

## Payments Systems Risk

Since the 1950s, major corporations and financial institutions have increasingly replaced checks with electronic funds transfers as the principal means of payment. As a result, several payment networks have been established to process the bulk of the transactions. For financial institutions, these transactions are handled by wholesale or large dollar systems such as Fedwire or private networks like the Clearing House Interbank Payment System (CHIPS).

### WHOLESALE OR LARGE DOLLAR FUNDS TRANSFER SYSTEMS

Fedwire is a nationwide electronic payments network operated by the Federal Reserve System. It provides immediate and irrevocable payments for electronic transfers, and it functions as both a clearing and settlement facility. Institutions make up the network, and each member is required to maintain a reserve or clearing account with the Federal Reserve Bank in order to be eligible to use the network's services.

LINKS	
 <a href="#">Program</a>	CHIPS is a private international payments clearing system for transactions between U.S. domestic and foreign institutions. The Federal Reserve Bank of New York provides an escrow account for CHIPS in which settlement payments are accumulated and disbursed. CHIPS participants settle at the end of each business day by making transfers to the escrow account through Fedwire. Unlike Fedwire, all payments are provisional and subject to final settlement.
 <a href="#">Questionnaire</a>	
 <a href="#">Appendix A</a>	

### DAYLIGHT OVERDRAFTS AND RISK

Increased activity in electronic transfers of funds has heightened the concern regarding the risks involved in these activities. On both Fedwire and private networks (e.g., CHIPS), institutions are subjected to risk by permitting customers to make transfers against uncollected or insufficient balances in anticipation of their coverage before the end of the business day. Intraday or daylight overdrafts occur when funds are transferred from an account in excess of collected balances during the same day. Daylight overdrafts can occur anytime during a business day when transactions are debited or credited to an institution's account.

On Fedwire, all transactions are immediate and irrevocable. The Federal Reserve Bank of the sending institution guarantees that funds are immediately available to the receiving institution. The receiving institution can immediately pass collected funds to its customer and will bear no risk if the sending institution fails to settle its obligation. This risk of participants not paying their creditors at the end of the business day is known as settlement risk. The Federal Reserve Bank assumes direct risk in the event

a participant fails to settle its net position. Potential loss exposure due to errors and omissions and fraud is another risk associated with Fedwire.

Since October 1990, CHIPS has had controls in place to help ensure timely end-of-day settlement in the event that a participant with a large intraday net debit position is unable to cover its obligations by the close of business. Concrete commitments between participants of CHIPS are in the form of loss-sharing arrangements backed by either collateral or lines of credit. These features help to ensure the liquidity and resources needed to guarantee settlement in the event of default by one or more participants.

## PAYMENTS SYSTEM RISK POLICY STATEMENT

The Board of Governors of the Federal Reserve System issued the Payments Systems Risk (PSR) policy statement on May 17, 1985 in its approach to control and reduce the risks to institutions participating in large dollar wire transfer systems. The policy statement defined the role of the Federal Reserve Bank and other financial institution supervisors in monitoring, examining, and counseling institutions to reduce the credit risk associated with their participation in these systems.

The policy statement established limits on intraday credit exposure for institutions and private networks that exchange large dollar transfers and settle their net positions on Federal Reserve accounts. An amendment established a 25% reduction in limits as of May 19, 1988. Three further amendments in the areas of an exempt category, a *de minimis* cap, and a revised capital definition were adopted by the Federal Reserve in January 1991.

## ELEMENTS OF THE PSR POLICY STATEMENT

### Self-Assessment and Net Debit Cap

If institutions do not qualify for one of the exemptions below, then they must conduct a self-assessment before incurring daylight overdrafts. Under the PSR policy statement, institutions that incur daylight overdrafts are encouraged to adopt caps that restrict their net dollar payment volume for both an individual network basis and an overall system basis.

Each private network participant establishes a maximum ceiling on the aggregate net debit position that an individual sender can incur on a single private network during the day at a point in time. This cap is referred to as the net debit cap.

The net debit cap is a maximum ceiling or cap on the aggregate net debit position (i.e., the value of all funds sent in excess of all funds received) that an individual sender can incur at any point during the day.

The net debit cap is based on a self-assessment of three criteria: (1) creditworthiness, (2) operational controls, policies, and procedures, and (3) credit policies and procedures. An overall assessment is developed consolidating the evaluations for each area to establish the net debit caps. The caps are

expressed as multiples of an institution's total capital, as defined under the policy statement, and limit transfers on both a daily and two-week average basis. The self-assessment and resultant cap are meant to be used for internal self-disciplinary purposes.

### *Total Capital*

Effective January 10, 1991, the Board of Governors amended its capital policy to replace adjusted primary capital with the capital qualifying for risk-based capital for the purpose of calculating maximum permissible daylight overdrafts. Risk-based capital, or total capital for savings associations, includes—until 1995—a declining amount of supervisory goodwill.

### *De Minimis Cap*

Certain institutions that meet appropriate standards of safety and soundness, with the approval of their boards of directors, are able to adopt *de minimis* caps. The *de minimis* cap allows the institution to incur daily peak overdrafts equal to 20% of total capital without conducting a self-assessment.

Institutions choosing the *de minimis* cap option are required to submit to their Federal Reserve Bank the annual board-of-directors' resolution that approves the use of daylight overdraft credit up to the level of the *de minimis* cap. This *de minimis* cap is useful to larger depository institutions that may have overdrafts of an amount between the exempt-from-cap category amount and the lowest cap level that requires a self-evaluation and board-of-directors' resolution. Institutions using *de minimis* should not habitually incur daylight overdrafts, as it is clear from the PSR policy that the *de minimis* option is for occasional use only.

Institutions that adopt a *de minimis* cap and that regularly incur daylight overdrafts will be counseled by their Federal Reserve Bank. Reserve Banks have the discretion to limit their own risk exposure from *de minimis* cap Depository Institutions (DIs) by imposing on individual DIs unilateral collateral requirements, or a lower cap or a zero cap, or all of the above. Institutions that fail to respond to counseling will be required to file for a higher cap (and do a self-evaluation) if their overdrafts exceed 20% of total capital.

### Exemptions

Effective January 10, 1991, healthy depository institutions that only rarely incur Fedwire overdrafts that are in excess of the lesser of \$10 million or 20% of total capital are excused from filing board-of-directors' resolutions or self-evaluations with their Reserve Banks. However, even for depository institutions meeting these size and frequency standards, the exemption is granted at the discretion of each Reserve Bank, which could—on the basis of consultation with supervisory personnel within the Reserve Bank or at other agencies—limit its own risk exposure to institutions that are under financial duress or that otherwise present unusual risk to the Reserve Bank by unilaterally imposing collateral requirements and a lower cap or a zero cap. Depository institutions on which the Reserve Banks have imposed a zero cap are prohibited from incurring funds overdrafts and—if they had access to the discount window—would have to collateralize any book-entry overdrafts. Depository institutions are free to file for a cap if they choose to do so and are required to do so if they exceed their exemption limits.

### Role of the Board of Directors

The role of an institution's board of directors under the policy is threefold:

- **Understanding** the institution's business as it relates to the payment systems and the risks both accepted by their institution and imposed on others by virtue of its participation in large dollar payment systems.
- **Controlling** the risk associated with cross-system activity by establishing either a *de minimis* cap or a net debit cap based on its assessment of creditworthiness, operational controls, and credit policies, and, if necessary, by approving interaffiliate funds transfer arrangements.
- **Reviewing** the institution's performance within the parameters of the program adopted to assure compliance.

The threefold role assumes that directors will be actively involved in the establishment and oversight of policy on electronic payments system activities and will be alert to the risks in extending daylight overdraft credit to customers and participating with other institutions on private networks.

The board of directors is required to communicate the self-assessment results by providing the Federal Reserve Bank with a copy of the annual directors' resolution. A directors' annual resolution should include: (1) the date the board of directors acted; (2) the rating for creditworthiness; (3) the rating for operational controls, policies, and procedures; (4) the rating for credit policies and procedures; (5) the overall self-assessment; (6) the associated cap for a two-week average period; and (7) the associated cap for a single day.

### The Self-Assessment Process

In general, an institution need not complete a self-assessment if it establishes a *de minimis* cap, is in the exempt category, or does not incur daylight overdrafts on Fedwire.

For all other institutions, the key elements of the PSR policy statement can be summarized as follows:

- The program is based on voluntary compliance. Institutions are encouraged to conduct self-assessments focused on three criteria that are evaluated separately:
  - Creditworthiness;
  - Operational controls, policies, and procedures; and
  - Customer credit policies and procedures.
- The three evaluations are consolidated in a single overall assessment falling into one of four cap classes. Each category corresponds to a cap multiple of total capital, as defined in the PSR policy statement, to determine the maximum allowable single-day and two-week daily average cross-system daylight overdraft:

<u>Cap Class</u>	<u>Cap Multiples</u>	
	<u>Single Day</u>	<u>Two Week Average</u>
High	2.250	1.500
Above Average	1.875	1.125
Average	1.125	0.750
No Cap	0.000	0.000

- The self-assessment should be reviewed and endorsed annually by the institution's board of directors or by the board of directors of a higher-level unit within a holding company structure.
- Regulators review the institution's self-assessment, documentation, and performance, taking appropriate action when warranted by safety and soundness considerations.
- The Federal Reserve Board of Governors periodically reviews performance under this voluntary program to determine if the net debit caps need to be modified or if a more formal regulatory approach is necessary.

Self-assessment review guidelines are provided in [Appendix A](#). The Federal Reserve Board is in the process of amending its self-assessment guidelines. When the new guidelines are issued, the Office of Thrift Supervision (OTS) will revise its examination procedures and Appendix A to reflect any changes applicable to savings associations.

## OTS RESPONSIBILITIES

The Board of Governors of the Federal Reserve System established the following key responsibilities of the OTS:

- Regulators should review the self-assessment file of each institution that has established net debit caps.
- Regulators should determine whether the institution diligently applied the guidelines of the PSR policy statement, whether the underlying analysis and methodology were reasonable, and whether the resultant self-assessment is consistent with the overall findings of the examination.
- An institution whose self-assessment rating is considered unreasonable is to be given the opportunity to review its self-assessment.
- Regulators should include any material findings as comments in the relevant sections of the report of examination, and these comments should be discussed with the board of directors.

- In the event the regulators determine that an institution's net debit caps should be lower than that reported to the Federal Reserve Bank, that determination should be reported to the specified liaison officer at the appropriate regional office.
- The appointed regional office liaison officer will notify the Federal Reserve Bank if an examination indicates that an institution's self-assessment is unreasonable.

## OTHER PAYMENTS SYSTEMS RISK

### Regulation F

On December 18, 1992, the Federal Reserve Board issued Regulation F (OTS Transmittal No. 79, dated January 22, 1993) to implement Section 308 of the Federal Deposit Insurance Corporation Improvement Act. The rule requires federally insured depository institutions to develop and implement internal control procedures to evaluate and control their exposure to their correspondent banks. Federal Home Loan Banks and Federal Reserve Banks are not considered correspondents for the purposes of Regulation F.

Regulation F requires savings associations to maintain written policies and procedures that mitigate excessive exposure to any individual correspondent. The regulation also requires periodic reviews of the overall financial condition of any correspondent to which the association has significant exposure. Furthermore, Regulation F requires associations to limit credit exposure to any individual correspondent to no more than 25% of the savings association's total capital unless the correspondent is at least adequately capitalized (as defined in 12 CFR 565.4 - total risk-based capital ratio of 8% or greater and Tier 1 capital ratio of 4% or greater). Because examination ratings are confidential and cannot be disclosed, Regulation F makes no provision for a lower leverage ratio if the correspondent has a composite rating of "1" under the CAMEL rating system.

Although Regulation F was effective December 19, 1992, savings associations had until June 19, 1993, to establish their policies and procedures for selecting and monitoring correspondents. Furthermore, the 25% limit on credit exposure to less than adequately capitalized correspondents is phased in. For the one-year period beginning June 19, 1994, the credit exposure for correspondents that are less than adequately capitalized is 50% of the association's capital. After June 19, 1995, the 25% limit becomes effective.

During regular examinations, examiners should determine: (1) if a savings association uses correspondents; (2) if it has credit exposure to its correspondents; (3) if it has written policies in place with regard to the selection and monitoring of its correspondents; and (4) if its exposure is limited as required by Regulation F.

### Unposted Electronic Transfer Funds

Another type of electronic transfer system gaining widespread use, known as the Automated Clearing House (ACH), arose as a computer-based counterpart to the paper-based system for facilitating the

collection and settlement of check-like payments. An ACH transaction is any data transmission from one institution to another via the ACH system. Payment instructions are sent from a Federal Reserve Bank to the ACH who then transmits the payment instructions to the receiving institution. The receiving institution posts the payments to the checking or saving accounts of the recipient. These ACH payments, chiefly salaries and benefits, are also known as direct deposits payments. ACH payments are governed by sections 210.7(e) and (f) of the Federal Reserve regulations.

Increased use of direct deposit payments for distribution of government transfer payments has heightened the risk of an institution's failure to return funds transmitted via ACH that cannot be properly posted to recipients' accounts. Common reasons payments cannot be posted are the death or legal incapacity of a recipient, the death of a beneficiary, or the recipient does not have a current account.

Sections 210.7(e) and (f) of the Federal Reserve regulations requires institutions to immediately return any payments that cannot be posted. The Financial Management Service (FMS), a bureau of the Department of the Treasury, issues Operational Guides that outline procedures for returning unposted funds and notifying government agencies of corrections or changes to recipients' account information.

Recovering unposted funds can be a complicated and time-consuming process that is not expected of regulators. Rather, regulators are requested to identify institutions that fail to post funds and to refer institution management to the appropriate procedures for returning funds.

FMS has developed an awareness program that includes training, self-auditing, and detailed guidance with a goal of promoting a higher degree of industry compliance with returns and reclamation regulations. The detailed guidelines are found in the Green Book, a supplement to the Treasury Financial Manual.

## REFERENCES

### United States Code (15 USC)

§ 1693                      Electronic Funds Transfer Act

### Code of Federal Regulations (12 CFR)

#### *Federal Reserve Board*

§ 205.2                      Electronic Funds Transfer (Regulation E)

§ 206                         Limitations on Interbank Liabilities (Regulation F)

§ 210.25                     Wire Transfers of Funds (Regulation J)

## Other References

Federal Financial Institutions Examination Council, Information Technology Handbook

Board of Governors of the Federal Reserve System, Policy Statement on Large Dollar Transfer Systems

Board of Governors of the Federal Reserve System, User's Guide to the Payments Systems Risk Policy Statement

U.S. Treasury Financial Manual, Green Book Supplement