

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 under Repo (i.e. price of the security in the first leg)	Rs.113.00	(1)
Date of the Repo	19 January, 2003	
Repo interest rate	7.75%	
Tenor of the repo	3 days	
Broken period interest for the first leg*	$11.43\% \times 162/360 \times 100 = 5.1435$	(2)
Cash consideration for the first leg	$(1) + (2) = 118.1435$	(3)
Repo interest**	$118.1435 \times 3/365 \times 7.75\% = 0.0753$	(4)
Broken period interest for the second leg	$11.43\% \times 165/360 \times 100 = 5.2388$	(5)
Price for the second leg	$(3) + (4) - (5) = 118.1435 + 0.0753 - 5.2388 = 112.98$	(6)
Cash consideration for the second leg	$(5) + (6) = 112.98 + 5.2388 = 118.2188$	(7)

* Computation of days based on 30/360 day count convention

** Computation of days based on Actual/365 day count convention applicable to money market instruments

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	118.1435	120.0000
Repo Account		(Book value)
Repo Price Adjustment account	7.0000 (Difference between BV & repo price)	
Repo Interest Adjustment account		5.1435

Second Leg Accounting

	Debit	Credit
Repo Account Repo Price Adjustment account	120.0000	7.02 (the difference between the BV and 2nd leg price)
Repo Interest Adjustment account 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 2 nd leg	7.02
Balance carried forward to Repo Interest Expenditure account	0.02		
Total	7.02	Total	7.02

Repo Interest Adjustment account

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

Repo Interest Expenditure Account

Debit		Credit	
Balance from Repo Interest Adjustment account	0.0953	Balance from Repo Price Adjustment account	0.0200
		Balance carried forward to P & L a/c.	0.0753
Total	0.0953	Total	0.0953

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 1 st and 2 nd leg prices)	0.0200	
Reverse Repo account		113.0000
Reverse Repo Interest Adjustment account		5.2388

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 Price Adjustment Account

Debit		Credit	
Difference in price of 1 st & 2 nd leg	0.0200	Balance to Repo Interest Income a/c.	0.0200
Total	0.0200	Total	0.0200

Reverse Repo Interest Adjustment Account

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

Reverse Repo Interest Income Account

Debit		Credit	
Difference between the 1 st & 2 nd 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

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 →	1st leg	<u>End of accounting period</u>	2nd leg
Dates →	19 Jan 03	<u>21 Jan 03*</u>	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 account [Balances under the account to be transferred to P & L]		0.0133 (Notional credit balance 0.0133 in the Repo Price Adjustment Account by way of apportionment of price difference for two days i.e. upto the balance sheet day)
Repo interest Income 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 but not due	0.0502	
Repo Interest Income account [Balances under the account to be transferred to P & L]		0.0502 (Interest accrued for 3 days of Rs. 0.0635* - Apportionment of the difference in the clean price of Rs. 0.0133)

*For the sake of simplicity the interest accrual has been considered for 2 days.

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

Account Head	Debit	Credit
Repo interest income 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 28 February, 2003	
Price of the security offered under Repo	Rs.96.0000	(1)
Date of the Repo	19 January, 2003	
Repo interest rate	7.75%	
Tenor of the repo	3 days	
Total cash consideration for the first leg	96.0000	(2)
Repo interest	0.0612	(3)
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	95.0000
Repo Account		(Book value)
Repo Price adjustment account		1.0000
		(Difference between BV & repo price)

Second Leg Accounting

Repo Account	95.0000	
Repo Price adjustment account	1.0612	
	(the difference between the BV and 2 nd 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 the 2nd leg	1.0612	Difference in price for the 1st leg	1.0000
		Balance carried forward to Repo Interest Expenditure account	0.0612
Total	1.0612	Total	1.0612

Repo Interest Expenditure Account

Debit		Credit	
Balance from Repo Price Adjustment account	0.0612	Balance carried forward to P & L a/c.	0.0612
Total	0.0612	Total	0.0612

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 (Difference between the 1 st and 2 nd 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	2 nd 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 repo interest for two days) [Balances under the account to 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 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