

# **Reserve Maintenance Seminar**



**Federal Reserve Bank of New York**

**September 4, 2008**

# **Reserve Maintenance Seminar**

**Brian Osterhus**

**Dean Cornier**

**Dorinda Chisholm**

**Cheryl Rasmussen**

**Tony LaRocca**

**September 4, 2008**



## **Agenda**

- History and Purpose of Reserves
- Reserve Requirement Calculations
- As-of Adjustments
- Clearing Balance Requirements
- Account Maintenance
- Deficiencies

## **History and Purpose of Reserves**

## **Overview**

- Legislation affecting reserve requirements
- Goals of Monetary Policy
- The link between Monetary Policy and the Reserves Market
- Instruments used in the implementation of Monetary Policy

## **Federal Reserve Act (1913)**

- 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.

## **Federal Reserve Act (1913)**

- 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

## **Federal Reserve Act (1913)**

- 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 (1978)**

- 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 (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
- Established an exemption amount

## **Monetary Control Act (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 periods 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 growth of reservable liabilities

## **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 (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
- Subaccounts were created

## Who Must Report?

In the October 1, 2007 Federal Register, the Federal Reserve announced the following changes, effective September 2008:

- The nonexempt deposit cutoff will be \$216.2 million
- The reduced reporting limit will be \$1.211 billion

## Who Must Report?

Applies to all institutions except for U.S. branches and agencies of foreign banks and Edge and Agreement corporations

### 2008 Deposit Reporting Requirements

Exempt		Nonexempt	
Net transaction accounts $\leq$ \$9.3 million		Net transaction accounts $>$ \$9.3 million, OR M2 deposits $\geq$ \$1.211 billion reduced reporting limit	
Non-reporters	Annual Reporters	Quarterly Reporters	Weekly Reporters
Total deposits $\leq$ \$9.3 million	Total deposits $>$ \$9.3 million	M2 deposits $<$ \$216.2 million	M2 deposits $\geq$ \$216.2 million



## **Who Must Report?**

The following changes are effective September 2007:

- Calculate the nonexempt deposit cutoff and reduced reporting limit using the sum of total transaction accounts, savings deposits and small time deposits (M2 deposits), rather than total deposits
- Index the nonexempt deposit cutoff and reduced reporting limit annually to 80% of the June-to-June growth in total transactions accounts, savings deposits and small time deposits
- The amounts to be used in September 2009 will be announced in October 2008.

## **Who Must Report?**

The Federal Reserve will continue to screen institutions, and inform each institution eligible for reduced reporting

## **Who Must Report?**

FR 2900 weekly: commercial banks, savings banks, savings and loan associations and credit unions

- M2 deposits greater than or equal to the “nonexempt deposit cutoff” and “net transaction accounts” above the indexed level, or
- M2 deposits above the “reduced reporting limit”, regardless of the level of “net transaction accounts”

## **Who Must Report?**

FR 2900 quarterly: commercial banks, savings banks, savings and loan associations and credit unions

- M2 deposits below the “nonexempt deposit cutoff”, and “net transaction accounts” above the indexed level

## Who Must Report?

FR 2910a: commercial banks, savings banks, savings and loan associations and credit unions

- M2 deposits between the “exemption amount” and below the “reduced reporting limit”, and “net transaction accounts” below the indexed level

## Uses of Reserves Data

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

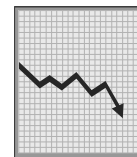


## **Monetary Policy & the Reserves Market**

- 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**

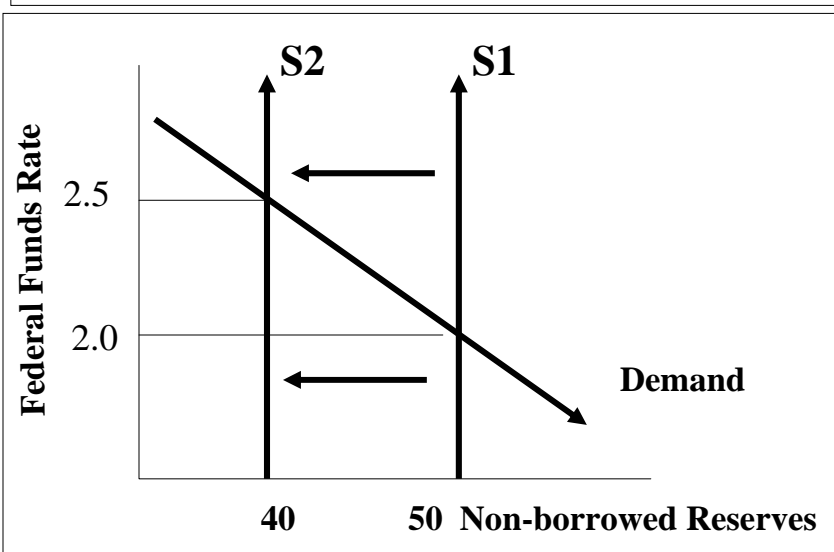
- A change in the demand or supply of reserves will result in a change in the federal funds rate which in turn tends to spread quickly to other interest rates.



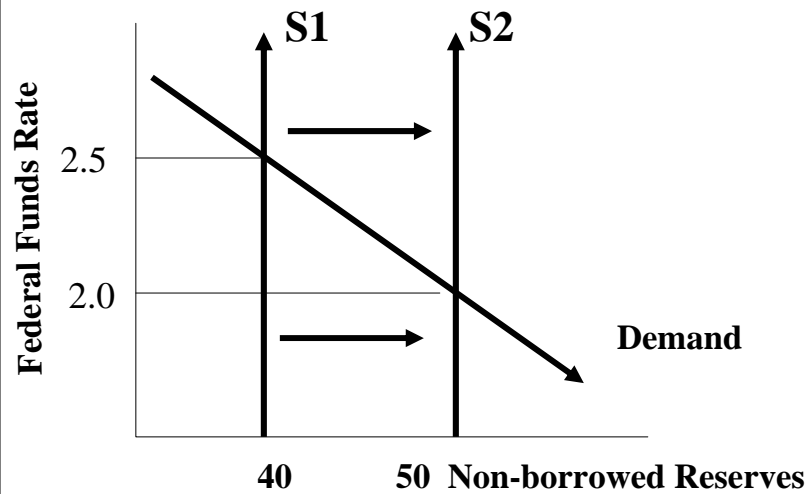
## Targeting the Fed Funds Rate

- The Federal 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 reserve demand, in order to achieve and maintain desired financial market conditions.

## Draining Reserves



## Adding Reserves



## Reserves Market

- Demand in the Reserves Market is determined by each bank's need to meet reserve requirements as defined in Regulation D.

## **Reserves Market**

- 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 Open Market Trading Desk

## **Monetary Policy**

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

# Reserve Requirement Calculation

Dean Cornier



## Objectives

- Computation Period
- Maintenance Period
- Exemption
- Low Reserve Tranche
- Reserve Requirement Calculation
- Transitional Adjustments for Mergers



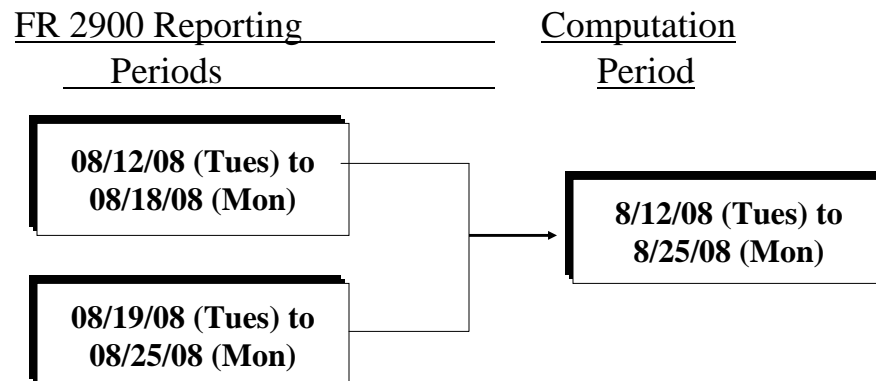
## Computation Period

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.

## Weekly Reporters (FR 2900) Computation Period

*Example*



## **Reserve Maintenance Period**

Weekly FR 2900:

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

### Example

09/11/08 (Thurs) to 09/24/08 (Wed).

## **Reserve Maintenance Period**

- The reserve requirement to be satisfied during a 14-day reserve maintenance period is based on the daily average level of net transaction accounts during the computation period.

## Reserve Maintenance Period

- The reserve maintenance period for weekly FR 2900 reporters starts 30 days after the beginning of a computation period.

Computation Period	Maintenance Period
08/12/08 to 08/18/08 08/19/08 to 08/25/08	09/11/08 to 09/24/08

## Reserve Maintenance Period

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

Vault Cash	Computation Period	Maintenance Period
<b>08/12/08 to 08/25/08</b>	08/12/08 to 08/25/08	09/11/08 to 09/24/08

## Reserve Computation Period

Quarterly FR 2900:

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

### Example

9/16/08 (Tues) to 9/22/08 (Mon)

## Reserve Maintenance Period

- The reserve requirement to be satisfied during each quarterly reserve maintenance period is based on the daily average level of net transaction accounts during the 7-day computation period.

Computation Period (Quarterly)	Maintenance Periods (13 Wednesday Dates)
09/16/08 to 09/22/08	10/22/08 to 01/14/09

## Reserve Maintenance Period

- The reserve maintenance cycle for quarterly FR 2900 reporters consists of 13 successive one week maintenance periods that begin on the fourth Thursday following the end of the computation period.

## Quarterly Reserve Maintenance

Computation Period Cycle (Includes Vault Cash)	Maintenance Periods (13 Wednesday dates)
09/16/08 to 09/22/08	10/22/08 to 01/14/09
12/16/08 to 12/22/08	01/21/09 to 04/15/09

## **Exemption Level**

- The exemption level is the amount of an institution's net transaction accounts that is subject to a reserve requirement of zero percent.
- When calculating reserve requirements, the exemption amount is subtracted from net transaction accounts before the reserve ratios are applied.
- The exemption amount is adjusted annually.

## **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.

## Reserve Tranche

- The amount of an institution's net transaction accounts that is over the low reserve tranche is subject to a reserve requirement of 10 percent.
- Adjusted annually



## Low Reserve Tranche

Example:

Net Transaction Accounts	\$100m
• Reserved at 0 Percent (exemption amount)	\$ 9.3m
• Reserved at 3 percent \$43.9m - \$9.3m = (low reserve tranche)	\$ 34.6m
• Reserved at 10 percent \$100m - \$43.9m = (amount above low reserve tranche)	\$ 56.1m

## **Low Reserve Tranche**

- Each depository institution that files the FR 2900 report is allocated the full exemption amount and low reserve tranche.



## **FR 2930 Annual Report**

- Allocation of Low Reserve Tranche and Reservable Liabilities Exemption.
- Adjusted annually



## **FR 2930 Annual Report**

- 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 have the same foreign direct parent bank, and
  - Edge and Agreement corporations

## **FR 2930 Annual Report**

- Effective September 30, 2006, the FR 2930 and FR 2930a was combined into a single report (FR2930)

# FR 2930 Annual Report

## Example

ABC Bank in Tokyo has three 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.

Column 1 Name and location of each office reporting on the FR 2930	Column 2 Federal Reserve District	Column 3 Amount of Low Reserve Tranche Allocation*		Column 4 Amount of Reservable Liabilities Exemption Allocation**	
		MT	Thru	MT	Thru
TOTAL					

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.

\_\_\_\_\_  
\$6.50  
\_\_\_\_\_ \$4.1

## Reserve Ratios

- Reserve requirements are calculated by applying the reserve ratios to the daily average of net transaction accounts in a 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 FR 2900.
- The same reserve ratios are applied to weekly and quarterly FR 2900 reporters.

## Reserve Ratios

Categories	Reserve Ratios
<b>Net Transaction Accounts:</b>	
<b>From \$0 to (&amp; including) \$9.3m</b>	<b>0 Percent</b>
<b>Over \$9.3m to (&amp; including) \$43.9m</b>	<b>3 Percent</b>
<b>Over \$43.9m</b>	<b>10 Percent</b>
<b>Non-personal savings &amp; time deposits</b>	<b>0 Percent</b>
<b>Eurocurrency Liabilities</b>	<b>0 Percent</b>

## 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 A.3 - Total Transaction Accounts
  - Line B.1 - Due From U.S. Banks
  - Line B.2 - CIPC
- $\text{NTA} = \text{Total Transaction Accounts (Line A.3)}$   
less Due From U.S. Banks (Line B.1)  
less CIPC (Line B.2)
- $\text{Daily Average NTA} = \text{NTA}/14$

## **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  $> \$9.3$  million but  $\leq$  Low Reserve Tranche (\$43.9 million)
  - (2) Multiply by 10 percent the amount of Daily Average NTA  $>$  Tranche (\$43.9 million)

## STEP 4: Sum Requirement

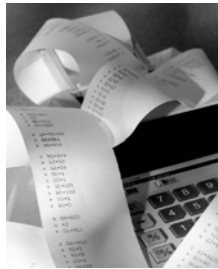
- Daily Average Reserve Requirement (RR) equals 3% Requirement plus 10% Requirement



## Vault Cash

- Vault Cash is calculated by adding week 1 and week 2 together, then dividing by 14 days (similar to the daily average NTA calculation) to derive the daily average.
- Vault Cash is used to satisfy required reserves, and is factored in after reserve requirements and tranche loss adjustments have been calculated.

# Reserve Requirement Calculation Workshop



Dean Cornier

## Step One- Calculate Net Transaction Accounts

Sample FR 2900- Week 1

(\$ in thousands)

	<b>Tues</b> (col.1)	<b>Wed</b> (col.2)	<b>Thur</b> (col.3)	<b>Fri</b> (col.4)	<b>Sat</b> (col.5)	<b>Sun</b> (col.6)	<b>Mon</b> (col.7)	<b>TOTAL</b> (col.8)
<b>A1a</b>	0	0	0	0	0	0	0	0
<b>A1b</b>	0	0	0	0	0	0	0	0
<b>A1c</b>	75,000	150,000	125,000	128,000	128,000	128,000	35,000	769,000
<b>A2</b>	5,000	5,000	3,000	3,000	3,000	3,000	3,000	25,000
<b>A3</b>	80,000	155,000	128,000	131,000	131,000	131,000	38,000	794,000
<b>B1</b>	1,000	1,000	1,000	1,000	1,000	1,000	1,000	7,000
<b>B2</b>	20,000	75,000	50,000	50,000	50,000	50,000	5,000	300,000

**Step One- Calculate Net Transaction Accounts**

**Sample FR 2900- Week 2**

**(\$ in thousands)**

	<b>Tues</b>	<b>Wed</b>	<b>Thur</b>	<b>Fri</b>	<b>Sat</b>	<b>Sun</b>	<b>Mon</b>	<b>TOTAL</b>
	<b>(col.1)</b>	<b>(col.2)</b>	<b>(col.3)</b>	<b>(col.4)</b>	<b>(col.5)</b>	<b>(col.6)</b>	<b>(col.7)</b>	<b>(col.8)</b>
<b>A1a</b>	0	0	0	0	0	0	0	0
<b>A1b</b>	0	0	0	0	0	0	0	0
<b>A1c</b>	200,000	250,000	50,000	100,000	100,000	100,000	100,000	900,000
<b>A2</b>	3,000	3,000	3,000	3,000	3,000	3,000	3,000	21,000
<b>A3</b>	203,000	253,000	53,000	103,000	103,000	103,000	103,000	921,000
<b>B1</b>	2,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000
<b>B2</b>	50,000	100,000	10,000	50,000	50,000	50,000	40,000	350,000

**Step One- Calculate Daily Average NTA**

**FR 2900**

	Week 1	+	Week 2	=	<u>Total</u>
Total Transaction Accounts (Line A3)	_____	+	_____	=	_____
Due From U.S. Banks (Line B1)	_____	+	_____	=	_____
Cash Items In Process of Collection (Line B2)	_____	+	_____	=	_____
	<u>Total</u>				
Total Transaction Accounts (Line A3)	_____				
- Due From U.S. Banks (Line B1)	_____				
- Cash Items In Process of Collection (Line B2)	_____				
= NTA	_____				
NTA/14 = <b>Daily Average NTA</b>	_____				



**Step Two- Apply Exemption**

Daily Average NTA \_\_\_\_\_  
Exemption -9,300  
Daily Average NTA > Exemption \_\_\_\_\_

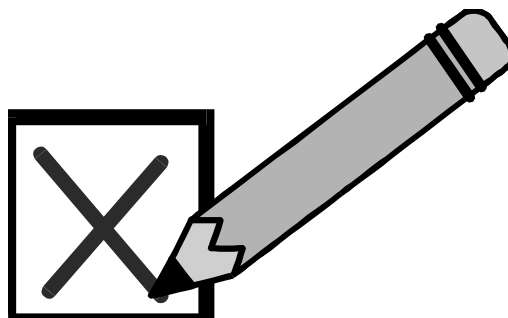
**Step Three- Apply Reserve Ratios**

Daily Average NTA > 9,300 but  $\leq$  Tranche (43,900) \_\_\_\_\_  
(Daily Average NTA >9,300 but  $\leq$  43,900) x 3% = **RR at 3%** \_\_\_\_\_  
Daily Average NTA > Tranche (43,900) \_\_\_\_\_  
(Daily Average NTA > 43,900) 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

	Week 1	+	Week 2	=	Totals
Total Transaction Accounts (Line A3)	794,000	+	921,000	=	1,715,000
- Due From U.S. Banks (Line B1)	7,000	+	8,000	=	15,000
- Cash Items In Process of Collection (Line B2)	300,000	+	350,000	=	650,000

	Total
Total Transaction Accounts (Line A3)	1,715,000
- Due From U.S. Banks (Line B1)	15,000
- <u>Cash Items In Process of Collection (Line B2)</u>	<u>650,000</u>
= NTA	1,050,000

NTA/14 = Daily Average NTA      1,050,000/14 = **75,000**

**75,000** is the **Daily Average NTA.** We will use to calculate the **Daily Average RR**

**Step Two- Apply Exemption**

Daily Average NTA	75,000
- Exemption	(9,300)
=Daily Average NTA > Exemption	<u>65,700</u>

**Step Three- Apply Reserve Ratios**

Daily Average NTA > 9,300 but ≤ Tranche (43,900)      34,600  
 (Daily Average NTA >9,300 but ≤ 43,900) x 3% =      **RR at 3%** 34,600 x .03 =      **1,038**

Daily Average NTA > Tranche (43,900)      31,100  
 (Daily Average NTA > 43,900) x 10% = **RR at 10%**      31,100 x .10 =      **3,110**

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

RR at 3% + RR at 10% = **Daily Average RR**      **4,148**

## Report of Required Reserves

- 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

- An interim report of required reserves is delivered via fax or email to each depository institution after the data for the first week of the computation period has been submitted.



# Report of Required Reserves

- Once the second week of the computation period has been submitted, a final report of required reserves is delivered on the next business day.

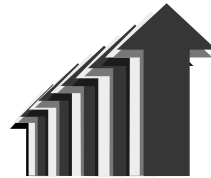
District: 02	FEDERAL RESERVE BANK OF NEW YORK REPORT OF REQUIRED RESERVES (DAILY AVERAGES IN THOUSANDS)	XRPA016U RUN DATE: 080508 RUN TIME: 190115	
123456789	1234567898		
CLASS BANK AND TRUST 1123 FEDERAL RESERVE STREET NEW YORK NY 11111			
xxxxxxxxxxxxxxxxxxxxxxxx xx FINAL xx xxxxxxxxxxxxxxxxxxxxxxxx			
RESERVES REQUIRED FOR BI-WEEKLY MAINTENANCE PERIOD FROM 5/22/08 to 06/04/08			
CATEGORY	DAILY AVG DEPOSITS (000)	PERCENT APPLIED	DAILY AVG REQUIRED (000)
RESERVABLE LIABILITIES REPORTED FROM 4/22/08 TO 5/05/08			
NET TRANSACTION ACCOUNTS			
EXEMPT	9,300		
UP TO (\$ 34.600) MILLION	34,600	3.000	1,038
OVER (\$ 34.600) MILLION	10,000	10.000	1,000
RESERVE REQUIREMENT			2,038
LESS TRANCHE LOSS ADJUSTMENT			800
LESS USABLE PORTION OF			319
319	REPORTED VAULT CASH		
	FROM 4/22/08 TO 5/05/08		
RESERVES TO BE MAINTAINED			919
CLEARING BALANCE REQUIREMENT			50
TOTAL BALANCE REQUIRED WITH FRB NEW YORK			969

## 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

- To reduce the impact of this sudden increase in required reserves, the Federal Reserve phases in a tranche loss effect.
- The tranche loss effect is phased in over a seven quarter period through a tranche loss adjustment.



**Example of a Transitional Adjustment for a Merger  
(Based on the last full computation period for both Banks)**

	Bank A (non-survivor)	Bank B (survivor)	Bank AB (merged survivor)
Daily Average NTA	100,000	150,000	250,000
-Exempt	-9,300	-9,300	-9,300
=Daily Average NTA > 9,300	90,700	140,700	240,700
Daily Average NTA > 9,300 but ≤ 43,900 x .03 = <b>RR at 3%</b>	<b>1,038</b>	<b>1,038</b>	<b>1,038</b>
RR > 43,900 x .10 = <b>RR at 10%</b>	<b>5,610</b>	<b>10,610</b>	<b>20,610</b>
<b>Daily Average RR</b>	<b>6,648</b>	<b>11,648</b>	<b>21,648</b>
Merged RR (Bank AB)			<b>21,648</b>
Sum of Separate RR		6,648 + 11,648 =	<b>(18,296)</b>
Difference is the Tranche Loss Effect		21,648 - 18,296 =	<b>3,352</b>
Tranche Loss Adjustment = (Tranche Loss Effect) x (.875)		3,352 x .875 =	2,933

**Transitional Adjustment for  
Mergers**

Maintenance periods occurring during quarters following merger	Number of weeks In quarter	Percentage applied to tranche loss effect to determine amount to be subtracted from reserve requirement
Quarter 1	16	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

## Summary

- Computation Period
- Maintenance Period
- Exemption
- Low Reserve Tranche
- Reserve Requirement Calculation
- Transitional Adjustments for Mergers

## As-of Adjustments

**Dorinda Chisholm**



## **Objectives**

- What are as-of adjustments?
- What is the purpose of as-of adjustments?
- How do as-of adjustments affect a depository institution's reserve/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 is an as-of adjustment applied?
- Can an as-of adjustment be unapplied or moved, after the fact?



## **Definition**

- An as-of adjustment is a “memorandum” item that is applied by a Reserve Bank to an institution’s position for a particular maintenance period
- It offsets the effect of a transaction or reporting error on an institution’s position.

## **Purpose**

- The purpose of an as-of adjustment is to correct errors that would otherwise result in a gain or loss to an institution and to correct for deposit reporting errors.
- As-of adjustments are issued from the date the error occurred to the date prior to the date the correcting entry is made. (The number of days will usually not exceed 45.)

## **As-of Adjustment Threshold**

- Transaction-based errors of an initial amount of \$25,000 or greater and an aggregate amount of \$250,000 or more will be issued automatically.
- Adjustments that fall below the \$25,000/\$250,000 threshold will be issued on a case-by-case basis

## **Transaction-based As-of Adjustments**

- Applied to the period following the correction of the error.
- Never applied to the periods prior to the period in which it occurred.

## **Affects of As-of Adjustments**

- Debit as-of adjustments reduce the reserve and/or clearing position of an institution, therefore the institution will need to increase its balances in the maintenance period where the debit as-of adjustment is applied, to offset the negative effect.
- Credit as-of adjustments increase the reserve and/or clearing position so the institution may maintain a lower balance for the maintenance period where the credit as-of adjustment is applied.

## **Reasons for Issuing As-of Adjustments**

- Reserve Bank errors
- Depository institution errors
- Other miscellaneous causes

## **Reserve Bank Errors**

Basic principles –

- A DI should not gain or lose in its cumulative reserve and/or clearing balance position as a result of accounting or administrative errors or delays in processing transactions by a Reserve Bank.
- Fed errors include:
  - Failure to post a to a DI account
  - Posting to a DI account prematurely
  - Posting to the wrong account
  - Posting an incorrect amount

## **Depository Institution Errors**

- FR 2900 Reporting errors
- DI – caused processing errors



## Miscellaneous Causes

- Unusual circumstances
- Reserve deficiencies
- Improper transfers

## Priced – Float As-of Adjustments

- Non-standard Holidays
- Voluntary Closings



## **As-Of Adjustments**

- As-of adjustments are issued by:
  - FRB Check Processing Sites

## **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.

## **FR 2900 Caused As-Of Adjustments**

- 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.

## **Life Cycle of As-Of Adjustments**

### Problem Identification

- A depository institution identifies its account was incorrectly credited or debited and notifies the appropriate FRB operating area.
- The FRB 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 is notified that an as-of adjustment will be issued in order to neutralize the impact of the error.
- The requesting area forwards the request to Deposit Reports Division for approval and application.

## **Life Cycle of As-Of Adjustments**

### Application of As-Of Adjustment

- The Deposit Reports Division 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**

- FRBNY usually applies as-of adjustments to the maintenance period that immediately follows the current maintenance period.
- When offsetting adjustments are applied to two depository institutions, both must be applied on the same day to the maintenance period to neutralize the effect of the as-of adjustments.

## **Exception to Default Maintenance Period**

- An as-of adjustment may be applied to the maintenance period in which the error occurred if the error caused an excess or deficiency that could not be carried forward.
- May require approval by the Board staff.

# Clearing Balance Requirements

Dean Cornier



## Objectives

- Clearing Balance Requirement Policy
  - Define clearing balance requirement
  - When and why policy was 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



## Clearing Balance Requirement Policy

- 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 implemented 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.

## **Policies and Procedures**

### 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 above the low end of the Clearing Balance Band, then it is 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, additional earnings credits are generated.

## **Policies and Procedures**

- Accounts with a clearing balance requirement are monitored for both overnight and daylight overdrafts, with penalties imposed if overdrafts occur.
- As-of adjustments can be applied to accounts with clearing balance requirements only.
- Clearing balance requirements can be changed as often as every maintenance period.

## **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.

## **Policies & Procedures**

- Financial Services
  - Clearing Balance Calculator
  - WWW.FRBSERVICES.ORG

## **Policies & Procedures**

- To change a clearing balance requirement an institution must do the following:
  - Go to <http://www.reportingandreserves.org>  
Select “Reserve Requirements”  
Select “Clearing Balance Request Form”
  - Indicate the current clearing balance, new clearing balance and effective date for the change. Submit the form to the FRBNY by 3:00 PM two business days before the effective date.
  - 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 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 Federal Reserve priced services
- The following are considered priced services:
  - Automated Clearing House Services
  - Funds Transfer
  - Commercial Check Clearing and Collection Services
  - Payor Banks
  - Return Checks

## **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:**

**[ (Eligible Clearing Balances x 90 Percent x Average Discounted T-Bill rate) + (Eligible Clearing Balance x MRR x Average Federal Funds Rate) ] x Days Carried/360 days = Earnings Credits**

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)

**90 Percent =** the eligible clearing balance is multiplied by 90 Percent, to adjust for the reserve requirement imputed to the Reserve Banks (Referred to as the Marginal Reserve Ratio on your statement)

## Earnings Credits

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

**[ (Eligible Clearing Balances x 80 Percent x Average Discounted T-Bill rate) + (Eligible Clearing Balance x MRR x Average Federal Funds Rate) ] x Days Carried/360 days = Earnings Credits**

where:

**Discounted T-Bill Rate = 80 Percent of the rolling 13-week average of the annualized coupon-equivalent yield of three-month Treasury bill in the secondary market or "Earnings Credit Rate"**

**MRR = the depository institution's calculated marginal reserve rate. A depository institution that meets its reserve requirement entirely with vault cash is assigned a marginal reserve requirement of zero in this calculation**

**Average Federal Funds Rate = weekly average Federal Funds Rate (FF)**

## Earnings Credits

Marginal Required Reserve Rate (MRR) is defined as:

- Zero for Net Transaction accounts  $\leq$  \$9.3 million
- 3% for Net Transaction accounts  $>$  \$9.3 million and  $\leq$  \$43.9 million
- 10% for Net Transaction accounts  $>$  \$43.9 million

## Earnings Credits

Average federal funds rate can be found at:  
<http://www.federalreserve.gov/releases/h15/update/>

## Earnings Credits

### Example 1:

ABC Bank has met its clearing balance requirement of \$20 million. ABC is a weekly reporter with a calculated MRR of 3 percent. The current T-Bill rate is 1.70 percent and the Federal funds rate is 2.00 percent. Calculate the earnings credits.

## Earnings Credits

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

### ABC BANK

$$[(\text{EC Balance} \times .90\%) (80\% \times 3 \text{ Month T-Bill rate}) + (\text{EC Balance} \times \text{MRR}) \times \text{FF}]$$
$$(\$20\text{MM} \times .90) \quad (.80 \times .0189) \quad + \quad (\$20\text{MM} \times .03) \times .0200$$

Days Carried/360 Days

7/360

Calculated Earnings Credits \$5,525.33

## Earnings Credits

### Example 1

ABC Bank will receive \$5,525.33 in earnings credits for the week ending Wednesday. The bank will receive earnings credits on 80 Percent of its clearing balance at the discounted T-Bill rate and on three percent of its eligible clearing balance at the Fed Funds Rate.

## Earnings Credits

### Example 2:

DEF Bank has met its clearing balance requirement of \$20 million. DEF is a weekly reporter with a calculated MRR of 3 percent. The current T-Bill rate is 1.85 and the Federal funds rate is 2.25 percent.

Calculate earnings credits.

## Calculation of Earnings Credits

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

ABC BANK	
$[(\text{EC Balance} \times .80\%) (80\% \times 3 \text{ Month T-Bill rate}) + (\text{EC Balance} \times \text{MRR}) \times \text{FF}]$	
$(\$20\text{MM} \times .90)$	$(.80 \times .0185) + (\$20\text{MM} \times .03) \times .0225$
Days Carried/360 Days	Calculated Earnings Credits \$5,442.50
7/360	

## Earnings Credits

### Example 2 :

DEF Bank will receive \$5,442.50 in earnings credits for the week-ending Wednesday. The bank will receive earnings credits on 80 percent of its clearing balance at the discounted T-Bill rate and on three percent of its eligible clearing balance at the Fed Funds Rate.

## Account Maintenance and Position

Cheryl Rasmussen





## **Objectives**

- Account Structure
- How to Satisfy Reserve/Clearing Balance Requirement
- Account Maintenance
- Position and Position Reports
- Tools for Managing Position

## **Account Structure**

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

## Account Structure

### 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 its reserve and/or clearing balance requirement
- The Reserve Bank handling your master account will also administer all aspects of your account management which include reserve/clearing balance administration

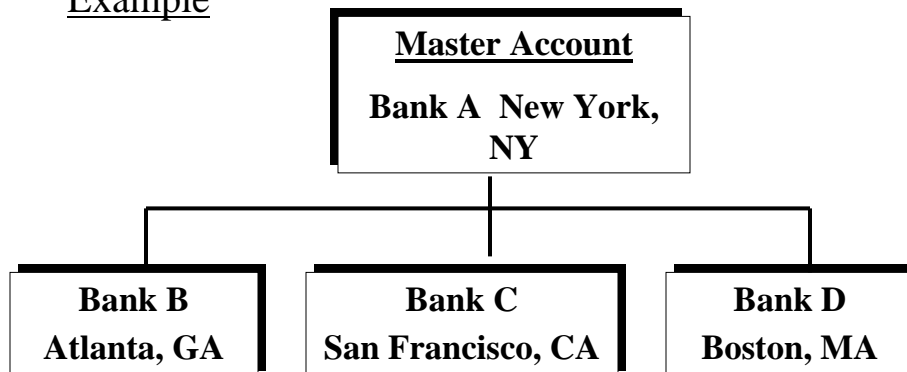
## Account Structure

### 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



## Account Structure

### Subaccounts

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



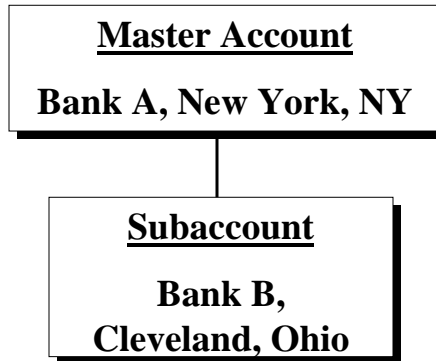
## Account Structure

### 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:



## 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 the start of the maintenance period in which you wish to establish the relationship

## Account Structure

### **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.

## Account Structure

### **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
- Proposed change to Regulation D to allow member banks to pass-through required reserves



## Satisfying Reserve/Clearing Balance Requirements

### Reserve Requirement

Vault Cash  
Account Balances  
- Direct Account  
- Pass-through Account

### Clearing Balance Requirement

Account Balances  
- Direct Account

## 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

## Satisfying Reserve 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 when is settlement day?
- When is a maintenance period finalized?
- What is Position?

## Account Maintenance

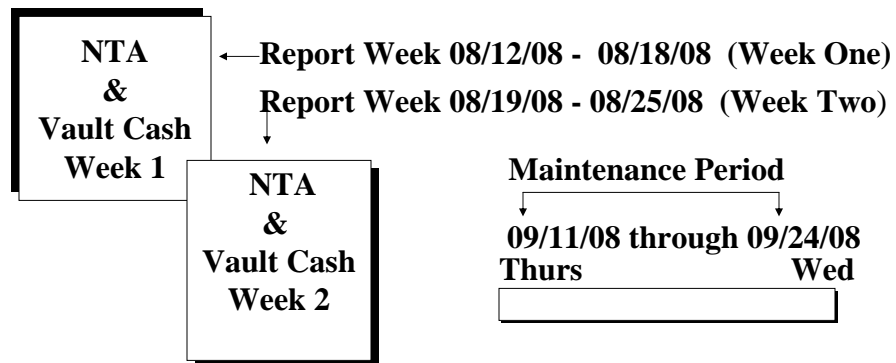
### Maintenance period

- Weekly reporters
  - 14-Day period in which to maintain and settle required reserves and/or clearing balance requirement
- Quarterly reporters
  - 7-Day period in which to maintain and settle required reserves and/or clearing balance requirement

## Account Maintenance

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

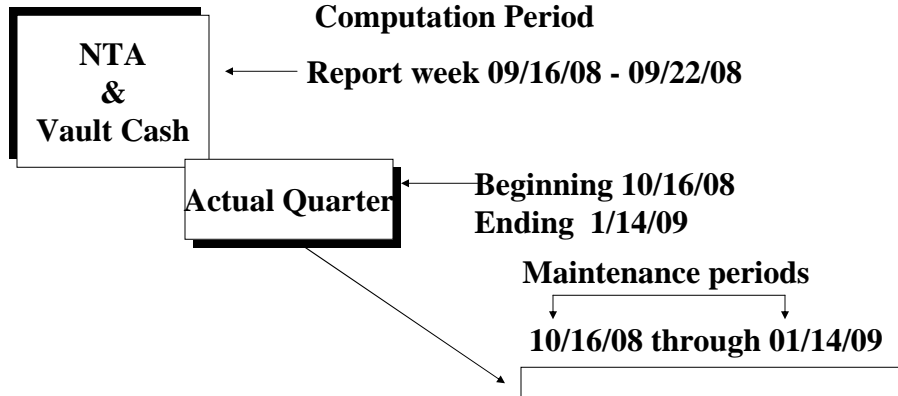
#### Computation Period



## Account Maintenance

### Quarterly Maintenance Cycle

(7-day cycle for 13 weeks)



## Account Maintenance

### When is a maintenance period finalized?

- For both weekly and quarterly reporters, a maintenance period is finalized 14 days after the maintenance period has ended.

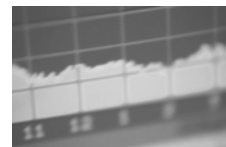
## Position

- 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 requirement.
- If positive, excess in reserves and/or clearing balance requirement.



## **Position**

### **Factors that affect position are:**

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

## **Position**

### **Overnight Overdrafts**

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

## **Position**

### **As-of Adjustments**

- Adjusts the impact of maintained balances on position
  - a debit as-of adjustment reduces the impact of maintained balances for the maintenance period
  - a credit as-of adjustment increases the impact of maintained balances for the maintenance period

## **Position**

### **Clearing Balance Band**

- If maintained within the upper level, can generate additional earnings credits.
- If maintained within the lower level, can offset the effect of a deficiency.

## Position

### Carryover

- Carryover is an excess or deficiency 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.



## Position

### How is carryover calculated?

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

Equals Maximum Allowable Carryover

## Position

### Example:

Reserve Requirement	1,231
Clearing Balance Requirement	<u>200</u>
(1) Total Requirement	1,431
(2) Total requirement 1,431 x 4% or \$50,000, whichever is greater	57
(3) Minus the Clearing Balance Band	<u>(25)</u>
Allowable Carryover	<u><u>32</u></u>

## Position

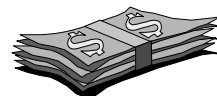
- Mechanics of Position Calculation
- Funding Account



## Position

### Position Calculation

- Position is calculated in daily averages in thousands.
- Gross Position equals Total Maintained less Total Required Reserves.



## Position

### Mechanics of Position Calculation

#### Example

(1)		
Reserve Requirement		\$1,231
Plus: Clearing Balance		
Requirement		<u>\$ 200</u>
Total Required		<u>\$1,431</u>

## Position

### Mechanics of Position Calculation (cont.)

#### Example

(2)		
Usable Vault Cash		\$ 300
Plus: Account Balances		1,100
Credit As-of Adjustments		<u>100</u>
Total Maintained		<u>\$1,500</u>

## Position

### Mechanics of Position Calculation (cont.)

#### Example

(3)

Total Maintained Balances	\$1,500
Less: Total Required Balances	1,431
	69
Gross Position	69

## Preliminary Position

(\$ in 000s)

Maintenance Period From	09/11/08	08/28/08	08/14/08
Through	09/24/08	09/10/08	08/27/08
Reserve Requirement	3,000	1,231	2,000
Clearing Balance Req.	200	200	200
Total Requirement	3,200	1,431	2,200
Usable Vault Cash	300	300	500
Account Balances Held	2,200	1,100	1,700
For 13 days (09-23-08)			
As-Of Adjustments	500	100	0
Total Maintained	3,000	1,500	2,200
Gross Position	-200	69	0
Carryover from Prior Period	32	0	0
Clearing Balance Band	-25	25	0
Subtotal	-143	44	0
Allowable Carryover	-103	32	0
Offset in Next Period	0	32	0
Net Position	-143	12	0

## Position

### Required Balance & Funding Account

#### Bi-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)

		<u>Ex.1</u>	<u>Ex.2</u>	<u>Ex. 3</u>
<b>Week 1</b>	<b>Thurs</b>	<b>2,000</b>	<b>0</b>	<b>2,000</b>
	<b>Fri</b>	<b>2,000</b>	<b>0</b>	<b>2,000</b>
	<b>Sat</b>	<b>2,000</b>	<b>0</b>	<b>2,000</b>
	<b>Sun</b>	<b>2,000</b>	<b>0</b>	<b>2,000</b>
	<b>Mon</b>	<b>2,000</b>	<b>0</b>	<b>1,000</b>
	<b>Tues</b>	<b>2,000</b>	<b>0</b>	<b>1,000</b>
	<b>Wed</b>	<b>2,000</b>	<b>0</b>	<b>1,000</b>

## Position

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

		<u>Ex.1</u>	<u>Ex.2</u>	<u>Ex. 3</u>
Week 2	Thurs	2,000	0	3,000
	Fri	2,000	0	3,000
	Sat	2,000	0	3,000
	Sun	2,000	0	3,000
	Mon	2,000	0	2,000
	Tues	2,000	0	1,000
	Wed	2,000	28,000	2,000
	<b>Total Balances Held</b>	<b>28,000</b>	<b>28,000</b>	<b>28,000</b>

## Position

### Deficiency

- Shortfall between the total balance maintained in a direct account or pass-through account and the reserve balance requirement

## Final Position

(in thousands)

<b>Reserve Requirement</b>		<b>2,000</b>
<b>Clearing Balance Requirement</b>		<b>200</b>
	<b>Total Required</b>	<b>2,200</b>
<b>Usable Vault Cash</b>	<b>500</b>	
<b>Account Balances Held</b>	<b>1,000</b>	
<b>As-Of Adjustments</b>	<b>100</b>	
	<b>Total Maintained</b>	<b>1,600</b>
<b>Gross Position</b>		<b>- 600</b>
<b>Carryover From Prior Period</b>		<b>0</b>
<b>Clearing Balance Band</b>		<b>- 25</b>
<b>Subtotal</b>		<b>- 575</b>
<b>Allowable Carryover</b>	<b>-63</b>	
	<b>Offset in Next Period</b>	<b>-63</b>
<b>Net Position</b>		<b>- 512</b>

## Final Position

(in thousands)

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

## **Position Reports**

### **Types of Positions**

- Reserve Only
- Clearing Balance Requirement Only
- Reserve and Clearing Balance Requirement

### **Types of Position Reports**

- Preliminary
- Final

## **Position Reports**

### **Report frequency**

- Preliminary Position - Daily
- Final Position
  - Bi-weekly (every other Wednesday for weekly reporters)
  - Weekly (every Wednesday for quarterly reporters and non reporters)



## **Position Reports**

### **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 Reports**

### **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 Reports**

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

## **Position Reports**

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

## Position Reports

- 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

### Types of Delivery

- FedMail (E-mail or Fax)
- ReserveCalc (If you have access to ReserveCalc)



## Tools for Managing Position

- Carryover
- Required Clearing Balance
- Discount Window
- ReserveCalc (Web-based Application)



## Summary

- Account structure
- How to satisfy reserve/clearing requirement
- Account maintenance
- Position and position reports
- Tools for managing position



## Summary

### REMEMBER

- Always fund Account timely
  - Excess = Waste
  - Deficient = Penalty



## Deficiencies, Penalties, & Waivers

Tony LaRocca



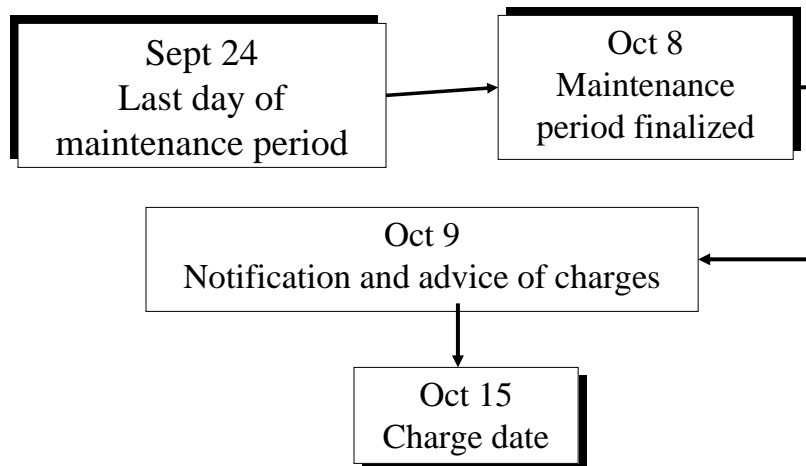
## Overview

### 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



## Reserve Deficiency

### Example

(\$ in 000)

<b>Reserve Requirement</b>	<b>\$8,700</b>
<b>Clearing Balance Requirement</b>	<b>0</b>
<b>Usable Vault Cash</b>	<b>0</b>
<b>Account Balance</b>	<b>8,500</b>
<b>As-Of Adjustment</b>	<b>0</b>
<b>Carryover From Prior Period</b>	<b>0</b>
<b>Clearing Balance Band</b>	<b>0</b>
<b>Allowable Carryover</b>	<b>(200)</b>

## 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)		
<b>Required Reserve</b>		<b>\$ 8,700</b>
<b>Required Clearing Balance</b>		<b>0</b>
	<b>Total Requirement</b>	<b>\$ 8,700</b>
<b>Less: Vault Cash</b>	<b>0</b>	
<b>Account Balance</b>	<b>8,500</b>	
<b>As-Of Adjustment</b>	<b>0</b>	<b>8,500</b>
	<b>Gross Position [Excess(Deficiency)]</b>	<b>( 200)</b>
<b>Prior Period Carryover</b>		<b>0</b>
<b>Clearing Balance Band</b>		<b>0</b>
<b>Allowable Carryover</b>	<b>(200)</b>	
<b>Offset in Next Period</b>		<b>0</b>
	<b>Net Excess (Deficiency)</b>	<b><u>(200)</u></b>

## Reserve Deficiency

Required Reserve Penalty

- $\text{Penalty} = (\text{Primary Rate} + 1\%) * (\# \text{ Days in Maintenance Period}) * (\text{Deficiency}) / (\# \text{ Days in Year})$

---

Example

$$(3.25\% * 14 * \$200,000) / 365 = \$249.32$$



## Clearing Deficiency

### Example

(\$ in 000)

<b>Reserve Requirement</b>	<b>\$ -</b>
<b>Clearing Balance Requirement</b>	<b>2,500</b>
<b>Usable Vault Cash</b>	<b>0</b>
<b>Account Balance</b>	<b>750</b>
<b>As-Of Adjustment</b>	<b>0</b>
<b>Carryover From Prior Period</b>	<b>0</b>
<b>Clearing Balance Band</b>	<b>50</b>
<b>Allowable Carryover</b>	<b>0</b>

## Clearing Deficiency

- Clearing Balance Band - Greater of:

- \$25,000 or
- 2% of Required Clearing Balance

$$\begin{array}{rcl} \text{Minimum} & = & \$ 25,000 \\ \$2,500,000 * 2\% & = & \$ 50,000 \end{array}$$

- Allowable Carryover

Allowable carryover is not allowed for reporters with only a clearing balance requirement.

## Clearing Deficiency

Net Excess / (Deficiency)		
<b>Required Reserve</b>		\$ -
<b>Required Clearing Balance</b>		<u>2,500</u>
<b>Total Requirement</b>		<b>\$ 2,500</b>
<b>Less: Vault Cash</b>	<b>0</b>	
<b>Account Balance</b>	<b>750</b>	
<b>As-Of Adjustment</b>	<b>0</b>	<u>750</u>
<b>Gross Position [Excess(Deficiency)]</b>		<b>(1,750)</b>
<b>Prior Period Carryover</b>		<b>0</b>
<b>Clearing Balance Band</b>		<b>50</b>
<b>Allowable Carryover</b>	<b>0</b>	
<b>Offset in Next Period</b>		<u>0</u>
<b>Net Excess (Deficiency)</b>		<b><u>(1,700)</u></b>

## 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 =	\$ 383.56
(2) 4% * (\$1,700,000 - (\$2,500,000 * 20%)) * 14 / 365	= \$ 1,841.10
<b>Total Penalty</b>	<b>\$ 2,224.66</b>

## Comprehensive Reserve & Clearing Deficiencies

### Example

(\$ in 000)

<b>Reserve Requirement</b>	<b>\$ 4,500</b>
<b>Clearing Balance Requirement</b>	<b>500</b>
<b>Usable Vault Cash</b>	<b>900</b>
<b>Account Balance</b>	<b>3,700</b>
<b>As-Of Adjustment</b>	<b>(1,000)</b>
<b>Carryover From Prior Period</b>	<b>75</b>
<b>Clearing Balance Band</b>	<b>25</b>
<b>Allowable Carryover</b>	<b>(175)</b>

## Comprehensive Reserve & Clearing Deficiencies

- Clearing Balance Band - Greater of:

- \$25,000 or
- 2% of Required Clearing Balance

$$\begin{array}{lcl} \text{Minimum} & = & \$ 25,000 \\ \$500,000 * 2\% & = & \$ 10,000 \end{array}$$

## 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)

$$\begin{array}{l} 4\% (\$4,500,000 + 500,000) - 25,000 = \$175,000 \\ \$50,000 - 25,000 = \$ 25,000 \end{array}$$

## Comprehensive Reserve & Clearing Deficiencies

Net Excess / (Deficiency)		
<b>Required Reserve</b>		<b>\$ 4,500</b>
<b>Required Clearing Balance</b>		<u>500</u>
<b>Total Requirement</b>		<b>\$ 5,000</b>
<b>Less: Vault Cash</b>	<b>900</b>	
<b>Account Balance</b>	<b>3,700</b>	
<b>As-Of Adjustment</b>	<b>(1,000)</b>	<u>3,600</u>
<b>Gross Position [Excess(Deficiency)]</b>		<b>(1,400)</b>
<b>Prior Period Carryover</b>		<b>75</b>
<b>Clearing Balance Band</b>		<b>25</b>
<b>Allowable Carryover</b>	<b>(175)</b>	
<b>Offset in Next Period</b>		<u>0</u>
<b>Net Excess (Deficiency)</b>		<u><u><b>(1,300)</b></u></u>

## Comprehensive Reserve & Clearing Deficiencies

Allocation of Deficiency

- Clearing Balance Deficiency

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

$$\begin{aligned}
 & \$1,300,000 - (\$4,500,000 - \$3,600,000 - \$25,000) \\
 & = \$ 425,000
 \end{aligned}$$

## Comprehensive Reserve & Clearing Deficiencies

### Clearing Balance Penalty

- Part 1 : (Required Clearing Balance \* 20%)  
 $(\$500,000 * 20\%) = \$ 100,000$
  
- Part 2 : Clearing Balance Deficiency –  
 (Required Clearing Balance \* 20%)  
 $\$425,000 - (\$500,000 * 20\% ) = \$325,000$

## 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

$$(\$100,000 * 2\% ) * 14 / 365 = \$ 76.71$$

$$(\$325,000 * 4\% ) * 14 / 365 = \underline{498.63}$$

$$\text{Total Clearing Penalty} \quad \underline{\underline{\$ 575.34}}$$

## **Comprehensive Reserve & Clearing Deficiencies**

- Reserve Deficiency
  - Gross Deficiency - Required Clearing  
Balance Deficiency

$$\$1,300,000 - \$425,000 = \$ 875,000$$

## **Comprehensive Reserve & Clearing Deficiencies**

- Required Reserve Penalty
  - Reserve Deficiency \* (Primary Rate + 1%)  
\* # Days in Maintenance Period / # Days in  
Year = Reserve Penalty

$$(\$875,000 * 3.25%) * 14 / 365 = \$ 1,090.75$$

## **Comprehensive Reserve & Clearing Deficiencies**

- Total Penalty

Clearing Penalty = \$ 575.34

Required Reserve Penalty = 1,090.75

Total Penalty = \$ 1,666.09

## **Waivers**

- Waiver Type 1

Penalty \$25 or less - May be waived and the institution may be required to explain the deficiency.

- Waiver Type 2

Penalty > \$25 and < or equal to 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.

## For More Information

ReserveCalc

<http://www.reportingandreserves.org>

Clearing Balance Calculator

<http://www.frbervices.org>

Clearing Balance Request Form

<http://www.reportingandreserves.org>

Average Federal Funds Rate

<http://www.federalreserve.gov/releases/h15/update/>

Operating Circular 1: Account Relationships

<http://www.frbervices.org>

## FRBNY Contacts

Brian Osterhus, Staff Director	212-720-8023	Brian.Osterhus@ny.frb.org
Ben Annoscia, Team Leader	212-720-8920	Ben.Annoscia@ny.frb.org
Donnovan Surjoto, Team Leader	212-720-8594	Donnovan.Surjoto@ny.frb.org
Terry Carter	212-720-8215	Terry.Carter@ny.frb.org
Dorinda Chisholm	212-720-8413	Dorinda.Chisholm@ny.frb.org
Eartha Collins	212-720-5993	Eartha.Collins@ny.frb.org
Claudette Knight	212-720-5798	Claudette.Knight@ny.frb.org
Anthony LaRocca	212-720-8414	Anthony.LaRocca@ny.frb.org
Linda Mason	212-720-5799	Linda.Mason@ny.frb.org