ANNEXURE II

REPOS : ACCOUNTING TREATMENT

Accounting policies should reflect the economic substance of events and transactions and not merely their legal form. The present accounting treatment of repos does not meet this criteria as repos which are money market transactions in economic content are presently treated as sale/purchase of securities which is merely the legal form. As such, the present accounting treatment followed by most of the banks, suffer from some drawbacks which are:

(i) When a security is sold in a repo transaction, capital gain/loss is booked and when bought back at a price in which the interest cost is partly built in/adjusted, the holding rate of the security gets changed not on the basis of the market rate but a derived rate.

(ii) The interest on a repo transaction is received only on the second leg. The income or revenue account, however, is operated at the inception of the transaction when the broken period interest and capital gain/loss is accounted for. This distorts the Income Account.

(iii) In the present accounting treatment the interest component is partly reflected in the interest account and partly in the capital gain/loss account. Moreover the repo/reverse repo amount is merged in the Investment Account. As such it does not help the banks etc. to arrive at the amount of securities under repos or reverse repos at a glance. Nor are they able to immediately take out from a single ledger account the income paid/received on repos/reverse repos.

It is, therefore, recommended that a uniform accounting treatment may be adopted to ensure

(i) All market participants follow same accounting treatment.

(ii) The legal nature of repos under the current law,i.e. as buy and sell transactions is kept in tact, by ensuring that the securities sold under repos are excluded from the Investment Account and securities bought under reverse repos are included in the Investment Account.

(iii) On completion of the second leg the holding rate of a repoed security remains unaltered as to what it would have been if the repos had not been undertaken.

(iv) Interest on repo/reverse repo transactions is booked under one head of account. This would imply that capital gains/losses are not booked and the broken period interest payment is not taken separately into revenue account.

(v) Income tax authorities tend to disallow the “capital” loss on Repo deals and it is preferable to clearly bring out such payments appropriately as interest paid.

(vi) Haircuts and margin payments/receipts are integrated in the repos accounting system.

Further, the accounting system would reflect certain desirable practices as indicated below:

(i) For each transaction (opening leg) the relevant market price would be indicated in the records and the "margin/hair-cut" as specified by the management (for the particular type of instrument) would be deducted from the amount payable otherwise (sale price plus broken period interest). Cash margins would be simpler to provide as compared to providing margin in the form of security. Hair-cut is meant to provide the cushion against adverse market prices in the event of a forced sale by the cash provider (Buyer). The value of the hair-cut will be protected on an ongoing basis by daily marking to market of the security purchased under repo and receiving/paying the cash margins as appropriate. (This proposition is subject to the market's operational readiness).

(ii) On the valuation date, the shortfall in the cash collateral will be calculated for restoring the original margin/hair-cut with reference to the amount lent on that date i.e., the amount paid in the first leg together with the accrued repo interest thereon. The shortfall in cash margin payable by the seller will be the amount by which the value of the security together with the accrued interest thereon falls short from that value of the security which after applying the stipulated margin would be equal to the amount lent (i.e., amount paid in the first leg + accrued repo interest).

(iii) If the coupon due date falls between the two legs of the repo transaction during which time the security would be in the hands of the buyer in the first leg, the buyer should immediately pass on the coupon interest received by him to the seller of the security in the first leg. The consequent reduction in the value of collateral should be simultaneously made good as a part of the marking-to- market exercise and by receiving the cash margin in the manner explained above.

(iv) The extent of Haircut will be specified by the management.

(v) While "Initial Margin/Haircut" should be compulsorily applied, payment/receipt of Cash Margin on a daily basis may be exempted in case of over-the-counter repos, provided the counterparties have set up credit limits against each other.

<u>Heads of Account:</u>

The heads of account indicated below are for the sake of illustration. However, it is desirable that the market participants adopt a uniform nomenclature in the matter of accounts.

(a) Reverse Repo Investment Account

This account will be debited/credited with the amounts based on the agreed sale price/derived repurchase price (Face value X Price). In the second leg the price difference between the first and second legs of the transaction will be credited/debited to this account by contra credit/debit to Interest Income on Reverse Repo.

(b) Repo Investment Account

This account will be credited with the sale price in the first leg and debited with the repurchase price in the second leg. The credit balance in this account will show at a glance the securities under repo. The Investment of the institution will be the balance in the Investment Account reduced by the balance in the Repo Investment Account. Suitable notes in the Balance sheet would bring out this aspect.

(c) Reverse Repo Interest Adjustment Account/ Repo Interest Adjustment Account

Broken period interest paid/received will be debited/credited to this account.

c) Reverse Repo Margin Account/ Repo Margin Account

This account will be credited /debited with the "haircut" (initial margin) in the books of the Buyer/ Seller. The entry relating to "haircut" will be reversed on completion of the second leg by crediting the Interest Income on Reverse Repo Account or debiting Interest Expense on Repo Account as the case may be. Further, the value of the security will be marked to market on daily basis and the margin as explained above will be credited/debited to this Account by contra debit/credit to Bank Account.

d) Interest Income on Reverse Repo Account/ Interest Expense on Repo Account

This account will reflect the interest received /paid for providing/receiving Funds during the repo period.

e) Repos Price Adjustment Account

In the case of Repo the difference between the two rates (book value or holding rate and agreed sale/derived repurchase price) would be credited/debited by debit/credit to Repo Investment account when the security is sold /repurchased under repo. The entry will be reversed on the completion of the second leg. This will ensure that the holding rate of the securities remain unchanged.

Case I:-

Where no "Initial Margin" or "Mark-to-market Margin" are taken.

Assumptions

			Rs.
1	Book value of security	*BV*	94
2	Market value of security	*MV*	95
3	Broken period interest 1st leg	*BP1*	1
4	Amount paid (B)+(C)	*P*	96
5	Repo Interest	*I*	3

6	Amount repaid (D)+(E)	*A*	99
7	Broken period interest 2nd leg	*BP2*	2
8	Rate at which 2nd leg of Repo is priced (F)-(G)	*DP*	97

Repo Interest I = A Minus P

Where A= DP+BP2 and P = MV+BPI

In other words, *I= (DP-MV) + (BP2-BP1)*

Recommended accounting treatment for bank
undertaking Reverse Repos (provider of funds/ buyer of securities)

Opening Leg (I Leg)

	Dr.	Cr.
Reverse Repo Investment Account	95.00	
Reverse Repo Interest Adjustment Account	1.00	
Cash/ Bank		96.00

Closing Leg (II Leg)

Reverse Repo Investment Account		97.00
Reverse Repo Interest Adjustment Account		2.00
Cash/ Bank	99.00	

Reverse Repo Investment Account and Reverse Repo Interest Adjustment Account may be closed by transfer to Income from Reverse Repo Account as under:

Reverse Repo Investment Account	2.00 (DP-MP)	
Reverse Repo Interest Adjustment Account	1.00 (BP2-BP1)	
Interest Income from Reverse Repo Account		3.00

If on the date of balance sheet the 2nd leg is still outstanding, the following treatment is recommended:-

(i) The total Investment will be the sum of balances outstanding in the Investment Account and Reverse Repo Investment Account. The investments can be valued exactly as currently prescribed by RBI for any security. If there is depreciation, provision should be made as per the existing guidelines.

(ii) Broken period interest paid in the first leg should not be taken to profit and loss, but allowed to remain in the balance sheet as an asset item.

(iii) Interest accrued (as on the date of balance sheet) on the cash provided in the first leg may be credited to P&L as in the case of any year-end adjustment to be reversed on the next day (first working day of the new accounting year).

Recommended accounting treatment for banks
undertaking Repo (cash taker/Seller of security)

The specific objective to be achieved by the proposed accounting is:-

(i) the facility to make out at a glance the outstanding balance of securities under repo
(ii) The booking of only the net broken period interest as item of income or expenditure
(iii) Insulation of Investment Account from the pricing of repoed securities by passing the differences through a suspense account.

Accordingly the market value of the securities sold under repo may be credited to "Repo Investment Account". The balance in the Investment Account for SLR purpose as on the day of transaction should then be the balance outstanding in the Investment Account reduced by the balance outstanding in the Repo Investment Account. In order to eliminate the effect of price differences, it would be necessary to park the difference in the rate as per book value and market price in a suspense account called Repo Price Adjustment Account to be reversed in the second leg of the transaction. The accounting entries proposed are as under:

Opening Leg (I Leg)

Step 1

Sale of securities at market price and the consequent entries

	Dr.	Cr.
Repo Investment Account		95.00
Repo Interest Adjustment Account		1.00
Cash/ Bank	96.00	

As the above will result in Repo Investment Account being credited by Rs.1 in excess of the book value (95 minus 94), which will distort the book value in the Investment Account (reduced by the repoed securities) , it is necessary to eliminate the distortion by passing the following entries:

Repo Investment Account	1.00	
Repo Price Adjustment Account		1.00

Closing Leg (II Leg)

Repo Investment Account	97.00	
Repo Interest Adjustment Account	2.00	
Cash/ Bank		99.00

The excess debit of Rs.3/- (Rs.97-Rs.94) to Repo Investment Account has to be parked in Repo Price Adjustment Account by passing the following entries:

Repo Price Adjustment Account	3.00	
Repo Investment Account		3.00

Repo Interest Adjustment Account and Repo Price Adjustment Account will be closed by transfer of the balance to Interest Expenses on Repo Account by passing the following entries.

Interest Expenses on Repo Account	3.00	
Repo Interest Adjustment Account		1.00
Repo Price Adjustment Account		2.00

If on the date of balance sheet the 2nd leg is still outstanding, the following treatment is recommended:-

(i) Broken period interest received in the first leg should not be taken to profit and loss, but shown as an item of liability in the balance sheet.

(ii) Interest accrued (as on the date of balance sheet) on the cash received in the first leg may be debited to P&L as in the case of any year-end adjustment to be reversed on the next day (first working day of the new accounting year).

(iii) Balance in the Repos Price Adjustment Account should be treated as an asset/liabilty as the case may be.

(iv) Liability in respect of the outstanding repos may be disclosed separately by way of notes to Accounts or schedule to the Investment Account which will be shown in the Balance Sheet net of securities sold under repo.

Case II :

Initial Margin/ Haircut is applied:

Assumptions

			Rs.
1	Book value of security	*BV*	94
2	Market value of security	*MV*	95

3	Broken period interest 1st leg	*BP1*	1
4	Margin	*H*	0.48*
5	Amount paid (B)+(C)-(D)	*P*	95.52
6	Repo Interest	*I*	2.75
7	Amount repaid (E)+(F)	*A*	98.27
8	Broken period interest 2nd leg	*BP2*	2
9	Rate at which 2nd leg of Repo is priced (G)-(H)	*DP*	96.27

* H = 0.48 = 0.5% of 96 (MV + BPI)

Repo Interst I = A Minus P

Where A= DP+BP2 and P = MV-H+BPI
In other words, *I= (DP-MV+H) + (BP2-BP1)*

Recommended accounting treatment for bank
undertaking Reverse Repos (provider of funds/ buyer of securities)

Opening Leg (I Leg)

	Dr.	Cr.
Reverse Repo Investment Account	95.00	
Reverse Repo Interest Adjustment Account	1.00	
Cash/ Bank		95.52
Reverse Repo Margin Account		0.48

Closing Leg (II Leg)

Reverse Repo Investment Account		96.27
Reverse Repo Interest Adjustment Account		2.00
Cash/ Bank	98.27	

By closing the above three accounts by transfer to Interest Income on Reverse Repo Account the interest element will be reflected separately in the accounts:

Reverse Repo Investment Account	1.27 (DP-MV)	
Reverse Repo Interest Adjustment Account	1.00 (BP2-BP1)	
Reverse Repo Margin Account	0.48 (H)	
Interest Income on Reverse Repo		2.75

If on the date of balance sheet the 2nd leg is still outstanding, the treatment may be as indicated in the case where no initial margin is taken. Margin may be shown as an item of liability.

Recommended accounting treatment for banks
undertaking Repo (cash taker/Seller of security)

Opening Leg (I Leg)

As in the case where no margin is taken, the securities sold may be credited to Repo Investment Account in the first leg. Also the difference between book value and market value will be parked in Repos Price Adjustment Account to insulate the Investment Account from any distortion. The accounting will be as shown under:

	Dr.	Cr.
Repo Investment Account		95.00
Repo Interest Adjustment Account		1.00
Cash/ Bank	95.52	
Repo Margin Account	0.48	
Repos Price Adjustment Account		1.00
Repo Investment Account	1.00	

Closing Leg (II Leg)

Repo Investment Account	96.27	
Repo Interest Adjustment Account	2.00	
Cash/ Bank		98.27

The difference between the book value and the price in the second leg.ie. Rs.2.27 (Rs. 96.27 minus Rs.94.00) will be parked in Repo Price Adjustment Account by passing the following entries:

Repo Price Adjustment Account	2.27	
Repo Investment Account		2.27

The balances in the Repo Interest Adjustment Account, Repo Price Adjustment Account and Repo Margin Account will be transferred to Interest Expense on Repo Account by passing the following entries:

Repo Price Adjustment Account		1.27
Repo Margin Account		0.48
Repo Interest Adjustment Account		1.00
Repo Price Adjustment Account	2.75	

If on the date of balance sheet the 2nd leg is still outstanding, same treatment as in the case where margin is not applied may be adopted. Margin may be kept in the balance sheet as an asset.

Case III

Mark-to-market and cash margins paid/received
and interest on cash margins received/paid.

Let the market value on the day of valuation is Rs.94.50 and accrued coupon Rs.1.50 and let the repo interest accrued Rs. 0.75

Mark-to-market value of the security			94.50	
Accrued coupon			1.50	
			96.00	(A)
Amount paid in I Leg	95.52			
Accrued repo interest	0.75			
	96.27	(B)		

Cash Margin shortfall = 96.27 x 1.005 – 96.00 = 0.75

The following entries would be passed in the books of the cash provider on the valuation date (Buyer of security in the 1st leg))

	Dr.	Cr.
Bank Account	0.75	
Reverse Repo Margin Account		0.75

On completion of II Leg margin has to be repaid with interest at repo rate. Assuming interest on cash margin is Rs.0.01, accounting entries will be: (These entries would be in addition to the closing entries illustrated in Case II)

	Dr.	Cr.
Reverse Repo Margin Account	0.75	
Interest Income on Reverse Repo Account	0.01	
Bank Account		0.76

The above illustrates the margin call on one valuation date. On a subsequent valuation date the required margin would be maintained by calling for additional cash collateral (required margin – 0.75) or by returning the excess margin (0.75 – required margin) as the case may be. The margin available on the closing date together with the interest calculated on varying margin amounts would be adjusted in the manner shown above.