TO: All Fedwire Book-Entry Securities Participants

SUBJECT: Expansion of Services for the National Book-Entry System - Repo Tracking
(Revised 08/14/01)

In our ongoing efforts to improve the service level of the securities transfer system and meet our customers’ needs, we plan to implement an operational enhancement referred to as Repo Tracking. Repo Tracking consists of two components: (1) Repo balance recordkeeping; (2) Claim Adjustment processing. We plan to make this service available for customer testing on October 15, 2001, and implement production on February 4, 2002.

Fedwire® system participants will be able to identify, for the purpose of Repo Tracking, securities transfer messages by using new identifiers. This will allow the Federal Reserve to record and maintain two balances (Repo Out and Repo In) for each participant. These balances will be maintained in terms of the Contra Account for all participants. On Record Date, a Claim Adjustment will occur based upon a participant’s Repo balances. A Claim Adjustment will result in a transfer of funds from the holder of a Repo In balance to the holder of a Repo Out balance.

The Federal Reserve is not changing its current principal and interest processing or making changes to the transfer component of the Computer Interface Protocol Specifications (“CIPS”). The enhancement described in this clearing memo is in addition to our existing services. This enhancement will be activated at a securities product level, e.g., FMPC, FNMS. Initially, this feature will be used for all mortgage-backed securities on the Fedwire securities transfer system. Prior to implementation, we will publish a list of the securities products eligible for this feature.

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A. PROCESS

When originating a securities transfer message, a Fedwire participant has the option to enter a field-tag in free text line 1 or 2 to indicate the Repo Tracking identifier. (See Attachment 1.) These field-tags affect Repo Out and Repo In balances. The use of these field-tags does not alter the way par and cash are transferred under the current securities transfer message type codes. The following are the optional repo tracking identifier field-tags, their associated type codes and cut-off-times:

<table>
<thead>
<tr>
<th>Field-Tag</th>
<th>Description</th>
<th>Type Codes</th>
<th>Cutoff Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>{22F:RPST}</td>
<td>Repo Start</td>
<td>2000 &amp; 2002</td>
<td>1515 &amp; 1530 ET</td>
</tr>
<tr>
<td>{22F:RPRV}</td>
<td>Repo Start Reversal</td>
<td>2000 &amp; 2002</td>
<td>1515 &amp; 1530 ET</td>
</tr>
<tr>
<td>{22F:CLRP}</td>
<td>Repo Close</td>
<td>2000 &amp; 2002</td>
<td>1515 &amp; 1530 ET</td>
</tr>
<tr>
<td>{22F:CLRV}</td>
<td>Repo Close Reversal</td>
<td>2000 &amp; 2002</td>
<td>1515 &amp; 1530 ET</td>
</tr>
<tr>
<td>{22F:ADRP}</td>
<td>Repo Balance Only Adjustment</td>
<td>2090</td>
<td>1900 ET</td>
</tr>
<tr>
<td>{22F:ADRV}</td>
<td>Repo Balance Only Adjustment Reversal</td>
<td>2090</td>
<td>1900 ET</td>
</tr>
</tbody>
</table>

Note:
1. The Repo Balance Only Adjustment/Reversal will be subject to the current par transfer limit (i.e. $50,000,000).
2. The Repo Balance Only Adjustment/Reversal will not be reflected on the Clearing Summary.

The following table indicates the change to a repo position by field tag:

**Repo – Balances**

**Increase / Decrease to position by field tag**

<table>
<thead>
<tr>
<th>Field-Tag</th>
<th>Description</th>
<th>Originator</th>
<th>Receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Repo In</td>
<td>Repo Out</td>
</tr>
<tr>
<td>{22F:RPST}</td>
<td>Repo Start</td>
<td>NA</td>
<td>Increase</td>
</tr>
<tr>
<td>{22F:RPRV}</td>
<td>Repo Start Reversal</td>
<td>Decrease</td>
<td>NA</td>
</tr>
<tr>
<td>{22F:CLRP}</td>
<td>Repo Close</td>
<td>Decrease</td>
<td>NA</td>
</tr>
<tr>
<td>{22F:CLRV}</td>
<td>Repo Close Reversal</td>
<td>NA</td>
<td>Increase</td>
</tr>
<tr>
<td>{22F:ADRP}</td>
<td>Repo Balance Only Adjustment</td>
<td>NA</td>
<td>Increase</td>
</tr>
<tr>
<td>{22F:ADRV}</td>
<td>Repo Balance Only Adjustment Reversal</td>
<td>Decrease</td>
<td>NA</td>
</tr>
</tbody>
</table>
If the field-tag is found in the message, the securities transfer system will perform the following edits:

<table>
<thead>
<tr>
<th>EDIT</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Invalid type code and Repo field-tag</td>
<td>Message will be rejected to originator</td>
</tr>
<tr>
<td>combination</td>
<td></td>
</tr>
<tr>
<td>2. More than one Repo field-tag</td>
<td>Message will be rejected to originator</td>
</tr>
<tr>
<td>3. Repo Balance Only Adjustment/Reversal</td>
<td>Message will be rejected to originator</td>
</tr>
<tr>
<td>with a payment amount greater than zero</td>
<td></td>
</tr>
<tr>
<td>4. The message originator of a Repo Close,</td>
<td>Message will be rejected to originator</td>
</tr>
<tr>
<td>Repo Start Reversal, or Repo Balance Only</td>
<td></td>
</tr>
<tr>
<td>Adjustment Reversal has an insufficient</td>
<td></td>
</tr>
<tr>
<td>Repo In Balance</td>
<td></td>
</tr>
</tbody>
</table>

New error codes will be provided in a subsequent clearing memo.

B. BILATERAL AND UNILATERAL ADJUSTMENTS

Fedwire participants have the ability to notify the Federal Reserve to change the Claim Adjustment, after proper authorization, prior to the release of the adjustments at 2:00 pm ET. Additional information on the procedures will be provided in a subsequent clearing memo.

C. CLAIM ADJUSTMENTS

Claim Adjustments due to Repo Tracking balances will be netted by securities account. The net debits and credits will be functioned using the Federal Reserve’s enhanced Net Settlement Service (“NSS”) and posted to the customer’s account on the NSS line in the Account Balance Monitoring System (“ABMS”). Claim Adjustments occur at approximately 2:00 pm ET on the next payment date.

D. REPORTS

To help customers reconcile their Repo Out and Repo In balances, and upcoming Claim Adjustments the Federal Reserve will send two reports:

1. “BE Repo Balance Statement” - This report will be transmitted to customers, each evening, in the same medium they currently receive their Holdings Statements. (See Attachment 2.)
2. “BE Adjustment Notification--Repo” - This report will be sent the evening prior to the date of the adjustment indicating the net adjustment amount and supporting details. This report will be transmitted to customers in the same medium they currently receive their Immediate Principal and Interest Notifications. (See Attachment 3.)

The CIPS for these reports are being published and made available to affected parties separately.

E. PRICING/FEES

The Federal Reserve will assess a surcharge for each message that includes a Repo Tracking identifier. Additional information will be provided in a subsequent clearing memo.

F. EXAMPLES OF REPO TRACKING

See Attachment 4 for examples of Repo Tracking scenarios. Also included is a decision tree that the Federal Reserve will use to determine if a securities transaction results in a Claim Adjustment. (See Attachment 5)

Questions regarding this announcement should be directed to the Federal Reserve Bank of New York at (201) 531-3341.

Glossary and Attachments (5)
**Beneficiary Date** – The date on which the accrual period ends. On the Fedwire system, the beneficiary date is reflected as the start of business on the day following the end of the accrual period.

**Claim Adjustment** – A transfer of funds from one Fedwire participant to another Fedwire participant.

**Contra** – The offsetting ABA and securities account on a securities transfer message with a Repo tracking indicator.

**Contract Date** – The date specified by the participant as the initially agreed upon contractual settlement date.

**Record Date** – The date in which the holder of record is identified for payment of Principal & Interest. On the Fedwire system, the record date is reflected as the start of business on the day following.

**Repo In Balance** – The record created for each participant that reflects the accumulation of Repo activity which will result in a debit Claim Adjustment.

**Repo Out Balance** – The record created for each participant that reflects the accumulation of Repo activity which will result in a credit Claim Adjustment.

**Settlement Date** – The date upon which the securities transaction is processed by the Fedwire system. (Clearance Date.)
# Fedwire securities transfer message
(with Repo Tracking indicator field -)

## BA Incoming Message

<table>
<thead>
<tr>
<th>Receiver Type Reference Input Key</th>
<th>Sender Reference Number</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>0210000021 2000</td>
<td>021000018 5680</td>
<td>$4,957,357.75</td>
</tr>
</tbody>
</table>

**BK OF NYC / DEAN WITTER / sender info ................................**

**CHASE NYC /PAINE / receiver info ...................................**

Free Text........ Free Text ..........Free Text........ Free Text ....... Free Text.....

{22F:RPST} Free Text ........Free Text .......... Free Text........ Free Text........ Free Text...

<table>
<thead>
<tr>
<th>CUSIP Description Par</th>
<th>IMAD</th>
<th>URC</th>
<th>OMAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>912810DX3 7 1/2 BOND 16 $5,000,000.00 DEAL 15:04</td>
<td>0622 B1Q1339K 5310 06221503</td>
<td>0622 B1Q0216K 06221504 BA1B</td>
<td></td>
</tr>
</tbody>
</table>
### Example of a Repo Balance Statement

**Msg-ID** 0210000018  
**Type** BE  
**Page 1**  
**Date:** 12/16/01  
**Time:** 11:26:23  
**BE Repo Balance Statement**

**Bank of New York**  
**Account:** 1010 Dealer

**Attention Securities Transfer Staff**

**SCTY:** 9128275W8  
**TRIN A:** 10  
**Last Act:** 12/16/2001

<table>
<thead>
<tr>
<th>IMAD</th>
<th>RP Code</th>
<th>PAR AMT</th>
<th>IN/OUT</th>
<th>INC/DEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1216</td>
<td>B1QT011D</td>
<td>000017</td>
<td>RPST</td>
<td>$25,000,000.00</td>
</tr>
<tr>
<td>1216</td>
<td>B6TV032D</td>
<td>000001</td>
<td>CLRPR</td>
<td>$45,000,000.00</td>
</tr>
<tr>
<td>1216</td>
<td>B1QT311D</td>
<td>000005</td>
<td>ADRV</td>
<td>$5,000,000.00</td>
</tr>
</tbody>
</table>

**Other DI:** 021000021 Chase NYC  
**Account:** 1020 General

<table>
<thead>
<tr>
<th>Repo Closing Balance</th>
<th>Increase</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT: $5,000,000,000.00</td>
<td>$25,000,000.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>IN: $100,000,000.00</td>
<td>$45,000,000.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

**Other DI:** 021000021 Chase NYC  
**Account:** 1050 Trust

<table>
<thead>
<tr>
<th>Repo Closing Balance</th>
<th>Increase</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT: $10,000,000.00</td>
<td>$0.00</td>
<td>$5,000,000.00</td>
</tr>
<tr>
<td>IN: $100,000,000.00</td>
<td>$0.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>

**SCTY Tot Repo Closing Balance**

<table>
<thead>
<tr>
<th>Repo Closing Balance</th>
<th>Increase</th>
<th>Decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT: $5,010,000,000.00</td>
<td>$25,000,000.00</td>
<td>$5,000,000.00</td>
</tr>
<tr>
<td>IN: $200,000,000.00</td>
<td>$45,000,000.00</td>
<td>$0.00</td>
</tr>
</tbody>
</table>
Example of a Claims Adjustment Notification

**Attachment 3**

**MSG-ID** | **LN-TYPE**
---|---
BA2072 | 0 PAGE 1 11/20/00 19:07:45 BE ADJUSTMENT NOTIFICATION—REPO

1 Z CITIBANK, N.A.
   Z 111 WALL STREET
   Z NEW YORK, NY 10043
   Z
2 DI: 0210-0008-9   ACCT: 1010 DEALER
   Z
3 ADJUSTMENT DT: MM/DD/CCYY   ADJ AMT: $90,911,000.00 DR
   Z
Z DETAILS
4 REPO IN: 021000089 / GENERAL   REPO OUT: 021000018 / DEALER
   Z CUSIP NUM  CUSIP DESCRIPTION  BENEFICIARY DT  RECORD DT
5 3133MBAP2 7.01 FHLB 01-02 I1  MM/DD/CCYY  MM/DD/CCYY
6 PAR AMT: $3,820,000.00   ADJ AMT: $137,711,000.00 DR
   Z
7 INT: 35.05000000  $133,891,000.00
   7 PPD: 1.000000000 $3,820,000.00
   7 BV: 1.000000000  3,820,000.00
   Z
   Z
9 **TOTALS: DR COUNT: 1 AMT: $137,711,000.00
Z
Z DETAILS
4 REPO IN: 021000018 / INVESTMENT   REPO OUT: 021000089 / GENERAL
   Z CUSIP NUM  CUSIP DESCRIPTION  BENEFICIARY DT  RECORD DT
5 3133MBBC0 7.20 FHLB 02-03 JU  MM/DD/CCYY  MM/DD/CCYY
6 PAR AMT: $1,300,000.00   ADJ AMT: $46,800,000.00 CR
   Z
7 INT: 36.00000000  $46,800,000.00
   7 BV: 1.000000000  1,300,000.00
   Z
   Z
9 **TOTALS: CR COUNT: 1 AMT: 46,800,000.00
## Example 1
(Fedwire business date is 1/24)

### Repo Balance Prior to Transactions:

**Bank X / Dealer:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Bank Y / Trust:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Bank Z / Inv:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
EXAMPLE 1 (Continued)

**Transaction 1:**

<table>
<thead>
<tr>
<th></th>
<th>Bank X / Any Dealer</th>
<th></th>
<th>Bank Y / Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sender</strong></td>
<td>Bank X / Any Dealer</td>
<td><strong>Receiver</strong></td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td><strong>Settlement Date</strong></td>
<td>1/24</td>
<td><strong>Settlement Date</strong></td>
<td>1/24</td>
</tr>
<tr>
<td><strong>PAR</strong></td>
<td>10,000</td>
<td><strong>Par</strong></td>
<td>20,000</td>
</tr>
<tr>
<td><strong>CUSIP</strong></td>
<td>CUSIP A</td>
<td><strong>CUSIP</strong></td>
<td>CUSIP B</td>
</tr>
<tr>
<td><strong>Repo Tracking Indicator</strong></td>
<td>RPST</td>
<td><strong>Repo Tracking Indicator</strong></td>
<td>RPST</td>
</tr>
</tbody>
</table>

**Repo Balance After Transactions:**

**Bank X / Dealer:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP A</td>
<td>0</td>
<td>10,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

**Bank Y / Trust**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP A</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10,000</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>

**Bank Z / Inv**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>
EXAMPLE 2 - Builds upon results in example 1
(Fedwire business date is 1/24)

Repo Balance Prior to Transaction:

<table>
<thead>
<tr>
<th>Bank X / Dealer:</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP A</td>
<td>0</td>
<td>10,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank Y / Trust</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP A</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10,000</td>
<td>0</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank Z / Inv</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>
### EXAMPLE 2 (Continued)

**Transaction 1:**

<table>
<thead>
<tr>
<th>Sender</th>
<th>Bank Y / Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver</td>
<td>Bank X / Any Dealer</td>
</tr>
<tr>
<td>Settlement Date</td>
<td>1/24</td>
</tr>
<tr>
<td>Par</td>
<td>10,000</td>
</tr>
<tr>
<td>CUSIP</td>
<td>CUSIP A</td>
</tr>
<tr>
<td>Repo Tracking Indicator</td>
<td>RPRV</td>
</tr>
</tbody>
</table>

**Transaction 2:**

<table>
<thead>
<tr>
<th>Sender</th>
<th>Bank Z / Inv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiver</td>
<td>Bank X / Any Dealer</td>
</tr>
<tr>
<td>Settlement Date</td>
<td>1/24</td>
</tr>
<tr>
<td>Par</td>
<td>40,000</td>
</tr>
<tr>
<td>CUSIP</td>
<td>CUSIP B</td>
</tr>
<tr>
<td>Repo Tracking Indicator</td>
<td>RPST</td>
</tr>
</tbody>
</table>

### Repo Balance After Transaction:

**Bank X / Dealer:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP A</td>
<td>0</td>
<td>10,000</td>
<td>10,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>40,000</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

**Bank Y / Trust**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP A</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>10,000</td>
<td>10,000</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>

**Bank Z / Inv**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>
**EXAMPLE 3 - Builds upon results in example 2**
*(Fedwire business date is 1/25)*

**Repo Balance Prior to Transactions:**

**Bank X / Dealer:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

**Bank Y / Trust**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

**Bank Z / Inv**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>
EXAMPLE 3 (Continued)

**Transaction 1:**

<table>
<thead>
<tr>
<th>Sender</th>
<th>Bank Z / Inv</th>
<th>Receiver</th>
<th>Bank X / Any Dealer</th>
<th>Settlement Date</th>
<th>PAR</th>
<th>CUSIP</th>
<th>Repo Tracking Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>CLRP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sender</th>
<th>Bank Y / Trust</th>
<th>Receiver</th>
<th>Bank Z / Inv</th>
<th>Settlement Date</th>
<th>Par</th>
<th>CUSIP</th>
<th>Repo Tracking Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>ADRP</td>
</tr>
</tbody>
</table>

**Repo Balance After Transactions:**

**Bank X / Dealer:**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>20,000</td>
<td>0</td>
<td>5,000</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

**Bank Y / Trust**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>30,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

**Bank Z / Inv**

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>30,000</td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td>CUSIP B</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>5,000</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>
**EXAMPLE 4 - Builds upon results in example 3**  
*(Fedwire business date is 1/26)*

**Repo Balance Prior to Transactions:**

<table>
<thead>
<tr>
<th>Bank X / Dealer:</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>15,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank Y / Trust</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>30,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bank Z / Inv</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>30,000</td>
<td>0</td>
<td>0</td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td>CUSIP B</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15,000</td>
<td>0</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>
EXAMPLE 4 (Continued)

Transaction 1:

<table>
<thead>
<tr>
<th>Sender</th>
<th>Bank X / Any Dealer</th>
<th>Receiver</th>
<th>Bank Z / Inv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement Date</td>
<td>1/26</td>
<td>PAR</td>
<td>5,000</td>
</tr>
<tr>
<td>CUSIP</td>
<td>CUSIP B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repo Tracking Indicator</td>
<td>CLRV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Transaction 2:

<table>
<thead>
<tr>
<th>Sender</th>
<th>Bank Z / Inv</th>
<th>Receiver</th>
<th>Bank Y / Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settlement Date</td>
<td>1/26</td>
<td>Par</td>
<td>15,000</td>
</tr>
<tr>
<td>CUSIP</td>
<td>CUSIP B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repo Tracking Indicator</td>
<td>ADRV</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Repo Balance After Transactions:

Bank X / Dealer:

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>15,000</td>
<td>5,000</td>
<td>0</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

Bank Y / Trust:

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>30,000</td>
<td>0</td>
<td>15,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

Bank Z / Inv:

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>30,000</td>
<td>0</td>
<td>15,000</td>
<td>Bank Y / Trust</td>
</tr>
</tbody>
</table>

| CUSIP B | 40,000                   | 0                 | 0                | 15,000                  | 5,000            | 0                | Bank X / Dealer|
EXAMPLE 5 - Builds upon results in example 4
(Fedwire business date is 1/31)

Repo Balance as of Close of Business 1/31, which is the Record Date for CUSIP B:

<table>
<thead>
<tr>
<th>Bank X / Dealer:</th>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

Bank Y / Trust

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>15,000</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Bank Z / Inv</td>
</tr>
</tbody>
</table>

Bank Z / Inv

<table>
<thead>
<tr>
<th>CUSIP</th>
<th>Opening Repo Out Balance</th>
<th>Repo Out Increase</th>
<th>Repo Out Decrease</th>
<th>Opening Repo In Balance</th>
<th>Repo In Increase</th>
<th>Repo In Decrease</th>
<th>Contra</th>
</tr>
</thead>
<tbody>
<tr>
<td>CUSIP B</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>15,000</td>
<td>0</td>
<td>0</td>
<td>Bank Y / Trust</td>
</tr>
<tr>
<td>CUSIP B</td>
<td>40,000</td>
<td>0</td>
<td>0</td>
<td>20,000</td>
<td>0</td>
<td>0</td>
<td>Bank X / Dealer</td>
</tr>
</tbody>
</table>

RESULT: Claim Adjustments will be made, to be included in the net Repo Claim Adjustment for Payment Date 2/15:

Bank X / Dealer - Adjustment amounts will be calculated based on the Repo Out balance and Repo In balance. The two amounts will be netted to a single debit Repo Claim Adjustment.

Bank Y / Trust - Adjustment amount will be calculated based on the Repo Out balance, resulting in a credit Repo Claim Adjustment.

Bank Z / Inv - Adjustment amounts will be calculated based on the Repo Out balance and its two Repo In balances. The three amounts will be netted to a single credit Repo Claim Adjustment.
Fed Transaction Processing Flow for Repo Tracking, Fail Tracking and Interim Accounting

Product subject to Repo?

YES

Repo transaction?

YES

Post Repo balance

End

NO

NO

Product subject to fail?

YES

Fail transaction?

YES

Require adjustment?

YES

Create fail adjustment

NO

Product subject to Interim Acctg?

YES

CUSIP subject to Interim Acctg?

YES

Require adjustment?

YES

Create Interim Acctg adjustment

NO

NO

NO

End

NO

NO

NO

(NO

(Contract Date < Settlement Date)

(Tag: RPST, CLRV, RPRV, ADRP, CLRP, ADRV)

(Contract Date < Beneficiary Date(s) and Beneficiary Date(s) < = Settlement Date)

(Beneficiary Date not = Record Date)

(Record Date < = Settlement Date and Settlement Date < Beneficiary Date)