

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.

Federal Reserve Act (1913)

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

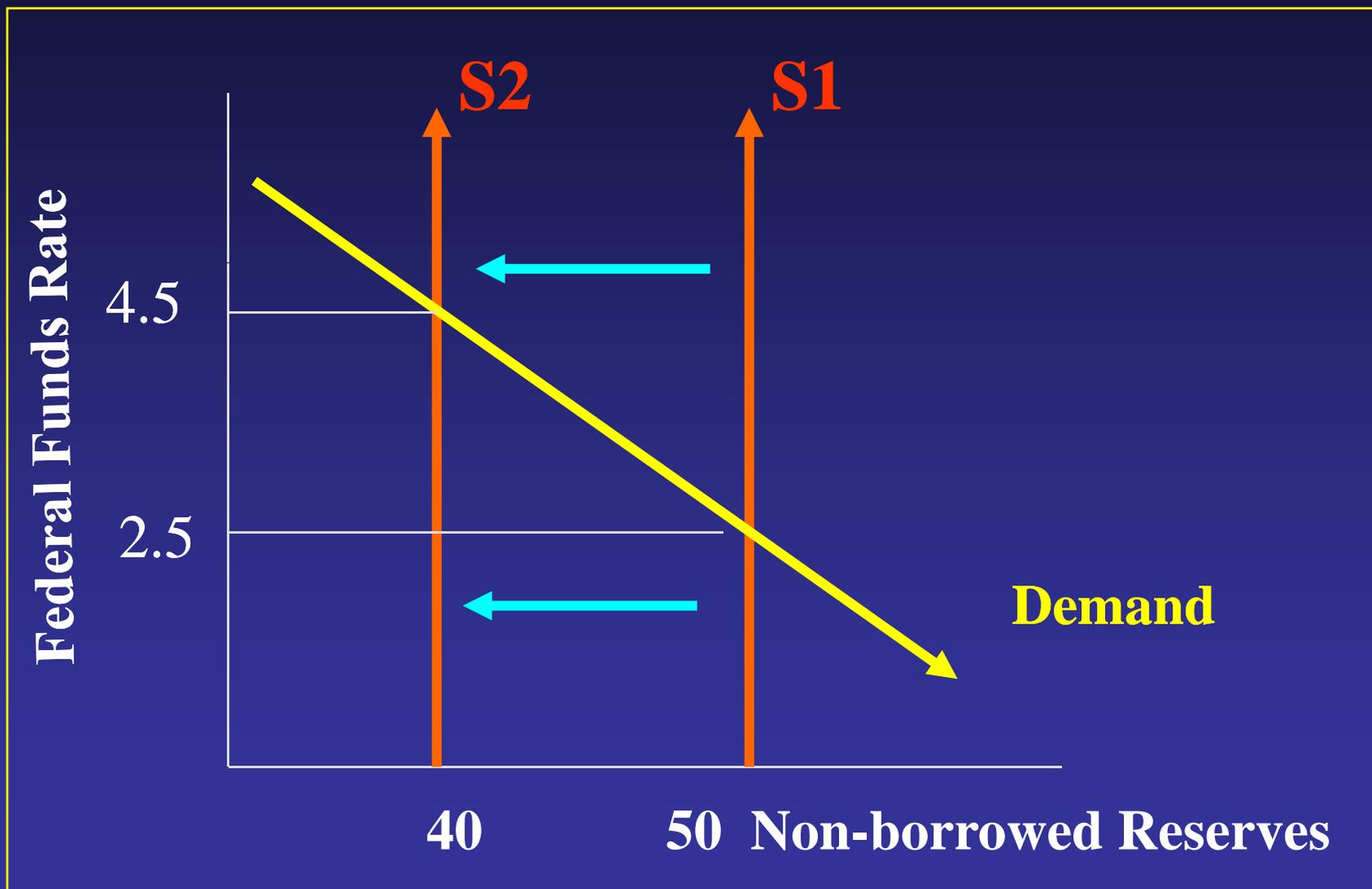
- A change in the demand or supply of reserves will result in a change in the federal funds rate which in turn tends to spread quickly to other interest rates.



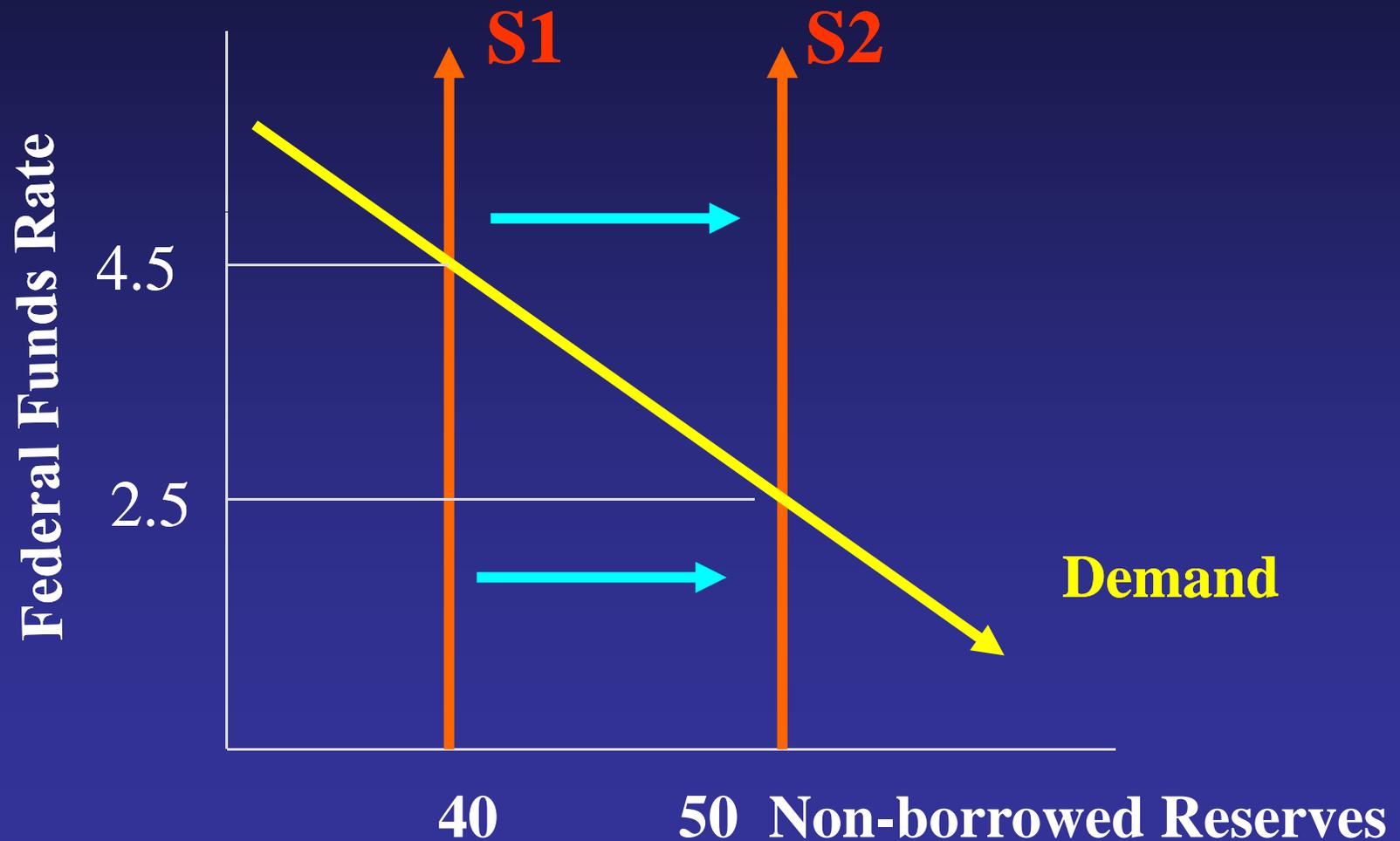
Targeting the Fed Funds Rate

- 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



Adding Reserves



Reserves Market

- 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

Reserves Market

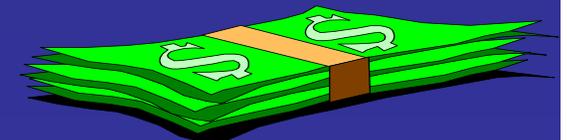
- The supply of reserves is the amount of reserves currently in the market which consists of:
 - Discount Window Lending (Borrowed Reserves)
 - Nonborrowed Reserves - Influenced by the purchase or sale of securities by the Federal Reserve Trading Desk

Monetary Policy

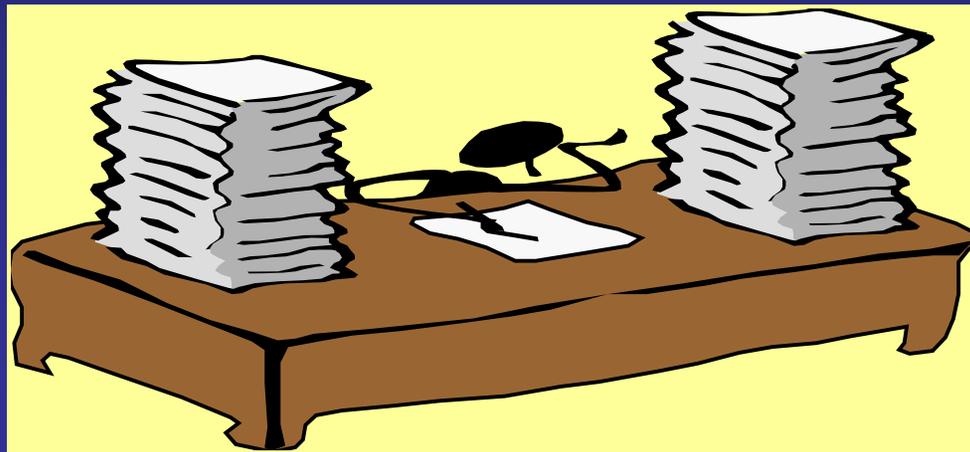
- The tools used to implement monetary policy :
 - Reserve Requirements
 - Discount Window Lending
 - Open Market Operations

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.

Computation Period

Example

FR 2900 Reporting
Periods

Computation
Period

11/13/01 (Tues) to
11/19/01 (Mon)

11/20/01 (Tues) to
11/26/01 (Mon)

11/13/01 (Tues) to
11/26/01 (Mon)

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graph LR; A["11/13/01 (Tues) to 11/19/01 (Mon)"] --> C["11/13/01 (Tues) to 11/26/01 (Mon)"]; B["11/20/01 (Tues) to 11/26/01 (Mon)"] --> C;
```

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).

Reserve Maintenance Period

- 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.

Reserve Maintenance Period

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

Maintenance Period	Computation Period
12/13/01 to 12/26/01	11/13/01 to 11/19/01 11/20/01 to 11/26/01

Reserve Maintenance Period

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

Maintenance Period	Computation Period	Vault Cash
12/13/01 to 12/26/01	11/13/01 to 11/26/01	11/13/01 to 11/26/01

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)

Reserve Maintenance Period

- 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.

Maintenance Period (Quarterly)	Computation Period
10/18/01 to 10/24/01	9/18/01 to 9/24/01

Reserve Maintenance Period

- 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

Maintenance Period Cycle (Quarterly)	Computation Period
10/18/01 to 10/24/01 Up to 1/10/02 to 1/16/02	9/18/01 to 9/24/01
1/17/02 to 1/23/02 Up to 4/11/02 to 4/17/02	12/18/01 to 12/24/01

Reserve Maintenance Period

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

Maintenance Period (Quarterly)	Computation Period	Vault Cash
10/18/01 to 10/24/01 up to 1/10/02 to 1/16/02	9/18/01 to 9/24/01	9/18/01 to 9/24/01

Exemption

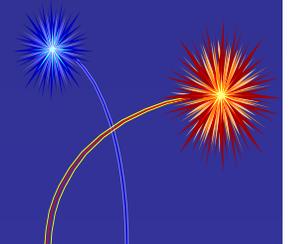
- Exemption is the amount of an institution's net transaction accounts that is subject to a reserve requirement of zero percent.
- The exemption amount is adjusted annually.
- When calculating reserve requirements, the exemption amount is subtracted from reservable liabilities before the reserve ratios 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 (exemption amount)	\$ 5.5m
• Reserved at 3 percent $\$42.8\text{m} - \$5.5\text{m} =$ (low reserve tranche)	\$37.3m
• Reserved at 10 percent $\$100\text{m} - \$42.8\text{m} =$ (amount above low reserve tranche)	\$57.2m

Low Reserve Tranche

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



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.

Column 1	Column 2	Column 3		Column 4	
Name and location of each office reporting on the FR 2000	Federal Reserve District	Amount of Low Reserve Tranche Allocation ^a		Amount of Reservable Liabilities Exemption Allocation ^b	
		Mil	Thou	Mil	Thou
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.

\$46.5 _____

\$4.9 _____

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.

Reserve Ratios

Effective December 30, 2000 through December 26, 2001

Categories

Reserve Ratios

Net Transaction Accounts:

From \$0 to (& including) \$5.5m

0 Percent

Over \$5.5m to (& including) \$42.8m

3 Percent

Over \$42.8m

10 Percent

Nonpersonal savings & time deposits

0 Percent

Eurocurrency Liabilities

0 Percent

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
- $NTA = \text{Total Transaction Accounts (Line A3)}$
minus $\text{Due From U.S. Banks (Line B1)}$
minus CIPC (Line B2) .
- $\text{Daily Average NTA} = NTA/14$

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 \leq 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)

	Tues (col.1)	Wed (col.2)	Thur (col.3)	Fri (col.4)	Sat (col.5)	Sun (col.6)	Mon (col.7)	TOTAL (col.8)
A1a	0	0	0	0	0	0	0	0
A1b	0	0	0	0	0	0	0	0
A1c	100,000	250,000	200,000	200,000	200,000	200,000	50,000	1,200,000
A2	5,000	5,000	3,000	3,000	3,000	3,000	3,000	25,000
A3	105,000	255,000	203,000	203,000	203,000	203,000	53,000	1,225,000
B1	2,000	1,000	1,000	1,000	1,000	1,000	1,000	8,000
B2	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)

	Tues (col.1)	Wed (col.2)	Thur (col.3)	Fri (col.4)	Sat (col.5)	Sun (col.6)	Mon (col.7)	TOTAL (col.8)
A1a	0	0	0	0	0	0	0	0
A1b	0	0	0	0	0	0	0	0
A1c	200,000	250,000	50,000	100,000	100,000	100,000	100,000	900,000
A2	3,000	3,000	3,000	3,000	3,000	3,000	3,000	21,000
A3	203,000	253,000	53,000	103,000	103,000	103,000	103,000	921,000
B1	2,000	1,000	1,000	1,000	1,000	1,000	2,000	9,000
B2	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)	_____	+	_____	=	_____
<u>Cash Items In Process of Collection (Line B2)</u>	_____	+	_____	=	_____

	<u>Total</u>
Total Transaction Accounts (Line A3)	_____
- Due From U.S. Banks (Line B1)	_____
- <u>Cash Items In Process of Collection (Line B2)</u>	_____
= NTA	_____

NTA/14 = **Daily Average NTA** _____

Step Two- Apply Exemption

Daily Average NTA	_____
Exemption	-5,500
Daily Average NTA > Exemption	_____

Step Three- Apply Reserve Ratios

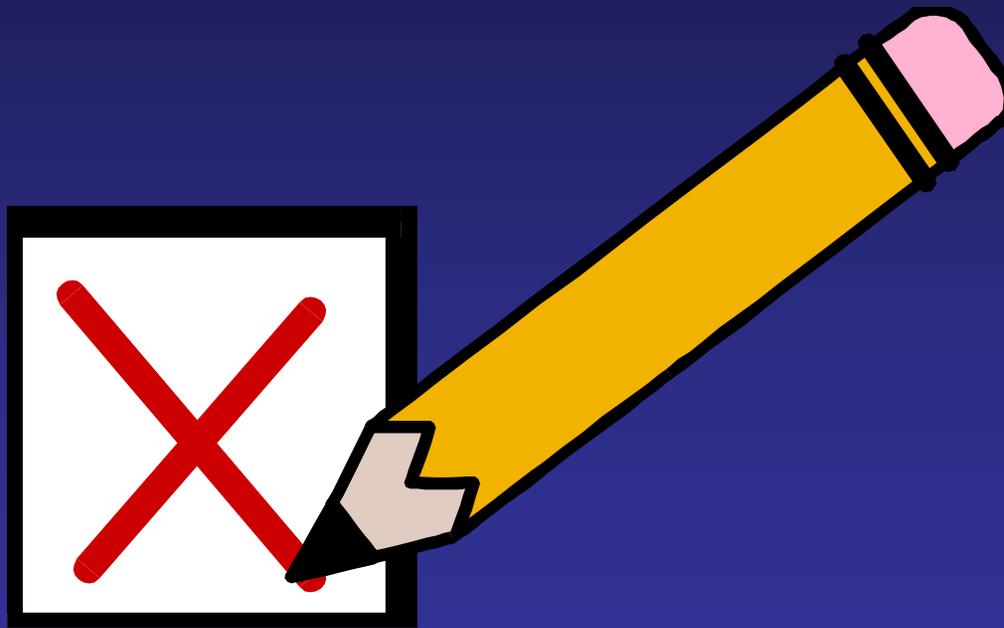
Daily Average NTA > 5,500 but \leq Tranche (42,800)	_____
(Daily Average NTA > 5,500 but \leq 42,800) x 3% = RR at 3%	_____
—	
Daily Average NTA > Tranche (42,800)	_____
(Daily Average NTA > 42,800) x 10% = RR at 10%	_____

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

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



Step One- Calculate Net Transaction Accounts

FR 2900

	Week 1	+	Week 2	=	Totals
Total Transaction Accounts (Line A3)	1,225,000	+	921,000	=	2,146,000
- Due From U.S. Banks (Line B1)	8,000	+	9,000	=	17,000
- <u>Cash Items In Process of Collection (Line B2)</u>	<u>300,000</u>	+	<u>350,000</u>	=	<u>650,000</u>

	<u>Total</u>
Total Transaction Accounts (Line A3)	2,146,000
- Due From U.S. Banks (Line B1)	17,000
- <u>Cash Items In Process of Collection (Line B2)</u>	<u>650,000</u>
= NTA	1,479,000

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	105,643
- Exemption	(5,500)
=Daily Average NTA > Exemption	<u>100,143</u>

Step Three- Apply Reserve Ratios

Daily Average NTA > 5,500 but \leq Tranche (42,800)	37,300	
(Daily Average NTA > 5,500 but \leq 42,800) x 3% = RR at 3%	37,300 x .03 =	1,119
Daily Average NTA > Tranche (42,800)	62,843	
(Daily Average NTA > 42,800) x 10% = RR at 10%	62,843 x .10 =	6,284

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

RR at 3% + RR at 10% = **Daily Average RR** **7,403**

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

- 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.



Report of Required Reserves

- 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.

District: 02

FEDERAL RESERVE BANK OF NEW YORK
REPORT OF REQUIRED RESERVES
(DAILY AVERAGES IN THOUSANDS)

XRPA016U
RUN DATE: 000804
RUN TIME: 190115

123456789 1234567898

CLASS BANK AND TRUST
1123 FEDERAL RESERVE STREET
NEW YORK NY 11111

XXXXXXXXXXXXXXXXXXXXXXXXXXXX
xx FINAL xx
XXXXXXXXXXXXXXXXXXXXXXXXXXXX

RESERVES REQUIRED FOR BI-WEEKLY MAINTENANCE PERIOD FROM 09-21-01 to 10-03-01

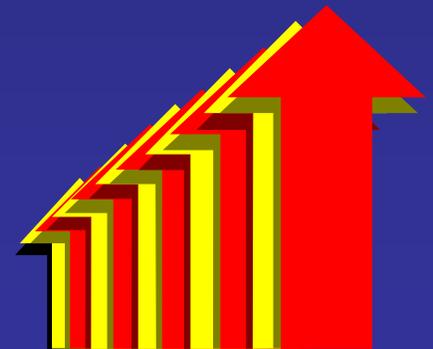
CATEGORY	DAILY AVG DEPOSITS (000)	PERCENT APPLIED	DAILY AVG REQUIRED (000)	
RESERVABLE LIABILITIES REPORTED FROM 08-21-01 TO 09-03-01				
NET TRANSACTION ACCOUNTS				
EXEMPT	5,500			
UP TO (\$ 39.300) MILLION	37,300	3.000	1,119	
OVER (\$ 39.300) MILLION	10,000	10.000	1,000	
RESERVE REQUIREMENT			2,119	
LESS TRANCHE LOSS ADJUSTMENT				800
LESS USABLE PORTION OF			319	
319 REPORTED VAULT CASH FROM 08-21-01 TO 09-03-01				
RESERVES TO BE MAINTAINED			1,000	
CLEARING BALANCE REQUIREMENT			50	
TOTAL BALANCE REQUIRED WITH FRB NEW YORK				1,050

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

	Bank A (nonsurvivor)	Bank B (survivor)	Bank AB (merged survivor)
Daily Average NTA	100,000	150,000	250,000
-Exempt	<u>-5,500</u>	<u>-5,500</u>	<u>-5,500</u>
=Daily Average NTA > 5,500	<u>94,500</u>	<u>144,500</u>	<u>244,500</u>
Daily Average NTA > 5,500 but ≤ 42,800 x .03 = RR at 3%	1,119	1,119	1,119
RR > 42,800 x .10 = RR at 10%	5,720	10,720	20,720
Daily Average RR	<u>6,839</u>	<u>11,839</u>	<u>\$21,839</u>
Merged RR (Bank AB)			21,839
Sum of Separate RR	6,839 + 11,839 =		(18,678)
Difference is the Tranche Loss Effect	21,839 - 18,678		3,161
Tranche Loss Adjustment = (Tranche Loss Effect) x (.875)	3,161 x .875 =		<u>2,766</u>

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



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



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 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.

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 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.

Policies and Procedures

- 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.

Policies & Procedures

- 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:

Eligible Clearing Balances x (100% -MRRP) x Days Carried x Average Federal funds rate/360 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. website can be found at the following address:

<http://www.newyorkfed.org/markets/statistics/dlyrates/fedrate.html>.

Earnings Credits

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:

ABC BANK

$$\begin{array}{cccccc} \text{EC Balance} & \times & (100\% - \text{MRRP}) & \times & \text{Days Carried} & \times \text{ Avg Fed Rate} & / & 360 \text{ Days} \\ \downarrow & & \downarrow & & \downarrow & & \downarrow & & \downarrow \\ & & \text{MRRP} = (10\% - \text{MRR}) & & & & & & \\ & & = (10\% - 10\%) & & & & & & \\ & & = 0\% & & & & & & \\ & & \downarrow & & & & & & \\ \text{\$ 20MM} & \times & (100\% - & \times & 14 & \times & 5.25\% & / & 360 = \text{\$40,833.33} \end{array}$$

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:

DEF BANK

EC Balance x (100% - MRRP) x Days Carried x Avg Fed Rate / 360 Days



$$\begin{aligned} \text{MRRP} &= (10\% - \text{MRR}) \\ &= (10\% - 3\%) \\ &= 7\% \end{aligned}$$



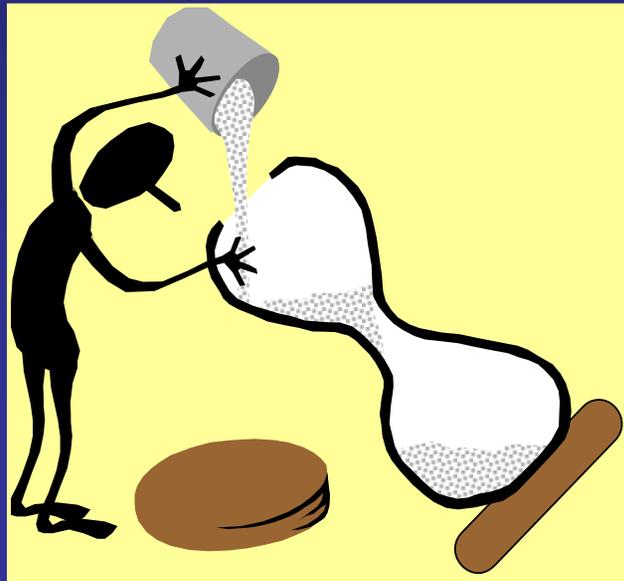
$$\text{\$ 20MM} \times (100\% - 7\%) \times 14 \times 5.25\% / 360 = \text{\$37,975.00}$$

Earnings Credits

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.

As-Of Adjustments

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.

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.

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)

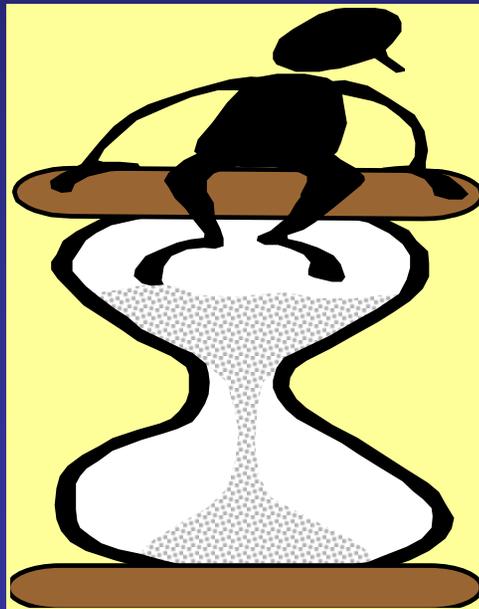
Application of As-Of Adjustments

- 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

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	30	1	2



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

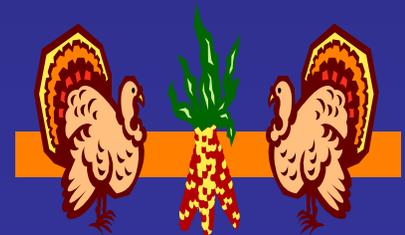
Facts:

- 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?

OCTOBER 2001

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3



NOVEMBER 2001

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	30	1	2



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 ?

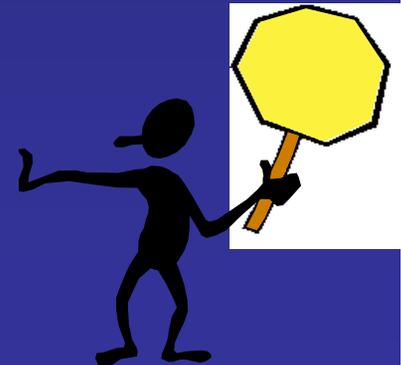
Scenario 3 - Weekly Reporter

When can credit as-of be applied?

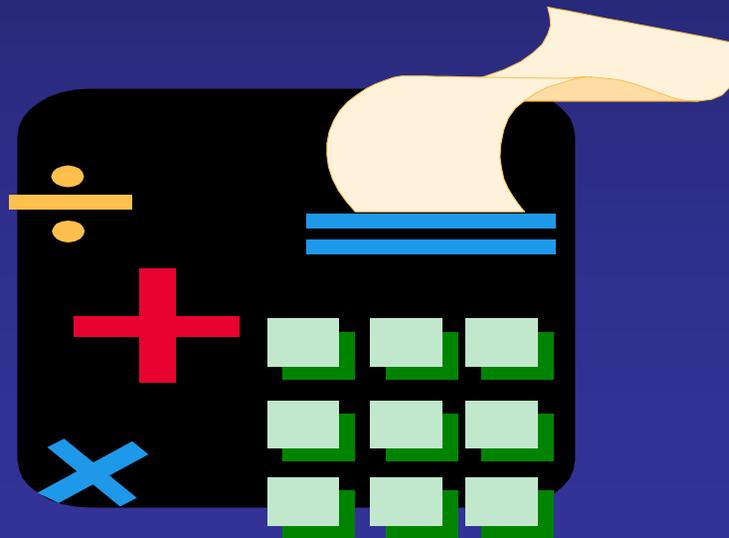
- Maintenance period in which error occurred
10/18 to 10/31/01 (1 day of as-of only)
- Current maintenance period 11/01 to
11/14/01.
- Next maintenance period 11/15 to 11/28/01.

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

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 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

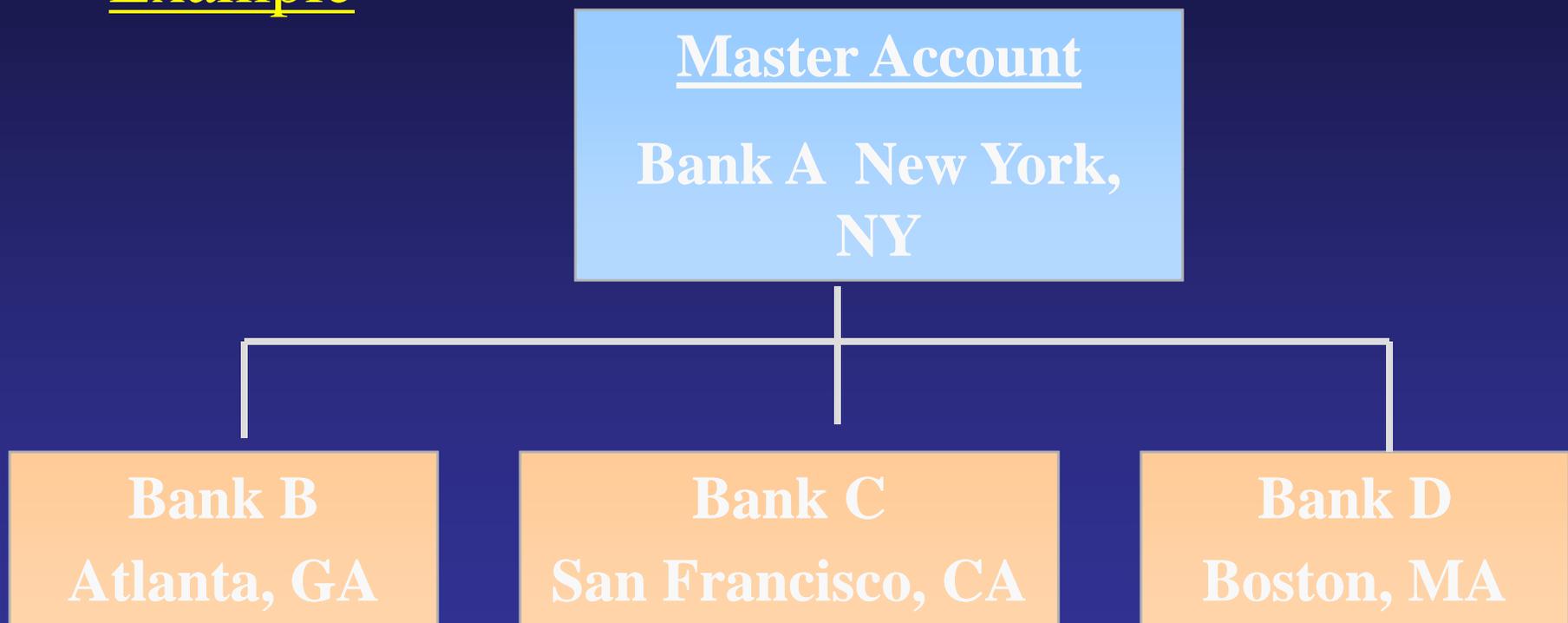
Account Structure

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



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 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

Satisfying Reserve/Clearing 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 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



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.



Position

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



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

- 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.

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
- 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)

Usable Vault Cash \$ 300

Plus: Account Balances 1,100

Credit As-of Adjustments 100

Total Maintained \$1,500

Mechanics of Position Calculation

Example

(3)

Total Maintained Balances \$1,500

Less: Total Required

Balances

1,431

Gross Position

69

Preliminary Position

(\$ in 000s)

	10/18/01	10/04/01	09/20/01
	10/31/01	10/17/01	10/03/01
Reserve Requirement	3,000	1,231	2,000
Clearing Balance Req.	200	200	200
Total Required	3,200	1,431	2,200
Usable Vault Cash	300	300	500
Account Balances Held For 13 days (10-30-01)	2,200	1,100	1,700
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

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)

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

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
	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

Aggregate reserve balance requirement

1400

Aggregate clearing balance requirement

700

**TOTAL AGGREGATE REQUIRED
BALANCES**

2100

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

1275

**Divided By:
Days Remaining in the Maintenance Period**

3

Daily Average Target Balance for the remainder of the Maintenance Period

425

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)

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

Final Position

(in thousands)

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

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)

Position Report

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



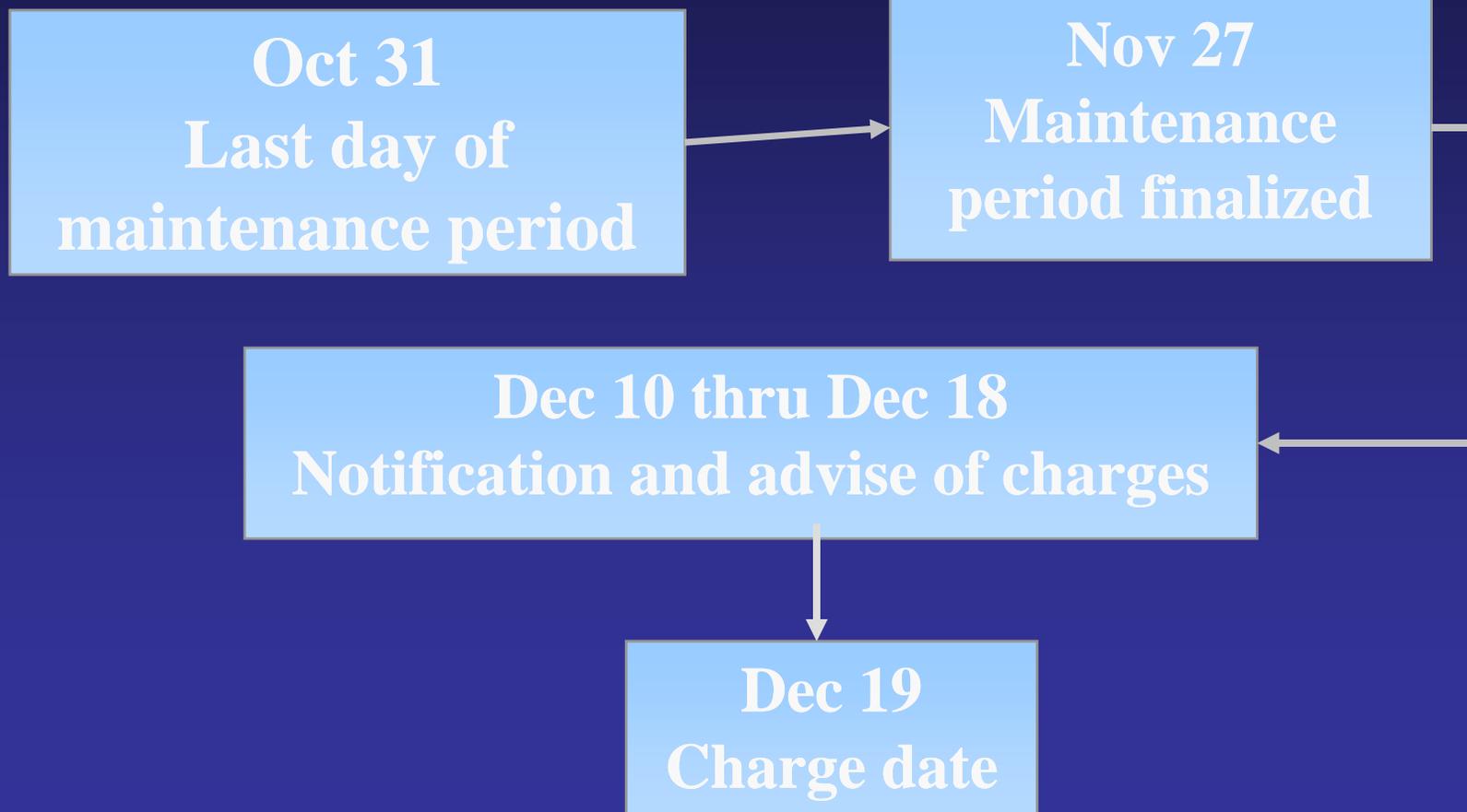
Overview

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



Reserve Deficiency

Example

(\$ in 000)

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

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)

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

Reserve Deficiency

Required Reserve Penalty

- $\text{Penalty} = (\text{Discount Rate} + 2\%) * (\# \text{ Days in Maintenance Period}) * (\text{Deficiency}) / (\# \text{ Days in Year})$

Example

$$(4.0\% * 14 * \$200,000) / 365 = \$ 307$$

Clearing Deficiency

Example

(\$ in 000)

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

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

Net Excess / (Deficiency)

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

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

$$\begin{array}{r} (1) 2\% * (\$2,500,000 * 20\%) * 14 / 365 = \$ 383 \\ (2) 4\% * (\$1,700,000 - (\$2,500,000 * \\ 20\%)) * 14 / 365 = \$ 1,841 \\ \hline \text{Total Penalty} \qquad \qquad \qquad \underline{\underline{\$ 2,224}} \end{array}$$

Comprehensive Reserve & Clearing Deficiencies

Example

(\$ in 000)

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

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)

$$4\% (\$4,500,000 + 500,000) - 25,000 = \$175,000$$
$$\$50,000 - 25,000 = \$ 25,000$$

Comprehensive Reserve & Clearing Deficiencies

Net Excess / (Deficiency)

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

$$(\$100,000 * 2\%) * 14 / 365 = \$ 77$$

$$(\$325,000 * 4\%) * 14 / 365 = \underline{499}$$

$$\text{Total Clearing Penalty} \quad \underline{\underline{\$ 576}}$$

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 * (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 $<$ 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.