Reserve Maintenance Seminar

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History & Purpose of Reserves
Overview

- Legislation affecting reserve requirements
- Goal of Monetary Policy
- The link between Monetary Policy and the Reserves Market
- Instruments used in the implementation of Monetary Policy
The Federal Reserve Act (1913)

- Established the Federal Reserve System as the nation’s central bank
- Specifies that, in conducting monetary policy, the Federal Reserve System and the Federal Open Market Committee should seek to effectively promote (1) the goals of full employment, (2) stable prices, and (3) moderate long-term interest rates.
The Federal Reserve System is responsible for:

- Conducting monetary policy
- Supervising and regulating banking institutions
- Maintaining the stability of the financial system and containing system risk
- Acting as fiscal agent to the U.S. Government
The Federal Reserve Act

- Section 19 of the Act empowers the Federal Reserve to require depository institutions to hold a portion of their deposits as a reserve. This fractional reserve system is one of the tools used to implement monetary policy.
The Federal Reserve Act

- Section 19 of the Act is codified in Regulation D.

- Regulation D details the following:
  - Definition of a deposit
  - Definition of types of deposits
  - Computation and maintenance rules for reserve requirements
  - Form of reserves
The Federal Reserve Act

- Regulation D details the following: (continued)
  - Deductions from reserve requirements
  - Carryover rules
  - Transitional adjustments for mergers
  - Supplemental and emergency reserve requirements
  - Penalties
  - International Banking Facilities
International Banking Act

- Brought foreign banks in the U.S. within the federal regulatory framework
- Leveled the “playing field” between domestic and foreign banks
- **Key provision for reserve requirements:**
  
  ALL U.S. branches and agencies of foreign banks are subject to reserve requirements
Monetary Control Act of 1980

- Reformed reserve requirements to end the problem of banks leaving the Federal Reserve System

- Imposes reserve requirements on all institutions that have transaction accounts, non-personal savings and time deposits, or eurocurrency liabilities
Monetary Control Act of 1980

- Key provisions for reserve requirements:

All depository institutions are subject to reserve requirements including:
- Member/nonmember commercial banks
- Thrift institutions (including credit unions)
- U.S. branches and agencies of foreign banks
- Edge and agreement corporations

Created a two week computation and maintenance period to allow flexibility in managing reserves.
Garn St. Germain Act 1982

- Includes a number of provisions to facilitate deregulation of the banking industry

- **Key provisions for reserve requirements:**
  - Requires that institutions with less than $2 million in reservable liabilities be exempt from reserve requirements.
  - Requires that this amount be indexed annually based on aggregate deposit growth.
Garn St. Germain Act 1982

- **Key provisions for reserve requirements:**
  - Changed computation and maintenance periods for transaction accounts to contemporaneous from lagged
Riegle-Neal Interstate Banking and Efficiency Act of 1994

- Allows interstate banking and branching

- **Key provisions for reserve requirements:**
  - Allowing banks to have a multi-state presence, required significant changes to the Federal Reserve account structure

- As a result, subaccounts were created
Uses of Reserves Data

- The primary use of reserves information is for implementing and supporting monetary policy.
Monetary Policy

• The goal of monetary policy is to maintain long-run growth of the monetary and credit aggregates so as to promote the goals of maximum employment, stable prices, and moderate long-term interest rates.
Monetary Policy & the Reserves Market

- The basic link between monetary policy and the economy is through the market for reserves, more commonly known as the federal funds market.
- Institutions borrow and lend on an overnight basis.
- The interest rate charged for the use of these funds is known as the federal funds rate.
Importance of Fed Funds Rate

- A change in the demand or supply of reserves will result in a change in the federal funds rate which in turn tends to spread quickly to other interest rates.
Targeting the Fed Funds Rate

- Open Market Committee defines the target fed funds rate necessary to promote the goals of maximum employment, stable prices, and moderate long-term interest rates.

- Open Market Operations involve adjustment in the supply of bank reserves, relative to the reserve demand, in order to achieve and maintain desired financial market conditions.
Draining Reserves

Federal Funds Rate

4.5

2.5

Demand

40 50 Non-borrowed Reserves

S1 S2
Adding Reserves

Federal Funds Rate

4.5
2.5

S1
S2

Demand

40 50 Non-borrowed Reserves
Demand in the Reserves Market is determined by each bank’s need to meet reserve requirements as defined in:

- Monetary Control Act of 1980 and
- Regulation D
The supply of reserves is the amount of reserves currently in the market which consists of:

- Discount Window Lending (Borrowed Reserves)
- Nonborrowed Reserves - Influenced by the purchase or sale of securities by the Federal Reserve Trading Desk
Monetary Policy

- The tools used to implement monetary policy:
  - Reserve Requirements
  - Discount Window Lending
  - Open Market Operations
Monetary Policy

- Monetary Policy is actions taken by the Federal Reserve that affect the availability and cost of depository institutions’ reserves and thereby influence overall monetary and credit conditions.
Reserve Requirement Calculation
Objectives

- Computation Period
- Maintenance Period
- Exemption
- Low Reserve Tranche
- Reserve Ratios
- Reserve Requirement Calculation
- Report of Required Reserves
- Transitional Adjustments for Mergers
Computation Period

Weekly FR 2900:

- The computation period for weekly FR 2900 reporters consists of 14 consecutive days beginning on a Tuesday and ending on the second Monday thereafter.
Example

**FR 2900 Reporting Periods**

- 11/13/01 (Tues) to 11/19/01 (Mon)
- 11/20/01 (Tues) to 11/26/01 (Mon)

**Computation Period**

- 11/13/01 (Tues) to 11/26/01 (Mon)
Computation Period

Quarterly FR 2900:

- The computation period for quarterly FR 2900 reporters consists of 7 consecutive days beginning on a Tuesday and ending on the Monday thereafter.

**Example**

9/18/01 (Tues) to 9/24/01 (Mon)
Reserve Maintenance Period

Weekly FR 2900:

- A reserve maintenance period for weekly FR 2900 reporters consists of 14 consecutive days beginning on a Thursday and ending on the second Wednesday thereafter.

___ Example ___

12/13/01 (Thurs) to 12/26/01 (Wed).
The reserve requirement to be satisfied during a 14-day reserve maintenance period is based on the daily average level of reservable liabilities during the lagged computation period.
The weekly reserve maintenance period starts 30 days after the beginning of a computation period.

<table>
<thead>
<tr>
<th>Maintenance Period</th>
<th>Computation Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/13/01 to 12/26/01</td>
<td>11/13/01 to 11/19/01</td>
</tr>
<tr>
<td></td>
<td>11/20/01 to 11/26/01</td>
</tr>
</tbody>
</table>
Reserve Maintenance Period

- The same lag is used in the computation of vault cash that is applied to satisfy the reserve requirement.

<table>
<thead>
<tr>
<th>Maintenance Period</th>
<th>Computation Period</th>
<th>Vault Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>12/13/01 to 12/26/01</td>
<td>11/13/01 to 11/26/01</td>
<td>11/13/01 to 11/26/01</td>
</tr>
</tbody>
</table>
Reserve Maintenance Period

Quarterly FR 2900:

- The reserve maintenance period for quarterly FR 2900 reporters consists of 7 consecutive days beginning on a Thursday and ending on the following Wednesday.

Example

10/18/01 (Thurs) to 10/24/01 (Wed)
The reserve requirement to be satisfied during each quarterly 7-day reserve maintenance period is based on the daily average level of reservable liabilities during the 7-day computation period.

<table>
<thead>
<tr>
<th>Maintenance Period (Quarterly)</th>
<th>Computation Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/18/01 to 10/24/01</td>
<td>9/18/01 to 9/24/01</td>
</tr>
</tbody>
</table>
A quarterly reserve maintenance cycle usually consists of 13 successive one week maintenance periods that begin on the fourth Thursday following the end of the computation period and end on the fourth Wednesday following the end of the next computation period.
# Reserve Maintenance Period

<table>
<thead>
<tr>
<th>Maintenance Period Cycle (Quarterly)</th>
<th>Computation Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/18/01 to 10/24/01 Up to 1/10/02 to 1/16/02</td>
<td>9/18/01 to 9/24/01</td>
</tr>
<tr>
<td>1/17/02 to 1/23/02 Up to 4/11/02 to 4/17/02</td>
<td>12/18/01 to 12/24/01</td>
</tr>
</tbody>
</table>
• The same lag is used in the computation of vault cash that is applied to satisfy the reserve requirement.

<table>
<thead>
<tr>
<th>Maintenance Period (Quarterly)</th>
<th>Computation Period</th>
<th>Vault Cash</th>
</tr>
</thead>
<tbody>
<tr>
<td>10/18/01 to 10/24/01 up to</td>
<td>9/18/01 to 9/24/01</td>
<td>9/18/01 to 9/24/01</td>
</tr>
<tr>
<td>1/10/02 to 1/16/02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Exemption

- Exemption is the amount of an institution’s net transaction accounts that is subject to a reserve requirement of zero percent.

- The exemption amount is adjusted annually.

- When calculating reserve requirements, the exemption amount is subtracted from reservable liabilities before the reserve ratios are applied.
Low Reserve Tranche

- The low reserve tranche is the amount of an institution’s net transaction accounts that is subject to a reserve requirement of 3 percent.

- The low reserve tranche is adjusted annually.
Low Reserve Tranche

- The amount of an institution’s reservable liabilities that is over the low reserve tranche is subject to a reserve requirement of 10 percent.
Low Reserve Tranche

Total Net Transaction Accounts $100m

- Reserved at 0 Percent $5.5m (exemption amount)
- Reserved at 3 percent $37.3m
  $42.8m - $5.5m = (low reserve tranche)
- Reserved at 10 percent $57.2m
  $100m - $42.8m = (amount above low reserve tranche)
Low Reserve Tranche

- Each depository institution that files the FR 2900 report is allocated the full exemption amount and low reserve tranche.
The following institutions share a single exemption amount and a single low reserve tranche even though they file separate FR 2900 reports:

- All U.S. Branches and Agencies that share the same foreign direct parent bank,
- Edge and Agreement corporations, and
- A U.S. depository institution that is a subsidiary of another U.S. depository institution.
Low Reserve Tranche

Example

ABC bank in Tokyo has three separately chartered branches located in the U.S. These three U.S. branches would share a single exemption and a single low reserve tranche.
Allocation of Low Reserve Tranche and Reservable Liabilities Exemption for U.S. Branches and Agencies of Foreign Banks and Edge and Agreement Corporations

Effective for the 14-day reserve computation period beginning Tuesday, _______________________

List below for each office, or for each group of offices filing a single aggregated Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2000), the amount of the low reserve tranche (Column 3) and the amount of the reservable liabilities exemption (Column 4) to be assigned to each office or group of offices.

PLEASE READ INSTRUCTIONS PRIOR TO COMPLETION OF THIS FORM.

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
<th>Column 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name and location of each office reporting on the FR 2000</td>
<td>Federal Reserve District</td>
<td>Amount of Low Reserve Tranche Allocation</td>
<td>Amount of Reservable Liabilities Exemption Allocation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mil</td>
<td>Thos</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Mil</td>
<td>Thos</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If additional space is necessary, please attach a separate sheet.

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

---------------------------------------------
Name and address of reporting institution

---------------------------------------------
Please return to:

A copy of this report must be submitted to each Federal Reserve Bank in whose District an office or group of offices that is allocated a portion of the low reserve tranche or the reservable liabilities exemption is located, one week prior to the computation period for which the allocation reported on this form is to be effective. (Please file even if these allocations are zero.) See the instructions for this report for detailed information pertaining to the allocations and for a list of addresses for each Federal Reserve Bank.
Reserve Ratios

- Reserve requirements are calculated by applying the reserve ratios to daily-average Net Transaction Accounts in a reserve computation period.
Reserve Ratios

- Reserve ratios are applied to the net transaction accounts of all U.S. depository institutions that are required to file the Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2900).

- The reserve ratios that are applied to Weekly FR 2900 reporters are also applied to Quarterly FR 2900 reporters.
<table>
<thead>
<tr>
<th>Categories</th>
<th>Reserve Ratios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Transaction Accounts:</td>
<td></td>
</tr>
<tr>
<td>From $0 to (&amp; including) $5.5m</td>
<td>0 Percent</td>
</tr>
<tr>
<td>Over $5.5m to (&amp; including) $42.8m</td>
<td>3 Percent</td>
</tr>
<tr>
<td>Over $42.8m</td>
<td>10 Percent</td>
</tr>
<tr>
<td>Nonpersonal savings &amp; time deposits</td>
<td>0 Percent</td>
</tr>
<tr>
<td>Eurocurrency Liabilities</td>
<td>0 Percent</td>
</tr>
</tbody>
</table>
Requirement Calculation

- Four steps to calculate your Reserve Requirement (RR):
  1. Calculate Daily Average Net Transaction Accounts
  2. Apply Exemption
  3. Apply Reserve Ratios
  4. Add RR at 3% to RR at 10% for Total RR
STEP 1: Calculate Daily Average NTA

- Total FR 2900 Week 1 and Week 2 data for:
  - Line A3, Total Transaction Accounts
  - Line B1, Due From U.S. Banks
  - Line B2, CIPC

- \( NTA = \) Total Transaction Accounts (Line A3) minus Due From U.S. Banks (Line B1) minus CIPC (Line B2).

- Daily Average NTA = \( \frac{NTA}{14} \)
STEPS 2 & 3: Apply Exemption & Reserve Ratios

- Calculate amount of net transaction accounts (NTA) that exceeds the exemption.
- Apply Reserve Ratios:
  (1) Multiply by 3 percent the amount of Daily Average NTA > $5.5 but ≤ Tranche (42.8 million)
  (2) Multiply by 10 percent the amount of Daily Average NTA > Tranche ($42.8 million)
STEP 4: Sum Requirement

- Daily Average Reserve Requirement (RR) equals 3% Requirement plus 10% Requirement
Reserve Requirement Calculation Workshop
### Step One - Calculate Net Transaction Accounts

**Sample FR 2900 - Week 1**

($ in thousands)

<table>
<thead>
<tr>
<th></th>
<th>Tues</th>
<th>Wed</th>
<th>Thur</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
<th>Mon</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>(col.1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1a</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A1b</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A1c</td>
<td>100,000</td>
<td>250,000</td>
<td>200,000</td>
<td>200,000</td>
<td>200,000</td>
<td>200,000</td>
<td>50,000</td>
<td>1,200,000</td>
</tr>
<tr>
<td>A2</td>
<td>5,000</td>
<td>5,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>25,000</td>
</tr>
<tr>
<td>A3</td>
<td>105,000</td>
<td>255,000</td>
<td>203,000</td>
<td>203,000</td>
<td>203,000</td>
<td>203,000</td>
<td>53,000</td>
<td>1,225,000</td>
</tr>
<tr>
<td>B1</td>
<td>2,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>8,000</td>
</tr>
<tr>
<td>B2</td>
<td>20,000</td>
<td>75,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
<td>5,000</td>
<td>300,000</td>
</tr>
</tbody>
</table>
# Step One- Calculate Net Transaction Accounts

**Sample FR 2900- Week 2**  
($ in thousands)

<table>
<thead>
<tr>
<th></th>
<th>Tues</th>
<th>Wed</th>
<th>Thur</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
<th>Mon</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A1b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>A1c</td>
<td>200,000</td>
<td>250,000</td>
<td>50,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>900,000</td>
</tr>
<tr>
<td>A2</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>21,000</td>
</tr>
<tr>
<td>A3</td>
<td>203,000</td>
<td>253,000</td>
<td>53,000</td>
<td>103,000</td>
<td>103,000</td>
<td>103,000</td>
<td>103,000</td>
<td>921,000</td>
</tr>
<tr>
<td>B1</td>
<td>2,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>1,000</td>
<td>2,000</td>
<td>9,000</td>
</tr>
<tr>
<td>B2</td>
<td>50,000</td>
<td>100,000</td>
<td>10,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
<td>40,000</td>
<td>350,000</td>
</tr>
</tbody>
</table>
## Step One- Calculate Daily Average NTA

### FR 2900

<table>
<thead>
<tr>
<th></th>
<th>Week 1</th>
<th>Week 2</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Transaction Accounts (Line A3)</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
<tr>
<td>Due From U.S. Banks (Line B1)</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
<tr>
<td>Cash Items In Process of Collection (Line B2)</td>
<td>_______</td>
<td>_______</td>
<td>_______</td>
</tr>
</tbody>
</table>

\[
\text{Total} = \text{Total Transaction Accounts (Line A3)} - \text{Due From U.S. Banks (Line B1)} - \text{Cash Items In Process of Collection (Line B2)}
\]

NTA/14 = Daily Average NTA
Step Two- Apply Exemption
Daily Average NTA
Exemption
Daily Average NTA > Exemption

Step Three- Apply Reserve Ratios
Daily Average NTA > 5,500 but ≤ Tranche (42,800)
(Daily Average NTA > 5,500 but ≤ 42,800) x 3% = RR at 3%
(Daily Average NTA > 42,800) x 10% = RR at 10%

Step Four- Add RR at 3% to RR at 10%
RR at 3% + RR at 10% = Daily Average RR
Answer
Step One- Calculate Net Transaction Accounts

FR 2900

<table>
<thead>
<tr>
<th></th>
<th>Week 1</th>
<th>Week 2</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Transaction Accounts (Line A3)</td>
<td>1,225,000</td>
<td>+</td>
<td>921,000</td>
</tr>
<tr>
<td>- Due From U.S. Banks (Line B1)</td>
<td>8,000</td>
<td>+</td>
<td>9,000</td>
</tr>
<tr>
<td>- Cash Items In Process of Collection (Line B2)</td>
<td>300,000</td>
<td>+</td>
<td>350,000</td>
</tr>
</tbody>
</table>

Total

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Transaction Accounts (Line A3)</td>
<td>2,146,000</td>
</tr>
<tr>
<td>- Due From U.S. Banks (Line B1)</td>
<td>17,000</td>
</tr>
<tr>
<td>- Cash Items In Process of Collection (Line B2)</td>
<td>650,000</td>
</tr>
<tr>
<td>= NTA</td>
<td>1,479,000</td>
</tr>
</tbody>
</table>

NTA/14 = Daily Average NTA  
1,479,000/14 = 105,643

105,643 is the Daily Average NTA. We will use to calculate the Daily Average RR
**Step Two- Apply Exemption**

Daily Average NTA  
- Exemption  
=Daily Average NTA > Exemption

<table>
<thead>
<tr>
<th>Daily Average NTA</th>
<th>105,643</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Exemption</td>
<td>(5,500)</td>
</tr>
<tr>
<td>=Daily Average NTA &gt; Exemption</td>
<td>100,143</td>
</tr>
</tbody>
</table>

**Step Three- Apply Reserve Ratios**

Daily Average NTA > 5,500 but ≤ Tranche (42,800)  
(Daily Average NTA > 5,500 but ≤ 42,800) x 3% = RR at 3%  
(Daily Average NTA > 42,800) x 10% = RR at 10%

<table>
<thead>
<tr>
<th>Daily Average NTA</th>
<th>37,300</th>
</tr>
</thead>
<tbody>
<tr>
<td>= Daily Average NTA &gt; 5,500 but ≤ Tranche (42,800)</td>
<td>37,300</td>
</tr>
<tr>
<td>= (Daily Average NTA &gt; 5,500 but ≤ 42,800) x 3% = RR at 3%</td>
<td>37,300 x .03 = 1,119</td>
</tr>
<tr>
<td>= Daily Average NTA &gt; Tranche (42,800)</td>
<td>62,843</td>
</tr>
<tr>
<td>= (Daily Average NTA &gt; 42,800) x 10% = RR at 10%</td>
<td>62,843 x .10 = 6,284</td>
</tr>
</tbody>
</table>

**Step Four- Add RR at 3% to RR at 10%**

RR at 3% + RR at 10% = Daily Average RR

| RR at 3% | 1,119 |
| RR at 10% | 6,284 |
| = Daily Average RR | 7,403 |
The Federal Reserve Bank of New York calculates reserve requirements and provides a report of required reserves to depository institutions before the start of each maintenance period.
Report of Required Reserves

- A preliminary report of required reserves is mailed to each depository institution on the second Thursday of a maintenance period only if FR 2900 data for that corresponding computation period is incomplete.
Otherwise, for those institutions with complete data, a final report of required reserves is mailed. The final report is mailed on the business day following the day we receive the complete data.

For institutions who submit their FR 2900 through Fedline, a final report of required reserves is transmitted on the business day following the day we receive the complete data.
RESERVES REQUIRED FOR BI-WEEKLY MAINTENANCE PERIOD FROM 09-21-01 to 10-03-01

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>DAILY AVG DEPOSITS (000)</th>
<th>PERCENT APPLIED</th>
<th>DAILY AVG REQUIRED (000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVABLE LIABILITIES REPORTED</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET TRANSACTION ACCOUNTS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXEMPT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UP TO ($39,300) MILLION</td>
<td>5,500</td>
<td>3.000</td>
<td>1,119</td>
</tr>
<tr>
<td>OVER ($39,300) MILLION</td>
<td>10,000</td>
<td>10.000</td>
<td>1,000</td>
</tr>
<tr>
<td>RESERVE REQUIREMENT</td>
<td>2,119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESS TRANCHE LOSS ADJUSTMENT</td>
<td></td>
<td></td>
<td>800</td>
</tr>
<tr>
<td>LESS USABLE PORTION OF 319</td>
<td>319</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REPORTED VAULT CASH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LESS TO BE MAINTAINED</td>
<td>1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLEARING BALANCE REQUIREMENT</td>
<td>50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL BALANCE REQUIRED WITH FRB NEW YORK</td>
<td>1,050</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Transitional Adjustment for Mergers

• When two institutions merge, the surviving institution’s reserve requirement is higher than the combined reserve requirements of the merging institutions.

• This is due to the loss of the low reserve tranche and exemption of the nonsurviving institution.
Transitional Adjustment for Mergers

- The increase in the requirement is phased in over a seven quarter period.
## Example of a Transitional Adjustment for a Merger

<table>
<thead>
<tr>
<th></th>
<th>Bank A (nonsurvivor)</th>
<th>Bank B (survivor)</th>
<th>Bank AB (merged survivor)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily Average NTA</td>
<td>100,000</td>
<td>150,000</td>
<td>250,000</td>
</tr>
<tr>
<td>-Exempt</td>
<td>-5,500</td>
<td>-5,500</td>
<td>-5,500</td>
</tr>
<tr>
<td>=Daily Average NTA &gt; 5,500</td>
<td>94,500</td>
<td>144,500</td>
<td>244,500</td>
</tr>
</tbody>
</table>

\[
\text{Daily Average NTA >} 5,500 \text{ but } \leq 42,800 \times 0.03 = \text{RR at 3\%} \\
1,119 \quad 1,119 \quad 1,119
\]

\[
\text{RR >} 42,800 \times 0.10 = \text{RR at 10\%} \\
5,720 \quad 10,720 \quad 20,720
\]

\[
\text{Daily Average RR} \\
6,839 \quad 11,839 \quad \$21,839
\]

\[
\text{Merged RR (Bank AB)} \\
21,839
\]

\[
\text{Sum of Separate RR} \\
6,839 + 11,839 = (18,678)
\]

\[
\text{Difference is the Tranche Loss Effect} \\
21,839 - 18,678 = 3,161
\]

\[
\text{Tranche Loss Adjustment} = (\text{Tranche Loss Effect}) \times 0.875 \\
3,161 \times 0.875 = 2,766
\]
## Transitional Adjustment for Mergers

<table>
<thead>
<tr>
<th>Maintenance periods occurring during quarters following merger</th>
<th>Number of weeks In quarter</th>
<th>Percentage applied to tranche loss effect to determine amount to be subtracted from reserve requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter 1</td>
<td>16</td>
<td>87.5</td>
</tr>
<tr>
<td>Quarter 2</td>
<td>12</td>
<td>75.0</td>
</tr>
<tr>
<td>Quarter 3</td>
<td>14</td>
<td>62.5</td>
</tr>
<tr>
<td>Quarter 4</td>
<td>12</td>
<td>50.0</td>
</tr>
<tr>
<td>Quarter 5</td>
<td>14</td>
<td>37.5</td>
</tr>
<tr>
<td>Quarter 6</td>
<td>12</td>
<td>25.0</td>
</tr>
<tr>
<td>Quarter 7</td>
<td>14</td>
<td>12.5</td>
</tr>
<tr>
<td>Quarter 8 and succeeding</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>
Clearing Balance Requirements
Objectives

- Clearing Balance Requirement Policy
  - Define clearing balance requirement
  - When and why was policy established
- Why establish and use clearing balances
- Policies and Procedures regarding implementation of clearing balance requirements
Objectives

- Earnings Credits
  - Priced versus non-priced services
  - Calculation of earnings credits
  - Services eligible to use earnings credits
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.

Clearing balance requirements were imposed as a result of the Federal Reserve Act (as amended by the Monetary Control Act of 1980) and the International Banking Act of 1978.
Clearing Balance Requirement Policy

- A Reserve Bank may impose a clearing balance requirement if an institution has a history of frequent overnight or daylight overdrafts.

- 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 use of eligible Reserve Bank services.
Clearing Balance Requirement

Policy

- Earnings credits on maintained clearing balances provide a return comparable to what the institution would receive on funds held with a correspondent.

- The institution can use earnings credits to offset Federal Reserve service charges that settle in its own account.
Policies and Procedures

- Must have a Federal Reserve Master Account
- $25 thousand minimum clearing balance requirement
- Same maintenance period used for reserve requirements applies to clearing balance requirements
- Expected to maintain a daily average balance within a range (Clearing Balance Band).
Policies and Procedures

- Clearing Balance Band is equal to the greater of $25,000 or two percent of clearing balance requirement.

Example 1
Clearing Balance Requirement is $400,000
Two Percent of $400,000 is $8,000
Therefore, the Clearing Balance Band is $25,000.
Example 2

Clearing Balance Requirement is $1,500,000
Two Percent of $1,500,000 is $30,000
Therefore, the Clearing Balance Band is $30,000.
Policies and Procedures

- If an institution fails to maintain the daily average balance within the Clearing Balance Band, then considered deficient and a penalty may be imposed.

- If an institution maintains daily average balances in excess of the clearing balance requirement but within the Clearing Balance Band, earnings credits are generated.
• Clearing balance accounts are monitored for both overnight and daylight overdrafts, with penalties imposed if overdrafts occur.

• As-of adjustments can be applied to clearing balance accounts

• Clearing balance requirements can be changed no more than once every four weeks.
Policies & Procedures

- Institutions can increase or decrease the level of earnings credits to maintain an amount sufficient to cover billable charges.

- Changes to earnings credits result from changing the clearing balance requirement.
To change a clearing balance requirement an institution must do the following:

- Contact the Deposit Reports Division in writing and request a change.
- Indicate the current clearing balance, new clearing balance and effective date for the change. Deposit Reports Division staff require 5 days notice prior to the effective date of the change.
- The effective date of a clearing balance change must be the first day of a maintenance period.
Policies & Procedures

• Correspondence can be addressed to:
The Federal Reserve Bank of New York
Attn: Deposit Reports Division
33 Liberty Street
New York, New York 10045

• Alternately, correspondence can be faxed to:
(212) 720 - 5025
Why Use Clearing Balances

- To use Federal Reserve services
- To hold balances above reserve requirement in order to facilitate clearing needs
- To generate earnings credits to pay for priced services
Earnings Credits

- Earnings credits can only be used to offset charges for priced Federal Reserve services.
- The following are considered priced services:
  - Currency and Coin Services
  - Check Clearing and Collection Services
  - Wire Transfer Services
  - Automated Clearing House Services
  - Settlement Services
Earnings Credits

- The following are also considered priced services:
  - Securities Safekeeping Services
  - Federal Reserve Float
  - Any new services which the Federal Reserve system offers, including but not limited to, Payment Services that affect electronic transfer of funds
Earnings Credits

- Earnings credits cannot be used to offset charges from non-priced services.

- Non-priced services are those services provided to institutions which are necessary for institutions to monitor and manage their account. Non-priced services are:
  - Accounting Information Services
  - Cash Management Services
# Earnings Credits

Eligible earnings credits are calculated based on the following formula every maintenance cycle:

\[
\text{Eligible Clearing Balances} \times (100\% - \text{MRRP}) \times \text{Days Carried} \times \text{Average Federal funds rate} / 360 \text{ days}
\]

where:

- **Eligible Clearing Balance** = the sum of the institution’s actual daily clearing balance (up to the maximum clearing balance band) divided by the days in the maintenance period (either 7 or 14 days)

- **MRRP** = Marginal required reserve percentage calculated as 10 percent minus the institution’s calculated marginal required reserve
Earnings Credits

Marginal Required Reserve Rate (MRR) is defined as:

- Zero for Net Transaction accounts ≤ 5.5 million
- 3% for Net Transaction accounts > 5.5 million and ≤ 42.8 million
- 10% for Net Transaction accounts > 42.8 million
Earnings Credits

Average Federal Funds rate:

- Two week Average Federal funds rate as published by the Federal Reserve Board. The website can be found at the following address:

Example 1:

ABC Bank has met its clearing balance requirement of $20 million every day of the maintenance period. ABC is a weekly reporter with a calculated MRR of 10 percent. The current Federal funds rate is 5.25 percent. Calculate the earnings credits.
Earnings Credits

For the maintenance period in question, this bank will accrue earnings credits calculated as follows:

\[
\text{EC Balance} \times (100\% - \text{MRRP}) \times \text{Days Carried} \times \text{Avg Fed Rate} / 360 \text{ Days}
\]

\[
\downarrow \quad \downarrow \quad \downarrow \quad \downarrow
\]

\[
\text{MRRP} = (10\% - \text{MRR})
\]

\[
= (10\% - 10\%)
\]

\[
= 0\%
\]

\[
\downarrow
\]

\[
20\text{MM} \times (100\% - 0\%) \times 14 \times 5.25\% / 360 = 40,833.33
\]
Earnings Credits

Example 1

ABC Bank will receive $40,833.33 in earnings credits for the maintenance period. The bank will receive earnings credits on 100 percent (100 percent minus zero percent) of its clearing balance based on the MRRP factor.
Earnings Credits

Example 2:

DEF Bank has met its clearing balance requirement of $20 million every day of the maintenance period. DEF is a weekly reporter with a calculated MRR of 3 percent. The current Federal funds rate is 5.25 percent.

Calculate earnings credits.
## Calculation of Earnings Credits

For the maintenance period in question, this bank will accrue earnings credits calculated as follows:

<table>
<thead>
<tr>
<th>EC Balance</th>
<th>(100% - MRRP)</th>
<th>Days Carried</th>
<th>Avg Fed Rate</th>
<th>/ 360 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>$20MM</td>
<td>(100% - 7%)</td>
<td>14</td>
<td>5.25%</td>
<td></td>
</tr>
</tbody>
</table>

MRRP = (10% - MRR)
= (10% - 3%)
= 7%

\[
\text{EC Balance} \times (100\% - \text{MRRP}) \times \text{Days Carried} \times \text{Avg Fed Rate} \div 360 = \$37,975.00
\]
Example 2:
DEF Bank will receive $37,975.00 in earnings credits for the maintenance period. The bank will receive earnings credits on 93 percent (100 percent minus seven percent) of its clearing balance based on the MRRP factor.
As-of Adjustments
Objectives

- What are as-of adjustments?
- What is the purpose of as-of adjustments?
- How does an as-of adjustment affect a depository institution’s reserves/clearing position?
- Why are as-of adjustments issued?
- Who can issue as-of adjustments?
Objectives

- What is the life cycle of an as-of adjustment?
- How are as-of adjustments applied?
- Can an as-of adjustment be unapplied or moved, after the fact?
As-Of Adjustments

- An as-of adjustment is a “memorandum” item that is applied to an institution’s reserve position.

- As-of adjustments do not affect balances held in a reserve account.
As-Of Adjustments

- The purpose of As-of adjustments are to correct transaction errors $10,000 or greater that will result in a gain or loss to an institution and to correct reporting errors.

- As-of adjustments are issued from the date the error occurred to the date prior to the adjustment date. (The number of days will usually not exceed 45.)
As-Of Adjustments

- Debit as-of adjustments reduce the reserve position of a bank, therefore the institution will need to increase its balances held in the remaining days of the maintenance period to offset the negative effect.

- Credit as-of adjustments increase the reserve position so the institution may maintain a lower balance for the remainder of the maintenance period.
Examples of Fed-Caused Errors:

- Failure to credit an institution’s account timely,
- Applying a debit to an institution’s account too early, or
- Processing a debit or credit to the incorrect depository institutions
As-Of Adjustments

Examples of Depository Institution Errors:

- Routine processing errors, or
- Accommodation adjustments
FR 2900 Caused As-Of Adjustments

- To correct for revisions to the Report of Transaction Accounts, Other Deposits and Vault Cash (FR 2900)

- As-of adjustments are issued to periods revised to eliminate a deficiency or excess created from revised data.
An offsetting as-of adjustment will be applied to future maintenance periods only to allow an institution to make use of excess reserves held in the revised periods or to allow an institution to compensate for deficiencies that occurred in the revised periods.
Float Caused As-Of Adjustments

• To recover float
  - Depository institutions generate priced-float adjustments to pay for float associated with transportation delays of direct send and consolidated cash letter deposits
Float caused As-Ofs

- Week 1 - Float incurred
- Week 2 - As-of adjustment prepared
- Week 3 - As-of adjustment is applied on a Thursday only and always applied to the current maintenance period
As-Of Adjustments

- As-of adjustments are issued by:
  - Check Department
  - Funds Transfer Department
  - Cash Department
  - Accounting Operations
  - FRB Buffalo
Life Cycle of As-Of Adjustments

Problem Identification

- A depository institution identifies that their account was incorrectly credited or debited and notifies the appropriate FRBNY operating area.

- An FRBNY operating area identifies that an error has occurred with an accounting transaction. The institution will be notified as soon as possible.
Life Cycle of As-Of Adjustments

Creation of As-Of Adjustment

- The depository institution will be notified through a **courtesy** call that an as-of adjustment will be issued to neutralize the impact of the error.

- The operating area prepares the as-of adjustment and forwards it to the Deposit Reports Division for approval.
Life Cycle of As-Ofs

Application of As-Of Adjustment

• A Deposit Reports Division staff member contacts the institution to discuss the application of the as-of adjustment if approved.

• The as-of adjustment is processed and applied to the institution’s reserve and/or clearing position.
Application of As-Of Adjustments

ERRORS:

- FRB
- Depository Institution (routine adjustments)
- Depository Institution (accommodation adjustments)
Application of As-Of Adjustments

- FRBNY usually applies as-of adjustments to the current maintenance period
- The as-of may apply to the maintenance period in which the error occurred
- If late in the maintenance period (day 12, 13, or 14) may consider placing the as-of to the next period
Application of As-Of Adjustments

- When offsetting adjustments are created for depository institution’s accommodation adjustments, they both must be applied to the maintenance period in which the error occurred.

- Depository institutions should evaluate their bank’s position before choosing a maintenance period.
As-of Adjustment Workshop
Scenario 1 - Weekly Reporter

Facts

- Bank A: Debit transaction error
  Occurred: 11/01/01
  Corrected: 11/05/01 (5 days)

- Current Maintenance Period: 11/01 to 11/14/01

- Deposit Reports contacts DI on 11/06/01

When can credit as-of be applied?
NOVEMBER 2001

<table>
<thead>
<tr>
<th>Sun</th>
<th>Mon</th>
<th>Tue</th>
<th>Wed</th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
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<tr>
<td>11</td>
<td>12</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
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<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>30</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Scenario 1 - Weekly Reporter

When can credit as-of be applied?

Credit can only be applied to the current maintenance period (11/01/01 to 11/14/01)
Scenario 2 - Weekly Reporter

Facts:

- Bank B: Credit transaction error
  Occurred: 10/23/01
  Corrected: 10/31/01 (9 days)
- Current Maintenance Period:
  11/01 to 11/14/01
- Prior Maintenance Period: 10/18 to 10/31/01
- Deposit Reports contacts DI on 11/02/01

When can debit as-of be applied?
Scenario 2 - Weekly Reporter

When can debit as-of be applied?

- Maintenance period in which error occurred (10/18 to 10/31/01), or

- Current maintenance period (11/01 to 11/14/01), or

- Prorate between the two periods
Scenario 3 - Weekly Reporter

**Facts:**

- **Bank C: Debit transaction error**
  
  Occurred: 10/31/01
  Corrected: 11/09/01 (10 days)

- **Current Maintenance Period:**
  
  11/01/01 to 11/14/01

- **Deposit Reports contacts DI on 11/12/01**
  (day 12 of maintenance period)

**When can as-of be applied?**
Scenario 3 - Weekly Reporter

When can credit as-of be applied?

- Maintenance period in which error occurred 10/18 to 10/31/01 (1 day of as-of only)
- Current maintenance period 11/01 to 11/14/01.
- Next maintenance period 11/15 to 11/28/01.
Request to Reapply As-Of Adjustments

- After an as-of has been applied to a maintenance period, the Deposit Reports Division will not reverse it and apply it to another maintenance period.
Account Maintenance & Position
Objectives

- Account Structure
- How to Satisfy Reserve/Clearing Requirement
- Account Maintenance
- Position and Position Reports
- Tools for Managing Position
- ERR (Estimated Required Reserves)
Account Structure

- Master Account (Direct Account)
- Subaccount
- Correspondent/Pass-through Account
- Respondent
- Pass-Through Reserves
Master Account

- The Federal Reserve’s account structure assigns each separately chartered (or licensed) institution a single master account at a designated Reserve Bank where all its activities with the Federal Reserve will be settled.
Account Structure

- Foreign-related institutions, U.S. branches and agencies of the same foreign parent bank, and the offices of an Edge or agreement corporation will have a single master account for each group of offices located in the same state and same Federal Reserve District.
Account Structure

What is a Master Account?

- It is a record of financial transactions that reflects the financial rights and obligations of an account holder and the Reserve Bank.
Account Structure

How is a Master Account used?

- A Master Account allows a DI to settle and pay for services and/or maintain balances needed to meet their reserve requirement.

- The Reserve Bank handling your master account will also administer all aspects of your account management which include reserve/clearing balance administration.
Account Structure

How to establish a master/direct account

- Execute a Master Account Agreement form (included in Operating Circular 1, Account Relationships)

- Submit the Agreement to FRBNY’s Accounting Operations Division at least 30 business days before the date you wish to open the account
Account Structure

Example

Master Account
Bank A New York, NY

- Bank B
  Atlanta, GA

- Bank C
  San Francisco, CA

- Bank D
  Boston, MA
Account Structure

Subaccounts

- A subaccount is an informational record of a subset of transactions that affect the master account.
Account Structure

How to establish a subaccount

• Must complete the “Subaccount Designation” form (included in Operating Circular 1, Account Relationships)

• Submit request to the Accounting Operations Division at least 15 business days before you wish the subaccount opened
Account Structure

Example:

Master Account
Bank A, New York

Subaccount
Bank B, Cleveland Ohio
Account Structure

Correspondent (Pass-Through Account)

- A correspondent is an institution that has authorized a Reserve Bank to allow transactions to its master account on behalf of one or more respondents
Account Structure

Respondent

- A respondent is an institution that settles some or all of its non-Fedwire transactions in another institution’s master account
Account Structure

How to establish Pass-through Relationships

- Both the correspondent and respondent institutions must complete a Pass-Through Agreement form (included in Operating Circular 1, Account Relationships)

- Submit request to FRBNY’s Deposit Reports Division at least 5 business days before you wish to establish the relationship
Example:

- Bank USA (Correspondent Account) located in FRBNY District
- Bank SA (Pass-through respondent) located in FRB Atlanta District
  - Bank SA must file its deposit reports directly with the Federal Reserve Bank of Atlanta which is the District in which it is located.
Pass-Through Reserves

- Any depository institution that is required to maintain reserve balances and is a non-member depository institution, a U.S. branch or agency of a foreign bank, or an Edge or agreement corporation
Satisfying Reserve/Clearing Requirements

<table>
<thead>
<tr>
<th>Reserve Requirement</th>
<th>Clearing Balance Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vault Cash</td>
<td>Account Balances</td>
</tr>
<tr>
<td>- Direct Account</td>
<td>- Direct Account</td>
</tr>
<tr>
<td>- Pass-through Account</td>
<td></td>
</tr>
</tbody>
</table>
Satisfying Reserve Requirement

Vault Cash

- Same computation period as deposit data
- Cannot be used to meet reserve requirements in a different maintenance period
- Cannot be used to offset clearing balance requirement
Account Balances

- Net total of all transactions (debits/credits) held in the master account at the end of day (EOD) at a Federal Reserve Bank
Account Maintenance

- What is a maintenance period and settlement day?
- When is a maintenance period finalized?
- What is Position?
Account Maintenance

Maintenance period

- Weekly reporters
  14-Day period in which to maintain and settle required reserves and/or clearing balances

- Quarterly reporters
  7-Day period in which to maintain and settle required reserves and/or clearing balances
Account Maintenance

When is a maintenance period finalized?

- For both weekly and quarterly reporters, a maintenance period is finalized 28 days after the maintenance period has ended.
**Account Maintenance**

**Weekly Lagged Maintenance Cycle** (14-day cycle)

**Computation Period**

- **Report Week 09/18/01 - 09/24/01** (Week One)
- **Report Week 09/25/01 - 10/01/01** (Week Two)

**Maintenance Period**

- **10/18/01 through 10/31/01**
  - Thurs
  - Wed
Account Maintenance

Quarterly Maintenance Cycle
(7-day cycle for 13 weeks)

Computation Period

FR 2900 & Vault Cash

Report week 09/18/01 - 09/24/01

Actual Quarter

Beginning 10/18/01
Ending 01/16/02

Maintenance periods

10/18/01 through 01/16/02
Position

- Position is a measure of a depository institution’s compliance with reserve and/or clearing balance requirements.

- Position is initially determined by evaluating the difference between total maintained and total required.
Position

• If negative, deficient in Reserves and/or Clearing balance.

• If positive, excess in reserves and/or Clearing balance.
Factors that affect position are:

- Vault Cash
- Account Balances
- Overnight Overdrafts
- As-of Adjustments
- Clearing Balance Band
- Carryover
- Carryin
Position

Vault Cash
- Used to satisfy required reserves
- Cannot satisfy clearing balance requirement
Overnight Overdrafts

- Negative end of day (EOD) balance in a Direct or Pass-Through account
  - Direct impact (decrease) on total maintained balances
As-of Adjustments

- Directly impacts total maintained balances
  - a debit as-of reduces total maintained balances for the maintenance period
  - a credit as-of increases total maintained balances for the maintenance period
Position

Clearing Balance Band

- If maintained within the upper level, can earn extra earnings credits.
- If maintained within the lower level, can offset the effect of a deficiency.
Position

Carryover

- Carryover is an excess or deficient amount that can be carried over to the next maintenance period.

- Cannot be carried over to subsequent periods.
Position

Carry-in

- The amount of carryover brought into the current maintenance period from the previous maintenance period.
How is carryover calculated?

- Gross RR plus RQCB (if any) equals total requirement;
- Multiply total requirement by 4% or $50,000 whichever is greater;
- Subtract the RQCB band, if any (the RQCB band is computed at 2% of the RQCB or $25,000 whichever is greater);

Equals Maximum Allowable Carryover
### Position

**Example:**

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>1,231</td>
</tr>
<tr>
<td>Clearing Balance Requirement</td>
<td>200</td>
</tr>
<tr>
<td>(1) Total Requirement</td>
<td>1,431</td>
</tr>
<tr>
<td>(2) Total requirement 1,431 x 4%</td>
<td></td>
</tr>
<tr>
<td>or $50,000, whichever is greater</td>
<td>57</td>
</tr>
<tr>
<td>(3) Minus the Clearing Balance Band</td>
<td>(25)</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>32</td>
</tr>
</tbody>
</table>
Position

- Mechanics of Position Calculation
- Funding Account
- Target Balances.
Position Calculation

- Position is calculated in daily averages in thousands.

- Gross Position equals Total Maintained less Total Required Reserves.
Mechanics of Position Calculation

Example

(1)
Reserve Requirement $1,231
Plus: Clearing Balance
Requirement $ 200
Equals Total Required $1,431
# Mechanics of Position Calculation

## Example

(2)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usable Vault Cash</td>
<td>$300</td>
</tr>
<tr>
<td>Plus: Account Balances</td>
<td>1,100</td>
</tr>
<tr>
<td>Credit As-of Adjustments</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Maintained</strong></td>
<td><strong>$1,500</strong></td>
</tr>
</tbody>
</table>
Example

(3)

Total Maintained Balances $1,500
Less: Total Required Balances 1,431
Gross Position 69
<table>
<thead>
<tr>
<th></th>
<th>10/18/01</th>
<th>10/04/01</th>
<th>09/20/01</th>
<th>10/31/01</th>
<th>10/17/01</th>
<th>10/03/01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>3,000</td>
<td>1,231</td>
<td>2,000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearing Balance Req.</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Required</td>
<td>3,200</td>
<td>1,431</td>
<td>2,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Usable Vault Cash</td>
<td>300</td>
<td>300</td>
<td>500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Account Balances Held</td>
<td>2,200</td>
<td>1,100</td>
<td>1,700</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For 13 days (10-30-01)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>As-Of Adjustments</td>
<td>500</td>
<td>100</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Maintained</td>
<td>3,000</td>
<td>1,500</td>
<td>2,200</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross Position</td>
<td>-200</td>
<td>69</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carryover from Prior Period</td>
<td>32</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>-25</td>
<td>25</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>-143</td>
<td>44</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>-103</td>
<td>32</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Offset in Next Period</td>
<td>0</td>
<td>32</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Position</td>
<td>-143</td>
<td>12</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Funding Account

Weekly Settler (14-days)

- Required reserve balance $2 million on a daily basis.

- Over 14-days, aggregate required reserve balance is $28 million ($2 million daily average multiplied by 14 days).
### Position

**Required Balance & Funding Account**
*(Total in thousands)*

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>Ex.1</td>
<td>Ex.2</td>
<td>Ex.3</td>
<td>Ex.4</td>
<td>Ex.5</td>
<td>Ex.6</td>
<td>Ex.7</td>
</tr>
</tbody>
</table>

*Note: The values represent the required balance and funding account for each day of the week.*
## Position

### Required Balance & Funding Account
(Total in thousands)

<table>
<thead>
<tr>
<th>Week 2</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Total Balances Held</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ex.1</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>28,000</td>
</tr>
<tr>
<td>Ex.2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>28,000</td>
<td>28,000</td>
</tr>
<tr>
<td>Ex. 3</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
<td>2,000</td>
<td>1,000</td>
<td>2,000</td>
<td>28,000</td>
</tr>
</tbody>
</table>

Total Balances Held: 28,000, 28,000, 28,000
Target Balance
Target Balance

- The average balance a depository institution must maintain during the remaining days of the maintenance period to settle its final position at zero without the application of the clearing balance band or carryover provisions
Target Balance Calculation
Target Balance Calculation

Weekly Reporter - Begins Day 12 of the MP

BI-WEEKLY MAINTENANCE PERIOD

THUR
THUR
MON*
WED

Day 12
Target Balance Calculation

Weekly Reporter - Begins Day 12 of the MP

- RESERVE BALANCE REQUIREMENT 100
  (14-day daily average)

- CLEARING BALANCE REQUIREMENT 50
  (14-day daily average)

- BALANCES MAINTAINED 75
  (11-day daily average)
Target Balance Calculation

Weekly Reporter - Begins Day 12 of the MP

- Aggregate (14 day) Reserve Balance Requirement
  
  \[100 \times 14 = 1400\]

- Aggregate (14 day) Clearing Balance Requirement
  
  \[50 \times 14 = 700\]

- Total Balances Maintained (11 day)
  
  \[75 \times 11 = 825\]
**Target Balance Calculation**

Weekly Reporter - Begins Day 12 of the MP

<table>
<thead>
<tr>
<th>Description</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggregate reserve balance requirement</td>
<td>1400</td>
</tr>
<tr>
<td>Aggregate clearing balance requirement</td>
<td>700</td>
</tr>
<tr>
<td><strong>TOTAL AGGREGATE REQUIRED BALANCES</strong></td>
<td>2100</td>
</tr>
</tbody>
</table>
Target Balance Calculation

Weekly Reporter - Begins Day 12 of the MP

Total aggregate required balances: $2100$

Total aggregate balances maintained: $(825)$

**BALANCES NECESSARY TO SATISFY REQUIREMENTS**: $1275$
Target Balance Calculation

Weekly Reporter - Begins Day 12 of the MP

Balances necessary to satisfy Requirement

Divided By:
Days Remaining in the Maintenance Period

Daily Average Target Balance for the remainder of the Maintenance Period
Deficiency

- Shortfall between the total balance maintained in a direct account or pass-through account and the Reserve Balance Requirement
## Final Position

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount (in thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>2,000</td>
</tr>
<tr>
<td>Clearing Balance Requirement</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total Required</strong></td>
<td><strong>2,200</strong></td>
</tr>
<tr>
<td>Usable Vault Cash</td>
<td>500</td>
</tr>
<tr>
<td>Account Balances Held</td>
<td>1,000</td>
</tr>
<tr>
<td>As-Of Adjustments</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Maintained</strong></td>
<td><strong>1,600</strong></td>
</tr>
<tr>
<td><strong>Gross Position</strong></td>
<td><strong>- 600</strong></td>
</tr>
<tr>
<td>Carryover From Prior Period</td>
<td>0</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>- 25</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>- 575</strong></td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>-63</td>
</tr>
<tr>
<td><strong>Offset in Next Period</strong></td>
<td><strong>-63</strong></td>
</tr>
<tr>
<td><strong>Net Position</strong></td>
<td><strong>- 512</strong></td>
</tr>
</tbody>
</table>
## Final Position

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>2,000</td>
</tr>
<tr>
<td>Clearing Balance Requirement</td>
<td>200</td>
</tr>
<tr>
<td><strong>Total Required</strong></td>
<td><strong>2,200</strong></td>
</tr>
<tr>
<td>Usable Vault Cash</td>
<td>500</td>
</tr>
<tr>
<td>Account Balances Held</td>
<td>3,000</td>
</tr>
<tr>
<td>As-Of Adjustments</td>
<td>100</td>
</tr>
<tr>
<td><strong>Total Maintained</strong></td>
<td><strong>3,600</strong></td>
</tr>
<tr>
<td><strong>Gross Position</strong></td>
<td><strong>1,400</strong></td>
</tr>
<tr>
<td>Carryover From Prior Period</td>
<td>0</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>25</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>1,375</strong></td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>63</td>
</tr>
<tr>
<td><strong>Offset in Next Period</strong></td>
<td><strong>63</strong></td>
</tr>
<tr>
<td><strong>Net Position</strong></td>
<td><strong>1,312</strong></td>
</tr>
</tbody>
</table>
Position Report

Types of Positions

- Reserves Only
- Clearing Balance Requirement Only
- Reserves and Clearing Balance Requirement

Types of Position Reports

- Preliminary
- Final
Position Report

Report frequency

- Preliminary Position - Daily
- Final Position
  - Bi-weekly (every other Wednesday for weekly or 14-day reporters)
  - Weekly (every Wednesday for quarterly reporters and non reporters)
Information provided on a Position Report

- Direct Account (no respondents)
  - Maintenance Period
  - Reserve Requirement
  - Clearing Balance Requirement
  - Usable Vault Cash
  - Account Balances
  - As-of Adjustments
  - Total Maintained
Position Report

Information provided on a Position Report

- Direct Account (no respondents) cont’d
  - Gross Position
  - Carryover From Prior Period
  - Clearing Balance Band
  - Allowable Carryover
  - Offset in Next Period
  - Net position
Position Report

- Direct Account with Pass-through respondents
  - Maintenance Period
  - Reserve Requirement
    - Own
    - Weekly Respondents
    - Quarterly Respondents
  - Clearing Balance Requirement
  - Total Requirement
Position Report

- Direct Account with Pass-through respondents
  - Usable Vault Cash
    - Own
    - Weekly Respondents
    - Quarterly Respondents
  - Account Balances
  - As-of Adjustments
  - Total Maintained
Position Report

- Direct Account with Pass-through respondents
  - Gross Position
  - Carryover From Prior Period
  - Clearing Balance Band
  - Allowable Carryover
  - Offset in Next Period
  - Net position
Position Reports

Type of Delivery

- Mail
- Electronically via Fedline
- FedMail (E-mail or Fax)
Tools for Managing Position

- Carryover
- Required Clearing Balance
- Discount Window
Estimated Required Reserves

- Option for calculating required reserves
- Available to Fedline customers only
- Fedline customers that file the FR 2900 report electronically have access to the Estimated Required Reserves function
  - one of the reports produced by this function contains a target balance calculation
Summary

- Account structure
- How to satisfy reserve/clearing requirement
- Account maintenance
- Position and position reports
- Tools for managing position
- ERR (Estimated Required Reserves)
Summary

REMEMBER

- Always make use of the target balance calculation to maximize use of funds
  - Excess = Waste
  - Deficient = Penalty
- Always fund Account timely
Deficiencies, Penalties, & Waivers
Overview

Reserve Deficiency vs. Clearing Deficiency

• Reserve Deficiency - Portion of the reserve requirement that is not satisfied by vault cash and/or balances held directly at a Reserve Bank or indirectly in a pass-through account.

• Clearing Deficiency - Portion of the clearing balance that is not satisfied by balances held directly at a Reserve Bank.
Overview

Timeline for Finalizing Deficiencies

Oct 31
Last day of maintenance period

Nov 27
Maintenance period finalized

Dec 10 thru Dec 18
Notification and advise of charges

Dec 19
Charge date
Reserve Deficiency

Example
($ in 000)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>$8,700</td>
</tr>
<tr>
<td>Clearing Balance</td>
<td>0</td>
</tr>
<tr>
<td>Usable Vault Cash</td>
<td>0</td>
</tr>
<tr>
<td>Account Balance</td>
<td>8,500</td>
</tr>
<tr>
<td>As-Of Adjustment</td>
<td>0</td>
</tr>
<tr>
<td>Carryover From Prior Period</td>
<td>0</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>0</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>(200)</td>
</tr>
</tbody>
</table>
Reserve Deficiency

- Allowable Carryover - Not to exceed the greater of:
  - 4% of (Required Reserves + Required Clearing Balance) - Clearing Balance Band.
  - $50,000 - Clearing Balance Band

(Example)

4% ($8,700,000 + 0) - 0 = $348,000
$50,000 - 0 = $ 50,000
Reserve Deficiency

Net Excess / (Deficiency)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Reserve</td>
<td>$8,700</td>
</tr>
<tr>
<td>Required Clearing Balance</td>
<td>0</td>
</tr>
<tr>
<td>Total Requirement</td>
<td>$8,700</td>
</tr>
<tr>
<td>Less: Vault Cash</td>
<td>0</td>
</tr>
<tr>
<td>Account Balance</td>
<td>8,500</td>
</tr>
<tr>
<td>As-Of Adjustment</td>
<td>0</td>
</tr>
<tr>
<td>Gross Position [Excess(Deficiency)]</td>
<td>8,500</td>
</tr>
<tr>
<td>Prior Period Carryover</td>
<td>0</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>0</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>(200)</td>
</tr>
<tr>
<td>Offset in Next Period</td>
<td>0</td>
</tr>
<tr>
<td>Net Excess (Deficiency)</td>
<td>(200)</td>
</tr>
</tbody>
</table>
Reserve Deficiency

Required Reserve Penalty

- Penalty = \((Discount \ Rate + 2\%) \times (# \ Days \ in \ Maintenance \ Period) \times (Deficiency) \div (# \ Days \ in \ Year)\)

Example

\[(4.0\% \times 14 \times $200,000) \div 365 = $ 307\]
## Clearing Deficiency

### Example

($ in 000)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>$  -</td>
</tr>
<tr>
<td>Clearing Balance</td>
<td>2,500</td>
</tr>
<tr>
<td>Usable Vault Cash</td>
<td>0</td>
</tr>
<tr>
<td>Account Balance</td>
<td>750</td>
</tr>
<tr>
<td>As-Of Adjustment</td>
<td>0</td>
</tr>
<tr>
<td>Carryover From Prior Period</td>
<td>0</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>50</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>0</td>
</tr>
</tbody>
</table>
Clearing Deficiency

- Clearing Balance Band - Greater of:
  - $25,000 or
  - 2% of Required Clearing Balance

Minimum = $25,000
$2,500,000 * 2% = $50,000

- Allowable Carryover
  Allowable carryover is not allowed for reporters with only a clearing balance requirement.
## Reserve Deficiency

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Reserve</td>
<td>$ -</td>
</tr>
<tr>
<td>Required Clearing Balance</td>
<td>2,500</td>
</tr>
<tr>
<td><strong>Total Requirement</strong></td>
<td><strong>$ 2,500</strong></td>
</tr>
<tr>
<td>Less: Vault Cash</td>
<td>0</td>
</tr>
<tr>
<td>Account Balance</td>
<td>750</td>
</tr>
<tr>
<td>As-Of Adjustment</td>
<td>0</td>
</tr>
<tr>
<td><strong>Gross Position [Excess(Deficiency)]</strong></td>
<td>(1,750)</td>
</tr>
<tr>
<td>Prior Period Carryover</td>
<td>0</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>50</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>0</td>
</tr>
<tr>
<td><strong>Offset in Next Period</strong></td>
<td><strong>0</strong></td>
</tr>
<tr>
<td><strong>Net Excess (Deficiency)</strong></td>
<td><strong>(1,700)</strong></td>
</tr>
</tbody>
</table>
Clearing Deficiency

Penalty

- Part 1 : Required Clearing Balance * 20% * # Days in Maintenance Period / # Days in Year

- Part 2 : Net Deficiency - (Required Clearing Balance * 20%) * # Days in Maintenance Period / # Days in Year
Clearing Deficiency

- Calculation
  2% of Part 1 + 4% of Part 2

Example

(1) 2% * ($2,500,000 * 20%) * 14/ 365 = $ 383
(2) 4% * ($1,700,000 - ($2,500,000 * 20%)) * 14 / 365 = $ 1,841

Total Penalty

$ 2,224
**Comprehensive Reserve & Clearing Deficiencies**

**Example**

($ in 000)

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserve Requirement</td>
<td>$ 4,500</td>
</tr>
<tr>
<td>Clearing Balance</td>
<td>500</td>
</tr>
<tr>
<td>Usable Vault Cash</td>
<td>900</td>
</tr>
<tr>
<td>Account Balance</td>
<td>3,700</td>
</tr>
<tr>
<td>As-Of Adjustment</td>
<td>(1,000)</td>
</tr>
<tr>
<td>Carryover From Prior Period</td>
<td>75</td>
</tr>
<tr>
<td>Clearing Balance Balance Band</td>
<td>25</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>175</td>
</tr>
</tbody>
</table>
Comprehensive Reserve & Clearing Deficiencies

- Clearing Balance Band - Greater of:
  - $25,000 or
  - 2% of Required Clearing Balance

Minimum = $25,000
$500,000 * 2% = $10,000
Comprehensive Reserve & Clearing Deficiencies

- Allowable Carryover - Not to exceed the greater of:
  - 4% of (Required Reserves + Required Clearing Balance) - Clearing Balance Band.
  - $50,000 - Clearing Balance Band

(Example)

\[
4\% \left( \$4,500,000 + 500,000 \right) - 25,000 = \$175,000 \\
\$50,000 - 25,000 = \$ 25,000
\]
<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Reserve</td>
<td>$4,500</td>
</tr>
<tr>
<td>Required Clearing Balance</td>
<td>500</td>
</tr>
<tr>
<td><strong>Total Requirement</strong></td>
<td><strong>$5,000</strong></td>
</tr>
<tr>
<td>Less: Vault Cash</td>
<td>900</td>
</tr>
<tr>
<td>Account Balance</td>
<td>3,700</td>
</tr>
<tr>
<td>As-Of Adjustment</td>
<td>(1,000)</td>
</tr>
<tr>
<td><strong>Gross Position [Excess(Deficiency)]</strong></td>
<td>(1,400)</td>
</tr>
<tr>
<td>Prior Period Carryover</td>
<td>75</td>
</tr>
<tr>
<td>Clearing Balance Band</td>
<td>25</td>
</tr>
<tr>
<td>Allowable Carryover</td>
<td>175</td>
</tr>
<tr>
<td>Offset in Next Period</td>
<td>0</td>
</tr>
<tr>
<td><strong>Net Excess (Deficiency)</strong></td>
<td><strong>(1,300)</strong></td>
</tr>
</tbody>
</table>
Comprehensive Reserve & Clearing Deficiencies

Allocation of Deficiency

- Clearing Balance Deficiency

Total Deficiency - (Required Reserve - Total Maintained - Clearing Balance Band)

\[
\text{Total Deficiency} - (\text{Required Reserve} - \text{Total Maintained} - \text{Clearing Balance Band})
\]

\[
\$1,300,000 - (\$4,500,000 - \$3,600,000 - \$25,000)
\]

\[
= \$ 425,000
\]
Comprehensive Reserve & Clearing Deficiencies

Clearing Balance Penalty

- Part 1: (Required Clearing Balance * 20%)
  \[ ($500,000 \times 20\%) = $100,000 \]

- Part 2: Clearing Balance Deficiency - (Required Clearing Balance * 20%)
  \[ $425,000 - ($500,000 \times 20\%) = $325,000 \]
Comprehensive Reserve & Clearing Deficiencies

• [(2% of Part 1 of Clearing Deficiency) * # Days in Maintenance Period / # Days in Year] PLUS [(4% of Part 2 of Clearing Deficiency) * # Days in Maintenance Period / # Days in Year] = Clearing Penalty

\[
\frac{($100,000 \times 2\%) \times 14}{365} = \$77
\]
\[
\frac{($325,000 \times 4\%) \times 14}{365} = 499
\]

Total Clearing Penalty \[\$576\]
Comprehensive Reserve & Clearing Deficiencies

- Reserve Deficiency
  - Gross Deficiency - Required Clearing Balance Deficiency

$1,300,000 - $425,000 = $ 875,000
Required Reserve Penalty

- Reserve Deficiency * (Discount Rate + 2%)
  * # Days in Maintenance Period / # Days in Year = Reserve Penalty

  \[(875,000 * 4.0\%) * 14 / 365 = \$ 1,342\]
Comprehensive Reserve & Clearing Deficiencies

- Total Penalty

Clearing Penalty = $576
Required Reserve Penalty = 1,342
Total Penalty = $1,918
Waivers

- “A” - Waiver
  Penalty $25 or less - May be waived and the institution may be required to explain the deficiency.

- “C” - Waiver
  Penalty > $25 and ≤ 5% of daily average requirement - May be waived once every 2 years.
Summary

Key Points

- Vault cash cannot be used to satisfy Required Clearing Balance.
- Reserve balances are used to satisfy Required Reserves before Required Clearing Balance.
- A deficiency cannot be carried over to a subsequent deficient period.
- No Allowable Carryover for institutions with only a clearing balance.
- Certain penalties **MAY** be waived.