

# **Reserve Maintenance Manual**



**Federal Reserve System**

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## I. INTRODUCTION

The Reserve Maintenance Manual provides information fundamental to understanding reserve calculations and account maintenance for depository institutions that file the FR 2900 (Report of Transaction Accounts, Other Deposits and Vault Cash) with the Federal Reserve, either weekly or quarterly. The Federal Reserve will update this manual when necessary, but in particular toward the end of each calendar year to reflect the annual indexation of values used in the calculation of reserve requirements.

Following this introduction, Chapters II and III of the manual present overviews of the single master account structure and the concepts of reserve calculation and maintenance. Subsequent chapters (IV-XIV) provide detailed information on these and related topics. Chapter XV contains calendars of computation and maintenance periods for both weekly and quarterly reporters. Chapter XVI provides a list of Reserve Bank contacts for questions on deposit reporting and reserve administration. Chapter XVII provides useful web links. Chapter XVIII is a Glossary defining terms whose initial occurrence in each of the chapters is in **bold type**.

While every effort has been made to incorporate all applicable regulatory and operating provisions, this manual should not be considered the final authority on reserve calculations and account maintenance. That authority rests with the Board of Governors of the Federal Reserve System.

## II. ACCOUNT STRUCTURE

The Federal Reserve has a flexible approach to providing accounting services. This approach is geared to meet the needs of depository institutions for consolidated account management and accounting information services under interstate branching. This approach also provides improved accounting services for those institutions that do not engage in interstate branching.

The account structure centralizes the account relationship between an institution and the Federal Reserve so that communications about the institution's account are coordinated through a single point of contact. The management of an institution's account **position** is centralized with one Reserve Bank, and the use of optional **subaccounts** provides an institution with flexibility to segregate its account information.<sup>1</sup>

### Master Account

With the exceptions noted below, each separately chartered institution is provided with a single **master account** at a designated Reserve Bank. (See Location of Account, II-2.) This single master account is both a record of financial transactions that reflects the financial rights and obligations of an account holder and of the Reserve Bank with respect to each other, and the place where opening and closing balances are determined. For each institution, all credits and debits resulting from the use of Federal Reserve services at any Federal Reserve office are booked to this single master account at one Reserve Bank. All overnight and daylight credit is disbursed and repaid through this account, and the Reserve Bank holding the account manages the credit risk posed by the institution's use of Federal Reserve services. Reserve administration is also managed through this account, unless an institution has entered into a pass-through agreement with a **correspondent**.

Under the single account structure, there is no distinction between clearing accounts and reserve accounts. Reserve balances and **clearing balances** (to the extent required) are commingled in the one master account held with one Reserve Bank. All end-of-day balances maintained in this one account are used by the institution to satisfy its **reserve balance requirement** as well as any **clearing balance requirement**.

If an institution is not required to maintain reserve balances, it may still establish a master account for the purpose of maintaining clearing balances with a Reserve Bank. Institutions that agree in advance to maintain a clearing balance requirement can earn credits on the balance, up to a set limit, that may be used to pay for eligible Federal Reserve priced services such as the Fedwire funds transfer service. Multiple accounts are permitted under certain circumstances during a transition period following a merger. (See Chapter XIV, Transition.)

*Foreign-related institutions.* U.S. branches and agencies of the same foreign bank and banking Edge and agreement corporations will have at most a single master account for each group of offices located in the same state and same District. However, the U.S. branches and agencies of a foreign bank and the offices of a banking Edge or agreement corporation can, in effect, simulate a single master account nationwide by passing required reserve balances through a single correspondent. (See Pass-through Reserve Accounts, II-2.)

<sup>1</sup> Terms that appear in **bold type** are defined in the Glossary provided at the end of this manual.

## Subaccounts

From a depository institution's perspective, the account structure provides a single account management relationship with the Federal Reserve, while supporting access to Federal Reserve financial services from any location. The account structure replicates the features and flexibility of a multiple account structure through the use of subaccounts, in which information on financial services can be segregated, but which do not reflect actual balances at the Reserve Bank. Subaccounts are information subsets and can be organized to meet varying informational needs presented by different organizational structures. While they do not show balances, subaccounts provide totals for debit and credit activity.

## Location of Account

An institution's master account is held at the Reserve Bank in the District where the institution is located. In general, the Federal Reserve considers a depository institution to be "located" where specified in its charter or organizing certificate, or, if not so designated, where its head office is located. If an institution's location is uncertain or would impede the Federal Reserve Board's or the Reserve Bank's performance of their statutory functions, the Federal Reserve Board, after consultation with the relevant Reserve Banks, may designate another location for account and membership purposes.<sup>2</sup> If location in a particular District will impede an institution's operational efficiency, the institution may request determination of a different location.

## Pass-through Reserve Balances

A nonmember depository institution, a U.S. branch or agency of a foreign bank, or a banking Edge or agreement corporation that is required to maintain reserve balances may choose either to maintain its required reserve balance directly with its Reserve Bank (as defined above) or to pass its required reserve balance through a correspondent's account. The U.S. branches and agencies of a foreign bank and the offices of a banking Edge or agreement corporation can, in this manner, simulate a single master account by passing required reserve balances through a single correspondent.

A correspondent holds pass-through reserve balances in a single, commingled master account, along with the correspondent's own reserve and clearing balances, if any. The master account is maintained at the Reserve Bank in the District where the correspondent is located. Eligible correspondents are Federal Home Loan Banks, the National Credit Union Administration Central Liquidity Facility, and depository institutions, U.S. branches and agencies of foreign banks, and banking Edge and agreement corporations that maintain required reserve balances at a Reserve Bank. The Federal Reserve Board reserves the right to permit other institutions, on a case-by-case basis, to serve as pass-through correspondents.

A **respondent** institution that passes required reserve balances through a correspondent may also wish to settle directly with its own Reserve Bank for some or all Federal Reserve services. The respondent may request a master account at its own Reserve Bank for such purposes. (See Chapter VIII, Clearing Balance Requirements and Earnings Credits.)

<sup>2</sup> The relevant Reserve Banks are those where the depository institution's charter or head office resides and where the depository institution proposes to be "located."

## III. CONCEPTS OF RESERVE CALCULATION AND MAINTENANCE

This chapter presents fundamental concepts for **reserve requirement** calculations and reserve maintenance.

The Federal Reserve Act (as amended by the Monetary Control Act of 1980) and the International Banking Act of 1978 impose reserve requirements on all depository institutions and banking Edge and agreement corporations that have transaction accounts, nonpersonal time deposits, or Eurocurrency liabilities. U.S. branches and agencies of foreign banks that have such deposits or liabilities are also subject to reserve requirements if they are part of or affiliated with a foreign bank with total, worldwide consolidated assets in excess of \$1 billion.<sup>3</sup> Regulation D, Reserve Requirements of Depository Institutions, issued by the Federal Reserve Board, defines depository institutions that are subject to reserve requirements, the liabilities that are reservable, and the associated reporting, reserve calculation, and maintenance requirements.

### Reserve and Clearing Requirements

A reserve requirement is the amount determined by applying the reserve ratios specified in Regulation D to an institution's **reservable liabilities** (comprised of **net transaction accounts**, nonpersonal time deposits, and Eurocurrency liabilities) during the relevant **computation period**. The institution must satisfy its reserve requirement in the form of **vault cash** or balances maintained either directly with a Reserve Bank or in a pass-through arrangement. Only nonmember institutions, U.S. branches and agencies of a foreign bank, and banking Edge or agreement corporations may establish a pass-through arrangement with a **correspondent**. The portion of the reserve requirement that is not satisfied by vault cash is called the **reserve balance requirement**. (See Chapter V, Calculation of Reserve Requirements.)

A **clearing balance requirement** is an amount that an institution may contract (or be required) to maintain with a Reserve Bank in addition to any reserve balance requirement. Balances held to meet a clearing balance requirement, up to a limit, generate **earnings credits** that can be used to offset service charges an institution may incur through its use of eligible Federal Reserve services. (See Chapter VIII, Clearing Balance Requirements and Earnings Credits.) A Reserve Bank may impose a clearing balance requirement if an institution has a history of frequent overnight or daylight overdrafts.

An institution's **total requirement** is the sum of its reserve requirement and its clearing balance requirement, if any.

The **total balance requirement** is the institution's reserve balance requirement (total required reserves less vault cash) plus its clearing balance requirement, if any. Vault cash can be used to satisfy only the reserve requirement, not the clearing balance requirement.

<sup>3</sup> In addition, any other foreign bank's branch located in the United States that is eligible to apply to become an insured bank under section 5 of the Federal Deposit Insurance Act (12 U.S.C. 1815) is required to maintain reserves as a nonmember depository institution. This provision applies to those foreign bank branches that were not affected by the deposit insurance provisions of the Foreign Bank Supervision Enhancement Act (12 U.S.C. 3104). That Act requires a foreign bank that wishes to accept or maintain deposit accounts of less than \$100,000 to do so through an insured U.S. bank subsidiary. Foreign bank branches that were insured as of December 19, 1991, may continue to accept or maintain deposit amounts of less than \$100,000.



# Reserve Maintenance Manual

## Reserve Computation and Maintenance Cycles

Reserve requirements are calculated on the basis of the Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2900). U.S. branches and agencies of foreign banks and banking Edge and agreement corporations operating within the same state and the same District file reports aggregated on that “same state/same District” basis. All other institutions filing these reports submit a single FR 2900 report covering all of their U.S. offices.<sup>4</sup> (See Chapter IV, Reporting Requirements.)

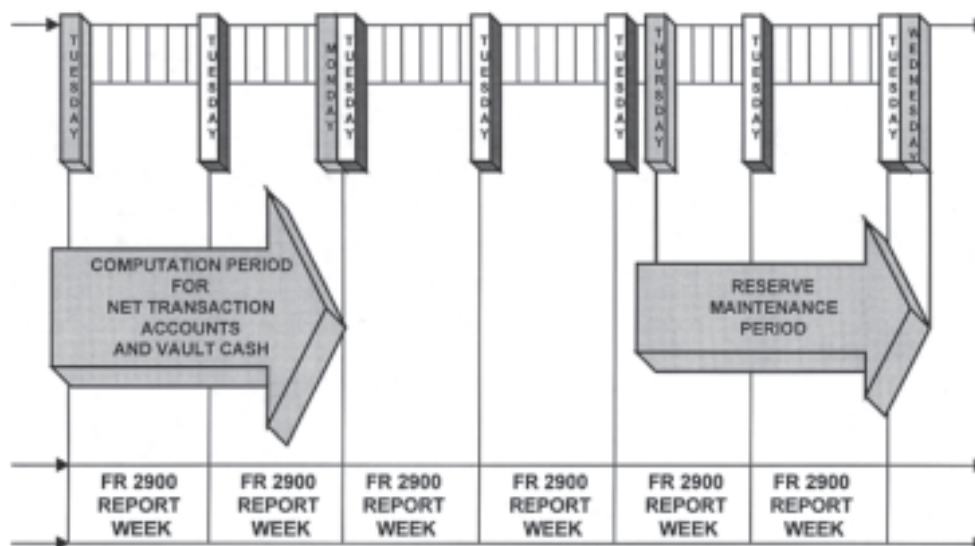
Each institution files its deposit reports with its own Reserve Bank, whether the institution maintains reserve balances directly with that Bank or whether it employs a correspondent in a pass-through arrangement. (See Chapter II, Account Structure.)

Reserve computation and maintenance cycles are governed by the frequency with which an institution files the FR 2900 report with the Federal Reserve, either weekly or quarterly. These cycles apply whether an institution maintains reserve balances directly with the Federal Reserve or whether it passes its reserve balance requirement through a correspondent.

### Weekly Reporters

*Weekly reporters* are those institutions that submit the FR 2900 to the Federal Reserve every week. Weekly reporting institutions maintain reserves on their reservable liabilities with a thirty-day lag.

As illustrated in the following time line, the **reserve maintenance cycle** for weekly reporters links a fourteen-day computation period (consisting of two seven-day **reporting periods**) to a fourteen-day **maintenance period**.



<sup>4</sup> Separate deposit reports may be filed in certain circumstances during a transition period following a merger. (See Chapter XIV, Transition.) Exceptions also may be made where one institution is a subsidiary of another institution, each chartered separately.





A maintenance period for quarterly reporters consists of seven consecutive days beginning on a Thursday and ending on the following Wednesday, during which an institution maintains balances to satisfy its total balance requirement. For a given computation period, the corresponding multi-week sequence of maintenance periods begins on the fourth Thursday following the end of that computation period and ends on the fourth Wednesday after the close of the next computation period. The maintenance cycle usually consists of thirteen weeks, but on occasion will be twelve or fourteen weeks long, depending on the calendar.

Expressed another way, the reserve requirement on reservable liabilities to be maintained in each of the maintenance periods in the thirteen-week cycle (or twelve or fourteen-week cycle) is determined on the basis of deposit data from the computation period that ended twenty-four days before the beginning of the first maintenance period. Vault cash from that same computation period is used to calculate the reserve balance requirement.

Please note that the reserve balance requirement based on deposit data and vault cash as of a given computation period must be maintained in each of the consecutive maintenance periods (weeks) in the reserve maintenance cycle.

### **Special Note for Accounts Containing Pass-through Reserve Balances**

The reporting status of the account-holding correspondent usually determines the maintenance period frequency for an account that contains pass-through reserve balances. However, if one of the **respondents** of the correspondent is required to report more frequently than the correspondent, then that respondent's reporting status determines the maintenance period for the correspondent's account.

For example, if the correspondent is a quarterly reporter, a nonreporter, or an agency eligible to hold pass-through reserve balances, and the correspondent has a respondent that is a weekly reporter, then the account of the correspondent will have a two-week maintenance period. The Federal Reserve requires pass-through arrangements to settle in the correspondent's account.

## **ACCOUNT MAINTENANCE**

### **Responsibility**

*Each depository institution is responsible for ensuring that its reserve requirement is satisfied for each maintenance period.* Reservable liabilities and vault cash change from one computation period to the next, and, consequently, an institution's reserve balance requirement varies over time. An institution therefore cannot assume that its reserve balance requirement will remain constant over time and must be prepared to adjust the balance at its Reserve Bank or in a pass-through arrangement from maintenance period to maintenance period.

For example, an institution might have a reserve balance requirement of zero for several maintenance periods, and then, because of a significant shift in reservable liabilities or vault cash, have a positive reserve balance requirement for a subsequent series of maintenance periods. An institution, including one whose reported vault cash is usually sufficient to satisfy its reserve requirement, should determine at the end of each computation period and before the start of the reserve maintenance period whether its vault cash is sufficient to meet its reserve requirement. If vault cash is not sufficient to satisfy the reserve requirement, then the institution will have to maintain balances at either its Reserve Bank or in a pass-through arrangement. If the institution has neither an account at its Reserve Bank nor a pass-through arrangement, it will incur a balance deficiency that is subject to charge. (See Deficiency Charges, III-6.) To avoid charges, the institution must open an account at its Reserve Bank or establish a pass-through arrangement with a correspondent, preferably before the start of the maintenance period, and then maintain a balance sufficient to satisfy its reserve balance requirement.

## Position

An institution's **position** reflects the difference between:

- The average end-of-day balance in the institution's **master account** at a Reserve Bank for the maintenance period, after adjustments for **carry-over**, the **clearing balance allowance**, and **as-of adjustments** (see below for definitions of these terms), and
- the institution's total balance requirement for that period.

If an institution's position is less than zero, it maintained a lower average end-of-day balance than required and its position is deemed deficient. If an institution's position is greater than zero, it maintained a higher average end-of-day balance than required and its position is deemed to be in excess.

## Balance Maintenance

By the end of each maintenance period, an institution must ensure that its average daily balance requirement is satisfied. An institution's end-of-day account balance may exceed or fall short of the total balance requirement on any given day of the maintenance period. An institution can offset a daily surplus or shortfall by maintaining lower or higher balances on subsequent days in the maintenance period because the balance requirement need only be met *on average* over the maintenance period. However, the balance in the master account at the end of the day should not fall below zero. *Negative account balances (overdrafts) at the close of business are strongly discouraged and charges are normally assessed on such overnight overdrafts.* In the event that the account balance at close of business is negative, that negative balance is used in the calculation of the average end-of-day balance for the maintenance period, even if the overdraft charge is waived by the Reserve Bank. Moreover, an institution's average end-of-day balance for a maintenance period should not fall below zero.

## As-of Adjustments

As-of adjustments are memorandum items applied to a depository institution's average end-of-day account balance for a maintenance period to offset the effect of certain types of errors on the institution's position or to recover float incurred by the institution. Debit (-) and credit (+) as-of adjustments can affect not only the current period's position but also a prior period's position (and, thereby, any excess or deficiency), and even a future period's position. (See Chapter VII, As-of Adjustments.)

## Clearing Balance Allowance

An institution that has a clearing balance requirement need only maintain its average end-of-day **clearing balance** within a range of its clearing balance requirement. The range is called the **clearing balance band**. The top of the clearing balance band is equal to the clearing balance requirement plus the clearing balance allowance. The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The top of the clearing balance band defines the maximum amount on which earnings credits can be earned. The bottom of the clearing balance band is equal to the clearing balance requirement less the clearing balance allowance. The bottom of the clearing balance band is used when determining whether deficiency charges apply. Please note that for institutions maintaining both a reserve balance requirement and a clearing balance requirement, carry-over is net of the clearing balance allowance. (See Chapter VIII, Clearing Balance Requirements and Earnings Credits.)

### Carry-over

An institution is permitted to carry over a portion of the current-period excess or deficiency to the following maintenance period. The amount of carry-over may not exceed the greater of \$50,000 or 4 percent of the total requirement for the period in which the excess or deficiency occurs. If an institution also has a clearing balance requirement, the allowable carry-over is net of the clearing balance allowance. An institution that has a clearing balance requirement but no reserve balance requirement is not eligible for carry-over. An institution will not have a reserve balance requirement if it satisfies its reserve requirement entirely with vault cash or if it is not subject to reserve requirements. (See Chapter IX, Carry-over.)

An excess carried into a maintenance period can be used to help offset all or part of a deficiency that may be incurred in that period, provided that such deficiency (in absolute value) is less than or equal to the institution's total balance requirement for that maintained period. An excess carried into a period cannot be used to offset that portion of a deficiency that resulted from a negative average **maintained balance** for the maintenance period. An institution could have a negative average maintained balance because of overnight overdrafts or the application of debit as-of adjustments.

A deficiency carried into a period must be offset by an equivalent excess in that maintenance period to avoid a charge on the portion of the deficiency that was carried in. If any portion of the deficiency that was carried in was not offset by an excess, that portion will be subject to charge. An excess or deficiency may not be carried over to the second period following the period in which the excess or deficiency occurs.

### Deficiency Charges

If a depository institution has both reserve balance and clearing balance requirements, the institution's average end-of-day account balance for the reserve maintenance period applies first to satisfy its reserve balance requirement, after which the remainder is used to satisfy the clearing balance requirement. Thus, an institution can be deficient either in its clearing balance requirement or in both its clearing balance and reserve balance requirements.

In any given maintenance period, if an institution fails to maintain an average end-of-day balance over the reserve maintenance period adequate to meet its total balance requirement (after the application of as-of adjustments, carry-over, and the clearing balance allowance), the institution may be subject to a monetary charge or, in rare instances, may be required to compensate for the deficiency in a future period.

The amount of the charge for a **reserve balance deficiency** is calculated at 1 percentage point above the **primary credit rate** (annual rate) in effect for borrowing from the Reserve Bank on the first day of the calendar month in which the deficiency occurs. Charges are assessed on the basis of the daily average deficiency during each maintenance period. In determining whether to assess a charge for a reserve balance deficiency, the Reserve Bank will consider the circumstances of the specific deficiency and the reserve maintenance history of the institution incurring it. (See Section 204.7 of Regulation D, Penalties.)

The amount of the charge for a **clearing balance deficiency** is calculated at an annual rate of 2 to 4 percent, depending on the magnitude of the deficiency. (See Chapter VIII, Clearing Balance Requirements and Earnings Credits.)

If an institution has a reserve or clearing balance requirement or both, an overnight overdraft in the master account could cause deficiencies in the required balances. The institution would be subject to a deficiency charge for either balance or both, as well as an overdraft charge.

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If an institution has neither a reserve balance requirement nor a clearing balance requirement and incurs an overdraft that results in a negative average end-of-day balance in its master account for the maintenance period, the institution is subject to a **clearing deficiency** charge in addition to an overdraft charge. The amount of a clearing deficiency charge is calculated at an annual rate of 2 percent.

## IV. REPORTING REQUIREMENTS

### OVERVIEW

The Federal Reserve Board has established four categories of deposit reporting for administering Regulation D, Reserve Requirements of Depository Institutions, and for constructing, analyzing, and controlling the monetary and reserve aggregates. Every institution is placed into one of these four categories for deposit reporting purposes.<sup>5</sup> In general, the larger the institution, the more detailed or more frequent the institution will have to report. (See Detailed Description of the Four Reporting Categories, IV-4.)

The first two reporting categories, characterized as “detailed reporting,” apply to institutions that are not exempt from **reserve requirements** (“nonexempt” institutions). Institutions subject to detailed reporting file the Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2900). Institutions file the report either weekly or quarterly, generally depending on the level of an institution’s deposits.<sup>6</sup> The report is used in the calculation of reserve requirements. (See Chapter V, Calculation of Reserve Requirements.)

The last two reporting categories, characterized as “reduced reporting,” apply to institutions that are exempt from reserve requirements (“exempt” institutions). Institutions subject to reduced reporting either file the Annual Report of Deposits and Reservable Liabilities (FR 2910a) or no report at all, depending on their deposit levels.

Report forms and instructions can be found on the Federal Reserve Board’s website or through the Federal Reserve System’s Reporting and Reserves website. (See Chapter XVII, Web Links.)

### Reporting Categories

The boundaries of the four deposit reporting categories are defined by three measures; the **exemption amount**, the **nonexempt deposit cutoff**, and the **reduced reporting limit**.

The exemption amount, the amount of an institution’s **reservable liabilities** that are subject to a zero-percent reserve requirement, is used to make the distinction between detailed reporting and reduced reporting.<sup>7</sup> In general, institutions with **net transaction accounts** equal to or less than the exemption amount over prescribed periods are exempt from reserve requirements and are subject to reduced reporting (categories 3 and 4). Institutions with net transaction accounts greater than the exemption over prescribed periods are not exempt from reserve requirements and are subject to detailed reporting (categories 1 and 2).

5 Depository institutions that are required to maintain reserves are defined in Section 204.1(c) of Regulation D. Classes of institutions subject to deposit reporting include commercial banks, industrial banks and similar institutions, mutual or stock banks, building or savings and loan associations, homestead associations, credit unions, banking Edge and agreement corporations and their branches, and U.S. branches and agencies of foreign banks.

6 Deposit levels are measured at the close of business each day. The level of deposits recorded for any day on which the depository institution is not open is the end-of-day level from the preceding business day on which that institution was open.

7 The Federal Reserve Act (as amended by the Garn-St. Germain Depository Institutions Act of 1982) establishes the exemption amount. It was set originally at \$2.0 million and is indexed annually by 80 percent of the percentage increase in total reservable liabilities of all depository institutions measured on an annual basis, as of June 30. No adjustment is made for a decrease in total reservable liabilities.

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Categories 1 (weekly reporting) and 2 (quarterly reporting) are further defined by the nonexempt deposit cutoff.<sup>8</sup> An institution with total transaction accounts, savings deposits, and small time deposits greater than or equal to the nonexempt deposit cutoff is assigned to weekly reporting, while an institution with total transaction accounts, savings deposits, and small time deposits less than the nonexempt deposit cutoff is assigned to quarterly reporting.

The reduced reporting limit provides an alternative means of defining category 1. Any institution with total transaction accounts, savings deposits, and small time deposits greater than or equal to the reduced reporting limit, regardless of the level of their net transaction accounts, is assigned to weekly reporting.

With the exceptions noted below (see Exceptions to Eligibility for Reduced Reporting, IV-7), a depository institution's levels of net transaction accounts, **total deposits**, and total transaction accounts, savings deposits, and small time deposits as of prescribed periods, measured against the boundaries that separate the reporting categories, determine the deposit reporting category into which the institution is placed. The Federal Reserve reviews membership in the four reporting categories annually, and reassigns institutions among categories each September.<sup>9</sup> The Reserve Banks notify institutions of any change in their reporting status. These shifts reflect movements in depository institutions' net transaction accounts, total deposits, or total transaction accounts, savings deposits, and small time deposits across the prevailing category boundaries. The subsection of this chapter titled, Annual Determination of Reporting Category, describes the specific periods used to measure an institution's net transaction accounts, total deposits, and total transaction accounts, savings deposits, and small time deposits against the category boundaries to determine the institution's placement in the appropriate reporting category.

<sup>8</sup> The Federal Reserve Board determines the nonexempt deposit cutoff. The Federal Reserve Board indexes the cutoff annually to grow at 80 percent of the June-to-June growth rate in total transaction accounts, savings deposits, and small time deposits at all depository institutions. Consistent with rules governing indexing the exemption amount, if total transaction accounts, savings deposits, and small time deposits decline in that period, the Federal Reserve Board will make no downward adjustment through the indexing process. On occasion, the Federal Reserve Board has increased the nonexempt deposit cutoff beyond its indexed level.

<sup>9</sup> Toward the end of each year, the Federal Reserve Board publishes in the Federal Register the revised exemption amount, nonexempt deposit cutoff, and reduced reporting limit figures that will be used for determining the reporting category reassignments to take place in September of the next calendar year.



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**TABLE 1 DEPOSIT REPORTING CATEGORIES – SEPTEMBER 2007 TO SEPTEMBER 2008**

<b>Nonexempt Institutions</b> (Detailed Reporting)		<b>Exempt Institutions</b> (Reduced Reporting)	
Net transaction accounts > \$8.5 <sup>i</sup> million OR Sum of total transaction accounts, savings deposits, and small time deposits ≥ \$1.163 <sup>ii</sup> billion		Net transaction accounts ≤ \$8.5 <sup>i</sup> million AND Sum of total transaction accounts, savings deposits, and small time deposits < \$1.163 <sup>ii</sup> billion	
<b>Category 1</b> (Weekly Reporters <sup>iii</sup> )	<b>Category 2</b> (Quarterly Reporters)	<b>Category 3</b> (Annual Reporters)	<b>Category 4</b> (Nonreporters <sup>v</sup> )
<ul style="list-style-type: none"> <li>Sum of total transaction accounts, savings deposits, and small time deposits ≥ \$207.7<sup>iv</sup> million</li> <li>File the 12-item FR 2900 report each week, and 3 annual items on each June 30</li> </ul>	<ul style="list-style-type: none"> <li>Sum of total transaction accounts, savings deposits, and small time deposits &lt; \$207.7<sup>iv</sup> million</li> <li>File the 12-item FR 2900 report one week each quarter, and 3 annual items on Monday of the June report week</li> </ul>	<ul style="list-style-type: none"> <li>Total deposits &gt; \$8.5<sup>i</sup> million</li> <li>File the 3-item FR 2910a report each June 30</li> </ul>	<ul style="list-style-type: none"> <li>Total deposits ≤ \$8.5<sup>i</sup> million</li> <li>Do not file an FR 2900 family report</li> </ul>

i Exemption amount.

ii Reduced reporting limit.

iii Banking Edge and agreement corporations and U.S. branches and agencies of foreign banks report weekly, regardless of size.

iv Nonexempt deposit cutoff.

v If data on the level of an institution's deposits are not readily available on a condition report, the institution is required to submit the FR 2910a.

### Detailed Description of the Four Reporting Categories

The four reporting categories are described below. Table 1 shows the exemption amount, the nonexempt deposit cutoff, and the level of the reduced reporting limit that took effect with the September 2007 reporting category assignments.

**Category One:** Depository institutions (other than banking Edge and agreement corporations and U.S. branches and agencies of foreign banks) with net transaction accounts greater than the exemption amount and with a sum of total transaction accounts, savings deposits, and small time deposits greater than or equal to the nonexempt deposit cutoff, or with a sum of total transaction accounts, savings deposits, and small time deposits greater than or equal to the reduced reporting limit, regardless of the amount of net transaction accounts, will be required to submit the FR 2900 weekly.

Banking Edge and agreement corporations and U.S. branches and agencies of foreign banks, regardless of size, must also submit the FR 2900 weekly. They are not eligible for reporting categories 2 through 4 below.

The weekly **reporting period** for the FR 2900 covers the seven-day period beginning on Tuesday and ending the following Monday.

**Category Two:** Depository institutions with net transaction accounts greater than the exemption amount and with a sum of total transaction accounts, savings deposits, and small time deposits less than the nonexempt deposit cutoff are required to submit the FR 2900 once each quarter, in March, June, September, and December.

The quarterly reporting period for the FR 2900 covers the seven-day period beginning on the third Tuesday of the report month and ending the following Monday.

**Category Three:** Depository institutions with net transaction accounts less than or equal to the exemption amount and with total deposits greater than the exemption amount but with total transaction accounts, savings deposits, and small time deposits below the reduced reporting limit are required to submit the FR 2910a. This report is filed as of June 30 each year.

**Category Four:** Depository institutions whose net transaction accounts and total deposits are less than or equal to the exemption amount are not required to submit any Federal Reserve deposit report as long as data on the level of an institution's deposits are readily available on a condition report.

Institutions for which deposit data are not readily available on a condition report will be required to submit the FR 2910a report to determine the appropriate reporting category.

## ANNUAL DETERMINATION OF REPORTING CATEGORY

The Federal Reserve Board (with verification by the Reserve Banks) determines the placement of institutions in appropriate categories and the Reserve Banks inform each institution of its particular reporting requirement. These determinations are made each July and become effective in September, as described below.

### Institutions Currently Reporting the FR 2900 Weekly

For these institutions, the reporting category is determined by an institution's net transaction accounts and the sum of its total transaction accounts, savings deposits, and small time deposits (weekly averages of daily data) for each of the thirteen FR 2900 reports ending with the report for the last full reporting week in June of the current year.

- a. An institution with total transaction accounts, savings deposits, and small time deposits greater than or equal to the reduced reporting limit for any one week of the thirteen-week cycle, regardless of their level of net transaction accounts, will continue to submit the FR 2900 on a weekly basis.
- b. An institution with net transaction accounts greater than the exemption amount for any one week of the thirteen-week cycle and with total transaction accounts, savings deposits, and small time deposits greater than or equal to the nonexempt deposit cutoff for any one week of the thirteen-week cycle will continue to submit the FR 2900 on a weekly basis.
- c. An institution with net transaction accounts greater than the exemption amount for any one week during the thirteen-week cycle and with total transaction accounts, savings deposits, and small time deposits less than the nonexempt deposit cutoff for each week of the thirteen-week cycle will continue to submit the FR 2900 as follows:
  - (1) The institution will continue to report on a weekly basis *through* the reporting week that begins on either the first or the second Tuesday in September of that year, depending on which is the second week of a reserve **computation period** for weekly reporters.
  - (2) The institution will then submit the FR 2900 on a quarterly basis, starting with the quarterly reporting period that begins on the third Tuesday in September.
- d. An institution with net transaction accounts less than or equal to the exemption amount and with total transaction accounts, savings deposits, and small time deposits less than the reduced reporting limit for each week of the thirteen-week cycle will continue to submit the FR 2900 on a weekly basis *through* the reporting week that begins on either the first or the second Tuesday in September, depending on which is the second week of a reserve computation period for weekly reporters. Thereafter, the institution will no longer be required to submit the FR 2900. Rather, the institution is provisionally shifted to the FR 2910a reporting category. Reexamination of the institution's reporting status will occur the following year based on its total deposits as reported in its condition report or, if the condition report is not readily available, based on a filing of the FR 2910a report.

### **Institutions Currently Reporting the FR 2900 Quarterly**

For these institutions, the reporting category is determined by an institution's net transaction accounts and the sum of its total transaction accounts, savings deposits, and small time deposits (weekly averages of daily data) on the FR 2900 quarterly report for the weeks that begin on the third Tuesdays of March and June of the current year.

- a. An institution with total transaction accounts, savings deposits, and small time deposits greater than or equal to the reduced reporting limit for either of the two weeks, regardless of their level of net transaction accounts, will submit the FR 2900 on a weekly basis, rather than on a quarterly basis. Weekly reporting will start with the report week that begins on either the second or the third Tuesday in September of the current year, depending on which is the first week of a reserve computation period for weekly reporters.
- b. An institution with net transaction accounts greater than the exemption amount for either of the two weeks, and with total transaction accounts, savings deposits, and small time deposits greater than or equal to the nonexempt deposit cutoff for either of the two weeks will submit the FR 2900 on a weekly basis, rather than on a quarterly basis. Weekly reporting will start with the report week that begins on either the second or the third Tuesday in September of the current year, depending on which is the first week of a reserve computation period for weekly reporters.
- c. An institution with net transaction accounts greater than the exemption amount for either of the two weeks and with total transaction accounts, savings deposits, and small time deposits less than the nonexempt deposit cutoff for both weeks will continue to submit the FR 2900 on a quarterly basis.
- d. An institution with net transaction accounts less than or equal to the exemption amount for both of the two report weeks and with total transaction accounts, savings deposits, and small time deposits less than the reduced reporting limit for both of the report weeks will no longer be required to submit the FR 2900. Rather, the institution is provisionally shifted to the FR 2910a reporting category. Reexamination of the institution's reporting status will occur the following year based on its total deposits as reported in its condition report or, if the condition report is not readily available, based on a filing of the FR 2910a report.

### **Institutions Currently Reporting the FR 2910a**

For these institutions, the reporting category is based on an institution's net transaction accounts and the sum of its total transaction accounts, savings deposits, and small time deposits (single-day data) on the FR 2910a for June 30 of the current year.

- a. An institution with total transaction accounts, savings deposits, and small time deposits greater than or equal to the reduced reporting limit, regardless of their level of net transaction accounts, will submit the FR 2900 on a weekly basis. Weekly reporting will start with the reporting week that begins on either the second or the third Tuesday in September of the current year, depending on which is the first week of a reserve computation period for weekly reporters.
- b. An institution with net transaction accounts greater than the exemption amount and with total transaction accounts, savings deposits, and small time deposits greater than or equal to the nonexempt deposit cutoff will submit the FR 2900 on a weekly basis. Weekly reporting will start with the reporting week that begins on either the second or the third Tuesday in September of the current year, depending on which is the first week of a reserve computation period for weekly reporters.
- c. An institution with net transaction accounts greater than the exemption amount and with total transaction accounts, savings deposits, and small time deposits less than the nonexempt deposit cutoff will submit the FR 2900 on a quarterly basis, starting with the reporting week that begins on the third Tuesday in September of the current year.
- d. An institution with net transaction accounts less than or equal to the exemption amount and with total transaction accounts, savings deposits, and small time deposits less than the reduced reporting limit will be reexamined the following year based on its total deposits as reported in its condition report or, if the condition report is not readily available, based on a filing of the FR 2910a report.

### **Institutions Not Reporting Previously**

An institution not reporting previously may be asked to submit a filing of the FR 2910a as of June 30 to determine its appropriate reporting category. Such institutions would include: those whose reports of condition filed with a federal supervisory agency or with a state regulator, or similar information indicate their deposit levels have reached or exceeded the exemption amount; and those institutions for which no data are available and, therefore, whose deposit levels are unknown.

Any institution asked to submit a filing of the FR 2910a is then subject to the reporting category review of that year under procedures described above for regular FR 2910a reporters.

### **Exceptions to Eligibility for Reduced Reporting**

Banking Edge and agreement corporations and U.S. branches and agencies of foreign banks, regardless of their size, are not eligible for reduced reporting. They must submit the FR 2900 on a weekly basis.

A depository institution that manipulates its reporting in an attempt to qualify for less frequent reporting or to reduce its reserve requirement may be required to report the FR 2900 on a weekly basis and maintain appropriate reserve balances with its Reserve Bank, regardless of its most recent category assignment.

# **Reserve Maintenance Manual**

## **Voluntary Shifts**

Any depository institution assigned to a category reporting less frequently than the FR 2900 weekly may elect instead to report deposits (and, if appropriate, maintain reserves) in accordance with a more frequent reporting category. An institution assigned to the FR 2910a category may elect to report instead on the FR 2900 quarterly or the FR 2900 weekly; an institution assigned to the FR 2900 quarterly category may elect to report instead on the FR 2900 weekly. However, any such voluntary shift may take place only once a year under the schedule described above for annual category determinations.

## **Fast-Growing Institutions**

A Reserve Bank may require a depository institution that is experiencing faster-than-normal growth to report on a more detailed or more frequent basis prior to the annual determination of reporting category described above.



## WHERE AND WHEN TO REPORT

A foreign bank's branches and agencies located in the same state and within the same District must submit an aggregated FR 2900 report to the Reserve Bank for the District in which they are located. A foreign bank's branches and agencies located in the same state but in different Districts must submit separate FR 2900 reports (aggregated by District) to their respective Reserve Banks.

All depository institutions, whether maintaining reserves directly with the Federal Reserve or in a pass-through arrangement, submit their deposit reports to the Reserve Bank for the District in which they are located. Institutions may file in one of three ways: by electronic transmission, fax transmission, or by mail. Please consult your Reserve Bank contact about the electronic filing option.

Table 2 provides a summary of the reporting periods for the FR 2900 and FR 2910a.

<b>TABLE 2 DEFINITION OF REPORTING PERIOD</b>	
<b>REPORT</b>	<b>REPORTING PERIOD</b>
Weekly FR 2900	Daily items: Tuesday through Monday — Each week 3 FR 2900 annual, single-day items: June 30 (one day each year)
Quarterly FR 2900	Daily items: Tuesday through Monday — Starting the third Tuesday in March, June, September, and December (four weeks each year) 3 FR 2900 annual, single-day items: Monday of the June report week (one day each year)
Annually FR 2910a	June 30 (one day each year)

## REVISING REPORTS

From time to time, as a result of routine edit and validity checks, Reserve Bank staff may contact a depository institution and request a review of FR 2900 data. On such occasions, the Reserve Bank will provide the institution with instructions on how to file revised reports, if necessary. If, on the other hand, an institution discovers an error or errors in data previously submitted, it should notify its Reserve Bank contact promptly about the nature of the errors and the periods affected. Reserve Bank staff will then inform the institution whether revised data will be necessary.

# Reserve Maintenance Manual

## REPORT SAMPLES

The remainder of this chapter contains samples of the various report forms covered in this manual. Report forms and instructions can be found on the Federal Reserve Board's website under "Reporting Forms" or through the Federal Reserve System's Reporting and Reserves website. (See Chapter XVII, Web Links.) The forms appear in the following order:

- FR 2900      Report of Transaction Accounts, Other Deposits and Vault Cash (for both weekly and quarterly reporters)
  
- FR 2910a     Annual Report of Deposits and Reservable Liabilities
  
- FR 2930      Allocation of Low Reserve Tranche and Reservable Liabilities Exemption

FR 2610  
 Chapter 7, 100-0087  
 Hours per response: 1.0 to 1.20  
 Approval expires September 30, 2009

## Report of Transaction Accounts, Other Deposits and Vault Cash

For the week ended Monday, \_\_\_\_\_.

This report is required by law (12 U.S.C. §§248(a), 461, 603, and 615). The Federal Reserve System regards the information provided by each respondent as confidential. If it should be determined subsequently that any information collected on

this form must be released, respondents will be notified. The Federal Reserve may not conduct or sponsor, and an organization (or a person) is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

### PLEASE READ INSTRUCTIONS PRIOR TO COMPLETION OF THIS REPORT.

Report all balances as of the close of business each day to the nearest thousand dollars.

For FRB Use Only	Column 1 Tuesday		Column 2 Wednesday		Column 3 Thursday		Column 4 Friday		Column 5 Saturday		Column 6 Sunday		Column 7 Monday		Column 8 Total		
	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	
A. TRANSACTION ACCOUNTS																	
1. Demand deposits:																	
a. Due to depository institutions	2698																A.1.a
b. Of U.S. Government	2280																A.1.b
c. Other demand	2340																A.1.c
2. ATS accounts and NOW accounts/share drafts, and telephone and preauthorized transfers	6917																A.2
3. Total transaction accounts (must equal sum of items A.1 through A.2 above)	2215																A.3
B. DEDUCTIONS FROM TRANSACTION ACCOUNTS																	
1. Demand balances due from depository institutions in the U.S.	0063																B.1
2. Cash items in process of collection	0020																B.2

Name and Address of Reporting Institution

I certify that the information shown on this report is correct.

Please return no later than

Authorized Signature

Person to be Contacted Concerning this Report (please print)

To:

Title

Area Code and Telephone Number

Email Address

(please continue on reverse)

Items	For FRB Use Only	Report all balances as of the close of business each day to the nearest thousand dollars.														Column 8 Total		
		Column 1 Tuesday		Column 2 Wednesday		Column 3 Thursday		Column 4 Friday		Column 5 Saturday		Column 6 Sunday		Column 7 Monday				
		Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou	Mill	Thou			
C. 1. TOTAL SAVINGS DEPOSITS (including MMDAs) .....	2389																	C.1
D. 1. TOTAL TIME DEPOSITS .....	2514																	D.1
E. 1. VAULT CASH .....	0080																	E.1
F. MEMORANDUM ITEM 1. All time deposits with balances of \$100,000 or more (included in Item D.1 above) .....	2604																	F.1
If your institution had no funds obtained through use of ineligible acceptances or through issuance of obligations by affiliates, please check this box and do not complete Schedule AA. <input type="checkbox"/>																		
SCHEDULE AA:																		
1. Ineligible acceptances and obligations issued by affiliates maturing in less than 7 days .....																		
2245																		
AA.1																		

**THE FOLLOWING ITEMS SHOULD BE REPORTED IN JUNE ONLY**

**Weekly reporters:** Report balance as of close of business on June 30 each year

**Quarterly reporters:** Report balance as of close of business on Monday of June report week each year

June report day	June report day	
	Mill	Thou
6918		

BB.1

SCHEDULE BB: NONPERSONAL ITEMS

- Total nonpersonal savings and time deposits (included in Items C.1 and D.1 above) .....

If your institution had no funds obtained through use of ineligible acceptances or through issuance of obligations by affiliates, please check this box and do not complete Item BB.2.

June report day	June report day	
	Mill	Thou
6919		

BB.2

- Ineligible acceptances and obligations issued by affiliates maturing in 7 days or more (Nonpersonal Only) .....

If your institution had no foreign borrowings, please check this box and do not complete Schedule CC.

June report day	June report day	
	Mill	Thou
C434		

CC.1

SCHEDULE CC:

- Net Eurocurrency liabilities .....

## Annual Report of Deposits and Reservable Liabilities

As of the close of business on June 30, 2008.

This report is required by law [12 U.S.C. §§248(a) and 461].

The Federal Reserve System regards the information provided by each respondent as confidential. If it should be determined subsequently that any information collected on this form must be released, respondents will be notified. The Federal Reserve may not conduct or sponsor, and an organization (or a person) is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

PLEASE READ INSTRUCTIONS PRIOR TO COMPLETION OF THIS REPORT.

Report all balances as of the close of business to the nearest thousand dollars.			
Items	For FRB Use Only	Amount Outstanding	
		Mil	Thou
1. Total Transaction Accounts, Savings Deposits, and Small Time Deposits .....	F026		
2. Reservable Liabilities .....	2246		
a. Net Transaction Accounts .....	2214		

Please check this box if your depository institution (1) has non-U.S. branches or has obtained funds from sources outside the United States during the period covered by this report or (2) has ineligible acceptances outstanding or has obtained funds through issuance of obligations by affiliates.

Name and Address of Reporting Institution \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

I certify that the information shown on this report is correct.  
 \_\_\_\_\_  
 Authorized Signature  
 \_\_\_\_\_  
 Title  
 \_\_\_\_\_  
 Person to be Contacted Concerning this Report (please print)  
 \_\_\_\_\_  
 Area Code and Telephone Number

Email address \_\_\_\_\_

Please return no later than

To:

REPORTING REQUIREMENTS





## V. CALCULATION OF RESERVE REQUIREMENTS

### OVERVIEW

The Federal Reserve Act requires each depository institution to maintain reserves against its **net transaction accounts**, nonpersonal time deposits, and Eurocurrency liabilities (collectively referred to as **reservable liabilities**), as prescribed by Federal Reserve Board regulations. (See Regulation D, Reserve Requirements of Depository Institutions (12 C.F.R. 204).)

**Reserve requirements** are calculated by applying the reserve ratios specified in Regulation D to daily-average reservable liabilities during a reserve **computation period**. (See Chapter III, Concepts of Reserve Calculation and Maintenance.)

### Reserve Ratios

The following table shows the reserve ratios that are prescribed for all depository institutions, banking Edge and agreement corporations, and U.S. branches and agencies of foreign banks for 2008.<sup>10</sup>

Category	Reserve ratios
Net transaction accounts:	
For the amount from \$0 to (and including) \$9.3 million <sup>i</sup>	0 percent
For the amount over \$9.3 million to (and including) \$43.9 million <sup>ii</sup>	3 percent
For the amount over \$43.9 million	10 percent
Nonpersonal time deposits	0 percent
Eurocurrency liabilities	0 percent
<hr/> <sup>i</sup> \$9.3 million is the exemption amount. <sup>ii</sup> \$43.9million is the amount of the low reserve tranche.	

<sup>10</sup> For institutions that report weekly, these ratios take effect for the reserve computation period that begins Tuesday, November 20, 2007, and the corresponding reserve **maintenance period** that begins Thursday, December 20, 2007. For institutions that report quarterly, the ratios take effect for the reserve computation period that begins Tuesday, December 18, 2007, and the corresponding reserve maintenance period that begins Thursday, January 17, 2008.

# Reserve Maintenance Manual

## Reservable Liabilities Exemption

An institution's reservable liabilities up to a specified amount are subject to a reserve requirement of zero percent. The amount of reservable liabilities subject to the zero-percent reserve requirement (the **exemption amount**) is adjusted each year for the next succeeding calendar year. The adjustment in the exemption amount is 80 percent of the percentage increase in total reservable liabilities of all depository institutions, measured on an annual basis as of June 30. (No adjustment is made for a decrease in total reservable liabilities.) The exemption amount for calendar year 2008 is \$9.3 million.

## Low Reserve Tranche

An institution's net transaction accounts, up to a specified amount, are subject to a reserve requirement ratio of 3 percent. This amount is referred to as the **low reserve tranche**. Net transaction accounts above the low reserve tranche are subject to a higher rate, currently 10 percent. The low reserve tranche is adjusted each year for the next succeeding calendar year by 80 percent of the percentage increase or decrease in net transaction accounts at all depository institutions, measured on an annual basis as of June 30. The low reserve tranche for calendar year 2008 is \$43.9 million.

In the calculation of reserve requirements, the exemption amount is subtracted from net transaction accounts before the reserve ratios are applied. The low reserve tranche is then adjusted downward by the amount of exemption applied to net transaction accounts. The adjusted low reserve tranche for calendar year 2008 is \$34.6 million.

<b>Example</b>	
	(millions)
Total net transaction accounts	\$75.0
Reserved at 0 percent	9.3 <sup>i</sup>
Reserved at 3 percent	34.6 <sup>ii</sup>
Reserved at 10 percent	31.1 <sup>iii</sup>
<hr/>	
<sup>i</sup>	Exemption amount.
<sup>ii</sup>	Low reserve tranche (\$43.9 million) less \$9.3 million exemption.
<sup>iii</sup>	Net transaction accounts (\$75.0 million) less low reserve tranche (\$43.9 million).

### Allocation of Low Reserve Tranche and Exemption

Except as noted below, each separately chartered institution receives one low reserve tranche and one exemption. For those institutions that file multiple FR 2900 reports instead of one single report, the low reserve tranche and the exemption must be allocated among the reporting offices (or groups of offices). The report titled Allocation of Low Reserve Tranche and Reservable Liabilities Exemption (FR 2930) is used for this allocation.

The following are exceptions to the rule that each separately chartered institution is entitled to one low reserve tranche and exemption:

- *Foreign-related institutions:* All U.S. branches and agencies of the same foreign bank and banking Edge and agreement corporations receive one low reserve tranche and one exemption. The low reserve tranche and the exemption must be allocated between the reporting offices (or groups of offices) using the FR 2930.
- *Where one depository institution is a subsidiary of another depository institution:* For example, where one savings and loan association owns another, they will share a single low reserve tranche and exemption even though each is separately chartered. The low reserve tranche and the exemption must be allocated between the two depository institutions using the FR 2930.

### Transitional Adjustments for Mergers

In cases of mergers and consolidations of depository institutions, the reserve requirement of the single surviving institution typically is higher than the combined reserve requirements of the merging institutions, owing to the loss of the low reserve tranches and exemptions for the non-surviving institutions. In that circumstance, in order to cushion the abrupt increase in the reserve requirement for the merged institution, the increase in the requirement is phased in over a seven-quarter period following the merger or consolidation. (See Chapter XIII, Mergers.)

### CALCULATION WORKSHEETS FOR WEEKLY REPORTERS

For weekly deposit reporters, a computation period consists of fourteen consecutive days beginning on a Tuesday and ending on the second Monday thereafter. A computation period consists of two seven-day **reporting periods** that start on a Tuesday and end on the following Monday.

A maintenance period consists of fourteen consecutive days beginning on a Thursday and ending on the second Wednesday thereafter. The **reserve balance requirement** to be satisfied during a maintenance period is based on the daily average level of net transaction accounts and vault cash held during a given computation period. For weekly reporters, the reserve maintenance period starts thirty days after the beginning of a reserve computation period. (See Chapter III, Concepts of Reserve Calculation and Maintenance.)

The Reserve Banks calculate reserve requirements and provide the information to depository institutions before the start of each maintenance period. (See Chapter VI, Requirement and Position Reports.) In the event that an institution wishes to calculate its requirements before receiving the information from the Reserve Bank, it may use the following worksheets. The worksheets use current reserve requirement ratios. If those ratios change, worksheet calculations will not be accurate.

(Note: The worksheets do not reflect calculations that must be performed for institutions that have been involved in mergers. See Chapter XIII, Mergers.)

# Reserve Maintenance Manual

## Organization of Worksheets

The worksheets focus on a single fourteen-day computation period, which consists of two consecutive one-week (seven-day) reporting periods:

- Section 1 calculates average end-of-day levels of designated FR 2900 data items over the fourteen-day computation period.
- Section 2 calculates net transaction accounts, using the averages computed in Section 1.
- Section 3 applies the exemption and the low reserve tranche to net transaction accounts.
- Section 4 calculates the reserve requirement by applying the appropriate reserve ratios to net transaction accounts, after application of the exemption and low reserve tranche.
- Section 5 applies vault cash from the same fourteen-day computation period used to calculate the total reserve requirement, and generates the reserve balance requirement for the maintenance period that begins thirty days after the beginning of the current computation period. Section 5 then adds the institution's **clearing balance requirement** (if any) to the reserve balance requirement to generate the **total balance requirement**.

### Weekly Reporters

## SECTION 1: FOURTEEN-DAY AVERAGES OF FR 2900 DATA

	(1) Total first week	(2) Total second week	(3) Computation period total	(4) Fourteen-day average
A.3 Total transaction accounts	<input type="text"/>	+ <input type="text"/>	= <input type="text"/>	÷14= <input type="text"/>
AA.1 Ineligible acceptances and obligations issued by affiliates maturing in less than seven days	<input type="text"/>	+ <input type="text"/>	= <input type="text"/>	÷14= <input type="text"/>
B.1 Demand balances due from depository institutions in the U.S.	<input type="text"/>	+ <input type="text"/>	= <input type="text"/>	÷14= <input type="text"/>
B.2 Cash items in process of collection	<input type="text"/>	+ <input type="text"/>	= <input type="text"/>	÷14= <input type="text"/>
E.1 Vault cash	<input type="text"/>	+ <input type="text"/>	= <input type="text"/>	÷14= <input type="text"/>

### Instructions

For each FR 2900 data item: (a) sum the end-of-day levels for all seven days in the reporting period (Tuesday through Monday); (b) enter the seven-day total for week one of the computation period in Column 1, and for week two of the computation period in Column 2; (c) add the figures in Columns 1 and 2 and enter the total in Column 3; (d) divide Column 3 totals by fourteen and enter the result in Column 4.

## SECTION 2: NET TRANSACTION ACCOUNTS

FR 2900 items	(1) Fourteen-day average		(2)		(3)
A.3 Total transaction accounts		+	<b>A. Gross transaction accounts</b>		<b>Net transaction accounts</b>
AA.1 Ineligible acceptances and obligations issued by affiliates maturing in less than seven days		=			
B.1 Demand balances due from depository institutions in the U.S.			-		
B.2 Cash items in process of collection		+			

### Instructions

**Column 1:** Copy the fourteen-day averages from Section 1, Column 4.

**Column 2, Box A, Gross transaction accounts:** Add total transaction accounts (FR 2900 item A.3) and ineligible acceptances and obligations issued by affiliates maturing in less than seven days (FR 2900 item AA.1) and enter sum in Column 2, Box A.

**Column 2, Box B, Total deductions:** Add demand balances due from depository institutions in the U.S. (FR 2900 item B.1) and cash items in process of collection (FR 2900 item B.2) and enter sum in Column 2, Box B.

**Column 3, Net transaction accounts:** Subtract total deductions (Column 2, Box B) from gross transaction accounts (Column 2, Box A) and enter result in Column 3. If the result is zero or negative, or the result is less than or equal to the exemption amount, your reserve requirement is zero and no further calculations are necessary. Proceed to Section 5 and enter zero in Row 3.

## SECTION 3: APPLICATION OF EXEMPTION AND TRANCHE<sup>11</sup>

(1) Net transaction accounts	(2) Exemption	(3) Net transaction accounts > exemption	(4) Application of low reserve tranche	(5) Net transaction accounts > low reserve tranche
			Low reserve tranche <input style="width: 100px; height: 20px;" type="text"/>	
			Exemption - <input style="width: 100px; height: 20px;" type="text"/>	
			Adjusted low reserve tranche = <input style="width: 100px; height: 20px;" type="text"/>	
Net transaction accounts	Exemption	Net transaction accounts > exemption	Net transaction accounts ≤ adjusted low reserve tranche	Net transaction accounts > low reserve tranche
<input style="width: 60px; height: 25px;" type="text"/>	-	<input style="width: 60px; height: 25px;" type="text"/>	=	<input style="width: 60px; height: 25px;" type="text"/>
		-	<input style="width: 60px; height: 25px;" type="text"/>	=
				<input style="width: 60px; height: 25px;" type="text"/>

### Instructions

**Column 1, Net transaction accounts:** Copy from Section 2, Column 3.

**Column 2, Exemption:** Enter the current exemption amount.

**Column 3, Net transaction accounts > exemption:** Subtract the exemption amount (Column 2) from net transaction accounts (Column 1) and enter the result in Column 3. If the result is zero or negative, your reserve requirement is zero and no further calculations are necessary.

**Column 4, Application of tranche:** Net transaction accounts are subject to two reserve ratios: a lower ratio for amounts up to a base amount (the low reserve tranche) and a higher rate for amounts that exceed the low reserve tranche. To derive the amount subject to the lower ratio, compare the level of net transaction accounts greater than the exemption amount with the low reserve tranche adjusted for the exemption amount as follows: Enter the low reserve tranche in the top box in Column 4 and enter the exemption amount in the second box down in that column. Compute the adjusted low reserve tranche by subtracting the exemption from the low reserve tranche and enter the result in the third box down in Column 4. Compare this result with the amount in the box at the bottom of Column 3 ("Net transaction accounts > exemption"). In the bottom box in Column 4, enter either the adjusted low reserve tranche or the final amount from Column 3, whichever is less.

**Column 5, Net transaction accounts > low reserve tranche:** Subtract the last box in Column 4 from Column 3 and enter in Column 5.

<sup>11</sup> Depository institutions that file multiple FR 2900 reports (instead of a single report) must allocate the exemption and the low reserve tranche among their reporting offices (or groups of offices). The low reserve tranche allocated to each office must always equal or exceed the exemption allocated to that office. (See Allocation of Low Reserve Tranche and Exemption, V-3.)



## SECTION 4: RESERVE REQUIREMENT

(1) Net transaction accounts > exemption	(2) Reserve ratio	(3) Reserve requirement	(4) Total reserve requirement
<p><b>A. Amount ≤ adjusted low reserve tranche</b></p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px auto;"></div>	x .03 =	<p><b>A. On net transaction accounts ≤ adjusted low reserve tranche</b></p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px auto;"></div>	
		+	
<p><b>B. Amount &gt; low reserve tranche</b></p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px auto;"></div>	x .10 =	<p><b>B. On net transaction accounts &gt; low reserve tranche</b></p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px auto;"></div>	
			=
			<p><b>Total reserve requirement</b></p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px auto;"></div>

### Instructions

**Column 1, Box A:** Enter the figure from Section 3, the bottom box of Column 4.

**Column 1, Box B:** Enter the figure from Section 3, Column 5.

**Column 3, Reserve requirement:** Multiply each category in Column 1 by the reserve ratio in Column 2 to generate the reserve requirement on that category.

**Column 4, Total reserve requirement:** Add Box A and Box B of Column 3 and enter the result in Column 4. (Note: Total reserve requirement is not net of any **tranche loss adjustments** arising from previous mergers. See Chapter XIII, Mergers.)

## SECTION 5: TOTAL BALANCE REQUIREMENT

1.	Total reserve requirement (from Section 4, Column 4)		<input type="text"/>
2.	Less: Vault cash (FR 2900 item E.1, Section 1, Column 4)	-	<input type="text"/>
3.	Equals: Reserve balance requirement	=	<input type="text"/>
			(If negative, set to zero)
4.	Plus: Clearing balance requirement (if any)	+	<input type="text"/>
5.	Equals: Total balance requirement for the maintenance period	=	<input type="text"/>

## CALCULATION WORKSHEETS FOR QUARTERLY REPORTERS

Quarterly reporters file their deposit reports one week each calendar quarter, in March, June, September, and December. The quarterly report covers the seven-day period that begins on the third Tuesday of the month and ends the following Monday (the reporting period). For quarterly reporters, the **reserve maintenance cycle** links one seven-day computation period (which is concurrent with a reporting period) with successive (usually thirteen) seven-day maintenance periods.

A maintenance period consists of seven consecutive days beginning on a Thursday and ending on the following Wednesday. The reserve balance requirement, based on the daily average level of net transaction accounts and vault cash held during a given computation period, must be maintained in each of the consecutive maintenance periods (weeks) in the reserve maintenance cycle. The reserve maintenance cycle for a quarterly reporter consists of a sequence of one-week maintenance periods which begins on the fourth Thursday following the end of the computation period and ends on the fourth Wednesday following the end of the next computation period. The reserve maintenance cycle usually consists of thirteen one-week maintenance periods, but on occasion will be twelve or fourteen weeks long, depending on the calendar. (See Chapter III, Concepts of Reserve Calculation and Maintenance.)

The Reserve Banks calculate reserve requirements and provide the information to depository institutions before the start of each maintenance period. (See Chapter VI, Requirement and Position Reports.) In the event that an institution wishes to calculate its requirements before receiving the information from the Reserve Bank, it may use the following worksheets. The worksheets use current reserve requirement ratios. If those ratios change, worksheet calculations will not be accurate.

(Note: The worksheets do not reflect calculations that must be performed for institutions that have been involved in mergers. See Chapter XIII, Mergers.)

### Organization of Worksheets

The worksheets focus on a single quarterly, seven-day computation period.

- Section 1 calculates average end-of-day levels of designated FR 2900 items for the seven-day computation period.
- Section 2 calculates net transaction accounts, using the averages computed in Section 1.
- Section 3 applies the exemption and the low reserve tranche to net transaction accounts.
- Section 4 calculates the reserve requirement by applying the appropriate reserve ratios to net transaction accounts, after application of the exemption and low reserve tranche.
- Section 5 applies vault cash from the same seven-day computation period used to calculate the total reserve requirement, and generates the reserve balance requirement for the maintenance period that begins thirty days after the beginning of the current computation period. Section 5 then adds the institution's clearing balance requirement (if any) to the reserve balance requirement to generate the total balance requirement.

### SECTION 1: SEVEN-DAY AVERAGES OF FR 2900 DATA

FR 2900 items	(1) Weekly total		(2) Seven-day average
A.3 Total transaction accounts	<input type="text"/>	÷ 7 =	<input type="text"/>
AA.1 Ineligible acceptances and obligations issued by affiliates maturing in less than seven days	<input type="text"/>	÷ 7 =	<input type="text"/>
B.1 Demand balances due from depository institutions in the U.S.	<input type="text"/>	÷ 7 =	<input type="text"/>
B.2 Cash items in process of collection	<input type="text"/>	÷ 7 =	<input type="text"/>
E.1 Vault cash	<input type="text"/>	÷ 7 =	<input type="text"/>

#### Instructions

For each FR 2900 data item, sum the end-of-day levels for all seven days in the reporting period (Tuesday through Monday) and enter this figure as the weekly total in Column 1. Divide Column 1 totals by seven and enter the result in Column 2.

## SECTION 2: NET TRANSACTION ACCOUNTS

FR 2900 items	(1) Seven-day average		(2)		(3)
A.3 Total transaction accounts	[ ]	+	<b>A. Gross transaction accounts</b>	=	
AA.1 Ineligible acceptances and obligations issued by affiliates maturing in less than seven days	[ ]		[ ]		
B.1 Demand balances due from depository institutions in the U.S.	[ ]	+	<b>B. Total deductions</b>	=	
B.2 Cash items in process of collection	[ ]		[ ]		-
					<b>Net transaction accounts</b>

### Instructions

**Column 1:** Copy the seven-day averages from Section 1, Column 2.

**Column 2, Box A, *Gross transaction accounts*:** Add total transaction accounts (FR 2900 item A.3) and ineligible acceptances and obligations issued by affiliates maturing in less than seven days (FR 2900 item AA.1) and enter sum in Column 2, Box A.

**Column 2, Box B, *Total deductions*:** Add demand balances due from depository institutions in the U.S. (FR 2900 item B.1) and cash items in process of collection (FR 2900 item B.2) and enter sum in Column 2, Box B.

**Column 3, *Net transaction accounts*:** Subtract total deductions (Column 2, Box B) from gross transaction accounts (Column 2, Box A) and enter result in Column 3. If the result is zero or negative, or the result is less than or equal to the exemption amount, your reserve requirement is zero and no further calculations are necessary. Proceed to Section 5 and enter zero in Row 3.

## SECTION 3: APPLICATION OF EXEMPTION AND TRANCHE<sup>12</sup>

(1) Net transaction accounts	(2) Exemption	(3) Net transaction accounts > exemption	(4) Application of low reserve tranche	(5) Net transaction accounts > low reserve tranche
			Low reserve tranche <input style="width: 100px; height: 20px;" type="text"/>	
			Exemption - <input style="width: 100px; height: 20px;" type="text"/>	
			Adjusted low reserve tranche = <input style="width: 100px; height: 20px;" type="text"/>	
Net transaction accounts	Exemption	Net transaction accounts > exemption	Net transaction accounts ≤ adjusted low reserve tranche	Net transaction accounts > low reserve tranche
<input style="width: 60px; height: 20px;" type="text"/>	-	<input style="width: 60px; height: 20px;" type="text"/>	=	<input style="width: 60px; height: 20px;" type="text"/>
		-	<input style="width: 60px; height: 20px;" type="text"/>	=
				<input style="width: 60px; height: 20px;" type="text"/>

### Instructions

**Column 1, Net transaction account:** Copy from Section 2, Column 3.

**Column 2, Exemption:** Enter the current exemption amount.

**Column 3, Net transaction accounts > exemption:** Subtract the exemption amount (Column 2) from net transaction accounts (Column 1) and enter the result in Column 3. If the result is zero or negative, your reserve requirement is zero and no further calculations are necessary.

**Column 4, Application of tranche:** Net transaction accounts are subject to two reserve ratios: a lower ratio for amounts up to a base amount (the low reserve tranche) and a higher rate for amounts that exceed the low reserve tranche. To derive the amount subject to the lower ratio, compare the level of net transaction accounts greater than the exemption amount with the low reserve tranche adjusted for the exemption amount as follows: Enter the low reserve tranche in the top box in Column 4 and enter the exemption amount in the second box down in that column. Compute the adjusted low reserve tranche by subtracting the exemption from the low reserve tranche and enter the result in the third box down in Column 4. Compare this result with the amount in the box at the bottom of Column 3 ("Net transaction accounts > exemption"). In the bottom box in Column 4, enter either the adjusted low reserve tranche or the final amount from Column 3, whichever is less.

**Column 5, Net transaction accounts > low reserve tranche:** Subtract the last box in Column 4 from Column 3 and enter in Column 5.

<sup>12</sup> Depository institutions that file multiple FR 2900 reports (instead of a single report) must allocate the exemption and the low reserve tranche among their reporting offices (or groups of offices). The low reserve tranche allocated to each office must always equal or exceed the exemption allocated to that office. (See Allocation of Low Reserve Tranche and Exemption, V-3.)

## SECTION 4: RESERVE REQUIREMENT

(1) Net transaction accounts > exemption	(2) Reserve ratio	(3) Reserve requirement	(4) Total reserve requirement
<p>A. Amount <math>\leq</math> adjusted low reserve tranche</p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px 0;"></div>	x .03 =	<p>A. On net transaction accounts <math>\leq</math> adjusted low reserve tranche</p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px 0;"></div>	
		+	
<p>B. Amount &gt; low reserve tranche</p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px 0;"></div>	x .10 =	<p>B. On net transaction accounts &gt; low reserve tranche</p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px 0;"></div>	
			=
			<p>Total reserve requirement</p> <div style="border: 1px solid black; width: 100px; height: 25px; margin: 10px 0;"></div>

### Instructions

**Column 1, Box A:** Enter the figure from Section 3, the bottom box of Column 4.

**Column 1, Box B:** Enter the figure from Section 3, Column 5.

**Column 3, Reserve requirement:** Multiply each category in Column 1 by the reserve ratio in Column 2 to generate the reserve requirement for that category.

**Column 4, Total reserve requirement:** Add Box A and Box B of Column 3 and enter the result in Column 4. (Note: Total reserve requirement is not net of any tranche loss adjustments arising from previous mergers. See Chapter XIII, Mergers.)

## SECTION 5: TOTAL BALANCE REQUIREMENT

- |   |   |                            |
|---|---|----------------------------|
| 1. Total reserve requirement (from Section 4, Column 4)         |   | <input type="text"/>       |
| 2. Less: Vault cash (FR 2900 item E.1, Section 1, Column 2)     | - | <input type="text"/>       |
| 3. Equals: Reserve balance requirement                          | = | <input type="text"/>       |
|   |   | (If negative, set to zero) |
| 4. Plus: Clearing balance requirement (if any)                  | + | <input type="text"/>       |
| 5. Equals: Total balance requirement for the maintenance period | = | <input type="text"/>       |



## VI. REQUIREMENT AND POSITION REPORTS

### Requirement and Position Reports for Weekly Reporters

This chapter describes the Requirement and Position Reports that are available from the Reserve Banks for institutions reporting the FR 2900 on a weekly basis. Under Lagged Reserve Requirements (LRR), depository institutions play an integral part in the generation of these reports. The availability of each report depends upon the punctual receipt of FR 2900 data from the reporting institutions. Institutions must send all FR 2900 data to the Reserve Bank in a timely manner for the reports to be generated and delivered on schedule.

The following pages describe the Requirement and Position Reports and provide examples of each. Words in *italics* correspond to items displayed on the reports, words in **bold type** correspond to Glossary terms, and words in both *italics* and **bold type** are report items defined in the Glossary. (See Chapter XVIII, Glossary.) References to requirements, **maintained balances**, and all other **position** items are always stated in terms of daily averages (in \$thousands). Please note that, in some cases, the average is based on data for a few days rather than the entire fourteen-day **maintenance period**. Therefore, it is essential that reporting institutions have the ability and flexibility to supplement the information in the reports in order to calculate their daily reserve position independently of the Reserve Banks.

The Requirement and Position Reports are available through ReserveCalc and FedMail. A depository institution may obtain information on these options from the Federal Reserve System's Reporting and Reserves website (see Chapter XVII, Web Links), and may also contact its Reserve Bank for further details (see Chapter XVI, Reserve Bank Contact List).

### The Final Requirement Report for Weekly Reporters

The Reserve Banks distribute this report after receiving both weeks of FR 2900 data for a **computation period** (two seven-day report weeks).

The report calculates the *gross reserve requirement* against **net transaction accounts** (sum of lines A.3 and AA.1 less the sum of lines B.1 and B.2 from the FR 2900 reports). The calculation is based on average FR 2900 data reported during the computation period. Under *net transaction accounts*: the first line shows the amount of net transaction accounts that is exempt from **reserve requirements**; the next line shows the amount that falls within the adjusted **low reserve tranche** and is reservable at 3 percent; and the third line shows the amount that is above the low reserve tranche and, therefore, reservable at 10 percent.

The next line of the report shows the **tranche loss adjustment**, if any, that is applicable to the maintenance period covered by the report. This amount is subtracted from the gross reserve requirement to obtain the *net total reserve requirement*.

In addition, the report reflects *reported vault cash* from the same fourteen-day computation period and **usable vault cash** (the portion of reported vault cash that can be used to meet the reserve requirement). *Reserves to be maintained* (also known as the **reserve balance requirement**, and calculated as the difference between the net total reserve requirement and usable vault cash), the **clearing balance requirement**, if applicable, and the *total balance to be maintained with the Federal Reserve Bank* also appear on the report.

The Final Requirement Report allows institutions to verify their independent calculations of the reserve balance requirement for the applicable maintenance period.

# Reserve Maintenance Manual

<b>REQUIREMENT</b>	<b>MAINTENANCE PERIOD 06/18/2008</b>
(NAME OF WEEKLY REPORTER, CITY, STATE)	
(ABA NUMBER)	(RSSD ID)

<b>Point in Time:</b> <input type="text" value="Now"/>			
<a href="#">Deposit Data Status:</a> Final	<b>Daily Average Deposits</b>	<b>Percent Applied</b>	<b>Daily Average Requirement</b>
Reservable Liabilities From: <a href="#">05/06/2008 - 05/19/2008</a>			
<b>Net Transaction Accounts</b>			
Exempt	9,300		
Up to 34,600	34,600	3.000	1,038
Over 34,600	7,020	10.000	702
<b>Gross Reserve Requirement</b>			<b>1,740</b>
Less Tranche Loss Adjustment			0
<b>Net Total Reserve Requirement</b>			<b>1,740</b>
Reported Vault Cash	1,629		
Less Usable Vault Cash			1,629
<b>Reserves to be Maintained</b>			<b>111</b>
Clearing Balance Requirement			200
<b>Total Balance to be Maintained with FRB (XXXXXXXXXX)</b>			<b>311</b>

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

06/02/2008 1:23 PM ET

## Reserve Maintenance Manual

### The Preliminary Position Report for Weekly Reporters

The Reserve Banks distribute this report during the maintenance period. It shows average reserve and balance data as of the date of the report for the current and the two prior maintenance periods (reading left to right).

The information represents the most current data available to the Reserve Bank. Changes occur daily to account balances, net **as-of adjustments**, and the calculated position items.

#### Column 1

Column 1 contains data for the current maintenance period. *Reserve requirement* and *usable vault cash* are both calculated using FR 2900 data from the computation period that ended seventeen days before the first day of the current maintenance period. The *clearing balance requirement* is the amount agreed to in writing prior to the start of the maintenance period. **Total requirement** is the sum of the reserve requirement and clearing balance requirement. *Account balances* are the average of the actual end-of-day balances held to date (in the following example, eleven days are used since the report was run on the Monday prior to the end of the maintenance period). *As-of adjustments* are total net adjustments to date divided by fourteen. *Total maintained* is the sum of usable vault cash, account balances, and as-of adjustments. In the example, total maintained is based on eleven days of account balance data. **Gross position** is total maintained (based on eleven days of data) less total requirement. *Carry-over from prior period* is the excess or deficiency from the prior period that was carried into the current period. *Allowable carry-over to next period* is the amount that can be carried into the next maintenance period (see Chapter IX, Carry-over). *Net position* is the gross position (based on eleven days of data) plus **carry-over** from prior period, minus **clearing balance allowance**, and minus *carry-over offset in next period*.

#### Column 2

Column 2 contains data for the maintenance period prior to the period covered in column 1. Reserve requirement and usable vault cash are based on FR 2900 data from the computation period that ended seventeen days before the beginning of the designated maintenance period. Account balances are fourteen-day averages during the maintenance period. As-of adjustments are fourteen-day averages of net adjustments applied to the maintenance period. Allowable carry-over to next period from this maintenance period should be offset in the column 1 maintenance period.

#### Column 3

Column 3 contains data for the second previous maintenance period relative to the period covered in column 1. The data are final for that maintenance period and will change only as a result of as-of adjustments or revisions to the associated FR 2900 reports.

## Reserve Maintenance Manual

**POSITION - PRELIMINARY DIRECT      MAINTENANCE PERIOD 09/10/2008**  
 (NAME OF WEEKLY REPORTER, CITY, STATE)  
 (ABA NUMBER) (RSSD ID)

<a href="#">Point in Time:</a> <input type="text" value="Now"/>			
Maintenance Period End Dates	09/10/2008	08/27/2008	08/13/2008
Reserve Requirement	<a href="#">8,968</a>	<a href="#">9,721</a>	<a href="#">8,909</a>
Clearing Balance Requirement	850	850	850
<b>Total Requirement</b>	<b>9,818</b>	<b>10,571</b>	<b>9,759</b>
Usable Vault Cash	2,478	2,205	2,001
Account Balances	<a href="#">8,251</a>	<a href="#">8,682</a>	<a href="#">7,507</a>
As-of Adjustments	<a href="#">-27</a>	<a href="#">0</a>	<a href="#">0</a>
<b>Total Maintained</b>	<b>10,702</b>	<b>10,887</b>	<b>9,508</b>
<b>Gross Position</b>	<b>884</b>	<b>316</b>	<b>-251</b>
Carry-Over from Prior Period	0	-226	0
Clearing Balance Allowance	25	25	-25
<b>Subtotal</b>	<b>859</b>	<b>65</b>	<b>-226</b>
Allowable Carry-Over to Next Period	368	65	-226
Carry-Over Offset in Next Period	368	0	-226
<b>Net Position</b>	<b>491</b>	<b>65</b>	<b>0</b>

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

09/08/2008 1:23 PM ET

## Reserve Maintenance Manual

### The Final Position Report for Weekly Reporters

The Reserve Banks distribute this report two weeks after a maintenance period ends. It records the **final position** for the designated maintenance period, after taking into account carry-over offset during the subsequent maintenance period.

The Final Requirement Report provides the *reserve requirement*, the *clearing balance requirement*, and *usable vault cash*. *Account balances* and *as-of adjustments* are fourteen-day averages for the maintenance period. The *gross position* (excess or deficiency) is *total maintained* less *total requirement*. *Carry-over from prior period* is applied to the extent possible. If applicable, any remaining excess or deficiency is reduced by the *clearing balance allowance* to obtain a *subtotal*.

*Allowable carry-over to next period* is the lesser of the **maximum allowable carry-over** for the maintenance period and the subtotal. The *net position* (excess or deficiency) for the maintenance period is obtained by subtracting the amount of *carry-over offset in next period* from the subtotal.

If the Final Position Report for a maintenance period shows a net deficiency, deficiency charge information will appear at the bottom of the report.



## Reserve Maintenance Manual

### Requirement and Position Reports for Quarterly Reporters

This part of the chapter describes the Requirement and Position Reports that are available from the Reserve Banks for institutions reporting the FR 2900 on a quarterly basis. The availability of each report depends on the punctual receipt of FR 2900 data from the reporting institutions. Institutions must send all FR 2900 data to the Reserve Bank in a timely manner for the reports to be generated and delivered on schedule.

The pages that follow describe the Requirement and Position Reports and provide examples of each. References to requirements, maintained balances, and all other position items are always stated in terms of daily averages (in \$thousands). Please note that, in some cases, the average is based on data for a few days rather than the entire seven-day maintenance period. Therefore, it is essential that reporting institutions have the ability and flexibility to supplement the information in the reports in order to calculate their daily reserve position independently of the Reserve Banks.

The Requirement and Position Reports are available through ReserveCalc and FedMail. A depository institution may obtain information on these options from the Federal Reserve System's Reporting and Reserves website (see Chapter XVII, Web Links), and may also contact its Reserve Bank for further details (see Chapter XVI, Reserve Bank Contact List).

### The Final Requirement Report for Quarterly Reporters

This report is based on FR 2900 data reported for a quarterly computation week. The gross reserve requirement remains unchanged for each seven-day maintenance period during the quarter that starts twenty-four days after the end of the quarterly report week. The Reserve Banks distribute the report prior to the start of the first maintenance period in each quarter.

The report calculates the *gross reserve requirement* against net transaction accounts (sum of lines A.3 and AA.1 less the sum of lines B.1 and B.2 from the FR 2900 report). The calculation is based on average FR 2900 data reported during the quarterly report week. Under *net transaction accounts*: the first line shows the amount of these accounts that is exempt from reserve requirements; the next line shows the amount of net transaction accounts that falls within the adjusted low reserve tranche and is reservable at 3 percent; and the third line shows the amount of net transaction accounts that is above the low reserve tranche and, therefore, reservable at 10 percent.

The next line of the report shows the *tranche loss adjustment*, if any, that is applicable to the maintenance period covered by the report. This amount is subtracted from the gross reserve requirement to obtain the *net total reserve requirement*.

In addition, the report records *reported vault cash* from the seven-day quarterly report week and *usable vault cash* (the portion of reported vault cash that can be used to meet the reserve requirement). *Reserves to be maintained* (also known as the reserve balance requirement, and calculated as the difference between the net total reserve requirement and usable vault cash), the *clearing balance requirement*, if applicable, and the *total balance to be maintained with the Federal Reserve Bank* also appear on the report. These data are known in advance and are specific to a given maintenance period.

The Final Requirement Report allows institutions to verify their independent calculations of the reserve balance requirement for the applicable maintenance periods.



# Reserve Maintenance Manual

<b>REQUIREMENT</b>	<b>MAINTENANCE PERIOD 07/09/2008</b>
(NAME OF QUARTERLY REPORTER, CITY, STATE)	(RSSD ID)
(ABA NUMBER)	

<b>Point in Time:</b> <input type="text" value="Now"/>			
<a href="#">Deposit Data Status:</a> Final	<b>Daily Average Deposits</b>	<b>Percent Applied</b>	<b>Daily Average Requirement</b>
Reservable Liabilities From: <a href="#">03/18/2008 - 03/24/2008</a>			
<b>Net Transaction Accounts</b>			
Exempt	9,300		
Up to 34,600	34,600	3.000	1,038
Over 34,600	300	10.000	30
<b>Gross Reserve Requirement</b>			<b>1,068</b>
Less Tranche Loss Adjustment			0
<b>Net Total Reserve Requirement</b>			<b>1,068</b>
Reported Vault Cash			1,012
Less Usable Vault Cash			1,012
<b>Reserves to be Maintained</b>			<b>56</b>
Clearing Balance Requirement			50
<b>Total Balance to be Maintained with FRB (XXXXXXXXXX)</b>			<b>106</b>

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

04/04/2008 1:23 PM ET

## Reserve Maintenance Manual

### The Preliminary Position Report for Quarterly Reporters

The Reserve Banks distribute this report during the maintenance period. It shows average reserve and balance data as of the date of the report for the current and the two previous maintenance periods (reading left to right).

The information represents the most current data available to the Reserve Bank. Changes occur daily to account balances, net as-of adjustments, and the calculated position items.

#### Column 1

Column 1 contains data for the current maintenance period. *Reserve requirement* and *usable vault cash* are both calculated using FR 2900 data from the appropriate quarterly computation week. The *clearing balance requirement* is the amount agreed to in writing prior to the start of the maintenance period. *Total requirement* is the sum of the reserve requirement and clearing balance requirement. *Account balances* are the average of the actual end-of-day balances held to date (in the following example, four days are used since the report was run on Monday prior to the end of the maintenance period). *As-of adjustments* are total net adjustments to date divided by seven. *Total maintained* is the sum of usable vault cash, account balances, and as-of adjustments. In the example, total maintained is based on four days of account balance data. *Gross position* is total maintained (based on four days of data) less total requirement. *Carry-over from prior period* is the excess or deficiency from the prior period that was carried into the current period. *Allowable carry-over to next period* is the amount that can be carried into the next maintenance period (see Chapter IX, Carry-over). *Net position* is the gross position (based on four days of data) plus carry-over from prior period, minus *clearing balance allowance*, and minus *carry-over offset in next period*.

#### Column 2

Column 2 contains data for the maintenance period prior to the period covered in column 1. Account balances are seven-day averages during the designated maintenance period. As-of adjustments are seven-day averages of net adjustments applied to the maintenance period. Allowable carry-over to next period from this maintenance period should be offset in the column 1 maintenance period.

#### Column 3

Column 3 contains data for the second previous maintenance period relative to the period covered in column 1. The data are final for that maintenance period and will change only as a result of as-of adjustments or revisions to the associated FR 2900 reports.

# Reserve Maintenance Manual

**POSITION - PRELIMINARY DIRECT      MAINTENANCE PERIOD 09/10/2008**  
 (NAME OF QUARTERLY REPORTER, CITY, STATE)  
 (ABA NUMBER) (RSSD ID)

<b>Point in Time:</b> <input type="text" value="Now"/>			
<b>Maintenance Period End Dates</b>	<b>09/10/2008</b>	<b>09/03/2008</b>	<b>08/27/2008</b>
Reserve Requirement	<u>681</u>	<u>681</u>	<u>681</u>
Clearing Balance Requirement	400	400	400
<b>Total Requirement</b>	<b>1,081</b>	<b>1,081</b>	<b>1,081</b>
Usable Vault Cash	681	681	681
Account Balances	<u>724</u>	<u>745</u>	<u>1,256</u>
As-of Adjustments	<u>0</u>	<u>0</u>	<u>0</u>
<b>Total Maintained</b>	<b>1,405</b>	<b>1,426</b>	<b>1,937</b>
<b>Gross Position</b>	<b>324</b>	<b>345</b>	<b>856</b>
Carry-Over from Prior Period	0	0	0
Clearing Balance Allowance	25	25	25
<b>Subtotal</b>	<b>299</b>	<b>320</b>	<b>831</b>
Allowable Carry-Over to Next Period	0	0	0
Carry-Over Offset in Next Period	0	0	0
<b>Net Position</b>	<b>299</b>	<b>320</b>	<b>831</b>

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

09/08/2008 1:23 PM ET

## Reserve Maintenance Manual

### The Final Position Report for Quarterly Reporters

The Reserve Banks distribute this report two weeks after a maintenance period ends. It records the final position for the designated maintenance period after taking into account carry-over offset during the subsequent maintenance period.

The Final Requirement Report provides the *reserve requirement*, the *clearing balance requirement*, and *usable vault cash*. *Account balances* and *as-of adjustments* are seven-day averages for the maintenance period. The *gross position* (excess or deficiency) is *total maintained* less *total requirement*. *Carry-over from prior period* is applied to the extent possible. Any remaining excess or deficiency is reduced by the *clearing balance allowance*, if applicable, to obtain a *subtotal*.

*Allowable carry-over to next period* is the lesser of the maximum allowable carry-over for the maintenance period and the subtotal. The *net position* (excess or deficiency) for the maintenance period is obtained by subtracting the amount of *carry-over offset in next period* from the subtotal.

If the Final Position Report for a maintenance period shows a net deficiency, deficiency charge information will appear at the bottom of the report.

**POSITION - COMPLETED DIRECT      MAINTENANCE PERIOD 08/13/2008**  
 (NAME OF QUARTERLY REPORTER, CITY, STATE)  
 (ABA NUMBER) (RSSD ID)

<b>Point in Time:</b> <input type="text" value="Now"/>	
Reserve Requirement	<a href="#">546</a>
Clearing Balance Requirement	280
<b>Total Requirement</b>	<b>826</b>
Usable Vault Cash	301
Account Balances	<a href="#">612</a>
As-of Adjustments	<a href="#">-125</a>
<b>Total Maintained</b>	<b>788</b>
<b>Gross Position</b>	<b>-38</b>
Carry-Over from Prior Period	22
Clearing Balance Allowance	-16
<b>Subtotal</b>	<b>0</b>
Allowable Carry-Over to Next Period	0
Carry-Over Offset in Next Period	0
<b>Net Position</b>	<b>0</b>

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

08/21/2008 1:23 PM ET

### **Requirement and Position Reports for Correspondent Institutions Holding Pass-through Reserve Balances**

This part of the chapter describes the Requirement and Position Reports available from the Reserve Banks for pass-through **correspondents**. A pass-through correspondent may hold required reserve balances for weekly **respondents**, for quarterly respondents, or for both weekly and quarterly respondents. A correspondent that holds pass-through required reserve balances for both weekly and quarterly respondents must satisfy total balance requirements biweekly. (See Chapter III, Concepts of Reserve Calculation and Maintenance.)

#### **The Requirement Report for Pass-through Correspondents**

The calculations in these reports are based on FR 2900 data received from both the correspondent and its respondent institutions. The *Deposit Data Status* flag in the column on the lower right of the report indicates, for each respondent institution, the quality of the deposit data that have been used in the reserve calculations shown to the left. The status flag is “Final” when deposit data for the computation period have been entered, “Estimated” when all or some of the deposit data for the computation period have been estimated, “Missing” when deposit data for the computation period have not been entered, and “Interim” when deposit data for only the first week of the two-week computation period have been entered for weekly respondents.

The columns to the left of the status flags contain each respondent's *reserve requirement, usable vault cash, and required balance*. If a respondent institution's current reserve requirement is wholly satisfied by vault cash or if a respondent has no reserve requirement, the columns contain messages to that effect in place of the calculations. The report also contains, if applicable, a two-week average of the required reserve balance for any quarterly respondents.

Finally, the middle of the report shows the total amount that the correspondent must maintain with its Reserve Bank (*Own and Respondent Balance to be Maintained*), which consists of the sum of its own balance and the balances to be held, if any, for each of its weekly and/or quarterly respondents.

# Reserve Maintenance Manual

**CORRESPONDENT & PASS-THROUGH REQUIREMENT**      **MAINTENANCE PERIOD 07/16/2008**  
 (NAME OF QUARTERLY REPORTER, CITY, STATE)  
 (ABA NUMBER)      (RSSD ID)

<b>Point in Time:</b> <input type="text" value="Now"/>			
<a href="#">Deposit Data Status:</a>	<b>Daily Average Deposits</b>	<b>Percent Applied</b>	<b>Daily Average Requirement</b>
Final			
Reservable Liabilities From: <a href="#">03/18/2008 - 03/24/2008</a>			
<b>Net Transaction Accounts</b>			
Exempt	9,300		
Up to 34,600	34,600	3.000	1,038
Over 34,600	300	10.000	30
<b>Gross Reserve Requirement</b>			<b>1,068</b>
Less Tranche Loss Adjustment			0
<b>Net Total Reserve Requirement</b>			<b>1,068</b>
Reported Vault Cash	1,012		
Less Usable Vault Cash			1,012
<b>Reserves to be Maintained</b>			<b>56</b>
Clearing Balance Requirement			50
<b>Own Balance to be Maintained with FRB (XXXXXXX)</b>			<b>106</b>
<a href="#">3 of 3 Weekly Respondents - Reserves to be Maintained</a>			<a href="#">Final 1,624</a>
<a href="#">2 of 2 Quarterly Respondents - Reserves to be Maintained</a>			<a href="#">Final 47</a>
<b>Own and Respondent Balance to be Maintained with FRB (XXXXXXX)</b>			<b>Final 1,777</b>

<b>WEEKLY RESPONDENTS</b>	<b>Reserve Requirement</b>	<b>Usable Vault Cash</b>	<b>Required Balance</b>	<b>Deposit Data Status</b>
ABA      Name				
(ABA #)      (Wkly Respondent 1)	RR Met by Vault Cash			Final
(ABA #)      (Wkly Respondent 2)	No Reserve Requirement			Final
(ABA #)      (Wkly Respondent 3)	3,634	2,010	1,624	Final

<b>QUARTERLY RESPONDENTS</b>	<b>Reserve Requirement</b>	<b>Usable Vault Cash</b>	<b>Average Required Balance</b>	<b>Deposit Data Status</b>
ABA/Name      Quarterly MP Ending				
(ABA #)      07/09/2008	169	122		Final
(Qtrly Resp. 1)      07/16/2008	169	122	47	Final
(ABA #)      07/09/2008	RR Met by Vault Cash			Final
(Qtrly Resp. 2)      07/16/2008	RR Met by Vault Cash			Final

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

07/07/2008 1:23 PM ET

## Reserve Maintenance Manual

### The Preliminary Position Report for Pass-through Correspondents

The Reserve Banks distribute this report during the maintenance period. It displays average reserve requirements for the correspondent and its respondents, balances maintained, and position calculations as of the date of the report. The information represents the most current data available to the Reserve Bank. Changes can occur daily to account balances, net as-of adjustments, and the calculated position items.

#### Column 1

Column 1 contains the current *reserve requirement*, *usable vault cash*, and position calculations for both quarterly and weekly respondents covering the current two-week maintenance period. Reserve requirements and usable vault cash are based on the appropriate report week(s) for quarterly respondents and on the computation period that ended seventeen days before the beginning of the current maintenance period for weekly respondents. *Account balances* are average end-of-day balances for the number of days (zero through fourteen) of actual data. *As-of-adjustments* are a fourteen-day average of net adjustments to date.

#### Column 2

Column 2 contains data for the prior maintenance period. Reserve requirements and usable vault cash are based on the appropriate computation periods for quarterly and weekly respondents. Account balances are fourteen-day averages during the designated maintenance period. As-of adjustments are fourteen-day averages of net as-of adjustments applied to the maintenance period.

#### Column 3

Column 3 contains data for the second previous maintenance period. The data are final for that maintenance period and will change only as a result of as-of adjustments or revisions to FR 2900 data.



# Reserve Maintenance Manual

**POSITION - PRELIMINARY MIXED PASS-THROUGH**      **MAINTENANCE PERIOD 09/10/2008**  
 (NAME OF WEEKLY REPORTER, CITY, STATE)      (RSSD ID)  
 (ABA NUMBER)

<b>Point in Time:</b> <input type="text" value="Now"/>			
<b>Maintenance Period End Dates</b>	<b>09/10/2008</b>	<b>08/27/2008</b>	<b>08/13/2008</b>
<b>Reserve Requirement</b>			
Own	<a href="#">114,074</a>	<a href="#">116,789</a>	<a href="#">118,317</a>
1 Weekly Respondent(s)	5,514	5,683	5,593
0 Quarterly Respondent(s)	0	0	0
Clearing Balance Requirement	355	355	355
<b>Total Requirement</b>	<b>119,943</b>	<b>122,827</b>	<b>124,265</b>
<b>Usable Vault Cash</b>			
Own	58,582	56,895	58,669
1 Weekly Respondent(s)	1,139	1,101	1,117
0 Quarterly Respondent(s)	0	0	0
Account Balances	<a href="#">62,985</a>	<a href="#">60,047</a>	<a href="#">58,970</a>
As-of Adjustments	<a href="#">-367</a>	<a href="#">7,323</a>	<a href="#">6,623</a>
<b>Total Maintained</b>	<b>122,339</b>	<b>125,366</b>	<b>125,379</b>
<b>Gross Position</b>	<b>2,396</b>	<b>2,539</b>	<b>1,114</b>
Carry-Over from Prior Period	0	0	0
Clearing Balance Allowance	25	25	25
<b>Subtotal</b>	<b>2,371</b>	<b>2,514</b>	<b>1,089</b>
Allowable Carry-Over to Next Period	2,371	2,514	1,089
Carry-Over Offset in Next Period	2,371	0	0
<b>Net Position</b>	<b>0</b>	<b>2,514</b>	<b>1,089</b>

**Daily Averages In Thousands**

Federal Reserve Bank of (XXXXXXXXXX)

09/08/2008 1:23 PM ET

## Reserve Maintenance Manual

### The Final Position Report for Pass-through Correspondents

The Reserve Banks distribute this report two weeks after a maintenance period ends. It records the final position for the designated maintenance period after taking into account carry-over offset during the subsequent maintenance period.

#### Column 1

Column 1 contains the *reserve requirement*, *usable vault cash*, and position calculations for quarterly respondents only. This information corresponds to the first week of the weekly correspondent's fourteen-day maintenance period. *Account balances* are averages held by the correspondent during the first week of the two-week maintenance cycle. *As-of adjustments* are seven-day averages of net adjustments applied to the quarterly maintenance week.

#### Column 2

Column 2 contains the same type of information as column 1 for the quarterly respondents' maintenance week that correlates to the second week of the correspondent's two-week maintenance period.

#### Column 3

Column 3 contains the *reserve requirement*, *usable vault cash*, and position calculations for the correspondent covering the two-week maintenance period, including both quarterly and weekly respondents (note that only those respondents whose requirements were not wholly satisfied by vault cash are included). The Final Requirement Report for the maintenance period provides the reserve requirement and vault cash information, along with any *clearing balance requirement*, if applicable. *Account balances* and *as-of adjustments* are fourteen-day averages for the maintenance period. The *gross position* (excess or deficiency) is *total maintained* less *total requirement*. *Carry-over from prior period* is applied to the extent possible. Any remaining excess or deficiency is reduced by the *clearing balance allowance*, if applicable, to obtain a *subtotal*.

*Allowable carry-over to next period* is the lesser of the maximum allowable carry-over for the maintenance period and the subtotal. The *net position* (excess or deficiency) for the maintenance period is obtained by subtracting the amount of *carry-over offset in next period* from the subtotal.

If the Final Position Report for a maintenance period shows a net deficiency, deficiency charge information will appear at the bottom of the report.

# Reserve Maintenance Manual

<b>POSITION - FINAL MIXED PASS-THROUGH</b>	<b>MAINTENANCE PERIOD 07/02/2008</b>
(NAME OF WEEKLY REPORTER, CITY, STATE)	
(ABA NUMBER)	(RSSD ID)

	<b>Week 1</b>	<b>Week 2</b>	<b>07/02/2008</b>
<b>Point in Time:</b> <input type="text" value="Now"/>			
<b>Reserve Requirement</b>			
Own	NA	NA	<a href="#">59,587</a>
1 Weekly Respondent(s)	NA	NA	2,415
0 Quarterly Respondent(s)	0	0	0
Clearing Balance Requirement			15,000
<b>Total Requirement</b>			<b>77,002</b>
<b>Usable Vault Cash</b>			
Own	NA	NA	59,587
1 Weekly Respondent(s)	NA	NA	586
0 Quarterly Respondent(s)	0	0	0
Account Balances	28,985	14,899	<a href="#">21,942</a>
As-of Adjustments	-362	4,252	<a href="#">1,945</a>
<b>Total Maintained</b>	<b>28,623</b>	<b>19,151</b>	<b>84,060</b>
<b>Gross Position</b>	<b>28,623</b>	<b>19,151</b>	<b>7,058</b>
Carry-Over from Prior Period			0
Clearing Balance Allowance			300
<b>Subtotal</b>			<b>6,758</b>
Allowable Carry-Over to Next Period			2,780
Carry-Over Offset in Next Period			0
<b>Net Position</b>			<b>6,758</b>

### Daily Averages In Thousands

Federal Reserve Bank of (XXXXXXXXXX)

07/17/2008 1:23 PM ET

## VII. AS-OF ADJUSTMENTS

**As-of adjustments** are memorandum items the Federal Reserve uses to offset the effect of certain types of errors on a depository institution's **position** and to charge for float attributable to that institution. As-of adjustments can arise from errors made by Reserve Banks in processing or failing to process transactions or from certain types of errors made by depository institutions.

It is important to distinguish between correcting a *posting error* and correcting the *effect of such an error on an institution's position*. A posting error gives rise to incorrect debits or credits to the account of a depository institution and is corrected through offsetting accounting entries. The effect on the institution's position is corrected through an as-of adjustment. As-of adjustments generally are applied to the **maintenance period** following the one in which the error is corrected so that the Federal Reserve and the institution can better manage the effects of these adjustments. As-of adjustments do not affect the actual, daily **maintained balance** of an institution. An as-of adjustment can neither cause nor eliminate an overnight overdraft.

The size of an as-of adjustment depends on the size of the error, the time elapsed between the occurrence of the error and the time the Reserve Bank is notified of the error by the depository institution or discovers the error internally (not to exceed forty-five days), and the time the Reserve Bank requires to research and process the correcting entry. For example, suppose a depository institution's account is erroneously credited for \$1 million and the error is discovered three days later. It takes the Reserve Bank one day to research and process the correcting entry. The error is corrected by debiting the account for \$1 million. In addition, since the depository institution erroneously had use of \$1 million for four days (the three days that elapsed before the Reserve Bank was notified and the one day of Reserve Bank research and processing time), a debit (decrease) as-of adjustment of \$4 million would be applied to correct the depository institution's position at the beginning of the next maintenance period. With the exception of those related to deposit reporting and float payment, an as-of adjustment will not be issued if the amount of the original transaction is less than \$25,000 and the aggregate amount is less than \$250,000, unless specifically requested by the affected depository institution.

### Reserve Bank Errors

The Federal Reserve grants as-of adjustments to correct the effect of errors made by Reserve Banks. It is the Federal Reserve's philosophy that a depository institution should not gain or lose in its position as a result of accounting or administrative errors, or delays in processing transactions by Reserve Bank offices.

### Depository Institution Errors

The Federal Reserve may also grant as-of adjustments to correct for errors made by depository institutions. These errors fall into two categories: *reporting errors* and *processing errors*. *Reporting errors* relate to errors made on the depository institution's Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2900) or other reports used to calculate a depository institution's **reserve requirement**. As-of adjustments associated with these errors may go back no more than six months prior to the date of initial discovery of the error, even though revisions may go back further.

*Processing errors* refer to transactions a Reserve Bank processed properly but which contained erroneous instructions or information from a depository institution. Typically, processing errors are small-value errors the depository institution has made, such as errors in the check-clearing process or currency and coin deposits, etc. As-of adjustments for these errors are common. If the processing error involves another depository institution, as-of adjustments must be applied to the same maintenance period and processed on the same day for both institutions or the Reserve Bank will not grant any adjustment.

## Float Payment for Voluntary Closings

As-of adjustments may be used to pay for float attributable to a depository institution when it elects to close for business on a day when the Reserve Bank is not. The institution can request that charges on such days for check and ACH activity be deferred. If the Reserve Bank agrees, as-of adjustments are used to recover the float incurred by honoring such requests and are applied to the maintenance period following the period containing the closing.

## Examples of Situations in which As-of Adjustments are Appropriate

The Federal Reserve issues as-of adjustments to correct the effects of errors in a wide variety of circumstances. Examples of Reserve Bank errors include failure to post to an account, posting to an account one or more days early, posting to an account one or more days late, posting to the wrong account, or posting an incorrect amount. Examples of errors made by depository institutions include encoding errors in check processing operations or specifying the wrong depository institution. The following examples illustrate the general nature of as-of adjustments and indicate the action a Reserve Bank would ordinarily take in the particular situation.

- The Reserve Bank assigns an incoming cash letter from Bank A to the account number of Bank B and, consequently, credits Bank B's account in error. After discovering the error, the Reserve Bank processes correcting accounting entries, and it issues a debit (decrease) as-of adjustment to Bank B's account and a credit (increase) as-of adjustment to Bank A's account at the beginning of the next maintenance period.
- The Reserve Bank assigns a two-day deferment of credit to a one-day deferred cash letter received from Bank A. When the error is discovered, the Reserve Bank makes a credit (increase) as-of adjustment for one day to Bank A's account at the beginning of the next maintenance period.
- Bank A, in settlement of a cash letter received from its respondents, instructs the Reserve Bank to charge its account and credit the accounts of Banks B, C, and D. Bank A discovers a day later that the credit to Bank C should have gone to Bank E. After the Reserve Bank satisfies itself there is no attempt to manage positions after the fact, and with the agreement of all banks involved, the Reserve Bank posts the reversing accounting entries and applies a credit (increase) as-of adjustment to Bank E's account and a debit (decrease) as-of adjustment to Bank C's account at the beginning of the next maintenance period.

## Application of As-of Adjustments

As-of adjustments affect the position of a depository institution for the maintenance periods to which the adjustments are applied; therefore, they can create an excess or deficient position for those maintenance periods. As-of adjustments, however, do not affect the actual, daily maintained balance of an institution. An as-of adjustment can neither cause nor eliminate an overnight overdraft.

## Processing Errors

In general, as-of adjustments used to correct the effect of processing errors on an institution's position are applied to the maintenance period following the one in which the accounting entries to reverse the error are made. If two depository institutions are affected by the same error, the application of the as-of adjustments for both institutions is synchronized to minimize the impact on the overall position of the banking system. The Reserve Bank, at its discretion, may apply an as-of adjustment to other maintenance periods on a case-by-case basis.

For a very large as-of adjustment, particularly a large positive as-of adjustment, the Reserve Bank may permit the adjustment to be apportioned over multiple future maintenance periods to minimize the adverse effect on the depository institution's ability to manage its account balance. The overriding factor in determining whether as-of adjustments should be apportioned over more than one future period is the institution's ability to manage the effect of the adjustment. Once a schedule of apportionment has been established, the Reserve Bank will not deviate from the schedule to assist the institution in managing the effect of unexpected transactions on its account balance.

## Reporting Errors

If a depository institution revises their FR 2900 report such that their **reserve balance requirement** for the current maintenance period is affected, an as-of adjustment for the current maintenance period will not be issued. The depository institution is expected to adjust their position accordingly to meet the new requirement for the current maintenance period. If a depository institution revises their FR 2900 report such that their reserve balance requirement for a prior maintenance period is affected, an as-of adjustment for the effect of the misreporting on the prior period will be issued and applied to a future maintenance period. As noted above, any effect on the current maintenance period will not receive an as-of adjustment. If a depository institution cannot accommodate the as-of adjustment in one future maintenance period, then the as-of adjustment may be apportioned over the smallest possible number of maintenance periods, generally not to exceed six months.

## Depository Institution's Responsibilities

In situations when an as-of adjustment will be apportioned over a number of periods, the institution should carefully determine the effect on its position for each maintenance period to be certain it can manage its position.

## Terminology

To alleviate possible confusion in communications concerning the amounts of as-of adjustments, the Reserve Banks will adhere to the following standard terminology:

The amount of the error multiplied by the number of calendar days the error went uncorrected is the **aggregate amount of the as-of adjustment**. The aggregate amount of the as-of adjustment will be

applied to a particular maintenance period or periods. The **average daily amount of the as-of adjustment** is the aggregate amount of an adjustment applied to a maintenance period divided by fourteen or seven (depending on whether the institution settles biweekly or weekly). Since balance requirements (reserve or clearing) are always quoted as daily averages, the average daily amount of an adjustment is the appropriate figure to use in computing a depository institution's net position.

### **Detailed Example of As-of Adjustment Application and Terminology**

On the second Friday of the prior maintenance period, \$10 million destined for Bank A's account is credited to Bank B's account in error by a Reserve Bank office. The error is discovered on the first day of the current maintenance period. Correcting accounting entries are made. The aggregate amount of the as-of adjustment is \$60 million (\$10 million for six days) or a daily average amount of approximately \$4.3 million (\$60 million divided by fourteen). A credit (increase) adjustment of \$60 million (\$4.3 million daily average amount) would be applied to Bank A in the maintenance period following the current period. This credit would enable Bank A to reduce the actual balances maintained in its account by this amount in the maintenance period following the current period and still meet its **reserve balance requirement**. The debit (decrease) adjustment to Bank B would also be applied to the maintenance period following the current period.

If the size of the credit (increase) adjustment was very large relative to the size of Bank A's reserve balance requirement, Bank A could find it difficult to hold balances low enough to offset the effect of the adjustment and avoid overnight overdrafts. To minimize the adverse effect on Bank A, the Reserve Bank may agree to apportion the credit (increase) adjustment and determine the smallest number of maintenance periods over which the adjustment could be apportioned. Suppose for example that the minimum number of maintenance periods that Bank A needs to manage the adjustment is three, then a \$20 million aggregate credit (increase) adjustment—\$1.4 million daily average amount—would be applied to each of the three subsequent maintenance periods. In most cases, the Reserve Bank would also apportion Bank B's adjustment to the same three subsequent maintenance periods to contain the impact on the aggregate position of the banking system.



### VIII. CLEARING BALANCE REQUIREMENTS AND EARNINGS CREDITS

A depository institution that does not have a **reserve balance requirement** or that passes its reserve balance requirement through a **correspondent** may wish to use Federal Reserve services. If so, it may establish an account at its Reserve Bank for clearing purposes. A depository institution with a reserve balance requirement that has an account at a Reserve Bank may wish to hold balances above its requirement to facilitate its clearing needs. In all of these cases, the Federal Reserve encourages the depository institution to establish a **clearing balance requirement**.

A clearing balance requirement is an amount that an institution contracts to maintain with a Reserve Bank in addition to any reserve balance requirement. End-of-day balances held to meet a clearing balance requirement (up to a specified maximum amount) generate **earnings credits** that may be used to offset charges resulting from the institution's use of eligible Federal Reserve services. A Reserve Bank may impose a clearing balance requirement if an institution has a history of frequent daylight or overnight overdrafts. An institution is eligible to establish a clearing balance requirement if it is a depository institution (as defined in the Federal Reserve Act), a U.S. agency or branch of a foreign bank, a banking Edge or agreement corporation, or an entity with access to Federal Reserve services.

The Reserve Bank will assist the institution in calculating an appropriate clearing balance requirement based on the level of the earnings credit rate, estimated annual service charges, the level and timing of the institution's transactions, and the institution's incidence of overnight overdrafts. The **maintenance period** frequency for the clearing balance requirement is generally the same as the reserve maintenance period for the depository institution, except for some accounts governed by transition rules. (See Chapter XIV, Transition.)

A clearing balance requirement for a depository institution may be increased or decreased each maintenance period, but the amount of the clearing balance requirement (either initial or adjusted) must be agreed to in writing prior to the start of the effective reserve maintenance period.

To request an initial clearing balance requirement or to modify an existing clearing balance requirement, a depository institution must complete and return the agreement at the end of this chapter to its Reserve Bank. The request must be signed by personnel at the depository institution who are on the **official authorization list** that is maintained by the Reserve Bank. If there are questions on this agreement or on the official authorization list, depository institutions should call the Reserve Bank contacts for reserve administration provided in Chapter XVI.

An institution need only have an average end-of-day **clearing balance** for the maintenance period that falls within a range around its established clearing balance requirement. The range is called the **clearing balance band**. The top of the clearing balance band is equal to the clearing balance requirement plus the **clearing balance allowance**. The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The bottom of the clearing balance band is equal to the clearing balance requirement less the clearing balance allowance.

If the institution's average end-of-day clearing balance for the maintenance period falls below the clearing balance requirement, but is at or above the bottom of the clearing balance band, the institution will not be considered deficient. If the average end-of-day balance for the maintenance period falls below the bottom of the clearing balance band, the institution will be considered deficient in its clearing balance requirement. The Reserve Bank may assess a charge on that portion of the deficiency from zero to 20 percent of the clearing balance requirement over each day of the maintenance period at a 2 percent annual rate and a charge on that portion of the deficiency in excess of 20 percent of the clearing balance requirement over each day of the maintenance period at a 4 percent annual rate.



## Reserve Maintenance Manual

The minimum clearing balance requirement is \$25,000. At this level, the clearing balance allowance is \$25,000. The top of the clearing balance band is \$50,000, and the bottom of the band is zero.

Balances held to meet a clearing balance requirement (up to a limit) generate earnings credits that can only be used to offset charges for eligible Federal Reserve services. In general, earnings credits are generated based on the average end-of-day clearing balance maintained for the maintenance period, up to the top of the clearing balance band. That portion of the average end-of-day balance maintained that exceeds the top of the clearing balance band does not earn credits. If the service charges exceed the earnings credits, the difference is charged to the institution's account with the Reserve Bank. If, however, earnings credits exceed the charges incurred during a given service billing cycle, the institution can carry unused credits over and apply them to future Federal Reserve service charges incurred at any time in the subsequent fifty-two weeks. Any excess credits remaining at the conclusion of the fifty-two-week period are forfeited. Earnings credits are not transferable.<sup>13</sup>

Earnings credits are calculated according to a formula that is based on the earnings credit rate, the average end-of-day clearing balance maintained (after application of any **as-of adjustments**), and two adjustments that ensure that clearing balances at the Federal Reserve are not treated more favorably than balances maintained at a private-sector correspondent.

The first adjustment is the "imputed reserve requirement adjustment." It imputes a marginal reserve requirement ratio of 10 percent to the Reserve Bank because a private-sector correspondent would be required to hold reserves against a **respondent's** balance. If the correspondent had a marginal reserve requirement ratio of 10 percent, then it would grant credits to the respondent based on only 90 percent of the respondent's balance because it would have to hold the remaining 10 percent in the form of non-interest-earning reserves.

The second adjustment is the "marginal reserve requirement adjustment." This adjustment accounts for the fact that the respondent can deduct the balance held at a correspondent, but not at the Reserve Bank, from its **reservable liabilities**. The reserve requirement reduction is equal to the respondent's marginal reserve requirement ratio multiplied by the balance at the correspondent. This reduction has value to the respondent because it frees up balances that can be invested in interest-bearing instruments, such as a federal funds loan. The reduction has no value when the depository institution wholly satisfies its **reserve requirement** with **vault cash**. Vault cash holdings are determined by business reasons unrelated to the level of reserve requirements, so the institution does not gain an investment opportunity from lowering its reserve requirement.

A representation of the formula for calculating earnings credits is:

$$e = b * [(1 - MRR_{RB}) * erate + MRR_I * ffrate],$$

where  $e$  is total earnings credits,  $b$  is the average end-of-day clearing balance maintained during the maintenance period,  $MRR_{RB}$  is the Reserve Bank's imputed marginal reserve requirement ratio (10 percent),  $erate$  is the earnings credit rate (beginning with the reserve maintenance period that began January 6, 2005, this rate is based on 80 percent of the yield on the three-month Treasury bill),  $MRR_I$  is the institution's marginal reserve requirement ratio (zero, 3 percent, or 10 percent), and  $ffrate$  is the average effective federal funds rate over the maintenance period.<sup>14</sup> (An earnings credits calculator is available on the Federal Reserve Financial Services website. See Chapter XVII, Web Links.)

For the purposes of calculating earnings credits, an institution with a reserve requirement satisfied completely by vault cash is considered to have a marginal reserve requirement of zero and receives earnings

<sup>13</sup> The only exception to this rule occurs in the case of a merger. The earnings credits of the nonsurviving institution are transferred to the surviving institution.

<sup>14</sup> The three-month Treasury bill rate used is the rolling thirteen-week average of the annualized coupon equivalent yield of three-month Treasury bills in the secondary market. Prior to January 2004, the earnings credit rate was equal to the effective federal funds rate.

## Reserve Maintenance Manual

credits based on 90 percent of its clearing balance maintained. Similarly, an institution that only has a clearing balance requirement receives earnings credits based on only 90 percent of its clearing balance.

Earnings credits are calculated fifteen days after the end of the maintenance period and are recalculated two weeks later to capture any subsequent application of as-of adjustments and any revisions to FR 2900 data. (See Chapter VII, As-of Adjustments.)

Examples of clearing balance mechanics appear in subsequent chapters. Chapter X details the mechanics of clearing balance maintenance for accounts with only a clearing balance requirement. Chapter XII does the same for accounts with both reserve and clearing balance requirements.

# Reserve Maintenance Manual

To: Federal Reserve Bank of \_\_\_\_\_ (“Reserve Bank”)

Attention: \_\_\_\_\_

## CLEARING BALANCE REQUEST

In accordance with the Reserve Bank’s policy on clearing balance requirements contained in chapter VIII of the Reserve Maintenance Manual, the Depository Institution named below requests that the Reserve Bank establish a clearing balance requirement

**in the amount of \$** \_\_\_\_\_, with an

**Effective Date (Thursday, the first day of a maintenance period):** \_\_\_\_\_

The Depository Institution’s previous clearing balance requirement was \$ \_\_\_\_\_. (If this is an initial request, enter “Not Applicable” or “N/A”.)

To be considered effective, this Request must be received by the Reserve Bank by 3:00 p.m. local time two business days before the Effective Date stated above. In accordance with the Reserve Bank’s clearing balance requirement policy, a depository institution may submit only one clearing balance requirement change for each maintenance period, and such request must be for a clearing balance requirement that is at least \$25,000. The Reserve Bank accepts this Request by signing below, at which time this document is deemed to be an agreement between the Depository Institution and the Reserve Bank to establish the clearing balance requested, as of the Effective Date stated above. The Reserve Bank reserves the right to unilaterally impose a higher clearing balance requirement on the Depository Institution. In that event, the Reserve Bank will inform the Depository Institution in writing of the new clearing balance requirement. If the Depository Institution is acquired by another depository institution, this agreement expires at the end of the maintenance period in which the merger occurs. This Request replaces all prior Clearing Balance Agreements or Requests.

CLEARING BALANCE REQUIREMENTS  
AND EARNINGS CREDITS

\_\_\_\_\_  
(Name of Depository Institution)

\_\_\_\_\_  
(Printed Name and Title of authorized signatory)

\_\_\_\_\_  
(ABA Routing Number)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Telephone Number)

*For Reserve Bank Use Only*

Date and time received: \_\_\_\_\_

Agreed to by: \_\_\_\_\_  
(Printed name)

\_\_\_\_\_  
(Signature)

### IX. CARRY-OVER

The reserve **carry-over** privilege provides a depository institution with some flexibility in meeting its **reserve balance requirement** and thus its **total balance requirement**. This privilege allows an institution with a “reasonably small” excess or deficiency in one **maintenance period** to use it or make it up in the following maintenance period. Because of the flexibility provided by the **clearing balance band**, those accounts with only a **clearing balance requirement** are not eligible for the reserve carry-over privilege. An institution that has a clearing balance requirement and that wholly satisfies its **reserve requirement** with **vault cash** also is not eligible for the reserve carry-over privilege.

Certain basic rules define and limit the carry-over privilege. First, the **maximum allowable carry-over** is defined as the greater of either an amount (\$50,000) or a percentage (4 percent) of the **total requirement** (reserve requirement plus clearing balance requirement, if any) less the **clearing balance allowance**, if applicable. The comparison between the fixed amount (\$50,000) and the amount based on the percentage is made before subtracting the clearing balance allowance. The clearing balance allowance is then subtracted so that carry-over does not include any excess balance on which **earnings credits** have accrued. Even though a depository institution can meet its reserve requirement with vault cash and balances at a Reserve Bank, *only the balances maintained at the Reserve Bank are eligible for the carry-over privilege—not excess vault cash*. An excess or deficiency can be carried forward *only to the next maintenance period*.

#### EXAMPLE OF THE MAXIMUM ALLOWABLE CARRY-OVER CALCULATION

Reserve Requirement – \$2,300,000

Clearing Balance Requirement – \$100,000

Clearing Balance Allowance – \$25,000 (the minimum)

**Step 1** – Calculate the total requirement:  $\$2,300,000 + \$100,000 = \$2,400,000$

**Step 2** – Calculate 4 percent of the total requirement:  $4\% \text{ of } \$2,400,000 = \$96,000$

**Step 3** – Use the greater of 4 percent of the total requirement (\$96,000) or \$50,000: \$96,000

**Step 4** – Subtract the clearing balance allowance (if applicable):  $\$96,000 - \$25,000 = \$71,000$

The Federal Reserve uses specific terms to denote whether the carry-over was brought into the current maintenance period from the previous maintenance period or whether the carry-over will be available for use in the subsequent maintenance period:

**Carry-in** for the current maintenance period is the amount of carry-over from the previous maintenance period. An institution must offset a negative carry-in by holding an average end-of-day balance during the current maintenance period that exceeds the total balance requirement for that period by the amount of the carry-in; the portion not offset is subject to a deficiency charge. A positive carry-in may be used to satisfy a portion of the total balance requirement for the current period, so the institution can hold a lower average end-of-day balance in its account in the current period.

**Carry-out** from the current maintenance period is the amount of carry-over from the current maintenance period that may be used or must be made up in the next maintenance period. An institution must offset a negative carry-out from the current period by holding a higher average end-of-day balance in the next maintenance period; the portion not offset is subject to a deficiency charge. Positive carry-out from the current maintenance period may be used to satisfy a portion of the total balance requirement in the next maintenance period, so the institution can hold a lower average end-of-day balance in its account in the next maintenance period. Carry-out from the current maintenance period is carry-in for the subsequent maintenance period.

**Net excess or deficiency** is the sum of a depository institution's current period excess or deficiency and its carry-in; however, any portion of the carry-in that is not used or offset in the current period is not included in the net excess or deficiency when calculating carry-out from the current period. An institution's carry-out is the lesser (in absolute terms) of its net excess or deficiency and its maximum allowable carry-over.

Subsequent chapters discuss the mechanics of the carry-over provision. Chapter XI details the mechanics for accounts with only a reserve balance requirement, and Chapter XII does the same for accounts with both reserve and clearing balance requirements.

### **X. MECHANICS OF RESERVE AND CLEARING BALANCE ADMINISTRATION: ACCOUNTS WITH CLEARING BALANCE REQUIREMENTS ONLY**

This chapter considers **clearing balance** administration for a **master account** at a Reserve Bank that has a **clearing balance requirement** only. The typical holder of such an account would be a depository institution that does not have a **reserve balance requirement** or that passes its reserve balances through a **correspondent**. *An account with only a clearing balance requirement is not eligible for the reserve carry-over privilege.* (See Chapter IX, Carry-over.)

If a depository institution's average end-of-day balance over the **maintenance period** falls below the bottom of its **clearing balance band** (clearing balance requirement less the **clearing balance allowance**), the institution is deficient in its clearing balance. The amount of the deficiency is equal to the difference between the institution's average end-of-day balance and the bottom of its clearing balance band. The Reserve Bank may assess a charge on that portion of the deficiency from zero to 20 percent of the clearing balance requirement over each day of the maintenance period at a 2 percent annual rate and a charge on that portion of the deficiency in excess of 20 percent of the clearing balance requirement over each day of the maintenance period at a 4 percent annual rate. In the event of a **clearing balance deficiency**, **earnings credits** are calculated based on the average end-of-day balance maintained in the account over the maintenance period, provided that the average balance is greater than zero.

If a depository institution's average end-of-day balance exceeds the top of the clearing balance band, the institution has an excess clearing balance. Earnings credits are based on the average end-of-day balance maintained over the maintenance period, up to the top of the institution's clearing balance band (clearing balance requirement plus clearing balance allowance). Any portion of the average end-of-day balance that exceeds the top of the institution's clearing balance band does not generate earnings credits.

The remainder of this chapter presents examples of clearing balance deficiencies and excesses for accounts that *only have a clearing balance requirement*. Chapter XII details the mechanics of clearing balance administration for accounts with both reserve and clearing balance requirements.

#### **Terminology Used in Examples**

In the following examples, the term **maintained balance** represents the average end-of-day balance held at the institution's Reserve Bank over the maintenance period after the application of any **as-of adjustments**. The term **gross position** is an intermediate value of **position**, reflecting the difference between maintained balances and the clearing balance requirement before any adjustments are made for the clearing balance allowance.

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## Deficiencies

Examples A, B, and C of Table 1 summarize scenarios in which an institution has a deficient gross position before application of the clearing balance allowance. These examples are also illustrated in the diagram at the end of the chapter.

TABLE 1 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS *					
	Examples				
	A	B	C	D	E
a. Clearing Balance Requirement	200	200	200	200	200
b. Maintained Balance	175	150	(50)	225	250
c. Gross Position (b - a)	(25)	(50)	(250)	25	50
d. Clearing Balance Allowance	25	25	25	25	25
e. Net Excess or Deficiency Adjusted for Clearing Balance Allowance	0	(25)	(225)	0	25

\* Parentheses indicate negative numbers.

### Example A

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$175,000 (line b) fell \$25,000 (line c) below the \$200,000 clearing balance requirement (line a).

*Application of the clearing balance allowance:* The gross deficiency is not subject to a deficiency charge because it is covered by the clearing balance allowance (line d). The net deficiency, after adjusting for the clearing balance allowance, is zero (line e).

*Calculation of earnings credits:* Earnings credits are based on the \$175,000 average end-of-day balance maintained (line b).

### Example B

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$150,000 (line b) fell \$50,000 (line c) below the \$200,000 clearing balance requirement (line a).

*Application of the clearing balance allowance:* The gross deficiency of \$50,000 (line c) is reduced by the clearing balance allowance (line d) to \$25,000 (line e).

*Assessment of the deficiency:* The net deficiency is less than 20 percent of the clearing balance requirement (or \$40,000), so it is subject to a deficiency charge of 2 percent (annual rate).

*Calculation of earnings credits:* Earnings credits are based on the \$150,000 average end-of-day balance maintained (line b).

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### **Example C**

*Calculation of gross position:* The average end-of-day balance over the maintenance period was negative \$50,000 (line b). This situation could arise from overnight overdrafts or the application of debit as-of adjustments. The gross position is a clearing balance deficiency of \$250,000 (line c).

*Application of the clearing balance allowance:* The gross deficiency of \$250,000 (line c) is reduced by the clearing balance allowance (line d) to \$225,000 (line e).

*Assessment of the deficiency:* The amount of the net deficiency equal to 20 percent of the clearing balance requirement (or \$40,000) is subject to a charge of 2 percent (annual rate). The remaining deficiency (\$185,000) is subject to a charge of 4 percent (annual rate). If the negative average end-of-day balance resulted from overnight overdrafts, then such overdrafts would be subject to an additional charge equal to at least the effective federal funds rate (annual rate) on the days of the overdraft(s) plus 4 percentage points.

*Calculation of earnings credits:* No earnings credits would be generated because no average end-of-day balance over the maintenance period was maintained to meet the clearing balance requirement.

### **Excesses**

Examples D and E of Table 1 summarize scenarios in which an institution has an excess gross position before application of the clearing balance allowance. These examples are also illustrated in the diagram at the end of the chapter.

### **Example D**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$225,000 (line b) exceeded the \$200,000 clearing balance requirement (line a) by \$25,000 (line c).

*Application of the clearing balance allowance:* The top of the clearing balance band is equal to the \$200,000 clearing balance requirement (line a) plus the \$25,000 clearing balance allowance (line d). The net excess position is zero (line e) since the average end-of-day balance maintained of \$225,000 (line b) equals the top of the clearing balance band.

*Calculation of earnings credits:* Earnings credits are based on the average end-of-day balance maintained up to the top of the clearing balance band (clearing balance requirement plus the clearing balance allowance) or \$225,000.

### **Example E**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$250,000 (line b) exceeded the \$200,000 clearing balance requirement (line a) by \$50,000 (line c).

*Application of the clearing balance allowance:* The gross excess of \$50,000 (line c) is reduced by the clearing balance allowance (line d) to \$25,000 (line e).



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*Calculation of earnings credits:* Earnings credits are not earned on the amount above the top of the clearing balance band. The top of the clearing balance band is the sum of the \$200,000 clearing balance requirement (line a) plus the \$25,000 clearing balance allowance (line d). Earnings credits will accrue on the average end-of-day balance held up to the top of the clearing balance band or \$225,000. The institution actually held \$250,000 (line b), so it does not earn credits on the amount in excess of \$225,000.



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### XI. MECHANICS OF RESERVE AND CLEARING BALANCE ADMINISTRATION: ACCOUNTS WITH RESERVE BALANCE REQUIREMENTS ONLY

This chapter illustrates the mechanics of reserve administration for accounts that have a **reserve balance requirement** only. Examples of situations involving positive **carry-in** from the previous **maintenance period** as well as those involving negative carry-in from the previous maintenance period are provided. Chapter XII details the mechanics of reserve administration for accounts with both reserve balance requirements as well as **clearing balance requirements**.

Each of the examples in this chapter is applicable to accounts that contain pass-through reserve balances for **respondent** institutions. For accounts with pass-through balances, the reserve balance requirement would be the sum of the **correspondent's** own reserve balance requirement plus the total of the reserve balance requirements for all of its respondents. All of the other calculations discussed below would remain the same, as would the conclusions about the size of an excess or deficiency, and any charges.

#### Terminology Used in Examples

In the following examples, the term **maintained balance** represents the average end-of-day balance held at the institution's Reserve Bank over the maintenance period after the application of any **as-of adjustments**. The term **gross position** is an intermediate value of **position**, reflecting the difference between maintained balances and the reserve balance requirement before any adjustments are made for carry-in or **carry-out**. The term **primary credit rate** in the context of reserve deficiency charges means the rate in effect for primary credit from the Reserve Bank on the first day of the calendar month in which the deficiency occurred.

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### Positive carry-in

Table 1 provides examples of situations in which an institution has a positive carry-in to the current maintenance period. The institution in this table has a positive carry-in because it had an excess **final position** in the previous maintenance period.

<b>TABLE 1 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS *</b>						
	<b>Examples</b>					
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
a. Reserve Requirement	1100	5100	2100	600	500	500
b. Vault Cash	100	100	100	100	500	480
c. Reserve Balance Requirement (a - b)	1000	5000	2000	500	0	20
d. Maintained Balance	980	4900	1800	575	125	(15)
e. Gross Position (d - c)	(20)	(100)	(200)	75	125	(35)
<b>f. Carry-in</b>	<b>20</b>	<b>80</b>	<b>35</b>	<b>10</b>	<b>20</b>	<b>30</b>
g. Carry-in Not Used or Offset this Period	0	0	0	10	20	10
h. Net Excess or Deficiency Adjusted for Carry-in (e + f - g)	0	(20)	(165)	75	125	(15)
i. Maximum Allowable Carry-over (in absolute value)	50	204	84	50	50	50
j. Carry-out	0	(20)	(84)	50	50	0
k. Final Position (h - j)	0	0	(81)	25	75	(15)

\* Parentheses indicate negative numbers.

### Example A

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$980,000 (line d) was not sufficient to meet the \$1,000,000 reserve balance requirement (line c), leaving a gross deficiency in the current maintenance period of \$20,000 (line e).

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$20,000 (line f) completely offsets the gross deficiency in the current period, leaving a net position of zero (line h).

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*Calculation of the maximum allowable carry-over, carry-out, and final position:* The net position after adjusting for carry-in (line h) is zero. The **maximum allowable carry-over** (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). There is no carry-out to the next period (line j), and the final position (line k) is zero.

### Example B

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$4,900,000 (line d) was not sufficient to meet the \$5,000,000 reserve balance requirement (line c), leaving a gross deficiency in the current maintenance period of \$100,000 (line e).

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$80,000 (line f) only partially offsets the gross deficiency in the current period of \$100,000 (line e), leaving a net deficiency of \$20,000 (line h).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$204,000 (line i). Therefore, the institution can carry over a deficiency of \$20,000 (line j). After adjusting for carry-out, the final position (line k) is zero. If the deficiency is not made up in the next maintenance period it is subject to a reserves deficiency charge at 1 percentage point above the prevailing primary credit rate (annual rate) in effect on the first day of the calendar month in which the deficiency occurred.

### Example C

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$1,800,000 (line d) was not sufficient to meet the \$2,000,000 reserve balance requirement (line c), leaving a gross deficiency in the current maintenance period of \$200,000 (line e).

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$35,000 (line f) only partially offsets the gross deficiency in the current period of \$200,000 (line e), leaving a net deficiency of \$165,000 (line h).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$84,000 (line i). Therefore, the institution can carry out a deficiency of \$84,000 (line j). After adjusting for carry-out, the final position (line k) is a deficiency of \$81,000. This **reserve balance deficiency** is subject to charge at 1 percentage point above the prevailing primary credit rate (annual rate) in effect on the first day of the calendar month in which the deficiency occurred. If the deficiency carried out of \$84,000 (line j) is not made up in the next maintenance period, then it is also subject to charge at the rate applicable in the maintenance period where the deficiency first occurred.

### Example D

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$575,000 (line d) exceeded the \$500,000 reserve balance requirement (line c), leaving a gross excess in the current maintenance period of \$75,000 (line e).

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$10,000 (line f) was not used in the current maintenance period (line g). The carry-in, therefore, is not eligible for **carry-over** into the next maintenance period. Carry-over can only be applied to the period immediately following the one in which it originated.

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*Calculation of the maximum allowable carry-over, carry-out, and final position:* Only the excess of \$75,000 in the current maintenance period (line h) is considered when calculating carry-out. The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). After adjusting for carry-out, the final position (line k) is an excess of \$25,000. This amount and the positive carry-in of \$10,000 from the previous period not used (line g) represent lost investment opportunities.

### Example E

*Calculation of gross position:* The institution's **vault cash** of \$500,000 (line b) completely satisfies its \$500,000 reserve requirement (line a). Therefore, the institution does not have a reserve balance requirement (line c). The average end-of-day balance over the maintenance period of \$125,000 (line d) represents a gross excess in the current maintenance period of \$125,000 (line e).

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$20,000 (line f) was not used in the current maintenance period (line g). The carry-in, therefore, is not eligible for carry-over into the next maintenance period. Carry-over can only be applied to the period immediately following the one in which it originated.

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Only the excess of \$125,000 in the current maintenance period (line h) is considered when calculating carry-out. The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). After adjusting for carry-out, the final position (line k) is an excess of \$75,000. This amount and the positive carry-in of \$20,000 from the previous period not used (line g) represent lost investment opportunities.

### Example F

*Calculation of gross position:* The average end-of-day balance over the maintenance period was negative \$15,000 (line d). This situation could arise from overnight overdrafts or the application of debit as-of adjustments. The average end-of-day balance over the maintenance period was not sufficient to meet the \$20,000 reserve balance requirement (line c), leaving a gross deficiency in the current maintenance period of \$35,000 (line e).

*Application of carry-in:* The institution is expected to maintain an average end-of-day balance over the maintenance period that is not negative. Negative balances are treated as zero when calculating the amount of carry-in from the previous period that can be applied to a deficiency in the current period; thus, the positive carry-in from the previous maintenance period cannot be used to offset the negative maintained balance. The positive carry-in from the previous period of \$30,000 (line f) more than offsets the reserve deficiency of \$20,000—calculated as zero less the \$20,000 reserve balance requirement (line c). The positive carry-in of \$10,000 from the previous period not used (line g)—calculated as the \$30,000 positive carry-in (line f) less the \$20,000 reserve balance deficiency—represents a lost investment opportunity.

*Calculation of the maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). The net deficiency of \$15,000 (line h) cannot be carried out to the next maintenance period because it represents a negative account balance and thus is not eligible for the carry-over privilege. Consequently, the institution's carry-out is zero (line j).

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The final position is a deficiency of \$15,000, which is subject to charge as a reserve deficiency at 1 percentage point above the prevailing primary credit rate (annual rate) in effect on the first day of the calendar month in which the deficiency occurred. If the negative maintained balance arose from overnight overdrafts, then such overdrafts would be subject to an additional charge equal to at least the effective federal funds rate (annual rate) on the days of the overdraft(s) plus 4 percentage points.

### Negative carry-in

Table 2 provides examples of situations in which an institution has a negative carry-in to the current maintenance period. The institution in this table has a negative carry-in because it had a deficient final position in the previous maintenance period. Please note that any part of the previous period's deficiency that was not eligible for carry-over was automatically subject to a reserve deficiency charge in the previous period.

<b>TABLE 2 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS *</b>						
	<b>Examples</b>					
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>
a. Reserve Requirement	1100	6100	4100	700	500	500
b. Vault Cash	100	100	100	100	500	500
c. Reserve Balance Requirement (a - b)	1000	6000	4000	600	0	0
d. Maintained Balance	1040	6150	4300	510	125	(50)
e. Gross Position (d - c)	40	150	300	(90)	125	(50)
<b>f. Carry-in</b>	<b>(40)</b>	<b>(70)</b>	<b>(100)</b>	<b>(30)</b>	<b>(80)</b>	<b>(80)</b>
g. Carry-in Not Used or Offset This Period	0	0	0	(30)	0	(80)
h. Net Excess or Deficiency Adjusted for Carry-in (e + f - g)	0	80	200	(90)	45	(50)
i. Maximum Allowable Carry-over (in absolute value)	50	244	164	50	50	50
j. Carry-out	0	80	164	(50)	45	0
k. Final Position (h - j)	0	0	36	(40)	0	(50)

\* Parentheses indicate negative numbers.

### Example A

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$1,040,000 (line d) exceeded the \$1,000,000 reserve balance requirement (line c), leaving a gross excess in the current maintenance period of \$40,000 (line e).

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*Application of carry-in:* The negative carry-in from the previous maintenance period of \$40,000 (line f) is completely offset by the gross excess in the current period, leaving a net position of zero (line h). As a result, the negative carry-in is not subject to charge.

*Calculation of maximum allowable carry-over, carry-out, and final position:* The net position after adjusting for carry-in (line h) is zero. There is no carry-out to the next maintenance period (line j), and the final position (line k) is zero.

### **Example B**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$6,150,000 (line d) exceeded the \$6,000,000 reserve balance requirement (line c), leaving a gross excess in the current maintenance period of \$150,000 (line e).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$70,000 (line f) is more than offset by the \$150,000 gross excess in the current period (line e), leaving a net excess of \$80,000 (line h). As a result, the negative carry-in is not subject to charge.

*Calculation of maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$244,000 (line i). The net excess adjusted for carry-in (line h) is within the maximum allowable carry-over limit. After adjusting for carry-out, the final position (line k) is zero.

### **Example C**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$4,300,000 (line d) exceeded the \$4,000,000 reserve balance requirement (line c), leaving a gross excess in the current maintenance period of \$300,000 (line e).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$100,000 (line f) is more than offset by the \$300,000 gross excess in the current period (line e), leaving a net excess of \$200,000 (line h). As a result, the negative carry-in is not subject to charge.

*Calculation of maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$164,000 (line i). The net excess adjusted for carry-in (line h) exceeds the maximum allowable carry-over limit. Only that portion of the net excess up to the maximum allowable carry-over can be carried out to the next maintenance period. After adjusting for carry-out, the final position (line k) is an excess of \$36,000. This final excess amount represents a lost investment opportunity.

### **Example D**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$510,000 (line d) was not sufficient to meet the \$600,000 reserve balance requirement (line c), leaving a gross deficiency in the current maintenance period of \$90,000 (line e).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$30,000 (line f) was not offset in the current maintenance period (line g). The negative carry-in is subject to a reserve deficiency charge at the rate applicable in the maintenance period where the deficiency first occurred.



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*Calculation of maximum allowable carry-over, carry-out, and final position:* Only the deficiency of \$90,000 in the current maintenance period (line h) is considered when calculating carry-out. The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). After adjusting for carry-out, the final position (line k) is a deficiency of \$40,000. This amount is automatically subject to a reserve deficiency charge at a rate equal to 1 percentage point above the prevailing primary credit rate (annual rate) in effect on the first day of the calendar month in which the deficiency occurred. The negative carry-out of \$50,000 (line j) must be made up in the following maintenance period or else it will be subject to charge at this rate.

### **Example E**

*Calculation of gross position:* The institution's vault cash of \$500,000 (line b) completely satisfies its \$500,000 reserve requirement (line a). Therefore, the institution does not have a reserve balance requirement (line c). The average end-of-day balance over the maintenance period of \$125,000 (line d) represents a gross excess in the current maintenance period of \$125,000 (line e).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$80,000 (line f) is more than offset by the \$125,000 gross excess in the current period (line e), leaving a net excess of \$45,000 (line h). As a result, the negative carry-in is not subject to charge.

*Calculation of maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). The net excess adjusted for carry-in (line h) is within the maximum allowable carry-over limit. After adjusting for carry-out, the final position (line k) is zero.

### **Example F**

*Calculation of gross position:* The institution's vault cash of \$500,000 (line b) completely satisfies its \$500,000 reserve requirement (line a). Therefore, the institution does not have a reserve balance requirement (line c). The average end-of-day balance over the maintenance period was negative \$50,000 (line d). This situation could arise from overnight overdrafts or the application of debit as-of adjustments. The institution has a gross deficiency in the current maintenance period of \$50,000 (line e).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$80,000 (line f) was not offset in the current maintenance period (line g). The negative carry-in is subject to a reserve deficiency charge at the rate applicable in the maintenance period where the deficiency first occurred.

*Calculation of maximum allowable carry-over, carry-out, and final position:* The maximum allowable carry-over (calculated as the greater of either \$50,000 or 4 percent of the institution's reserve requirement) is \$50,000 (line i). The net deficiency of \$50,000 (line h) cannot be carried out to the next maintenance period because it represents a negative account balance and thus is not eligible for the carry-over privilege. Consequently, the institution's carry-out is zero (line j). The final position (line k) is a deficiency of \$50,000, which is subject to charge as a clearing balance deficiency at a rate of 2 percent (annual rate) because the institution has neither a reserve balance requirement nor a clearing balance requirement. (See Chapter III, Concepts of Reserve Calculation and Maintenance.) If the negative maintained balance arose from overnight overdrafts, then such overdrafts would be subject to an additional charge equal to at least the effective federal funds rate (annual rate) on the days of the overdraft(s) plus 4 percentage points.

### **XII. MECHANICS OF RESERVE AND CLEARING BALANCE ADMINISTRATION: ACCOUNTS WITH BOTH RESERVE AND CLEARING BALANCE REQUIREMENTS**

An institution that has a **master account** at its Reserve Bank may elect to establish a **clearing balance requirement** for that account in addition to its **reserve balance requirement**. In some circumstances, the Reserve Bank may impose a clearing balance requirement. (See Chapter VIII, Clearing Balance Requirements and Earnings Credits.) When an institution has both a reserve balance requirement and a clearing balance requirement, it is expected to maintain an average end-of-day balance over the **maintenance period** that at least equals the sum of the two requirements (after adjustment for **carry-in, as-of adjustments**, and the **clearing balance allowance**). At the end of each maintenance period, the institution's average end-of-day balance held at the Reserve Bank over the maintenance period after the application of any as-of adjustments, known as the **maintained balance**, is allocated in the following order:

- reserve balance requirement,
- clearing balance requirement,
- reserve deficiency carry-in,
- clearing balance deficiency carry-in.

The following scenarios apply depending upon where the depository institution's maintained balance stands for a given maintenance period:

- (1) If the maintained balance falls below the institution's reserve balance requirement, then the institution is deficient in both its reserve balance requirement and its clearing balance requirement.<sup>15</sup>
- (2) If the maintained balance is above the institution's reserve balance requirement, but below the **total balance requirement**—the sum of its reserve balance requirement and its clearing balance requirement—after the application of the clearing balance allowance, then the institution is deficient in its clearing balance requirement.
- (3) If the maintained balance exceeds the institution's total balance requirement, but is insufficient to cover its negative carry-in (whether a reserve deficiency carry-in or clearing balance deficiency carry-in), then the institution is subject to a deficiency charge on the negative carry-in that was not made up in the current maintenance period at the rate prevailing when the deficiency was first incurred.
- (4) If the maintained balance exceeds the institution's total balance requirement, and more than covers any negative carry-in, then the institution has an excess **position** in the current maintenance period. The institution can accrue **earnings credits** on its **clearing balance** (maintained balance less reserve balance requirement) up to the top of the **clearing balance band**. That portion of the excess that is less than or equal to the **maximum allowable carry-over** can be carried out to the next period. That portion of the excess that surpasses the maximum allowable carry-over represents a forgone investment opportunity. (See Chapter IX, Carry-over.)

<sup>15</sup> This statement is true unless the depository institution has a clearing balance requirement equal to the minimum of \$25,000. For such an institution, the clearing balance allowance is \$25,000, and it cannot have a **clearing balance deficiency** after adjusting for the clearing balance allowance. Thus, if this institution's average end-of-day balance maintained over the maintenance period (after as-of adjustments) is less than its reserve balance requirement, then the institution has only a reserve deficiency.

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The size of a current-period deficiency or excess can be reduced by application of the clearing balance allowance (see Chapter VIII, Clearing Balance Requirements and Earnings Credits) and by the **carry-over** privilege. A depository institution may carry over to the next maintenance period a deficiency or excess of either \$50,000 or up to 4 percent of its **total requirement (reserve requirement plus clearing balance requirement)**, whichever is greater, less the clearing balance allowance.

If the depository institution has a deficiency in the current maintenance period, that deficiency could be a clearing balance deficiency, a **reserve balance deficiency**, or both. When an institution has both a reserve balance deficiency and a clearing balance deficiency, the clearing balance deficiency is eligible for carry-over first, then the reserve balance deficiency. When determining how much (if any) of the two deficiencies can be carried forward, the total amount of the two deficiencies is compared with the maximum allowable carry-over. If the maximum allowable carry-over is greater than the clearing balance deficiency, but smaller than the total deficiency, then the entire clearing balance deficiency would be eligible for **carry-out**; however, only a portion of the reserve deficiency would be eligible. The portion of the reserve deficiency that was not eligible for carry-out would be subject to charge in the current maintenance period.

Earnings credits are generally based on that portion of the average end-of-day balance maintained in the institution's account that is used to meet the clearing balance requirement (up to the top of the clearing balance band). Carry-in from the prior period, however, can affect the balance on which earnings credits are generated. If a portion of the average end-of-day balance maintained in the institution's account is used to cover a clearing balance deficiency carried in from the prior period, then earnings credits are also generated on that portion of the maintained balance. In this case, earnings credits are generated on a base that exceeds the top of the clearing balance band. If positive carry-in from the prior period is used to cover a clearing balance deficiency in the current maintenance period, then earnings credits are generated on that positive carry-in. In this case, earnings credits are generated on a base that includes some balances maintained in the previous maintenance period.

The examples in this chapter demonstrate how current-period deficiencies and excesses can be reduced by carry-in to the current period, the clearing balance allowance, and carry-out to the next maintenance period. In addition, they show how reserve and clearing balance deficiency charges are computed. (See Chapter III, Concepts of Reserve Calculation and Maintenance, for a discussion of both reserve and clearing balance deficiency charges.) Finally, the examples discuss the balance on which earnings credits are based.

### Terminology Used in Examples

In the following examples, the term maintained balance represents the average end-of-day balance held at the institution's Reserve Bank over the maintenance period after the application of any as-of adjustments. The term **gross position** is an intermediate value of position, reflecting the difference between maintained balances and the total balance requirement before any adjustments are made for carry-in, the clearing balance allowance, or carry-out. The term **primary credit rate** in the context of reserve deficiency charges means the rate in effect for primary credit from the Reserve Bank on the first day of the calendar month in which the deficiency occurred.

### Special Note for Accounts Containing Pass-through Reserve Balances

The maintenance period frequency for an account that contains pass-through reserve balances is usually determined by the reporting status of the account-holding **correspondent**. However, if one of the **respondents** of the correspondent is required to report more frequently than the correspondent, then it is that respondent's reporting status that determines the maintenance period frequency of the

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correspondent's account. For example, if the correspondent is a quarterly reporter, a nonreporter, or an agency eligible to hold pass-through reserve balances, and the correspondent has a respondent that is a weekly reporter, then the account of the correspondent will have a fourteen day maintenance period. The Federal Reserve no longer permits separate pass-through accounts for respondent balances, whether in the same District as the correspondent or not.

Each of the examples in this chapter is applicable to accounts that contain pass-through reserve balances for respondent institutions. In such cases, the reserve balance requirement would be the sum of the correspondent's own reserve balance requirement plus the total of the reserve balance requirements for all of its respondents. All of the other calculations discussed below would remain the same, as would the conclusions about the size of an excess or deficiency and any charges.

### Situations with No Carry-in

The examples in this section show how a gross deficiency or excess in the current maintenance period can be reduced by the clearing balance allowance and the carry-over privilege (Table 1). It is assumed that the depository institution represented in these examples does not have carry-in to the current maintenance period.

**TABLE 1 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS \***

	Examples					
	A	B	C	D	E	F
a. Reserve Requirement	110	110	1600	110	1600	110
b. Vault Cash	10	10	100	10	100	10
c. Reserve Balance Requirement (a - b)	100	100	1500	100	1500	100
d. Clearing Balance Requirement	100	100	1500	100	1500	100
e. Total Balance Requirement (c + d)	200	200	3000	200	3000	200
f. Maintained Balance	175	130	2800	50	1300	(25)
g. Gross Position (f - e)	(25)	(70)	(200)	(150)	(1700)	(225)
h. Clearing Balance Allowance	25	25	30	25	30	25
i. Net Excess or Deficiency Adjusted for Clearing Balance Allowance (g - h)	0	(45)	(170)	(125)	(1670)	(200)
j. Maximum Allowable Carry-over (in absolute value)	25	25	94	25	94	25
k. Carry-out	0	(25)	(94)	(25)	(94)	(25)
l. Final Position (i - k)	0	(20)	(76)	(100)	(1576)	(175)

\* Parentheses indicate negative numbers.

## Deficiencies

Examples A, B, and C in Table 1 present scenarios in which an institution has a gross deficiency in its clearing balance requirement. Examples D, E, and F present scenarios in which an institution has both reserve and clearing deficiencies. Examples A, B, D, and F are illustrated in the diagram at the end of the chapter. The maximum clearing balance deficiency subject to charge is equal to the clearing balance requirement less the clearing balance allowance; any remaining deficiency is a reserve balance deficiency.

### Example A

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$175,000 (line f) exceeded the \$100,000 reserve balance requirement (line c) but fell short of the total balance requirement of \$200,000 (line e) by \$25,000 (line g). The gross deficiency of \$25,000 (line g) is, therefore, a clearing balance deficiency.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance completely eliminates the clearing balance deficiency (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because the institution's net position is zero (line i), both the carry-out to the next maintenance period (line k) and the **final position** (line l) are zero.

*Calculation of earnings credits:* Earnings credits are based on the \$75,000 clearing balance maintained, calculated as the maintained balance of \$175,000 (line f) less the \$100,000 reserve balance requirement (line c).

### Example B

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$130,000 (line f) exceeded the \$100,000 reserve balance requirement (line c) but fell short of the total balance requirement of \$200,000 (line e) by \$70,000 (line g). The gross deficiency of \$70,000 (line g) is, therefore, a clearing balance deficiency.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$45,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$25,000 (line j). The net clearing balance deficiency (line i) exceeds the maximum allowable carry-over in absolute value, so only \$25,000 of the clearing balance deficiency can be carried out (line k). The final position (line l) is a clearing balance deficiency of \$20,000.

*Assessment of the deficiency:* The clearing balance deficiency of \$20,000 (line l) is subject to a 2 percent (annual rate) charge because it is less than or equal to 20 percent of the \$100,000 clearing balance requirement (line d). The clearing balance deficiency carried out to the subsequent maintenance period (line k) will also be subject to charge if it is not made up in the following maintenance period.



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*Calculation of earnings credits:* Earnings credits are based on the \$30,000 clearing balance maintained, calculated as the \$100,000 clearing balance requirement (line d) less the gross clearing balance deficiency of \$70,000 (line g). Earnings credits can be accrued in the next maintenance period on the portion of the \$25,000 clearing balance deficiency carried out (line k) that is covered in the next maintenance period. (See Negative Carry-in, XII-18.)

### **Example C**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$2,800,000 (line f) exceeded the \$1,500,000 reserve balance requirement (line c) but fell short of the total balance requirement of \$3,000,000 (line e) by \$200,000 (line g). The gross deficiency of \$200,000 (line g) is, therefore, a clearing balance deficiency.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$30,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$170,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$94,000 (line j). The net clearing balance deficiency (line i) exceeds the maximum allowable carry-over in absolute value, so only \$94,000 of the clearing balance deficiency can be carried out (line k). The final position (line l) is a clearing balance deficiency of \$76,000.

*Assessment of the deficiency:* The clearing balance deficiency of \$76,000 (line l) is subject to a 2 percent (annual rate) charge because it is less than or equal to 20 percent of the \$1,500,000 clearing balance requirement (line d). The clearing balance deficiency carried out to the subsequent maintenance period (line k) will also be subject to charge if it is not made up in the following maintenance period.

*Calculation of earnings credits:* Earnings credits are based on the \$1,300,000 clearing balance maintained, calculated as the \$1,500,000 clearing balance requirement (line d) less the gross clearing balance deficiency of \$200,000 (line g). Earnings credits can be accrued in the next maintenance period on the portion of the \$94,000 clearing balance deficiency carried out (line k) that is covered in the next maintenance period. (See Negative Carry-in, XII-18.)

### **Example D**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$50,000 (line f) was not sufficient to meet either the \$100,000 reserve balance requirement (line c) or the \$200,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$150,000 (line g) consists of a gross reserve balance deficiency of \$50,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$100,000.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$75,000 and the total net deficiency to \$125,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$25,000 (line j). When an institution has both a reserve balance deficiency and clearing balance deficiency, the clearing balance deficiency is eligible for carry-over first, and then the reserve balance deficiency. The total net deficiency (line i) exceeds the maximum allowable carry-over in absolute value, so only \$25,000 of the net clearing balance deficiency can be carried out (line k). The final position (line l) is a deficiency of \$100,000.

*Assessment of the deficiency:* The deficiency of \$100,000 (line l) in the current maintenance period must be apportioned between a reserve deficiency and a clearing balance deficiency for the purposes of calculating charges. The gross deficiency was \$150,000 (line g). The maintained balance of \$50,000 (line f) is allocated first to the \$100,000 reserve balance requirement (line c), so the institution has a reserve balance deficiency of \$50,000. The remainder of the gross deficiency, \$100,000, is a clearing balance deficiency. Adjusting for the clearing balance allowance reduces the clearing balance deficiency to \$75,000. Applying the carry-out of \$25,000 (line k) reduces the clearing balance deficiency further to \$50,000.

Thus, the final position (line l), a deficiency of \$100,000, comprises a reserve deficiency of \$50,000 and a clearing balance deficiency of \$50,000. The reserve deficiency is subject to charge at a rate equal to the primary credit rate (annual rate) plus 1 percentage point. The clearing balance deficiency of \$50,000 is subject to charge at two rates. The first \$20,000 (20 percent of the clearing balance requirement) is subject to charge at 2 percent (annual rate), while the remaining \$30,000 is subject to charge at 4 percent (annual rate).

*Calculation of earnings credits:* No earnings credits are generated because no balance was maintained to satisfy the clearing balance requirement. Earnings credits can be accrued in the next maintenance period on the portion of the \$25,000 clearing balance deficiency carried out (line k) that is covered in the next maintenance period. (See Negative Carry-in, XII-18.)

### **Example E**

*Calculation of gross position:* The average end-of day balance over the maintenance period of \$1,300,000 (line f) was not sufficient to meet either the \$1,500,000 reserve balance requirement (line c) or the \$3,000,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$1,700,000 (line g) consists of a gross reserve balance deficiency of \$200,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$1,500,000.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$30,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$1,470,000 and the total net deficiency to \$1,670,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$94,000 (line j). When an institution has both a reserve balance deficiency and clearing balance deficiency, the clearing balance deficiency is eligible for carry-over first, and then the reserve balance deficiency. The total net deficiency (line i) exceeds the maximum allowable carry-over in absolute value, so only \$94,000 of the net clearing balance deficiency can be carried out (line k). The final position (line l) is a deficiency of \$1,576,000.

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*Assessment of the deficiency:* The deficiency of \$1,576,000 (line l) in the current maintenance period must be apportioned between a reserve deficiency and a clearing balance deficiency for the purposes of calculating charges. The gross deficiency was \$1,700,000 (line g). The maintained balance of \$1,300,000 (line f) is allocated first to the \$1,500,000 reserve balance requirement (line c), so the institution has a reserve balance deficiency of \$200,000. The remainder of the gross deficiency, \$1,500,000, is a clearing balance deficiency. Adjusting for the clearing balance allowance reduces the clearing balance deficiency to \$1,470,000. Applying the carry-out of \$94,000 (line k) reduces the clearing balance deficiency further to \$1,376,000.

Thus, the final position (line l), a deficiency of \$1,576,000, comprises a reserve deficiency of \$200,000 and a clearing balance deficiency of \$1,376,000. The reserve deficiency is subject to charge at a rate equal to the primary credit rate (annual rate) plus 1 percentage point. The clearing balance deficiency of \$1,376,000 is subject to charge at two rates. The first \$300,000 (20 percent of the clearing balance requirement) is subject to charge at 2 percent (annual rate), while the remaining \$1,076,000 is subject to charge at 4 percent (annual rate).

*Calculation of earnings credits:* No earnings credits are generated because no balance was maintained to satisfy the clearing balance requirement. Earnings credits can be accrued in the next maintenance period on the portion of the \$94,000 clearing balance deficiency carried out (line k) that is covered in the next maintenance period. (See Negative Carry-in, XII-18.)

### **Example F**

*Calculation of gross position:* The average end-of day balance over the maintenance period was negative \$25,000 (line f). This situation could arise from overnight overdrafts or the application of debit as-of adjustments. The average end-of-day balance over the maintenance period was not sufficient to meet either the \$100,000 reserve balance requirement (line c) or the \$200,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$225,000 (line g) consists of a gross reserve balance deficiency of \$125,000 calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$100,000.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$75,000 and the total net deficiency to \$200,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* For purposes of determining carry-out, the maintained balance is treated as zero. Thus, only a portion of the deficiency after the application of the clearing balance allowance is eligible for carry-out. Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$25,000 (line j). When an institution has both a reserve balance deficiency and clearing balance deficiency, the clearing balance deficiency is eligible for carry-over first, and then the reserve balance deficiency. The total net deficiency (line i) exceeds the maximum allowable carry-over in absolute value, so only \$25,000 of the net clearing balance deficiency can be carried out (line k). The final position (line l) is a deficiency of \$175,000.

*Assessment of the deficiency:* The deficiency of \$175,000 (line l) in the current maintenance period must be apportioned between a reserve deficiency and a clearing balance deficiency for the purposes of calculating charges. The gross deficiency was \$225,000 (line g). The average end-of-day



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balance over the maintenance period was negative \$25,000 (line f), so the institution failed to meet the \$100,000 reserve balance requirement (line c). The reserve balance deficiency of \$100,000 and the negative maintained balance of \$25,000 are charged as a reserve deficiency. The remainder of the gross deficiency, \$100,000, is a clearing balance deficiency. Adjusting for the clearing balance allowance reduces the clearing balance deficiency to \$75,000. Applying the carry-out of \$25,000 (line k) reduces the clearing balance deficiency further to \$50,000.

Thus, the final position (line l), a deficiency of \$175,000, comprises a reserve deficiency of \$125,000 and a clearing balance deficiency of \$50,000. The reserve deficiency is subject to charge at a rate equal to the primary credit rate (annual rate) plus 1 percentage point. The clearing balance deficiency of \$50,000 is subject to charge at two rates. The first \$20,000 (20 percent of the clearing balance requirement) is subject to charge at 2 percent (annual rate), while the remaining \$30,000 is subject to charge at 4 percent (annual rate).

*Calculation of earnings credits:* No earnings credits are generated because no balance was maintained to satisfy the clearing balance requirement. Earnings credits can be accrued in the next maintenance period on the portion of the \$25,000 clearing balance deficiency carried out (line k) that is covered in the next maintenance period. (See Negative Carry-in, XII-18.)

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## Excesses

The examples in Table 2 illustrate the mechanics of carry-out, the clearing balance allowance, and earnings credits when the institution has a gross excess in the current maintenance period. Examples A, B, and D are also illustrated in the diagram at the end of this chapter.

**TABLE 2 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS \***

	Examples				
	A	B	C	D	E
a. Reserve Requirement	110	110	1600	110	1600
b. Vault Cash	10	10	100	10	100
c. Reserve Balance Requirement (a - b)	100	100	1500	100	1500
d. Clearing Balance Requirement	100	100	1500	100	1500
e. Total Balance Requirement (c + d)	200	200	3000	200	3000
f. Maintained Balance	225	250	3124	300	3200
g. Gross Position (f - e)	25	50	124	100	200
h. Clearing Balance Allowance	25	25	30	25	30
i. Net Excess or Deficiency Adjusted for Clearing Balance Allowance (g - h)	0	25	94	75	170
j. Maximum Allowable Carry-over (in absolute value)	25	25	94	25	94
k. Carry-out	0	25	94	25	94
l. Final Position (i - k)	0	0	0	50	76

\* Parentheses indicate negative numbers.

MECHANICS: BOTH RESERVE AND CLEARING BALANCE REQUIREMENTS

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### **Example A**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$225,000 (line f) exceeded the total balance requirement of \$200,000 (line e), leaving a gross excess of \$25,000 (line g).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance completely eliminates the gross excess (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because the institution's net position is zero (line i), both the carry-out to the next maintenance period (line k) and the final position (line l) are zero.

*Calculation of earnings credits:* Earnings credits are based on the average end-of-day clearing balance maintained up to the top of the clearing balance band (clearing balance requirement plus the clearing balance allowance) or \$125,000. The clearing balance maintained is \$125,000, calculated as \$100,000 clearing balance requirement (line d) plus the gross excess of \$25,000 (line g). Because the clearing balance maintained equals the top of the clearing balance band, earnings credits for the current maintenance period are based on the entire \$125,000 clearing balance maintained.

### **Example B**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$250,000 (line f) exceeded the total balance requirement of \$200,000 (line e), leaving a gross excess of \$50,000 (line g).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance reduces the net excess to \$25,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$25,000 (line j). The net excess (line i) equals the maximum allowable carry-over in absolute value, so the entire \$25,000 of excess can be carried out (line k). The final position (line l) is zero.

*Calculation of earnings credits:* Earnings credits are based on the average end-of-day clearing balance maintained up to the top of the clearing balance band (clearing balance requirement plus the clearing balance allowance) or \$125,000. If the excess carried out to the next period of \$25,000 (line k) is used to cover all or part of a clearing balance deficiency in the subsequent maintenance period, the excess carried out will generate earnings credits in that period. (See Positive Carry-in, XII-12.)

### **Example C**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$3,124,000 (line f) exceeded the total balance requirement of \$3,000,000 (line e), leaving a gross excess of \$124,000 (line g).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance

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allowance (line h) for this institution is \$30,000. Application of the clearing balance allowance reduces the net excess to \$94,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$94,000 (line j). The net excess (line i) equals the maximum allowable carry-over in absolute value, so the entire \$94,000 of excess can be carried out (line k). The final position (line l) is zero.

*Calculation of earnings credits:* Earnings credits are based on the average end-of-day clearing balance maintained up to the top of the clearing balance band (clearing balance requirement plus the clearing balance allowance) or \$1,530,000. If the excess carried out to the next period of \$94,000 (line k) is used to cover all or part of a clearing balance deficiency in the subsequent maintenance period, the excess carried out will generate earnings credits in that period. (See Positive Carry-in, XII-12.)

### **Example D**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$300,000 (line f) exceeded the total balance requirement of \$200,000 (line e), leaving a gross excess of \$100,000 (line g).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$25,000. Application of the clearing balance allowance reduces the net excess to \$75,000 (line i).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$25,000 (line j). The net excess (line i) exceeds the maximum allowable carry-over in absolute value, so only \$25,000 of the net excess can be carried out (line k). The final position (line l) is an excess of \$50,000, which represents a forgone investment opportunity.

*Calculation of earnings credits:* Earnings credits are based on the average end-of-day clearing balance maintained up to the top of the clearing balance band (clearing balance requirement plus the clearing balance allowance) or \$125,000. If the excess carried out to the next period of \$25,000 (line k) is used to cover all or part of a clearing balance deficiency in the subsequent maintenance period, the excess carried out will generate earnings credits in that period. (See Positive Carry-in, XII-12.)

### **Example E**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$3,200,000 (line f) exceeded the total balance requirement of \$3,000,000 (line e), leaving a gross excess of \$200,000 (line g).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line h) for this institution is \$30,000. Application of the clearing balance allowance reduces the net excess to \$170,000 (line i).

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*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line h). The maximum allowable carry-over for this institution is \$94,000 (line j). The net excess (line i) exceeds the maximum allowable carry-over in absolute value, so only \$94,000 of the net excess can be carried out (line k). The final position (line l) is an excess of \$76,000, which represents a forgone investment opportunity.

*Calculation of earnings credits:* Earnings credits are based on the average end-of-day clearing balance maintained up to the top of the clearing balance band (clearing balance requirement plus the clearing balance allowance) or \$1,530,000. If the excess carried out to the next period of \$94,000 (line k) is used to cover all or part of a clearing balance deficiency in the subsequent maintenance period, the excess carried out will generate earnings credits in that period. (See Positive Carry-in, XII-12.)

### **Situations with Carry-in**

The examples in this section show how current-period deficiencies and excesses can be reduced by carry-in to the current period as well as the application of the clearing balance allowance and carry-out to the next maintenance period.

#### **Positive Carry-in**

Table 3 considers examples in which an institution has positive carry-in and runs a gross deficiency in the current maintenance period. The institution has positive carry-in because it had an excess position in the previous maintenance period. The examples show how carry-in can be used to reduce a current-period deficiency. They also show the calculation of earnings credits involving positive carry-in and demonstrate how the clearing balance allowance and the carry-over privilege can further reduce a current-period deficiency.

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**TABLE 3 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS \***

	Examples					
	A	B	C	D	E	F
a. Reserve Requirement	1600	2600	1100	250	500	1,200
b. Vault Cash	100	100	100	100	500	1,180
c. Reserve Balance Requirement (a - b)	1500	2500	1000	150	0	20
d. Clearing Balance Requirement	400	2000	500	50	125	25
e. Total Balance Requirement (c + d)	1900	4500	1500	200	125	45
f. Maintained Balance	1700	2450	975	140	75	(5)
g. Gross Position (f - e)	(200)	(2050)	(525)	(60)	(50)	(50)
h. Carry-in	75	30	50	50	10	50
i. Carry-in Not Used or Offset This Period	0	0	0	0	0	5
j. Net Reserve Deficiency Adjusted for Carry-in	0	(20)	0	0	0	(5)
k. Clearing Balance Excess or Deficiency Adjusted for Carry-in	(125)	(2000)	(475)	(10)	(40)	0
l. Clearing Balance Allowance	25	40	25	10	25	0
m. Net Clearing Balance Excess or Deficiency	(100)	(1960)	(450)	0	(15)	0
n. Net Excess or Deficiency Adjusted for Carry-in and the Clearing Balance Allowance (j + m)	(100)	(1980)	(450)	0	(15)	(5)
o. Maximum Allowable Carry-over (in absolute value)	55	144	39	25	0	25
p. Carry-out	(55)	(144)	(39)	0	0	0
q. Final Position (n - p)	(45)	(1836)	(411)	0	(15)	(5)

\* Parentheses indicate negative numbers.

MECHANICS: BOTH RESERVE AND  
CLEARING BALANCE REQUIREMENTS

## Reserve Maintenance Manual

### **Example A**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$1,700,000 (line f) exceeded the \$1,500,000 reserve balance requirement (line c) but fell short of the total balance requirement of \$1,900,000 (line e) by \$200,000 (line g). The gross deficiency of \$200,000 (line g) is, therefore, a clearing balance deficiency.

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$75,000 (line h) only partially offsets the gross clearing balance deficiency in the current period of \$200,000 (line g), leaving a net clearing balance deficiency of \$125,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance further reduces the net clearing balance deficiency to \$100,000 (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line l). The maximum allowable carry-over for this institution is \$55,000 (line o). The net clearing balance deficiency adjusted for both carry-in and the clearing balance allowance (line n) exceeds the maximum allowable carry-over in absolute value, so only \$55,000 of the net clearing balance deficiency can be carried out (line p). The final position (line q) is a clearing balance deficiency of \$45,000.

*Assessment of the deficiency:* The clearing balance deficiency of \$45,000 (line q) is subject to a 2 percent (annual rate) charge because it is less than or equal to 20 percent of the \$400,000 clearing balance requirement (line d). The clearing balance deficiency carried out to the subsequent maintenance period (line p) will also be subject to charge if it is not made up in the following maintenance period.

*Calculation of earnings credits:* Earnings credits are based on the \$275,000 clearing balance maintained, calculated as the \$400,000 clearing balance requirement (line d) less the gross clearing balance deficiency of \$200,000 (line g) plus the positive carry-in of \$75,000 (line h). Earnings credits can be accrued in the next maintenance period on the portion of the \$55,000 clearing balance deficiency carried out (line p) that is covered in the next maintenance period. (See Negative Carry-in, XII-19.)

### **Example B**

*Calculation of gross position:* The average end-of day balance over the maintenance period of \$2,450,000 (line f) was not sufficient to meet either the \$2,500,000 reserve balance requirement (line c) or the \$4,500,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$2,050,000 (line g) consist of a gross reserve balance deficiency of \$50,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$2,000,000.

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$30,000 (line h) is allocated first to the reserve balance deficiency. After the application of carry-in, the gross reserve balance deficiency is reduced to \$20,000 (line j).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$40,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$1,960,000 (line m).



*Calculation of the maximum allowable carry-over, carry-out, and final position:* The total net deficiency, the sum of the net reserve and net clearing balance deficiencies, is \$1,980,000 (line n). Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line l). The maximum allowable carry-over for this institution is \$144,000 (line o). When an institution has both a reserve balance deficiency and clearing balance deficiency, the clearing balance deficiency is eligible for carry-over first, and then the reserve balance deficiency. The total net deficiency (line n) exceeds the maximum allowable carry-over in absolute value, so only \$144,000 of the net clearing balance deficiency can be carried out (line p). The final position (line q) is a deficiency of \$1,836,000 consisting of a final clearing balance deficiency of \$1,816,000 (line m - line p) and a final reserve balance deficiency of \$20,000.

*Assessment of the deficiency:* The final clearing balance deficiency of \$1,816,000 is subject to charge at two rates. The first \$400,000 (20 percent of the clearing balance requirement) is subject to charge at 2 percent (annual rate), while the remaining \$1,416,000 is subject to charge at 4 percent (annual rate). The final reserve balance deficiency of \$20,000 is subject to charge at the primary credit rate (annual rate) plus 1 percentage point. The clearing balance deficiency carried out to the subsequent maintenance period (line p) will also be subject to charge if it is not made up in the following maintenance period.

*Calculation of earnings credits:* No earnings credits are generated because no balance was maintained to satisfy the clearing balance requirement. Moreover, the positive carry-in was applied completely to reduce the current-period reserve balance deficiency. Earnings credits can be accrued in the next maintenance period on the portion of the \$144,000 clearing balance deficiency carried out (line p) that is covered in the next maintenance period. (See Negative Carry-in, XII-19.)

### **Example C**

*Calculation of gross position:* The average end-of day balance over the maintenance period of \$975,000 (line f) was not sufficient to meet either the \$1,000,000 reserve balance requirement (line c) or the \$1,500,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$525,000 (line g) consists of a gross reserve balance deficiency of \$25,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$500,000.

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$50,000 (line h) is allocated first to the reserve balance deficiency. After the application of carry-in, the gross reserve balance deficiency is completely eliminated (line j). The remaining carry-in of \$25,000 is then applied to reduce the net clearing balance deficiency to \$475,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance further reduces the net clearing balance deficiency to \$450,000 (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line l). The maximum allowable carry-over for this institution is \$39,000 (line o). The net clearing balance deficiency adjusted for both carry-in and the clearing balance allowance (line n) exceeds the maximum allowable carry-over in absolute value, so only \$39,000 of the net clearing balance deficiency can be carried out (line p). The final position (line q) is a clearing balance deficiency of \$411,000.



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*Assessment of the deficiency:* The clearing balance deficiency of \$411,000 (line q) is subject to charge at two rates. The first \$100,000 (20 percent of the clearing balance requirement) is subject to charge at 2 percent (annual rate), while the remaining \$311,000 is subject to charge at 4 percent (annual rate). The clearing balance deficiency carried out to the subsequent maintenance period (line p) will also be subject to charge if it is not made up in the following maintenance period.

*Calculation of earnings credits:* Earnings credits are based only on the \$25,000 of positive carry-in applied against the clearing balance deficiency in the current period. Earnings credits can be accrued in the next maintenance period on the portion of the \$39,000 clearing balance deficiency carried out (line p) that is covered in the next maintenance period. (See Negative Carry-in, XII-19.)

### Example D

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$140,000 (line f) was not sufficient to meet either the \$150,000 reserve balance requirement (line c) or the \$200,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$60,000 (line g) consists of a gross reserve balance deficiency of \$10,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$50,000.

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$50,000 (line h) is allocated first to the reserve balance deficiency. After the application of carry-in, the gross reserve balance deficiency is completely eliminated (line j). The remaining carry-in of \$40,000 is then applied to reduce the net clearing balance deficiency to \$10,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance for this institution is \$25,000. Only \$10,000 of this allowance (line l) is needed to eliminate the net clearing balance deficiency (line m). This example illustrates how positive carry-in and the clearing balance allowance can eliminate a current-period clearing balance deficiency.

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because the institution's net position is zero (line n), both the carry-out to the next maintenance period (line p) and the final position (line q) are zero.

*Calculation of earnings credits:* Earnings credits are based only on the \$40,000 of positive carry-in applied against the clearing balance deficiency in the current period.

### Example E

*Calculation of gross position:* The institution's **vault cash** of \$500,000 (line b) completely satisfies its \$500,000 reserve requirement (line a). Therefore, the institution does not have a reserve balance requirement (line c). The average end-of-day balance over the maintenance period of \$75,000 (line f) was not sufficient to meet the \$125,000 clearing balance requirement (line d). The gross deficiency of \$50,000 (line g) is, therefore, a clearing balance deficiency.

*Application of carry-in:* The positive carry-in from the previous maintenance period of \$10,000 (line h) only partially offsets the gross clearing balance deficiency in the current period of \$50,000 (line g), leaving a net clearing balance deficiency of \$40,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance

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allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance further reduces the net clearing balance deficiency to \$15,000 (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because this institution has a clearing balance requirement only and not a reserve balance requirement, it is not eligible for the carry-over privilege. It can only take advantage of the flexibility provided by the clearing balance band. Therefore, carry-out (line p) is zero. The final position (line q) is a clearing balance deficiency of \$15,000.

*Assessment of the deficiency:* The clearing balance deficiency of \$15,000 (line q) is subject to a 2 percent (annual rate) charge because it is less than or equal to 20 percent of the \$125,000 clearing balance requirement (line d).

*Calculation of earnings credits:* Earnings credits are based on the \$85,000 clearing balance maintained, calculated as the \$125,000 clearing balance requirement (line d) less the gross clearing balance deficiency of \$50,000 (line g) plus the positive carry-in of \$10,000 (line h).

### **Example F**

*Calculation of gross position:* The average end-of-day balance over the maintenance period was negative \$5,000 (line f). This situation could arise from overnight overdrafts or the application of debit as-of adjustments. The average end-of-day balance over the maintenance period was not sufficient to meet either the \$20,000 reserve balance requirement (line c) or the \$45,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$50,000 (line g) consists of a gross reserve balance deficiency of \$25,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$25,000.

*Application of carry-in:* The institution is expected to maintain an average end-of-day balance over the maintenance period that is not negative. Negative balances are treated as zero when calculating the amount of carry-in from the previous period that can be applied to a deficiency in the current period; thus, the positive carry-in from the previous maintenance period cannot be used to offset the negative maintained balance. The positive carry-in of \$50,000 (line h) is allocated first to the reserve balance deficiency of \$20,000, calculated as zero less the \$20,000 reserve balance requirement (line c). After the application of carry-in, the reserve balance deficiency is reduced to only the negative maintained balance (line j). The remaining carry-in of \$30,000 is then applied to completely eliminate the clearing balance deficiency (line k). The positive carry-in of \$5,000 from the previous period not used (line i), calculated as the \$50,000 positive carry-in (line h) less the sum of the \$20,000 reserve balance deficiency and \$25,000 clearing balance deficiency, represents a lost investment opportunity.

*Calculation and application of the clearing balance allowance:* The application of carry-in completely eliminated the clearing balance deficiency so there is no clearing balance allowance to be applied in this case (line l).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* The net deficiency of \$5,000 (line n) cannot be carried out to the next maintenance period because it represents a negative account balance and thus is not eligible for the carry-over privilege. Consequently, the institution's carry-out is zero (line p). The final position is a deficiency of \$5,000.

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*Assessment of the deficiency:* The final position of negative \$5,000 (line q) is subject to charge as a reserve deficiency at 1 percentage point above the prevailing primary credit rate (annual rate) in effect on the first day of the calendar month in which the deficiency occurred. If the negative maintained balance arose from overnight overdrafts, then such overdrafts would be subject to an additional charge equal to at least the effective federal funds rate (annual rate) on the days of the overdraft(s) plus 4 percentage points.

*Calculation of earnings credits:* Earnings credits are based only on the \$25,000 of positive carry-in applied against the clearing balance deficiency in the current period.

### **Negative Carry-in**

Table 4 considers examples in which an institution has negative carry-in and runs a gross excess in the current maintenance period (except for Examples C and F). Each institution has negative carry-in because it had a deficient position in the previous maintenance period. The examples show how negative carry-in can be offset by a current-period excess. They also show the calculation of earnings credits generated by making up the negative carry-in in the current period and demonstrate how the clearing balance allowance and the carry-over privilege can further reduce a current-period deficiency.

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**TABLE 4 MAINTENANCE PERIOD AVERAGES IN THOUSANDS OF DOLLARS \***

	Examples					
	A	B	C	D	E	F
a. Reserve Requirement	1900	1850	1100	250	500	1,200
b. Vault Cash	100	100	100	100	500	1,180
c. Reserve Balance Requirement (a - b)	1800	1750	1000	150	0	20
d. Clearing Balance Requirement	500	1500	400	50	125	25
e. Total Balance Requirement (c + d)	2300	3250	1400	200	125	45
f. Maintained Balance	2500	3500	950	230	200	(5)
g. Gross Position (f - e)	200	250	(450)	30	75	(50)
h. Carry-in	(80)	(280)	(60)	(5)	(30)	(50)
i. Carry-in Not Used or Offset This Period	0	(30)	(60)	0	0	(50)
j. Net Reserve Deficiency Adjusted for Carry-in	0	0	(50)	0	0	(25)
k. Clearing Balance Excess or Deficiency Adjusted for Carry-in	120	0	(400)	25	45	(25)
l. Clearing Balance Allowance	25	0	25	25	25	25
m. Net Clearing Balance Excess or Deficiency	95	0	(375)	0	20	0
n. Net Excess or Deficiency Adjusted for Carry-in and the Clearing Balance Allowance (j + m)	95	0	(425)	0	20	(25)
o. Maximum Allowable Carry-over (in absolute value)	71	104	35	25	0	25
p. Carry-out	71	0	(35)	0	0	(20)
q. Final Position (n - p)	24	0	(390)	0	20	(5)

\* Parentheses indicate negative numbers.

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### **Example A**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$2,500,000 (line f) exceeded the total balance requirement of \$2,300,000 (line e), leaving a gross excess of \$200,000 (line g).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$80,000 (line h) is completely offset by the gross excess in the current period of \$200,000 (line g), leaving an excess of \$120,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance further reduces the net excess to \$95,000 (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line l). The maximum allowable carry-over for this institution is \$71,000 (line o). The net excess adjusted for both carry-in and the clearing balance allowance (line n) exceeds the maximum allowable carry-over in absolute value, so only \$71,000 of the net excess can be carried out (line p). The final position (line q) is an excess of \$24,000, which represents a forgone investment opportunity.

*Calculation of earnings credits:* Earnings credits are based on \$605,000, provided the negative carry-in represented a clearing balance deficiency. This base amount is calculated as the \$500,000 clearing balance requirement (line d) plus the excess balance applied to the negative carry-in of \$80,000 (line h) plus the excess balance applied to the clearing balance allowance (line l). If the carry-in represented a reserve balance deficiency from the previous period, then the excess used to cover the carry-in cannot generate earnings credits. If the excess carried out to the next period of \$71,000 (line p) is used to cover all or part of a clearing balance deficiency in the subsequent maintenance period, the excess carried out will generate earnings credits in that period.

### **Example B**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$3,500,000 (line f) exceeded the total balance requirement of \$3,250,000 (line e), leaving a gross excess of \$250,000 (line g).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$280,000 (line h) is only partially offset by the gross excess in the current period of \$250,000 (line g). The negative carry-in is not eligible for carry-over into the next maintenance period. Carry-over can only be applied to the period immediately following the one in which it originated. The negative carry-in also cannot be netted against the clearing balance allowance; the institution must hold an average balance sufficient to cover the negative carry-in. Therefore, the negative carry-in not offset (line i) is subject to charge at the rate applicable in the maintenance period where the deficiency first occurred.

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*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because the institution's net position is zero (line n), both the carry-out to the next maintenance period (line p) and the final position (line q) are zero.

*Calculation of earnings credits:* Earnings credits are based on \$1,750,000, provided the negative carry-in represented a clearing balance deficiency. This base amount is calculated as the \$1,500,000 clearing balance requirement (line d) plus the excess balance applied to the negative carry-in (line h – line i). If the carry-in represented a reserve balance deficiency from the previous period, then the excess used to cover the carry-in cannot generate earnings credits.

### **Example C**

*Calculation of gross position:* The average end-of day balance over the maintenance period of \$950,000 (line f) was not sufficient to meet either the \$1,000,000 reserve balance requirement (line c) or the \$1,400,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$450,000 (line g) consists of a gross reserve balance deficiency of \$50,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$400,000.

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$60,000 (line h) is not offset in the current period (line i). The negative carry-in is not eligible for carry-over into the next maintenance period. Carry-over can only be applied to the period immediately following the one in which it originated. The negative carry-in also cannot be netted against the clearing balance allowance; the institution must hold an average balance sufficient to cover the negative carry-in. Therefore, the negative carry-in not offset (line i) is subject to charge at the rate applicable in the maintenance period where the deficiency first occurred.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance reduces the net clearing balance deficiency to \$375,000 (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line l). The maximum allowable carry-over for this institution is \$35,000 (line o). When an institution has both a reserve balance deficiency and clearing balance deficiency, the clearing balance deficiency is eligible for carry-over first, and then the reserve balance deficiency. The total net deficiency adjusted for both carry-in and the clearing balance allowance (line n) exceeds the maximum allowable carry-over in absolute value, so only \$35,000 of the net clearing balance deficiency can be carried out (line p). The final position (line q) is a deficiency of \$390,000, consisting of a final reserve deficiency of \$50,000 (line j) and a final clearing balance deficiency of \$340,000 (line m – line p).

*Assessment of the deficiency:* The final clearing balance deficiency of \$340,000 is subject to charge at two rates. The first \$80,000 (20 percent of the clearing balance requirement) is subject to charge at 2 percent (annual rate), while the remaining \$260,000 is subject to charge at 4 percent (annual rate). The final reserve balance deficiency of \$50,000 is also subject to charge at the primary credit rate (annual rate) plus 1 percentage point. The clearing balance deficiency carried out to the subsequent maintenance period (line p) will also be subject to charge if it is not made up in the following maintenance period.



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*Calculation of earnings credits:* No earnings credits are generated because no balance was maintained to satisfy the clearing balance requirement and the negative carry-in was not covered. Earnings credits can be accrued in the next maintenance period on the portion of the \$35,000 clearing balance deficiency carried out (line p) that is covered in the next maintenance period.

### **Example D**

*Calculation of gross position:* The average end-of-day balance over the maintenance period of \$230,000 (line f) exceeded the total balance requirement of \$200,000 (line e), leaving a gross excess of \$30,000 (line g).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$5,000 (line h) is completely offset by the gross excess in the current period of \$30,000 (line g), leaving an excess of \$25,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance completely eliminates the net excess (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because the institution's net position is zero (line n), both the carry-out to the next maintenance period (line p) and the final position (line q) are zero.

*Calculation of earnings credits:* Earnings credits are based on \$80,000, provided the negative carry-in represented a clearing balance deficiency. This base amount is calculated as the \$50,000 clearing balance requirement (line d) plus the excess balance applied to the negative carry-in of \$5,000 (line h) plus the excess balance applied to the clearing balance allowance (line l). If the carry-in represented a reserve balance deficiency from the previous period, then the excess used to cover the carry-in cannot generate earnings credits.

### **Example E**

*Calculation of gross position:* The institution's vault cash of \$500,000 (line b) completely satisfies its \$500,000 reserve requirement (line a). Therefore, the institution does not have a reserve balance requirement (line c). The average end-of-day balance over the maintenance period of \$200,000 (line f) exceeded the \$125,000 clearing balance requirement (line d), leaving the institution with a gross excess of \$75,000 (line g).

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$30,000 (line h) is completely offset by the gross excess in the current period of \$75,000 (line g), leaving an excess of \$45,000 (line k).

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance reduces the net excess to \$20,000 (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Because this institution has a clearing balance requirement only and not a reserve balance requirement, it is not eligible for the carry-over privilege. It can only take advantage of the flexibility provided by the clearing balance band. Therefore carry-out (line p) is zero. The final position (line q) is an excess of \$20,000, which represents a forgone investment opportunity.

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*Calculation of earnings credits:* Earnings credits are based on the \$180,000, provided the negative carry-in represented a clearing balance deficiency. This base amount is calculated as the \$125,000 clearing balance requirement (line d) plus the excess balance applied to the negative carry-in of \$30,000 (line h) plus the excess balance applied to the clearing balance allowance (line l). If the carry-in represented a reserve balance deficiency from the previous period, then the excess used to cover the carry-in cannot generate earnings credits.

### **Example F**

*Calculation of gross position:* The average end-of-day balance over the maintenance period was negative \$5,000 (line f). This situation could arise from overnight overdrafts or the application of debit as-of adjustments. The average end-of-day balance over the maintenance period was not sufficient to meet either the \$20,000 reserve balance requirement (line c) or the \$45,000 total balance requirement (line e), leaving both a reserve balance deficiency and a clearing balance deficiency. The total gross deficiency of \$50,000 (line g) consists of a gross reserve balance deficiency of \$25,000, calculated as the maintained balance (line f) less the reserve balance requirement (line c), and a gross clearing balance deficiency of \$25,000.

*Application of carry-in:* The negative carry-in from the previous maintenance period of \$50,000 (line h) is not offset in the current period (line i). The negative carry-in is not eligible for carry-over into the next maintenance period. Carry-over can only be applied to the period immediately following the one in which it originated. The negative carry-in also cannot be netted against the clearing balance allowance; the institution must hold an average balance sufficient to cover the negative carry-in. Therefore, the negative carry-in not offset (line i) is subject to charge at the rate applicable in the maintenance period where the deficiency first occurred.

*Calculation and application of the clearing balance allowance:* The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. The clearing balance allowance (line l) for this institution is \$25,000. Application of the clearing balance allowance completely eliminates the clearing balance deficiency (line m).

*Calculation of the maximum allowable carry-over, carry-out, and final position:* Maximum allowable carry-over is calculated as either \$50,000 or 4 percent of the institution's total requirement (line a + line d), whichever is greater, less the clearing balance allowance (line l). The maximum allowable carry-over for this institution is \$25,000 (line o). The portion of the reserve balance deficiency resulting from the negative maintained balance of \$5,000 (line n) cannot be carried out to the next maintenance period because it represents a negative account balance and thus is not eligible for the carry-over privilege. Consequently, the institution's carry-out is \$20,000 (line p), the remainder of the reserve balance deficiency. The final position (line q) is a deficiency of \$5,000.

*Assessment of the deficiency:* The final position of negative \$5,000 (line q) is subject to charge as a reserve deficiency at 1 percentage point above the prevailing primary credit rate (annual rate) in effect on the first day of the calendar month in which the deficiency occurred. If the negative maintained balance arose from overnight overdrafts, then such overdrafts would be subject to an additional charge equal to at least the effective federal funds rate (annual rate) on the days of the overdraft(s) plus 4 percentage points. The reserve balance deficiency carried out to the subsequent maintenance period (line p) will also be subject to charge if it is not made up in the following maintenance period.



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*Calculation of earnings credits:* No earnings credits would be generated because no balance was maintained to meet the clearing balance requirement. The carry-out represents a reserve balance deficiency so no earnings credits will accrue on that part of the deficiency covered in the subsequent maintenance period.



### XIII. MERGERS

A “merger” is the combination of two or more separate institutions into a single institution. Such combinations may take the form of statutory mergers, consolidations, acquisitions, or the purchase of assets and assumption of liabilities. The single institution that is formed is called the “merged institution” or the “survivor.”<sup>16</sup> A merged institution has only one **low reserve tranche** and only one **exemption amount**, while, prior to the merger, each separately chartered institution involved in the merger generally had a low reserve tranche and exemption.<sup>17</sup> For this reason, the survivor’s **reserve requirement** usually will be higher than the combined reserve requirement of the merging institutions had they remained separate. This increase in the reserve requirement resulting from the loss of the low reserve tranche and exemption is called the **tranche loss effect**. In order to cushion the abrupt increase in the reserve requirement for the merged institution, the Federal Reserve phases the tranche loss effect in gradually over a seven-quarter period following the date of the merger through a **tranche loss adjustment**.<sup>18</sup> Rules for calculation of the tranche loss effect and the tranche loss adjustment are stipulated in Regulation D, Section 204.4, Transitional Adjustments in Mergers.

This chapter distinguishes between “initial” mergers and “subsequent” mergers:

- An “initial” merger is one in which no institution involved in the merger is still phasing in a tranche loss effect from a previous merger.
- A “subsequent” merger is one in which one or more of the institutions involved in the merger is still phasing in a tranche loss effect from one or more previous mergers, i.e., where the seven-quarter phase-in for one or more previous mergers is not complete. In these circumstances, the new merged institution receives a tranche loss adjustment for the subsequent merger while still receiving tranche loss adjustments remaining from the previous mergers.

This chapter details steps for basic merger calculations applicable to all mergers, regardless of whether initial or subsequent. These basic calculations are performed at the outset of each merger and generate the tranche loss effect and tranche loss adjustment for that specific merger, to be phased in over the seven-quarter period following the date of the merger. There follows a discussion of the procedures for application of the tranche loss adjustment for each **maintenance period** covered by the merger phase-in schedule, both for initial mergers and for subsequent mergers. The chapter concludes with a numerical example.

Please note, however, that the material presented below assumes the survivor will file a single FR 2900 report and maintain all of its required reserve balances in a single **master account** with the Federal Reserve. (See Chapter XIV, Transition, for arrangements where institutions may maintain required reserve balances in multiple accounts during a period of transition following a merger.)

<sup>16</sup> In general, a purchase of assets and assumption of liabilities in which both the seller and the buyer continue to exist is not a merger and does not qualify for merger treatment.

<sup>17</sup> However, U.S. branches and agencies of the same foreign bank and banking Edge and agreement corporations receive one low reserve tranche and one exemption. The low reserve tranche and the exemption are allocated among the reporting offices (or groups of offices). Other exceptions to the “one-charter/one tranche-and-exemption” rule include situations where one depository institution is a subsidiary of another depository institution: for example, where one savings and loan association (S&L) owns another S&L, each separately chartered. In such cases, the institutions share a single tranche and exemption, even though each is separately chartered. (See Chapter V, Calculation of Reserve Requirements.)

<sup>18</sup> Quarters are defined in the merger phase-in schedule that appears later in this chapter.

## BASIC MERGER CALCULATIONS

This part of the chapter provides detailed steps for calculation of the tranche loss effect and tranche loss adjustment for any one merger, regardless of whether initial or subsequent.<sup>19</sup> These calculations are made at the outset of the merger.

### A. Calculation of Tranche Loss Effect

In general, the tranche loss effect is calculated on the basis of FR 2900 data from each involved institution for the **computation period** *immediately preceding* the date of the merger. For *weekly FR 2900 reporters*, this is the fourteen-day computation period immediately preceding the fourteen-day computation period in which the merger occurs. For *quarterly FR 2900 reporters*, this is generally the institution's last FR 2900 quarterly **reporting period** before the merger.<sup>20</sup> Exempt institutions (FR 2910a reporters and nonreporters) also may be involved in the merger.<sup>21</sup> If so, they may be included in the basic merger calculations upon request of the survivor. If the survivor elects this option, FR 2900 data items necessary for the basic merger calculations must be provided to the Federal Reserve for each such institution. It should be noted, however, that inclusion of the data of fully exempt institutions in the calculation of the tranche loss effect typically has little appreciable effect on the overall results. In any event, data for nonsurvivors in a reduced reporting (or nonreporting) status prior to the merger must be included in the survivor's deposit reports as of and following the merger date.

Calculate the tranche loss effect as follows:

1. For each institution involved in the merger, calculate its own actual, separate reserve requirement using data from the computation period that (generally) immediately precedes the date of the merger.<sup>22</sup> For these calculations, each institution receives a low reserve tranche and an exemption.<sup>23</sup>
2. Add the institutions' separate reserve requirements calculated in step 1. This sum represents the "combined" requirement.
3. Using data for the same computation period, calculate a single reserve requirement for the merged institution as if the merger had already taken place. Do this by adding up the **reservable liabilities** of all institutions involved in the merger, and calculating the reserve requirement on the basis of that

<sup>19</sup> The tranche loss effect for a subsequent merger is calculated independently of tranche loss effects calculated for previous mergers. While the merged institution still receives credit for tranche loss adjustments remaining from previous mergers, the tranche loss adjustments for the subsequent merger and for each previous merger have been calculated separately.

<sup>20</sup> There are several exceptions to this general rule. If the merger occurs during a seven-day quarterly reporting period, the quarterly reporter's previous FR 2900 report is used. If a quarterly reporter (nonsurvivor) merges into a weekly reporter (survivor), then data for the quarterly reporter are taken from the last quarterly report that was available at the time of each one of the two seven-day report weeks from which data for the weekly reporter are used (i.e., depending on the date of the merger relative to a quarterly report date, the latest quarterly report may not be used in the calculation, or two different quarterly reports may be used in the calculation).

<sup>21</sup> Exempt institutions are in the reduced reporting category. (See Chapter IV, Reporting Requirements.)

<sup>22</sup> As noted earlier, the reserve requirement is the amount determined by applying the reserve ratios specified in Regulation D to an institution's reservable liabilities during the relevant computation period, and which the institution must satisfy in the form of **vault cash** or a balance maintained either directly with a Reserve Bank or in a pass-through arrangement.

<sup>23</sup> In making these calculations, generally use the low reserve tranche and exemption amounts that were in effect during the computation period from which deposit data are taken.

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total. For this calculation, only one low reserve tranche and only one exemption amount are used, regardless of the number of institutions involved. This figure represents the “single” requirement.

4. Subtract the combined reserve requirement (step 2) from the single requirement (step 3). The result is the tranche loss effect. This figure is a constant dollar amount that remains in force for this particular merger throughout the seven-quarter phase-in period.

### **B. Calculation of Tranche Loss Adjustment**

Calculate the tranche loss adjustment by applying the percentages shown in the table below to the tranche loss effect. The amount of the tranche loss adjustment applicable to the quarter in which a maintenance period falls reduces the reserve requirement that the merged institution must satisfy in that maintenance period.

The following schedule shows the percentages to be applied to the tranche loss effect to yield the tranche loss adjustment. The percentage declines each quarter of the seven-quarter phase-in period. By the eighth quarter after the date of the merger, the percentage is zero, and the tranche loss effect is fully phased in. Please note that the schedule is expressed in terms of maintenance periods occurring during quarters following each particular merger. Thus, for each merger, the phase-in schedule is date specific.

#### **MERGER PHASE-IN SCHEDULE**

Maintenance periods occurring during quarters following merger	Number of weeks in quarter <sup>i</sup>	Percentage applied to tranche loss effect to determine amount to be subtracted from reserve requirement
Quarter 1	16 <sup>ii</sup>	87.5
Quarter 2	12	75.0
Quarter 3	14	62.5
Quarter 4	12	50.0
Quarter 5	14	37.5
Quarter 6	12	25.0
Quarter 7	14	12.5
Quarter 8 and succeeding		0

i With the exception noted below, quarters comprise an even number of weeks in order to mesh with fourteen-day maintenance periods for weekly reporters. Although quarterly reporters have seven-day maintenance periods, this same quarter structure also applies to them, as it allows smooth integration into fourteen-day maintenance periods if a quarterly reporter becomes a weekly reporter while its tranche loss adjustment schedule is still running its course.

ii For weekly reporters, the first quarter always comprises sixteen weeks. For quarterly reporters, the first quarter comprises either fifteen or sixteen weeks, depending on whether the merger occurs in the second week or first week, respectively, of a fourteen-day maintenance period for weekly reporters.

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The tranche loss adjustments for the entire seven-quarter period are calculated at the outset of each merger. Then, maintenance period by maintenance period, the adjustments are applied according to the procedures described in the following section.

### INTERVAL BETWEEN DATE OF MERGER AND EFFECTIVE DATE OF TRANCHE LOSS ADJUSTMENT

#### Weekly Reporters

When the survivor is a weekly FR 2900 reporter, *application of the tranche loss adjustment begins as of the fourteen-day maintenance period that is associated with the fourteen-day computation period during which the merger occurs.*<sup>24</sup> However, as noted earlier, there is a lag of thirty days for weekly reporters between the beginning of the reserve computation period encompassing the merger and the beginning of the maintenance period during which reserves for that computation period must be held. Starting with the maintenance period in which the merger occurs and for each maintenance period thereafter until the tranche loss adjustment becomes effective (“intervening” maintenance periods), the survivor is responsible for the sum of the separately-calculated **reserve balance requirements** of each of the individual institutions involved in the merger. These reserve balance requirements are calculated using separate FR 2900 reports for each institution.

If the merger occurs on the first Tuesday or the first Wednesday of a fourteen-day computation period, there are *three* such intervening maintenance periods. If the merger occurs on any day after the first two days of a fourteen-day computation period, there are *two* such intervening maintenance periods.

For example, two weekly reporters merge during the fourteen-day computation period that begins Tuesday, July 29, 2008, and ends Monday, August 11, 2008.<sup>25</sup> Reserve requirements for the merged institution will be held for the first time in the fourteen-day maintenance period beginning Thursday, August 28 and ending Wednesday, September 10. The tranche loss adjustment for this merger will become effective as of that same maintenance period.

If the merger occurs either on Tuesday, July 29, or Wednesday, July 30, the survivor will be responsible for the combined reserve balance requirements for each institution involved in the merger for three fourteen-day maintenance periods: those ending Wednesday, July 30, August 13, and August 27.

If the merger occurs on any day thereafter (Thursday, July 31, through Monday, August 11), the survivor will be responsible for the combined reserve balance requirements for each institution involved in the merger for two fourteen-day maintenance periods: those ending Wednesday, August 13, and Wednesday, August 27.

<sup>24</sup> As noted elsewhere, if any one institution involved in the merger is a weekly FR 2900 reporter, the survivor also is a weekly reporter, regardless of its reporting frequency prior to the merger.

<sup>25</sup> The basic merger calculations outlined in the preceding section are performed on daily average data for the fourteen-day computation period immediately preceding the date of the merger, in this case the fourteen-day computation period ending Monday, July 28.

## Quarterly Reporters

Survivors that are quarterly FR 2900 reporters should contact their Reserve Bank for information on maintenance requirements between the date of the merger and the effective date of the tranche loss adjustment.

## APPLICATION OF TRANCHE LOSS ADJUSTMENTS

Once the merger phase-in becomes effective, the survivor's reserve requirement is reduced in each successive maintenance period by the tranche loss adjustment (or adjustments) applicable to that period, resulting in the institution's **merger-adjusted reserve requirement**. The institution's reserve balance requirement is then calculated by applying vault cash from the appropriate computation period to the merger-adjusted reserve requirement.

### Initial Merger

Where the merger is initial, the merged institution receives a tranche loss adjustment for only one merger. Therefore, the calculations outlined in the preceding paragraph are straightforward for each maintenance period.

### Subsequent Merger

Where the merger is subsequent, however, the survivor receives a tranche loss adjustment for that subsequent merger and, at the same time, still receives tranche loss adjustments remaining from a previous merger or mergers. The separate tranche loss adjustments applicable to the particular maintenance period are added together and the total is subtracted from the survivor's reserve requirement to yield the merger-adjusted reserve requirement. As above, the institution's reserve balance requirement is then calculated by applying vault cash from the appropriate computation period to the merger-adjusted reserve requirement. Again, tranche loss adjustments are date specific for each individual merger. When combining tranche loss adjustments for multiple mergers, specific maintenance periods (not quarters) must be matched, as illustrated in the following example.

### Example

Two institutions merge. As neither institution is receiving a tranche loss adjustment from a previous merger, the merger is considered an initial merger. The survivor receives a tranche loss adjustment as calculated above under Basic Merger Calculations, XIII-2. The survivor's tranche loss adjustment, based on the tranche loss effect for this particular merger, is phased in over the seven-quarter period starting with the maintenance period associated with the computation period during which this initial merger occurs.

While still phasing in the initial merger, the survivor merges with yet another institution. The new survivor also receives a tranche loss adjustment for this subsequent merger. This new tranche loss adjustment also is calculated as outlined under Basic Merger Calculation, XIII-2. These calculations are made without regard to the existence of an adjustment from the previous merger. The survivor's tranche loss adjustment, based on the tranche loss effect for this subsequent merger, is phased in over the seven-quarter period starting with the maintenance period associated with the computation period during which this subsequent merger occurs.

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The survivor now has two sets of tranche loss adjustments, one from the initial merger and one from the subsequent merger, each with its own separate, seven-quarter phase-in schedule. There will be overlap between the two schedules until the phase-in period for the initial merger has ended. The two separate tranche loss adjustments applicable to a specific maintenance period are added together and the sum is subtracted from the survivor's reserve requirement for that maintenance period, giving the survivor's merger-adjusted reserve requirement. Vault cash from the appropriate computation period is then applied to the merger-adjusted reserve requirement to determine the survivor's reserve balance requirement for the maintenance period.

### NUMERICAL EXAMPLE

The example below describes a bank's initial merger followed by a subsequent merger in the next quarter. The tables on the following pages show numerical examples of the merger calculations for this scenario.

I. **Initial merger** — Bank A and Bank B, both weekly FR 2900 reporters, merge on Friday, July 18, 2008.

*Computation period in which merger occurs:* Tuesday, July 15 – Monday, July 28

*Preceding computation period (on which basic merger calculations are based):*  
Tuesday, July 1 – Monday, July 14

*Intervening maintenance periods (the survivor is responsible for the combined reserve requirements for all merger participants):*

Thursday, July 17 – Wednesday, July 30

Thursday, July 31 – Wednesday, August 13

*First maintenance period for merged institution:* Thursday, August 14 – Wednesday, August 27

The survivor, Bank AB, receives a tranche loss adjustment as calculated under Basic Merger Calculations, XIII-2. The survivor's tranche loss adjustment, based on the tranche loss effect for this particular merger, is phased in over the seven-quarter period beginning with the maintenance period associated with the computation period during which the merger occurs (Table 1).



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II. **Subsequent merger** — While still phasing in the first tranche loss effect, Bank AB merges with yet another weekly reporting institution, Bank C, on Friday, November 28, 2008.

*Computation period in which merger occurs:* Tuesday, November 18 – Monday, December 1

*Preceding computation period (on which basic merger calculations are based):*  
Tuesday, November 4 – Monday, November 17

*Intervening maintenance periods (the survivor is responsible for the combined reserve requirements for all merger participants):*

Thursday, November 20 – Wednesday, December 3

Thursday, December 4 – Wednesday, December 17

*First maintenance period for merged institution:*

Thursday, December 18 – Wednesday, December 31

The survivor, Bank ABC, receives another tranche loss adjustment for this subsequent merger.<sup>26</sup> This tranche loss adjustment also is calculated as outlined under the Basic Merger Calculations, XIII-2; these calculations are made without regard to the existence of a tranche loss adjustment from the initial merger. The survivor's tranche loss adjustment, based on the tranche loss effect for this subsequent merger, as shown in Table 2, is phased in over the seven-quarter period beginning with the maintenance period associated with the computation period during which this subsequent merger occurs.

Table 3 shows how the two tranche loss adjustments overlap. The tranche loss adjustment for the initial merger stands alone for the entire first quarter and for the first maintenance period of the second quarter of the initial merger's seven-quarter phase-in. Then the tranche loss adjustment for the subsequent merger also becomes effective and, for coincident maintenance periods, the two tranche loss adjustments are combined for subtraction from the merged institution's reserve requirement to give the merger-adjusted reserve requirement. The merger-adjusted reserve requirement and the reserve balance requirement for Bank ABC for the December 18, 2008 – December 31, 2008, maintenance period are calculated below (the values used in the calculation come from Tables 2 and 3):

Merger-adjusted reserve requirement	=	Reserve requirement	–	Total tranche loss adjustment
\$27,940	=	\$33,148	–	\$5,208

Reserve balance requirement	=	Merger-adjusted reserve requirement	–	Usable vault cash
\$12,940	=	\$27,940	–	\$15,000

The two tranche loss adjustments continue to be combined until the adjustment for the initial merger has run its course. The tranche loss adjustment for the subsequent merger then stands alone until it expires.

<sup>26</sup> For simplicity, the example assumes that deposit and vault cash levels at each bank remain unchanged and that the effective low reserve tranche and exemption remain unchanged throughout the period under review.

## TABLE 1: INITIAL MERGER OF WEEKLY REPORTERS

### A. BANK DATA REQUIRED FOR CALCULATIONS

Daily averages in thousands of dollars

Bank data required for calculations	Bank A	Bank B	Bank AB
Net transaction accounts (NTA)	\$250,000	\$75,000	\$325,000
Usable vault cash	10,000	3,000	13,000

### B. TRANCHE LOSS EFFECT (TLE) CALCULATION<sup>27</sup>

	Separate		Single
Reserve requirement (RR) @ 3% ((Low reserve tranche - exemption) x 3%)	1,038	1,038	1,038
NTA exceeding low reserve tranche (NTA - low reserve tranche)	206,100	31,100	281,100
Reserve requirement @ 10% ((NTA exceeding low reserve tranche) x 10%)	20,610	3,110	28,110
Total reserve requirement (RR @ 3% + RR @ 10%)	21,648	4,148	29,148
Combined reserve requirement	25,796 (21,648 + 4,148)		NA
Tranche loss effect (single - combined reserve requirement)	3,352 (29,148 - 25,796)		

### C. TRANCHE LOSS ADJUSTMENT (TLA) CALCULATION

Quarter	Length	Percent	TLA (3,352 x %)
1	16 weeks; 8 MPs	87.5	2,933
2	12 weeks; 6 MPs	75.0	2,514
3	14 weeks; 7 MPs	62.5	2,095
4	12 weeks; 6 MPs	50.0	1,676
5	14 weeks; 7 MPs	37.5	1,257
6	12 weeks; 6 MPs	25.0	838
7	14 weeks; 7 MPs	12.5	419
8	12 weeks; 6 MPs	0	0

<sup>27</sup> Note: The exemption and tranche levels and the reserve ratios in effect for calendar year 2008 are:

Exemption: \$9.3 million

Low reserve tranche: \$43.9 million

Reserve requirement ratios for net transaction accounts:

(The ratio for all other reservable liabilities currently is 0%.)

0% \$0 – \$9.3 million

3% over \$9.3 – \$43.9 million

10% over \$43.9 million

**TABLE 2: SUBSEQUENT MERGER OF WEEKLY REPORTERS**

**A. BANK DATA REQUIRED FOR CALCULATIONS**

Daily averages in thousands of dollars

Bank data required for calculations	Bank AB	Bank C	Bank ABC
Net transaction accounts (NTA)	\$325,000	\$40,000	\$365,000
Usable vault cash	13,000	2,000	15,000

**B. TRANCHE LOSS EFFECT (TLE) CALCULATION**

	Separate		Single
Reserve requirement (RR) @ 3% ((Low reserve tranche - exemption) x 3%)	1,038	921	1,038
NTA exceeding low reserve tranche (NTA - low reserve tranche)	281,100	0	321,100
Reserve requirement @ 10% ((NTA exceeding low reserve tranche) x 10%)	28,110	0	32,110
Total reserve requirement (RR @ 3% + RR @ 10%)	29,148	921	33,148
Combined reserve requirement	30,069 (29,148 + 921)		N/A
Tranche loss effect (single - combined reserve requirement)	3,079 (33,148 - 30,069)		

**C. TRANCHE LOSS ADJUSTMENT (TLA) CALCULATION**

Quarter	Length	Percent	TLA (3,079 x %)
1	16 weeks; 8 MPs	87.5	2,694
2	12 weeks; 6 MPs	75.0	2,309
3	14 weeks; 7 MPs	62.5	1,924
4	12 weeks; 6 MPs	50.0	1,540
5	14 weeks; 7 MPs	37.5	1,155
6	12 weeks; 6 MPs	25.0	770
7	14 weeks; 7 MPs	12.5	385
8	12 weeks; 6 MPs	0	0

**TABLE 3: TOTAL TRANCHE LOSS ADJUSTMENT  
(TLA) CALCULATION**

Maintenance Periods (MP)	TLA for initial merger July 18, 2008	TLA for subsequent merger November 28, 2008	Total TLA	
08/14/08 – 08/27/08	TLA for quarter 1: 2,933		2,933	
08/28/08 – 09/10/08	(16 weeks, 8 MPs) 2,933		2,933	
09/11/08 – 09/24/08	2,933		2,933	
09/25/08 – 10/08/08	2,933		2,933	
10/09/08 – 10/22/08	2,933		2,933	
10/23/08 – 11/05/08	2,933		2,933	
11/06/08 – 11/19/08	2,933		2,933	
11/20/08 – 12/03/08	2,933		2,933	
12/04/08 – 12/17/08	TLA for quarter 2: 2,514		2,514	
12/18/08 – 12/31/08	(12 weeks, 6 MPs) 2,514		TLA for quarter 1: 2,694	5,208
01/01/09 – 01/14/09	2,514		(16 weeks, 8 MPs) 2,694	5,208
01/15/09 – 01/28/09	2,514		2,694	5,208
01/29/09 – 02/11/09	2,514		2,694	5,208
02/12/09 – 02/25/09	2,514		2,694	5,208
02/26/09 – 03/11/09	TLA for quarter 3: 2,095		2,694	4,789
03/12/09 – 03/25/09	(14 weeks, 7 MPs) 2,095		2,694	4,789
03/26/09 – 04/08/09	2,095	2,694	4,789	
04/09/09 – 04/22/09	2,095	TLA for quarter 2: 2,309	4,404	
04/23/09 – 05/06/09	2,095	(12 weeks, 6 MPs) 2,309	4,404	
05/07/09 – 05/20/09	2,095	2,309	4,404	
05/21/09 – 06/03/09	2,095	2,309	4,404	
06/04/09 – 06/17/09	TLA for quarter 4: 1,676	2,309	3,985	
06/18/09 – 07/01/09	(12 weeks, 6 MPs) 1,676	2,309	3,985	
07/02/09 – 07/15/09	1,676	TLA for quarter 3: 1,924	3,600	
07/16/09 – 07/29/09	1,676	(14 weeks, 7 MPs) 1,924	3,600	
07/30/09 – 08/12/09	1,676	1,924	3,600	

## TABLE 3: CONTINUED

Maintenance Periods (MP)	TLA for initial merger July 18, 2008	TLA for subsequent merger November 28, 2008	Total TLA
08/13/09 – 08/26/09	1,676	1,924	3,600
08/27/09 – 09/09/09	TLA for quarter 5: 1,257	1,924	3,181
09/10/09 – 09/23/09	(14 weeks, 7 MPs) 1,257	1,924	3,181
09/24/09 – 10/07/09	1,257	1,924	3,181
10/08/09 – 10/21/09	1,257	TLA for quarter 4: 1,540	2,797
10/22/09 – 11/04/09	1,257	(12 weeks, 6 MPs) 1,540	2,797
11/05/09 – 11/18/09	1,257	1,540	2,797
11/19/09 – 12/02/09	1,257	1,540	2,797
12/03/09 – 12/16/09	TLA for quarter 6: 838	1,540	2,378
12/17/09 – 12/30/09	(12 weeks, 6 MPs) 838	1,540	2,378
12/31/09 – 01/13/10	838	TLA for quarter 5: 1,155	1,993
01/14/10 – 01/27/10	838	(14 weeks, 7 MPs) 1,155	1,993
01/28/10 – 02/10/10	838	1,155	1,993
02/11/10 – 02/24/10	838	1,155	1,993
02/25/10 – 03/10/10	TLA for quarter 7: 419	1,155	1,574
03/11/10 – 03/24/10	(14 weeks, 7 MPs) 419	1,155	1,574
03/25/10 – 04/07/10	419	1,155	1,574
04/08/10 – 04/21/10	419	TLA for quarter 6: 770	1,189
04/22/10 – 05/05/10	419	(12 weeks, 6 MPs) 770	1,189
05/06/10 – 05/19/10	419	770	1,189
05/20/10 – 06/02/10	419	770	1,189
06/03/10 – 06/16/10		770	770
06/17/10 – 06/30/10		770	770
07/01/10 – 07/14/10		TLA for quarter 7: 385	385
07/15/10 – 07/28/10		(14 weeks, 7 MPs) 385	385
07/29/10 – 08/11/10		385	385

**TABLE 3: CONTINUED**

Maintenance Periods (MP)	TLA for initial merger July 18, 2008	TLA for subsequent merger November 28, 2008	Total TLA
08/12/10– 08/25/10		385	385
08/26/10– 09/08/10		385	385
09/09/10 – 09/22/10		385	385
09/23/10 – 10/06/10		385	385
10/07/10 – 10/20/10			

## XIV. TRANSITION

The Federal Reserve offers transitional, multiple account arrangements to support organizational and operational restructuring after a merger for institutions that are not operationally prepared to close the nonsurvivor's **master account** or to convert the nonsurvivor's master account to a **subaccount** on the merger effective date. To support transition periods, the surviving entity may operate the nonsurviving entity's master account as an independent account for up to one year, under arrangements outlined below. Each merger/acquisition triggers the one-year transition period. Transition periods begin on the effective date of the merger/acquisition.

The Federal Reserve encourages institutions to make the transition to the single master account structure as expeditiously as possible to centralize the account relationship with the Federal Reserve and to facilitate, coordinate, and streamline the management of that account.

### Transitional Arrangements for Deposit Reporting and Reserve Administration

During the one-year transition period following a merger, the surviving entity has two options for FR 2900 reporting and for reserve administration.

#### Option 1—Multiple Reserve/Clearing Balances

- FR 2900 reports are filed separately for the surviving entity and for the nonsurviving entity.<sup>28</sup>
- Separate **reserve requirements** are calculated for the surviving entity and for the nonsurviving entity based on the separate FR 2900 reports. The combined institution receives only one **exemption amount** and one **low reserve tranche**, which must be allocated between the surviving entity and the nonsurviving entity for calculation of reserve requirements.<sup>29</sup>(See Chapter IV, Reporting Requirements, and Chapter V, Calculation of Reserve Requirements.)
- Required reserve balances for the surviving entity and the nonsurviving entity are maintained in separate master accounts.
- The survivor's and nonsurvivor's master accounts each may have a **clearing balance requirement**. If the surviving entity's master account has a clearing balance requirement, then the marginal reserve requirement adjustment used when calculating **earnings credits** would be based on deposit and **vault cash** information reported on the survivor's FR 2900 report. If the nonsurviving entity's master account has a clearing balance requirement, then the marginal reserve requirement adjustment used when calculating earnings credits would be based on deposit and vault cash information reported on the nonsurviving entity's FR 2900 report.

<sup>28</sup> These separate FR 2900 reports will be filed weekly if either the survivor or the nonsurvivor filed the FR 2900 weekly prior to the merger. If both the survivor and the nonsurvivor filed the FR 2900 quarterly prior to the merger, the separate FR 2900 reports will continue to be filed quarterly after the merger. The Federal Reserve will then review the merged institution's reporting status as part of the annual reporting category reassignment process (effective each September).

<sup>29</sup> An institution must indicate the desired allocation of the low reserve tranche and exemption between the surviving and nonsurviving entities by filing the FR 2930.

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- The Federal Reserve will monitor each account separately for purposes of reserve/**clearing balance** administration. That is, balances maintained in the surviving entity's master account will be measured against its reserve balance requirement and its clearing balance requirement, if any, while balances maintained in the nonsurviving entity's master account will be measured against its reserve balance requirement and its clearing balance requirement, if any.
- Each separate master account may hold **respondent** pass-through reserve balances.

### Option 2—One Reserve Balance/Multiple Clearing Balances

- The combined surviving entity and nonsurviving entity file one consolidated FR 2900.<sup>30</sup> The combined institution receives one exemption amount and one low reserve tranche.
- The reserve requirement for the merged institution is calculated from the deposit data provided on the consolidated FR 2900.
- The surviving entity may have a clearing balance requirement for its master account.
- Only the surviving entity's master account balances may satisfy the merged institution's **reserve balance requirement** and, where applicable, the clearing balance requirement for the survivor's master account.
- The nonsurviving entity's master account may have a clearing balance requirement. Balances in this account are applied only to the nonsurvivor's clearing balance requirement (if any), not to the merged entity's reserve balance requirement or, if applicable, the survivor's clearing balance requirement.
- When calculating earnings credits, the marginal reserve requirement adjustment would be based on deposit and vault cash information reported on the consolidated FR 2900 report. Therefore, the marginal reserve requirement adjustment would be used in earnings credit calculations for the surviving entity's master account and the nonsurviving entity's master account.
- *The nonsurviving entity's master account would be maintained on a seven-day basis regardless of the surviving entity's maintenance schedule.* The surviving entity should contact its Reserve Bank's reserve administration staff well in advance of the **maintenance period** in which the merger will occur for assistance in understanding the effect of the merger on the **position** of the nonsurviving entity's account, particularly if the nonsurviving entity's account will shift from a fourteen-day to a seven-day maintenance period.<sup>31</sup>
- Only the surviving entity's master account may hold respondent pass-through required reserve balances along with its own balances.

<sup>30</sup> The consolidated FR 2900 will be filed weekly if either the survivor or the nonsurvivor filed the FR 2900 weekly prior to the merger. If both the survivor and the nonsurvivor filed the FR 2900 quarterly prior to the merger, the consolidated FR 2900 report will be filed quarterly after the merger. The Federal Reserve will then review the merged institution's reporting status as part of the annual reporting category reassignment process (effective each September).

<sup>31</sup> If the nonsurviving entity had been settling on a fourteen-day basis, its initial seven-day maintenance period should be the first of the two seven-day periods that comprise the fourteen-day maintenance period containing the merger.



## Reserve Maintenance Manual

Under either option, the survivor of the merger receives the **tranche loss adjustment**, phased in over a seven-quarter period (see Chapter XIII, Mergers). However, the use of Option 1 may introduce complexities in the calculation and application of the tranche loss adjustment, particularly if the institution engages in additional merger activity during the seven-quarter phase-in period for the initial merger.<sup>32</sup> An institution contemplating additional merger activity should consult its Reserve Bank before selecting Option 1.

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<sup>32</sup> Among other things, the tranche loss adjustment is not allocated among the various involved entities. Rather, the entire tranche loss adjustment goes to the surviving entity.

## **XV. CALENDAR OF WEEKLY AND QUARTERLY COMPUTATION AND MAINTENANCE PERIODS**

The following calendars contain current reserve computation and maintenance periods for weekly and quarterly reporters. Each two-week reserve **maintenance period** for weekly reporters is displayed with the associated FR 2900 **computation period**. For quarterly reporters, each FR 2900 report week is shown along with the corresponding set of one-week reserve maintenance periods.

## Reserve Maintenance Manual

### MID 2007 – MID 2009 RESERVE MAINTENANCE PERIODS WEEKLY REPORTERS

MAINTENANCE PERIOD (14 DAY, THU – WED)	COMPUTATION PERIOD (14 DAY, TUE – MON)	
	WEEK 1	WEEK 2
07/05/2007 – 07/18/2007	06/05/2007 – 06/11/2007	06/12/2007 – 06/18/2007
07/19/2007 – 08/01/2007	06/19/2007 – 06/25/2007	06/26/2007 – 07/02/2007
08/02/2007 – 08/15/2007	07/03/2007 – 07/09/2007	07/10/2007 – 07/16/2007
08/16/2007 – 08/29/2007	07/17/2007 – 07/23/2007	07/24/2007 – 07/30/2007
08/30/2007 – 09/12/2007	07/31/2007 – 08/06/2007	08/07/2007 – 08/13/2007
09/13/2007 – 09/26/2007	08/14/2007 – 08/20/2007	08/21/2007 – 08/27/2007
09/27/2007 – 10/10/2007	08/28/2007 – 09/03/2007	09/04/2007 – 09/10/2007
10/11/2007 – 10/24/2007	09/11/2007 – 09/17/2007	09/18/2007 – 09/24/2007
10/25/2007 – 11/07/2007	09/25/2007 – 10/01/2007	10/02/2007 – 10/08/2007
11/08/2007 – 11/21/2007	10/09/2007 – 10/15/2007	10/16/2007 – 10/22/2007
11/22/2007 – 12/05/2007	10/23/2007 – 10/29/2007	10/30/2007 – 11/05/2007
12/06/2007 – 12/19/2007	11/06/2007 – 11/12/2007	11/13/2007 – 11/19/2007
12/20/2007 – 01/02/2008	11/20/2007 – 11/26/2007	11/27/2007 – 12/03/2007
01/03/2008 – 01/16/2008	12/04/2007 – 12/10/2007	12/11/2007 – 12/17/2007
01/17/2008 – 01/30/2008	12/18/2007 – 12/24/2007	12/25/2007 – 12/31/2007
01/31/2008 – 02/13/2008	01/01/2008 – 01/07/2008	01/08/2008 – 01/14/2008
02/14/2008 – 02/27/2008	01/15/2008 – 01/21/2008	01/22/2008 – 01/28/2008
02/28/2008 – 03/12/2008	01/29/2008 – 02/04/2008	02/05/2008 – 02/11/2008

## Reserve Maintenance Manual

### MID 2007 – MID 2009 RESERVE MAINTENANCE PERIODS WEEKLY REPORTERS

MAINTENANCE PERIOD (14 DAY, THU – WED)	COMPUTATION PERIOD (14 DAY, TUE – MON)	
	WEEK 1	WEEK 2
03/13/2008 – 03/26/2008	02/12/2008 – 02/18/2008	02/19/2008 – 02/25/2008
03/27/2008 – 04/09/2008	02/26/2008 – 03/03/2008	03/04/2008 – 03/10/2008
04/10/2008 – 04/23/2008	03/11/2008 – 03/17/2008	03/18/2008 – 03/24/2008
04/24/2008 – 05/07/2008	03/25/2008 – 03/31/2008	04/01/2008 – 04/07/2008
05/08/2008 – 05/21/2008	04/08/2008 – 04/14/2008	04/15/2008 – 04/21/2008
05/22/2008 – 06/04/2008	04/22/2008 – 04/28/2008	04/29/2008 – 05/05/2008
06/05/2008 – 06/18/2008	05/06/2008 – 05/12/2008	05/13/2008 – 05/19/2008
06/19/2008 – 07/02/2008	05/20/2008 – 05/26/2008	05/27/2008 – 06/02/2008
07/03/2008 – 07/16/2008	06/03/2008 – 06/09/2008	06/10/2008 – 06/16/2008
07/17/2008 – 07/30/2008	06/17/2008 – 06/23/2008	06/24/2008 – 06/30/2008
07/31/2008 – 08/13/2008	07/01/2008 – 07/07/2008	07/08/2008 – 07/14/2008
08/14/2008 – 08/27/2008	07/15/2008 – 07/21/2008	07/22/2008 – 07/28/2008
08/28/2008 – 09/10/2008	07/29/2008 – 08/04/2008	08/05/2008 – 08/11/2008
09/11/2008 – 09/24/2008	08/12/2008 – 08/18/2008	08/19/2008 – 08/25/2008
09/25/2008 – 10/08/2008	08/26/2008 – 09/01/2008	09/02/2008 – 09/08/2008
10/09/2008 – 10/22/2008	09/09/2008 – 09/15/2008	09/16/2008 – 09/22/2008
10/23/2008 – 11/05/2008	09/23/2008 – 09/29/2008	09/30/2008 – 10/06/2008
11/06/2008 – 11/19/2008	10/07/2008 – 10/13/2008	10/14/2008 – 10/20/2008

## Reserve Maintenance Manual

### MID 2007 – MID 2009 RESERVE MAINTENANCE PERIODS WEEKLY REPORTERS

MAINTENANCE PERIOD (14 DAY, THU – WED)	COMPUTATION PERIOD (14 DAY, TUE – MON)	
	WEEK 1	WEEK 2
11/20/2008 – 12/03/2008	10/21/2008 – 10/27/2008	10/28/2008 – 11/03/2008
12/04/2008 – 12/17/2008	11/04/2008 – 11/10/2008	11/11/2008 – 11/17/2008
12/18/2008 – 12/31/2008	11/18/2008 – 11/24/2008	11/25/2008 – 12/01/2008
01/01/2009 – 01/14/2009	12/02/2008 – 12/08/2008	12/09/2008 – 12/15/2008
01/15/2009 – 01/28/2009	12/16/2008 – 12/22/2008	12/23/2008 – 12/29/2008
01/29/2009 – 02/11/2009	12/30/2008 – 01/05/2009	01/06/2009 – 01/12/2009
02/12/2009 – 02/25/2009	01/13/2009 – 01/19/2009	01/20/2009 – 01/26/2009
02/26/2009 – 03/11/2009	01/27/2009 – 02/02/2009	02/03/2009 – 02/09/2009
03/12/2009 – 03/25/2009	02/10/2009 – 02/16/2009	02/17/2009 – 02/23/2009
03/26/2009 – 04/08/2009	02/24/2009 – 03/02/2009	03/03/2009 – 03/09/2009
04/09/2009 – 04/22/2009	03/10/2009 – 03/16/2009	03/17/2009 – 03/23/2009
04/23/2009 – 05/06/2009	03/24/2009 – 03/30/2009	03/31/2009 – 04/06/2009
05/07/2009 – 05/20/2009	04/07/2009 – 04/13/2009	04/14/2009 – 04/20/2009
05/21/2009 – 06/03/2009	04/21/2009 – 04/27/2009	04/28/2009 – 05/04/2009
06/04/2009 – 06/17/2009	05/05/2009 – 05/11/2009	05/12/2009 – 05/18/2009
06/18/2009 – 07/01/2009	05/19/2009 – 05/25/2009	05/26/2009 – 06/01/2009

## Reserve Maintenance Manual

### MID 2007 – 2009 RESERVE MAINTENANCE PERIODS QUARTERLY REPORTERS

REPORT WEEK	FOR MAINTENANCE PERIODS ENDING			
09/18/2007 – 09/24/2007	10/24/2007	10/31/2007	11/07/2007	11/14/2007
	11/21/2007	11/28/2007	12/05/2007	12/12/2007
	12/19/2007	12/26/2007	01/02/2008	01/09/2008
	01/16/2008			
12/18/2007 – 12/24/2007	01/23/2008	01/30/2008	02/06/2008	02/13/2008
	02/20/2008	02/27/2008	03/05/2008	03/12/2008
	03/19/2008	03/26/2008	04/02/2008	04/09/2008
	04/16/2008			
03/18/2008 – 03/24/2008	04/23/2008	04/30/2008	05/07/2008	05/14/2008
	05/21/2008	05/28/2008	06/04/2008	06/11/2008
	06/18/2008	06/25/2008	07/02/2008	07/09/2008
	07/16/2008			
06/17/2008 – 06/23/2008	07/23/2008	07/30/2008	08/06/2008	08/13/2008
	08/20/2008	08/27/2008	09/03/2008	09/10/2008
	09/17/2008	09/24/2008	10/01/2008	10/08/2008
	10/15/2008			
09/16/2008 – 09/22/2008	10/22/2008	10/29/2008	11/05/2008	11/12/2008
	11/19/2008	11/26/2008	12/03/2008	12/10/2008
	12/17/2008	12/24/2008	12/31/2008	01/07/2009
	01/14/2009			

## Reserve Maintenance Manual

### MID 2007 – 2009 RESERVE MAINTENANCE PERIODS QUARTERLY REPORTERS

REPORT WEEK	FOR MAINTENANCE PERIODS ENDING			
12/16/2008 – 12/22/2008	01/21/2009	01/28/2009	02/04/2009	02/11/2009
	02/18/2009	02/25/2009	03/04/2009	03/11/2009
	03/18/2009	03/25/2009	04/01/2009	04/08/2009
	04/15/2009			
03/17/2009 – 03/23/2009	04/22/2009	04/29/2009	05/06/2009	05/13/2009
	05/20/2009	05/27/2009	06/03/2009	06/10/2009
	06/17/2009	06/24/2009	07/01/2009	07/08/2009
	07/15/2009			
06/16/2009 – 06/22/2009	07/22/2009	07/29/2009	08/05/2009	08/12/2009
	08/19/2009	08/26/2009	09/02/2009	09/09/2009
	09/16/2009	09/23/2009	09/30/2009	10/07/2009
	10/14/2009			
09/15/2009 – 09/21/2009	10/21/2009	10/28/2009	11/04/2009	11/11/2009
	11/18/2009	11/25/2009	12/02/2009	12/09/2009
	12/16/2009	12/23/2009	12/30/2009	01/06/2010
	01/13/2010			
12/15/2009 – 12/21/2009	01/20/2010	01/27/2010	02/03/2010	02/10/2010
	02/17/2010	02/24/2010	03/03/2010	03/10/2010
	03/17/2010	03/24/2010	03/31/2010	04/07/2010
	04/14/2010			

**XVI. RESERVE BANK CONTACT LIST**

**FIRST DISTRICT – BOSTON**

*Deposit Reporting:*

(617) 973-3184  
(800) 896-9480

*Reserve Administration:*

(800) 526-0338  
(617) 973-3954  
(617) 973-3202

**SECOND DISTRICT – NEW YORK**

*Deposit Reporting:*

(212) 720-8023  
(212) 720-8011

*Reserve Administration:*

(212) 720-8920  
(212) 720-5993

**THIRD DISTRICT – PHILADELPHIA**

*Deposit Reporting:*

(215) 574-6152  
(215) 574-6151

*Reserve Administration:*

(215) 574-6595  
(215) 574-3916

**FOURTH DISTRICT – CLEVELAND**

*Deposit Reporting:*

(216) 579-2075  
(216) 579-2952

*Reserve Administration:*

(216) 579-2094  
(216) 579-2097

**FIFTH DISTRICT – RICHMOND**

*Deposit Reporting:*

(804) 697-8297  
(800) 446-7045 ext. 8297

*Reserve Administration:*

DC, MD, VA, and WV: (800) 322-0580  
NC and SC: (888) 315-6250

**SIXTH DISTRICT – ATLANTA**

*Deposit Reporting:*

(404) 498-8880  
(404) 498-8794  
(404) 498-8157  
(404) 498-8821  
(404) 498-8801 (Technical Support)

*Reserve Administration:*

(404) 498-7281  
(404) 498-7184

**SEVENTH DISTRICT – CHICAGO**

*Deposit Reporting:*

(312) 322-2113  
(312) 322-2112  
(312) 322-6080

*Reserve Administration:*

(312) 322-6132  
(312) 322-8157

**EIGHTH DISTRICT – ST. LOUIS**

*Deposit Reporting:*

(314) 444-8743  
(314) 444-8749

*Reserve Administration:*

(314) 444-8565

**NINTH DISTRICT – MINNEAPOLIS**

*Deposit Reporting:*

(612) 204-6445  
(800) 553-9656 ext. 46445

*Reserve Administration:*

(877) 837-8815

**TENTH DISTRICT – KANSAS CITY**

*Deposit Reporting:*

(816) 881-2390  
(800) 333-2898  
(816) 881-2898

*Reserve Administration:*

(816) 881-2898  
(800) 333-2898  
(816) 881-2521

**ELEVENTH DISTRICT – DALLAS**

*Deposit Reporting:*

(214) 922-5397

*Reserve Administration:*

Dallas, El Paso, and  
San Antonio: (214) 922-5646  
Houston: (713) 483-3108

**TWELFTH DISTRICT – SAN FRANCISCO**

*Deposit Reporting:*

(415) 974-3098  
(415) 974-3338

*Reserve Administration:*

(415) 974-3075  
(415) 974-2026



## XVII. WEB LINKS

### General Information

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

<http://www.federalreserve.gov>

**Federal Reserve Financial Services:**

<http://www.frbservices.org>

**Federal Reserve System Reporting & Reserves:**

<http://www.reportingandreserves.org>

### Targeted Information

**Account Services:**

<http://www.frbservices.org/Accounting/index.html>

**Clearing Balance Calculator:**

<http://www.frbservices.org/Accounting/CBCalc.html> (select the "Clearing Balance" box)

**Earnings Credits Calculator:**

<http://www.frbservices.org/Accounting/CBCalc.html> (select the "Earnings Credits" box)

**FedMail:**

<http://www.reportingandreserves.org/fedmail.html>

**Report Forms and Instructions:**

<http://www.federalreserve.gov/reportforms>

**ReserveCalc:**

<http://www.reportingandreserves.org/ReserveCalc.html>

## XVIII. GLOSSARY

### **aggregate amount of the as-of adjustment**

The amount of the transactional or reporting error multiplied by the number of calendar days the error went uncorrected.

### **as-of adjustments**

Memorandum items that the Federal Reserve uses to offset the effect of transactional or reporting errors on a depository institution's position.

### **average daily amount of the as-of adjustment**

The aggregate amount of an as-of adjustment applied to a maintenance period divided by the number of days in the maintenance period (fourteen days or seven days).

### **carry-in**

The amount of carry-over brought into the current maintenance period from the previous maintenance period.

### **carry-out**

The amount of carry-over from the current maintenance period that can be used or made up in the following maintenance period.

### **carry-over**

A privilege the Federal Reserve extends to depository institutions by allowing them to use or make up in the following maintenance period "reasonably small" gross excesses or gross deficiencies incurred during a given maintenance period. Master accounts with a clearing balance requirement but no reserve balance requirement are not eligible for the carry-over privilege. See also **gross position** and **maximum allowable carry-over**.

### **clearing balance**

That portion of the average end-of-day balance for the maintenance period held to satisfy the clearing balance requirement. For a master account with only a clearing balance requirement, the clearing balance is the average end-of-day account balance for the maintenance period. For a master account with reserve and clearing balance requirements, the clearing balance is the portion of the average end-of-day account balance for the maintenance period that exceeds the reserve balance requirement.

### **clearing balance allowance**

The clearing balance allowance is equal to the greater of \$25,000 or 2 percent of the clearing balance requirement. It is used to construct the clearing balance band. See also **clearing balance band**.

### **clearing balance band**

A range on both sides of the clearing balance requirement within which an institution needs to maintain its average end-of-day clearing balance over the maintenance period. The upper limit of the clearing balance band is equal to the clearing balance requirement plus the clearing balance allowance. The lower limit of the clearing balance band is equal to the clearing balance requirement less the clearing balance allowance. See also **earnings credits**.

### **clearing balance deficiency**

The shortfall between the average end-of-day balance maintained in an institution's master account during the maintenance period and the clearing balance requirement, after considering the reserve balance requirement and accounting for as-of adjustments, carry-in, the clearing balance allowance, and carry-out.

### **clearing balance requirement**

An amount an institution contracts (or be required) to maintain with a Reserve Bank in addition to any reserve balance requirement. The clearing balance maintained (up to the upper limit of the clearing balance band) generates earnings credits that can be used to pay for eligible Federal Reserve services. See also **clearing balance band** and **earnings credits**.

### **clearing deficiency**

For a depository institution that does not have a reserve or clearing balance requirement, a clearing deficiency is incurred when the institution's average end-of-day, maintained balance over the maintenance period is negative (caused by overdrafts or debit as-of adjustments).

### **computation period**

The time span over which an institution's reserve requirement and vault cash is calculated. For weekly reporters, the computation period is a two-week period that begins on a Tuesday and ends on the second Monday thereafter, and consists of two reporting periods. For quarterly reporters, each computation period consists of a single reporting period that begins on the third Tuesday of March, June, September, and December and ends the following Monday.

### **correspondent**

For reserve maintenance purposes, an institution acting as a correspondent passes through required reserve balances for respondent institutions directly to the Federal Reserve. A correspondent holds pass-through balances in a single, commingled master account along with the correspondent's own reserve and clearing balances (if any). See also **respondent**.

### **earnings credits**

An amount that can be used to offset charges that an institution incurs through the use of eligible Federal Reserve priced services. Earnings credits accrue on the average end-of-day clearing balance maintained to satisfy an institution's clearing balance requirement (up to the top of the clearing balance band). The measure of the clearing balance used in the calculation of earnings credits includes any as-of adjustments and is adjusted for the net interbank reserve requirement.

### **exemption amount**

The daily average amount of reservable liabilities exempt from reserve requirements. The Federal Reserve indexes the exemption amount annually and uses it with the nonexempt deposit cutoff and the reduced reporting limit to determine each institution's reporting category. Institutions with total deposits less than or equal to the exemption amount are not required to submit an FR 2900 or FR 2910a report. Institutions that are required to submit an FR 2900 are subject to a zero percent reserve requirement on net transaction accounts up to the amount of the exemption. See also **nonexempt deposit cutoff** and **reduced reporting limit**.

### **gross position**

Gross position is calculated as the maintained balance (the sum of the average end-of-day balance held in the master account and as-of adjustments) less the total balance requirement before any adjustments are made for carry-in, the clearing balance allowance, or carry-out. A gross position that is greater than zero is called a gross excess and occurs when the maintained balance exceeds the total balance requirement. A gross position that is less than zero is called a gross deficiency and occurs when the maintained balance falls short of the total balance requirement. See also **position**.

### **low reserve tranche**

The amount of net transaction accounts subject to a reserve requirement of 3 percent. The amount of net transaction accounts in excess of the low reserve tranche is currently subject to a reserve requirement of 10 percent. The Federal Reserve indexes the low reserve tranche annually.

### **maintained balance**

The average end-of-day balance held in the depository institution's master account over the maintenance period after the application of any as-of adjustments.

### **maintenance period**

The time span during which an institution holds reserve and clearing balances to satisfy its total balance requirement for a given computation period. For weekly reporters, the maintenance period consists of fourteen consecutive days beginning on a Thursday and ending on the second Wednesday thereafter. For quarterly reporters, a maintenance period consists of seven consecutive days beginning on Thursday and ending on the following Wednesday. See also **computation period** and **reserve maintenance cycle**.

### **master account**

A record of financial transactions that reflects the financial rights and obligations of an account holder and of the Reserve Bank with respect to each other, and where opening and closing balances are determined. Reserve administration is managed through the master account, unless an institution has entered into a pass-through arrangement with a correspondent.

### **maximum allowable carry-over**

The maximum amount of a gross excess or gross deficiency that can be offset in the following maintenance period. It equals the greater of either \$50,000 or 4 percent of the institution's total requirement (reserve requirement plus clearing balance requirement, if any) less the clearing balance allowance, if applicable.

### **merger-adjusted reserve requirement**

The institution's reserve requirement reduced by the total value of tranche loss adjustments applicable to the maintenance period.

### **net excess or deficiency**

The sum of the institution's carry-in, excluding any carry-in not used or offset in the current period, plus its current-period excess or deficiency. In master accounts with both reserve balance and clearing balance requirements, the net excess or deficiency is also net of the clearing balance allowance. However, the clearing balance allowance cannot be used to offset carry-in.

### **net transaction accounts**

Net transaction accounts are comprised of total transaction accounts (demand deposits, ATS accounts, NOW accounts/share drafts, and telephone and preauthorized transfers), plus ineligible acceptances and obligations issued by affiliates maturing in less than seven days, net of demand balances due from depository institutions in the U.S. and cash items in the process of collection. In terms of the FR 2900 report, net transaction accounts are calculated as the sum of line items A.3 and AA.1 less the sum of line items B.1 and B.2. The FR 2900 reporting instructions define all of these deposit types.

### **nonexempt deposit cutoff**

A measure of total transaction accounts, savings deposits, and small time deposits indexed annually by the Federal Reserve and used with the exemption amount and the reduced reporting limit to determine each institution's reporting category. See also **exemption amount** and **reduced reporting limit**.

### **official authorization list**

A list of names, titles, and signatures of individuals authorized to execute or alter agreements relating to an institution's master account. Each Reserve Bank maintains an official authorization list for the institutions located in their District.

### **position (or final position)**

The difference between an institution's total balance requirement and the average end-of day balance held in its master account at a Reserve Bank during a maintenance period, after adjusting for as-of adjustments, carry-in, the clearing balance allowance, and carry-out.

### **primary credit rate**

The interest rate charged on borrowing from a Reserve Bank under the primary credit facility. Primary credit is available for very short terms as a backup source of liquidity to depository institutions that are in generally sound financial condition in the judgment of the lending Reserve Bank. The rate for primary credit generally exceeds the federal funds rate. The primary credit facility was established January 9, 2003.

### **reduced reporting limit**

A measure of total transaction accounts, savings deposits, and small time deposits indexed annually by the Federal Reserve and used with the exemption amount and the nonexempt deposit cutoff to determine each institution's reporting category. Any institution with total transaction accounts, savings deposits, and small time deposits greater than or equal to the reduced reporting limit, regardless of the level of their net transaction accounts, must report the FR 2900 weekly. This measure was implemented in September 2003. See also **exemption amount** and **nonexempt deposit cutoff**.

## **reporting period**

For the FR 2900, the reporting period consists of seven consecutive calendar days beginning on Tuesday and ending on the following Monday, during which an institution must record, for each day, its deposit and vault cash levels. For the FR 2910a, the reporting period consists of one day (June 30) during which an institution must record its levels of total transaction accounts, savings deposits, and small time deposits and reservable liabilities.

## **reservable liabilities**

Those liabilities subject to reserve requirements. Reservable liabilities consist of net transaction accounts, nonpersonal time deposits, and net Eurocurrency liabilities. Currently, reserve requirement ratios on nonpersonal time deposits and net Eurocurrency liabilities are zero.

## **reserve balance deficiency**

The shortfall between the average end-of-day balance maintained in an institution's master account during a maintenance period and the average reserve balance requirement after adjusting for as-of adjustments, carry-in, and carry-out.

## **reserve balance requirement**

The portion of the institution's reserve requirement that is not satisfied by its vault cash and therefore must be maintained either directly with a Reserve Bank or in a pass-through arrangement.

## **reserve maintenance cycle**

A reserve maintenance cycle includes the computation period for reserves and the associated maintenance period or periods in which the reserves are maintained. When used in reference to weekly reporters, the reserve maintenance cycle consists of the fourteen-day computation period and its associated fourteen-day maintenance period, which begins seventeen days after the end of the computation period. When used in reference to quarterly reporters, the reserve maintenance cycle consists of the seven-day computation period each quarter and the set of seven-day maintenance periods associated with the computation period. The set of maintenance periods begins on the fourth Thursday following the end of the quarterly computation period (in March, June, September, and December). The reserve maintenance cycle for quarterly reporters usually consists of thirteen seven-day maintenance periods, but occasionally consists of twelve or fourteen seven-day maintenance periods depending on the calendar. See also **computation period** and **maintenance period**.

## **reserve requirement**

The amount determined by applying the reserve ratios specified in Regulation D to an institution's reservable liabilities during the relevant computation period. The institution must satisfy its reserve requirement in the form of vault cash and/or balances maintained either directly with a Reserve Bank or in a pass-through arrangement.

## **respondent**

For reserve maintenance purposes, a respondent institution maintains required reserve balances with a correspondent who passes through those balances to the Federal Reserve. A respondent's pass-through reserve balances are maintained in its correspondent's master account along with the correspondent's own reserve and clearing balances (if any). See also **correspondent**.

### **subaccounts**

Subsets of an institution's master account in which information on financial services can be segregated. Subaccounts have no opening or closing balances, but do contain totals of debits and credits that are settled in the institution's master account.

### **total balance requirement**

An institution's reserve balance requirement (total required reserves less vault cash) plus its clearing balance requirement, if any.

### **total deposits**

Computed as the sum of total transaction accounts (FR 2900 report item A.3), total time and savings deposits (C.1 plus D.1), ineligible acceptances and obligations issued by affiliates (AA.1 plus BB.2), and net Eurocurrency liabilities (CC.1).

### **total requirement**

The sum of an institution's reserve requirement and its clearing balance requirement, if any.

### **tranche loss adjustment**

The percentage of the tranche loss effect used to reduce a merged institution's reserve requirement for the seven-quarter period following the date of a merger. The percentage to be applied decreases each quarter as specified in Regulation D, Section 204.4, Transitional Adjustments in Mergers.

### **tranche loss effect**

The increase in a merged institution's reserve requirement resulting from the loss of the low reserve tranche and exemption for the nonsurviving institution. The tranche loss effect is the difference between the reserve requirement of the merged institution and the sum of the reserve requirements of each institution involved in the merger had they not merged.

### **usable vault cash**

The portion of FR 2900-reported vault cash that can be used to meet the corresponding reserve requirement. See also **vault cash**.

### **vault cash**

U.S. currency and coin owned by a depository institution. The average end-of-day holdings of vault cash over the computation period can be used to satisfy some or all of an institution's reserve requirement in the corresponding maintenance period. Vault cash cannot be used to satisfy an institution's clearing balance requirement. See also **usable vault cash**.