Guide to the Federal Reserve's Payments System Risk Policy on Daylight Credit

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This publication is available at www.federalreserve.gov/paymentsystems/psr/relpol.htm

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Preface

The *Guide to the Federal Reserve's Payments System Risk Policy on Daylight Credit* was developed to assist depository institutions in complying with the Federal Reserve Policy on Payments System Risk (PSR policy).[1] The PSR policy was developed to control and reduce risks in the payments system, including institutions' use of Federal Reserve intraday credit, commonly referred to as "daylight credit" or "daylight overdrafts."

The guide contains detailed information on the steps necessary to comply with part II of the PSR policy, which outlines the Federal Reserve's intraday credit policies. Any institution using Federal Reserve intraday credit, regardless of the amount, should have the capability to monitor its Federal Reserve account balance on an intraday basis and should understand the risks inherent in the provision of payment services generally.

Users of the guide should be aware that the information it contains is based on the PSR policy effective at the time of publication. If the Board modifies the PSR policy, the revised policy will supersede information in the guide until it can be updated accordingly.

[1] Available at www.federalreserve.gov/paymentsystems/psr/policy.pdf

I. Introduction

The Federal Reserve Board developed the PSR policy to address the risks that payment systems present to the Federal Reserve Banks, to the banking system, and to other sectors of the economy. The Board's daylight credit policy objective is to attain an efficient balance among the costs and risks associated with the provision of Federal Reserve intraday credit, including the comprehensive costs and risks to the private sector of managing Federal Reserve account balances, and the benefits of intraday liquidity.

An integral component of the PSR policy is a program to control institutions' use of intraday Federal Reserve credit, or "daylight overdrafts," which is the primary focus of this document. A daylight overdraft occurs when an institution's Federal Reserve account is in a negative position at any point during the business day.[2]

A. Policy History

The Federal Reserve first published a policy on risks in large-dollar payment systems in 1985. This policy required all institutions incurring daylight overdrafts in their Federal Reserve accounts as a result of Fedwire funds transfers to establish a maximum limit, or net debit cap, on those overdrafts.[3]

In subsequent years, the Federal Reserve expanded the original PSR policy by addressing risk controls for other payment types, including automated clearinghouse (ACH) transfers and book-entry securities transfers. The PSR policy also has been expanded to address risk controls for other payment systems, including large-dollar multilateral netting systems and certain private securities clearing and settlement systems. In addition, the Federal Reserve made several modifications to the original PSR program that include reductions to net debit cap levels, the creation of an exempt status for institutions that incur only minimal daylight overdrafts, changes to the calculation of foreign banks' U.S. capital equivalency, and, perhaps most notably, the implementation of daylight overdraft fees.

In 1989, the Board requested comment on a proposed policy change that would assess a fee of 60 basis points, phased in over three years, for an institution's average daily overdrafts in excess of a deductible of 10 percent of the institution's risk-based capital. In October 1992, the Board approved charging a fee for daylight overdrafts, which was to be phased in as 24 basis points in 1994, 48 basis points in 1995, and 60 basis points in 1996. The purpose of the fee was to induce behavior that would reduce risk and increase efficiency in the payments system. At the same time, to facilitate the pricing of daylight overdrafts, the Board modified its method of measuring daylight overdrafts to reflect better the timing of transactions affecting an institution's

[2] In the PSR policy, the term "institution" refers to entities defined as "depository institutions" in 12 U.S.C. 461(b)(1)(A), U.S. branches and agencies of foreign banking organizations, Edge and agreement corporations, bankers' banks, limited-purpose trust companies, government-sponsored enterprises, and international organizations, unless the context indicates a different reading.

[3] The Fedwire Funds Service is a large-dollar electronic payment system owned and operated by the Federal Reserve Banks. Fedwire is a registered service mark of the Federal Reserve Banks.

intraday Federal Reserve account balance.[4] This measurement method incorporates specific account posting times for different types of transactions.

In March 1995, the Board decided to raise the daylight overdraft fee to 36 basis points instead of 48 basis points. Because aggregate daylight overdrafts fell approximately 40 percent after the initial introduction of fees, the Board was concerned that raising the fee to 48 basis points could produce market effects contrary to the objectives of the risk-control program. The Board believed, however, that an increase in the overdraft fee was needed to provide additional incentives for institutions to reduce overdrafts related to funds transfers. The Board stated it would evaluate further fee increases two years after it could assess the effects of the 1995 fee increase.

In 2000, recognizing its obligation to review fees and to consider changes that had occurred in the banking, payments, and regulatory environment, the Board conducted a broad review of the Federal Reserve's daylight credit policies. The Board evaluated its daylight credit policies and determined that these policies appeared to be generally effective in controlling risk to the Federal Reserve and in creating incentives for institutions to manage their intraday credit exposures. While the Board determined that the policy was generally effective, it identified growing liquidity pressures among certain payments system participants. Specifically, the Board learned that a small number of financially healthy institutions regularly found their net debit caps to be constraining, causing them to delay sending payments and, in some cases, to turn away business.

The Board's broad review of its daylight credit policies concluded in December 2001 with its approval of a policy that allows certain institutions to pledge collateral to their administrative Reserve Bank (ARB) to secure daylight overdraft capacity in excess of their net debit caps, subject to Reserve Bank approval.[5] This policy also contained changes to the calculation of net debit caps for U.S. branches and agencies of foreign banks. These changes allowed certain foreign banks to access increased amounts of daylight credit.

In September 2004, the Board announced two policy revisions pertaining to government-sponsored enterprises (GSEs) and certain international organizations. At that time, Reserve Banks processed and posted interest and redemption payments on securities issued by these entities by 9:15 a.m. eastern time each day, even if the issuer had not fully funded its payments. Effective July 20, 2006, the Reserve Banks release interest and redemption payments on securities issued by GSEs and certain international organizations only when the issuer's Reserve

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[4] Prior to the Board's modification of the daylight overdraft posting rules, Fedwire funds and government securities transfers were posted to institutions' Federal Reserve accounts as they were processed during the business day (as they still are today). The net of all automated clearinghouse (ACH) transactions was posted as if the transactions occurred at the opening of business, regardless of whether the net was a debit or credit balance. All other or "nonwire" activity was netted at the end of the business day, and if the net balance was a credit, the credit amount was added to the opening balance. If the net balance was a debit, the debit amount was deducted from the closing balance. Under this method, an institution could use all of its nonwire net credits to offset any Fedwire funds or government securities debits during the day but postpone the need to cover nonwire net debits until the close of the day.

[5] The administrative Reserve Bank is responsible for the administration of Federal Reserve credit, reserves, and risk-management policies for a given depository institution or other legal entity.

Bank account contains sufficient funds to cover the payments. Additionally, the policy change aligned the treatment of GSEs and international organizations with other account holders that do not have regular access to the discount window by applying penalty fees to any daylight overdrafts these institutions incur.

In November 2004, the Board approved changes to the PSR policy addressing risk management in payment and securities settlement systems. The Board adopted the *Core Principles for Systemically Important Payment Systems* (Core Principles) and the *Recommendations for Securities Settlement Systems* (RSSS) as the minimum standards for systemically important payment and securities settlement systems, respectively.[6] At the same time, the Board revised its general risk-management expectations for all systems subject to the policy. The Board also expanded the scope of the policy to cover Federal Reserve payments and securities settlement systems such as the Fedwire Funds Service and FedACH. The action also modified the introduction to the policy, reordered the first two sections of the policy, and deleted the third section of the policy containing guidance on the use of rollovers and continuing contracts in the federal funds market. The Board determined that institutions have the appropriate incentives to incorporate the guidance into their daylight credit procedures and that specific guidance is no longer necessary.

In January 2007, the Board approved changes to part I of the PSR policy that revised the expectations for systemically important payments and settlement systems subject to the policy and updated and clarified the policy with regard to central counterparties. Under the revised policy, the Board adopted the *Recommendations for Central Counterparties* (RCCP) for central counterparties and set an expectation that systemically important payment and settlement systems subject to the Board's authority complete and disclose publicly self-assessments against the relevant principles and minimum standards set forth in the policy. Systemically important systems are expected to complete and publish their initial self-assessments by December 31, 2007.

B. Objectives of the PSR Policy

The PSR policy addresses the risks that payments and securities settlement systems present to the financial system and to the Federal Reserve Banks, including systemic risks that may arise from the settlement process. These risks include credit, liquidity, operational, and legal risks that arise between financial institutions, and between financial institutions and Reserve Banks, as they settle payments and securities transactions. The PSR policy addresses these risks in two ways. First, the policy sets out the Board's expectations regarding the management of risk in public- and private-sector payments and securities settlement systems, including those operated by the Reserve Banks, that expect to settle a daily aggregate gross value

[6] *Federal Register*, vol. 69, p. 69926, December 1, 2004.

exceeding $5 billion on any day during the next twelve months.[7] Second, the policy sets out the general methods used by the Reserve Banks to control their intraday credit exposures in Federal Reserve accounts.

The policy requires systems within the scope of the policy to implement a risk-management framework appropriate for the risks a system poses to the system operator, system participants, and other relevant parties as well as the financial system more broadly. In particular, the policy requires that a risk-management framework (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) employ the resources necessary to achieve the system's risk-management objectives and implement effectively its rules and procedures. In addition, the policy requires that systems deemed systemically important by the Board comply with more-detailed risk-management standards set out in the policy. The policy also encourages systems not within the scope of the policy to consider implementing some or all of the policy's elements of a sound risk-management framework.

The Board will be guided by this policy in conjunction with relevant laws and other Federal Reserve policies, when (1) supervising state member banks, bank holding companies, and clearinghouse arrangements, including the exercise of authority under the Bank Service Company Act, where applicable, (2) setting the terms and conditions for the use of Federal Reserve payment and settlement services by system operators and participants, (3) developing and applying policies for the provision of intraday credit to Reserve Bank account holders, and (4) interacting with other domestic and foreign financial system authorities on payments and settlement risk-management issues. In particular, the policy states the Board's intention to work with other domestic and foreign financial system authorities to promote effective risk management in payments and securities settlement systems.

The PSR policy also governs the provision of intraday or "daylight" credit in accounts at the Reserve Banks. The Reserve Banks face credit risk should institutions be unable to fund their daylight overdraft position in their Federal Reserve accounts before the end of the day. If an institution were to fail after sending a funds transfer, for example, that left its account in an overdraft position, the Federal Reserve would be obligated to cover the payment and bear any resulting losses. The Federal Reserve's exposure in such instances can be significant. During 2006, institutions collectively incurred peak daylight overdrafts in their Federal Reserve accounts exceeding $140 billion per day.

The PSR policy allows Reserve Banks to control credit risk in three ways. First, institutions that access daylight credit must satisfy safety and soundness requirements. In general, institutions that do not meet safety and soundness requirements are not given access to daylight credit. This reduces the likelihood of an unhealthy institution being unable to meet its

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[7] For purposes of the policy, a payments or securities settlement system is considered to be a multilateral arrangement (three or more participants) among financial institutions for the purpose 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. 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.

obligation to a Reserve Bank. Second, the PSR policy establishes limits on the amount of Federal Reserve daylight credit that an institution may use. These limits are sufficiently flexible to reflect the overall financial condition and operational capacity of each institution using Federal Reserve payment services. Third, the policy permits Reserve Banks to protect themselves from risk exposure of individual institutions through such measures as restricting account activity or imposing collateral requirements. In addition, the Federal Reserve charges fees for daylight overdrafts to provide a financial incentive for institutions to control their use of intraday Federal Reserve credit and to recognize explicitly the risks inherent in the provision of intraday credit.

Institutions should manage their Federal Reserve accounts effectively and use Federal Reserve daylight credit efficiently and appropriately, in accordance with the policy. The policy acknowledges that some intraday credit may be necessary, but the Board expects that relatively few institutions will consistently rely on significant amounts of intraday credit supplied by the Federal Reserve to conduct their business.

II. Daylight Overdraft Capacity

A daylight overdraft results when an institution has insufficient funds in its Federal Reserve account to cover its settlement obligations stemming from funds or book-entry securities transfers or from other payment activity processed by the Federal Reserve, such as check, NSS, or ACH transactions. The Federal Reserve measures daylight overdrafts in institutions' Federal Reserve accounts to determine an institution's compliance with the PSR policy and to calculate daylight overdraft fees.

Under the Federal Reserve's PSR policy, each institution that maintains an account at a Federal Reserve Bank is assigned or may establish a net debit cap, which limits the amount of uncollateralized intraday Federal Reserve credit that the institution may use during a given interval. The policy allows financially healthy institutions that have regular access to the discount window to incur daylight overdrafts in their Federal Reserve accounts up to their individual net debit caps.[8] In addition, the policy allows certain institutions to pledge collateral to the Federal Reserve to access daylight overdraft capacity above their net debit caps. In these instances, the institution can incur daylight overdrafts up to the value of its net debit cap plus any applicable collateralized capacity.

This section discusses the steps involved in establishing a net debit cap, the process for applying for additional daylight overdraft capacity, the responsibilities of an institution's board of directors, the procedures for filing a net debit cap resolution, and the role of regulatory agencies. Institutions considered "special situations" should consult section V of this manual for more information on net debit caps.[9]

A. Net Debit Caps

An institution's net debit cap refers to the maximum dollar amount of uncollateralized daylight overdrafts that it may incur in its Federal Reserve account. An institution's cap category, or class, and its capital measure determine the dollar amount of its net debit cap.[10] An institution's net debit cap is calculated as its cap multiple times its capital measure:

net debit cap = cap multiple x capital measure

Because an institution's net debit cap is a function of its capital measure, the dollar amount of the cap will vary over time as the institution's capital measure changes. An institution's cap category, however, normally does not change within a one-year period.

[8] Institutions that have regular access to the discount window are those institutions that are eligible to borrow from the discount window under normal operating conditions.

[9] Institutions considered "special situations" include U.S. branches and agencies of foreign banks, nonbank banks, industrial banks, GSEs, certain international organizations, and other institutions that lack regular access to the discount window.

[10] Information on capital measures for different types of institutions and related regulatory reports is provided in appendix C.

The policy defines six cap categories: high, above average, average, de minimis, exempt-from-filing, and zero. Each cap category is associated with a single-day and a two-week-average cap multiple, as shown in table II-1 below. Depending on its cap category, an institution may have two capacity levels--one that applies to its maximum allowable overdraft on any day ("single-day cap") and one that applies to the maximum allowable average of its peak daily overdrafts in a two-week period ("two-week-average cap").

Table II-1
Cap Multiple Matrix

Cap Category	**Cap Multiples**	
	Single day	Two-week average
High	2.25	1.50
Above average	1.875	1.125
Average	1.125	0.75
De minimis	0.40	0.40
Exempt-from-filing*	$10 million/0.20	$10 million/0.20
Zero	0.0	0.0

* The net debit cap for the exempt-from-filing category is equal to the **lesser** of $10 million or 0.20 multiplied by a capital measure.

An institution is expected to avoid incurring daylight overdrafts whose daily maximum level, averaged over a two-week period, would exceed its two-week-average cap or, on any day, would exceed its single-day cap. The two-week-average cap provides flexibility in recognition that fluctuations in payments can occur from day to day. The purpose of the single-day cap is to limit excessive daylight overdrafts on any day and to ensure that institutions develop internal controls that focus on the exposures each day, as well as over time. The same cap multiple applies to both the single-day peak overdraft and the average peak overdraft for a two-week period for institutions in the de minimis, exempt-from-filing, and zero cap categories.

B. Cap Categories

An institution can establish a positive net debit cap by submitting to its Reserve Bank at least once a year a copy of its board of directors resolution, or it can be assigned a cap category by its Reserve Bank. Generally, only those institutions that regularly incur daylight overdrafts of more than $10 million or 20 percent of their capital measures on a single-day or two-week-average basis are required to file an annual board of directors cap resolution. Institutions that do not file cap resolutions are assigned either an exempt-from-filing or a zero cap category. The

Reserve Bank will notify the institution if it qualifies for an exempt-from-filing cap. If an institution has any questions regarding its cap, the institution should contact its Reserve Bank.

Self-assessed

To establish a net debit cap in the high, above average, or average category, an institution must perform a self-assessment of its creditworthiness, intraday funds management and controls, customer credit policies and controls, and operating controls and contingency procedures. The results of the self-assessment should indicate the appropriate cap category for the institution.

The institution's (or its holding company's) board of directors should review and approve that institution's self-assessment and recommended cap category. The directors' approval must be communicated to the Reserve Bank by submission of a board of directors resolution (appendix B provides a sample resolution). The Reserve Bank will review the cap resolution for appropriateness, in conjunction with the institution's primary regulator. Should the Reserve Bank determine that the cap resolution is not appropriate, it will advise the institution to reevaluate the self-assessment and submit another resolution. The self-assessment process and the board of directors review should be conducted at least once in each twelve-month period.

An institution that experiences a significant change in its financial condition or organizational structure, such as a merger, acquisition, large charge-off, or increase in loan loss reserves, is required to review its current cap category with particular focus on creditworthiness standards. A resolution to establish a different cap category may be submitted by the institution, or may be required by the Reserve Bank, before the annual renewal date if circumstances warrant such a change.

Details of the self-assessment process are provided in section VI and appendix A of this manual. Other institutions, such as those in the zero, exempt-from-filing, or the de minimis cap categories, may also find it helpful to review certain sections of the self-assessment procedures, which contain information on evaluating the effectiveness of controls over payments processing.

De minimis

Institutions that incur daylight overdrafts up to 40 percent of their capital measure may qualify for a de minimis net debit cap. To ease the burden of performing a self-assessment for these institutions, the PSR policy allows a financially healthy institution to incur daylight overdrafts of up to 40 percent of its capital measure if the institution submits a board of directors resolution. An institution with a de minimis cap must submit to its Reserve Bank at least once in each twelve-month period a copy of its board of directors resolution (or a resolution by its holding company's board) approving the institution's use of daylight credit up to the de minimis level. If an institution with a de minimis cap exceeds its cap during a two-week reserve-maintenance period, its Reserve Bank will counsel the institution and decide whether the de minimis cap should be maintained or the institution will be required to perform a self-assessment for a higher cap.

Exempt-from-filing

The exempt-from-filing category permits an institution to incur daylight overdrafts up to the lesser of $10 million or 20 percent of its capital measure. If a Reserve Bank determines that an institution is eligible for exempt status, it will assign this category without requiring any additional documentation. As a result, the exempt-from-filing cap category substantially reduces the administrative burden associated with obtaining a net debit cap. The majority of institutions that maintain Federal Reserve accounts are in the exempt-from-filing category.

To be eligible for the exempt-from-filing cap category, an institution must be in healthy financial condition and should use only minimal amounts of Federal Reserve daylight credit. Specifically, an institution's daylight overdraft history should show only rare overdrafts of more than $10 million or 20 percent of its capital measure, whichever amount is smaller. Any overdrafts above this limit should occur no more than twice in a four-week period (two consecutive two-week reserve maintenance periods). An institution may contact its Reserve Bank for verification that it has been granted or is eligible for the exempt status.

An institution with a new Federal Reserve account may be eligible for exempt status if it is considered to be in healthy financial condition. Furthermore, if an institution with an exempt-from-filing cap category later determines that it requires more daylight overdraft capacity, it may file a cap resolution for a higher net debit cap. Institutions in the exempt-from-filing cap category are not required to renew their caps annually. Reserve Banks will monitor the financial condition of institutions to ensure they continue to qualify for the exempt-from-filing net debit cap.

Zero

An institution with a net debit cap of zero may not incur daylight overdrafts in its Federal Reserve account. Some institutions have established management policies that prohibit daylight overdrafts. Such institutions may adopt a voluntary zero cap but are not required to do so by Federal Reserve policy. An institution may adopt a zero cap by sending a letter to its Reserve Bank. The zero cap will remain in effect until the institution files a cap resolution for a different cap category or until the institution requests an exempt-from-filing cap.

In other cases, a Reserve Bank may assign an institution a zero cap. Institutions that may pose special risks to the Federal Reserve, such as those without regular access to the discount window, those incurring daylight overdrafts in violation of the Federal Reserve's PSR policy, or those in weak financial condition, are generally assigned a zero cap. Recently chartered institutions may also be assigned a zero cap. An institution that has been assigned a zero cap as a result of recurring daylight overdrafts in excess of its cap may be assigned a higher cap if the institution is considered to be in healthy financial condition. An institution seeking to be assigned to a cap category that requires the approval of its board of directors (de minimis or self-assessed) should confirm its eligibility with the Reserve Bank before proceeding to obtain approval from its board of directors.

C. Collateralized Daylight Overdraft Capacity

The PSR policy recognizes that while net debit caps provide sufficient liquidity to most institutions, some institutions may still experience liquidity pressures. To relieve these pressures, certain institutions with self-assessed net debit caps may pledge collateral to the Federal Reserve 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." This policy is intended to provide some additional liquidity through the pledge of collateral to the few institutions that might otherwise be constrained from participating in risk-reducing payment system initiatives, while allowing the Federal Reserve to protect the public sector from additional credit risk.

Institutions considering requesting maximum daylight overdraft capacity must have already explored other alternatives to address their increased liquidity needs.[11] An institution with a self-assessed net debit cap that wishes to expand its daylight overdraft capacity by pledging collateral should consult with its ARB.[12] Institutions are expected to submit the following information when requesting maximum daylight overdraft capacity:

- The amount of daylight overdraft capacity requested
- Written justification for requesting additional daylight overdraft capacity
- A principal contact at the institution.

[11] Institutions may consider applying for maximum daylight overdraft capacity for daylight overdrafts resulting from Fedwire funds transfers, Fedwire book-entry securities transfers, National Settlement Service entries, and ACH credit originations after exploring potential alternatives available to address their increased intraday credit needs, such as (1) filing for a higher net debit cap, (2) shifting funding patterns or delaying the origination of funds transfers in a way that does not significantly increase operational risks, or (3) transferring some payments processing business to a correspondent bank. Institutions incurring daylight overdrafts as a result of other payment activity may be eligible for administrative counseling flexibility (59 *Federal Register* 54915-18, November 2, 1994).

[12] Institutions with an exempt-from-filing or a de minimis net debit cap are not eligible to apply for maximum daylight overdraft capacity. Institutions that have been assigned a zero net debit cap by a Reserve Bank also are not eligible to apply for maximum daylight overdraft capacity. If an institution that qualifies for a positive cap has adopted a zero cap voluntarily, it must apply for a higher net debit cap before requesting maximum daylight overdraft capacity.

In reviewing an institution's request for maximum daylight overdraft capacity, the Reserve Bank will consider the institution's reasons for applying for additional capacity, the institution's financial condition, and other information, as applicable. To be approved for maximum daylight overdraft capacity, the institution must file a board of directors resolution with the Reserve Bank for such capacity. (Appendix B provides a sample resolution.)[13]

The Reserve Bank's approval of an institution's request for additional daylight overdraft capacity is an approval for a maximum level of daylight overdraft capacity. The maximum daylight overdraft capacity is defined as follows:

maximum daylight overdraft capacity =

single-day net debit cap + collateralized capacity.[14]

Like the net debit cap, the maximum daylight overdraft capacity is subject to a single-day and a two-week average limit. The institution's single-day daylight overdraft limit is equal to its single-day net debit cap plus its collateralized capacity. The institution's two-week limit is equal to its two-week-average net debit cap plus its collateralized capacity averaged over a two-week reserve-maintenance period. The institution is expected to avoid incurring daylight overdrafts that would exceed these limits.

Institutions have some flexibility as to the specific types of collateral they may pledge to the Reserve Banks; however, all collateral must be acceptable to the Reserve Banks.[15] A self-assessed institution that has been approved for maximum daylight overdraft capacity may, at any time, pledge more or less collateral than the collateralized capacity. Pledging less collateral reduces the effective maximum daylight overdraft capacity level; however, pledging more collateral will not increase the maximum daylight overdraft capacity above the approved level.

[13] A foreign banking organization (FBO) should undergo the same process as a domestic bank in applying for maximum daylight overdraft capacity for its U.S. branches and agencies. Many FBOs, however, do not have the same management structure as U.S. depository institutions, and adjustments should be made as appropriate. If an FBO's board of directors has a more limited role to play in the bank's management than a U.S. board has, the maximum daylight overdraft capacity request should be reviewed by senior management at the FBO's head office that exercises authority over the FBO equivalent to the authority exercised by a board of directors over a U.S. depository institution. In cases in which the board of directors exercises authority equivalent to that of a U.S. board, the request for maximum daylight overdraft capacity should be reviewed by the board of directors. A depository institution may revise its request for additional collateralized daylight overdraft capacity at any time, provided there is sufficient justification for doing so.

[14] Collateralized capacity represents the collateralized component of the maximum daylight overdraft capacity approved by the Reserve Bank. The amount of collateralized capacity cannot exceed the difference between the institution's maximum daylight overdraft capacity level and its single-day net debit cap. For example, if the single-day net debit cap increases as a result of an increase in capital at the institution, its maximum daylight overdraft capacity is unchanged, so its collateralized capacity is reduced. The institution's overdraft position will be measured against the lesser of (1) its maximum daylight overdraft capacity or (2) its net debit cap plus the amount of collateral pledged.

[15] See the Federal Reserve's discount window website at http://www.frbdiscountwindow.org/discountmargins.html for types of acceptable collateral. Depository institutions seeking to support a maximum daylight overdraft capacity limit with securities in transit must receive Reserve Bank approval. Securities in transit refer to book-entry securities transferred over the Fedwire Securities Service that have been purchased by a depository institution, but not yet paid for and owned by the institution's customers.

D. Role of an Institution's Board of Directors

The Federal Reserve expects the board of directors of an institution to establish and implement policies to ensure that its management follows safe and sound operating practices, complies with applicable banking laws, and prudently manages financial risks. Given these responsibilities, the directors play a vital role in the Federal Reserve's efforts to reduce risks within the payment system.

As part of the PSR policy, the Federal Reserve requests that an institution's board of directors, at a minimum, accept the following responsibilities:

- Understand the institution's practices and controls regarding the risks assumed when processing transactions for its own account and the accounts of its customers or respondents.

- Establish prudent limits on the daylight overdrafts that the institution incurs in its Federal Reserve account and on privately operated clearing and settlement systems.

- Periodically review the frequency and dollar levels of daylight overdrafts to ensure that the institution operates within the guidelines established by its board of directors. Directors should be aware that, under the Federal Reserve's PSR policy, repeated policy violations could lead to reductions in the institution's daylight overdraft capacity, as well as the imposition of restrictions on its Federal Reserve account activity that could affect the institution's operations.

The directors may appoint a committee of directors to focus on the institution's participation in payment systems and its use of daylight credit. Furthermore, a higher-level board of directors of the same corporate family may conduct a self-assessment review and approve a resolution. For example, the board of directors of the parent company of a bank holding company may review the self-assessment and request a net debit cap for one or more of its banking subsidiaries. The board of directors should be aware that delegating the review process to a committee or higher level board does not absolve the directors from the responsibilities outlined in the Federal Reserve's PSR policy. The directors may not delegate this responsibility to an outside consultant or third-party service provider.

For institutions requesting daylight overdraft capacity above their net debit caps, the board of directors must understand the reasons the institution is requesting additional daylight overdraft capacity, the amount of the collateralized capacity, and the total amount of the net debit cap plus collateralized credit.

The Federal Reserve recognizes that the boards of directors of U.S. branches and agencies of foreign banks do not necessarily serve in the same capacity as boards of directors of institutions in the United States. Therefore, individuals who are responsible for formulating policy at the foreign bank's head office may substitute for the board of directors in performing the responsibilities specified in the PSR policy.

E. Cap Resolutions

The policy requires a board of directors resolution to establish a cap in the de minimis or self-assessed (average, above average, or high) cap categories or to establish maximum daylight overdraft capacity. These resolutions must follow a prescribed format. Specifically, resolutions must include the following: (1) the official name of the institution, (2) the city and state in which the institution is located, (3) the date the board acted, (4) the cap category adopted, (5) the appropriate official signature, and (6) the ABA routing number of the institution. For a board resolution approving the results of a self-assessment, the resolution must identify the ratings assigned to each of the four components of the self-assessment as well as the overall rating used to determine the actual net debit cap. In addition, the institution should indicate if it did not use the Creditworthiness Matrix approach in determining its creditworthiness rating (appendix B provides sample resolutions).

An institution's primary supervisor may review the resolutions, and any information or materials used by the institution's directors in fulfilling their responsibilities under the PSR policy must be made available to the institution's supervisory examiners. Supporting documentation used in determining an appropriate cap category must be maintained at the institution. At a minimum, the institution's "cap resolution file" must contain:

- An executed copy of the resolution adopting the net debit cap or maximum daylight overdraft capacity

- For institutions with self-assessed caps, copies of management's self-assessment of creditworthiness, intraday funds management and control, customer credit policies and controls, and operating controls and contingency procedures

- Minutes and other documentation that serve as a formal record of any discussions regarding the self-assessment or the request for maximum daylight overdraft capacity by the directors

- Status reports made available to the board of directors regarding the institution's compliance with resolutions adopted by the directors as well as with the PSR policy

- Other materials that provide insight into the directors' involvement in carrying out their responsibilities under the PSR policy, including special studies or presentations made to the directors

- For the maximum daylight overdraft capacity resolution, the maximum daylight overdraft capacity amount.

The board of directors resolutions for de minimis and self-assessed institutions and for maximum daylight overdraft capacity are valid for one year after the Reserve Bank approves the net debit cap or the maximum daylight overdraft capacity amount. An institution with a de minimis cap must renew its cap resolution annually by submitting a new resolution to its Reserve Bank. An institution with a self-assessed cap must perform a self-assessment annually and submit an updated cap resolution to its Reserve Bank. An institution with a maximum daylight overdraft capacity amount must perform a self-assessment annually and submit an updated maximum daylight overdraft capacity board of directors resolution to its Reserve Bank annually. In conjunction with an institution's primary supervisor, the Reserve Bank reviews each resolution for appropriateness.

Because institutions may, in some cases, require considerable time to complete and approve their self-assessments, institutions should be aware of the expiration date of their cap resolutions well in advance. If a new cap resolution is not received by the expiration date, an institution may be assigned a zero cap, which prohibits the institution from using any Federal Reserve daylight credit.

F. Confidentiality of Cap Information

The Federal Reserve considers cap categories and net debit caps to be confidential information and will share this information only with an institution's primary supervisor. Institutions are also expected to treat their cap information as confidential. Cap information should not be shared with outside parties or mentioned in any public documents.[16]

[16] See SR Letter 85-35 *Confidentiality of Sender Net Debit Caps and Self-Assessment Ratings*.

III. Daylight Overdraft Monitoring and Management

The information provided in this section is intended to assist institutions in monitoring their Federal Reserve account balances in order to control daylight overdrafts. All institutions that maintain Federal Reserve accounts and use Federal Reserve services are expected to monitor their account balances on an intraday basis. Institutions should be aware of payments they are making from their accounts each day and how those payments are funded. Institutions are expected to use their own systems and procedures, as well as the Federal Reserve's systems, described below, to monitor their Federal Reserve account balance and payment activity.

A. Daylight Overdraft Measurement

To monitor an institution's overdraft activity and its compliance with the PSR policy and to calculate daylight overdraft charges, the Federal Reserve uses the Daylight Overdraft Reporting and Pricing System (DORPS). In addition, DORPS maintains information on institutions' current reported capital to calculate their net debit caps.

At the end of each Fedwire operating day, DORPS extracts transaction-level information from Reserve Banks' accounting and payment systems and calculates end-of-minute account balances according to a set of daylight overdraft posting rules.[17] An institution's account balance is measured by DORPS at the end of each minute based on the institution's opening balance and all payment transactions posted to the institution's account up until that moment. Although DORPS records positive and negative total end-of-minute balances in each institution's account, positive end-of-minute balances do not offset negative balances at other times during the day for purposes of determining compliance with net debit caps or for calculating daylight overdraft fees. In addition, when more than one account is maintained for an institution by Reserve Banks, the multiple accounts are consolidated for purposes of calculating the end-of-minute balance.

The daylight overdraft measurement period begins with the standard opening time of Fedwire at 9:00 p.m. ET the preceding calendar day and continues until the standard closing time of Fedwire at 6:30 p.m. ET. In cases of extensions of Fedwire hours, the final closing account balance is recorded as if it were the balance at the standard closing time.

DORPS generates reports at the end of each two-week reserve maintenance period. These reports provide useful information for monitoring daylight overdrafts, such as peak daily overdrafts for the period, overdrafts in excess of the institution's net debit cap, and end-of-minute account balances for a particular day. Reserve Banks may make these reports available to institutions to assist in their internal account monitoring and control. These reports may also be provided by Reserve Banks in the process of counseling institutions that have incurred daylight overdrafts in excess of their daylight overdraft capacity. These reports are available in electronic or paper form. Institutions that do not incur daylight overdrafts for a particular period

[17] The schedule of posting rules is located in part II of the PSR policy, available at www.federalreserve.gov/paymentsystems/psr/policy.pdf

generally will not receive daylight overdraft reports. For more information on daylight overdraft reports, see the Federal Reserve's *Account Management Guide*, available at http://www.frbservices.org/Accounting/pdf/amg.pdf.

B. Monitoring Compliance with the PSR Policy

Reserve Banks generally monitor institutions' compliance with the PSR policy over each two-week reserve maintenance period. At the end of each two-week reserve maintenance period, DORPS generates several reports that provide both Reserve Banks and institutions with information for monitoring daylight overdrafts, including the largest (or peak) daylight overdraft for each day during the period and daylight overdrafts in excess of an institution's approved daylight overdraft capacity.[18] An institution incurs a cap breach when its account balance for a particular day shows one or more negative end-of-minute balances in excess of its single-day cap or when its average peak daylight overdraft over a reserve maintenance period exceeds its two-week-average cap.[19, 20]

The Federal Reserve considers all cap breaches to be violations of the PSR policy except in the following circumstances. First, the policy allows institutions in the exempt-from-filing cap category to incur up to two cap breaches in two consecutive two-week reserve maintenance periods. Second, certain cap breaches incurred by institutions in the administrative counseling flexibility program are not considered policy violations.[21] In addition, a Reserve Bank has discretion to waive a violation if it determines that the cap breach resulted from circumstances beyond the institution's control, such as an operational failure at a Reserve Bank.

For daylight overdraft purposes, accounts of U.S. branches and agencies of foreign banks and merger-transitions accounts are monitored on a consolidated basis; that is, a single account balance is derived by adding together the end-of-minute balances of each account. The accounts of affiliated institutions are monitored separately if they are separate legal entities. In addition, for institutions with accounts in more than one Federal Reserve District, the ARB coordinates the Federal Reserve's daylight overdraft monitoring activities for the consolidated accounts.

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[18] Institutions may also access current information on their account balance and daylight overdraft position using the Account Management Information system (AMI) on FedLine Web. Section C below, Real-Time Monitoring, contains additional information on AMI.

[19] An institution's two-week-average peak daylight overdraft is calculated by adding the largest overdraft incurred for each day during a reserve maintenance period and dividing that sum by the number of business days in the period.

[20] For a self-assessed institution that has been approved for maximum daylight overdraft capacity, the two-week-average limit is equal to the two-week-average cap plus the amount of collateral pledged to secure the collateralized capacity, averaged over a two-week reserve-maintenance period. The single-day limit is equal to an institution's net debit cap plus the amount of applicable collateralized capacity.

[21] In October 1994, the Board approved a program of administrative counseling flexibility to help relatively small institutions that, by the nature of their business, will continue to exceed a net debit cap even after the appropriate adjustments have been made. Under the counseling flexibility program, the Reserve Banks will work with the affected depository institutions to identify alternatives that would avoid or reduce daylight overdrafts caused by transactions other than Fedwire funds transfers, National Settlement Service transactions, or ACH credit originations. The Reserve Banks generally will not subject these institutions to escalated levels of counseling, require collateral, or assign a zero cap. Institutions in the exempt-from-filing net debit cap category are not eligible for the administrative counseling flexibility program.

For example, consider a foreign bank family with branches or agencies in New York, Chicago, and San Francisco. Assume that the Federal Reserve Bank of New York is the ARB for the foreign bank and that the family's intraday position at selected intervals is as follows (in $millions):

Time	New York	Chicago	San Francisco	Consolidated
10 a.m.	($10)	$5	$15	$10
12 p.m.	($20)	$5	$15	$0
2 p.m.	($30)	$10	$15	($5)

On a consolidated basis, overdrafts at the New York branch are offset by positive balances in the Chicago and San Francisco branches except at 2 p.m. As the ARB, the Federal Reserve Bank of New York would compare the bank's consolidated position with its single-day net debit cap and would notify the New York office of the foreign bank if the overdraft exceeded the cap.

Consequences of policy violations

A policy violation may initiate a series of Reserve Bank actions aimed at deterring an institution's excessive use of Federal Reserve intraday credit. These actions depend on the institution's history of daylight overdrafts and financial condition. Initial actions taken by the Reserve Bank may include an assessment of the causes of the overdrafts, a counseling letter to the institution, and a review of the institution's account-management practices. In addition, the Reserve Bank may require an institution to submit documentation specifying actions it will take to address the overdraft problems. If policy violations continue to occur, the Reserve Bank may take additional actions. For example, if a financially healthy institution in the zero, exempt-from-filing, or de minimis cap category continues to breach its cap, the Reserve Bank may strongly recommend that the institution file a cap resolution or perform a self-assessment to obtain a higher net debit cap.

In situations in which an institution continues to violate the PSR policy, and counseling and other Reserve Bank actions have been ineffective, the Reserve Bank may assign the institution a zero cap. In addition, the Reserve Bank may impose other account controls that it deems prudent, such as requiring the institution to pledge collateral, imposing clearing balance requirements; rejecting Fedwire funds transfers, ACH credit originations, or NSS transactions that would cause or increase an institution's daylight overdraft; or requiring the institution to prefund certain transactions. Reserve Banks also keep institutions' primary regulators apprised of any recurring overdraft problems.

C. Real-time Monitoring and the Account Balance Monitoring System

The Reserve Banks use the Account Balance Monitoring System (ABMS) to monitor in real time the payment activity of institutions that may expose the Federal Reserve and other payment system participants to risk of loss. ABMS serves as both an information source and an account monitoring and control tool. It allows institutions to obtain intraday balance information for purposes of managing their use of daylight credit and avoiding overnight overdrafts. All institutions that have an electronic connection to the Federal Reserve's Fedwire funds transfer service are able to access their intraday Federal Reserve account position in ABMS or in Account Management Information (AMI).[22] While ABMS is not a substitute for an institution's own internal tracking and monitoring systems, it does provide real-time account information based on Fedwire funds and securities transfers and NSS transactions. Additionally, ABMS captures debits and credits resulting from other payment activity as those transactions are processed in the Reserve Bank's accounting system.[23] ABMS also provides authorized Federal Reserve Bank personnel with a mechanism to monitor and control account activity for selected institutions.

ABMS has the capability to reject or intercept certain transactions affecting an institution's account. This capability is called "real-time monitoring." The Reserve Banks use real-time monitoring to prevent selected institutions from effecting certain transactions if their accounts lack sufficient funds to cover the payments. Institutions are generally notified before a Reserve Bank begins monitoring their accounts in real time.

If an institution's account is monitored in the "reject" mode in ABMS, any outgoing Fedwire funds transfer, NSS transaction, or ACH credit origination that exceeds its available funds is rejected back to the sending institution. The institution can initiate the transaction again when sufficient funds became available in its account.[24] If an institution's account is monitored in the "intercept" mode, sometimes referred to as the "pend" mode, outgoing funds transfers that would cause an overdraft in excess of the threshold will not be processed but will be held for review by the Reserve Bank. These intercepted transactions will be rejected or released by the Reserve Bank once funds are available in the institution's account. Reserve Banks will normally be in direct contact with an institution if any of its funds transfers are intercepted.

ABMS calculates balances three ways so that institutions and Reserve Bank staff can take into account the effect of the daylight overdraft posting rules on an institution's payment activity. The daylight overdraft (DLOD) balance in ABMS reflects the balance in the account according to the transaction posting rules described in the PSR policy and is usually equivalent to the balance measured by DORPS.[25] In a few instances; however, the *DLOD balance* in ABMS may be slightly different from the account balance recorded in DORPS because DORPS

[22] AMI is a web-based application that provides institutions with real-time access to their intraday account balances, detailed transaction information, a variety of reports, and inquiry capabilities. Institutions can obtain information on ABMS, DORPS, and AMI in the *Account Management Guide at www.frbservices.org/Accounting/pdf/amg.pdf.*

[23] ABMS receives transaction information from the Fedwire Funds Service, the Fedwire Securities Service, and the National Settlement Service in real time; information on cash, check, and Treasury Investment Program transactions at 5-minute intervals; and information on prefunded ACH credit originations every 15 minutes.

[24] The institution will be required to prefund its ACH credit originations, as the total amount of all ACH credit item originations will be deducted from its account when the Reserve Bank processes the items.

[25] The schedule of posting rules is located in part II of the PSR policy, available at www.federalreserve.gov/paymentsystems/psr/policy.pdf

takes an end-of-minute "snapshot," while ABMS continuously updates balances as transactions are processed. In addition, the DLOD balance in ABMS may be different from the account balance in DORPS if transactions are processed late.

A second balance calculated by ABMS, the account (ACCT) balance, reflects the sum of all transactions posted to ABMS regardless of the daylight overdraft posting rules.

A third balance, the available funds (AVL FNDS) balance, shows funds available to an institution that include its daylight overdraft capacity. The AVL FNDS balance is calculated by using either the DLOD balance or the ACCT balance and then adding the totals for the institution's single-day net debit cap, any applicable collateralized capacity, and any other amounts memo posted to the institution's account.[26] Reserve Banks may choose to monitor institutions based on either the ACCT balance or DLOD balance, depending on the circumstances.

[26] Reserve Banks use the memo post function of ABMS to post transactions to ABMS that may not be passed to the Federal Reserve Bank's accounting system until later in the day (for example, cash shipments).

IV. Daylight Overdraft Fees

In 1992, the Board approved the assessment of daylight overdraft fees beginning in April 1994. The Federal Reserve charges institutions fees for daylight overdrafts incurred in their Federal Reserve accounts. This section describes the fee calculation and assessment.

A. Calculation of Daylight Overdraft Charges

For each two-week reserve-maintenance period, the Reserve Banks calculate and assess daylight overdraft fees, which are equal to the sum of any daily daylight overdraft charges during the reserve-maintenance period. For each day, an institution's daylight overdraft charge is the effective daily rate charged for daylight overdrafts multiplied by the average daylight overdraft for the day minus a deductible valued at an effective daily rate.

Daylight overdraft fees are calculated using an annual rate of 36 basis points, quoted on the basis of a 24-hour day. The annual rate is converted to an effective annual rate by multiplying it by the fraction of the day that Fedwire is scheduled to be open, currently 21.5 hours out of 24, or 21.5/24. Thus, the current effective annual rate charged for overdrafts is 32.25 basis points (36 basis points x 21.5/24 hours). The effective annual rate is converted to an effective daily rate by multiplying it by 1/360.[27]

The average overdraft for each day is calculated by adding together any negative end-of-minute balances incurred during the standard operating day of the Fedwire funds transfer system and dividing this amount by the number of minutes in the standard Fedwire operating day.[28] All end-of-minute overdrafts incurred during the Fedwire day, including those not exceeding an institution's net debit cap, are included in this calculation. Positive account balances on a given day are effectively set to zero and do not offset any overdrafts incurred that day in computing the average daylight overdraft amount. The occasional extensions of Fedwire beyond the standard 21.5-hour day do not affect the number of minutes used in computing the average overdraft.

The gross overdraft charge for each day is reduced based on an institution's deductible. The deductible represents a threshold level of average overdrafts that an institution may incur without being charged a fee. This deductible is intended to provide liquidity to the payment system and to compensate for overdrafts caused by minor computer outages at Reserve Banks. As a result of the deductible, many institutions with daylight overdrafts in a particular two-week period do not incur fees.

The deductible equals 10 percent of an institution's capital measure for daylight overdraft purposes; valued at the effective daily rate for a 10-hour operating day. The calculation is similar to the description above with one exception: the portion of the day for which the daily rate is applied to the deductible is fixed at ten out of twenty-four hours. Because the effective

[27] Under the current 21.5-hour Fedwire operating day, the effective daily daylight-overdraft rate is truncated to 0.0000089.

[28] The standard operating day for the Fedwire funds transfer system currently extends from 9:00:00 p.m. eastern time the preceding calendar day to 6:30:59 p.m. eastern time, a total of 1291 minutes.

daily rate applicable to the deductible is constant at the ten-hour-operating-day rate, changes to the standard Fedwire operating day should not significantly affect the value of the deductible.

For each reserve maintenance period, the daylight overdraft charge is equal to the sum of the charges for each day of the period. The gross overdraft charge for a particular day is equal to the effective daily rate charged for overdrafts (the effective rate times 1/360) multiplied by the average overdraft for the day. The charge for each day is equal to the gross overdraft charge less the deductible, valued at the effective daily rate. The example shown in figure IV-1 below uses the following equations to calculate the daylight overdraft charge.

gross overdraft charge = effective daily rate x average overdraft

daily charge = gross overdraft charge – value of the deductible

Figure IV-I
Example of Daylight Overdraft Charge Calculation

Policy parameters:
Official Fedwire day = 21.5 hours
Deductible percentage of capital = 10%
Rate charged for overdrafts = 36 basis points (annual rate)

Institution’s parameters:
Risk-based capital = $50 million
Sum of end-of-minute overdrafts for one day = $4 billion

Daily Charge calculation:
Effective daily rate = .0036 x (21.5/24) x (1/360) = .0000089
Average overdraft = $4,000,000,000 / 1291 minutes = $3,098,373
Gross overdraft charge = $3,098,373 x .0000089 = $27.58
Effective daily rate for deductible = .0036 x (10/24) x (1/360) = .0000042
Value of the deductible = .10 x $50,000,000 x .0000042 = $21.00
Overdraft charge = 27.58 - 21.00 = $6.58

Identical daily overdraft activity for each day of the reserve maintenance period (generally ten business days) would result in a two-week overdraft charge of $65.80.

Institutions that lack regular access to the discount window are not eligible for daylight overdrafts and are charged a penalty fee for any daylight overdrafts they incur. See section V, Special Situations, for a complete description of the fees applicable to these institutions.

B. Billing and Adjustments

Assessment of charges

At the end of each two-week reserve maintenance period, the Reserve Bank provides a report of preliminary daylight overdraft charges to each institution that incurred charges in that period.[29] Final charges are calculated and an assessment to the institution's Federal Reserve account will be made at the end of the reserve maintenance period following the reserve maintenance period in which charges were assessed. Two-week reserve maintenance period charges of $25 or less for most institutions will be waived.[30] Institutions may not use earnings credits to offset overdraft charges.

Adjustments to calculated daylight overdraft charges may be appropriate in limited circumstances, such as in cases of extended computer or communications operational difficulties at a Reserve Bank or of errors or incorrect accounting entries. However, Reserve Banks will not make adjustments to compensate for institutions' computer problems.

[29] Institutions that incur overdrafts that are sufficiently large to result in daylight overdraft fees will receive a preliminary Advice of Daylight Overdraft Charges Report at the close of the reserve maintenance period in which the overdrafts occurred. The report shows the average overdraft for each day on which the fees occurred. An example of the report can be viewed in the *Account Management Guide* at www.frbservices.org/Accounting/pdf/amg.pdf.

[30] Daylight overdraft fees of $25 or less are not waived for Edge and agreement corporations, bankers' banks that have not waived their exemption from reserve requirements, limited-purpose trust companies, and GSEs and international organizations. These types of institutions do not have regular access to the discount window and, therefore, are expected not to incur daylight overdrafts in their Federal Reserve accounts. The Federal Reserve charges a daylight overdraft penalty fee against the average daily daylight overdraft incurred by such institutions.

V. Special Situations

A. U.S. Branches and Agencies of Foreign Banks[31]

In general, U.S. branches and agencies of foreign banks are treated in the same manner as domestic institutions under the Federal Reserve's PSR policy. However, there are several unique considerations affecting the way in which the policy is applied to U.S. branches and agencies of foreign banks, as discussed below and in the self-assessment procedures in section VI of the guide.

Net debit caps for foreign banks are calculated generally in the same manner as they are calculated for domestic institutions. Net debits caps are calculated by multiplying an institution's cap multiple by an institution's capital measure. However, the determination of the capital measure, known as the U.S. capital equivalency, is substantially different for foreign banks and depends on the foreign banking organization's (FBO's) strength of support assessment (SOSA) ranking and on whether the bank is a financial holding company (FHC).[32, 33]

U.S. capital equivalency

For U.S. branches and agencies of foreign banks, net debit caps on daylight overdrafts in Federal Reserve accounts are calculated by applying the cap multiples for each cap category to the FBO's U.S. capital equivalency measure. The U.S. capital equivalency equals

- 35 percent of capital for FBOs that are financial holding companies (FHCs), or
- 25 percent of capital for FBOs that are not FHCs and are ranked a SOSA 1, or
- 10 percent of capital for FBOs that are not FHCs and are ranked a SOSA 2, or
- 5 percent of "net due to related depository institutions" for FBOs that are not FHCs and are ranked a SOSA 3.[34]

U.S. branches and agencies of foreign banks that wish to establish a nonzero net debit cap category and are an FHC or are ranked SOSA 1 or 2 are required to file the Annual Daylight

[31] A U.S. branch or agency is a branch or agency of a foreign banking organization (FBO) located in the United States.

[32] The SOSA ranking is composed of four factors, including the FBO's financial condition and prospects, the system of supervision in the FBO's home country, the record of the home country's government in support of the banking system or other sources of support for the FBO; and transfer risk concerns. Transfer risk relates to the FBO's ability to access and transmit U.S. dollars, which is an essential factor in determining whether an FBO can support its U.S. operations. The SOSA ranking is based on a scale of 1 through 3, with 1 representing the lowest level of supervisory concern.

[33] The Gramm-Leach-Bliley Act (Public Law 106-102, 113 Stat. 1338 (1999)) defines a financial holding company as a bank holding company that meets certain eligibility requirements. In order for a bank holding company to become a financial holding company and be eligible to engage in the new activities authorized under the Gramm-Leach-Bliley Act, all depository institutions controlled by the bank holding company must be well capitalized and well managed. With regard to a foreign bank that operates a branch or agency or owns or controls a commercial lending company in the United States, the act requires the Board to apply comparable capital and management standards that give due regard to the principle of national treatment and equality of competitive opportunity.

[34] This item is reported on the foreign bank family's quarterly Report of Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks (Federal Financial Institution Examination Council report FFIEC 002).

Overdraft Capital Report for U.S. Branches and Agencies of Foreign Banks (FR 2225).[35] A net debit cap, or any extension of intraday credit, is granted to an institution at the discretion of the Reserve Bank. In limited circumstances, a Reserve Bank may grant a net debit cap or extend intraday credit to a financially healthy SOSA 3-ranked FBO; the Reserve Bank may require such credit to be fully collateralized, given the heightened supervisory concerns with SOSA 3-ranked FBOs. An institution should contact its Reserve Bank for guidance in these situations.

As in the case of U.S. institutions, the ARB must have the ability to assess regularly the financial condition of a foreign bank to grant the institution a daylight overdraft cap other than zero. The ARB may require information regarding Tier I and total risk-based capital ratios for the consolidated foreign bank.[36] The ARB may require U.S. branches and agencies of foreign banks seeking a positive daylight overdraft cap (exempt, de minimis, or self-assessed cap categories) to provide capital ratios at the time the cap is established and annually thereafter. Workpapers for capital ratios should be maintained at a designated U.S. branch or agency and are subject to review by the institution's primary supervisor. The Federal Reserve considers capital information provided to the ARB in connection with an institution's daylight overdraft cap to be confidential.

Allocation of caps

The Federal Reserve monitors the daylight overdrafts of U.S. branches and agencies of foreign banks on a consolidated basis. Each foreign bank family, consisting of all of the U.S. branches and agencies of a particular foreign bank, has a single daylight overdraft cap. Like other institutions with accounts in more than one Federal Reserve District, intraday account balances of all the U.S. branches and agencies in a foreign bank family are added together for purposes of monitoring against the daylight overdraft cap, as described in section III.

For real-time monitoring purposes, however, a foreign bank that has offices in more than one District may choose to allocate a portion of its net debit cap to branches or agencies in Districts other than that of the ARB. Unless a foreign bank family instructs otherwise, the Federal Reserve will assign the dollar value of the family's single-day daylight overdraft cap to the branch or agency located in the Federal Reserve District of the ARB. Using a format similar to the sample letter in appendix B, the foreign bank family may indicate to the ARB the dollar amount to be allocated to offices in other Districts. The foreign bank family should update or confirm the allocation annually with its ARB. Any amount that is not allocated to offices in other Districts will be assigned to the branch or agency in the District of the ARB.

If a foreign bank has an approved amount of maximum daylight overdraft capacity, only the uncollateralized component of the capacity may be allocated. The collateralized capacity will be available at the Reserve Bank that approved the maximum daylight overdraft capacity and holds the collateral.

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[35] A copy of the FR 2225 report and instructions is available at www.federalreserve.gov/boarddocs/reportforms/default.cfm.

[36] Descriptions of capital measures, by type of institution, and related regulatory reports can be found in appendix C.

B. Nonbank Banks and Industrial Banks

Nonbank banks grandfathered under the Competitive Equality Banking Act of 1987 (CEBA), as implemented in section 225.52 of Federal Reserve Regulation Y, industrial banks, or industrial loan companies may not incur daylight overdrafts on behalf of affiliates, except in three circumstances. First, the prohibition does not extend to overdrafts that result from inadvertent computer or accounting errors beyond the control of the nonbank bank. Second, nonbanks, industrial banks, and industrial loan companies are permitted to incur overdrafts on behalf of affiliates that are primary U.S. government securities dealers, provided such overdrafts are fully collateralized. Third, overdrafts incurred in connection with an activity that is financial in nature are also permitted.[37] A nonbank bank, industrial bank, or industrial loan company loses its exemption from the definition of bank under the Bank Holding Company Act if it incurs prohibited overdrafts. For this purpose, an affiliate is any company that controls the nonbank bank or industrial bank, is controlled by it, or is under common control with it.

Nonbank banks and industrial banks must comply with the PSR policy regarding net debit caps in the same manner as other institutions and are subject to daylight overdraft fees, calculated using the same methods as those applied to other institutions. In addition to the regular monitoring for these institutions, the Federal Reserve monitors nonbank banks or industrial banks that are grandfathered under CEBA using a separate formula to calculate CEBA-related intraday Federal Reserve account positions.

If a nonbank bank or industrial bank incurs overdrafts that are prohibited, the Reserve Bank will request that the institution provide detailed information about activity processed for affiliate accounts, so that it can determine whether the overdraft was incurred on behalf of an affiliate. If the overdraft was on behalf of a primary dealer affiliate, the nonbank bank or industrial bank is required to demonstrate that the overdraft was fully collateralized. If the overdraft was on behalf of an affiliate and was financial in nature, the nonbank or industrial bank is required to demonstrate the purpose of the overdraft as defined by section 4(k)(5) of the Bank Holding Company Act. Nonbank banks and industrial banks that do not maintain accounts for affiliates may file a letter with the Reserve Bank on an annual basis certifying that they do not currently have affiliate accounts and that they will notify the Reserve Bank promptly should that status change. (Appendix B provides a sample certification letter.)

C. Institutions Subject to Daylight Overdraft Penalty Fees

Under the PSR policy, institutions that have Federal Reserve accounts but lack regular access to the discount window are not eligible for a positive daylight overdraft cap. These institutions should not incur any daylight overdrafts. If such an institution were to incur an overdraft, however, the Reserve Bank would generally require it to pledge collateral sufficient to cover the peak amount of the overdraft for a specified period.

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[37] Information concerning the definition of "financial in nature" can be found within the Federal Reserve's Regulation Y, located at http://www.federalreserve.gov/regulations/regref.htm#y.

The institutions described below are subject to a penalty fee on any daylight overdrafts incurred in their Federal Reserve accounts. The penalty fee is intended to provide a strong incentive for these institutions to avoid incurring any daylight overdrafts in their Federal Reserve accounts. The penalty fee is assessed at a rate equal to the regular daylight overdraft fee plus 100 basis points (annualized, 24-hour rate). The penalty fee is calculated and assessed in the same manner as the daylight overdraft fee charged other institutions, as described in section IV, with the following exceptions: No deductible is used in the calculation, there is no fee waiver provision, and if the calculated charges in any two-week reserve maintenance period are less than $25, a minimum fee of $25 will be charged.

Edge and agreement corporations[38]

Edge and agreement corporations do not have regular access to the discount window and should refrain from incurring daylight overdrafts in their Federal Reserve accounts. In the event that any daylight overdrafts occur, the Edge or agreement corporation must post collateral to cover the overdrafts. Like foreign banks, Edge and agreement corporations that have branches in more than one Federal Reserve District are monitored on a consolidated basis.

Bankers' banks[39]

Bankers' banks, including corporate credit unions, are exempt from reserve requirements and do not have regular access to the discount window. Bankers' banks may voluntarily waive their exemption from reserve requirements and thus gain regular access to the discount window. Such bankers' banks would be free to establish net debit caps and would be subject to the PSR policies in the same manner as other institutions. Those bankers' banks that have not waived their exemption from reserve requirements should refrain from incurring overdrafts and must post collateral to cover any daylight overdrafts they do incur.

Limited-purpose trust companies[40]

The Federal Reserve Act permits the Board to grant Federal Reserve membership to limited-purpose trust companies subject to conditions the Board may prescribe. As a general matter, member limited-purpose trust companies do not accept reservable deposits and do not have regular discount-window access. Limited-purpose trust companies that maintain Federal Reserve accounts should refrain from incurring overdrafts and must post collateral to cover any daylight overdrafts that they incur.

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[38] These institutions are organized under section 25A of the Federal Reserve Act (12 U.S.C. 611-631) or have an agreement or undertaking with the Board of Governors under section 25 of the Federal Reserve Act (12 USC 601-604(a)).

[39] For the purposes of the Federal Reserve's PSR policy, a bankers' bank is a financial institution that is not required to maintain reserves under the Federal Reserve's Regulation D (12 CFR 204) because it is organized solely to do business with other financial institutions, is owned primarily by the financial institutions with which it does business, and does not do business with the general public. Such bankers' banks also generally are not eligible for Federal Reserve Bank credit under the Board's Regulation A (12 CFR 201.2(c)(2)).

[40] For the purposes of the PSR policy, a limited-purpose trust company is a trust company that, because of limitations on its activities, does not meet the definition of "depository institution" in section 19(b)(1)(A) of the Federal Reserve Act (12 USC 461(b)(1)(A)).

Government-sponsored enterprises (GSEs) and international organizations[41]

The Reserve Banks are fiscal agents for certain GSEs and international organizations in accordance with federal statutes. These institutions are not subject to reserve requirements and do not have regular access to the discount window. GSEs and international organizations should refrain from incurring daylight overdrafts and must post collateral to cover any daylight overdrafts they do incur.

[41] GSEs include Fannie Mae, the Federal Home Loan Mortgage Corporation (Freddie Mac), entities of the Federal Home Loan Bank System (FHLBS), the Farm Credit System, the Federal Agricultural Mortgage Corporation (Farmer Mac), the Financing Corporation, and the Resolution Funding Corporation. The international organizations include the World Bank, the Inter-American Development Bank, the Asian Development Bank, and the African Development Bank. The Reserve Banks ceased to act as fiscal agents for new issues of Sallie Mae securities upon its privatization on December 29, 2004. The new Sallie Mae is not considered a GSE.

VI. Self-Assessment Procedures

This section provides information and guidelines for institutions choosing to perform a self-assessment to establish a net debit cap in the average, above average, or high categories.[42] If an institution elects to establish a net debit cap through a self-assessment it must analyze and evaluate four components:

- Creditworthiness
- Intraday funds management and control
- Customer credit policies and controls
- Operating controls and contingency procedures.

The institution must assign a rating based on its assessment to each of the above components and then combine the ratings to determine the appropriate net debit cap category. Part E of this section provides a matrix that must be used to combine the four components into a single rating. Appendix A contains worksheets that should be used in conducting an assessment. A Reserve Bank reserves the right to evaluate independently the four factors of an institution's self-assessment. If the Reserve Bank arrives at an overall rating that is lower than that determined by the institution, the Reserve Bank's evaluation will determine the institution's cap category. In addition, section II of this manual provides information on filing a resolution to establish the cap once the self-assessment has been completed, and appendix B provides sample resolutions.

A. Creditworthiness Component

For most institutions, the appropriate net debit cap category is principally determined by the institution's most-recent supervisory ratings and, for domestically chartered institutions, the institution's capital category.[43] In the self-assessment, an institution's creditworthiness is assigned one of the following ratings: excellent, very good, adequate, or below standard. An excellent or a very good rating indicates that an institution has demonstrated a sustained level of financial performance above its peer group norm. As a general matter, fundamentally sound institutions that are experiencing only modest weakness will receive a rating of adequate. The financial performance of such institutions is usually at or just slightly below the peer norm.

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[42] An institution's cap category in combination with an institution's capital measure determines its net debit cap. Domestically chartered institutions use 100 percent of their risk-based capital as their capital measure. U.S. branches or agencies of foreign banks use a percentage of their worldwide capital, based on their financial holding company (FHC) status and their SOSA ranking, as their capital measure. For more information on the calculation of U.S. branch and agency capital measure calculation, please see section V.

[43] For the purposes of the self-assessment procedures, a domestically chartered institution's capital category is defined by the Federal Deposit Insurance Act.

If an institution's creditworthiness rating is adequate or higher, it may then proceed to rate the other three components in the self-assessment process, subject to the provisions regarding affiliated entities, discussed below. The institution's assessment of the other three key components will determine whether its composite rating will be lower than or equal to that determined by the creditworthiness component. The rating should be recorded in the assessment worksheet found in appendix A.

Matrix approach to assessing creditworthiness

In most instances, an institution's creditworthiness component is determined by the creditworthiness matrix, which translates an institution's supervisory rating and, for domestically chartered institutions, the institution's capital category, into a creditworthiness assessment. This approach is designed to simplify the process of assessing creditworthiness. Domestically chartered institutions should use table VI-1 to determine their creditworthiness component, and U.S. branches and agencies of foreign banks should use table VI-2.

Certain conditions, however, may affect the creditworthiness of the institution and, as a result, the Reserve Bank may require the institution to perform a full assessment of its creditworthiness. A full assessment of creditworthiness includes an assessment of capital adequacy, key performance measures (including asset quality, earnings performance, and liquidity), and the condition of affiliated institutions. The institution's primary regulator may review the full assessment. The Reserve Bank may, in consultation with the primary supervisor, deny an institution access to intraday credit or modify the institution's net debit cap. Examples of certain conditions that warrant an institution's performing a full assessment of its creditworthiness, regardless of an institution's supervisory ratings or capital category, are

- If the institution is a financial holding company (FHC) and is in a cure period[44]

- Any significant developments that may materially affect the financial condition or supervisory assessment of the institution.

Procedures for completing a full assessment of creditworthiness are contained in appendix A, along with the worksheets that may be used for this process. In its self-assessment submission, an institution performing a full assessment of creditworthiness must cite the critical factors that would support a proposed creditworthiness rating differing from that indicated by the matrix approach. For example, such factors might include the establishment of a firm plan to achieve a level of capital commensurate with a designation of adequately capitalized, which has been approved by the institution's primary supervisor and Reserve Bank. Significant enhancements in the institution's available liquidity or reductions in its problem assets could also be used to support a higher rating in the context of a full assessment of creditworthiness. However, the reasons for greater emphasis on other factors should be well documented in the submission by the institution's management. Regardless of the results of the full assessment of creditworthiness, the creditworthiness rating achieved is not necessarily related to or reflective of

[44] A cure period is a provisional time period where an institution is allowed to resolve issues related to its noncompliance with regulatory requirements.

the rating that would result from a regulatory examination.

Table VI – 1: Creditworthiness Matrix for Domestically Chartered Institutions*

Capital category	**Supervisory composite rating**[45]			
	Strong	*Satisfactory*	*Fair*	*Marginal or unsatisfactory*
Well capitalized	Excellent	Very good	Adequate	Below standard
Adequately capitalized	Very good	Very good	Adequate	Below standard
Undercapitalized	**	**	Below standard	Below standard
Significantly or critically undercapitalized	Below standard	Below standard	Below standard	Below standard

*If an institution has affiliates, the supervisory composite rating incorporates an assessment of the condition of affiliates. Appendix A contains worksheets that should be used to incorporate the condition of affiliates into the supervisory composite rating.

** Institutions that fall into this category should perform a full assessment of creditworthiness. A full assessment of creditworthiness includes an assessment of capital adequacy, key performance measures (including asset quality, earnings performance, and liquidity), and the condition of affiliated institutions.

Under the matrix approach, a domestically chartered institution with capital ratios within the category of well capitalized or adequately capitalized and with a supervisory composite rating of strong, satisfactory, or fair will generally qualify for a positive net debit cap category. An institution that has received a supervisory rating of marginal or unsatisfactory, or has capital ratios within the significantly or critically undercapitalized category would receive a *below standard* rating for creditworthiness and would not qualify for a positive net debit cap. A *below standard* rating would also be assigned if an institution received a supervisory rating of fair and its capital ratios fall within the undercapitalized category. In these situations, the primary supervisor will have communicated to the institution's directors and management its concerns with respect to capital, asset quality, or other less-than-satisfactory conditions. Supervisory actions will also have been initiated requiring prompt corrective action in order to prevent further impairment of the institution's viability. For institutions whose supervisory composite rating is

[45] Supervisory composite ratings, such as the Uniform Bank Rating System (CAMELS), are generally assigned on a scale from 1 to 5, with 1 being the strongest rating. Thus, for the purposes of the Creditworthiness Matrix, a supervisory rating of 1 is considered Strong; a rating of 2 is considered Satisfactory; a rating of 3 is considered Fair; and so on.

Strong or Satisfactory and whose capital ratios fall within the category of undercapitalized, the institution must perform a full assessment of creditworthiness.

Table VI – 2: Creditworthiness matrix for U.S. branches and agencies of foreign banks

SOSA ranking[46]	**U.S. Operations Supervisory Composite Rating***			
	Strong	*Satisfactory*	*Fair*	*Marginal or unsatisfactory*
SOSA 1	Excellent	Very good	Adequate	Below standard
SOSA 2	Adequate	Adequate	**	Below standard
SOSA 3	Below standard	Below standard	Below standard	Below standard

* When the FBO operates multiple branches and agencies in the United States, the U.S. Operations Supervisory Composite Rating should reflect the entire U.S. presence of the FBO. Because of the availability of supervisory ratings that reflect an FBO's entire U.S. presence, FBOs do not have to use appendix A to incorporate an affiliate's financial condition into the U.S. Operations Supervisory Rating.

** Institutions that fall into this category should perform a full assessment of credit worthiness. A full self-assessment includes an assessment of capital adequacy, key performance measures (including asset quality, earnings performance, and liquidity), and the condition of affiliated institutions.

U.S. branches and agencies of foreign banks that are ranked SOSA 1 or 2 and that have a U.S. Operations Supervisory Composite Rating of strong, satisfactory, or fair will generally qualify for a positive net debit cap. However, institutions that are ranked SOSA 2 and that have a U.S. Operations Supervisory Composite Rating of fair will have to perform a full assessment of creditworthiness in order to qualify for a positive net debit cap. An institution that has received a SOSA ranking of 3 or that has a U.S. Operations Supervisory Composite Rating of marginal or unsatisfactory would receive a below standard rating for creditworthiness and would not qualify for a positive net debit cap. In these situations, the primary supervisor will have communicated to the institution's directors and management its concerns with respect to capital, asset quality, or other less than satisfactory conditions.

Affiliated institutions

The Financial Institutions Reform, Recovery, and Enforcement Act of 1989 allows the Federal Deposit Insurance Corporation (FDIC) to hold an insured institution liable for any losses

[46] In October 2000, Strength of Support Assessment (SOSA) rankings were made available to foreign banking organizations' (FBOs') management and the FBOs' home country supervisor. For full text, see SR Letter 00-14 (SUP), *Enhancements to the Interagency Program for Supervising the U.S. Operations of Foreign Banking Organizations*, October 23, 2000.

incurred from the failure of a commonly controlled institution. Thus, an institution could become insolvent should the deposit insurer elect to assess the institution the costs incurred from a failed commonly controlled institution. For institutions that are affiliates of a multibank holding company, the creditworthiness rating would be affected if the condition of one or more of the commonly controlled institutions is deemed marginal or unsatisfactory by the primary supervisor and one or more of these institutions represents a material portion of the organization's consolidated assets or materially affects the organization's consolidated operations. Appendix A contains worksheets that should be used to incorporate the condition of affiliates into the supervisory composite rating. This situation may arise when a supervisory agency discloses material operating or financial weakness within the parent company, or affiliated institutions, that pose significant risk to an institution. When such situations arise, the Reserve Bank will assign the institution a zero cap.

If the parent company and related affiliates are in satisfactory condition, no further adjustment needs to be made to the results of the institution's self-assessment. Such findings will normally be supported by evidence that the holding company serves as a source of strength to the institution; that is, it is willing and able to provide capital contributions or other managerial and financial support to the institution. If the management performing the assessment does not have the information needed for assessing the condition of affiliated institutions, it should confer with the financial officers of the holding company.

U.S. branches and agencies of foreign banks

An FBO should undergo the same self-assessment process as a domestic bank in determining a net debit cap for its U.S. branches and agencies. U.S. branches and agencies of foreign banks, however, cannot be separated from the FBO. As a result, all of the U.S. offices of FBOs (excluding U.S.-chartered bank subsidiaries and U.S.-chartered Edge subsidiaries) should be treated as a consolidated family relying on the FBO's capital.

In addition, because many FBOs do not have the same management structure as U.S. institutions, the FBO may need to adjust its internal review of its self-assessment and cap category. If an FBO's board of directors has a more-limited role in the bank's management than a U.S. board has, the self-assessment and cap category should be reviewed by senior management at the FBO's head office that exercises authority over the FBO equivalent to the authority exercised by a board of directors over a U.S. institution. In cases in which the board of directors exercises authority equivalent to that of a U.S. board, cap determination should be made by the board of directors.

In addition, for FBOs, the file that is made available for examiner review by the U.S. offices of an FBO should contain the report on the self-assessment that the management of U.S. operations made to the FBO's senior management and a record of the appropriate senior management's response or the minutes of the meeting of the FBO's board of directors or other appropriate management group, at which the self-assessment was discussed.

Because the creditworthiness of the U.S. branch or agency of a foreign bank reflects the creditworthiness of the entire organization and the condition of the U.S. operations, the Federal

Reserve's PSR program uses SOSA rankings and U.S. Operations Supervisory Composite Ratings to determine an FBO's creditworthiness. In addition, if the ARB is unable to obtain adequate information regarding the creditworthiness of the institution, the ARB may assign the institution a net debit cap of zero.

Supervisory examination and rating information relating to domestically chartered institutions and foreign banking organizations.

Examination reports and any correspondence from supervisory agencies regarding the institution's condition, including supervisory ratings and any of its components, are considered confidential information. Consequently, an institution's management must ensure that supervisory information is provided only to appropriate individuals within the institution, supervisory agencies, and Reserve Banks.

B. Intraday Funds Management and Control

The purpose of the analysis of intraday funds management and control is to assess an institution's ability to fund its settlement obligations on a daily basis across all payment systems in which it participates. The analysis requires the involvement of funds management, credit, and operations personnel and a review of payments activity over a period of time. A Payment Flows Worksheet is provided in appendix A (table A-3) to assist institutions in analyzing their daily payment activity.

To obtain a complete understanding of its funds movements, an institution should have a good understanding of its daily use of intraday credit as well as its use of intraday credit on average over two-week periods. The analysis should cover a sufficient period of time so that an institution can determine its peak demand for intraday credit and can also establish its average use of such credit. The more volatile an institution's payments activity, the longer the interval that should be selected for analysis. The analysis will need to incorporate all operational areas with access to payments systems. In addition to large-dollar funds and book-entry securities transfer activity, the review should address check clearing, ACH, currency operations, and other payment activity that results in relatively large-value settlement obligations. Thus, the analysis should not be limited to on-line payment systems, nor should it be limited to payment systems to which the institution has on-line access. Additionally, institutions with direct access to Fedwire or other payment systems in more than one Federal Reserve District must combine all of these access points into a single integrated analysis.

In performing the analysis, the institution should consider both liquidity demands and the potential credit risks associated with participation in each payment system. The institution's capacity to settle its obligations in both routine and nonroutine circumstances should be carefully assessed. A complete assessment of an institution's ability to control its intraday obligations extends, in many cases, beyond its ability to control its use of Federal Reserve intraday credit within the constraints of its net debit cap. Importantly, it also extends to the institution's ability to control its position across all payment systems to a level that permits it to fund its obligations on a regular basis. This type of assurance requires an institution to understand fully the nature of its obligations and to establish systems that permit it to monitor daily activity and to respond to unusual circumstances.

Liquidity requirements

An institution participating on one or more large-dollar clearing and settlement systems must manage its position on each system, comply with net debit caps or other risk controls on each system, and assure itself that it has the capacity to satisfy all of its settlement obligations each business day. Other privately operated, large-dollar systems used by institutions include the Clearing House Interbank Payments System (CHIPS) and Depository Trust Company (DTC).

To assess its average daily liquidity requirements, an institution participating on multiple systems should determine the magnitude and relative importance of the various payments flowing through its Federal Reserve account as well as the payments flowing over each privately operated clearing and settlement system. For each payment service used, liquidity sources should be assessed to determine whether sufficient funding is regularly obtainable to satisfy obligations. In making this assessment, an institution should consider the creditworthiness of its counterparties as well as its customers. In addition, it should consider potential liquidity demands associated with the default of another participant in a privately operated clearing and settlement arrangement, such as CHIPS, DTC, a local check clearinghouse, a privately operated ACH system, an automated teller machine or point-of-sale network, or a credit card settlement arrangement. The institution's capability to obtain the necessary funding before the end of a business day in the event that a major counterparty, correspondent, customer, or member of a privately operated clearing and settlement system were to default on its net settlement obligations is particularly important in this assessment.

For example, if a customer that is an active user of payment services and also a significant user of intraday credit were unable to cover its settlement obligations, an institution would need to be able to fund those obligations by the close of business on the given settlement day. Similarly, if a participant in a local check clearing arrangement were to default on its settlement obligation, it is likely the settlement for that arrangement would be recast and each of the other participants in the arrangement would experience a change in its net settlement obligation. Participants in such arrangements should review the rules of the arrangement and determine the credit and liquidity risks to which they are exposed. In each of these cases, management should ensure that it has the capability to obtain the necessary funding late in the day to cover such unexpected occurrences.

Monitoring and control capabilities

Once the payment environment has been defined, the institution should evaluate its account monitoring capability. Organizations that have branches operating in more than one Federal Reserve District and have more than one Federal Reserve account, such as U.S. branches and agencies of foreign banks, should determine how the institution's net debit cap will be allocated across its accounts, and each office maintaining a Federal Reserve account should be responsible for monitoring its account within the constraint of its cap allocation. At the same time, one office should be assigned the responsibility to oversee consolidated payment activity, and the self-assessment should reflect the monitoring capability of the consolidated entity. The designated office will be expected to be knowledgeable of the payment activity at all offices and be able to respond to questions received from the Federal Reserve or the institution's primary supervisor.

Monitoring capabilities may be classified as real-time or periodic. A real-time monitoring system accounts for each large-dollar funds transfer, book-entry securities transfer, and net settlement entry as it is sent or received and recognizes "off-line" activity, such as check and ACH, as data become available or in a manner that reflects the Federal Reserve's posting rules for payments settled through Federal Reserve accounts.[47] Institutions participating on multiple large-dollar systems may use several monitoring systems to track activity. A periodic monitoring system provides balance information reflecting Fedwire funds and book-entry securities transfer activity or other large-dollar transactions, such as CHIPS messages, plus off-line transactions at specific intervals, such as every fifteen minutes, thirty minutes, or hour.

C. Customer Credit Policies and Controls

The assessment of an institution's customer credit policies and controls requires the following distinct analyses:

- An analysis of the institution's policies and procedures for assessing the creditworthiness of its customers, its counterparties, and its correspondents

- An analysis of the institution's ability to monitor the positions of individual customers and to control the amount of intraday and interday credit extended to each customer.

The analyses require the involvement of both credit and operations personnel and should focus on the creditworthiness of all customers, including corporate and other institutions, that are active users of payment services. In addition, the creditworthiness of correspondents and all counterparties on privately operated clearing and settlement systems should be assessed.

For institutions that have arranged with a third-party service provider to process payments, it is recognized that certain operational controls may be established in either the funds and book-entry securities transfer operation of the service provider or the institution's own operation, depending on the nature of the arrangement. In any case, the standards for customer credit control and monitoring are to be applied uniformly and extended to the service provider's operation as appropriate.[48]

General credit policies

The assessment of credit policies is one of the most important components of the self-assessment because credit policies are essential in controlling the risks faced by the institution. The purpose of this analysis is to evaluate how effectively an institution controls the credit risk to

[47] The schedule of posting rules is located in part II of the PSR policy, available at www.federalreserve.gov/paymentsystems/psr/policy.pdf

[48] For more information, please see *Outsourcing of Information and Transaction Processing*, SR Letter 00-4, February 29, 2000.

which it is exposed in extending interday and intraday credit in connection with the provision of payment services to customers that maintain accounts with the institution. The section also addresses the credit risk faced by the institution from correspondents and counterparties on privately operated clearing and settlement arrangements. There are several elements to the analysis. First, the institution's formal credit policies should be assessed. Second, customers that are active users of payment services should be identified, as should the institution's correspondents and counterparties on privately operated clearing and settlement systems. Third, the approach used to assess the creditworthiness of customers and correspondents and the method used to establish credit limits for counterparties on privately operated clearing and settlement systems should be reviewed.

Sound credit policies should address all credit relationships the institution has with a customer, both explicit lending and intraday lending as a result of providing payment services. Fundamentally, the institution must establish

- Formal, written credit policies that articulate sound credit standards that are approved by the institution's board of directors

- Procedures to ensure that policies are communicated, understood, and faithfully executed

- Controls at the customer level to ensure that the credit evaluations of individual customers or decisions concerning limits on interday and intraday credit extensions are followed.

Identification of customers, correspondents, and counterparties

An institution should review its customers' payment activity to identify those customers that are active users of payment services. These customers should be classified according to the peak value of payments and the types of services used, such as large-dollar funds transfers, book-entry government securities transfers, other large-dollar securities services (such as commercial paper), ACH, and check. It is important to be familiar with the types of payments services that each customer uses because of the unique risks that various services may pose to the institution.

An institution should also review the financial condition of correspondents with which it transacts business such as clearing checks, obtaining securities safekeeping services, and obtaining securities transfer services. The institution should ensure, on a regular basis, that the financial condition of all correspondents is satisfactory. If signs of deterioration are observed, steps should be taken to reduce balances and the volume of activity conducted through the correspondent.

In addition, an institution should evaluate its counterparties on all large-dollar clearing and settlement systems that require participants to set bilateral credit limits with each other. Some clearing and settlement systems, such as securities depositories and ACH systems, manage the credit risk posed by participants centrally. In these systems, individual participants may not be able to control explicitly the exposure they face from other participants by setting credit limits. For these types of systems, institutions should assess the exposure they might face due to a participant's default by assessing the value of transactions exchanged with other participants or the loss allocation methodology employed by the system. Institutions should ensure that they would have the ability to fund a change in their settlement position were a participant on such a system unable to settle.

Assessment of customer, correspondent, and counterparty creditworthiness

For all accountholders that are identified as being active users of payment services, whether they are financial institutions or corporate customers, the institution should evaluate each customer's creditworthiness and determine the amount of intraday credit it is willing to provide to each customer. The establishment of intraday credit limits should be consistent with the institution's overall relationship with the customer. In addition, such credit limits should be set conservatively and should not exceed a customer's typical payment needs, even if the customer has a very high credit rating. Credit limits should be comprehensive and cover all payments processed on behalf of each customer. Further, for customers that use ACH services or other services that create interday risk, interday credit limits (or prefunding requirements that would preclude credit extensions) for such services should be established as well.

If an institution deals with correspondents, the institution should determine the value of transactions cleared through each correspondent as well as other exposures that it faces from each correspondent and establish limits on those exposures that reflect the institution's assessment of the creditworthiness of each correspondent. In the case of counterparties on privately operated large-dollar clearing and settlement systems, institutions should determine the amount of credit they are willing to extend to each of the other participants on the system. These limits should be set conservatively, and they should take into consideration other exposures to the counterparty, such as correspondent and respondent relationships and other privately operated systems on which the institution participates.

For accountholders as well as correspondents and counterparties on private clearing and settlement systems, changes in payment practices as well as changes in financial condition should be monitored on a regular basis. If changes are identified, steps should be taken to reassess credit limits, direct payment activity to other institutions, change bilateral credit limits, or modify the methods used to control the payment services provided to the institution.

Monitoring customer activity

Once the active customers have been identified, the systems used to monitor those customers' payment activity, both intraday and interday, should be reviewed. These systems need not be complex automated systems that fully integrate every transaction. Rather, the systems should monitor and control all significant transactions processed for the customer. It is reasonable to assume that all large-dollar funds and book-entry securities transfers should be included in any monitoring system. If the customer collects high-dollar volumes of checks, uses the ACH mechanism extensively, makes large cash deposits, or is an active participant in securities markets, such activity should also be reflected in monitoring systems. Additionally, if the institution decides not to include certain types of transactions in monitoring systems on a regular basis, procedures should be established to track other transactions that might materially affect the customer's' use of intraday and interday credit.

In many institutions, separate monitoring systems have been established to monitor customer activity by type of business, such as funds activity or government securities activity, or to monitor each of a customer's accounts separately. While such approaches can be used to control risk through the allocation of credit limits among the various monitoring systems, they do not permit institutions to observe closely the aggregate position of a customer and to identify unusual behavior quickly. Attempts should be made to establish interfaces among diverse monitoring systems. Such interfaces could be achieved by providing access to all monitoring systems to the account officer or by designating a primary system to which data could be fed from other systems periodically to provide one consolidated view of customers' intraday and interday positions.

Intraday Payment Activity. Intraday monitoring systems should reflect the customer's opening balance at the beginning of the day, and material transactions should be posted to the account as information regarding the transactions becomes available throughout the day. If certain customers are required to pledge collateral to protect the institution providing credit to them, procedures should ensure that the collateral is acceptable. Monitoring systems should capture the market value or other assigned value of the collateral and ensure that intraday extensions of credit are adequately secured. Further, monitoring systems must have the capability to identify any transaction that would result in a credit limit being exceeded and to hold that transaction until an account officer reviews it and determines how the transaction should be handled.

To control the risk associated with clearing and settling for book-entry securities transfers, institutions should assess the creditworthiness of their customers and ensure that the customer has the ability to fund consistently its daily activity. In this respect, it is important for institutions to understand the intraday flows associated with their customer's book-entry securities activity in order to gain an understanding of peak funding needs. Depending upon the creditworthiness of the customer and the nature of the activity, an institution might require its customers to take any or all of the following steps:

- Advise the institution of expected incoming securities transfers.

- Prefund all such transfers, with the understanding that any transfer not prefunded may be returned.

- Collateralize all intraday overdrafts.

Interday Payment Activity. To control interday risk arising from the origination of ACH credit transactions, institutions should also establish interday monitoring systems. The credit limits in those systems should be set in conjunction with each customer's overall interday credit limit. Institutions should periodically assess the creditworthiness of their customers and ensure that the established credit limits continue to be appropriate. For customers in weak financial condition, institutions should have the capability to pend or reject, in real time, transactions that would exceed credit limits for these customers.

To control the return item risk associated with originating ACH debit transactions and collecting checks on behalf of customers, an institution should ensure that each customer has the capability to pay return items after it has been granted funds availability by the institution. In addition, if a customer's financial condition begins to deteriorate, the institution should analyze the customer's return-item history and delay availability of funds or place holds on the account, as appropriate.

D. Operating Controls and Contingency Procedures

The purpose of the analysis of operating controls and contingency procedures is to assess the integrity and the reliability of an institution's payment operations to ensure that they are not a source of operating risk. The integrity of operations is of particular concern because operational errors and potential fraud can increase the cost of payment services and can undermine the confidence of the public in the payments mechanism. Similar results can occur if payment systems are unreliable and parties making and receiving payments do not have confidence that payments will be made on a timely basis.

The analysis of operating controls and contingency procedures is divided into two parts. The first part discusses the principal controls that institutions should use in payment processing to ensure that their operations are safe and secure. The second part discusses briefly the need for sound contingency procedures as a means of increasing payments system reliability.

Controls over payment operations

Institutions providing electronic payment services should be aware of and employ a comprehensive set of controls designed to ensure the integrity of payments and the processing system, limit access to devices and systems to authorized personnel, and prevent fraudulent or erroneous messages or payments from being initiated.

Within each broad category of controls there are numerous alternative solutions that may be employed depending on the technology available, staffing levels, and the nature of the customer base. The following discussion outlines the general controls that should be implemented, the rationale for each control, and some examples of typical control arrangements.

Integrity of payments processing systems. Virtually all electronic payments systems use computer software to process payments. Institutions should ensure that software is tightly controlled so that it cannot be modified inadvertently or for fraudulent purposes. Methods of accomplishing this include (1) using dual controls for changes to the production environment, (2) conducting extensive user testing involving a wide range of test cases, (3) limiting the number of people who have access to the system to a necessary few, (4) ensuring that the version of software that is tested is, in fact, the version put into production, and (5) limiting access to system documentation only to authorized users.

On-line access to the payments-processing system. Once an electronic payments system is put into production, the ability for employees or customers to initiate transactions should be strictly limited to authorized individuals. Furthermore, the accuracy and validity of payments created by authorized staff should be regularly monitored. Methods of accomplishing this include (1) limiting physical access to payment-origination facilities, such as terminals, (2) using log-on IDs and passwords, (3) changing passwords regularly and making sure they are not written down or available to others, (4) using message authentication codes to ensure that payments are not altered during storage or transmission, (5) establishing dual controls over message creation (one person keys in, another person validates), and (6) maintaining good audit trails of payments originated and received.

Off-line payment initiation and delivery processes. Electronic payment fraud may result from poor controls over off-line payment initiation or delivery; "off-line" refers to the use of telephones, letters, or facsimile machines. Institutions must ensure that messages originate from and are delivered to authorized parties. In all cases, message integrity must be maintained. Because access to a telephone or facsimile machine is difficult to control, the normal on-line access controls cannot be used. Consequently, institutions should use procedures such as (1) maintaining authorized lists of institution or customer personnel who can send or receive payments, (2) using controlled code words known only to the two parties, (3) using multi-party call-back procedures, (4) recording and monitoring telephone calls, and (5) using sequence numbering schemes for maintenance of audit trails.

Authorized staff. Care should always be taken to screen personnel employed in or with access to electronic payments areas, including programmers, analysts, computer operators, managers, clerical staff, and custodial staff. Management should have complete confidence in the honesty and integrity of all involved staff members. Controls, subject to appropriate statutes, that can be employed could include the following: pre-employment screening, ongoing monitoring of potential conflicts of interest, immediate removal from sensitive positions or system access of personnel who have resigned or been terminated, and specific security controls over access to offices and machines during nonbusiness hours.

Contingency procedures

Despite the current level of automation and technology in use in the financial industry, situations arise that can cause significant interruptions in the provision of electronic payments services. These interruptions can entail outages of short duration, such as temporary losses of power and breaks in telecommunications, or longer, sometimes indefinite, outages, which may be caused by fire, flood, and earthquake. Such occurrences not only place an institution and its customers at risk but also can have serious systemic risk implications in the case of a very large institution. When computer systems are not operational during such events, account balances may be unavailable and normal investment and trading capabilities may be interrupted.

Contingency procedures should be devised to cover three main areas of exposure: (1) hardware and software systems, (2) data communications systems, and (3) physical operations facilities. The following paragraphs outline the general areas of consideration and provide some examples of typical control arrangements.

Hardware and software systems. Virtually any hardware or software system can experience problems that cause normal processing to stop. Institutions should devise and periodically test backup procedures to ensure that processing can be resumed on a sufficiently timely basis to minimize institutional risk.

Techniques that can be employed to mitigate this risk include the following: (1) redundant hardware and software to replace or take over operations from inoperable systems, (2) off-line backup plans, accommodating a limited number of key electronic files or payments, and (3) off-site disaster recovery facilities where computer operations can continue in case of a major outage.

Data communications systems. It is possible for telecommunications facilities to be unavailable to an institution even though computer systems are still running. Consequently, institutions should have backup facilities for all key data communications capabilities, including data security devices, to ensure that breaks in telecommunications service do not cripple the institution's operations and services. Techniques that can be used include backup leased or dial access lines to in-house systems, external networks, and key customer locations, spare or redundant equipment for such devices as modems, encryption boxes, and controllers, and off-line communications procedures, where feasible.

Physical operations facilities. Electronic funds transfer operating areas, including the area's desks, telephones, terminals, personal computers, copying machines, and facsimile machines, could be disabled in the event of a site disaster. Consideration should be given to the following options:

- Identifying an alternate physical facility into which operations staff can be relocated

- Developing plans to acquire or use terminals, personal computers, and other necessary office equipment

- Installing and testing telecommunications capabilities to the backup site.

Minimizing operating risk in a contingency situation is a difficult task that requires significant advance planning. Plans should be fully documented, regularly reviewed, and tested to ensure that changes are accommodated over time, and that all personnel are familiar with their responsibilities.

E. Overall Self-Assessment Rating

Table VI-3 integrates the components of the self-assessment into an overall self-assessment rating that indicates the institution's appropriate net debit cap category, subject to Reserve Bank approval.

Table VI-3

Combined Assessment of Cap Category

Credit-worthiness	**Intraday funds management & control**	**Customer credit policies & controls**	**Operating controls & contingency procedures**	**Overall assessment (cap category)**
Excellent	Strong	Strong	Satisfactory	**High**
Excellent	Strong	Satisfactory	Satisfactory	**Above average**
Excellent	Satisfactory	Strong	Satisfactory	**Above average**
Excellent	Satisfactory	Satisfactory	Satisfactory	**Above average**
Very good	Strong	Strong	Satisfactory	**Above average**
Very good	Strong	Satisfactory	Satisfactory	**Average**
Very good	Satisfactory	Strong	Satisfactory	**Average**
Very good	Satisfactory	Satisfactory	Satisfactory	**Average**
Adequate	Strong	Strong	Satisfactory	**Average**
Adequate	Strong	Satisfactory	Satisfactory	**Average**
Adequate	Satisfactory	Strong	Satisfactory	**Average**
Adequate	Satisfactory	Satisfactory	Satisfactory	**Average**
Below standard	Any rating	Any rating	Any rating	**Zero**
Any rating	Unsatisfactory	Any rating	Any rating	**Zero**
Any rating	Any rating	Unsatisfactory	Any rating	**Zero**
Any rating	Any rating	Any rating	Unsatisfactory	**Zero**