

**Guide to the Federal Reserve's
Payment System Risk Policy
on Intraday Credit**

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Preface

The *Guide to the Federal Reserve's Payment System Risk Policy on Intraday Credit* was developed to assist depository institutions in complying with the Federal Reserve Policy on Payment System Risk (PSR policy).¹ The Board adopted the PSR policy to address the risks that payment and settlement activity present to the financial system and to the Federal Reserve Banks (Reserve Banks).

The Guide contains detailed information on the steps necessary for depository institutions to comply with the Federal Reserve's policies on intraday credit (part II of the PSR policy). Any institution using Federal Reserve intraday credit, regardless of the amount, should monitor its Federal Reserve account balance on an intraday basis and should understand the risks and costs 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 http://www.federalreserve.gov/paymentsystems/psr_policy.htm.

I. Introduction

The Federal Reserve Board (the 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 intraday 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 govern depository institutions' use of intraday Federal Reserve credit, or "daylight overdrafts," which is the primary focus of this document.² A daylight overdraft occurs when an institution's Federal Reserve account is in a negative position at any point during the business day.

A. Policy History

The Federal Reserve first published a policy on risks in large-dollar payment systems in 1985.³ 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.⁴

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.⁵ 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.⁶ 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, and changes to the calculation of foreign banking organizations' (FBOs') U.S. capital equivalency.⁷

In 1994, the Board began assessing a fee of 24 basis points for an institution's average daily overdrafts in excess of a deductible of 10 percent of the institution's risk-based capital.⁸ The purpose of the fee was to induce behavior that would reduce risk and increase efficiency in the payment system. At the same time, to facilitate the pricing of daylight overdrafts, the Board

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 Act and agreement corporations, bankers' banks that have not waived their exemption from reserve requirements, limited-purpose trust companies, government-sponsored enterprises, and international organizations, unless the context indicates a different reading.

³ See 50 FR 21120, May 22, 1985.

⁴ 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. A complete list of marks owned by the Federal Reserve Banks is available at FRBservices.org.

⁵ See 52 FR 29255, August 6, 1987.

⁶ See 54 FR 26104, June 21, 1989.

⁷ See 55 FR 22092, May 31, 1990.

⁸ See 57 FR 47084, October 14, 1992.

modified its method of measuring daylight overdrafts to reflect better the timing of transactions affecting an institution's intraday Federal Reserve account balance.⁹ This measurement method incorporates specific account posting times for different types of transactions.

In 1995, the Board raised the daylight overdraft fee to 36 basis points.¹⁰ Because aggregate daylight overdrafts fell approximately 40 percent after the initial introduction of fees, the Board did not raise the fee further as was initially contemplated because it was concerned that further increases 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, payment, and regulatory environment, the Board conducted a broad review of the Federal Reserve's intraday credit policies. The Board 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 found that the policy was generally effective, it identified growing liquidity pressures among certain payment 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 intraday credit policies culminated in its 2001 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.¹¹ The net debit cap plus the additional capacity is referred to as the "maximum daylight overdraft capacity" or "max cap." This policy also contained changes to the calculation of net debit caps for U.S. branches and agencies of FBOs to allow certain FBOs to access increased amounts of intraday credit.

In 2004, the Board announced two policy revisions pertaining to government-sponsored enterprises (GSEs) and certain international organizations.¹² At that time, Reserve Banks

⁹ Before the Board's modification of the daylight overdraft posting rules, Fedwire funds and 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 Clearing House (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 securities debits during the day but postpone the need to cover nonwire net debits until the close of the day.

¹⁰ See 57 FR 47093, October 14, 1992.

¹¹ See 60 FR 12559, March 7, 1995.

¹² 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.

See 66 FR 64419, December 13, 2001.

¹² See 69 FR 57917, September 28, 2004.

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.¹³ Effective July, 2006, the Reserve Banks release interest and redemption payments on securities issued by GSEs and certain international organizations only when the issuer's Reserve Bank account contains sufficient funds to cover the payments. This 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 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.¹⁴ At the same time, the Board revised its general risk-management expectations for all systems subject to the policy, including Federal Reserve payment and securities settlement systems such as the Fedwire Funds Service and FedACH@.¹⁵ 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, which contained 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 intraday credit procedures and that specific guidance is no longer necessary.

In 2007, the Board approved changes to part I of the PSR policy that revised the expectations for systemically important payment and settlement systems subject to the policy and updated and clarified the policy with regard to central counterparties.¹⁶ Under the revised policy, the Board adopted the *Recommendations for Central Counterparties* (RCCP) and set an expectation that systemically important payment and settlement systems subject to the Board's authority periodically complete and disclose publicly self-assessments against the relevant principles and minimum standards set forth in the policy.

In 2008, the Board adopted major revisions to part II of the PSR policy designed to improve intraday liquidity management and payment flows for the banking system, while also helping to mitigate the credit exposures of the Federal Reserve Banks.¹⁷ The changes include a new approach that explicitly recognizes the role of the central bank in providing intraday balances and credit to healthy depository institutions, a zero fee for collateralized daylight overdrafts, a 50 basis point (annual rate) charge for uncollateralized daylight overdrafts, and a biweekly daylight overdraft fee waiver of \$150. In addition, the Board adopted changes to other elements of the PSR policy dealing with daylight overdrafts, including adjusting net debit caps,

¹³ All times noted in this document are in eastern time.

¹⁴ See 69 FR 69926, December 1, 2004.

¹⁵ "FedACH" is a registered service mark of the Federal Reserve Banks. A complete list of marks owned by the Federal Reserve Banks is available at FRBservices.org.

¹⁶ See 72 FR 2518, January 19, 2007.

¹⁷ See 73 FR 79109, December 24, 2008.

eliminating the current deductible for daylight overdraft fees, and increasing the penalty daylight overdraft fee to 150 basis points (annual rate). The changes became effective March 24, 2011.¹⁸

B. Overview of the PSR Policy

The PSR policy aims to foster the safety and efficiency of payment and settlement systems. These policy objectives are consistent with (1) the Board's long-standing objectives to promote the integrity, efficiency, and accessibility of the payment system; (2) industry and supervisory methods for risk management; and (3) internationally accepted risk-management principles and minimum standards for systemically important payment and settlement systems.¹⁹

Through this policy, the Board expects financial system participants, including the Reserve Banks, to reduce and control settlement and systemic risks arising in payment and settlement systems, consistent with the smooth operation of the financial system. The PSR policy is designed to fulfill that aim by (1) making financial system participants and system operators aware of the types of basic risks that arise in the settlement process and the Board's expectations with regard to risk management, (2) setting explicit risk-management expectations for systemically important payment and settlement systems, and (3) establishing the policy conditions governing the provision of Federal Reserve intraday credit to account holders.²⁰

Part I of the PSR policy sets out the Board's views, related principles, and minimum standards for managing risks in payment and settlement systems, including those operated by the Reserve Banks that expect to settle a daily aggregate gross value exceeding \$5 billion on any day during the next twelve months.²¹

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

¹⁸ See 75 FR 60749, October 1, 2010.

¹⁹ For the Board's long-standing objectives in the payment system, see "The Federal Reserve in the Payments System," September 2001, FRRS 9-1550.

²⁰ Basic risks in the payment and settlement systems are credit risk, liquidity risk, operational risk and legal risk. The Board's PSR policy in no way diminishes the primary responsibilities of financial system participants generally and settlement system operators, participants, and Federal Reserve account holders more specifically, to address the risks that may arise through their operation of, or participation in, payment and settlement systems.

²¹ 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, securities, or other 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.

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.

Part II of this policy governs the provision of daylight overdrafts in accounts at the Reserve Banks and sets out the general methods used by the Reserve Banks to control their intraday credit exposures. The Reserve Banks provide temporary, intraday credit to healthy depository institutions, predominantly through collateralized daylight overdrafts.

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 could be significant. Aggregate daylight overdraft data are available at http://www.federalreserve.gov/paymentsystems/psr_data.htm.

The PSR policy enables Reserve Banks to control their exposure to credit risk in four ways. First, institutions that access intraday credit must satisfy safety and soundness requirements. In general, institutions that do not meet safety and soundness requirements are not given access to intraday credit. Lending to healthy institutions reduces the risk of loss to the Reserve Banks because these institutions do not pose a high risk of an intraday failure. Second, the PSR policy establishes limits on the amount of Federal Reserve intraday 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 actively monitoring and restricting account activity, removing intraday capacity, or imposing collateral requirements. Fourth, the policy provides incentives for institutions with regular access to the discount window to pledge collateral voluntarily to secure daylight overdrafts. Institutions with regular access to the discount window that secure their use

of intraday credit with collateral are not charged for their fully collateralized daylight overdrafts. Because the Board continues to recognize explicitly the risks inherent in the provision of intraday credit, institutions that incur uncollateralized overdrafts will be charged a fee. In applying this fee, the Board anticipates that over time, institutions will elect to pledge collateral to secure daylight overdrafts rather than incur fees for their use of intraday credit.

The Board expects institutions to manage their Federal Reserve accounts and to not exceed their intraday credit limits.

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, National Settlement Service (NSS), or Automated Clearing House (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 intraday Federal Reserve credit that the institution may use during a given interval. The policy allows financially healthy institutions that are eligible to have regular access to the discount window to incur daylight overdrafts in their Federal Reserve accounts up to their individual net debit caps.²² 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 authorized by the Reserve Bank. As discussed in Section V of this guide, institutions that are eligible for regular access to the discount window are only charged for uncollateralized daylight overdrafts. With the exception of institutions that apply for and are granted a max cap by their Reserve Bank as discussed in Part C of this section, the amount of collateral pledged does not impact the amount of an institution's net debit cap.

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 VI of this manual for more information on net debit caps.²³

A. Net Debit Caps

An institution's net debit cap refers to the maximum dollar amount of daylight overdrafts that it may incur in its Federal Reserve account. An institution's cap category and its capital measure determine the dollar amount of its net debit cap.²⁴ An institution's net debit cap is calculated as its cap multiple times its capital measure:

²² 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.

²³ 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.

²⁴ Information on capital measures for different types of institutions and related regulatory reports is provided in appendix C.

$$\text{net debit cap} = \text{cap multiple} \times \text{capital measure}$$

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.

The policy defines six cap categories: zero, exempt-from-filing, de minimis, average, above average, and high. Each cap category is associated with a cap multiple, as shown in table II-1 below.

Table II-1
Cap Multiple Table

Cap Categories	Cap Multiples
Zero	0.0
Exempt-from-filing*	\$10 million/0.20
De minimis	0.40
Average	1.125
Above average	1.875
High	2.25
*The net debit cap for the exempt-from-filing category is equal to the lesser of \$10 million or 0.2 multiplied by a capital measure.	

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 greater than \$10 million or 20 percent of their capital measure 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.

1. 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 that are not eligible for 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 corrects its recurring overdrafts and 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.

2. *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 intraday 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.

3. *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, 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 intraday 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.

4. 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 the 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 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 VII 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 payment processing.

C. Maximum 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" or "max cap." This policy is intended to provide extra liquidity through the use of collateral by the few institutions that might otherwise be constrained.

1. General procedure²⁵

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.²⁶ Under the general procedure, 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.

The Reserve Bank will work with an institution that requests additional daylight overdraft capacity to determine the appropriate maximum daylight overdraft capacity level. In considering the institution's request for maximum daylight overdraft capacity, the Reserve Bank will evaluate the institution's rationale for requesting additional daylight overdraft capacity as well as financial and supervisory information.

An institution approved for a maximum daylight overdraft capacity level under the general procedure must submit at least once in each twelve-month period a board of directors' resolution indicating its board's approval of that level. (Appendix B provides a sample resolution.)²⁷

2. Streamlined procedure for certain foreign banking organizations (FBOs)

An FBO that is a FHC or has a SOSA rating of 1 and has a self-assessed net debit cap may request from its Reserve Bank a streamlined procedure to obtain maximum daylight overdraft capacity for its U.S. branches and agencies. These FBOs are not required to provide

²⁵ General procedure applies to all institutions, except FBOs obtaining a max cap under the streamlined procedure, described further in this section.

²⁶ 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.

Institutions may apply 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. Institutions incurring daylight overdrafts as a result of other payment activity may be eligible for administrative counseling flexibility (See 59 FR 54915, November 2, 1994).

²⁷ Many FBOs 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.

documentation of the business need or a board of directors' resolution for collateralized capacity in the amount that exceeds its current net debit cap (which is based on up to 35 percent of worldwide capital times its cap multiple), as long as the requested total capacity is 100 percent or less of worldwide capital times the self-assessed cap multiple of the U.S. branch or agency. The Reserve Bank will assess the ability of eligible FBOs to manage the intraday capacity permitted by the streamlined max cap as part of its review of relevant financial and supervisory information. The Reserve Bank, in consultation with the home country supervisor, would engage in initial as well as periodic dialogue with the institution that would be analogous to the periodic review of liquidity plans performed with U.S.-chartered institutions to ensure that the institution's intraday liquidity risk is managed appropriately.²⁸ If an eligible FBO requests capacity in excess of 100 percent of worldwide capital times the self-assessed cap multiple of its U.S. branch or agency, it would be subject to the general procedure.

3. Determination of the max cap amount under general and streamlined procedures

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:

$$\text{maximum daylight overdraft capacity} = \text{net debit cap} + \text{collateralized capacity.}^{29}$$

The institution's maximum daylight overdraft capacity limit is equal to its net debit cap plus its collateralized capacity. The institution is expected to avoid incurring daylight overdrafts that would exceed this limit. The Reserve Banks will review the status of any institution that exceeds its maximum daylight overdraft capacity limit during a single day and will decide if the maximum daylight overdraft capacity should be maintained or if additional action should be taken (see section IV.B.).

4. Collateral pledged for max cap purposes

All collateral that institutions pledge to the Reserve Banks must be acceptable to the Reserve Banks.³⁰ A self-assessed institution that has been approved for maximum daylight

²⁸ The liquidity reviews will be conducted by the administrative Reserve Bank. The liquidity review may include, but is not limited to, verification of the FBO's most-recent capital information; FHC/SOSA status; review of recent examinations/reviews and/or internal and external audits of payment system and electronic funds transfer operations, including the PSR self-assessment documentation, review of funding/liquidity risk framework of the FBO's U.S. operations; and consultation with the FBO's home country supervisor. At its discretion, the ARB may require additional information from any FBO, including information on the FBO's global liquidity/funding policies, procedures, and limits. The ARB may review liquidity management reports, interview the FBO's management, and require the FBO to submit periodic liquidity reports in the format determined by the Reserve Bank.

²⁹ 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 net debit cap. For example, if an institution's 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.

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. Collateral pledged to support a max cap offsets daylight overdraft fees and is used to determine fully collateralized cap breach waivers.³¹ For more information on collateral, refer to the Collateral section (III) of this Guide.

5. Examples of Maximum Daylight Overdraft Capacity

Institution's parameters:

- Net debit cap = \$20 billion
- Reserve Bank-approved max cap = \$25 billion
- Collateralized capacity = up to \$5 billion

Example 1: Compliance with PSR policy:

- Collateral pledged* = \$10 billion
- Effective max cap** = \$25 billion
- Average daylight overdraft on given day = \$23 billion

Outcome: The institution is in compliance with the PSR policy and does not breach its max cap.

Example 2: Max cap breach:

- Collateral pledged* = \$2 billion
- Effective max cap** = \$22 billion
- Average daylight overdraft on given day = \$23 billion

Outcome of max cap breach: The institution breaches its max cap and is not in compliance with the PSR policy.

Example 3: Fully collateralized max cap breach:

- Collateral pledged* = \$10 billion
- Effective max cap** = \$25 billion

³⁰ Collateral eligibility and margins are the same for PSR policy purposes as for the discount window. See the Federal Reserve Collateral Guidelines available at <http://www.frbdiscountwindow.org/frcollguidelines.pdf> for more information. The Reserve Banks may accept securities in transit on the Fedwire book-entry securities system as collateral to support a max cap or to secure daylight overdrafts for a zero fee under the PSR policy. *Securities in transit* refers 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.

Under some circumstances, collateral availability may differ for discount window and PSR purposes, such as max cap. For example, during periods when the Federal Reserve authorizes term lending, institutions requesting an advance of more than 28 days need to hold an additional 33 percent of collateral in excess of the collateral required for the advance. This additional collateral will not be available for discount window purposes but will be available for PSR purposes, including supporting a max cap, securing daylight overdrafts for a zero fee, and qualifying for a fully collateralized cap breach waiver, if eligible.

³¹ For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

- Average daylight overdraft on given day = \$27 billion

Outcome 2: The institution breaches its max cap and may be eligible for a fully collateralized cap breach waiver (up to two within two consecutive reserve maintenance periods). For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

*The example assumes collateral levels are held constant throughout the day.

** An institution's effective max cap is the lesser of (1) an institution's Reserve Bank-approved max cap or (2) an institution's net debit cap plus the amount of collateral pledged to secure the collateralized capacity.

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 expects an institution's board of directors, at a minimum, to 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 intraday 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.³²

The Federal Reserve recognizes that the boards of directors of U.S. branches and agencies of FBOs 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 FBO'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 under the general procedure.³³ 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 routing number of the institution associated with its Federal Reserve master account. 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. Supporting documentation used in determining an appropriate cap category must be maintained at the institution. Under the PSR policy, the resolution and supporting documentation must be made available to the institution's supervisory examiners. At a minimum, the institution's "cap resolution file" must contain the following items:

³² While FBOs requesting streamlined max caps are not required to provide the board of directors resolution for the max cap, the Federal Reserve believes that it is important for the FBO's board to be aware of the institution's daylight overdraft capacity limits with the Federal Reserve.

³³ FBOs obtaining maximum daylight overdraft capacity under the streamlined procedure are not required to provide to the Reserve Bank a board of directors' resolution authorizing the level of the maximum daylight overdraft capacity but must provide the board of directors' approval of the self-assessed cap level.

- an executed copy of the resolution adopting the net debit cap or maximum daylight overdraft capacity, if the latter is obtained under the general procedure
- 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, if the max cap is obtained under the general procedure
- 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 and documentation of the institution's business need for its max cap to its Reserve Bank annually if it obtains the max cap under the general procedure. 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 intraday credit.

F. Confidentiality of Cap Information

The Federal Reserve regards cap categories and net debit caps as confidential information and will share this information only with an institution's primary supervisor (5 U.S.C. § 552(b)).³⁴ Institutions are also expected to treat their cap as confidential and should not disclose this information for marketing purposes. If an institution believes that it must disclose its cap under securities law, the Federal Reserve does not prohibit such disclosure.

³⁴ For more information on the Freedom of Information Act, see <http://www.federalreserve.gov/generalinfo/foia/foiastat.cfm>.

III. Collateral

The PSR policy permits institutions with regular access to the discount window to pledge collateral voluntarily to secure daylight overdrafts at a zero fee, to support an approved max cap, and to qualify for fully collateralized cap breach waivers.³⁵ Additionally, a Reserve Bank may require an institution to pledge collateral in certain circumstances, such as when an institution presents heightened risk to the Reserve Bank, or the Reserve Bank determines that an institution's account management practices are not sufficient to prevent impermissible daylight overdrafts. An institution may also pledge collateral to its local Reserve Bank to secure an extension of credit from the discount window.³⁶

Under the PSR policy, any type of collateral that is acceptable for discount window lending is also acceptable for PSR purposes, including stable pool and off-premise collateral at the discretion of the Reserve Bank.³⁷ A Reserve Bank may also accept in-transit book-entry securities as collateral for PSR purposes at its discretion.³⁸ When an institution pledges collateral to its Reserve Bank for PSR or discount window purposes, it is placed in a single Federal Reserve collateral account.³⁹ The Federal Reserve's Collateral Management System (CMS) records and maintains information on the collateral pledged to Reserve Banks, including tracking intraday pledges and withdrawals, and providing information on collateral eligibility and valuation. An institution's Federal Reserve collateral account reflects the total value of collateral pledged regardless of whether it is actively being pledged for PSR purposes (to secure intraday credit) or for discount window purposes (to secure overnight lending).

In assessing daylight overdraft charges, the Federal Reserve compares an institution's end-of-minute daylight overdraft balance with that institution's end-of-minute balance of Federal Reserve collateral less encumbrances, which is the value of an institution's collateral available for daylight overdraft purposes.⁴⁰ An institution's collateralized daylight overdrafts is charged a zero fee, and uncollateralized daylight overdrafts are assessed a fee of 50 basis points.

³⁵ Institutions that are not eligible to borrow from the discount window, such as Edge Act and agreement corporations, bankers' banks that are not subject to reserve requirements, limited-purpose trust companies, GSEs, and certain international organizations, are not eligible for intraday credit and will be assessed a penalty fee for any collateralized or uncollateralized daylight overdrafts.

For more information on max caps, refer to part C of the Daylight Overdraft Capacity section (II) of this Guide. For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

³⁶ Federal Reserve policies and procedures related to discount window lending programs are located at <http://www.frbdiscountwindow.org>.

³⁷ For information on types of acceptable collateral, see the Federal Reserve Collateral Guidelines available at <http://www.frbdiscountwindow.org/frcollguidelines.pdf>.

³⁸ *In-transit securities* 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.

³⁹ Institutions may also pledge collateral for Treasury purposes, which may be held in a number of Treasury program collateral accounts.

⁴⁰ Collateral pledged and applied for max cap purposes and PSR required collateral are included in the Federal Reserve collateral account total and are not considered encumbrances. These values are included in the value of collateral available for daylight overdraft purposes intraday and are applied in calculating an institution's daylight overdraft charges. In-transit collateral is not reflected in the value of collateral available for daylight overdraft purposes intraday but is applied in calculating an institution's daylight overdraft charges ex post. For more information on collateral available for daylight overdraft purposes, see part F of this section.

A. Collateral Eligibility

Institutions must pledge assets that the Reserve Bank has identified as eligible collateral. Generally, collateral that is acceptable to the Reserve Bank for discount window lending is also acceptable for PSR purposes. In determining whether collateral is acceptable, the Reserve Bank will consider whether assets meet regulatory standards for sound asset quality and other associated risks. The Federal Reserve provides a detailed list of acceptability criteria on the discount window and PSR website.⁴¹ This list provides information on general acceptance criteria applicable for all securities and loans and also outlines the acceptance criteria applicable by asset type.

B. Collateral Valuation

In general, the Federal Reserve seeks to value all pledged collateral at fair market value. The Federal Reserve values loans using internal models and typically uses prices supplied by external vendors for the valuation of securities. The Federal Reserve applies margins to the fair market value estimates to determine collateral value for the institution. The Federal Reserve's margins are based on risk characteristics of the pledged asset, as well as the anticipated volatility of the fair market value of the pledged asset over an estimated liquidation time frame. The Federal Reserve publishes its collateral margins table and provides a summary of the Federal Reserve's approach to valuing and margining collateral pledged for discount window and payment system risk purposes on the discount window website.⁴²

1. Securities valuation

The Federal Reserve typically values securities using prices supplied by external vendors. If the Federal Reserve can reasonably estimate a value from market information using internal valuation models, it will assign an internally modeled price to a security if a vendor price cannot readily be obtained. Pledged securities are subject to daily repricing. Revised collateral values for securities pledged through FSS and DTC are effective by or before 8:00 a.m. ET each day.

2. Loan valuation

To estimate the value of loan collateral, the Federal Reserve first models the cash flow characteristics of the loan, and then calculates the fair market value of the loan as the net present value of these cash flows. When an institution pledges loans to its Reserve Bank, the Federal Reserve either processes those loans individually as an automated loan deposit (ALD), or in

⁴¹ For more information on commonly pledged asset types, see the Federal Reserve Collateral Guidelines available at <http://www.frbdiscowindow.org/frcollguidelines.pdf>. This document is for informational purposes only, is subject to change without notice, and is not binding on the Federal Reserve System in any particular transaction.

⁴² The discount window and PSR collateral margins table is located at <http://www.frbdiscowindow.org/discountmargins.xls>.

aggregate by loan type as a group deposit. If an institution's loan file is eligible, the Federal Reserve will record the loans individually using the ALD process and will calculate an internally modeled fair market value for each loan, based on loan-specific characteristics.⁴³ If an institution pledges loans in a group deposit, the Federal Reserve will model a fair market value using the characteristics of a typical loan pool of the same loan type as the group deposit.

The Federal Reserve's internally modeled fair market value estimates are updated monthly, effective the first business day of each month, for both individually and group deposited loans. In addition, Reserve Banks may assign pledged loans a risk rating of "minimal risk" or "normal risk." In some cases, loans that are assigned a "minimal risk" rating will receive a higher collateral value than those that are assigned a "normal risk" rating.

3. Collateral margins

The Federal Reserve estimates margins for securities and loans pledged as collateral using Value-At-Risk analysis, which develops margins from historical price volatility of assets within each collateral category. The Federal Reserve may assign a securities margin based on the type of security, its duration, and its rating. Any security that was not assigned a price by an external vendor receives the lowest margin from the Federal Reserve's margins table for that asset type. The Federal Reserve assigns individually deposited loan margins based on the individual loan's type, coupon, and maturity. The Federal Reserve assigns group deposited loans a single margin based on conservative assumptions about the characteristics of pledged loan pools. The margin for group deposited loans is equal to or below the margin applied to comparable loans pledged via individual deposit. The discount window and PSR collateral margins table is located at <http://www.frbdiscountwindow.org/discountmargins.xls>.

C. Pledging Collateral

The procedures for pledging collateral under the PSR policy are the same as those for pledging to the discount window. Institutions interested in pledging collateral for discount window or PSR purposes must complete certain legal documents (authorizing resolutions and agreements) with their Reserve Bank, specifically, Operating Circular No.10 documents.⁴⁴ All collateral pledged to a Reserve Bank must be free of any conflicting claims, liens, security

⁴³ Under the Federal Reserve's enhanced ALD process, institutions may submit a pledged loan listing in one of a variety of electronic file formats, including Microsoft Excel® spreadsheet software, comma separated files (CSV), text, and non-imaged portable document format (PDF). All loan types except credit card receivables and student loans are supported under the ALD process.

⁴⁴ For more information on filing Operating Circular No. 10 documents institutions should contact their local Reserve Bank or visit http://www.frbdiscountwindow.org/req_sig.cfm?hdrID=19&dtlID=42.

interests or restrictions upon transfer or pledge to the Reserve Bank.⁴⁵ The Reserve Bank must be able to obtain a perfected first priority security interest in collateral.

Depending on what type of stable pool collateral is pledged, institutions may need to establish one or more pledging arrangements. Collateral may reside in Fedwire Securities Service (FSS), at the Depository Trust Company (DTC), at a custodian, at the pledging institution via a Borrower-In-Custody arrangement (BIC), at a foreign depository, or at the institution's Reserve Bank.⁴⁶

1. Fedwire Securities Service (FSS)

FSS is the Fedwire book-entry securities system that consists of safekeeping, transfer, and settlement functions maintained on the books of the Reserve Banks. U.S. Treasury-issued securities and certain U.S. government agency and GSE-issued securities pledged in electronic (book-entry) form in FSS may be held by an institution in various securities accounts. Institutions can initiate a pledge of securities held in FSS online using Fedline® or offline by contacting Reserve Bank Wholesale Operations staff by phone.⁴⁷ If the securities are held by a correspondent, the correspondent can initiate the pledge. A depository institution must enter a separate request for each security pledged. Once the request is submitted, it is processed in FSS. If the security meets eligibility standards, it is deposited and assigned value.

2. Depository Trust Company (DTC)

DTC is a limited-purpose trust company organized under New York law that acts as the central securities depository for most publicly traded equity securities and many fixed-income securities in the U.S. market. Each Reserve Bank has established a pledge account with DTC through which securities may be pledged by institutions. DTC arrangements are used to pledge eligible securities (such as municipal or corporate debt securities) that institutions hold through DTC. An institution may directly pledge such securities (if it is a DTC participant) or may pledge DTC-held securities through a correspondent that is a DTC participant. Institutions holding securities through correspondents that are DTC participants must direct their correspondent to initiate the transfer of securities.

⁴⁵ When instruments, accounts, chattel paper, or intangibles are pledged to secure discount window obligations, a financing statement (UCC-1) is filed with the appropriate authorities to perfect the Reserve Bank's interest in the collateral. Reserve Banks conduct lien searches to ensure that no other creditors have filed a UCC-1 covering the same collateral. An institution may be required to submit a certificate (within appendix 3 to Operating Circular No.10 for domestic institutions, within appendix 4 for FBOs), which will provide the Federal Reserve Bank with all of the information needed to make an effective UCC-1 financing statement filing against the borrower. An institution should contact its Reserve Bank to determine if it must complete the certificate.

⁴⁶ For more information, visit the Federal Reserve Collateral Guidelines available at <http://www.frbdiscountwindow.org/frcollguidelines.pdf>.

⁴⁷ Contact information for Wholesale Operations staff is available at http://www.frbservices.org/contactus/fedwire_contacts.html.

"Fedline" is a registered trademark of the Federal Reserve Banks. A complete list of marks owned by the Federal Reserve Banks is available at FRBservices.org.

CMS will screen securities delivered via DTC against collateral eligibility criteria. If additional information is needed to confirm eligibility or establish appropriate collateral valuation, Reserve Bank staff may contact the pledging institution.

3. Third-Party Custody Pledging Arrangement

An institution may designate a third-party custodian to provide collateral custody services. Third-party custody arrangements involve an institution (borrower), another institution that holds the assets to be pledged (custodian), and the Reserve Bank (lender). A third-party custodian must not be affiliated with a pledging institution and must be approved by the Reserve Bank prior to any pledge of collateral. Custodians that are affiliated with the pledging institution will be considered under the Borrower-In-Custody pledging arrangement. In some cases, an acceptable custodian may be an entity other than a financial institution. In all cases, however, the custodian must be in sound financial condition and have acceptable custody controls for the assets in its possession.⁴⁸

4. Borrower-in-Custody of Collateral (BIC) Arrangement

BIC arrangements may be used when an institution is approved by its Reserve Bank to maintain physical control of the loans either on its own premises or held on the premises of a custodian. Under this arrangement, institutions or custodians may retain custody of collateral while pledging it to a Reserve Bank, but the BIC collateral must be designated as being pledged to the Reserve Bank.

Institutions may qualify for a BIC arrangement at the discretion of the Reserve Bank.⁴⁹ Institutions must maintain appropriate document-storage facilities and have an acceptable automated record/reporting system, which must be capable of identifying the assets subject to the Reserve Bank's security interest. Once an institution has pledged loans under a BIC arrangement, the institution must submit a periodic collateral schedule that identifies assets held under the BIC arrangement.⁵⁰

If an institution no longer qualifies for a BIC arrangement, the Reserve Bank, at its discretion, may choose to take custody of the collateral either at the Reserve Bank, or under a field warehouse arrangement at the institution or other approved location.

⁴⁸ An institution should contact its Reserve Bank to obtain approval of its proposed custodian and must execute appropriate agreements to qualify for a third-party custody pledging arrangement.

⁴⁹ Institutions must complete the appropriate documentation to qualify for a BIC arrangement.

⁵⁰ An institution should contact its Reserve Bank to learn what specific information to include on the collateral schedule and how frequently the schedule should be submitted. If an institution fails to file an updated collateral schedule by a specified time of the month, it will be notified that an update has not been received and advised that the BIC collateral will be assigned a zero value after a specified grace period. Some types of BIC collateral may be subject to more-or-less-frequent updates.

5. Foreign Depositories

At its discretion, each Reserve Bank may enter into a custodian arrangement with Clearstream and Euroclear as necessary to hold foreign-issued or foreign-denominated securities. If an institution's Reserve Bank has entered into a custodian arrangement with Clearstream or Euroclear, and the institution is approved by its Reserve Bank, it may deposit collateral using Clearstream or Euroclear procedures. Clearstream or Euroclear screens the proposed collateral against eligibility criteria predetermined by the Federal Reserve. Clearstream and Euroclear each send the Reserve Bank the current day's activity to be loaded into CMS once a day.⁵¹

6. Reserve Bank Custody

Reserve Bank custody of collateral is available for custody of tangible assets, such as promissory notes evidencing commercial/consumer loans. Prior to pledging customer obligations, an institution should contact its Reserve Bank to discuss the pledging process. The Reserve Bank may request financial information and other details about the institution's customers in order to evaluate the credit quality of the obligations. Generally, customer obligations are only be acceptable if evidenced by an original document signed by the customer. This document may take the form of a promissory note or credit agreement that states the specific terms of the lending agreement. Customer obligations physically delivered to a Reserve Bank must be in a form that allows the assets to be liquidated without further action by the institution (endorsement of pledged notes or power of attorney may be required).

7. In-transit Securities

A Reserve Bank may accept in-transit securities as collateral for PSR purposes such as to secure additional daylight overdraft capacity (max cap), to offset daylight overdraft fees, and to qualify for a fully collateralized cap breach waiver.⁵² In-transit securities are defined as book-entry securities transferred over FSS that have been purchased by a depository institution but not yet paid for and owned by the institution's customers.

If a Reserve Bank accepts, and an institution chooses to pledge in-transit securities as collateral for PSR purposes, the institution will have to record on its books in real time both the securities that are pledged to the Reserve Bank, and the cash allocated by the institution's customers to fund securities transactions. There are special considerations related to in-transit book-entry securities collateral that must be considered by the depository institution. Pledging institutions must provide a file to CMS each night containing CUSIP-level, minute-by-minute data on securities pledged and cash provided by the institution's customers to fund the securities

⁵¹ Additionally, an alternative manual deposit process may be used for Euroclear. See the Federal Reserve Collateral Guidelines at <http://www.frbdiscountwindow.org/frcollguidelines.pdf> for more information.

⁵² For more information on max caps, refer to part C of the Daylight Overdraft Capacity section (II) of this Guide. For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

purchases.⁵³ Institutions will need to establish a connection for the data transmission, comply with deadlines for file submission, and conform to file formatting requirements. CMS will price and apply any necessary margin adjustments to these securities net of customer funding amounts to arrive at a value for in-transit collateral for each minute of the day.

Institutions interested in pledging in-transit collateral for PSR purposes should contact their local Reserve Bank staff for detailed information and technical specifications.

D. Withdrawing Collateral

An institution may withdrawal collateral pledged to the Federal Reserve if that collateral is not considered encumbered by the Reserve Bank. Reserve Banks consider collateral that is securing an outstanding extension of credit at the discount window or securing a PSR collateral requirement to be encumbered. Reserve Banks do not consider collateral pledged to support a max cap to be encumbered, and is available for withdrawal at the institution's discretion.⁵⁴ The procedure to withdraw collateral depends on the collateral's pledging arrangement.⁵⁵

1. Fedwire Securities Service (FSS)

Institutions may request a release of FSS collateral online using Fedline, or off-line by telephoning the Wholesale Operations staff. Once the request is submitted in FSS, the securities will be released if the collateral is unencumbered. The Reserve Bank and the institution will receive notification that the security has been released, and the institution will receive the associated reduction of collateral value in its FR account. If the collateral is encumbered, the Reserve Bank will reject the withdrawal request and FSS will not release the security.

2. Depository Trust Company (DTC)

In order to withdraw DTC collateral, an institution (or custodian) initiates an instruction to move an asset out of the Reserve Bank's pledge account in DTC. If the collateral is unencumbered, the securities will be released. If the security is encumbered, the Reserve Bank will reject the withdrawal request, DTC will not release the security, and DTC will send a message back to the institution or its custodian.

3. Custodians, BIC Arrangements, and Reserve Bank Custody

If an institution with collateral pledged through a third-party custodian, pledged through a BIC arrangement, or in the custody of its Reserve Bank would like to withdraw its collateral, it

⁵³ Pledging institutions must filter out from the report those Fedwire securities that are not discount window eligible.

⁵⁴ Institutions with approved max caps may, at any time, pledge collateral to use the additional capacity in full or in part. Pledging less collateral than the collateralized capacity will effectively reduce an institution's available daylight overdraft capacity.

⁵⁵ For more information on pledging arrangements refer to the Federal Reserve Collateral Guidelines, available at <http://www.frbdiscountwindow.org/frcollguidelines.pdf>.

must submit a written request to its Reserve Bank. The Reserve Bank will determine if the collateral is encumbered. If the collateral is unencumbered, the Reserve Bank will withdraw the collateral from CMS and inform the institution that its collateral has been released.

4. Foreign Depositories

Institutions that would like to withdraw Clearstream collateral must submit their requests through Clearstream. For same-day release, the institution must contact Clearstream prior to 12:00 p.m., and Clearstream will contact the Reserve Bank once per day to request authorization for the release.⁵⁶ The Reserve Bank will review the request to determine if the collateral is unencumbered. If the collateral is unencumbered, the Reserve Bank will send an approval message to Clearstream to release it.

Institutions that would like to withdraw Euroclear collateral must submit their request to the Reserve Bank. The Reserve Bank will review the request to determine if the collateral is unencumbered. If the collateral is unencumbered, the Reserve Bank will send an approval message to Euroclear to release it.

E. Collateralized Daylight Overdrafts

1. Eligibility for zero-priced collateralized daylight overdrafts

Institutions with regular access to the discount window receive a zero fee for the collateralized portion of their overdrafts, and are assessed a fee of 50 basis points (annual rate) for the uncollateralized portion of their overdrafts. For more information on how the Federal Reserve calculates daylight overdraft fees for such institutions, refer to part A of the Daylight Overdraft Fees section (V) of this Guide.

Institutions that are not eligible for regular access to the discount window, such as Edge Act and agreement corporations, bankers' banks that are not subject to reserve requirements, limited-purpose trust companies, GSEs, and certain international organizations, are not eligible for intraday credit and will be assessed a penalty rate of 150 basis points (annual rate) for any collateralized or uncollateralized daylight overdrafts. For more information on how the Federal Reserve calculates daylight overdraft fees for such institutions, refer to part C of the Daylight Overdraft Fees section (V) of this Guide.

An institution with collateral pledged to support an approved max cap receives a zero fee for any daylight overdraft covered by the pledged collateral. Additional collateral pledged over the amount needed to support the max cap will offset daylight overdraft fees but will not increase the total max cap amount. For more information on max caps, including examples of how maximum daylight overdraft capacity is calculated, refer to part C of the Daylight Overdraft Capacity section (II) of this Guide.

⁵⁶ Withdrawal requests must be quoted in US dollars.

2. Collateral available for daylight overdraft purposes

An institution's collateral available for daylight overdraft purposes is calculated by subtracting the value of all outstanding loan advances from the value of the collateral in the institution's Federal Reserve account. Collateral securing an extension of credit from the discount window may not be simultaneously applied for PSR pricing purposes. Collateral pledged towards a max cap or as a collateral requirement from the Reserve Bank is included in an eligible institution's collateral available for daylight overdraft purposes. When an institution repays an outstanding discount window loan, the institution's collateral available for daylight overdraft purposes is increased by the value of the collateral that had been encumbered by the loan. Institutions will be able to monitor the value of their collateral available for daylight overdraft purposes in near-real-time, as discussed in detail in part G (Collateral Monitoring) of this section.

The Federal Reserve determines the extent to which a daylight overdraft is collateralized by comparing an institution's end-of-minute daylight overdraft balance to the value of collateral available for daylight overdraft purposes at that minute. If the value of an institution's collateral available for daylight overdraft purposes meets or exceeds its daylight overdraft for a given minute, then that minute of overdraft is considered fully collateralized and will receive a zero price. If the daylight overdraft balance exceeds the collateral available for daylight overdraft purposes, the portion of the daylight overdraft that is uncollateralized is included in the calculation of the institution's fees. For more information on how the Federal Reserve calculates daylight overdraft fees, refer to the Daylight Overdraft Fees section (V) of this Guide.

F. Reserve Bank PSR Collateral Requirements

Under the PSR policy, a Reserve Bank may require an institution to pledge collateral in certain circumstances. A Reserve Bank may impose a PSR collateral requirement if an institution presents heightened risk to the Reserve Bank or incurs an impermissible daylight overdraft. Institutions that are eligible for regular access to the discount window and with collateral pledged towards a PSR collateral requirement will have the value of that collateral applied towards pricing daylight overdrafts incurred by the institution.⁵⁷ PSR collateral requirements do not contribute to supporting approved max caps and may not be used to simultaneously secure a discount window loan.

Generally, institutions that are not eligible for regular access to the discount window, and therefore do not have access to intraday credit, are required to pledge collateral after they have incurred an impermissible daylight overdraft. Edge Act and agreement corporations, bankers'

⁵⁷ The value of the collateral pledged towards the collateral requirement will be included in the value of an institution's collateral available for daylight overdraft purposes that is used to calculate fees for using intraday credit. Additionally, at the Reserve Bank's discretion, institutions with de minimis, self-assessed, or max caps may incur up to two cap breaches in two consecutive reserve maintenance periods without violating the PSR policy. Institutions must fully collateralize these cap breaches in order to be eligible for this waiver. For more information on the fully collateralized cap breach waiver, see the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

banks that do not hold reserves, limited-purpose trust companies, GSEs, and international organizations are not permitted to incur daylight overdrafts.⁵⁸ If such an entity incurs a daylight overdraft, the Reserve Bank may require the institution to pledge collateral at least equal to the highest total overdraft incurred by the institution over the past six months. After the institution pledges collateral, ex post, to cover unauthorized overdrafts, subsequent overdrafts continue to be prohibited as the pledge of collateral does not authorize them to incur daylight overdrafts. Because these accountholders are not eligible for routine discount window access, they are assessed a penalty fee on daylight overdrafts (even if collateralized), and they are not eligible for fully collateralized cap breach waivers.⁵⁹

Industrial Loan Companies (ILCs) subject to the Bank Holding Company Act may incur overdrafts on behalf of affiliates that are primary U.S. government security dealers.⁶⁰ ILCs must fully collateralize all overdrafts they incur on behalf of affiliates that are primary U.S. government security dealers. ILCs will not be assessed a fee on collateralized daylight overdrafts; however, they are not eligible for fully collateralized cap breach waivers.⁶¹

G. Collateral Monitoring

CMS serves as the system of record and valuation for all collateral pledged to the Reserve Banks. Institutions may pledge and withdraw collateral and may receive or repay discount window loans, which affect the amount of unencumbered collateral available for daylight overdraft purposes. CMS updates collateral balances in near-real-time throughout the day and sends this information to Account Management Information (AMI) and to the Account Balance Monitoring System (ABMS), which are Federal Reserve applications that serve as information sources and as balance monitoring and management tools for institutions.⁶²

1. Intraday monitoring

The AMI application provides institutions with near-real-time collateral holdings information. Institutions may view and download aggregate and CUSIP-level collateral information on an intraday basis. Institutions may view and download their intraday increases (including deposits and revaluations) and decreases (including withdrawals and revaluations) to

⁵⁸ For more information on Edge Act and agreement corporations, bankers' banks that do not hold reserves, limited-purpose trust companies, GSEs, and international organizations, see the Special Situations section (VI) of this Guide.

⁵⁹ For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

⁶⁰ For more information on ILCs, see part B of the Special Situations section (VI) of this Guide.

⁶¹ For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

⁶² AMI is a web-based application that provides institutions with real-time access to their intraday account and collateral balances, detailed transaction information, reporting, and inquiry capabilities. For more information, see <http://www.frbservices.org/serviceofferings/account/ami.html>. ABMS receives updated collateral information, including an institution's value of collateral available for daylight overdraft purposes, from CMS on a near-real-time basis. ABMS will use the collateral available for daylight overdraft purposes to calculate the institution's collateralized and uncollateralized daylight overdraft balances, which will also be updated on a near-real-time basis. Institutions can obtain information on ABMS and AMI in the *Account Management Guide* at <http://www.frbservices.org/files/regulations/pdf/amg.pdf>.

their collateral positions rolled up by asset type (securities or loans). Institutions are also able to view and download their collateral activity chronologically, from the beginning of the day to the close of business.

Institutions may view their value of collateral available for daylight overdraft purposes, which is the value of their Federal Reserve collateral less outstanding discount window advances, during the day through AMI or ABMS.⁶³ Because the collateral available for daylight overdraft purposes is used in the pricing calculation for daylight overdrafts, it is displayed in AMI with the institution's balance information, and institutions may view in near-real-time their collateralized and uncollateralized daylight overdraft balance. Institutions that access balance information through ABMS may receive their collateral available for daylight overdraft purposes through the same means. Further discussion on balance information is available in section IV (DLOD Monitoring and Management) of this Guide.

2. *Ex post* monitoring

In addition to monitoring their collateral balance intraday, institutions may also view information about their collateral holdings and transactions *ex post*. CMS creates a statement of collateral holdings at the CUSIP level and a report summarizing an institution's collateral transactions grouped by type, such as deposits, withdrawals, and revaluations, which are available to institutions in AMI. Because collateral-related activities occur throughout the day and past the close of business, CMS creates two sets of collateral reports each day. After approximately 5:30 p.m. ET, institutions may access a preliminary version of their holdings statement and transaction report showing the institution's holdings and activity as of approximately 5:30 p.m. ET that day. When all collateral activities have completed for the day, which is generally well after the close of business, institutions will have access to a final version of this report. The final version of the institution's holdings statement and transaction report replaces the preliminary versions in AMI and is available to institutions the next morning. In addition, institutions have access to previous days' final reports, which are also available through AMI.

In addition to the reports available through AMI, at the end of each business day CMS generates a report for each institution that has elected to receive a statement of their collateral holdings via e-mail.⁶⁴ Institutions can determine the frequency with which they receive this report, such as daily, weekly, or monthly. The report lists an institution's collateral holdings at the CUSIP level as of the previous business day.

⁶³ AMI and ABMS do not provide institutions with information on extensions of credit.

⁶⁴ Institutions may elect to receive holdings statements via e-mail from CMS if they do not have access to AMI.

IV. Daylight Overdraft Monitoring and Management

The information provided in this section is intended to assist institutions in managing their Federal Reserve account balances. 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

The Reserve Banks use an automated application to monitor institutions' compliance with the PSR policy and calculate daylight overdraft charges. A daylight overdraft occurs when an institution's Federal Reserve account is in a negative position at any time during the Fedwire operating day (9:00 p.m. previous day to 6:30 p.m. ET). The Reserve Banks use an ex post system of daylight overdraft posting rules to measure daylight overdrafts in institutions' Federal Reserve accounts.⁶⁵

At the end of each Fedwire operating day, the Reserve Bank automated daylight overdraft monitoring and pricing application retrieves information on an institution's end-of-minute account balances, calculated according to the daylight overdraft posting rules.⁶⁶ An institution's account balance is measured 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 time. The application also uses information on end-of-minute balances of collateral available for daylight overdraft purposes to determine the extent to which an institution's daylight overdraft is uncollateralized.⁶⁷ The daylight overdraft, collateral, and capital information is used to measure collateralized and uncollateralized daylight overdrafts, monitor net debit cap compliance, and calculate fees.

The daylight overdraft measurement and pricing period coincides with the standard Fedwire operating day.⁶⁸ 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.

⁶⁵ Under daylight overdraft posting rules, certain transactions, including Fedwire funds and security transfers, and net settlement transactions, are posted as they are processed during the business day. Other transactions, including ACH and check transactions, are posted to institutions' accounts according to a defined schedule. Daylight overdraft posting rules are available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm.

⁶⁶ The schedule of posting rules is located in part II of the PSR policy, available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm#daylightdef.

⁶⁷ For institutions pledging in-transit collateral, this collateral information also contains in-transit collateral.

⁶⁸ In cases of extensions of Fedwire operating hours, all transactions that occur after the standard Fedwire closing time are posted at 6:30 p.m. for daylight overdraft purposes.

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, the Reserve Bank automated daylight overdraft monitoring and pricing application 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 (cap breach).⁶⁹ An institution incurs a cap breach if, at any time during the Fedwire operating day, it incurs a daylight overdraft in excess of its cap.⁷⁰

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 reserve maintenance periods. Second, certain cap breaches incurred by institutions in the administrative counseling flexibility program are not considered policy violations.⁷¹ Third, Reserve Banks may grant fully collateralized cap breach waivers (FCCB waivers) to institutions in certain circumstances. Under the policy, institutions with de minimis, self-assessed, and max cap net debit caps may fully collateralize up to two cap breaches in two consecutive reserve maintenance periods (four weeks) without violating the policy.⁷² In addition, a Reserve Bank has discretion to waive a violation in limited circumstances, such as an operational problem at a Reserve Bank.

For daylight overdraft purposes, Edge Act and agreement corporations and merger-transition 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. If these institutions have an account in more than one Federal Reserve District, the ARB coordinates the Federal Reserve's daylight overdraft monitoring activities for the consolidated accounts.

⁶⁹ Institutions may also access current information on their account and collateral balances and daylight overdraft position using AMI. Part C of this section, Real-Time Monitoring, contains additional information on AMI.

⁷⁰ For an institution with a self-assessed cap that has been approved for maximum daylight overdraft capacity, the single-day limit is equal to an institution's net debit cap plus the amount of applicable collateralized capacity.

⁷¹ The administrative counseling flexibility program helps 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 this 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.

⁷² Institutions that are exempt from filing are excluded from this additional flexibility because they already are allowed to exceed their cap limit twice in two consecutive reserve maintenance periods. Zero cap institutions are not eligible for the fully collateralized cap breach waiver.

U.S. branches and agencies of FBOs are monitored at their cap level in real time. If an institution's account is monitored in real time, any outgoing Fedwire funds transfer or National Settlement Service transaction that exceeds available funds is rejected. In addition, institutions monitored in real time are required to prefund ACH credit originations. If the total amount of all of the ACH credit item originations exceeds the branch or agency's account balance, none of the items will be processed. If a branch or agency of an FBO exceeds its cap periodically due to payment transactions that are not subject to the real-time monitor, the Reserve Bank may waive counseling up to twice in two consecutive reserve maintenance periods if the daylight overdrafts are fully collateralized.

1. 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 account balance requirements; rejecting Fedwire funds transfers or NSS transactions that would cause or increase an institution's daylight overdraft; or requiring the institution to prefund ACH transactions. Reserve Banks also keep institutions' primary regulators apprised of any recurring overdraft problems.

C. Real-time Monitoring and the Account Balance Monitoring System (ABMS)

The Reserve Banks use 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 management tool. It allows institutions to obtain intraday balance and collateral information for purposes of managing their use of intraday credit, avoiding overnight overdrafts, and monitoring in real time their collateralized and uncollateralized daylight overdraft balance. 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 AMI. 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 Banks' accounting system.⁷³ 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 or NSS transaction that exceeds its available funds is rejected back to the sending institution. The institution can initiate the transaction again once sufficient funds become available in its Federal Reserve account.⁷⁴ If an institution's Federal Reserve 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.⁷⁵

⁷³ ABMS receives transaction information from the Fedwire Funds Service, the Fedwire Securities Service, and the National Settlement Service in real time; information from the Federal Reserve Integrated Accounting System (IAS), such as cash and check transactions at 5-minute intervals; and information on prefunded ACH credit originations every 15 minutes. ABMS receives updated collateral information, including an institution's value of collateral available for daylight overdraft purposes, from the Federal Reserve's Collateral Management System on a near-real-time basis. ABMS will use the collateral available for daylight overdraft purposes to calculate the institution's collateralized and uncollateralized daylight overdraft balances, which will also be updated on a near-real-time basis. For more information on collateral available for daylight overdraft purposes, see the Collateral section (III) of this Guide.

⁷⁴ 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. If the total amount of all ACH credit item originations exceeds an institution's account balance, none of the items will be processed. Further information on ACH prefunding is available in Operating Circular 4: http://www.frbservices.org/regulations/operating_circulars.html.

⁷⁵ The schedule of posting rules is located in part II of the PSR policy, available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm#daylightdef.

There may be some instances when the DLOD balance in ABMS may be slightly different from the DLOD balance recorded by the Reserve Bank automated daylight overdraft monitoring and pricing application because this application 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 DLOD balance calculated for daylight overdraft monitoring and pricing purposes 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 net debit cap, any applicable collateralized capacity, and any other amounts memo posted to the institution's account.⁷⁶ Reserve Banks may choose to monitor institutions based on either the ACCT balance or DLOD balance, depending on the circumstances.

In addition, institutions can monitor their collateral balances and collateralized and uncollateralized daylight overdraft positions in near-real-time in ABMS or AMI. The collateral available for daylight overdraft purposes field shows the value of Federal Reserve collateral that an institution has pledged to its Reserve Bank that is not securing an extension of credit (including a discount window loan).⁷⁷ This value is compared with an institution's daylight overdraft balance at the end of each minute in near-real-time to determine whether the institution's overdraft is collateralized. If the institution's value of collateral available for daylight overdraft purposes meets or exceeds the institution's daylight overdraft for a given minute, that minute of overdraft is considered fully collateralized and is reflected in the institution's collateralized daylight overdraft value. If the institution's daylight overdraft balance exceeds the institution's value of collateral available for daylight overdraft purposes, the difference between these values is reflected in the institution's uncollateralized daylight overdraft field, and this value would be used in the calculation of the institution's fees.⁷⁸ For more information on collateral under the PSR policy, see section III (Collateral) of this document.

D. Ex Post Monitoring

At the end of each reserve maintenance period during which an institution has incurred a daylight overdraft, the Reserve Bank automated daylight overdraft monitoring and pricing application generates reports that reflect an institution's daylight overdraft activity for the reserve maintenance period. These reports, which are available to institutions through AMI, provide institutions with useful information for monitoring daylight overdrafts, such as overdrafts in excess of the institution's net debit cap, and end-of-minute balances for a particular day. Reserve Banks may also provide institutions with reports in the process of counseling institutions that have incurred daylight overdrafts in excess of their daylight overdraft capacity. For more information on daylight overdraft reports, see the Federal Reserve's Account Management Guide available at <http://www.frbservices.org/files/regulations/pdf/amg.pdf>.

⁷⁶ 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).

⁷⁷ Collateral available for daylight overdraft purposes does not necessarily reflect the amount of collateral available for new lending or available for withdrawal.

⁷⁸ For more information on how the Federal Reserve calculates daylight overdraft fees, see the Daylight Overdraft Fees section (V) of this guide.

V. Daylight Overdraft Fees

This section describes how daylight overdraft charges are calculated and assessed for institutions that incur uncollateralized daylight overdrafts and have regular access to the discount window. In addition, this section identifies types of institutions that are not eligible for daylight overdrafts and are charged a penalty fee for any use of unauthorized intraday credit.

A. Calculation of Daylight Overdraft Charges

Under the PSR policy, institutions with regular access to the discount window are only charged for uncollateralized daylight overdrafts. In order to determine whether any portion of an institution's overdraft was uncollateralized, the Federal Reserve, through its automated daylight overdraft monitoring application, maintains minute-by-minute information on account holders' daylight overdraft and collateral balances.

At the end of each Fedwire operating day, the daylight overdraft monitoring application retrieves information on an institution's end-of-minute account balances, calculated according to the daylight overdraft posting rules, and its collateral available for daylight overdraft purposes (that is, institution's end-of-minute value of Federal Reserve collateral, less extensions of credit from the discount window).⁷⁹ These values are used to determine the extent to which an institution's daylight overdraft is uncollateralized for pricing calculations. The value of the average uncollateralized daylight overdraft is multiplied by the fee rate to generate the daily overdraft charge. At the end of each reserve maintenance period, the daily charges for the period are summed, the fee waiver for eligible institutions is applied, and a report of the reserve maintenance period charges is generated. Institutions have access to charge information on a daily basis and to final charges at the end of the maintenance period.

B. Example of Daylight Overdraft Charge Calculation

Figure V-1 below provides an example of how the Reserve Banks use ex post end-of-minute balance and collateral information to calculate an institution's charges. In the example, the institution's daylight overdraft balance and collateral levels change intraday. For simplicity, the illustration shows only a few minutes of the Fedwire operating day and assumes that the institution has similar activity each day of the two-week reserve maintenance period.

⁷⁹ The schedule of posting rules is located in part II of the PSR policy, available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm#daylightdef.

Institutions with certain level of access to Federal Reserve services are able to access and view their daylight overdraft balance in real time, either through ABMS or AMI. See www.frbservices.org for further information. Institutions can also access information regarding their collateral available for daylight overdraft purposes through ABMS or AMI throughout the day. For more information on monitoring, refer to the Daylight Overdraft Monitoring and Management section (IV) of this Guide. For more information on collateral, see the Collateral section (III) of this Guide.

1. Calculation of end-of-minute uncollateralized daylight overdraft

The daylight overdraft monitoring application calculates an institution's end-of-minute uncollateralized daylight overdraft by comparing the institution's end-of-minute daylight overdraft with the institution's value of collateral available for daylight overdraft purposes. Once the value of the uncollateralized overdraft for each minute of the Fedwire operating day (1,291 minutes) has been calculated, the application sums these values.⁸⁰ All end-of-minute uncollateralized overdrafts incurred during the Fedwire day, including those not exceeding an institution's net debit cap, are included in the calculation. Positive account balances on a given day are set to zero and do not offset any overdrafts incurred that day in computing the average daylight overdraft amount.

2. Calculation of daily daylight overdraft charge

The daylight overdraft monitoring application calculates the institution's average daily uncollateralized overdraft by dividing the sum of the institution's end-of-minute uncollateralized negative Federal Reserve account balances by the total number of minutes in the scheduled Fedwire operating day.⁸¹

Average daily fees are calculated by multiplying the average daily uncollateralized overdraft by the effective daily rate. The effective daily rate is calculated using an annual rate of 50 basis points, quoted on the basis of a 24-hour day and a 360-day year.⁸² The annual rate is converted to an effective annual rate for the standard Fedwire operating day by multiplying it by the fraction of the day that Fedwire is scheduled to be open, currently 21.5 hours out of 24. Thus, the current effective annual rate charged for overdrafts is 44.79 basis points (50 basis points x 21.5/24 hours). The effective annual rate is converted to an effective daily rate by multiplying it by 1/360.⁸³

3. Calculation of reserve maintenance period charge and application of fee waiver

At the end of each reserve maintenance period, which is generally 10 business days, the daylight overdraft monitoring application sums the daily charges for each institution. Eligible institutions receive a fee waiver of up to \$150 per reserve maintenance period. Institutions that incur two-week charges under \$150 are not assessed any fees, and institutions that incur two-

⁸⁰ Figure V-1 shows only a few minutes of the Fedwire operating day (2:00 p.m. ET to 2:05 p.m. ET) for simplicity.

⁸¹ The standard operating day for the Fedwire funds transfer system currently extends from 9:00:00 p.m. ET the preceding calendar day to 6:30:59 p.m. ET, a total of 1,291 minutes. 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.

⁸² Institutions with regular access to the discount window are charged 50 basis points (annual rate) for uncollateralized overdrafts. Institutions that do not have regular access to the discount window, such as Edge Act and agreement corporations, bankers' banks that have not waived their exemption from reserve requirements, limited-purpose trust companies, GSEs, are subject to the penalty fee of 150 basis points (annual rate).

⁸³ The effective daily daylight-overdraft rate is truncated to .0000124.

week charges over \$150 have their gross fees reduced by \$150.⁸⁴ In the example, the institution's charges for this reserve maintenance period are \$22.90. The finalized charges are passed to IAS for settlement two weeks after the reserve maintenance period in which they were incurred.

Figure V-1: Example of Daylight Overdraft Charge Calculation

Calculate an institution's end-of-minute uncollateralized daylight overdraft				
Row	Time	Daylight overdraft balance (in millions)	Collateral available for daylight overdraft purposes (in millions)	Uncollateralized daylight overdraft (in millions)
1	2:00 PM	\$100	\$50	\$0
2	2:01 PM	\$0	\$50	\$0
3	2:02 PM	(\$800)	\$100	\$700
4	2:03 PM	(\$100)	\$100	\$0
5	2:04 PM	(\$600)	\$100	\$500
6	2:05 PM	(\$600)	\$0	\$600
7	<i>Sum of end-of-minute uncollateralized daylight overdraft</i>			\$1,800
Calculate an institution's daily charge				
A. Average daily uncollateralized daylight overdraft				
$\frac{\text{Sum of end-of-minute uncollateralized overdrafts for one day} = \$1,800,000,000}{\text{official Fedwire day} = 21.5 \text{ hours (or 1,291 minutes)}} = \frac{\$1,800,000,000}{1,291} = \$1,394,268$				
B. Daily daylight overdraft charge				
$\begin{aligned} \text{average daily uncollateralized overdraft} &= \$1,394,268 \\ \text{multiplied by effective daily rate}^{85} &= .0050 \times (21.5/24) \times (1/360) = \end{aligned}$				
				\$17.29

⁸⁴ The waiver shall not result in refunds or credits to an institution and cannot be carried to another reserve-maintenance period. The fee waiver is not available to institutions that do not have regular access to the discount window, such as Edge Act and agreement corporations, bankers' banks that have not waived their exemption from reserve requirements, limited-purpose trust companies, and GSEs.

⁸⁵ The effective daily daylight-overdraft rate is truncated to .0000124.

Calculate an institution's reserve maintenance period charge and apply the fee waiver								
<p>A. Gross reserve maintenance period overdraft charge</p> <p style="margin-left: 40px;"><i>Sum of daily overdraft charges</i> = \$17.29 x 10 days per reserve maintenance period⁸⁶</p> <p style="text-align: right; margin-right: 20px;">= \$172.90</p> <p>B. Subtract the waiver from the gross reserve maintenance period overdraft charge⁸⁷</p> <table style="margin-left: 40px; width: 80%; border-collapse: collapse;"> <tr> <td style="padding-right: 10px;"><i>less</i></td> <td style="padding-right: 20px;">\$150 fee waiver</td> <td style="padding-right: 20px; text-align: right;">—</td> <td style="text-align: right;">\$150.00</td> </tr> <tr> <td></td> <td></td> <td></td> <td style="text-align: right; border-top: 1px solid black;">\$22.90</td> </tr> </table>	<i>less</i>	\$150 fee waiver	—	\$150.00				\$22.90
<i>less</i>	\$150 fee waiver	—	\$150.00					
			\$22.90					

C. Billing and Adjustments

1. Assessment of charges

At the end of each reserve maintenance period, the Reserve Bank provides a report of charges to each institution that was assessed fees in that period.⁸⁶ Eligible institutions whose reserve maintenance period charges were under \$150 will receive a report of their use of uncollateralized daylight overdrafts, but their assessed fees will be waived. The Federal Reserve makes an assessment of final charges to the institution's Federal Reserve account at the end of the reserve maintenance period following the reserve maintenance period in which charges are assessed.

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

⁸⁶ The example assumes that the institution has had identical activity for each day of the reserve maintenance period; the daily charge is multiplied by ten to calculate the reserve maintenance period charge.

⁸⁷ The example assumes that the institution has regular access to the discount window and is not an Edge Act and agreement corporation, bankers' bank that has not waived its exemption from reserve requirements, limited-purpose trust company, GSE, or international organization.

⁸⁸ Institutions that incur overdrafts that are sufficiently large to result in daylight overdraft fees will receive an Advice of Daylight Overdraft Charges Report at the close of the reserve maintenance period in which the overdrafts occurred. The report shows the average uncollateralized overdraft for each day on which the fees occurred. An example of the report can be viewed in the *Account Management Guide* at <http://www.frbservices.org/files/regulations/pdf/amg.pdf>.

D. 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 and may not incur daylight overdrafts. These institutions include Edge Act and agreement corporations, bankers' banks that have not waived their exemption from reserve requirements, limited-purpose trust companies, government-sponsored enterprises, and certain international organizations. Such institutions are subject to the penalty fee, which is assessed on all daylights incurred, collateralized or uncollateralized.

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 annual penalty rate is 150 basis points, which is equal to the regular daylight overdraft fee of 50 basis points plus a penalty of 100 basis points. The penalty fee is calculated and assessed in the same manner as the daylight overdraft fee charged to institutions with discount window access.⁸⁹ Penalty fee-paying institutions that incur overdrafts do not receive a zero fee for collateralized overdrafts or the fee waiver and are not eligible for fully collateralized cap breach waivers.⁹⁰ These institutions are subject to a minimum fee of \$25 for any reserve maintenance period in which they incur a fee.⁹¹

⁸⁹ The daily penalty charge is equal to the effective daily penalty rate multiplied by the average total overdrafts (uncollateralized and collateralized) for the day. The effective daily penalty rate is calculated by multiplying the annual penalty rate by the portion of the day during which the Fedwire Funds normally operates (21.5 hours out of 24 hours), divided by 360 days.

⁹⁰ For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

⁹¹ For more information regarding these types of accounts, see the Special Situations section (VI) of this Guide.

VI. Special Situations

This section discusses the unique considerations associated with U.S. branches and agencies of FBOs, and a number of entities that are not eligible for regular access to the discount window, and therefore do not have access to intraday credit.

A. U.S. Branches and Agencies of Foreign Banking Organizations⁹²

In general, U.S. branches and agencies of FBOs are treated in the same manner as domestic institutions under the Federal Reserve's PSR policy. There are some unique considerations, however, that affect how the policy applies to U.S. branches and agencies of FBOs. These situations are discussed below and in the self-assessment procedures in section VII of the Guide.

Net debit caps for the U.S. branches and agencies of FBOs 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, depends on the FBO's strength of support assessment (SOSA) ranking and on whether the bank is a financial holding company (FHC).⁹³

1. U.S. capital equivalency

For U.S. branches and agencies of FBOs, 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

⁹² A U.S. branch or agency is a branch or agency of a foreign banking organization located in the United States.

⁹³ 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.

The Gramm-Leach-Bliley Act (Public Law 106-102, 113 Stat. 1338 (1999)) defines an FHC 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 an FBO 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.

- 5 percent of “net due to related depository institutions” for FBOs that are not FHCs and are ranked a SOSA 3.⁹⁴ Most SOSA 3-ranked institutions do not qualify for a positive net debit cap.

U.S. branches and agencies of FBOs that wish to establish a positive net debit cap category are required to submit the Annual Daylight Overdraft Capital Report for U.S. Branches and Agencies of Foreign Banks (FR 2225) to their ARB.⁹⁵ 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 an FBO in order to grant its U.S. branch or agency a daylight overdraft cap other than zero. The ARB may require information regarding Tier I and total risk-based capital ratios for the consolidated FBO.⁹⁶ The ARB may require U.S. branches and agencies of FBOs 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 regards capital information provided to the ARB in connection with an institution’s daylight overdraft cap as confidential and will share this information only with the primary regulator for the branch or agency and home country supervisor of the FBO (5 U.S.C. § 552(b)).⁹⁷ Institutions are also expected to treat their cap as confidential and should not disclose this information for marketing purposes. If an institution believes that it must disclose its cap under securities law, the Federal Reserve does not prohibit such disclosure.

An FBO that is an FHC or has a SOSA rating of 1 and has a U.S. branch or agency with a self-assessed net debit cap may request from its Reserve Bank a streamlined procedure to obtain a maximum daylight overdraft capacity (max cap) of up to 100 percent of the FBO’s worldwide capital times the net debit cap multiple for the branch or agency. See section II.C. for the streamlined procedure.

2. Allocation of caps

Each FBO family, consisting of all of the U.S. branches and agencies of a particular FBO, has a single daylight overdraft cap. An FBO family that has offices in more than one District

⁹⁴ This item is reported on the FBO 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).

⁹⁵ A copy of the FR 2225 report and instructions is available at www.federalreserve.gov/boarddocs/reportforms/default.cfm.

⁹⁶ Descriptions of capital measures, by type of institution, and related regulatory reports can be found in appendix C.

⁹⁷ For more information on the Freedom of Information Act, see <http://www.federalreserve.gov/generalinfo/foia/foiastat.cfm>.

may choose to allocate a portion of its net debit cap to branches or agencies in Districts other than that of the ARB. Unless an FBO family instructs otherwise, the Federal Reserve will assign the dollar value of the family's 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 FBO family may indicate to the ARB the dollar amount to be allocated to branches or agencies in other Districts. The FBO 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.

Each U.S. branch or agency of an FBO is monitored in real time and ex post at its cap level.⁹⁸ Each branch or agency is also assessed daylight overdraft charges, unless the daylight overdrafts are secured by the collateral held by the Reserve Bank of the respective branch or agency. Each branch or agency is eligible for the \$150 fee waiver.⁹⁹ Branches and agencies with allocated caps must post collateral separately for each account that incurs daylight overdrafts to be eligible for the FCCB waiver.¹⁰⁰

An FBO family with an approved max cap may allocate the portion of the max cap over and above its net debit cap, referred to as the collateralized capacity.¹⁰¹ Each branch or agency that receives such allocation must provide collateral that is acceptable to its Reserve Bank in both form and amount prior to accessing the allocated additional daylight overdraft capacity.

⁹⁸ When an institution's account is monitored in real time, certain transactions (outgoing Fedwire funds transfers or National Settlement Service transactions) are rejected if such transactions exceed the cap.

⁹⁹ See section VI for further information on daylight overdraft fee calculation.

¹⁰⁰ If an FBO family has a de minimis cap or self-assessed cap and allocates its capacity, all branches and agencies with allocated capacity are eligible for the FCCB waivers, provided cap breaches are fully collateralized at the Reserve Bank(s) where they are incurred.

¹⁰¹ Collateralized capacity is the additional daylight overdraft capacity available to an institution with an approved max cap through the pledge of collateral. See section II for further information on max caps.

B. Industrial Banks and Industrial Loan Companies Subject to the BHCA Exception

Industrial banks and industrial loan companies (ILCs) subject to the Bank Holding Company Act (BHCA) may not incur daylight overdrafts on behalf of affiliates, except in three circumstances.¹⁰² First, the prohibition does not extend to overdrafts that result from inadvertent computer or accounting errors beyond the control of the nonbank bank. Second, ILCs are permitted to incur overdrafts on behalf of an affiliate that is a primary U.S. government security dealer, provided such overdrafts are fully collateralized. Third, overdrafts incurred in connection with an activity that is financial in nature are also permitted.¹⁰³ An ILC loses its exemption from the definition of bank under the BHCA if it incurs prohibited overdrafts.

ILCs 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 ILCs that are subject to BHCA exception using a separate formula under Regulation Y to calculate intraday Federal Reserve account positions.

If an ILC 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 an affiliate that is a primary U.S. government security dealer, the ILC 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 ILC is required to demonstrate the purpose of the overdraft as defined by section 4(k)(5) of the BHCA. ILCs 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.)

¹⁰² In 1987, Congress enacted the Competitive Equality Banking Act (CEBA) to close the so-called nonbank bank loophole that existed in the BHCA (Pub.L. No. 100-86, 101 Stat.552). CEBA expanded the definition of “bank” in the BHCA to include any FDIC-insured bank (regardless of the activities it conducts) and any banking institution that both offers transaction accounts and makes commercial loans (regardless of whether it is FDIC-insured).

References to an ILC include an industrial bank.

For this purpose, an affiliate is any company that controls the ILC, is controlled by it, or is under common control with it.

¹⁰³ 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>.

C. Institutions Subject to Daylight Overdraft Penalty Fees

Under the PSR policy, institutions that have Federal Reserve accounts but are not eligible for 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. If an institution that is ineligible to incur daylight overdrafts pledges collateral, or already has collateral pledged to its FR account, its pledge of collateral does not authorize the institution to incur daylight overdrafts in the future. In addition, this collateral will not be used in the calculation to offset fees, if such an institution should incur an overdraft.¹⁰⁴

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 of 50 basis points, plus 100 basis points, for a total penalty fee of 150 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 V, with the following exceptions: These institutions are not eligible for the \$150 fee waiver, and if the calculated charges in any two-week reserve maintenance period are less than \$25, a minimum fee of \$25 will be charged.

1. *Edge Act and agreement corporations*¹⁰⁵

Edge Act and agreement corporations are not eligible for 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 Act or agreement corporation must post collateral to cover the overdrafts. Edge Act and agreement corporations that have branches in more than one Federal Reserve District are monitored on a consolidated basis.

2. *Bankers' banks*¹⁰⁶

Bankers' banks, including corporate credit unions, are exempt from reserve requirements and are not eligible for regular access to the discount window. Bankers' banks may voluntarily waive their exemption from reserve requirements and thus become eligible for regular access to

¹⁰⁴ Institutions that are not eligible for regular access to the discount window are also not eligible for fully collateralized cap breach waivers. For more information on fully collateralized cap breach waivers, refer to part B of the Daylight Overdraft Monitoring and Management section (IV) of this Guide.

¹⁰⁵ 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)).

¹⁰⁶ 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)).

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. 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.

3. Limited-purpose trust companies¹⁰⁷

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 are not eligible for 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.

4. Government-sponsored enterprises (GSEs) and international organizations¹⁰⁸

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 are not eligible for 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.

¹⁰⁷ 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)).

¹⁰⁸ 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.

VII. 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.¹⁰⁹ 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.¹¹⁰ 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.

¹⁰⁹ 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 FBOs 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, refer to the Special Situations section (VI) of this Guide.

¹¹⁰ 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 VII-1 to determine their creditworthiness component, and U.S. branches and agencies of FBOs should use table VII-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 period¹¹¹
- 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

¹¹¹ A cure period is a provisional time period where an institution is allowed to resolve issues related to its noncompliance with regulatory requirements.

creditworthiness, the creditworthiness rating achieved is not necessarily related to or reflective of the rating that would result from a regulatory examination.

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

Capital category	Supervisory composite rating ¹¹²			
	<i>Strong</i>	<i>Satisfactory</i>	<i>Fair</i>	<i>Marginal or unsatisfactory</i>
<i>Well capitalized</i>	Excellent	Very good	Adequate	Below standard
<i>Adequately capitalized</i>	Very good	Very good	Adequate	Below standard
<i>Undercapitalized</i>	**	**	Below standard	Below standard
<i>Significantly or critically undercapitalized</i>	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

¹¹² 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.

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

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

SOSA ranking ¹¹³	U.S. Operations Supervisory Composite Rating*			
	<i>Strong</i>	<i>Satisfactory</i>	<i>Fair</i>	<i>Marginal or unsatisfactory</i>
<i>SOSA 1</i>	Excellent	Very good	Adequate	Below standard
<i>SOSA 2</i>	Adequate	Adequate	**	Below standard
<i>SOSA 3</i>	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 FBOs 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.

¹¹³ In October 2000, Strength of Support Assessment (SOSA) rankings were made available to foreign banking organizations' 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.

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 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 banking organizations

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 FBOs, however, cannot be separated from the FBO. As a result, all of the U.S. branches and agencies 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 an FBO 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 payment 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 payment activity, the longer the interval that should be selected for analysis. The analysis will need to incorporate all operational areas with access to payment 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 banking organizations, 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.¹¹⁴ 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.¹¹⁵

¹¹⁴ The schedule of posting rules is located in part II of the PSR policy, available at http://www.federalreserve.gov/paymentsystems/psr_policy.htm.

¹¹⁵ For more information, please see *Outsourcing of Information and Transaction Processing*, SR Letter 00-4, February 29, 2000.

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 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 payment 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 payment 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 payment 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 payment processing systems. Virtually all electronic payment 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 payment-processing system. Once an electronic payment 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 payment 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 VII-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 VII-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