Annex - IV
(Cf. Para 8.6)

Illustrative Examples for Uniform Accounting of Repo / Reverse Repo Transactions
A. Repo / Reverse Repo of Coupon bearing Security

1. Details of Repo in a coupon bearing Security

| Security offered under Repo | $11.43 \% 2015$ |  |
| :--- | :--- | :--- |
| Coupon payment dates | 7 August and 7 February |  |
| Market Price of the security offered <br> under Repo <br> (i.e. price of the security in the first leg) | Rs.113.00 | $\mathbf{( 1 )}$ |
| Date of the Repo | 19 January, 2003 |  |
| Repo Interest Rate | $7.75 \%$ |  |
| Tenor of the Repo | 3 days | $\mathbf{( 2 )}$ |
| Broken period interest for the first leg | $11.43 \% \times 162 / 360 \times 100=5.1435$ | $\mathbf{( 3 )}$ |
| Cash consideration for the first leg | $(1)+(2)=118.1435$ | $\mathbf{( 4 )}$ |
| Repo interest** | $118.1435 \times 3 / 365 \times 7.75 \%=0.0753$ | $\mathbf{( 5 )}$ |
| Broken period interest for the second <br> leg | $11.43 \% \times 165 / 360 \times 100=5.2388$ <br> Price for the second leg <br> Cash consideration for the second leg | $(3)+(4)-(5)=118.1435+0.0753-5.2388$ <br> $=112.98$ <br> $(5)+(6)=112.98+5.2388=118.2188$ <br> $*$ Computation of days based on $30 / 360$ day count convention |
| $* *$ Computation of days based on Actual $/ 365$ day count convention applicable to money market <br> instruments | $\mathbf{( 6 )}$ |  |

## 2. Accounting for the Seller of the Security

We assume that the security was held by the seller at the book value (BV) of Rs.120.0000
First Leg Accounting

|  | Debit | Credit |
| :---: | :---: | :---: |
| Cash <br> Repo Account | 118.1435 | $\begin{gathered} 120.0000 \\ \text { (Book } \\ \text { Value) } \end{gathered}$ |
| Repo Price Adjustment Account | 7.0000 (Difference between BV \& Repe Price) |  |
| Repo Interest Adjustment Account |  | 5.1435 |

## Second Leg Accounting

|  | Debit | Credit |
| :--- | :---: | :---: |
| Repo Account <br> Repo Price Adjustment account | 120.0000 | 7.02 <br> (the difference <br> between the <br> BV and 2nd leg <br> price) |
| Repo Interest Adjustment Account <br> Cash Account | 5.2388 | 118.2188 |

The balances in respect of the Repo Price Adjustment Account and Repo Interest Adjustment Account at the end of the second leg of repo transaction are transferred to Repo Interest Expenditure Account. In order to analyse the balances in these accounts, the ledger entries are shown below :

Repo Price Adjustment Account

| Debit |  | Credit |  |
| :--- | :---: | :--- | :---: |
| Difference in price for the 1st leg | 7.00 | Difference in price for the 2nd |  |
| Balance carried forward to Repo <br> Interest Expenditure Account | 0.02 | leg | 7.02 |
| Total | $\mathbf{7 . 0 2}$ | Total | $\mathbf{7 . 0 2}$ |

## Repo Interest Adjustment Account

| Debit |  | Credit |  |
| :--- | :---: | :--- | :---: |
| Broken period interest for the <br> 2nd leg | 5.2388 | Broken period interest for the <br> 1st leg | 5.1435 |
|  | Balance carried forward to <br> Repo Interest Expenditure <br> account | 0.0953 |  |
| Total | 5.2388 | Total | 5.2388 |

Repo Interest Expenditure Account

| Debit |  | Credit |  |
| :---: | :---: | :--- | :---: |
| Balance from Repo Interest <br> Adjustment account | 0.0953 | Balance from Repo Price <br> Adjustment account | 0.0200 |
|  |  | Balance carried forward to P \& L <br> a/c. | 0.0753 |
| Total | $\mathbf{0 . 0 9 5 3}$ | Total | $\mathbf{0 . 0 9 5 3}$ |

3. Accounting for Buyer of the Security

When the security is bought, it will bring its book value with it. Hence market value is the book value of the security.

First Leg Accounting

|  | Debit | Credit |
| :--- | :---: | :---: |
| Reverse Repo Account | 113.0000 |  |
| Reverse Repo Interest Adjustment Account | 5.1435 |  |
| Cash Account |  | 118.1435 |

## Second Leg Accounting

|  |  |  | Debit | Credit |
| :---: | :---: | :---: | :---: | :---: |
| Cash Account |  |  | 118.2188 |  |
| Reverse Repo Price Adjustment Account (Difference between the 1st and 2nd leg prices) |  |  | 0.0200 |  |
| Reverse Repo Account |  |  |  | 113.0000 |
| Reverse Repo Interest Adjustment Account |  |  |  | 5.2388 |
| Debit |  |  |  |  |
| Difference between the 1st \& 2nd leg prices | 0.0200 | Balance from Reverse Repo Interest Adjustment Account |  | 0.0953 |
| Balance carried forward to $P$ \& L Account | 0.0753 |  |  |  |
| Total | 0.0953 |  | Total | 0.0953 |

The balances in respect of the Reverse Repo Interest Adjustment Account and Reverse Repo Price adjustment account at the end of the second leg of reverse repo in these accounts are transferred to Repo Interest Income Account. In order to analyse the balances in these two accounts, the ledger entries are shown below :

## Reverse Repo Interest Adjustment Account

| Debit |  | Credit |  |
| :--- | :---: | :---: | :---: |
| Broken period interest for the <br> 1st leg | 5.1435 | Broken period interest for the <br> 2nd leg | 5.2388 |
| Balance carried forward to <br> Repo Interest Income Account | 0.0953 |  |  |
| Total | 5.2388 | Total | 5.2388 |

## Reverse Repo Interest Income Account

| Debit |  | Credit |  |
| :---: | :---: | :---: | :---: |
| Difference between the $1^{\text {st }} \& 2^{\text {nd }} \mathrm{leg}$ prices | 0.0200 | Balance from Reverse Repo Interest Adjustment Account | 0.0953 |
| Balance carried forward to P\& L Account | 0.0753 |  |  |
| Total | 0.0953 |  | 0.0953 |

4. Additional Accounting entries to be passed on a Repo / Reverse Repo Transaction on a coupon bearing Security, when the Accounting period is ending on an intervening day.

| Transaction Leg $\rightarrow$ | 1st leg | End of <br> Accounting <br> period | 2nd leg |
| :--- | :--- | :--- | :--- |
| Dates $\rightarrow$ | 19 Jan 03 | 21 Jan 03* | 22 Jan 03 |

The difference in the clean price of the security between the first leg and the second leg should be apportioned upto the Balance Sheet date and should be shown as Repo Interest Income / Expenditure in the books of the seller / buyer respectively and should be debited / credited as an income / expenditure accrued but not due. The balances under Income / expenditure accrued but not due should be taken to the balance sheet.

The coupon accrued by the buyer should also be credited to the Repo Interest Income account. No entries need to be passed on "Repo / Reverse Repo price adjustment account and Repo / Reverse repo interest adjustment account". The illustrative accounting entries are shown below :
a) Entries in Seller's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :--- | :--- |
| Repo Interest Income <br> Account [Balances under <br> the account to be <br> transferred to P \& L] |  | 0.0133 (Notional credit balance 0.0133 <br> in the Repo Price Adjustment Account <br> by way of apportionment of price <br> difference for two days i.e. upto the <br> balance sheet day) |
| Repo interest Income <br> accrued but not due | 0.0133 |  |
| *21 January, 2003 is assumed to be the balance sheet date |  |  |

b) Entries in Seller's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :--- | :--- |
| Repo Interest Income | 0.0133 |  |
| P \& L a/c |  | 0.0133 |

c) Entries in Buyer's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :--- | :--- |
| Repo interest income accrued <br> but not due | 0.0502 |  |
| Repo Interest Income account <br> [Balances under the account <br> to be transferred to P \& L] |  | 0.0502 (Interest accrued for 3 <br> days of Rs.0.0635* - <br> Apportionment of the <br> difference in the clean price of <br> Rs.0.0133) |
| * For the sake of smplicity the |  |  |

d) Entries in Buyer's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :--- | :--- |
| Repo interest income <br> account | 0.0502 |  |
| P\&L a/c |  | 0.0502 |

The difference between the repo interest accrued by the seller and the buyer is on account of the accrued interest forgone by the seller on the security offered for repo.
B. Repo / Reverse Repo of Treasury Bill

## 1. Details of Repo on a Treasury Bill

| Security offered under Repo | GOI 91 day Treasury Bill maturing on <br> 28 February, 2003 |  |
| :--- | :--- | :--- |
| Price of the Security offered under <br> Repo | Rs.96.0000 | (1) |
| Date of the Repo | 19 January, 2003 |  |
| Repo interest rate | $7.75 \%$ |  |
| Tenor of the repo | 3 days | (2) |
| Total Cash consideration for the first <br> leg | 96.0000 | (3) |
| Repo Interest | 0.0612 |  |
| Price for the second leg | $(2)+(3)=96.0000+0.0612=96.0612$ |  |
| Cash consideration for the 2nd leg | 96.0612 |  |

2. Accounting for Seller of the Security

We assume that the security was held by the seller at the book value (BV) of Rs.95.0000

## First Leg Accounting

|  | Debit | Credit |
| :--- | :--- | :--- |
| Cash |  | 96.0000 |
| Repo Account |  | 95.0000 (Book Value) |
| Reverse Repo Adjustment account |  | 1.0000 (Difference between <br> BV \& repo Price) |

## Second Leg Accounting

| Repo Account | 95.0000 |  |
| :--- | :--- | :--- |
| Repo Price Adjustment account | 1.0612 (the difference between <br> the BV and 2nd leg price) |  |
| Cash account |  | 96.0612 |

The balances in respect of the Repo Price Adjustment Account at the end of the second leg of repo transaction are transferred to Repo Interest Expenditure Account. In order to analyse the balances in this account, the ledger entries are shown :

## Repo Price Adjustment Account

| Debit |  | Credit |  |
| :--- | :--- | :--- | :--- |
| Difference in price for <br> the 2nd leg | 1.0612 | Difference in price for the <br> 1st leg | 1.0000 |
|  | Balance carried forward <br> to Repo Interest <br> Expenditure account | 0.0612 |  |
| Total | $\mathbf{1 . 0 6 1 2}$ | $\mathbf{T o t a l}$ | $\mathbf{1 . 0 6 1 2}$ |

## Repo Interest Expenditure Account

| Debit |  | Credit |  |
| :---: | :---: | :--- | :---: |
| Balance from Repo Price Adjustment <br> account | 0.0612 | Balance carried forward to P \& L a/c. | 0.0612 |
| Total | $\mathbf{0 . 0 6 1 2}$ | Total | $\mathbf{0 . 0 6 1 2}$ |

The Seller will continue to accrue the discount at the original discount rate during the period of the repo.

## 3. Accounting for Buyer of the Security

When the security is bought, it will bring its book value with it. Hence market value is the book value of the security

## First Leg Accounting

|  | Debit | Credit |
| :--- | :--- | :--- |
| Reverse Repo Account | 96.0000 |  |
| Cash account |  | 96.0000 |

## Second Leg Accounting

|  | Debit | Credit |
| :--- | :--- | :--- |
| Cash account | 96.0612 |  |
| Repo Interest Income Account <br> (Difference between the 1st and <br> 2nd leg prices) |  | 0.0612 |
| Reverse Repo Account |  | 96.0000 |

The Buyer will not accrue for the discount during the period of the repo.
4. Additional Accounting entries to be passed on a Repo / Reverse Repo Transaction on a Treasury Bill, when the Accounting period is ending on an intervening day.

| Transaction Leg - | 1st leg | B/S date | 2nd leg |
| :--- | :--- | :--- | :--- |
| Date - | 19 Jan 03 | 21 Jan 03* | 22 Jan 03 |
| *21 January, 2003 is assumed to be the balance sheet date |  |  |  |

a. Entries in Seller's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :---: | :---: |
| Repo Interest Expenditure account (after apportionment of <br> repo interest for two days) [Balances under the account to <br> be transferred to P \& L] | 0.0408 |  |
| Repo interest expenditure accrued but not due |  | 0.0408 |

b. Entries in Seller's Books on January 21,2003

| Account Head | Debit | Credit |
| :--- | :---: | :---: |
| Repo interest expenditure account | 0.0408 |  |
| P \& L a/c |  | 0.0408 |

c. Entries in Buyer's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :---: | :---: |
| Repo interest income accrued but not due | 0.0408 |  |
| Repo Interest Income account [Balances under <br> the account to be transferred to P \& L] |  | 0.0408 |

d. Entries in Buyer's Books on January 21, 2003

| Account Head | Debit | Credit |
| :--- | :--- | :--- |
| Repo Interest Income Account | 0.0408 |  |
| P \& L a/c |  | 0.0408 |

