the policy conditions governing the provision of Federal Reserve intraday credit to account holders. The Board's adoption of this policy in no way diminishes the primary responsibilities of financial system participants generally and settlement system operators, participants, and Federal Reserve account holders more specifically, to address the risks that may arise through their operation of, or participation in, payments and securities settlement systems.

## **PART I: RISK MANAGEMENT IN PAYMENTS AND SECURITIES SETTLEMENT SYSTEMS**

This part sets out the Board's expectations regarding the management of risk in payments and securities settlement systems, including those operated by the Reserve Banks. The Board will be guided by this part, in conjunction with relevant laws and other Federal Reserve policies, when exercising its existing authority in (1) supervising state member banks, bank holding companies, and clearinghouse arrangements, including the exercise of authority under the Bank Service Company Act, where applicable,<sup>14</sup> (2) setting the terms and conditions for the use of Federal Reserve payments and settlement services by system operators and participants, (3) developing and applying policies for the provision of intraday liquidity to Reserve Bank account holders, and (4) interacting with other domestic and foreign financial system authorities on payments and settlement risk-management issues. The Board's adoption of this policy is not intended to exert or create new supervisory or regulatory authority over any particular class of institutions or arrangements for which the Board does not currently have such authority.

Where the Board does not have direct or exclusive supervisory or regulatory authority over systems covered by this policy, it will work with other domestic and foreign

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<sup>14</sup> 12 U.S.C. 1861 *et seq.*

financial system authorities to promote effective risk management in payments and securities settlement systems. The Board encourages other relevant authorities to consider the principles embodied in this policy when evaluating the payments and securities settlement risks posed by and to the systems and individual system participants that they oversee, supervise, or regulate. In working with foreign financial system authorities, the Board will be guided by Responsibility D of the Core Principles, Recommendation 18 of the Recommendations, and the “Principles for Cooperative Central Bank Oversight of Cross-border and Multi-currency Netting and Settlement Schemes.”<sup>15</sup> The Board believes these international principles provide an appropriate framework for cooperating with foreign authorities to address risks in cross-border, multicurrency, and, where appropriate, offshore payments and securities settlement systems.

## A. Scope

This policy applies to public-and private-sector payments and securities settlement systems that expect to settle a daily aggregate gross value of U.S. dollar-denominated transactions exceeding \$5 billion on any day during the next twelve months.<sup>16</sup> For purposes of this policy, a payments or securities settlement system is considered to be a multilateral arrangement (three or more participants) among financial institutions for the purposes of clearing, netting, and/or settling payments or securities transactions among themselves or between each of them and a central party, such as a system operator or central counterparty.<sup>17, 18</sup> A system generally embodies one or more of the following characteristics: (1) a set of rules and procedures, common to all participants, that govern the clearing (comparison and/or netting) and settlement of payments or securities transactions, (2) a common technical infrastructure for conducting the clearing or settlement process, and (3) a risk-management or capital structure in which any credit losses are ultimately borne by system participants rather than the system operator, a central counterparty or guarantor, or the system’s shareholders.

These systems may be organized, located, or operated within the United States (domestic systems), outside the United States (offshore systems), or both (cross-border systems) and may involve other currencies in addition to the U.S. dollar (multicurrency systems). The policy also applies to any system based or operated in the United States that engages in the settlement of non-U.S. dollar transactions if that system would otherwise be subject to the policy.<sup>19</sup>

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<sup>15</sup> The “Principles for Cooperative Central Bank Oversight and Multi-currency Netting and Settlement Schemes” are set out in the “[Report of the Committee on Interbank Netting Schemes of the central banks of the Group of Ten countries](#)” (Lamfalussy Report). The Lamfalussy Report is available at <http://www.bis.org/cpss/cpsspubl.htm>.

<sup>16</sup> The “next” twelve-month period is determined by reference to the date a determination is being made as to whether the policy applies to a particular system. Aggregate gross value of U.S. dollar-denominated transactions refers to the total dollar value of individual U.S. dollar transactions settled in the system which also represents the sum of total U.S. dollar debits (or credits) to all participants prior to or in absence of any netting of transactions.

<sup>17</sup> A system includes all of the governance, management, legal and operational arrangements used to effect settlement as well as the relevant parties to such arrangements, such as the system operator, system participants, and system owners.

<sup>18</sup> The types of systems that may fall within the scope of this policy include, but are not limited to, large-value funds transfer systems, automated clearinghouse (ACH) systems, check clearinghouses, and credit and debit card settlement systems, as well as central counterparties, clearing corporations, and central depositories for securities transactions. For purposes of this policy, the system operator is the entity that manages and oversees the operations of the system.

<sup>19</sup> The daily gross value threshold will be calculated on a U.S. dollar equivalent basis.

This policy does not apply to bilateral relationships between financial institutions and their customers, such as traditional correspondent banking, including traditional government securities clearing services. The Board believes that these relationships do not constitute “a system” for purposes of this policy and that relevant safety and soundness issues associated with these relationships are more appropriately addressed through the banking supervisory process. This policy also does not apply to clearance or settlement systems for exchange-traded futures and options that fall under the oversight of the Commodities and Futures Trading Commission or the Securities and Exchange Commission.

## **B. General Policy Expectations**

The Board expects payments and securities settlement systems within the scope of this policy to implement a risk-management framework appropriate to the risks the system poses to the system operator, system participants, and other relevant parties as well as the financial system more broadly. A risk-management framework is the set of objectives, policies, arrangements, procedures, and resources that a system employs to limit and manage risk. While there are a number of ways to structure a sound risk-management framework, all frameworks should perform certain functions:

- Clearly identify risks and set sound risk-management objectives
- Establish sound governance arrangements
- Establish clear and appropriate rules and procedures
- Employ the resources necessary to achieve the system’s risk-management objectives and implement effectively its rules and procedures.

In addition to establishing a risk-management framework that includes these key elements, the Board expects systems it deems systemically important to comply with the more detailed standards set out in Section C.

Identify Risks and Set Sound Risk-Management Objectives. The first element of a sound risk-management framework is the clear identification of all risks that have the potential to arise in or result from the system’s settlement process and the development of clear and transparent objectives regarding the system’s tolerance for and management of such risks.

System operators should identify the forms of risk present in their system’s settlement process as well as the parties posing and bearing each risk. In particular, system operators should identify the risks posed to and borne by them, the system participants, and other key parties such as a system’s settlement banks, custody banks, and third-party service providers. System operators should also analyze whether risks might be imposed on other external parties and the financial system more broadly.

In addition, system operators should analyze how risk is transformed or concentrated by the settlement process. System operators should also consider the possibility that attempts to limit one type of risk could lead to an increase in another type of risk. Moreover, system operators should be aware of risks that might be unique to certain instruments,

participants, or market practices. System operators should also analyze how risks are correlated among instruments or participants.<sup>20</sup>

Based upon its clear identification of risks, a system should establish its risk tolerance, including the levels of risk exposure that are acceptable to the system operator, system participants, and other relevant parties. The system operator should then set risk-management objectives that clearly allocate acceptable risks among the relevant parties and set out strategies to manage this risk. Risk-management objectives should be consistent with the objectives of this policy, the system's business purposes, and the type of instruments and markets for which the system clears and settles. Risk-management objectives should also be communicated to and understood by both the system operator's staff and system participants.

System operators should re-evaluate their risks in conjunction with any major changes in the settlement process or operations, the instruments or transactions settled, a system's rules or procedures, or the relevant legal and market environments. Systems should revisit their risk-management objectives regularly to ensure that they are appropriate for the risks posed by the system, continue to be aligned with the system's purposes, remain consistent with this policy, and are being effectively adhered to by the system operator and participants.

Sound Governance Arrangements. Systems should have sound governance arrangements to implement and oversee their risk-management frameworks. The responsibility for sound governance rests with a system operator's board of directors or similar body and with the system operator's senior management. Governance structures and processes should be transparent, enable the establishment of clear risk-management objectives, set and enforce clear lines of responsibility and accountability for achieving these objectives, ensure that there is appropriate oversight of the risk-management process, and enable the effective use of information reported by the system operator's management, internal auditors, and external auditors to monitor the performance of the risk-management process.<sup>21</sup> Individuals responsible for governance should be qualified for their positions, understand their responsibilities, and understand their system's risk-management framework. Governance arrangements should also ensure that risk-management information is shared in forms, and at times, that allow individuals responsible for governance to fulfill their duties effectively.

Clear and Appropriate Rules and Procedures. Systems should implement rules and procedures that are appropriate and sufficient to carry out the system's risk-management objectives and that have a well-founded legal basis. Such rules and procedures should specify the respective responsibilities of the system operator, system participants, and other relevant parties. Rules and procedures should establish the key features of a system's settlement and risk-management design and specify clear and transparent crisis management procedures and settlement-failure procedures, if applicable.<sup>22</sup>

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<sup>20</sup> Where systems have inter-relationships with or dependencies on other systems (e.g., cross-guarantees, cross-collateralization, cross-margining, common operating platforms), system operators should also analyze whether and to what extent any cross-system risks arise and who bears them.

<sup>21</sup> The risk management and internal audit functions should also be independent of those responsible for day-to-day functions.

<sup>22</sup> Examples of key features that might be specified in a system's rules and procedures are controls to limit participant-based risks, such as membership criteria based on participants' financial and operational health, limits on settlement exposures, and the

Employ Necessary Resources. Systems should ensure that the appropriate resources and processes are in place to allow them to achieve their risk-management objectives and effectively implement their rules and procedures. In particular, the system operator's staff should have the appropriate skills, information, and tools to apply the system's rules and procedures and achieve the system's risk-management objectives. System operators should also ensure that their facilities and contingency arrangements, including any information system resources, are sufficient to meet their risk-management objectives.

The Board recognizes that payments and securities settlement systems differ widely in terms of form, function, scale, and scope of activities and that these characteristics result in differing combinations and levels of risks. Thus, the exact features of a system's risk-management framework should be tailored to the risks of that system. The Board also recognizes that the specific features of a risk-management framework may entail tradeoffs between efficiency and risk reduction. Payments and securities settlement systems will need to consider these tradeoffs when designing appropriate rules and procedures. In considering such tradeoffs, however, it is critically important that systems take into account the costs and risks that may be imposed on all relevant parties, including parties with no direct role in the system. Furthermore, in light of rapidly evolving technologies and risk-management practices, the Board encourages all systems to consider periodically making cost-effective risk-management improvements.

To determine whether a system's current or proposed risk-management framework is consistent with this policy, the Board will seek to understand how a system achieves the four elements of a sound risk-management framework set out above. In this context, it may be necessary for the Board to obtain information from system operators regarding their risk-management framework, risk-management objectives, rules and procedures, significant legal analyses, general risk analyses, analyses of the credit and liquidity effects of settlement disruptions, business continuity plans, crisis management procedures, and other relevant documentation.<sup>23</sup> It may also be necessary for the Board to obtain data or statistics on system activity on an ad-hoc or ongoing basis. All information provided to the Federal Reserve for the purposes of this policy will be handled in accordance with all applicable Federal Reserve policies on information security, confidentiality, and conflicts of interest.

### **C. Systemically Important Systems**

In addition to establishing a risk-management framework that includes the key elements described above, the Board expects systemically important payments and securities settlement systems to comply with the detailed standards set out in this section. To determine whether a system is systemically important for purposes of this policy, the Board may consider, but will not be limited to, one or more of the following factors:

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procedures and resources to hedge, margin, or collateralize settlement exposures. Other examples of key features might be business continuity requirements, and loss allocation procedures.

<sup>23</sup> To facilitate analysis of settlement disruptions, systems may need to develop the capability to simulate credit and liquidity effects on participants and on the system resulting from one or more participant defaults, or other possible sources of settlement disruption. Such simulations may need to include, if appropriate, the effects of changes in market prices, volatilities, or other factors.

- Whether the system has the potential to create significant liquidity disruptions or dislocations should it fail to perform or settle as expected
- Whether the system has the potential to create large credit or liquidity exposures relative to participants' financial capacity
- Whether the system settles a high proportion of large-value or interbank transactions
- Whether the system settles transactions for critical financial markets<sup>24</sup>
- Whether the system provides settlement for other systems
- Whether the system is the only system or one of a very few systems for settlement of a given financial instrument.

Systemically important systems are expected to meet specific risk-management standards because of their potential to cause major disruptions in the financial system. The Board, therefore, expects systemically important payments systems to comply with the standards listed in Section C.1. Securities settlement systems of systemic importance are expected to comply with the standards listed in Section C.2. Some systemically important systems, however, may present an especially high degree of systemic risk, by virtue of their high volume of large-value transactions or central role in the operation of critical financial markets. Because all systems are expected to employ a risk-management framework that is appropriate for their risks, the Board may expect these systems to exceed the standards set out below.

The Board acknowledges that payments and securities settlement systems vary in terms of the scope of instruments they settle and markets they serve. It also recognizes that systems may operate under different legal and regulatory constraints and within particular market infrastructures or institutional frameworks. The Board will consider these factors when assessing how a systemically important system addresses a particular standard.

The Board's standards for systemically important payments and securities settlement systems are based, respectively, on the Core Principles and the Recommendations. The Core Principles and the Recommendations are two examples of recent initiatives pursued by the international financial community to strengthen the global financial infrastructure.<sup>25</sup> The Federal Reserve worked closely with other central banks to draft the Core Principles and with other central banks and securities regulators to draft the Recommendations. These standards are part of the Financial Stability Forum's Compendium of Standards that have been widely recognized, supported, and endorsed by U.S. authorities as integral to strengthening the stability of the financial system.

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<sup>24</sup>The "Interagency Paper on Sound Practices to Strengthen the Resilience of the U.S. Financial System." (Interagency Paper) (68 FR 17809 April 11, 2003) currently defines critical financial markets as the markets for federal funds, foreign exchange, and commercial paper; U.S. government and agency securities; and corporate debt and equity securities.

<sup>25</sup> The Core Principles draw extensively on the previous work of the CPSS, most importantly the Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries (the Lamfalussy Minimum Standards). The Core Principles extend the Lamfalussy Minimum Standards by adding several principles and broadening the coverage to include systemically important payments systems of all types, including gross settlement systems and hybrid systems, operated by either the public or private sector. The Core Principles also address the responsibilities of central banks in applying the Core Principles.

## **1. Standards for Systemically Important Payments Systems**

1. The system should have a well-founded legal basis under all relevant jurisdictions.
2. The system's rules and procedures should enable participants to have a clear understanding of the system's impact on each of the financial risks they incur through participation in it.
3. The system should have clearly defined procedures for the management of credit risks and liquidity risks, which specify the respective responsibilities of the system operator and the participants and which provide appropriate incentives to manage and contain those risks.
4. The system should provide prompt final settlement on the day of value, preferably during the day and at a minimum at the end of the day.
5. A system in which multilateral netting takes place should, at a minimum, be capable of ensuring the timely completion of daily settlements in the event of an inability to settle by the participant with the largest single settlement obligation.
6. Assets used for settlement should preferably be a claim on the central bank; where other assets are used, they should carry little or no credit risk and little or no liquidity risk.
7. The system should ensure a high degree of security and operational reliability and should have contingency arrangements for timely completion of daily processing.
8. The system should provide a means of making payments which is practical for its users and efficient for the economy.
9. The system should have objective and publicly disclosed criteria for participation, which permit fair and open access.
10. The system's governance arrangements should be effective, accountable and transparent.

## **2. Standards for Systemically Important Securities Settlement Systems**

The CPSS-IOSCO Recommendations apply to the full set of institutional arrangements for confirmation, clearance, and settlement of securities transactions, including those related to market convention and pre-settlement activities. As such, not all of these standards apply to all systems. Moreover, the standards applicable to a particular system also will vary based on the structure of the market and the system's design.

While the Board endorses the CPSS-IOSCO Recommendations in their entirety, its primary interest for purposes of this policy is in those standards related to the settlement aspects of securities transactions, including the role of central counterparties and central depositories, the delivery of securities against payment, and related risks. The Board expects that systems engaged in the management or conduct of settling securities transactions and their participants to comply with the expectations set forth in the applicable Recommendations. Securities settlement systems also may wish to consult the Assessment Methodology for "Recommendations for Securities Settlement Systems" for further guidance on each standard.<sup>26</sup>

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

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<sup>26</sup> Bank for International Settlements (November 2002). Available at [www.bis.org](http://www.bis.org).

2. Confirmation of trades between direct market participants should occur as soon as possible after the trade execution, but no later than the trade date (T+0). Where confirmation of trades by indirect market participants (such as institutional investors) is required, it should occur as soon as possible after the trade execution, preferably on T+0, but no later than T+1.
3. Rolling settlement should be adopted in all securities markets. Final settlement should occur no later than T+3. The benefits and costs of a settlement cycle shorter than T+3 should be evaluated.
4. The benefits and costs of a central counterparty should be evaluated. Where such a mechanism is introduced, the central counterparty should rigorously control the risks it assumes.
5. Securities lending and borrowing (or repurchase agreements and other economically equivalent transactions) should be encouraged as a method for expediting the settlement of securities transactions. Barriers that inhibit the practice of lending securities for this purpose should be removed.
6. Securities should be immobilized or dematerialized and transferred by book entry in central securities depository to the greatest extent possible.
7. Central securities depositories should eliminate principal risk linking securities transfers to funds transfers in a way that achieves delivery versus payment.
8. 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.
9. Central securities depositories that extend intraday credit to participants, including central securities depositories 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.
10. Assets used to settle the ultimate payment obligations arising from securities transaction should carry little or no credit or liquidity risk. If central bank money is not used, steps must be taken to protect central securities depository members from potential losses and liquidity pressures arising from the failure of the cash settlement agent whose assets are used for that purpose.
11. Sources of operational risk arising in the clearing and settlement process should be identified and minimized through the development of appropriate systems, controls and procedures. Systems should be reliable and secure, and have adequate, scalable capacity. Contingency plans and backup facilities should be established to allow for the timely recovery of operations and completion of the settlement process.
12. Entities holding securities in custody should employ accounting practices and safekeeping procedures that fully protect customers' securities. It is essential that customers' securities be protected against the claims of a custodian's creditors.
13. Governance arrangements for central securities depositories and central counterparties should be designed to fulfill public interest requirement and to promote the objectives of owners and users.
14. Central securities depositories and central counterparties should have objective and publicly disclosed criteria for participation that permit fair and open access.
15. While maintaining safe and secure operations, securities settlement systems should be cost-effective in meeting the requirements of users.

16. Securities settlement systems should use or accommodate the relevant international communication procedures and standards in order to facilitate efficient settlement of cross-border transactions.
17. Central securities depositories and central counterparties should provide market participants with sufficient information for them to identify and evaluate accurately the risks and costs associated with using the central securities depository or central counterparty services.
18. 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.
19. Central securities depositories that establish links to settle cross-border trades should design and operate such links to reduce effectively the risks associated with cross-border settlement.

By order of the Board of Governors of the Federal Reserve System, April 21, 2004.

Jennifer J. Johnson (signed)  
Jennifer J. Johnson,  
Secretary of the Board.