

Theory and Practice of Forex and Treasury Management

Module - III



Committee on Capital Market & Investors Protection
The Institute of Chartered Accountants of India

(Set up by an Act of Parliament)

New Delhi

Certificate Course on Forex and Treasury Management

Module-III



The Institute of Chartered Accountants of India
(Set up by an Act of Parliament)
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Foreword to the Second Edition

By definition, Treasury is a depository where wealth and precious objects can be stored safely. However, in business parlance the term is much broader to cover different aspects of funds management. In view of functional importance, even governments of various countries have segregated treasury management as a separate specialised activity. In business, main treasury management function is related to managing funds in most optimum manner and covers activities such as raising of long-term capital, raising working capital and investing surplus funds. The treasury function has been a challenging area to everybody connected with it as it is important to take quick decisions to mitigate the risks, optimize returns and at the same to ensure adequate financial liquidity for normal functioning of organisation.

Historically, large banks have the stronghold on the provision of treasury management products and services banks and have dedicated departments of treasury management for supporting their clients' needs in this area. Now, smaller banks are also increasingly launching and expanding their treasury management functions and offerings. All this is possible in view of the market opportunities accorded by the recent economic environment, availability of highly seasoned treasury management professionals, access to industry standard, third-party technology providers', products and services made according to the needs of smaller clients, and investment in education and other best practices.

I am glad that the Committee on Capital Market & Investors' Protection of the Institute of Chartered Accounts of India is bringing out the second edition of the 'Theory and Practice of Forex and Treasury Management'. This publication covers various facets of Treasury Management in three modules. I take this opportunity to congratulate CA. Rajesh Sharma, Chairman, CA. Sushil Kumar Goyal, Vice Chairman and the entire team of the Committee on Capital Market & Investors Protection for their initiatives and endeavours.

Date: 05. 02.2019

Place: New Delhi

CA. Naveen ND Gupta

President, ICAI

Preface to the Second Edition

Treasury department of an organization is a subset of broader financial system of an organization. Treasury management is an important function in big size corporate houses, banks and organizations which is why we have a separate treasury department in such entities.

The strategic importance of the treasury organization has increased steadily over the past few years and has impacted their structure and scope. Treasury organizations have become more important reflecting the increasing complexity of business strategies and are expected to continue to respond to the increasing pace of change. Finding the right response to the right questions on the treasurer's and CFO's agenda can make the difference between a thriving company with a solid credit rating and an organization struggling with liquidity and credit downgrades. Therefore, having a scalable and clearly defined target treasury organization, as well as a forward-looking governance structure, is crucial.

Companies have also come under increased pressure from shareholders and regulators to increase transparency and improve financial performance. These expectations are leading to a significant change to the treasury function as activities are increasingly being centralized. Many organizations have just begun designing future target operating models for their treasury organization.

In any department or function which requires specialized skills and knowledge in that area, we need to be an expert of that particular area. To understand the complex treasury system in financial market we come across treasury functions. We have tried to cover most of the treasury functions into this background material that it will cater in understanding the treasury functions.

I wish to place on record my sincere gratitude to CA. Naveen N D Gupta, President, ICAI and CA. CA. Prafulla Premsukh Chhajed, Vice-President, ICAI for their vision and support to the Committee on Capital Market and Investors Protection.

I would like to thank CA. Sushil Kumar Goyal, Vice Chairman and all the members of the Committee on Capital Market and Investors Protection, CA. Anil Satyanarayan Bhandari, CA. Dhiraj Kumar Khandelwal, CA. Shiwaji Bhikaji Zaware, CA. M. Devaraja Reddy, CA. G Sekar, CA. K Sripriya, CA. Ranjeet Kumar Agarwal, CA. Kemisha Soni, CA. Atul Kumar Gupta who have extended their support and encourage in all committee activities.

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Date: 06.02.2019

Place: New Delhi

CA. Rajesh Sharma

Chairman,
Committee on Capital Market & Investors Protection,
ICAI

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Gist of Important FEDAI Rules

Rule 1: Hours of Business

1.1 The exchange trading hours for Inter-bank forex market in India would be from 9.00 a.m. to 5.00 p.m. No customer transaction should be undertaken by the Authorized Dealers after 4.30 p.m. on any working day.

1.2 Cut-off time limit of 05.00 p.m. is not applicable for cross-currency transactions. In terms of Paragraph 7.1 of Internal Control Guidelines over Foreign Exchange Business of Reserve Bank of India (February 2011), Authorized Dealers are permitted to undertake cross-currency transactions during extended hours, provided the Managements lay down the extended dealing hours.

1.3 For the purpose of foreign exchange business, Saturday will not be treated as a working day.

1.4 "Known holiday" is one which is known at least 4 working days before the date. A holiday that is not a "known holiday" is defined as a "suddenly declared holiday".

Rule 2: Export Transactions

2.1. Post-shipment Credit in Rupees

(a) Application of exchange rate

Foreign Currency bills will be purchased/discounted/ negotiated at the Authorized Dealer's current bill buying rate or contracted rate. Interest for the normal transit period and/or usance period shall be recovered upfront simultaneously.

(b) Crystallization and Recovery

- (i) Authorized Dealers should formulate own policy for crystallization of foreign currency liability into rupee liability, in case of non-payment of bills on the due date.
- (ii) The policy in this regard should be transparently available to the customers.
- (iii) For crystallization into Rupee liability, the Authorized Dealer shall apply its TT selling rate of exchange. The amount recoverable, thereafter, shall be the crystallized Rupee amount along with interest and charges, if any.

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- (iv) Interest shall be recovered on the date of crystallization for the overdue period at the appropriate rate; and thereafter till the date of recovery of the crystallized amount.
 - (v) Export bills payable in countries with externalization issues shall also be crystallized as per the policy of the authorized dealer, notwithstanding receipt of advice of payment in local currency.
- (c) **Realization of Bills after crystallization:** After receipt of advice of realization, the authorised dealer will apply TT buying rate or contracted rate (if any) to convert foreign currency proceeds.
- (d) **Dishonor of bills:** In case of dishonor of a bill before crystallization, the bank shall recover:
- (i) Rupee equivalent amount of the bill and foreign currency charges at TT selling rate.
 - (ii) Appropriate interest and rupee denominated charges.

2.2. Application of Interest

- (a) Rate of interest applicable to all export transactions shall be as per the guidelines of the Reserve Bank of India from time to time.
- (b) Overdue interest shall be recovered from the customer, if payment is not received within normal transit period in case of demand bills and on / or before notional due date/actual due date in case of usance bills, as per RBI directive.
- (c) **Early Realization:** In case of early realization, interest for the unexpired period shall be refunded to the customer. The bank shall also pay or recover notional swap cost as in the case of early delivery under a forward contract.

2.3. Normal Transit Period

The concepts of normal transit period and notional due date are linked to concessional interest rate on export bills. Normal transit period comprises the average period normally reckoned from the date of negotiation/purchase/discount till the receipt of bill proceeds.

It is not to be confused with the time taken for the arrival of the goods at the destination.

Normal transit period for different categories of export business are laid down as below:

- (a) **Fixed Due Date:** In the case of export usance bills, where due dates are fixed, or are reckoned from date of shipment or date of bill of exchange etc, the actual due date is known. Therefore, in such cases, normal transit period is not applicable.
- (b) **Bills in Foreign Currencies :** 25 days
- (c) **Exports to Iraq under United Nations Guidelines :** Max. 120 days
- (d) **Bills drawn in Rupees under Letters of Credit (L/C)**

Gist of Important FEDAI Rules

- (i) Reimbursement provided at centre of negotiation - 3 days
- (ii) Reimbursement provided in India at centre different from centre of negotiation - 7 days
- (iii) Reimbursement provided by banks outside India - 20 days
- (iv) Exports to Russia under L/C where reimbursement is provided by RBI - 20 days.
- (e) *Bills in Rupees not under Letter of Credit* - 20 days
- (f) *TT reimbursement under Letters of Credit (L/C)*
 - (i) Where L/C provides for reimbursement by electronic means - 5 days
 - (ii) Where L/C provides reimbursement claim after certain number of days from the date of negotiation - 5 days + this additional period.

2.4. Substitution / Change in Tenor

- (a) In case of change in the usance of a bill, interest on post-shipment credit shall be charged to the customer, as per RBI guidelines. In addition, the bank shall charge or pay notional swap difference. Interest on outlay of funds for such swaps shall also be recovered from the customer at a rate not below the base rate of the bank concerned.
- (b) It is optional for banks to accept delivery of bills under a contract made for purchase of a clean TT. In such cases, the bank shall recover / pay notional swap difference for the relative cover. Interest at the rate not below the base rate of the bank would be charged on the outlay of funds.

2.5. Export Bills sent for collection

- (a) *Application of exchange rates:* The conversion of foreign currency proceeds of export bills sent for collection or of goods sent on consignment basis shall be done at prevailing TT buying rate or the forward contract rate, as the case may be. The conversion to Rupee equivalent shall be made only after the foreign currency amount is credited to the NOSTRO account of the bank.
- (b) On receipt of credit advice / statement of NOSTRO account and compliances of guidelines, requirements of the Bank and FEMA, the Bank shall transfer funds for the credit of exporter's account within two working days.
- (c) If the above stipulated time limit is not observed, the Bank shall pay compensation for the delayed period at the minimum interest rate charged on export credit. Compensation for adverse movement of exchange rate, if any, shall also be paid as per the compensation policy of the bank.

Rule 3: Import Transactions

3.1 Application of exchange rate

- (a) *Retirement of import bills* - Exchange rate as per forward sale contract, if forward contract is in place. Prevailing Bills selling rate, in case there is no forward contract.
- (b) *Crystallization of Import* - same as above bills (vide para 3.3 below)
- (c) *For determination of stamp* - As per exchange rate provided by the duty on import bills authority concerned.

3.2. Application of Interest

- (a) Bills negotiated under import letters of credit shall carry commercial rate of interest as applicable to banks' domestic advances from time to time.
- (b) Interest remittable on interest bearing bills shall be subject to the directive of Reserve Bank of India in this regard.

3.3. Crystallization of Import Bill under Letters of Credit

Unpaid foreign currency import bills drawn under letters of credit shall be crystallized as per the stated policy of the bank in this respect.

Rule 4: Clean Instruments

4.1. *Outward Remittance*: Outward remittance shall be effected at TT selling rate of the bank ruling on that date or at the forward contract rate.

4.2. Encashment of foreign currency notes and instruments, Foreign currency travelers' cheques, currency notes, foreign currency in prepaid card, debit / credit card will be encashed at Authorised Dealer's option at the appropriate buying rate ruling on the date of encashment.

4.3. Payment of foreign inward remittance, Foreign currency remittance up to an equivalent of USD 10,000 shall be immediately converted into Indian Rupees. Remittance in excess of equivalent of USD 10,000 shall be executed in foreign currency. The beneficiary has the option of presenting the related instrument for payment to the executing bank within the period prescribed under FEMA.

4.4. The applicable exchange rate for conversion of the foreign currency inward remittance shall be TT buying rate or the contracted rate as the case may be.

4.5. *Compensation for delayed payment*: Authorised Dealers shall pay or send intimation, as the case may be, to the beneficiary in two working days from the date of receipt of credit advice / NOSTRO statement. In case of delay, the bank shall pay the beneficiary interest @ 2 % over its savings bank interest rate. The bank shall also pay compensation for adverse movement of exchange rate, if any, as per its compensation policy.

Rule 5: Foreign Exchange Contracts

5.1. Contract amounts

Exchange contracts shall be for definite amounts and periods. When a bill contract mentions more than one rate for bills of different deliveries, the contract must state the amount and delivery against each such rate.

5.2. Option period of delivery

Unless the date of delivery is fixed and indicated in the contract, the option period may be specified at the discretion of the customer subject to the condition that such option period of delivery shall not extend beyond one month. If the fixed date of delivery or the last date of delivery option is a known holiday, the last date for delivery shall be the preceding working day. In case of 'suddenly declared holidays', the contract shall be deliverable on the next working day. Contracts permitting option of delivery must state the first and last dates of delivery. For Example: 18th January to 17th February, 31st January to 29th Feb. 2012. "Ready" or "Cash" merchant contract shall be deliverable on the same day. "Value next day" contract shall be deliverable on the working day immediately succeeding the contract date. A spot contract shall be deliverable on the second succeeding working day following the contract date. A forward contract is a contract deliverable at a future date, duration of the contract being computed from spot value date at the time of transaction.

5.3. Place of delivery

All contracts shall be understood to read "to be delivered or paid for at the Bank" and "at the named place".

5.4. Date of delivery

Date of delivery under forward contracts shall be:

- (i) *In case of bills / documents negotiated, purchased or discounted:* The date of negotiation / purchase / discount and payment of Rupees to the customer. However, in case the documents are submitted earlier than, or later than the original delivery date, or for a different usance, the bank may treat it as proper delivery, provided there is no change in the expected date of realization of foreign currency calculated at the time of booking of the contract. No early realization or late delivery charges shall be recovered *in such cases*.
- (ii) *In case of export bills / documents sent for collection* - Date of payment of Rupees to the customer on realization of the bills.
- (iii) *In case of retirement/crystallization of import bills/documents* - The date of retirement / crystallization of liability, whichever is earlier?

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5.5. Option of delivery

In all forward merchant contracts, the merchant, whether a buyer or a seller will have the option of delivery.

5.6. Option of usance

The merchant purchase contract should state the tenor of the bills / documents. Acceptance of delivery of bills/documents drawn for a different tenor will be at the discretion of the bank.

5.7. Merchant quotations

The exchange rate shall be quoted in direct terms i.e. so many Rupees and Paise for 1 unit or 100 units of foreign currency.

5.8. Rounding off

Rupee equivalent of the foreign currency settlement of all merchant transactions shall be effected on the principle of rounding off the Rupee amounts to the nearest whole Rupee i.e. without paise.

RULE 6: Early Delivery, Extension and Cancellation of Foreign Exchange Contracts

6.1. General

- (i) At the request of a customer, unless stated to the contrary in the provisions of FEMA, 1999, it is optional for a bank to: (a) Accept or give early delivery; or (b) Extend the contract.
- (ii) It is the responsibility of a customer to effect delivery or request the bank for extension / cancellation as the case may be, on or before the maturity date of the contract.

6.2. Early delivery

If a bank accepts or gives early delivery, the bank shall recover / pay swap difference, if any.

6.3. Extension

Foreign exchange contracts where extension is sought by the customers shall be cancelled (at an appropriate selling or buying rate as on the date of cancellation) and rebooked simultaneously only at the current rate of exchange. The difference between the contracted rate, and the rate at which the contract is cancelled, shall be recovered from / paid to the customer at the time of extension. Such request for extension shall be made on or before the maturity date of the contract.

6.4. Cancellation

- (i) In case of cancellation of a contract at the request of a customer, (the request shall be made on or before the maturity date) the Authorised Dealer shall recover / pay, as the

Gist of Important FEDAI Rules

case may be, the difference between the contracted rate and the rate at which the cancellation is effected. The recovery / payment of exchange difference on cancellation of forward contracts before the maturity date, may be either upfront or back-ended at the discretion of banks.

- (ii) Rate at which cancellation is to be effected:
 - (a) Purchase contracts shall be cancelled at T.T. selling rate of the contracting Authorised Dealer.
 - (b) Sale contracts shall be cancelled at T.T. buying rate of the contracting Authorised Dealer.
 - (c) Where the contract is cancelled before maturity, the appropriate forward T.T. rate shall be applied.
- (iii) Notwithstanding the fact that the exchange contract between the customer and the bank becomes impossible of performance, for whatever reason, including Government prohibitory orders, the exchange contract shall not be deemed to have become void and the customer shall forthwith apply to the Authorised Dealer for cancellation, as per the provisions of paragraph 6.4.(i) and (ii) above.
- (iv)
 - (a) In the absence of any instructions from the customer, vide para 6.1(ii), a contract which has matured shall be cancelled by the bank on the 7th working day after the maturity date.
 - (b) Swap cost, if any, shall be recovered from the customer under advice to him.
 - (c) When a contract is cancelled after the maturity date, the customer shall not be entitled to the exchange difference, if any, in his favour, since the contract is cancelled on account of his default. He shall, however, be liable to pay the exchange difference against him.

6.5. Swap cost / gain

- (i) In all cases of early delivery of a contract, swap cost shall be recovered from the customer, irrespective of whether an actual swap is made or not. Such recoveries should be made either back-ended or upfront at discretion of the bank.
- (ii) Payment of swap gain to a customer shall be made at the end of the swap period.

6.6. Outlay and Inflow of funds

The Authorised Dealer shall recover interest on outlay of funds for the purpose of arranging the swap, in addition to the swap cost in case of early delivery of a contract.

If such a swap leads to inflow of funds, interest shall be paid to the customer. Funds outlay / inflow shall be arrived at by taking the difference between the original contract rate and the rate at which the swap could be arranged. The rate of interest to be recovered / paid should be determined by banks as per their policy in this regard.

2

Terms frequently used in FX Markets

Some of the terms used frequently in FX markets are explained below:

- 'Exchange Rate' refers to the price of one currency against another currency.
- 'Spot transaction' refers to the transaction wherein the settlement takes place two working days after the date of transaction. This is the standard basis on which majority of FX transactions are concluded.
- Where the transaction and the settlement take place on the same day of the date of the transaction itself, then such transaction is said to have taken place on "Cash or Today value" basis.
- 'TOM transaction' refers to the transaction wherein the settlement takes place one working day after the date of the transaction. The term TOM stands for Value Tomorrow.
- Any transaction in respect of which the settlement takes place beyond the spot date is a 'Forward transaction'.
- An 'outright transaction' is one in which a particular currency is bought against another currency that is being sold for a given value date at a mutually agreed exchange rate.
- 'Swap transaction' refers to purchase and sale of a given pair of currencies against each other for different maturity / value dates. In effect, it is a combination of two outright deals of varying maturity dates.
- 'Cross rate' is the process of arriving at the value of a given currency through the medium of two different pairs of currencies in which there is a common currency in both the pairs. For instance, in order to arrive at EUR / INR price, market uses EUR / USD price and USD / INR Price.
- 'Direct Quotations' refer to the quoting of a price wherein a given unit of Foreign Currency is kept constant and the home currency is expressed as a variable. Direct quotations are regarded as easy to understand, user-friendly and more transparent.
- 'Indirect quotations' refer to the quoting of a price wherein the home currency is kept constant for a given unit and the foreign currency is expressed as variable.

Terms frequently used in FX Markets

- Since FX is akin to a commodity, there would invariably be a price differential between the buying and selling price which is called the 'bid / offer spread'.
- When the forward price of a currency is higher than the spot price of the currency, the currency is said to be at a premium.
- When the forward price of a currency is lower than the spot price of that currency, the currency is said to be at a discount.
- 'Proprietary trading' refers to the trading in FX markets on the Bank's own account.
- 'Merchant trading' refers to the entering of a particular transaction in the books of the Bank on behalf of a client. The Banks normally undertake immediate cover operations in respect of such deals so that they are insulated from any risks arising out of adverse exchange rate movements against the quotes already offered to the client.

3

Difference between a Forward Contract and a Futures Contracts

Difference between a Forward Contract and a Futures Contract

The difference between a Forward Contract and a Futures Contract can be summarized as follows:

A 'Futures Contract' is an agreement to Buy or Sell a Standard Quantity and Quality of a given underlying asset.

The difference between the two could be tabulated as under:

Sr. No.	Forwards	Futures
1.	Essentially, OTC contracts involve only the buyer and the seller.	A contract is traded through an exchange. Buyer, Seller and Exchange are involved.
2.	Both the parties have to perform the contract.	The contract need not necessarily culminate in the delivery of underlying asset.
3.	There is no payment of any initial margins.	To Trade in futures contract, one has to become a member of the Exchange by paying the initial margin, and maintain a variable margin account too with the Futures Exchange.
4.	The maturity and size of the contract may be customized.	The maturity and size of contracts are standardized.
5.	Settlement takes place only on the date of maturity.	Settlement is done on a daily basis, on all the outstanding contracts (Marking to Market on a daily basis).

Difference between a Forward Contract and a Futures Contracts

6.	Credit or Counter Party Risk is High.	The Futures Exchange takes care of Credit or counterparty risk.
7.	Markets for forward contracts are not very liquid.	Futures contracts are highly liquid and can be closed-out easily.
8.	Physical delivery takes place on the maturity date.	Hardly 2% of the total contracts are delivered and takes delivery of.

4

Foreign Exchange: Some Practical Problems and Solutions

PROBLEM 1

On 26th August, M/s ABC Exporter tenders for purchase of a Bill payable 60 Days from Sight and Drawn on New York for USD 25,650. The Dollar / Rupee rates in the inter-bank exchange market were as under:

Spot	USD 1 = ₹48.6525 / 6850
Spot / September	1500/1400
Spot / October	2800/2700
Spot / November	4200/4100
Spot / December	5600/5500

Exchange Margin of 0.10% is to be loaded.

Rate of Interest is 10% p.a.

Out-of-pocket expenses of ₹500 to be recovered.

What will be the Exchange Rate to be quoted to the customer and Rupee Amount payable to him?

SOLUTION:

The notional due date is (60 + 25) days from 26th August, i.e., 19th November. (Note that transit period of 25 days is to be taken even if the question is silent). Since the dollar is at discount (forward margin is in descending order), this period will be rounded off to higher month, i.e., end November, and the rate quoted will be based on Spot / November rate for US dollar in the interbank market.

Dollar / Rupee market spot buying rate	= ₹48.65250
Less: Discount for Spot / November	- ₹0.42000
	<hr/>
	= ₹48.23250
Less: Exchange margin at 0.10% on ₹48.2325	= ₹0.04823
	<hr/>
	= ₹48.18427

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Rounded off to the nearest multiple of 0.0025, the rate quoted would be ₹48.1850 per dollar.

Rupee amount payable on the bill for USD 25,650

At ₹48.1850 per dollar	= ₹12,35,935
Less: Interest for 85 days at 10% on ₹12,35,945	- ₹28,782
Out-of-pocket expenses	- ₹500
	₹12,06,663
	₹12,06,663

PROBLEM 2

From the following information you are required to calculate

- (a) Ready Bill Buying Rate
- (b) 2 Months Forward Buying Rate for Demand Bill
- (c) Ready Rate for 60 Days Usance Bill and
- (d) 2 Months Forward Buying Rate for 60 Days Usance Bill

Interbank rate US Dollar

Spot	USD 1 = ₹48.6000/6075
1 Month	3500/3600
2 Months	5500/5600
3 Months	8500/8600
4 Months	1.1500/1.1600
5 Months	1.3500/1.3600
6 Months	1.5500/1.6600

Transit period is 25 Days. All forward Rates are for Fixed Delivery. Exchange Margin is 0.10%.

SOLUTION:

- (a) Ready Bill buying Rate

Dollar / Rupee market spot buying rate	= ₹48.60000
Less: Exchange margin at 0.10%	
on ₹48.6000	- ₹0.04860
	= ₹48.55140
	= ₹48.55140

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Rounded off to the nearest multiple of 0.0025, the rate quoted for ready bill buying is ₹48.5525.

(b) 2 Months Forward Buying Rate	
Dollar / Rupee (market) spot buying rate	= ₹48.60000
Add: Forward premium for 2 months (Transit period 25 days and Forward period 2 months, Rounded off to lower month)	+ ₹0.55000
	<hr/>
	= ₹49.15000
Less: Exchange margin at 0.10% On ₹49.1500	- ₹0.04915
	<hr/>
	= ₹49.10085

Rounded off, the rate quoted for 2 months forward purchase of dollar bill is ₹49.1000.

(c) Ready Rate for 60 Days Usance Bill	
Dollar / Rupee (market) spot buying rate	= ₹48.60000
Add: Forward premium for 2 months (Transit period 25 days And forward period 2 months, Rounded off to lower month)	+ ₹0.55000
	<hr/>
	= ₹49.15000
Less: Exchange margin at 0.10% on ₹49.1500	- ₹ 0.04915
	<hr/>
	= ₹49.10085

Rounded off, the rate quoted for ready purchase of 60 days' usance dollar bill is ₹40.1000.

(d) 2 Months forward rate for 60 days bill	
Dollar / Rupee (market) spot buying rate	= ₹48.60000
Add: Forward premium for 4 months (Transit period 25 days and Forward period 2 months, rounded Off to lower month)	+ ₹1.15000
	<hr/>
	= ₹49.75000

Foreign Exchange: Some Practical Problems and Solutions

Less: Exchange margin at 0.10%	
On ₹49.7500	- ₹0.04975
	<hr/>
	= ₹49.700025
	<hr/>

Rounded off, the rate quoted for 2 months' forward purchase of 60 days' usance dollar bill is ₹49.7000.

Note: Compare (b), (c) and (d) to understand clearly the difference between ready and forward rates.

PROBLEM 3

M/s ABC, an Export Customer requests the Bank on 15th July to book a Foreign Exchange Contract Delivery September covering 30 Days' Sight Bill on New York under an irrevocable Letter of Credit for USD 65,000.

Assume US Dollars are quoted in the Local Interbank market as under:

Spot	USD 1 = ₹49.5675 / 5750
Spot / July	800/900
Spot / August	1700/1800
Spot / September	2250/2325
Spot / October	3200/3300
Spot / November	4100/4200
Spot / December	5150/5250

What rates will the Bank quote to its customer bearing in mind the following factors:

Exchange Margin:	0.10%
Transit Period	25 Days

SOLUTION:

Dollar is at premium. The rule is to take the earliest delivery. The option to the customer is over September. Taking earliest delivery, the date of delivery will be taken as 1st September. The usance of the bill will be 30 days and transit period of 25 days will work out to 24th October as the probable date of the bank acquiring foreign exchange. This will be rounded off to the lower month, and the rate to the customer will be based on Spot / September buying rate in the interbank market.

Dollar / Rupee spot interbank buying rate = ₹49.56750

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<i>Add:</i> Premium for September	+ ₹0.22500
	<hr/>
	= ₹49.79250
<i>Less:</i> Exchange margin at 0.10% on ₹49.7925	- ₹0.04979
	<hr/>
	= ₹49.74271
	<hr/>

Rounded off, the rate quoted to the customer would be ₹49.7425

PROBLEM 4

Your Import Customer M/s XYZ has requested you to book a forward exchange contract for Swedish Kroners 35,000 for Fixed Delivery 6th Month.

Assuming Swedish Kroners are quoted in Singapore Foreign Exchange Market against US Dollars as under:

Spot	USD 1 = SEK	6.0700 / 0750
3 Months Forward		950/1050
6 Months Forward		2300/2500

And the US Dollars are quoted in the Local Interbank Exchange Market as under:

Spot	USD 1 =	₹48.7000 / 8500
3 Months Forward		1.8000/1.6000
6 Months Forward		3.7000/3.5000

What Rate will you quote to your customer bearing in mind that your exchange margin is 0.15% for TT Selling and 0.20% for Bill Selling?

SOLUTION

Dollar / Rupee spot selling rate	= ₹48.8500
<i>Less:</i> Discount for 6 months	- ₹3.5000
	<hr/>
	= ₹45.3500
<i>Add:</i>	
Exchange margin at 0.15% for TT selling on ₹45.3500	+ ₹0.0680
	<hr/>
	= ₹45.4180

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Add:

Exchange margin at 0.20% for
Bill Selling on ₹45.4180 + ₹0.0908

Forward bill selling rate for dollar = ₹45.5088

Dollar / Kroner spot buying rate= SEK 6.0700
Add: Premium for six months – SEK 0.2300

= SEK 6.3000

Forward bills selling rate for Kroner (45.5008 / 6.300) = ₹7.2236

Rounded off, the rate quoted is ₹7.2225 per Kroner.

PROBLEM 5

M/s ABC, a customer requests on 8th May to book a forward Contract to cover an Export Bill for Singapore Dollars 1,00,000 drawn on Singapore and payable 30 Days after sight with option to him over the month of July.

The following Rates prevail in the interbank market for US Dollars:

Spot	USD 1 = ₹49.4875/4925
Spot / May	1600/1700
June	3100/3200
July	4600/4700
August	6100/6200
September	7600/7700
October	9100/9200

At Singapore Market, Singapore Dollar is quoted as under ::

Spot	USD 1 = SGD 1.4004/4078
1 Month Forward	70/75
2 Months Forward	110/115
3 Months Forward	150/155
4 Months Forward	190/195
5 Months Forward	230/235
6 Months Forward	270/275

Transit period is 25 Days. Exchange Margin required is 0.10%

What Rate will you quote to your Customer?

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SOLUTION:

US Dollar is at premium against rupee. Earliest delivery under the forward contract will be on 1st July. Usance period of 30 days and transit period of 25 days, add up to 55 days making 25th August the due date of the bill. This will be rounded off to the lower month and the exchange rate to the customer will be based on Spot / July rate for US dollar in the interbank market.

US Dollar / Rupee spot buying rate	= ₹49.4875
Add: Premium for July	+ ₹0.4600
	<hr/>
Less:	= ₹49.9475
Exchange margin at 0.10% on ` 49.9475	- ₹0.0499
	<hr/>
Forward buying rate for US Dollar	= ₹49.8976
	<hr/>

US dollar is at premium against Singapore dollar. Since selling rate is to be considered, taking latest delivery of 31st July, the bill is expected to realize on 20th September, which falls in the fifth month from 5th May. The forward rate to the customer will be calculated based on 5 months' forward US dollar / Singapore dollar rate.

US Dollar / Singapore dollar spot selling rate	= SGD 1.4078
Add: Premium for 5 months	+ SGD 0.0235
	<hr/>
	= SGD 1.4313
	<hr/>

Forward buying rate for Sing. Dollar (49.8976 / 1.4313) = ₹34.8617

The rate quoted to the customer is ₹34.8625 per Singapore dollar.

PROBLEM 6

M/s Reddy & Company, Export customer has booked with you a Swiss Francs 1,00,000 forward Sale (i.e. your purchase) exchange contract delivery 31st August at ₹32.5200. However, on 30th August he informed you that it has not been possible to deliver the Swiss Francs as anticipated payment had not come from Zurich. You were therefore requested to extend the Contract for delivery to 30th September.

Assuming that Swiss Francs were quoted in Singapore market as under:

Spot	USD 1 = Sw. Fcs.	1.5315/5330
One Month Forward		140/130
Two Months Forward		287/270

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Three Months Forward 415/405

And US Dollars were Quoted in the Local Interbank Market as under:

Spot	USD 1 =	₹49.4225/4375
One Month		1200/1100
Two Months		2700/2500
Three Months		4500/4300

What will the extension Charges, if any, payable by the customer?

Exchange Margin is 0.10% on buying as well as Selling.

SOLUTION:

First, the contract will be cancelled at the TT selling rate.

Dollar / Rupee spot	= ₹49.4375
Add: Exchange margin at 0.010%	= ₹0.0494
T.T. Selling rate for dollar	= ₹49.4869
Dollar / Franc spot buying rate	= CHF 1.5315
Franc / Rupee Cross Rate (49.4869/1.5315)	= ₹32.3127
Rounded off, the rate is ₹32.3125	
Bank buys Franc under original contract at	₹32.5200
It sells Franc under cancellation contract at	₹32.3125
Exchange difference per	
France payable by customer	₹0.2075

Exchange difference for CHF 1,00,000 is ₹20,750 payable by customer as cancellation charges.

Rebooking:

Fresh purchase contract will be booked for delivery 30th September.

Dollar / Rupee spot buying rate	= ₹49.4225
Less: Discount for one month	– ₹0.1200
	= ₹49.3025
Less: Exchange margin at 0.10%	- ₹0.0493
	= ₹49.2532

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Dollar / Franc spot selling rate	= ₹1.5330
Less: Discount for one month	= ₹0.0130
	<hr/>
	= ₹1.5200

Franc / Rupee Cross rate (₹49.2532 / 1.5200) = ₹32.4034

The rate quoted would be ₹32.4025

The forward contract would be extended at ₹32.4025 per Franc, after recovering cancellation charges of ₹20,750.

PROBLEM 7

M/s XYZ & Company, import customer booked a forward Contract with the bank on 10th April for USD 20,000 due 10th June at ₹49.4000. The bank covered its position in the market at ₹49.2800.

The exchange rates for dollar in the interbank market on 10th June and 20th June were:

	10 th June	20 th June
Spot	USD 1 = ₹48.8000/8200	48.6800/7200
Spot / June	48.9200/9500	48.8000/8500
July	49.0500/0900	48.9300/9900
August	49.3000/3500	49.1800/2500
September	49.6000/6600	49.4800/5600

Exchange Margin 0.10%

Interest on outlay of funds 12%

How will the Bank react if the Customer requests on 20th June:

- (i) To cancel the Contract.
- (ii) To Execute the Contract or
- (iii) To Extend the Contract with due date to fall on 10th August.

SOLUTION:

- (a) **Exchange Difference:** The forward sale contracts will be cancelled at the spot TT purchase rate of the bank for dollar prevailing on the date of cancellation.

Dollar / Rupee market spot buying rate	= ₹48,6800
Less: Exchange margin at 0.10%	= ₹0.0487
	<hr/>
	₹48.6313

Rounded off, the rate applicable is ₹ 48.6325

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Bank sells dollar under the original contract at	₹49.4000
It buys dollar under the cancellation contract at	₹48.6325

Exchange difference per dollar payable by customer	₹0.7675

Exchange difference for USD 20,000 is ₹15,300.

- (b) **Swap Loss:** On 10th June, the bank does a swap of spot sale of dollar at the market buying rate of ₹48.8000 and forward purchase for June at the market selling rate of ₹48.9500.

Bank buys at	₹48.9500
It sells at	₹48.8000

	₹0.1500

- (c) **Interest on Outlay of Funds:** On 10th April, the bank receives delivery under the cover contract at ₹49.2800 and sells spot at ₹48.8000.

Bank buys at	₹49.2800
It sells at	₹48.8000

Outlay per dollar	₹0.4800

Outlay for USD 20,000 is ₹9,600
Interest on ₹9,600 at 12% for 10 days is ₹32.

- (d) **Charges for Cancellation:**

Exchange difference	₹15,300
Swap loss	₹3,000
Interest on outlay of funds	₹32

Total Charges	₹18,332

- (e) **Execution of Contract:** Cancellation charges of ₹18,332 as computed above will be recovered. The contract will be executed at the spot TT selling rate calculated as follows:

Dollar / Rupee interbank spot selling rate	= ₹48.7200
Add: Exchange margin at 0.10%	+ ₹0.0487

	= ₹48.7687

Rounding off, the rate applicable is ₹48.7675.

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- (f) **Extension of Contract:** Cancellation charges of ₹18.332 as computed above will be recovered.

The contract will be extended at the current rate.

Dollar / Rupee market forward selling rate for August	= ₹49.2500
Add: Exchange margin at 0.10%	+ ₹0.0492
	<hr/>
	= ₹49.2992
	<hr/>

The exchange rate applied for the extended contract is ₹49.3000.

PROBLEM 8

You, as a Foreign Exchange Dealer of your bank, are informed that your Bank has sold a T.T. on Copenhagen for Danish Kroner 10,00,000 at the Rate of Danish Kroner 1 = ₹6.5150. You are required to cover the transaction through London or New York, whichever course offers you a more profitable rate. The rates on that date are as under:

Mumbai-London	₹74.3000	74.3200
Mumbai-New York	₹49.2500	49.2625
London-Copenhagen	DKK 11.4200	11.4350
New York-Copenhagen	DKK 7.5670	7.5840

Will you cover the transaction through London or New York and what will be the Exchange Profit on the transaction? Ignore brokerage at all Centres.

SOLUTION:

Amount realized on selling Danish Kroner 10,00,000 at ₹6.5150 per Kroner = ₹65,15,000.

Cover at London:

Bank buys Danish Kroner at London at the market selling rate. Pound sterling required for the purchase (10,00,000 / 11.42000) = GBP 87,565.67.

Bank buys locally GBP 87,565.67 for the above purchase at the market selling rate of ₹74.3200. The rupee cost = ₹65,07,881.

Profit (₹65,15,000 – ₹65,07,881) = ₹7,119.

Cover at New York:

Bank buys Kroners at New York at the market selling rate. Dollars required for the purchase (10,00,000 / 7.5670) = USD 1,32,152.77.

Bank buys locally USD 1,32,152.77 for the above purchase at the market selling rate of ₹49.2625. The rupee cost = ₹65,10,176.

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Profit (₹65,15,000 – ₹65,10,176) = ₹4,824.

The transaction would be covered through London which gets the maximum profit of ₹7,119.

PROBLEM 9

Your bank's London Office has surplus funds to the extent of USD 5,00,000 for a period of 3 Months. The cost of the funds to the Bank is 4% p.a. It proposes to invest these funds in London, New York or Frankfurt and obtain the best Yield, without any exchange risk to the bank. The following rates of interest are available at the three centres for investment of domestic funds thereat for a period of 3 months:

London	5% p.a.
New York	8% p.a.
Frankfurt	3% p.a.

The market rates in London for US Dollars and Euro are as under:

London on New York

Spot	1.5350/90
1 Month	15/18
2 Months	30/35
3 Months	80/85

London on Frankfurt

Spot	1.8260/90
1 Month	60/55
2 Months	95/90
3 Months	145/140

At which Centre will the investment be made and what will be the net gain (to the nearest pound) to the bank on the funds?

SOLUTION:

Particulars	Currency	Amount
Cost of funds at 4% p.a. for 3 months (on GBP 5,00,000)	GBP	5,000
Amount invested	GBP	5,00,000
	GBP	5,05,000
(a) Investment in London		
Interest earned on GBP 5,00,000 at 5% p.a. for 3 months	GBP	6,250

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Less: Cost of funds	GBP	5,000
Net Yield on investment	GBP	1,250
(b) Investment in New York		
The bank buys US dollars at the spot rate and invests the funds in New York. It also enters into a three months forward contract selling this amount together with Interest thereon.		
The bank buys US dollars for GBP 5,00,000 at the market selling rate of USD 1.5350.		
Amount realized in US Dollars	USD	7,67,500
Interest earned on USD 7,67,500 at 8% for 3 months	USD	15,350
Total amount available at the end of three months	USD	7,82,850
This amount the bank sells to the market at the market three months forward buying rate of USD 1.5475 (USD 1.5390 + 0.0085)		
Amount realized in pound sterling (7,82,850 / 1.5475)	GBP	5,05,880
Less: Amount to be repaid	GBP	5,05,000
Net Yield	GBP	880
(c) Investment in Frankfurt		
The bank buys Euro for GBP 5,00,000 at the market spot selling rate of EUR 1.8260.		
Amount realized in Euro	EUR	9,13,000
Interest at 3% p.a. for 3 months on EUR 9,13,000		6,847
Total Amount available at the end of 3 months	EUR	9,19,847
This amount the bank sells to the market at the market 3 months forward buying rate of EUR 1.8150 (1.8290 – 0.0140)		
Amount realized in pound sterling (9,19,847 / 1.8150)	GBP	5,06,803
Amount to be repaid	GBP	5,05,000
Net Yield	GBP	1,803

Investment will be made in Frankfurt where highest net yield of GBP 1,803 is obtained.

PROBLEM 10

You are a dealer for your bank and find when you open your books on the 20th November, that your combined position in US Dollars is overbought USD 70,000 while your dollar account in New York, as at 19th November is overdrawn USD 1,30,000. During the day, you receive advices from your branches in respect of the following transactions undertaken by them:

Documentary DDs purchased on 19th November USD 25,000

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TTs issued on 20 th November (of which USD 20,000 is a Delivery under a forward contract booked on 1 st Sept.)	USD 50,000
TT dated 15 th November from New York paid on 19 th November	USD 10,000

Forward Contracts booked on 19th November

Bills selling for delivery – 6 months (Import Bills under LC)	USD 37,000
TT Purchase – Delivery 1 month	USD 12,000
Purchase of 30 days sight bill – Delivery 3 month	USD 10,000

Forward Contracts Cancelled on 20th November

TT purchase due on that day	USD 15,000
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In addition you have to effect deliveries under the following

Interbank contracts due on 20th November

TT Sale	USD 50,000
TT Purchase	USD 20,000

- (a) What would be your combined dollar position after talking the above transactions into account?
- (b) What steps would you take to square your position while, at the same time, ensuring that your dollar account in New York is kept in sufficient funds to meet your immediate cash commitments and leave a credit balance of USD 10,000 ? (It is not, otherwise, necessary to match your cover purchase / sales with the actual delivery period of any of the transactions give above).

SOLUTION:

(A) Exchange Position (combined dollar position)

Particulars	Purchases(USD)	Sales (USD)
Balance b/d (Overbought)	70,000	
Documentary DDs purchased	25,000	
TTs issued (excluding USD 20,000 under forward contract)		30,000
TT paid	10,000	
Forward sale-delivery 6 months		37,000
Forward Purchase-delivery 1 month	12,000	
Forward Purchase-delivery 3 months	10,000	

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Forward Purchases contract cancelled		15,000
	1,27,000	82,000
Balance c/d (Overbought)		45,000
		1,27,000

(B) Cash Position

Particulars	Cr. USD	Dr. USD
Balance b/d (Overdrawn)		1,30,000
TT Issued		50,000
TT Sale		50,000
TT Purchase	20,000	
	20,000	2,30,000
Balance c/d (Overdrawn)	2,10,000	
	2,30,000	

Thus, to meet the immediate requirements at New York and leave a balance of USD 10,000 the bank will buy TT on New York for USD 2,20,000. This will increase the already overbought position of USD 45,000 to USD 2,65,000. This amount will be sold forward by the bank to square its position.

PROBLEM 11

For futures contract in Canadian dollar, the initial margin and maintenance margin prescribed by the Exchange are USD 4,000 and USD 3,000 respectively. A Contract is concluded at a price of USD 0.75. The settlement prices in the exchange at the end of four subsequent days are as follows:

Day 1	USD 0.745
Day 2	USD 0.730
Day 3	USD 0.740
Day 4	USD 0.755

At the end of each day, the margin accounts of both the buyer and the seller will be adjusted based on the settlement price for the day. Where the margin goes below the maintenance level, the buyer / seller will be required to reimburse to bring the balance to the initial level. If the margin is more than the initial level, the member concerned is free to withdraw the excess.

SOLUTION:

The adjustments to be made in the margin money of buyer and seller are tabulated below:

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Opening Price: USD 0.750

Contract Value: USD 75,000

Particulars	Day1 USD	Day2 USD	Day3 USD	Day4 USD
Settlement Price	0.745	0.730	0.740	0.755
Contact Value	74,500	73,000	74,000	75,500
Margin Money Account of Buyer:				
1. Opening Balance	4,000	3,500	4,000	4,000
2. Amount adjusted for change in value of Contract	-500	-1,500	1,000	1,500
3. Adjusted balance	3,500	2,000	5,000	5,500
4. Amount deposited / withdrawn	-	2,000	-1,000	-1,500
Closing Balance	3,500	4,000	4,000	4,000
Margin Money Account of Seller:				
1. Opening Balance	4,000	4,000	4,000	3,000
2. Amount adjusted for change in value of contract	500	1,500	-1,000	-1,500
3. Adjusted balance	4,500	5,500	3,000	1,500
4. Amount deposited / withdrawn	-500	-1,500	-	2,500
Closing Balance	4,000	4,000	3,000	4,000

The buyer of futures contracts gains by an increase in the value of the contract. His margin account is increased by this value. Correspondingly, the seller loses and his margin account is reduced by the value. This is only a notional gain / loss because the contract has to be settled at the ruling price for the contract.

PROBLEM 12

Given the following information, compute the price for call option using Black-Scholes model:

Spot Rate	₹46.50
Strike Rate	₹47.00
Option to mature in	90 Days
Standard deviation of Exchange rate	0.3
Risk free interest rate in India	6%
Risk free interest rate in USA	4%

SOLUTION:

Call price as per Black-Scholes model is given by the formula:

$$C = e^{-rt} [F \cdot N(d1) - K \cdot N(d2)]$$

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$$t = 90/365 = 0.2466 \text{ years}$$

$$\text{Interest differential} = 6 - 4 = 2\%$$

$$F = Se^{rt} = ₹46.50 e^{(0.02 \times 0.2466)} = ₹46.73$$

$$d1 = (\ln(46.73 / 47.00) / 0.3 \text{ Root } 0.2466) + 0.5 \times 0.3 \times \text{Root } 0.2466 = 0.0358$$

$$d2 = 0.0358 - 0.1490 = -0.1132$$

$$N(d1) = 0.5143 \text{ (from Table)}$$

$$N(d2) = 0.3216 \text{ (from Table)}$$

Substituting the values in the formula:

$$\begin{aligned} C &= e^{-0.06 \times 0.2466} [(46.73 \times 0.5143) - (47.00 \times 0.3216)] \\ &= ₹2.07 \end{aligned}$$

PROBLEM 13

The closing price of a future is ₹99.80. The following securities are available for delivery under the contract. Select the cheapest to deliver security for the seller.

<i>Security</i>	<i>Market Price</i>	<i>Conversion Factor</i>
8.24% 2018	₹99.80	1.0750
5.69% 2018	₹87.65	0.9171

SOLUTION:

$$\text{Security 8.24\% : } ₹99.80 - (₹98.00 \times 1.0750) = ₹- 5.55$$

$$\text{Security 5.69\% : } ₹87.65 - (₹98.00 \times 0.9171) = ₹- 2.2258$$

The result is lowest for 8.24% security. It is the cheapest to delivery security.

PROBLEM 14

A Government of India security with coupon of 8.24% is maturing on 22nd April 2018. Compute the conversion factor for the purpose of March 2010 interest rate futures.

SOLUTION:

From 1st March 2010 till 22nd April 2018, there are 8 years, one month and 21 days. This period will be rounded off to 8 years. The security will earn interest of ₹4.12 every half year for 16 half years. At the end of the sixteenth half year, the principal of ₹100 is repaid. These cash flows will be discounted at the rate of 3.5% per half year to arrive at the present value of the security as on 1st March 2010.

$$\begin{aligned} \text{PV of Security} &= 16 \text{ Sigma } i=1 (4.12/1.305^i + 100/1.305^{16}) \\ &= 49.8278 + 57.6708 \end{aligned}$$

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$$= 107.4984$$

Conversion factor = PV of the Security / Face value of the Security.

$$= 107.4984 / 100 = 1.07984 \text{ or } 1.0750$$

PROBLEM 15

A Government of India Security with coupon of 6.05% is maturing on 12th June, 2018. Compute its conversion factor for the purpose of March 2010 interest rate futures.

SOLUTION

The security has a residual life of 9 years, 3 months and 11 days. Half yearly interest payable is ₹3.025. As a first step, it is assumed that one installment of interest is paid on 1st June 2010. The present value of the security as on this date is:

$$\begin{aligned} &= 3.025 + 18 \sum_{i=1}^{18} (3.025/1.305^i) + (100 / 1.305^{18}) \\ &= 3.0250 + 39.8987 + 53.8361 \\ &= 96.7598 \end{aligned}$$

To bring the present value of the security as on 1st June 2010 to the present value as on 1st March 2010, it is discounted for a period of 3 months (or half the period of 6 months):

$$= 96.7598 / 1.035^{1/2} = 95.1143$$

The interest of ₹3.025 paid on 1st June includes interest for 3 months previous to 1st March. Deducting this, the present value of the bond security is $(95.1143 - 1.5125) = 93.6018$.

Conversion factor is $93.6018 / 100 = 0.936018$ or 0.9360.

PROBLEM 16

In April, M/s Indsoft Ltd., Singapore, concludes a contract under which it is expecting to receive USD 1.5 million in October. The Spot rate for US Dollar is SGD 1.7200.

The following quotations are available in the market:

- (a) Forward contract due six months SGD 1.7350
- (b) Futures due September SGD 1.7300, due December SGD 1.7200
- (c) Option due October: Strike Price SGB 1.7425, Premium SGD 0.01

The standard deviation of the Exchange rate between US Dollar and Singapore dollar in the past one year has been 2%. In the recent months, US dollar has been appreciating.

Discuss the choice of hedging best suited, if the management estimates that by October:

- (a) The trend in the exchange rate will continue till October.
- (b) The US dollar is most likely to depreciate by 5% p.a. and
- (c) The US dollar is most likely to appreciate by 5% p.a.

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SOLUTION

The first decision the management has to take is whether to hedge the position or not. This depends on the expectation of the management about the spot rate for US dollar likely to prevail in October. If the firm strongly believes that US dollar will appreciate, it may decide to keep the position open. A conservative management may decide not to take any view on the exchange rate and cover entirely by a forward contract. A via media approach would be to cover a portion with a hedging instrument and leave the balance uncovered. The idea is to balance the effect of exchange rate movements.

When it is decided to cover the position by a financial instrument, the choice has to be made among forward, futures and option.

- A. When the exchange rate fluctuates between +/- 2% p.a., the exchange rate will be between SGD 1.7028 and SGD 1.7372. The choice of the cover would be forward contract. There is a possibility of foregoing opportunity of gain of SGD 0.0022 per US dollar, but the protection obtained against fall in the value of September or December and the number of futures may be either one or two. The difference between the forward price and future price is not sufficient to encourage taking additional risk of different maturity periods and different sizes of cover. Option is also not a good choice. The premium payable is SGD 0.01. If the spot rate happens to be SGD 1.7372, the option will be exercised and the net rate obtained per US dollar will be SGD 1.7325, which is worse than the rate under forward.
- B. If the US dollar is most likely to depreciate by 5% p.a., the spot rate in October is expected to be SGD 1.6770. Any of the hedging instruments is better than keeping the position open. Between forward and option, forward would be preferred because of higher net realization as we discussed in the previous situation.
- C. If the US dollar is expected to appreciate by 5% p.a. the likely spot rate in October will be SGD 1.7630. If the firm strongly believes this rate would prevail, it may not go for hedging its position. It will not be advisable to book forward contract or futures which will spoil the prospect of earning higher realization per US dollar. However, there is always a contingency that the estimate may go wrong. To provide for such an eventuality, and also share in the appreciation of the US dollar, it would be advisable to hedge the exposure using currency option. For a premium of SGD 0.01 per US dollar, the firm can participate in the appreciation of US dollar.

PROBLEM 17

Marico Marines Limited has to pay USD 500,000 at the end of six months from today. It is considering the following alternatives to manage the exposure:

- (1) Use forwards
- (2) Use Money market hedge

Foreign Exchange: Some Practical Problems and Solutions

- (3) Use Options and
 (4) Remain un-hedged.

It has collected the following information to take a decision:

- | | | |
|-----|--|-------------|
| (a) | Spot rate for US Dollar | ₹44.80 |
| (b) | Six months forward rate for US Dollar | ₹44.95 |
| (c) | Interest rates: | |
| | -Rupee | 7.15 / 7.25 |
| | -Dollar | 6.30 / 6.40 |
| (d) | Call option due 6 months – Strike Price ₹44.98, Premium ₹0.05. | |
| (e) | Forecast spot rate for 6 months: | |
| | ₹ / Dollar | Probability |
| | ₹44.90 | 60% |
| | ₹45.00 | 30% |
| | ₹45.10 | 10% |

Examine the alternatives and suggest the method that Marico Marines may adopt.

SOLUTION:

(A) Forward Contract:

The firm can book forward contract at ₹44.95 per dollar. The rupee cost is : ₹44.95 x 5,00,000 = ₹2,24,75,000.

(B) Money market hedge:

The firm can buy dollars in the spot market and invest them for 6 months. This requires borrowing in rupees for 6 months to fund the transaction.

The number of dollars purchased is such that along with interest at 6.3% p.a. it amounts to USD 500,000.

Dollars borrowed = 5,00,000 / (1.0315) = USD 484,731

Rupees required to buy USD 484,731 at ₹ 44.80	₹2,17,15,949
---	--------------

Interest at 7.25% for 6 months	₹7,87,203
--------------------------------	-----------

₹2,25,03,152

- (C) Call option:** In the market, there will be more than one quotation for call option, each with a set of strike price and premium. Before comparing option with other instruments, the firm will first choose the best among the quotes for options. We assume the present quote to be the best.

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For forwards and money market hedge, the outcome is certain. For call option, the outcome depends on the spot rate that will prevail on the due date. Since this is uncertain, there are only probable outcomes depending on the estimated spot rates and the strength of probability associated with them. For each anticipated spot rate to prevail on the due date, the outcome for the call option is calculated as under:

Expected Spot Rate	Option Executed	Rupee Cost per Dollar Including Premium	Total Rupee Cost	Probability
Rs 44.90	No	₹44.95	₹2,24,75,000	60%
₹45.00	Yes	₹45.03	₹2,25,15,000	30%
₹45.10	Yes	₹45.03	₹2,25,15,000	10%

(D) **Open position:** When the exposure remains unhedged, the rupee cost is dependent on the spot rate prevailing on the due date.

Expected Spot Rate	Rupee Cost	Probability
₹44.90	₹2,24,50,000	60%
₹45.00	₹2,25,00,000	30%
₹45.10	₹2,25,50,000	10%

Analysis: As between forward contract and money market hedge, forward contract is preferable because the rupee cost is lower under forward contract.

Between forward contract and call option, the outcome is the same in both cases with 60% probability. In the balance 40% probability, the rupee cost is higher under call option. Therefore, forward contract is preferred against call option also.

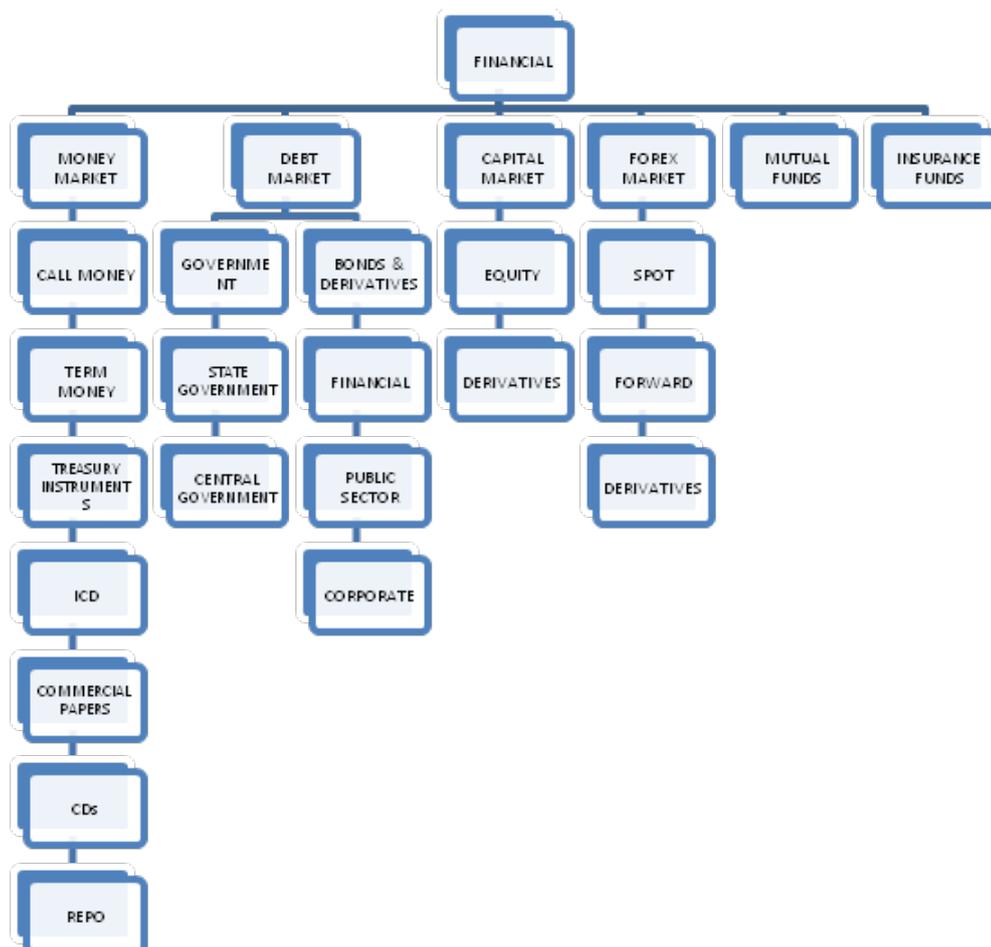
The open position proves to be the least-cost alternative with a probability of 60%.

It may be advisable for the firm to keep its position open. However, the position should be reviewed at least at monthly intervals, to examine the situation under current cost conditions. For instance, in the next review, the forward rate for 5 months, call option for 5 months, expected spot rate due 5 months, etc. should be considered. Where the study reveals hedging as a better choice, the position should be covered using the best alternative.

5

An Overview of Financial Products

The following flow-chart depicts an overview of the financial products:



6

Treasury: Some Practical Problems

PROBLEM 1

On 1 January 2014, an entity grants an interest free loan of ₹100 to an employee. It is repayable on December 31, 2014. The market rate of interest is 8%.

Determine the fair value of the loan and the accounting for the difference between the fair value and the transaction price.

SOLUTION:

The fair value of the loan is ₹92.59 ($₹100/1.08$). The difference of transaction price (i.e. 100) and fair value (i.e. 92.59) is ₹7.41 and that is considered as employee remuneration.

PROBLEM 2

An entity issues a perpetual debt instrument for consideration of ₹100. Market rate of interest of Rs 6 is payable annually in perpetuity. The instrument is not redeemable.

Determine the effective interest rate?

SOLUTION:

The effective rate that discounts ₹6 annually in perpetuity to ₹100 is 6 %. ₹6 will be recognized each year in the profit or loss and there would be no amortization of the principal amount.

PROBLEM 3

Entity A could sell its financial asset in two different markets:

<i>Market</i>	<i>Quoted market price</i>	<i>Transaction cost</i>
A	₹80	₹2
B	₹85	₹10

Determine the most advantageous market and the fair value of the financial asset.

SOLUTION:

While determining the most advantageous market, Entity A would consider the market that provides higher cash flow in comparison to the other.

Treasury: Some Practical Problems

Net cash flow in Market A = ₹78

Net cash flow in Market B = ₹75

Therefore the most advantageous market would be market A and the estimate of the fair value would be ₹80 (disregarding transaction costs that will be incurred on disposal).

PROBLEM 4

Entity A acquires a financial asset for ₹110, which is not quoted in an active market. The asset's fair value based on the entity's own valuation technique amounted to ₹115. However, that valuation technique does not solely use observable market data, but relies on some entity-specific factors that market participants would not normally consider.

Determine whether Entity A can recognize a "day-1" profit of ₹5 and record the asset at ₹115.

SOLUTION:

No. The entity cannot recognize a 'day-1' profit of ₹5 and record the asset at ₹115. The use of unobservable entity-specific inputs to calculate a fair value that is different from transaction price on 'day-1' is so subjective that its reliability is called into question. Hence, recognition of a 'day-1' gain or loss is not appropriate. Accordingly, the entity restricts its valuation to the transaction price and the asset is recorded at ₹110.

PROBLEM 5

On January 1, 2010, an entity originates a loan of ₹100 Million that is measured at amortized cost. The loan is repayable in five annual repayments of ₹25 Million on December 31, 2010 to December 31, 2014. Ignoring future credit losses, it is expected that all contractual cash flows will be received; hence effective interest rate is 7.93%.

The carrying amount of the loan is, therefore, ₹82.93 Million as on December 31, 2010. On January 1, 2011, the entity receives information regarding the future prospects of the sector in which the borrower operates. This information coincides with a downgrading of the borrower's credit rating. Together, these two occurrences are deemed to constitute a loss event and it is now expected that the 2013 and 2014 repayments will not be received.

SOLUTION:

Present value of estimated cash flows discounted at the original effective interest rate@7.93%
- $\frac{₹25}{1.0793} + \frac{₹25}{(1.0793)^2} = ₹44.62$ Million.

Carrying amount of the loan as at Jan 1, 2011-₹82.93 Million

Impairment loss to be recognized = ₹38.31 Million

(₹82.93 Million – ₹44.62 Million)

FPIs can Invest in T-Bills issued by Central Government

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Foreign Portfolio Investors (FPIs) have now been allowed by the Reserve Bank of India (RBI) to invest in Treasury Bills (T-Bills) issued by the Central Government. However, investment in securities with residual maturity below one year by an FPI under either category (G-Secs, SDLs or Corporate Bonds) cannot exceed 20% of the Total Investment of that FPI in that category.

PROBLEM 6

Entity D acquires an investment in an available-for-sale instrument debt instrument at 1/1/2011. Entity D has a calendar year reporting period end and applies IAS 39 in measuring and classifying its financial assets.

At 31/12/2013, there was objective evidence of impairment and the fair value loss recognized in other comprehensive income is reclassified from equity to profit or loss in accordance with IAS 39.

At 31/12/2014 there is objective evidence that the impairment loss has reversed.

Determine the accounting for the impairment reversal.

SOLUTION:

The gain recognized in other comprehensive income is reclassified from equity to profit or loss. This however may not necessarily equal the amount of loss recognized earlier in profit or loss, i.e. the loss recognized in 2013.

Example: Repo Transaction computation

Bank A agrees to borrow approximately ₹10 Crores from Bank B for a period of 3 days at an interest rate of 5%.

Borrower	Bank A	
Lender	Bank B	
Tenor	3 days	
Repo Rate	5.00% 6.85% GOI 2012 (Government of India security with a coupon rate of 6.85% and maturing on 05 April 2012)	
Security	15 November 2005	
Ready Leg Date	18 November 2005	
Forward Leg Date		

Treasury: Some Practical Problems

Ready Leg Computation		
Ready Leg Price of Security	₹100/-	
Face Value of Security	₹10,00,00,000/-	
Principal Value of Security	₹10,00,00,000/-	A
Last Interest Date	05 October 2005	
Accrued Interest on Security	₹7,61,111.11	B
Ready Leg Proceeds (A+B)	₹10,07,61,111.11	C
Forward Leg Computation		
Repo Interest Amount	(₹10,07,61,111.11) x .05 x 3/365 ₹41,408.68	D
Forward Leg Proceeds (C+D)	₹10,08,02,519.79	E
Accrued Interest on Security	₹8,18,194.44	F
Principal Value of Security (F-F)	₹9,99,84,325.35	G
Forward Leg Price of Security	[G/(100000000)]x100 ₹99,984.43	

(The above example illustrates how the forward leg price is derived for a Repo Transaction).

PROBLEM 7

A 3-day repo is entered into on 10th July, 2001, at 11.99% 2009 security, maturing on 7th April, 2009. The face value of the transaction is ₹3,00,00,000. The price of the security is ₹116.42. If the repo rate is 7%, what is the settlement amount on 10th July, 2001?

SOLUTION:

Settlement amount on 10th July, 2001 is the transaction value for the securities plus accrued interest.

Transaction Value:

$$3,00,00,000 * 116.42 / 100 = ₹3,49,26,000.$$

Accrued Interest:

The security's maturity date is 7th April, 2009. Using the Coupdays function, we can find the number of days from last coupon date. (Settlement: 10th July, 2001; Maturity: 7th April, 2009; Frequency:2; Basis:4; The number of day is 93.

$$\text{Accrued Interest} = 3,00,00,000 * 11.99\% * 93/360 = ₹9,29,225.00$$

Therefore, the settlement amount is : ₹3,49,26,000 + ₹9,29,225.00 = ₹3,58,55,225.00

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PROBLEM 8

Using the same date as mentioned in the above question, determine the settlement amount for the second leg of the repo transaction.

SOLUTION:

The settlement amount for the second leg involves the following:

Interest on the Amount borrowed:

$$= 35855225 * .07 * 3/365$$

$$= ₹20,629.03$$

Amount to be settled: ₹35855225 + ₹20629.03 = ₹35875854.03

7

Fixed Income Securities : Salient Points

- Money has Time Value. Ready possession of money is preferable.
- People prefer ready possession of money, because money earns interest, its value may be eroded due to inflation, and present consumption will have to be postponed if one were to receive the money due to it today at a future date.
- Interest is paid on a simple basis or on a compounded basis.
- The factor used to find the present value of a future cash flow is called a discount factor, and the factor which is used to find the future value of a present investment is called a compounding factor.
- Cash flows can be either single or multiple.
- Fixed income securities are debt instruments which pay a periodic interest rate (coupon) on the investment for a given maturity.
- A coupon payment structure of fixed income security is similar to an annuity.
- The value of a fixed income security is arrived at by computing the present value of all its promised cash flows in future.
- The price of fixed income security is inversely related to the market interest rate.
- The appreciation in price, when interest rate goes down is greater than the depreciation in price when the interest rate rises higher by the same degree.
- The longer the maturity, the more volatile will be the price of a bond.
- Bonds with lower coupon will be more volatile in their price movements when interest rate changes in the market.
- Between two bonds of same maturity and coupon rates, the bond with higher frequency of coupon payments will be less volatile in its price changes when interest rate changes in the market.
- Duration is a neutral point of time in the life of a fixed income security when the reinvestment risk is compensated by the price risk.
- Duration is in essence, the effective maturity of the bond.
- Duration is directly related to the maturity of a bond.

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- Duration is inversely related to coupon and market interest rates.
- Duration of a coupon paying bond is less than its maturity.
- Duration of a floating rate bond is equal to the interest resetting period, or the period remaining to the next resetting.
- Duration of a zero coupon bond is equal to its maturity.
- Duration of a portfolio of bonds is additive.
- Modified duration is refinement over Duration, as the latter does not capture price changes accurately when market interest rate changes.
- Modified Duration too captures price changes only for small changes in interest rates.
- Convexity together with Modified Duration captures price changes of bonds accurately, when the market interest rate changes.

CENTRE UNVEILS ELECTORAL BONDS SCHEME

Recently, the centre unveiled the Electoral Bonds scheme, which seeks to ensure flow of clean money to political parties without revealing the donors' name. Electoral bonds will be an interest-free, bearer instrument (like a Promissory Note). A citizen of India or a body incorporated in India will be eligible to purchase the bond from specified branches of the State Bank of India (SBI), for any value in multiples of ₹1,000; ₹10,000, ₹1 Lakh, ₹10 Lakh, and ₹1 Crore. Since the identity of the donor and the donee will be kept anonymous, people will be free to donate to any political party of their choice. To benefit from this scheme, the parties should be registered with the Election Commission and should have bagged not less than 1% of the votes polled in the most recent general election to the Lok Sabha or a State Legislative Assembly. The parties can encash these bonds only through a designated bank account with an authorized bank for which, each party has to submit details of one designated account to the Election Commission. Electoral bonds under the scheme will be available for purchase for ten days each in the months of January-April, July and October.

8

Treasury Operations

Front Office

Finacle presents a comprehensive dealer-friendly front office module that enables efficient deal capture. The treasury solution provides the flexibility to price and capture deals through the front office, or import them from external sources through seamless interfaces.

- Trade entry
- User-friendly interface
- Personalized layout
- Online updates
- Multi-dimensional organization structure
- Blotters
- Pricing
- Simulation
- Limits monitoring
- Real time position keeping and P & L

Middle Office

Finacle offers the following real-time tools to view positions and manage market, currency and credit risks effectively.

- Multiple revaluation methodologies
- Risk management
- Limits management
- Value at risk

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Back Office

Finacle offers a comprehensive back office module for real-time management of treasury instruments and their derivatives. This comprises complete deal processing including deal settlement, updating, verification, confirmation, NOSTRO reconciliation and tickets printing.

- Straight Through Processing (STP)
- Deal lifecycle
- Permissioning system
- Exceptions management
- Blotter operations
- NOSTRO blotter
- Setup of static data
- Accounting
- Reporting
- Electronic messaging infrastructure
- Message management

9

Important Areas of Treasury Operations for Verification as per RBI Guidelines

Following are the important areas of treasury operations which require verification in terms of the guidelines issued by the RBI:

- (i) If branch has acted within the HO instructions for purchase and sale of securities.
- (ii) Periodic confirmation of Derivative contracts with counterparties.
- (iii) Adherence to regulatory guidelines with respect to Treasury deals/structured deals.
- (iv) Controls around deal modification/cancellation/deletion, wherever applicable.
- (v) Cancellation of forward contracts and passing/recovery of exchange gain/loss.
- (vi) Gaps and OPL maintained in different currencies vis-à-vis prescribed limit for the same.
- (vii) Reconciliation of NOSTRO and VOSTRO accounts-balances in NOSTRO accounts in different foreign currencies are within the limits prescribed by the bank.
- (viii) Collection of underlying documents for Derivative & Forward contracts. Delays, if any.
- (ix) Instances of booking and cancellation of forward contracts with the same counterparty within a span of couple of days or a few days.
- (x) Sample checks of some of the deals and comment on the correctness of computation.
- (xi) Checking of application money, reconciliation of SGL account, compliance with RBI norms.
- (xii) Checking of custody of unused BR Forms & their utilization in terms of Master Circular on Prudential Norms on Classification, Valuation and Operations of Investment Portfolio by banks.
- (xiii) To ensure that the treasury operations of the bank have been conducted in accordance with the instructions issued by the RBI from time to time.

10

Lists of Statements, Registers, Advices, Covering Letters, Messages, Which are Generated by the Computer and Printed Daily, Weekly, Fortnightly & Monthly

Daily Printout

- Rupee funding deals today
- Ready Deals done today
- Bills purchased today
- Forward Contracts Book today
- Bills Reversed today
- Interbank Deals Register
- Daily Position Balancing
- NOSTRO Ledger
- NOSTRO Balances
- Country Exposure
- Counterparty Exposure
- Advance Bills Outstanding
- Daily Advance Bills Reports
- Gap Daily
- Forward Contract Advices to Customers
- Supplementary Cash Book
- Summary of NOSTRO Accounts Valuation
- 5 day's Summary of Funds

List of Statements, Registers, Advices, Covering Letters, Messages

- Rupee settlement-Interbank Contracts maturing on a given date (Purchase and Sale against Rupees)
- Interbank Contracts maturing on a given date (Forward Deals) including TOM / SPOT / FORWARD
- Confirmations
- Interbank Settlement Vouchers
- Money Market Settlement Vouchers
- Money Market Confirmation
- Rupee Funding Statement
- Payment Message by Swift
- Payment / Receipts to RTGS, NEFT etc.
- Currency-wise and date-wise consolidated Forward Purchases and Sales Statements for Next Two Months. This is generated for making use of funding / reducing gap through swap.
- Funds on given date
- Funds Summary
- Forex Outstanding Deals

Weekly Printout

- Forward Diary
- Friday Position

Fortnightly Printouts

- Forward Diary
- "R" Returns and Supplement
- Sales & Purchase Sheets

Some Monthly Printouts

- O/s Interbank
- O/s Bills
- O/s Ready

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- O/s Forward Contract currency wise, slip-wise, month-wise.
- O/s Advance Bills
- True Position Statement
- "R" Returns & Supplement
- Friday Position
- NOSTRO Valuation
- Forward Valuation
- Brokerage
- FEDAI Rates
- RBI Sales
- Rupee Funding
- Merchant / Interbank Ratio
- Interbank Turnover
- Merchant Turnover
- Currency Turnover
- Money Market Funds Position
- Reconciliation Ledger

(O/s = Outstanding)

Salient Features of the Investment Policy

An investment policy should ideally have the following features:

1. **Objectives** – The Policy should set forth the objectives of investment business, whether it is to manage liquidity, to improve returns, or to achieve capital growth. Quite often, the objective would be a mix of all the three components and the policy should set forth the type of funds to be deployed, in terms of the proportion to total.
2. **Sources of Funds** – The Investment policy should identify whether the investible funds should come from equity or from floating funds or from any other source. The Policy should also lay down what should be the optimum level of investment, consistent with the objectives of the entity..
3. **Asset Quality** – The policy should prescribe the minimum credit rating requirements and such other minimum requirements to the net worth and financial position of the issuer. The policy should prescribe the acceptable maturities for investment. The Policy may also prescribe minimum and maximum maturity as per the clause of the issuer, e.g. Sovereign or non-sovereign.
4. **Risk Management** – The Policy should provide risk management guidelines in terms of acceptable levels of interest rate exposure. Appropriate risk measure such as duration should be prescribed for the investment portfolio. Similar guidelines for credit exposure in terms of counter party limits should also be contained in the policy.
5. **Stop** – Loss limits should be prescribed for securities trading, preferably with different limits for different types of securities. The trader should also be required to operate within the prevailing economic environment and in case of any major change (say, currency depreciation or regulatory restrictions) should seek fresh guidelines from the management.
6. **Valuation** – The securities portfolio is to be revalued from time to time and provisions for the depreciation in market values should be made in accordance with generally accepted accounting principles. The revaluation of securities would also help the management to assess the performance of the trader from time to time.

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7. Separate guidelines need to be issued to the securities traders as to the hedging of business risks and use of derivatives. In several countries, central banks insist on necessary approvals from the top management at board level, for use of derivatives.
8. Sound internal control systems are to be built up with segregation of front and back offices and regular audit and inspection of accounting records.

12

Basics of Valuation of Investments

Characteristics of Investment Companies

Investment Companies are financial intermediaries that collect funds from individual investors and invest those funds in a potentially wide range of securities or other assets.

Types: Unit investment trusts and managed investment companies (either close-end or open-end). Open-end companies are called mutual funds.

Unit investment trusts (unmanaged): Invested in a portfolio that is fixed for the life of the fund. Most unit trusts hold fixed-income securities and expire at their maturity. 90% of all unit trusts are invested in fixed-income portfolios, and about 90% of fixed-income unit trusts are invested in tax-exempt debt.

$NVA = (\text{asset-liabilities}) / \text{share outstanding}$

Mutual funds (open-end investment companies) account for about 90% of investment company assets.

Basic Tenets of Risk & Return

The investment process consists of two broad tasks. One task is security and market analysis, by which we assess the risk and expected-return attributes of the entire set of possible investment vehicles. The second task is the formation of an optimal portfolio of assets. This task involves the determination of the best risk-return opportunities available from feasible investment portfolios and the choice of the best portfolio from the feasible set. The formal analysis of investments with the latter task is called portfolio theory. Three central themes in portfolio theory, all centering on risk are as follows.

- **The first** is the basic tenet that investors avoid risk and demand a reward for engaging in risky investments. The reward is taken as a risk premium, the difference between the expected rate of return and that available on alternative risk-free investments.
- **The second** theme allows us to quantify investors' personal trade-offs between portfolio risk and expected return. To do this we introduce the utility function, which assumes that investors can assign a welfare or "utility" score to any investment portfolio depending on its risk and return.

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- **The third** theme is that we cannot evaluate the risk of an asset separate from the portfolio of which it is a part; that is, the proper way to measure the risk of an individual asset is to assess its impact on the volatility of the entire portfolio of investments. Taking this approach, we find that seemingly risky securities may be portfolio stabilizers and actually low-risk assets.

Risk: The chance that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investment. It is usually measured using the historical returns or average returns for a specific investment. Higher risk means a greater opportunity for high returns... and a higher potential for loss.

Risk Premium: The extra return that a risky investment provides over the risk free rate to compensate for the risk of the investment. A higher rate of return is required to entice investors into a riskier investment.

Risk Averse: Describes an investor who, when faced with two investments with a similar expected return (but different risks), will prefer the one with the lower risk. A risk averse person dislikes risk.

Utility Score: Assume each investor can assign a welfare, or utility, score to competing investment portfolios based on the expected return and risk of those portfolios. The utility score may be viewed as a means of ranking portfolios. Portfolios receive higher utility scores for higher expected returns and lower scores for higher volatility. Many particular "scoring" systems or utility functions are legitimate.

Certainty Equivalent Rate of a portfolio is the rate that risk-free investments would need to offer with certainty to be considered equally attractive as the risky portfolio. A portfolio is desirable only if its certainty equivalent return exceeds that of the risk-free alternative. A sufficient risk-averse investor may assign any risky portfolio, even one with a positive risk premium, a certainty equivalent return that is below the risk-free rate, which will cause the investor to reject the portfolio.

Risk Neutral Investors judge risky prospects solely by their expected return. The level of risk is irrelevant to the risk-neutral investor, meaning that there is no penalization for risk. For this investor a portfolio's certainty equivalent rate is simply its expected return.

On the contrary, a risk lover is willing to engage in fair games and gambles; this investor adjusts the expected return upward to take into account the "fun" of confronting the prospect's risk. Risk lovers will always take a fair game because their upward adjustment of utility for risk gives the fair game a certainty equivalent that exceeds the alternative of the risk-free investment.

Indifference Curve: The curve that connects all portfolio points with the same utility value in the mean-standard deviation plan.

Investment Properties

Investment properties are those properties,

- (i) in respect of which construction work and development have been completed; and
- (ii) which is held for its investment potential, any rental income being negotiated at arm's length.

Following terminologies are used in this Standard with the meanings specified:

A *current investment* is an investment that is by its nature readily realizable and is intended to be held for not more than one year.

Fair value is the amount for which an asset could be exchanged between a knowledgeable, willing buyer and a knowledgeable, willing seller in an arm's length transaction.

An *investment* is an asset held by an enterprise for the accretion of wealth through distribution (such as interest, royalties, dividends and rentals), for capital appreciation or for other benefits to the investing enterprise such as those obtained through trading relationships. Inventories as defined in FRS 2- Inventories, are not investments. Property, plant and equipment as defined in FRS 16 Property, Plant and Equipment, (other than investment properties) are not investments.

An *investment property* is an investment in land or buildings that are not occupied substantially for use by, or in the operations of, the investing enterprise or another enterprise in the same group as the investing enterprise.

A *long-term investment* is an investment other than a current investment. *Market value* is the amount obtainable from the sale of an investment in an active market. *Marketable* means that there is an active market from which a market value (or some indicator that enables a market value to be calculated) is available.

It is to be noted that-

- A property which is owned and used by an entity for its own purposes is not an investment property; for example, a hotel or a warehouse.
- A property let to, and occupied by, another group company is not an investment property for the purposes of its own financial statements or the group financial statements.

Investment properties may be held by an entity which holds investments as part of its business such as an investment trust or a property investment company. Investment properties may also be held by an entity whose main business is not the holding of investments. For the purpose of this Standard, the term "same investment" should be interpreted as "same class of

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investments". "Same class of investments" means a category of investments which have a similar nature or function in the operations of the reporting enterprise.

Hold Investments

Enterprises hold investments for diverse reasons. For some enterprises, investment activity is a significant element of operations and assessment of the performance of the enterprise may largely, or solely, depend on the reported results of this activity. Some hold investments as a store of surplus funds and some hold trade investments in order to cement a trading relationship or establish a trading advantage.

Enterprises, for which investment activity is a significant element of operations, such as insurance companies and some banks, are often subject to regulatory control. The Preface to Financial Reporting Standards provides that Financial Reporting Standards do not override local regulations governing the issue of financial statements.

Some investments are represented by certificates or similar documents; others are not. The nature of an investment may be that of a debt, other than a short or long-term trade debt, representing a monetary amount owing to the holder and usually bearing interest; alternatively it may be a stake in an enterprise's results, such as an equity share. Most investments represent financial rights, but some are tangible such as certain investments in land or buildings and direct investments in gold, diamonds or other marketable commodities.

For some investments, an active market exists from which a market value can be established. For such investments, market value is an indicator of fair value. For other investments, an active market does not exist and other means are used to determine fair value.

Classification of Investments

An enterprise that distinguishes between current and long-term assets in its financial statements should present current investments as current assets and long-term investments as long-term assets.

Enterprises that do not distinguish between current and long-term investments in their balance sheets should nevertheless make a distinction for measurement purposes and determine the carrying amount for investments.

Current investments are included in current assets. The fact that a marketable investment has been retained for a considerable period does not necessarily preclude its classification as current.

Investments held primarily to protect, facilitate or further existing business or trading relations, often called trade investments, are not made with the intention that they will be available as additional cash resources and are thus classified as long-term. Other investments, such as

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investment properties, are intended to be held for a number of years to generate income and capital gain. They are therefore classified as long-term assets even though they may be marketable.

Some enterprises choose not to distinguish between current and long-term assets, and others may be required by regulations to adopt a balance sheet format that makes no distinction. Many such enterprises operate in the financial field, such as banks and insurance companies. Although such enterprises do not intend to realize their assets in current operations, they usually regard many of their investments as being available for the purposes of their current operations if required.

However, such enterprises may have investments properly regarded as long-term assets; for example a bank may hold shares in a leasing company.

Many such enterprises therefore analyze their investments and attribute carrying amounts to them according to whether their characteristics are those of current investments or long-term investments.

Cost of Investments

The cost of an investment includes acquisition charges such as brokerages, fees, duties and bank fees. If an investment is acquired, or partly acquired, by the issue of shares or other securities, the acquisition cost is the fair value of the securities issued and not their nominal or par value. If an investment is acquired in exchange, or part exchange, for another asset, the acquisition cost of the investment is determined by reference to the fair value of the asset given up. It may be appropriate to consider the fair value of the investment acquired if it is more clearly evident.

Interest, royalties, dividends and rentals receivable in connection with an investment are generally regarded as income, being the return on the investment. However, in some circumstances, such inflows represent a recovery of cost and do not form part of income. For example, when unpaid interest has accrued before the acquisition of an interest-bearing investment and is therefore included in the price paid for the investment, the subsequent receipt of interest is allocated between pre-acquisition and post-acquisition periods; the pre-acquisition portion is deducted from cost. When dividends on equity securities are declared from pre-acquisition profits, a similar treatment applies. If it is difficult to make such an allocation except on an arbitrary basis, the cost of an investment is normally reduced by dividends receivable only if they clearly represent a recovery of part of cost.

The difference between the acquisition cost and redemption value of an investment in debt securities (the discount or premium on acquisition) is usually amortized by the investor over the period from acquisition to its maturity so that a constant yield is earned on the investment. The amortized discount or premium is credited or charged to income as though it were interest

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and added to or subtracted from the carrying amount of the security. The resultant carrying amount is then regarded as cost.

Carrying Amounts of Investments

Investments classified as current assets should be carried in the balance sheet at either

- Market value or
- The lower of cost and market value.

If current investments are carried at the lower of cost and market value, the carrying amount should be determined either on an aggregate portfolio basis, in total or by category of investment, or on an individual investment basis.

Opinions differ on the appropriate carrying amount for current investments. Some maintain that, for financial statements prepared under the historical cost convention, the general rule of lower of cost and net realizable value is applicable to investments; and since most current investments are marketable, the carrying amount is the lower of cost and market value. Supporters of this method of determining carrying amount claim that it provides a prudent balance sheet amount and does not result in recognizing unrealized gains in income.

Others argue that, since current investments are a readily realizable store of wealth, or a cash substitute, it is appropriate to value them at fair value, usually market value. The enterprise is not concerned with the cost of such items but with the cash it could raise by disposing them off. Investments are distinguished from inventories because they can generally be sold without effort, whereas it would normally be inappropriate to recognize profit on sale of inventories before the sale was assured. Each investment is dispensable by the business - for example an equity investment could be sold and the proceeds re-invested in a bank deposit account without detriment to the business - and therefore it is appropriate to report it at market value. Supporters of market value also argue that reporting investments at historical cost allows managements to recognize income at its discretion, since selected investments can be sold and immediately repurchased and the resulting profit reported in income, although such transactions have not changed the enterprise's economic position.

Valuation Investments on the Basis of Classification

Investments classified as long-term assets should be carried in the balance sheet at either:

- Cost or
- Revalued amounts or
- In the case of marketable equity securities, the lower of cost and market value determined on a portfolio basis.

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If revalued amounts are used, a policy for the frequency of revaluations should be adopted and an entire category of long-term investments should be revalued at the same time. The carrying amount of all long-term investments should be reduced to recognize a decline other than temporary in the value of the investments, such reduction being determined and made for each investment individually.

Long-term investments are usually carried at cost. However, when there is a decline, other than temporary, in the value of a long-term investment, the carrying amount is reduced to recognize the decline. Indicators of the value of an investment may be obtained by reference to its market value, the investee's assets and results and the expected cash flows from the investment. Risk and the type and extent of the investor's stake in the investee are also taken into account. Restrictions on distributions by the investee or on disposal by the investor, may affect the value attributed to the investment.

Reductions for other than a temporary decline in the carrying amounts of long-term investments are charged in the income statement unless they offset a previous revaluation.

Reductions in carrying amount may be reversed when there is a rise in the value of the investment, or if the reasons for the reduction no longer exist. However, in some countries reductions in the carrying amount are not reversed.

Carrying Amount versus Disposal of Investments

On disposal of an investment, the difference between net disposal proceeds and the carrying amount should be recognized as income or expense. If the investment was a current asset carried on a portfolio basis at the lower of cost and market value, the profit or loss on sale should be based on cost. If the investment was previously revalued, or was carried at market value and an increase in carrying amount transferred to revaluation surplus, the enterprise should adopt a policy either of crediting the amount of any remaining related revaluation surplus to income or of transferring it to retained earnings. This policy should be applied consistently in accordance with Financial Reporting Standard.

Any reduction to market value of current investments carried at the lower of cost and market value on a portfolio basis is made against the cost of the portfolio in aggregate; individual investments continue to be recorded at cost. Accordingly the profit or loss on sale of an individual investment is based on cost; however the aggregate reduction to market value of the portfolio needs to be assessed.

When disposing of part of an enterprise's holding of a particular investment, a carrying amount must be allocated to the part sold. This carrying amount is usually determined from the average carrying amount of the total holding of the investment.

Accounting of Transfer of Investments

For long-term investments re-classified as current investments, transfers should be made at:

- The lower of cost and carrying amount, if current investments are carried at the lower of cost and market value. If the investment was previously revalued, any remaining related revaluation surplus should be reversed on the transfer.
- Carrying amount if current investments are carried at market value. If changes in market value of current investments are included in income any remaining related revaluation surplus should be transferred to income.

Investments re-classified from current to long-term should each be transferred at the lower of cost and market value or at market value if they were previously stated at that value.

Switching of Investments within a Portfolio

An enterprise with significant investment activity typically maintains a portfolio of investments in which it trades constantly. In doing so, the enterprise seeks to improve the quality and yields of its portfolio of investments. On disposing of a particular investment, funds released are available for reinvestment or may remain as the cash element of the investment portfolio.

In view of the constant changes in investments in such a portfolio, different opinions are held as to the appropriate accounting treatment on disposal of a particular investment:

- Some mention that an excess or deficiency of net sale proceeds over carrying amount represents a realized profit or loss, which should be recognized in income immediately.
- Others argue that the disposal merely reflects an adjustment of the constituents of the portfolio, representing no value increase or decrease since it is only a substitution of one investment for another, and that therefore no profit or loss should be reflected in income.
- Few others advocate a middle course, whereby the difference between net sale proceeds and cost is amortized to income over a given period.

Some enterprises that carry current investments at market value on the grounds that they are a store of freely disposable wealth recognize any gains or losses in market value as an element of income to be accounted for in the income statement along with profits and losses on disposals. However, in some countries such gains are not permitted to be included in income and are credited direct to owners' equity and accounted for in the same way as revaluation surplus on long-term investments.

If current investments are carried at the lower of cost and market value, any reductions to market value and any reversals of such reductions are included in the income statement along with profits and losses on disposals.

Basics of Valuation of Investments

Any reductions in carrying amount for other than a temporary decline in value of long-term investments, and reversals of such reductions, and profits and losses on disposal of long-term investments are included in income.

Specialized Investment Enterprises

Specialized investment enterprises which are prohibited from distributing profits on the disposal of investments may exclude from income changes in value of investments, whether realized or not, provided they carry their investments at fair value. Such enterprises should include in the financial statements a summary of all the movements in value of their investments for the period.

In certain countries, there are specialized investment enterprises whose main business is the holding of a portfolio of marketable securities as an investment vehicle for their individual shareholders. These enterprises carrying their investments at fair value, usually market value, because this is the most appropriate basis in the circumstances. They regard realized profits and losses on their investments as being the same in substance as unrealized gains and losses and therefore account for them in the same way. They disclose a summary of all the movements in the value of their investments for the period.

The constitutions of these enterprises prohibit the distribution as dividends of profits on disposal of investments and require a distinction to be drawn between income arising from interest and dividends and the gains or losses arising on the disposal of the investments. Hence these enterprises exclude from income all changes in value of investments whether or not they are realized.

Some Illustrations

Question 1

X Ltd. has the following portfolio of investments on 31st March 2018

(₹ In Lacs.)

<i>Current investments</i>	<i>Cost</i>	<i>Market value</i>
Shares of A Ltd.	250	265
Units of UTI	160	160
Shares of C Ltd.	125	100
TOTAL	535	525

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<i>Long term investments</i>		
Shares of Y Ltd. (subsidiary)	200	210
Shares of Z Ltd.	150	130
Shares of W Ltd.(subsidiary)	80	10
TOTAL	430	350

Compute the value of investment for balance sheet purposes assuming that the fall in value of investment Z Ltd. is temporary and that of W Ltd. is permanent.

Ans.

<i>Current Investments (at lower of cost or market value, individually)</i>	<i>(₹ In Lacs.)</i>
Shares of A Ltd.	250
Units of UTI	160
Shares of C Ltd.	100
	510
<i>Long term Investments</i>	
Shares of Y Ltd.	200
Shares of Z Ltd	150
Shares of W Ltd.	80
	430
Less: Provision for permanent diminution in value	70
	360
Total: (510 + 360)	870

Interest, dividend and rental receivables in connection with an investment are generally regarded as income, being the return on the investment. However, in some circumstances, such inflows represent a recovery of cost and do not form part of income. This happens when the inflows relate to a period prior to the date of acquisition of investment. Such inflows will be deducted from the cost of acquisition.

Question2 :

M/s Navaratna Ltd. furnishes the following particulars about their investment in shares of M/s Samay Ltd. for the year 2017-18

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Balance of shares held on 1st April 2017	₹262000	(10000 shares of ₹ 10 each)
Purchased 2000 shares on 1st July 2017	₹ 60000	
Sold 500 shares on 1st August 2017 @ ₹ 35 per share cum dividend	₹ 17500	
M/s Navaratna Ltd. declared final dividend for 2016-17 on 1st September 2017. Received 1:5 bonus shares on 1st February, 2018.	20%	

Brokerage for each transaction is 2%. Find out cost of shares held by Navaratna Ltd. as on 31st March 2018.

Ans.

Statement of Cost

<i>Date</i>	<i>Particulars</i>	<i>Amount (Rs)</i>
1-4-2017	Balance(10,000 shares)	2,62,000
1-7-2017	Purchased(2,000 shares):	
	Cost-cum-Div	60,000
	Add brokerage	1,200
		61,200
	Less: Dividend for 2016-17	4,000
		57,200
1-08-2017	Sold (500 Shares-cum-div)	
	Sale proceeds	17500
	Less: brokerage 2%	350
		17150
	Less: Dividend for 2008-09	1000
	Cost of sales (500*319200/1200)	(13300)
1-2-2018	Bonus shares (1:5) (1/5*11500)	**
	Cost of investment	305900

*cost of sales is computed on average cost basis.

** Bonus shares are free and hence nothing is shown in the amount column.

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Treatment of dividend received

Dividend received from M/s Samay Ltd. during 2017-18 (11500*₹10)*20%	23000
Less: Dividend deducted from cost of investment	4000
	19000
Add: Dividend included in sales proceeds of 500 shares (received by the new buyer)	1000
Dividend received to be shown in Profit & Loss A/c	20000
<i>Profit on sale of investment</i>	
Sale proceeds of 500 shares(net of brokerage)	17,150
Less: Dividend for 2016-17 included above (to be considered as income)	1000
Less: cost of sales (on average cost basis)	13300
Profit on sales	2850

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Basics of Option Contracts

Basic Concepts

(i) Buyer of an Option / Option Holder

The Buyer of an Option is the one who by paying the option premium buys the right either a call or a put option. He enjoys the right but not the obligation to buy or sell the underlying asset at a specified price on or before specified date, the expiration date. His profit under this contract is unlimited while losses are limited to the premium paid by him to the option writer.

(ii) Option Seller / Writer

The Writer of call/put option is the one who receives the option premium and is thereby obliged to buy (in case of a put option) or to sell (in case of a call option) the underlying asset if the buyer decides to exercise his (the holder) option on him (the writer). His profits are limited to the premium received from the buyer while his loss is unlimited.

(iii) Underlying Asset

It is the specific security/asset on which an option contract is based. The price movement of these underlying assets determines the value of the option.

(iv) Option Premium / Option Price

It is the price of an option paid by the option buyer to the option seller to acquire the right to buy or sell.

(v) Strike Price / Exercise Price

The price specified in the option contract at which the option buyer can exercise his right to buy or sell the securities (the underlying asset) is known as the strike price or the exercise price and it does not change over time.

(vi) Strike Price Intervals

The difference between two strike prices, which is a constant, is called strike price interval. The NSE has set a strike price interval of 20 points on its NIFTY options while the BSE has set a strike price interval of 50 points on its SENSEX options.

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(vii) Expiration Date

The date on which the option expires or matures is known as the expiration date. It is also known as, the strike date or the maturity. On the expiration date, either the option is exercised or it expires worthless.

(viii) Exercise Date

The date on which the option is actually exercised is known as exercise date. In case of European option, the exercise date is the same as the expiry date, while in case of American option the option contract may be exercised any day between the purchase of the contract and its expiry date.

(ix) Open Interest

Open interest represents the total number of option contracts that have not yet been exercised, expired or squared off. A change in open interest in a stock indicates fresh positions being initiated or positions being closed.

(x) Put-Call Ratio

It is the ratio of puts (right to sell) to calls (right to buy) traded in the market. This ratio represents the number of bearish versus bullish participants. A fall in the put call ratio (PCR) implies a higher number of call buyers in the market which indicates that the market sentiment is bullish. It can be computed in two ways as the ratio of the number of puts traded to the number of calls traded, or the number of puts outstanding to the number of calls outstanding. The PCR can be calculated for a particular stock (say Infosys) or index (NIFTY) or market as a whole (all stocks in the derivative segment). An increase in the PCR can be caused by a rise in the number of puts traded/outstanding or a fall in the number of calls traded or outstanding.

How to Value An Option

The option premium can be broken down into the following:

Intrinsic Value of the Option

Intrinsic value of an option at a given time is the amount the holder of the option will get if he exercises the option at that time. In other words, the intrinsic value of an option is the amount the option is ITM. If the option is OTM, its intrinsic value is zero; in other words the intrinsic value of a call is $\text{Max}[0, (S_T - K)]$ which means that the intrinsic value of a call is greater of 0 or $(S_T - K)$. Similarly, the intrinsic value of a put is $\text{Max}[0, (K - S_T)]$ i.e. the greater 0, or $(K - S_T)$ where K is the strike price and S_T is the spot price.

Time Value of an Option

In addition to the intrinsic value, the seller charges a 'time value' from the buyers of the option. This is because the more time there is for the contract to expire, the greater the change, that the exercise of the contract will become more profitable for the buyer. This is a risk for the

seller and he seeks compensation for it by demanding a 'time value'. The time value of an option can be obtained by taking the difference between its premium and its intrinsic value. Both calls and puts have time value. An option, that is OTM or ATM, has only time value and no intrinsic value. Usually, the maximum time value exists when the option is ATM. The longer the time to expiration, the greater is an option's time value, all else being equal. At expiration, options have no time value left in them.

How the Market Operators Transact in Option Trading

Option pay out

There are two sides to every option contract. On the one side is the option buyer who has taken a long position (i.e., has bought the option). On the other side is the option seller who has taken a short position (i.e., has sold the option). The seller of the option receives a premium from the buyer of the option. It may be noted that while computing profit and loss, premium has to be taken into consideration. Also, when a buyer makes profit, the seller makes a loss of equal magnitude and vice versa. In this section, we will discuss payouts for various strategies using options.

A long position in a call option

In this strategy, the investor has the right to buy the asset in the future at a predetermined strike price (say K) and the option seller has the obligation to sell the asset at the same strike price. If the settlement price (underlying stock closing price) of the asset is above the strike price, then the call option buyer will exercise his option and buy the stock at the strike price (K). If the settlement price (underlying stock closing price) is lower than the strike price, the option buyer will not exercise the option as he can buy the same stock from the market at a price lower than the strike price.

A long position in a put option

In this strategy, the investor has bought the right to sell the underlying asset in the future at a predetermined strike price (K). If the settlement price (underlying stock closing price) at maturity is lower than the strike price, then the put option holder will exercise his option and sell the stock at the strike price (K). If the settlement price (underlying stock closing price) is higher than the strike price, the option buyer will not exercise the option as he can sell the same stock in the market at a price higher than the strike price.

A short position in a call option

In this strategy, the option seller has an obligation to sell the asset at a predetermined strike price (K) if the buyer of the option chooses to exercise the option. The buyer of the option will exercise the option if the spot price at maturity is any value higher than (K). If the spot price is lower than (K), the buyer of the option will not exercise his/her option.

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A short position in a put option

In this strategy, the option seller has an obligation to buy the asset at a predetermined strike price (K) if the buyer of the option chooses to exercise his/her option. The buyer of the option will exercise his option to sell at (K) if the spot price at maturity is lower than (K). If the spot price is higher than (K), then the option buyer will not exercise his/her option.

What is Black Scholes (B-S) Formula for Pricing Options

Underlying assumptions

The Black Scholes (BS) Option Pricing Model was originally developed for European style options on non-dividend paying stock by Fischer Black and Myron Scholes. This model uses the proposition that pricing of an option requires to build a portfolio in shares and a loan in such a manner that its pay offs are equivalent to the pay offs of the option. The basic feature of this model is that it takes into account the changes in the price of the share at smaller and smaller intervals with each interval showing two possible changes in shares. Eventually, a situation is reached in which price of the share is changing continuously and generating a continuum of possible share price. To replicate option investors must continuously adjust their holdings in the shares. Though in practice, it is not feasible, the BS model performs remarkably well in the real world where shares trade only intermittently and prices jump from one level to another.

Assumptions of BS Model:

The BS model is based on the following assumptions:

Stock price follow a geometric Brownian motion with constant drift (μ) and volatility (σ).

It follows from this that the return is a normal distribution (then the underlying is a lognormal distribution). It often implies the validity of the efficient market hypothesis.

It is possible to borrow and lend cash at a known and constant risk free interest rate, r_f .

The market is efficient and there are no transaction costs and taxes. Options and share are perfectly divisible. Information is available to all investors with no costs.

The stock does not pay any dividend.

The short selling of securities with full use of proceeds is permitted. There is no risk free arbitrage opportunity.

Options use the European exercise terms, which detect that option may only be exercised on the date of expiration.

Security trading is continuous. This means that the share prices behave in a manner consistent with a random walk in continuous time.

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Risk Indicators

Risks very rarely occur as accidents. There are symptoms that indicate the possibility of risk. These indicators can be used to take pre-emptive actions. These actions may not eliminate the risks but they would at least facilitate minimizing their impact. Some of the indications are given below:

- Lack of supervision of lending / investment activities by designated officers.
- Lack of specific lending or treasury policies or failure to enforce the existing policies.
- Lack of code of conduct or failure to enforce existing code.
- Dominant figure allowed to exert influence without restraint.
- Lack of separation of duties.
- Lack of accountability.
- Lack of written policies and / or internal controls.
- Circumvention of established policies and / or controls.
- Lack of independent members of management and / or Board.
- Entering into transactions where the institution lacks expertise.
- Excessive growth through low quality loans.
- Unwarranted concentrations.
- Volatile sources of funding such as short-term deposits from out-of-area brokers.
- Too much emphasis on earnings at the expense of safety and soundness.
- Compromising credit policies.
- High rate high risk investments.
- Underwriting criteria allowing high risk loans.
- Lack of documentation or poor documentation.
- Lack of adequate credit analysis.

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- Failure to properly obtain and evaluate credit date, collateral, etc.
- Failure to properly analyze and verify financial statement data.
- Too much emphasis on character and collateral and not enough emphasis on credit.
- Lack of proper mix in asset portfolio.
- Unresolved exceptions or frequently recurring exceptions on exception reports.
- Out-of-balance conditions.
- Funds used for purposes other than the purpose recorded.
- Lax Policies on payment of cheques against uncollated funds.
- The institution is a defendant in a number of lawsuits alleging improper handling of transactions.

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Possible Risks Faced by Banks

Type of Risk		Possible Risk Events
<i>External Risk</i>	Environment	Compliance, contamination, employment theft and public health.
	Country	Civil disorders, economic shock, expropriation, natural disasters.
	Fiscal	Change of Government, corporate / tax rate changes.
	Government	Consumer demand, effect of Government change, inflation, anti-business ethos.
	Litigation	Product liability, safety, side effects.
	Regulatory	Capital adequacy, competition policy, tariff barriers, trade policy.
	Security	Intellectual property theft, sabotage, physical property theft.
<i>Fund Management Risk</i>	Dealing	Market information, inappropriate internal information, market collapse, personnel, rogue dealing.
	Processing	Collusion, dealing error, fraud, input / output error.
	Statutory	Financial regulation, legal issues, taxation treaties.
	Trading	Documentation, execution accuracy, settlement, valuation methodology.
<i>Infrastructure Risk</i>	Human Resource	Lack of staff, quality of staff, strike action, lack of training, succession planning.
	Organizational	Objectives, policies, alliances, market image, authority limits, audit, sales force profile.

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	Planning	Accuracy of situation appraisal, incorrect budgeting, poor quality of data, forecasting inaccuracies.
	Reporting	Accounting policies, data flow, complex management policy.
	Systems	Inadequate performance, alignment to business strategy, availability of systems, data integrity, disaster planning, programming quality, network security, telecommunications, verified algorithms.
Liquidity Risk	Cash Flow	Business interruption, customer confidence, forecasting quality, access to finance.
	Counter Party	Default (credit) risk, financial performance of counterparty, credit rating, bank confidence, liquidity, supplier confidence.
	Rating	Market confidence, market sector re-rating, shareholder risk.
Operational Risk	Logistics	Delivery mechanism, global distribution handling of shortages.
	Procurement	Alternative source identification, quality of parts, stock exchanges, supplier profile.
	Production	Cost, make versus buy, process problems, quality reviews, technology.
Position (Market) Risk	Currency	Non-convertibility of currency, economic factors, transaction risk, translation risk, mismatches, volatility.
	Interest Rate	Basis risk, parallel yield curve shifts, twists in yield curve, incorrect day count basis.
Proposition Risk	Competitive	Competitor product action, inferior product, product imitation, patent expiry.
	Economic	Client pricing, competitor pricing, market share, market developments, product expiry.
	Strategy	Business portfolio, communication, development methodology efficiency, human resource profile, initial pricing, lack of competitor knowledge, poor market identification, poor market strategy, reputation, research focus, tracking against plan.

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Market Terminology

The commonly used expressions, in the Money and Debt Markets in India and their generally accepted meanings are tabulated as under:

Expressions	Generally accepted meaning
Bid / Buy	The Price at which I am willing to buy.
Offer / Sell	The Price at which I am willing to sell.
Quotes / Prices	<p>Typically the dealers quote only the decimal places omitting the integer part. It is assumed that the players know the integer part in the prevailing market price.</p> <p><i>Example:1</i> If on a given day the security 11.40GOI2008 is being quoted at a price of around ₹117.50 then the bid at 45/offer at 55 would mean that the dealer is willing to buy the security at ₹117.45 and sell it at ₹117.55.</p> <p><i>Example:2</i> If on a given day the Treasury Bill maturing on 18th October, 2008 is being quoted at a yield of around 6.90 then the bid at 95 / offer at 90 would mean that the dealer is willing to buy the security at 6.95 and sell it at 6.90. However, the complete price should be used while confirming deals.</p>
Clean Price	The price of a bond, excluding the accrued interest since the last interest payment date.
Dirty Price	The price of a bond, including the accrued interest since the last interest payment date. This is also known as the gross price.
Hair Cut	The difference between the actual market value and the value ascribed to the collateral used in a repo transaction.
Mine	I Buy at the Price you have offered.
Yours	I Sell at the Price you have bid.

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Close / Done	I conclude the deal at the mutual agreed price.
Two Way Quote	Quote which includes both Buy and Sell Price. Example: 45/50 indicate that the dealer is willing to buy at ₹117.45 and sell at ₹117.50.
Choice Quote	Choice Quote is a single price quoted by a dealer and it means that he / she is willing to Buy as well as Sell at that price. <i>Example:</i> A Quote of '5 Choice' for a security means that the dealer will buy as well as sell at 5 paise.
Final Price	No more negotiations. It is the price at which the dealer is willing to close the deal.
Level / Indicative Price	Prices quoted by dealers to indicate the level at which they are interested in doing the deal but are willing to negotiate.
Big Figure	The integer part of the price. <i>Example:</i> If the ruling price of a security is 117.50, then the Big Figure here is 117.
Figure	Price when quoted in integers without the decimal part is known as Figure. <i>Example:</i> When the dealer is willing to deal 11.40GOI2008 at 117.00 (when the ruling quote is 116.95/117.05), he will state that he is willing to do the deal at Figure.
Check	"Check" during chat means that the dealer is withdrawing his / her quote with immediate effect.
Check Before Closing (CBC)	"CBC" during chat means that the dealer has the freedom to modify the price and / or amount during the chat. Hence, the counter-party dealer / broker should seek confirmation before concluding the deal.
Pass / No Interest / Squared	I am not interested in the deal at the moment.
Referring to Securities during chat	Dated Government Securities are generally identified by their coupon and year of maturity. In case of securities having identical coupons in the same year of maturity, the actual nomenclature should be used to differentiate them. <i>Example:</i> 11.5008,11.5010 11.50 GOI2011, 11.50 GOI2011A

Market Terminology

	<p>Treasury Bills, Commercial Papers and Certificate of Deposits should be referred to using their date of maturity and the actual nomenclature should be used for confirmation.</p> <p><i>Example:</i> TB 18/10102, 3640 TB Maturing on 18/10102 ACC Maturing on 20/12/01. Confirmation calls for full particulars. SBI Maturing on 20102/02, Confirmation calls for full particulars.</p>
Same day value / Value Today	Settlement to be effected at "t + 0", where t is the trade date.
TOM / Value TOM / Value 't + n'	TOM and Value TOM mean that the settlement will be done on the next settlement date. Value 't + n' means that settlement will be done on settlement day after the trade date (excluding holiday(s) observed by RBI, Mumbai).
Quantum / Amount	It will be assumed that the quote is for the standard market lot of ₹5 crore, unless otherwise explicitly stated.
I to borrow clean	The dealer intends to borrow cash clean (without collateral).
I to borrow under Repo	The dealer intends to borrow cash against the collateral of securities.
I to lend clean	The dealer intends to lend cash clean (without collateral).
I to lend under Repo	The dealer intends to lend cash against the collateral of securities.

Given below is a typical conversation between dealers during negotiation

Bank A Calls Bank B

Bank	Terminology used	Meaning
Bank A	11.4008 for 25 crore	Bank A is asking Bank B for a 2-way quote on 11.40% maturing 2008 for a total amount of ₹25 crore (face value) for settling today.
Bank B	12/18 for 15 crore	Bank B has given a price to buy at ₹117.12 and to sell at ₹117.18 and the quote is valid for ₹15 crore only.

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Bank A	Any improvement, me to buy	Bank A tells Bank B that he is looking to buy but at a lower price.
Bank B	17 for you	Bank B is willing to reduce the price for the buyer to ₹117.17.
Bank A	Done / Close	Bank A concludes the deal.
Bank B	Confirmed, Bank B sells 11.40% 08 15 Crore value today at 117.17 to Bank A	Bank B confirms the deal specifying security, amount, price, settlement date and counterparty.

Swap Market Terminology

Some of the expressions used in the interest rate swaps market are given below (apart from the typical expressions given above).

Expressions	Generally accepted meaning
OIS (Overnight Indexed Swap)	Overnight Indexed Swaps bench marked typically against FIMMOA – NSE MIBOR rates.
Two way Quote	A two-way quote in the OIS parlance would mean that the dealer is ready to Pay and Receive Fixed Rate. The quote should also specify the tenor. If not otherwise specified, the FIMMOA-NSE Overnight MIBOR should be taken as the bench mark. <i>Example:</i> A quote of "7.60/7.70 for 2 months" indicates the dealer's willingness to Pay a Fixed Rate of 7.60% and to Receive a Fixed Rate of 7.70% per annum for a period of 2 months.
Mine / I receive	I receive the Fixed Rate quoted against paying the Floating benchmark.
Yours / I Pay	I pay the Fixed Rate quoted against receiving the Floating benchmark.
INR-MIBOR	Pay simple Fixed Rate against receipt of overnight Floating Rate for tenors up to (and including) 1 Year. Pay simple semi-annual Fixed Rate against receipt of overnight Floating Rate for tenors of longer than 1 Year.
INR-MITOR	Pay simple Fixed Rate against receipt of overnight Floating Rate for tenors up to (and including) 1 Year. Pay simple semi-annual Fixed Rate against receipt of overnight Floating Rate for tenors of longer than 1 Year.

Market Terminology

INR-MIFOR	Pay annual Fixed Rate against receipt of 3 month Floating Rate for tenors up to (and including) one year. Pay semi-annual Fixed Rate against receipt of 6 month Floating Rate for tenors of longer than one year.
INR-MIOIS	Pay annual Fixed Rate against receipt of 3-month Floating Rate for tenors up to (and including) one year. Pay semi-annual Fixed Rate against receipt of 6 month Floating Rate for tenors of longer than one year.
INR-BMK	Pay annual Fixed Rate against receipt of annualized Floating Rate for all tenors.
INR-CMT	Pay annual Fixed Rate against receipt of annualized Floating Rate for all tenors.

FIMMDA Code of Fair Practices for Debt Markets (March 2018)

Code of Fair Practices

The FIMMDA Code is structured around four pivots.

1. Personal and professional ethics

- (i) All market participants shall maintain the highest ethical and professional standards to enhance the reputation of the markets.
- (ii) All market participants must comply with the rules and regulations governing the market and keep themselves up-to-date with changes that may happen from time to time.
- (iii) Market participants should not indulge in any unethical business activities or professional misconduct involving dishonesty, fraud or deceit or commit any act that could damage the reputation of the organization or the industry.
- (iv) Market participants should identify existing/potential conflicts of interest as per their institutions' policies and address the same.
- (v) Dealers/ Brokers shall not make frivolous quotations with intent to mislead the market participants either on any platform or in OTC segment.
- (vi) Every individual who commits a transaction on behalf of the institution shall act within approved limits/instructions.
- (vii) Dealing procedures and principles that are explained in Chapter 4 of FIMMDA Handbook of Market Practices, bind all market participants for compliance.

2. Governing principles

- (i) All institutions must ensure good corporate governance in order to promote responsible engagement in the Market.
- (ii) All institutions must ensure that the staff concerned acting on their behalf are aware of the rules and regulations, conventions, practices and the markets in which they deal and have the required skills and resources to perform their job with professionalism and honesty.

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- (iii) All institutions must stand by the commitment made by an individual acting on their behalf, the principle being "My Word is my Bond".
- (iv) The management should put in place appropriate controls and procedures in respect of their dealings in the markets, covered by FIMMDA Handbook. It should be ensured that the staff members who deal in the market and the other support staff follow the controls and procedures so laid down.
- (v) All institutions should have appropriate policies to address any improper practices or unethical behaviour effectively.

3. Communication : Channels, disclosures and transparency

- (i) Market participants should communicate through approved modes and channels of communication only.
- (ii) Market participants should always communicate in unambiguous, transparent, accurate and professional manner to promote effective communication that supports a transparent Market.
- (iii) Market participants should not disclose sensitive Information to external parties, and if required to do so, must obtain necessary permissions/approvals as per their internal policies.
- (iv) Protocols may be designed to minimize the access to the identifiable /price sensitive information at appropriate levels of operations.
- (v) Participants may share a view on market colour, general state of Market or trends without disclosing designated confidential information.
- (vi) Market participants should not intentionally disseminate false or misleading information with respect to the price or market for a security.
- (vii) Market participants should maintain confidentiality with respect to client information and should not disclose/disseminate the same to others
- (viii) Interaction/disclosures to any media should be done through an identifiable source.
- (ix) A member of any committee (regulatory or otherwise) having some material non-public information should not disclose the same to others or use this for trading in market, till it is officially made public.

4. Execution Standards

- (i) Market participants shall adopt fair and prompt deal execution practices, while acting as a principal or on behalf of their clients. The client orders should not be discriminated and dealt in the priority of receipt of the orders.
- (ii) Market participants are expected to be truthful and transparent when negotiating and executing transactions.

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- (iii) Market participants shall disclose market conditions prevailing in the market to the best of their knowledge so as to enable their clients to make an informed decision.
- (iv) Market participants shall not enter/refrain from entering into transactions with the primary intent of disrupting the market, distorting the prices, or artificially inflating trading volumes.
- (v) Market participants should promote liquidity and transparency to contribute to the efficiency of the secondary market.
- (vi) All transactions, including with clients, should be handled in a reasonable and fair manner.
- (vii) Dealing procedures and principles explained in the "Code of Conduct for Transacting in Government Securities Using RBI's Negotiated Dealing System –Order Matching (NDS-OM)" should be abided. The same also applies to the OTC reported segment.
- (viii) Client transaction should fall within the guidelines of the Suitability and Appropriateness policy as laid down by the institution concerned from time to time.
- (ix) Market participants should not indulge in circular trading.
- (x) Market participants should not indulge in simultaneously buying and selling the same securities at off -market prices in order to create false or misleading signals regarding the supply of, demand for, or market price of securities
- (xi) Market participants' should not deliberately try to manipulate the prices of infrequently traded securities at monthly/ quarterly /annual closing dates.
- (xii) Market participants shall not enter into arrangements for sale or purchase of a Government security where there is no change in beneficial interests or market risk or where the transfer of beneficial interest or market risk is only between parties who are acting in concert or collusion.
- (xiii) Market participants should not do a 'routing deal' i.e. purchasing a security at the instance of a third party who does not have funds to purchase the security, with an unwritten agreement to sell the same to the third party on a later date at a predetermined price which may not be market related.
- (xiv) Market participants should not put misleading bids and offers outside the market range as defined by their institution without an intention to trade.
- (xv) Market participants should have framework for internal risk management and compliance. It will devise and observe proper standards of market conduct.

Explanation of Terms and Illustrative Examples

1. Personal and Professional ethics

Highest ethical and professional standards:

- (a) Possess adequate technical knowledge of products, required qualification and familiar applicable laws
- (b) Possess knowledge of firms' guidelines and procedures on execution methods accounting and record keeping.

Frivolous quotations

1. "Market Makers" are expected to open the market with narrow bids and offers, unless there is an event warranting wider spreads. Placing a wide bid/offer at the start of the day, without an event warranting wider spreads would also constitute misleading the market to commit Big-Figure mistakes.
2. Deliberately putting an offer at ₹91.56 or ₹91.55 for a security which is trading at ₹90.56.
3. Deliberately putting a bid at ₹89.56 or ₹89.57 for a security which is trading at ₹90.56.
4. Deliberately putting an offer to sell at 7.70% or 7.75% for a T-Bill which is trading at 8.70%.

2. Governing principles

Institutions as well as individuals acting on their behalf will be responsible for good corporate governance in order to promote orderly market operations.

3. Communication: Channels, disclosures and transparency:

- (a) *Market Colour* is used to describe the depth of market liquidity and ensuing sentiment in the trading market. Market participant are not expected to disclose names and respective orders.
- (b) *Circular Trading*: A fraudulent trading scheme where sell orders are entered by a participant who knows that offsetting buy orders, the same number of instruments at the same time and at the same price, either have been or will be entered.

4. Execution Standards

For the purpose of clarity we give below certain examples relating to the pivot of Execution standards. The examples are indicative and not exhaustive.

4(i) *Acceptable*

XYZ Bank received orders from several GILT account holders to buy 10 year Benchmark securities. The XYZ Bank has stated in its policy that orders are processed in the order in

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which they are received from Clients according to time-stamping. The XYZ banks fills orders in sequence in which it received.

Unacceptable

XYZ Bank received orders from several GILT account holders to buy 10 year Benchmark securities. The XYZ Bank has stated in its policy that orders are processed in the order in which they are received from Clients according to time-stamping. The XYZ banks fills first an order of a major customer even though that order was received after other orders.

4 (ii) Acceptable

Client gives a buy order and if the dealer also intends to buy at the same level, it may be conveyed to the client while taking the order.

4 (iii)(a) Acceptable

A GAH calls ABC bank and informs them that they will need to buy a large amount of 2 year paper (illiquid paper) and wants the bank to act in a principal capacity. The bank buys smaller parcels of the said paper to limit the market impact.

Unacceptable

GAH calls a ABC bank and informs them that they will need to buy a large amount of 2 year paper (illiquid paper) and wants the bank to act in a principal capacity. The bank buys substantial amount of the said paper for their own position with the intent of profiting from the information, and fills the Client's order at a much higher level from its own position.

4(iii)(b) Acceptable

XYZ Bank has a constituent Co. by the name of PQR Pvt Ltd. XYZ Bank is looking to sell some illiquid bonds in his portfolio but is not getting a bid in the market. He calls up PQR Pvt. Ltd. and tells him that he wants to exit from the illiquid bonds and enquires whether he will be interested to buy the same. Based on XYZ Bank's offer, PQR Pvt. Ltd. decides to buy ₹ 300 crores worth of these bonds.

Unacceptable

XYZ Bank has a constituent Co. by the name of PQR Pvt Ltd. XYZ Bank is looking to sell some illiquid bonds in his portfolio but is not getting a bid in the market. He calls up PQR Pvt Ltd. and tells him it is a good time to invest in these illiquid bonds as there is good demand for these securities. Based on XYZ Bank's bullish view, PQR Pvt. Ltd. decides to buy ₹ 300 crores worth of these bonds.

4 (iv) Acceptable

If a big client order is received which has potential to move the market significantly, the same should be allowed as it represents market reality.

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If an institution's position demands a corrective action to be initiated the same should not be construed as market disruptive.

4 (v) Acceptable

Mutual fund leaves an order with RST Bank to sell 2 year security at 101.60 on a stop-loss with instructions to execute the order once 101.60 trades. RST Bank starts executing the order once 101.60 trades in the market. RST Bank immediately notifies the Client that the stop-loss order has been executed and is filled at 101.59, which is in line with the Client's expectation based on the time of the day and the volume traded at the time the order is executed.

Unacceptable:

Example 1: XYZ Bank gives an offer to sell ₹ 100 crores of a particular CP of JKL Ltd. It finds a buyer to buy at its agreed level and they close the deal. After closing the deal, XYZ Bank says it can only sell ₹ 50 crores as it does not have a mandate to sell more than ₹ 50 crores. This is unprofessional and inconveniences the counterparty.

Example 2: XYZ Bank has a client Co. by the name of PQR Pvt. Ltd. PQR Ltd. wishes to buy marketable lot of 10 years State Development Loans (SDL's) at market level and sends instructions to XYZ Bank for the same. The market is quoting a two-way quote of 7.30%-7.33% on these SDL's. XYZ Bank sells these securities from its own portfolio to PQR Pvt. Ltd. at 7.10%. This is not a reasonable dealing level and is an unfair practice.

Example 3: A GILT account holder asks a Market Participant to fill an order to sell 10 year benchmark securities at a price and to confirm the details at a later time period. The Market Participant fills the order further away from the actual executed rate, but within the day's trading range.

4 (vi) Client ABC gives an order to Bank XYZ to buy the 10Y bond at a said price

Acceptable:

Dealer put the order on screen and upon execution immediately intimates the client of the successful execution of his order.

Unacceptable:

Dealer puts the order on screen and upon execution does not communicate the client; instead puts a counter at different levels. If the market moves against the dealer, he gives the client order a fill or otherwise may cover his risk in the market.

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Interest Rate and Its Implications

There is so much of debate on the current interest rate scenario not only in India, but also in the global economic context. Much of this debate across-the-world is driven by the dilemmas confronting the central banks, while framing and calibrating the monetary policy strategy to deal with complexities of their respective economic situation. Thus, nearly eight years after the onset of global financial crisis in 2008, most central banks, especially of advanced countries, are still relentlessly pursuing base rates or key policy rates closer to zero and several of them – Sweden, Denmark, Switzerland and Japan, for example are having negative interest rate policy for the last couple of years or more.

In contrast, in the Indian context, the RBI Governor has invariably to deal with the daunting task of managing the impossible trinity of inflation, growth and exchange rate stability, while steering the path of 'appropriate' interest rate policy for the country. At present, the focus for the RBI is to ease the interest rates and liquidity in the system with a view to bring about economic revival and without sacrificing the anchor of inflation control and financial stability. While falling interest rates are welcome from the perspective of business and industry - as this saves their cost of operations and facilitate improvement in their profitability and competitiveness, from the perspective of savers or depositors, this causes erosion of their nominal incomes and even their real standards of living.

Major factors affecting interest rates are Monetary Policy, Growth Rate, Liquidity, Uncertainty in Environment and Inflation and the other factors are Quality of Security, Tenure of Loan, End use of funds, Credit Worthiness of borrowers etc.

Meaning of Interest

Interest can be described as the price demanded by the lender from a borrower for the use of the lender's money. Though, in exceptional circumstances, interest can be agreed as a fixed amount, irrespective of the principal invested and the period for which it is invested, generally interest is agreed at a particular rate for an agreed period. Interest is mostly expressed in terms of annualized percentage, which is called as rate of interest. Interest can be termed as fees paid by a borrower to a lender on borrowed amount as compensation for foregoing the opportunity of earning income or utilizing it otherwise. In simple terms, interest for a lender is a kind of rent for money. For a commercial borrower, it is a cost of capital for his business. For a personal borrower, it is a cost of preponing consumption.

Interest Rate and Its Implications

Generally, Interest is paid at the agreed rate and it is payable periodically, by the lender to the borrower; unless otherwise agreed upon, interest accrues to the borrower on a daily basis. If the interest amount is not paid to the lender, it can also be compounded at the agreed rate; though interest can accrue on a time proportionate basis, the lenders and borrowers can agree to settle the same after a particular period, on compounded basis. Compounding of interest envisages not only paying interest on principal borrowed but also paying interest on unpaid accrued interest, which remains with the borrower for the contracted time. When interest is not compounded, it is called simple interest.

Major Factors Affecting Interest Rates

The major factors having an impact on the interest rates in an economy are as follows:

Monetary Policy

A central bank in the country controls money supply in its economy through its monetary policy. If it loosens the policy, it expands money supply, thereby increasing liquidity; higher liquidity results in a higher supply of credit. If the demand for credit is not matching with the supply, the interest rates tend to fall. The policy measure to increase money supply can push economic growth but can result in higher inflation. When the Central Bank tightens the monetary policy, interest rates tend to rise in the economy due to reduced supply of credit. Such a move may help in reducing inflation. The Central Bank has to do a balancing act, the change in repo rates can influence the rate of interest in an economy and they have positive co-relation.

Growth Rate

Higher growth rate in an economy may increase the demand for credit thereby causing an upward pressure on interest rates. On the contrary, slowing growth rate reduces the need for credit, thereby having a negative pressure on the interest rate. When an economy is growing at a normal pace, the long term interest rates can remain stable, unless intervened by the central bank. Generally, the central bank does not allow pure economic forces to play and while the economy is growing, it may try to control the interest rate by measures such as adjustment of CRR, SLR etc.

Liquidity

The global liquidity levels at a given time as well as the local liquidity in the economy of a country can impact interest rates therein. When liquidity is high, the interest rate can remain low unless there is some other pressure of factors such as slow economic growth, high inflation, civil unrest etc. Lower liquidity will tend to increase the cost of capital, which is given in the form of interest. Excess liquidity can give impetus to carry trade based on currency movements, if the interest rates are low. In such a transaction, money is borrowed in a currency in which interest rates are low and it is lent at high interest rate in some other currency, mostly in some other country. In an economy in which, money is flowing in due to

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carry trade, the interest rates tend to soften. If they soften beyond a limit so as not to remain attractive, it may result in reversal of carry trade. Likewise, if the interest rates in the currency of the country from where the carry trade has originated goes up, the funds may flow back to the country of that currency, unwinding the carry trade.

Uncertainty in Environment

When there is economic or political uncertainty in a country, the risk of investment increases resulting in hardening of interest rates in its economy. More the risk the lender needs to take, he demands higher rate of interest on the capital lent. When a country is going through an economic turmoil, the interest rates tend to harden substantially, not only due to risk of capital but increase in risk of doing business, which may result in reduced probability of getting the principal back, as per the agreed terms. Similarly, due to political crisis or situations of war or civil unrest, the interest rates may harden due to uncertainty, higher risks, risk to the security etc. Lenders are risk averse. More the risk they seek more returns and so higher rate of interest.

Inflation

Interest rates in a currency have a positive correlation with the inflation of the home economy of the currency. If inflation is high in a country, it tends to increase the interest rates in that economy. In an economy with high inflation, the reward required for capital borrowed also has to compensate the lender adequately for reducing the purchasing power of the money lent over the term of the loan. In an economy wherein inflation is low, interest rates tend to seek lower levels. Generally in an economy, over a long period, interest rates are higher than the inflation. The interest rates, net of taxes, tend to be at least equal to inflation. Otherwise, the person parting with money and taking risks of lending is not benefitted at all as his purchasing power may go down over a period even after receiving interest.

Other Factors

Other than the economic factors mentioned above, the following factors specific to the transaction of lending can affect the interest rates.

Type, Cover and Quality of Security

Better the quality of security, lower can be the rate of interest. Security, which can be easily encashed makes the lender more comfortable and he can offer better terms. If the structure of security is complex and it is not easily encashable or if the lender may have to incur substantial cost to encash the security, he may claim a more aggressive rate of interest from the borrower. Further, if the security cover of the loan is higher, the rate of interest can be lower. Security cover is the value of security as compared to the amount lent and it is expressed in terms of number of times of loan. Higher the security cover, more the safety of

Interest Rate and Its Implications

the lender and therefore he may soften the interest rate. Quality of security can also affect the interest rate. A security with stable valuation is preferred by the lenders. Security which fluctuates substantially in value may result in the lender asking for a larger cover as well as higher rate of interest due to risk of the security.

Tenure of Loan

Longer the loan period, lower could be the rate of interest; a lender takes full risk of the capital lent as soon as he parts with the money. If the tenure of loan is very short, the total interest earned by the lender is quite small as compared to the money risked by him. In such a case the lender has to take the full risk of the money lent, till the money is repaid and the reward remains disproportionately meagre. Therefore, for short term loans, higher rate of interest is charged. However, in case of very long term loans, interest rates can be higher than the medium term loans. In such loans, the risk increases beyond the immediately foreseeable future and therefore the lender may charge a higher rate of interest. Such loans are also subject to the vagaries of market rate of interest. In fixed interest rate transactions, the yield to maturity of a loan remains constant but its market value may change. If the interest rates in an economy go up, its market value comes down and vice-versa. This happens more so in the case of loans issued in the form of bonds and debentures, which are listed for trading or otherwise tradable.

End Use of the Funds

If the end use of the fund is acquisition of a risky asset, then interest rates tend to be higher. A lender will lend to a business investing in manufacturing at lower rates than the business investing in research of technology as the risk of the latter is higher. If the end use is purchase of fixed assets which can be an additional security for the loan, the borrower may get softer terms. Therefore working capital loans generally carry a higher rate of interest than term loans given for acquisition of fixed assets.

Credit Worthiness of the Borrower

The credit worthiness of a borrower is based on his reputation, his net worth as well as his liquidity. The industry in which the borrower operates also makes an effect on his creditworthiness at a particular time.

A borrower operating in an industry which is not doing well has higher risk and therefore interest rate charged to him may be higher. The overall creditworthiness of a party can be expressed in its credit rating as certified by a reputed rating organisation. Better the credit rating of a borrower, lower the interest rate charged to him. Low credit rating can result in higher rate of interest being demanded and in some cases, the borrower may decide against lending or may recall the loan, if the terms so permit. The rating indicates the ability of the business to pay to creditors at a given time and it does not reflect integrity or other finer virtues of a borrower. In case of small borrowers where the credit ratings are not available,

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various ratios of the financial position of the borrower can be considered by the lender to determine the creditworthiness and therefore the rate of interest to be charged.

Industry of the Borrower

A lender can charge differential rate of interest based on the trade or industry to which the borrower belongs to. The Industry with longer gestation periods may be charged higher rate of interest as compared to shorter gestation periods. The industry which has seasonal demand only in a particular part of the year may be lent at a higher rate by a lender as compared to the business in an industry which is not seasonal.

Negative Interest

Interest being a type of fee paid by a borrower to the lender, it always used to be an income for the lender and an expense for the borrower. However, modern economy has been posing newer challenges to the world, which are dislocating the old beliefs and destroying the old theories. After the recession of 2009, the world has been finding it very difficult to bring economies of many developed countries out of low growth / stagnation. To give impetus to investment as well as expenditure, the developed economies encouraged borrowing. The interest rate is the main hurdle which reduces demand or credit and the central banks of many developed countries kept on reducing the benchmark interest rates in their respective economies to encourage the borrowers. The interest rates in developed economies like the US, Euro Zone, UK etc., were gradually reduced to near zero levels a few years back. Though some economies like the US could recover due to the cheap credit doled out, the economies of Euro Zone and Japan have continued their stagnation. A few months back, to give push to growth, the European Central Bank reduced its policy rate of interest below zero percent, which means the lender will have to pay interest to the borrower for keeping his deposits. Since January 2016, even Japan adopted this policy of negative interest rate. Some countries like Sweden, Denmark and Switzerland have also adopted negative interest rates. Though this phenomenon does not appear logical, as central banks could dictate their terms in their respective economies, this policy has been adopted. This policy punishes the banks which hold cash instead of extending loans to businesses or to other weaker lenders to lend further. As an effect of negative rates, trillions of Dollars worth Government Bonds worldwide are now offering yields below ZERO meaning that the investors buying the bonds and holding them to maturity will not get their full money back. As of now, many banks are reluctant to pass negative rate of interest to their customers, due to fear of losing them, although it is applicable for inter-bank borrowings. However, sooner than later, they will have to fall in line and start charging their customers.

Major Effects of Low Interest Rates

- A lender gets less income thereby affecting his / its income and his / its purchasing power to that extent.

Interest Rate and Its Implications

- Lower interest rates reduce the income in the hands of many investors investing in deposits and fixed income earning securities, thereby reducing their taxable income and as an effect, it reduces the tax payment by the subjects. Lower interest rates can create a shortfall in tax collection, unless budgets are accordingly adjusted.
- Citizens and especially senior citizens living on the interest of their investments have lesser interest income, which reduces their purchasing power. Low interest rates can affect their ability to buy necessities and medicines, which can hamper their welfare.
- Charities which run their operations out of the income earned from the deposits received from the donors have less income in their hands to use for the purpose of their object and administration. They will have to rely more on the donations which are in the nature of current income for their operations.
- Low Interest rates can boost the economy as the entrepreneurs can borrow at Cheaper Cost for their businesses. It also increases the profit of businesses as interest is one of the major costs.
- Very low interest rates can spur consumption by way of increased spending as the consumers have less incentive for saving. Increased consumption can boost the economy to an extent but it can hurt a developing economy which is in need of fresh capital.
- Too low interest rates can result in cheaper credit to consumers for buying consumer durables. It may lead to increase in sale of consumer durables such as cars, televisions, electronic gadgets etc., as well as expenditure on holidays and entertainment.
- Low interest rates may generate a higher demand in an economy thereby increasing economic activity and correspondingly push up the growth rate.
- Lowering interest rates may result in cheaper credit and lesser option for investors to invest their capital, which may result in a rise in stock and property prices in that economy and continuation thereof can create a bubble like situation.
- When interest rates are low, investors get more desperate to increase their earnings and therefore may patronise riskier class of assets. Over exposure to risky assets is against the interest of investors, as well as the economy.
- Low interest rates may increase consumerism in a society, which may result in excess personal borrowing by the subjects. If the economy slows down or goes into recession that may hamper the ability of the borrowers to repay the loans, resulting in substantial bad loans thereby derailing the banking system as well as economies. Excessive credit defaults or bankruptcies may result in low morale and low consumer confidence, which may affect the overall health of an economy.

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- Lower interest rates give a fillip to the housing sector as a borrower can borrow more amount with the commitment of the same equated monthly instalment (EMI).
- The fixed deposits and the bond / debenture holders are generally the sufferers in the low interest regime. They can reduce their allocation to this asset class in such a phase. However, lowering interest rates generally result in lowering yield on debt securities which results in increase of bond / debenture prices carrying fixed coupon, which may give some respite to the bond / debenture holders.
- Low interest rates trigger an increase in appetite of investors for precious metals and precious stones, as low deposit rates can make investors partly shift their asset allocation to this asset class.
- Reduction of interest rates can cause pressure on the currency of the country as capital may flow out to other countries, where interest rates are higher. However, if the currency of the home country is basically strong and inflation therein is low, then the outflow of currency can get restricted, giving stability to the economy as well as the currency.

On one hand, lower interest rates may generate growth by increasing consumption and investment but on the other hand dampen the growth due to reduction in purchasing power in hands of certain sections of society and institutions, which are dependent on interest income. The final effect depends on the weightage of the respective factors prevailing in the economy.

The Indian Scene

India has been struggling to cope with high interest rates prevailing in its economy for many years. One of the major reasons for the same is the high inflation prevailing in its economy. In the current global scenario of very low interest rates prevailing in developed economies, this high cost of capital has been hurting Indian businesses. It has slowed down investment activity. Cost of Capital being high, it has also affected the cost of production thereby eroding the cost efficiency of the Indian businesses, as compared to many developed economies, in which borrowing costs are negligible. The Government has been very much in favour of reduction of interest rates but the Reserve Bank of India (RBI) had been very cautious as it feared that the reduction may fuel demand push inflation in the economy, already suffering from inflation due to supply side constraints. Over the last few years, systematic efforts have been made to reduce the inflation in the country, especially by strengthening of the supply side, by domestic production as well as imports.

India has recently started its journey towards low interest rates and it is likely that on the back of sustained economic growth, the country may continue its journey towards further lowering of the rates, albeit gradually. Many of the developed economies in the world have low interest rates which are sustained for long periods of time. If India continues its growth at the current rate and can control inflation, the interest rates in the economy may gradually reduce. Indian

Interest Rate and Its Implications

investors as well as consumers are not accustomed to low interest rates. Investors will have to adjust their investment strategies to fit into the new environment. Senior citizens as well as institutions relying more on interest income for their sustenance will have to realign their consumption / spending patterns. Lowering of interest rates may hit hard this particular section of the society. On the flip side, the business will have reasons to cheer due to low interest cost and EMI paying consumers will get delighted.

Interest rate is one of the major tools in the monetary policy of a central bank. In recent years, the RBI has made a calibrated use of the same inspite of pressures from various quarters. This has resulted in lowering of inflation in the economy without affecting the growth much. Lowering of interest rates over a period will give great advantage to the Indian economy as costs can go down and become more competitive. This will also support the "Make in India" movement.

LIBOR (London Interbank Offered Rate)

Ever since the birth of the off-shore dollar market, back in the 1960s (when it was known as Eurodollar market), the LIBOR, London Interbank Offered Rate, has been one of the pillars of the international financial market. It is probably the most used benchmark for the pricing of loans as well as the floating rate in the interest rate swap market. Since, at least in theory, it represents the cost of borrowing dollars in the offshore market for a bank, most loans were, and are, priced at a spread over LIBOR, the spread depends on the credit risk in the transaction. Given also the huge size of the interest rate swap market, the aggregate contractual obligations using LIBOR are in trillions of dollars.

LIBOR's popularity has persisted despite the weaknesses inherent to the authentication of the number:

- The most used contractual benchmark is the BBA (British Bankers Association) LIBOR. This is published at around 11 am London time, that is, before the opening of the US Market.
- It is polled rate on the basis of the quotations given by a panel of 16 large global banks in the city of London, only three of them American.
- Between 11 and 11.10 London time, the 16 banks report to BBA the rates at which they are willing to offer dollars for different maturities, to other banks in the market.
- BBA ranks the quotations in order of magnitude, ignores the four highest and four lowest and averages the middle eight which then becomes the BBA LIBOR.

The very popularity of the BBA LIBOR is an indicator of the reliability of the number as representing the cost of borrowing short term funds. To be sure, there were always issues in relation to the applicable interest rates on LIBOR-linked loans. Where there was a single lender, he would use his own marginal cost of borrowing short term funds as the LIBOR and prescribe the applicable interest rate after adding the contracted spread. There were some problems in the case of syndicated loans. Not all the banks in syndicate would have identical credit standing and, in practice, their cost of funding differed. On the other hand, the LIBOR for a particular interest period had to be identical for the entire syndicate and was typically calculated and advised by the agent bank, if a particular bank's borrowing cost was higher, it

LIBOR (London Interbank Offered Rate)

earned a narrower spread. In the case of syndicated loans, two practices were and are common, using the BBA LIBOR or using the average of the rate quoted at 11 am on the rate fixation date by a panel of, usually three of four, reference banks.

Despite these weaknesses, LIBOR-based loan and derivatives pricing has worked extremely well for nearly six decades now.

A Brief on the Monetary Policy of RBI

Monetary policy refers to the use of monetary instruments under the control of the central bank to regulate magnitudes such as interest rates, money supply and availability of credit with a view to achieving the ultimate objective of economic policy.

- Monetary policy refers to the policy of the central bank with regard to the use of monetary instruments under its control to achieve the goals specified in the Act.
- The Reserve Bank of India (RBI) is vested with the responsibility of framing and implementing the monetary policy. This responsibility is explicitly mandated under the Reserve Bank of India Act, 1934.

The Monetary Policy Process

The Monetary Policy Committee (MPC) constituted by the Central Government under Section 45ZB of the RBI Act, 1934 determines the policy on interest rate required to achieve the inflation target.

The Reserve Bank's Monetary Policy Department (MPD) assists the MPC in formulating the monetary policy. Views of key stakeholders in the economy, and analytical work of the Reserve Bank contribute to the process for arriving at the decision on the policy repo rate.

The Financial Market Committee (FMC) meets daily to review the liquidity conditions so as to ensure that the operating target of monetary policy (weighted average lending rate) is kept close to the policy repo rate.

Goals of the Monetary Policy

The primary objective of the monetary policy is to maintain price stability while keeping in mind the objective of growth. Price stability is a necessary precondition to sustainable growth.

In May 2016, the Reserve Bank of India (RBI) Act, 1934 was amended to provide a statutory basis for the implementation of the flexible inflation targeting framework.

The amended RBI Act also provides for the inflation target to be set by the Government of India, in consultation with the Reserve Bank, once in every five years. Accordingly, the Central Government has notified in the Official Gazette 4 per cent Consumer Price Index (CPI)

inflation as the target for the period from August 5, 2016 to March 31, 2021 with the upper tolerance limit of 6 per cent and the lower tolerance limit of 2 per cent.

The Central Government notified the following as factors that constitute failure to achieve the inflation target:

- (a) the average inflation is more than the upper tolerance level of the inflation target for any three consecutive quarters; or
- (b) the average inflation is less than the lower tolerance level for any three consecutive quarters.

Prior to the amendment in the RBI Act in May 2016, the flexible inflation targeting framework was governed by an Agreement on Monetary Policy Framework between the Government and the Reserve Bank of India of February 20, 2015.

The Monetary Policy Framework

The amended RBI Act explicitly provides the legislative mandate to the Reserve Bank to operate the monetary policy framework of the country.

The framework aims at setting the policy (repo) rate based on an assessment of the current and evolving macro economic situation; and modulation of liquidity conditions to anchor money market rates at or around the repo rate. Repo rate changes transmit through the money market to the entire financial system, which, in turn, influences aggregate demand – a key determinant of inflation and growth.

Once the repo rate is announced, the operating framework designed by the Reserve Bank envisages liquidity management on a day-to-day basis through appropriate actions, which aim at anchoring the operating target – the weighted average call rate (WACR) – around the repo rate.

The operating framework is fine-tuned and revised depending on the evolving financial market and monetary conditions, while ensuring consistency with the monetary policy stance. The liquidity management framework was last revised significantly in April 2016.

The Monetary Policy Process

Section 45ZB of the amended RBI Act, 1934 also provides for an empowered six-member monetary policy committee (MPC) to be constituted by the Central Government by notification in the Official Gazette. Accordingly, the Central Government in September 2016 constituted the MPC as under:

1. Governor of the Reserve Bank of India – Chairperson, ex officio;
2. Deputy Governor of the Reserve Bank of India, in charge of Monetary Policy – Member, ex officio;

Module-III : Theory and Practice of Forex and Treasury Management

3. One officer of the Reserve Bank of India to be nominated by the Central Board – Member, ex officio;
4. Shri Chetan Ghate, Professor, Indian Statistical Institute (ISI) – Member;
5. Professor Pami Dua, Director, Delhi School of Economics – Member; and
6. Dr. Ravindra H. Dholakia, Professor, Indian Institute of Management, Ahmedabad – Member.

(Members referred to at 4 to 6 above, will hold office for a period of four years or until further orders, whichever is earlier.)

The MPC determines the policy interest rate required to achieve the inflation target. The first meeting of the MPC was held on October 3 and 4, 2016 in the run up to the Fourth Bi-monthly Monetary Policy Statement, 2016-17.

The Reserve Bank's Monetary Policy Department (MPD) assists the MPC in formulating the monetary policy. Views of key stakeholders in the economy, and analytical work of the Reserve Bank contribute to the process for arriving at the decision on the policy repo rate.

The Financial Markets Operations Department (FMOD) operationalises the monetary policy, mainly through day-to-day liquidity management operations. The Financial Markets Committee (FMC) meets daily to review the liquidity conditions so as to ensure that the operating target of the weighted average call money rate (WACR).

Before the constitution of the MPC, a Technical Advisory Committee (TAC) on monetary policy with experts from monetary economics, central bank, financial markets and public finance advised the Reserve Bank on the stance of monetary policy. However, its role was only advisory in nature. With the formation of MPC, the TAC on Monetary Policy ceased to exist.

Instruments of Monetary Policy

There are several direct and indirect instruments that are used for implementing monetary policy.

Repo Rate: The (fixed) interest rate at which the Reserve Bank provides overnight liquidity to banks against the collateral of government and other approved securities under the liquidity adjustment facility (LAF).

Reverse Repo Rate: The (fixed) interest rate at which the Reserve Bank absorbs liquidity, on an overnight basis, from banks against the collateral of eligible government securities under the LAF.

Liquidity Adjustment Facility (LAF): The LAF consists of overnight as well as term repo auctions. Progressively, the Reserve Bank has increased the proportion of liquidity injected under fine-tuning variable rate repo auctions of range of tenors. The aim of term repo is to

A Brief on the Monetary Policy of RBI

help develop the inter-bank term money market, which in turn can set market based benchmarks for pricing of loans and deposits, and hence improve transmission of monetary policy. The Reserve Bank also conducts variable interest rate reverse repo auctions, as necessitated under the market conditions.

Marginal Standing Facility (MSF): A facility under which scheduled commercial banks can borrow additional amount of overnight money from the Reserve Bank by dipping into their Statutory Liquidity Ratio (SLR) portfolio up to a limit at a penal rate of interest. This provides a safety valve against unanticipated liquidity shocks to the banking system.

Corridor: The MSF rate and reverse repo rate determine the corridor for the daily movement in the weighted average call money rate.

Bank Rate: It is the rate at which the Reserve Bank is ready to buy or rediscount bills of exchange or other commercial papers. The Bank Rate is published under Section 49 of the Reserve Bank of India Act, 1934. This rate has been aligned to the MSF rate and, therefore, changes automatically as and when the MSF rate changes alongside policy repo rate changes.

Cash Reserve Ratio (CRR): The average daily balance that a bank is required to maintain with the Reserve Bank as a share of such per cent of its Net demand and time liabilities (NDTL) that the Reserve Bank may notify from time to time in the Gazette of India.

Statutory Liquidity Ratio (SLR): The share of NDTL that a bank is required to maintain in safe and liquid assets, such as, unencumbered government securities, cash and gold. Changes in SLR often influence the availability of resources in the banking system for lending to the private sector.

Open Market Operations (OMOs): These include both, outright purchase and sale of government securities, for injection and absorption of durable liquidity, respectively.

Market Stabilization Scheme (MSS): This instrument for monetary management was introduced in 2004. Surplus liquidity of a more enduring nature arising from large capital inflows is absorbed through sale of short-dated government securities and treasury bills. The cash so mobilised is held in a separate government account with the Reserve Bank.

For current operative policy rates, please see "Current Rates" section on the home page of RBI Website.

Open and Transparent Monetary Policy Making

Under the amended RBI Act, the monetary policy making is as under:

The MPC is required to meet at least four times in a year.

The quorum for the meeting of the MPC is four members.

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Each member of the MPC has one vote, and in the event of an equality of votes, the Governor has a second or casting vote.

The resolution adopted by the MPC is published after conclusion of every meeting of the MPC in accordance with the provisions of Chapter III F of the Reserve Bank of India Act, 1934.

On the 14th day, the minutes of the proceedings of the MPC are published which include:

- the resolution adopted by the MPC;
- the vote of each member on the resolution, ascribed to such member; and
- the statement of each member on the resolution adopted.

Once in every six months, the Reserve Bank is required to publish a document called the Monetary Policy Report to explain:

- the sources of inflation; and
- the forecast of inflation for 6-18 months ahead.

Legal Framework

Reserve Bank of India Act, 1934 as amended from time to time.

Reserve Bank of India Commercial Paper Directions, 2017

Reserve Bank Commercial Paper Directions, 2017

[FMRD.DIRD.01/CGM (TRS) - 2017 dated August 10, 2017]

WHEREAS the Reserve Bank of India, in exercise of the powers conferred by Sections 45J, 45K, 45L of the Reserve Bank of India Act, 1934, and of all the powers enabling it in this behalf, notified the Non-Banking Companies (Acceptance of Deposits through Commercial Paper) Directions 1989 vide Notification No.IECD.1/87(CP)-89/90 dated December 11, 1989;

AND WHEREAS the said directions having been amended from time to time vide Notification No.IECD.14/08.15.01/96-97 dated September 6, 1996; Notification No.IECD.21/08.15.01/97-98 dated June 17, 1998, Notification No IECD 3/08.15.01/2000-2001 dated October 10, 2000 and IDMD.PCD. 1284 /14.01.02/2012-13 dated October 16, 2012 respectively;

AND WHEREAS Section 45W of the Reserve Bank of India Act provides that the Bank may, in public interest, and to promote the development of the financial system of the country to its advantage, determine the policy relating to interest rates or interest rate products and give directions in that behalf to all agencies or any of them, dealing in securities, money market instruments, foreign exchange, derivatives, or other instruments of like nature as the Bank may specify from time to time;

AND WHEREAS Commercial Paper is a 'money market instrument' under Section 45W of the Reserve Bank of India Act;

NOW THEREFORE, in exercise of the powers conferred under sections 45J, 45K, 45L and 45W, and in supersession of the Notifications referred hereinabove, and all other instructions issued in this behalf, on the subject, the Reserve Bank of India, having considered it necessary in the public interest and being satisfied that for the purpose of enabling the Bank to regulate the credit and financial system to the advantage of the country, hereby issues the following directions:

1. Short Title and Commencement

These directions shall be called the Reserve Bank Commercial Paper Directions 2017 and shall come into force on the date of their publication.

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Provided that the requirement of *two ratings* as specified in paragraph 6.2.a shall be effective from October 01, 2017.

2. Definitions

For the purpose of these directions, unless the context otherwise requires:

- (a) 'All India Financial Institution' (AIFI) means an all India Financial Institution specified in the RBI Master Direction DBR.FID.No.108/01.02.000/2015-16 and as amended from time to time.
- (b) 'Bank' means a banking company as defined in clause (c) of Section 5 of the Banking Regulation Act, 1949 (10 of 1949) or a "corresponding new bank", "State Bank of India" or a "subsidiary bank" as defined in clause (da), clause (nc) and clause (nd) respectively thereof and includes a "cooperative bank" as defined in clause (cci) of Section 5 read with Section 56 of the said Act. Banks would also include branches of foreign banks operating in India.
- (c) 'Commercial Paper' (CP) is an unsecured money market instrument issued in the form of a promissory note. The original tenor of a CP shall be between seven days to one year.
- (d) 'Company' means a company as defined in section 2 (20) of the Companies Act, 2013.
- (e) 'Issuing and Paying Agent (IPA)' means a Scheduled Bank acting as an IPA.
- (f) 'RBI' means the Reserve Bank of India.
- (g) 'Related parties' shall be as defined in section 2 (76) of the Companies Act, 2013
- (h) 'Scheduled bank' means a bank included in the Second Schedule of the RBI Act, 1934.
- (i) i. 'Standalone Primary Dealer' (PD) means a Non-Banking Financial Company (NBFC) that holds a valid letter of authorization as a PD issued by the Reserve Bank, in terms of the "Guidelines for Primary Dealer in Government Securities Market" dated March 29, 1995, as amended from time to time.
- (j) j. Words and expressions used but not defined herein and defined in the Reserve Bank of India Act, 1934 shall have the same meaning as assigned to them in the said Act.

3. Eligible Issuers:

- (a) Companies, including Non-Banking Finance Companies (NBFCs) and All India Financial Institutions (AIFIs), are eligible to issue CPs subject to the condition that any fund-based facility availed of from bank(s) and/or financial institutions is classified as a standard asset by all financing banks/institutions at the time of issue.
- (b) Other entities like co-operative societies/unions, government entities, trusts, limited liability partnerships and any other body corporate having presence in India with a net worth of ₹100 crore or higher subject to the condition as specified under 3 (a) above.

Reserve Bank of India Commercial Paper Directions, 2017

- (c) Any other entity specifically permitted by the Reserve Bank of India (RBI).

4. End use

The exact end use shall be disclosed in the offer document at the time of issue of a CP.

5. Eligible Investors:

- (a) All residents, and non-residents permitted to invest in CPs under Foreign Exchange Management Act (FEMA), 1999 are eligible to invest in CPs; however, no person can invest in CPs issued by related parties either in the primary or secondary market.
- (b) Investment by regulated financial sector entities will be subject to such conditions as the concerned regulator may impose.

6. Form of the instrument, mode of issuance, rating and documentation procedures

6.1 Form

- (a) A CP shall be issued in the form of a promissory note (format in ***Annex I***) and held in a dematerialized form through any of the depositories approved by and registered with SEBI.
- (b) A CP shall be issued in minimum denomination of ₹5 lakh and multiples thereof.
- (c) A CP shall be issued at a discount to face value.
- (d) No issuer shall have the issue of a CP underwritten or co-accepted.
- (e) Options (call/put) are not permitted on a CP.

6.2 Rating Requirement

- (a) Eligible issuers, whose total CP issuance during a calendar year is ₹1000 crore or more, shall obtain credit rating for issuance of CPs from at least two CRAs registered with SEBI and should adopt the lower of the two ratings. Where both ratings are the same, the issuance shall be for the lower of the two amounts for which ratings are obtained.
- (b) The minimum credit rating for a CP shall be 'A3' as per rating symbol and definition prescribed by SEBI.

6.3 Documentation Procedures

Issuers, investors and Issuing and Paying Agents (IPAs) shall follow the standard procedures and documentation prescribed by Fixed Income Money Market and Derivatives Association of India (FIMMDA) as 'Operational Guidelines on CPs'.

6.4 Issue of CP, Credit Enhancement limits etc.

- (a) A CP shall be issued as a 'stand-alone' product.

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- (b) Banks and FIs may, based on their commercial judgment, choose to provide stand-by assistance / credit, back-stop facility etc. by way of credit enhancement for a CP issue.
- (c) Non-bank entities (including corporates) may provide unconditional and irrevocable guarantee for credit enhancement for CP issue provided the offer document for CP properly discloses the net worth of the guarantor company, the names of the companies to which the guarantor has issued similar guarantees, the extent of the guarantees offered by the guarantor company, and the conditions under which the guarantee will be invoked.

7. Secondary market trading and settlement of CP

- (a) All OTC trades in CP shall be reported within 15 minutes of the trade to the Financial Market Trade Reporting and Confirmation Platform ("F-TRAC") of Clearcorp Dealing System (India) Ltd.
- (b) The settlement cycle for OTC trades in CP shall be T+0 or T+1.
- (c) OTC trades in a CP shall be settled through the clearing corporation of any recognized stock exchange or any other mechanism approved by RBI.

8. Buyback of CP

- (a) The buyback of a CP, in full or part shall be at the prevailing market price.
- (b) The buyback offer should be extended to all investors in the CP issue. The terms of the buyback should be identical for all investors in the issue.
- (c) The buyback offer may not be made before 30 days from the date of issue.
- (d) CPs bought back shall stand extinguished.

9. Duties and Obligations

The duties and obligations of the Issuer, Issuing and Paying Agent (IPA) and Credit Rating Agency (CRA) are set out below:

I. Issuer –

The issuer of CP shall

- (a) Appoint an IPA for issuance of a CP.
- (b) Comply with all relevant requirements under these directions and furnish a declaration in this regard to the IPA.
- (c) Ensure that the proceeds from CP issues are for declared end uses.
- (d) Furnish the board resolution authorizing the company to borrow through issuance of a CP to the IPA.

Reserve Bank of India Commercial Paper Directions, 2017

- (e) Keep the bank(s) from whom it has outstanding fund or non-fund based credit facility(ies) informed of its market borrowings, including through CPs, latest by the end of the month in which a CP was issued.
- (f) Arrange for crediting the CP to the DEMAT account of the investor with the depository through the IPA within 7 days of issue.
- (g) Route all subscriptions/redemptions/buybacks/payments and default details through the IPA.
- (h) Make disclosures in the offer document as given in Annex II.
- (i) Submit a certificate from the CEO/CFO to the concerned IPAs on quarterly basis that CP proceeds are used for disclosed purposes, and certifying adherence to other conditions of the offer document and the CP directions. The certificate may be provided within 15 days from the close of the quarter.
- (j) Inform the CRA and IPA on the same day about any default/delay in CP related payments.
- (k) The issuer who has defaulted on a CP shall not be allowed to access the CP market for six months from the date of repayment of the defaulted obligation.

II. *Issuing and Paying Agent* – The IPA for a CP issuance shall

- (a) Ensure that the borrower is appropriately authorised to borrow through CPs.
- (b) Verify all information disclosed in the offer document before issuance.
- (c) Verify all documents submitted by the issuer and ensure that they are in order and issue a certificate to this effect (***Annex III***).
- (d) Make available the IPA certificate in electronic form on the website of the depositories for the CPs. IPAs are encouraged to shift to issue of digital signature certificates.
- (e) Verify and hold certified copies of original documents and/or digitally signed documents in its custody.
- (f) Report the details of issuance of a CP, or its buyback and instances of default on the F-TRAC platform (after these functionalities are made operational), by close of business hours, of the day of issuance, buyback or default as the case may be. Until CCIL advises full operationalisation of F-TRAC, the current reporting arrangements shall continue.

III. *Credit Rating Agency*

- (a) A Credit Rating Agency (CRA) must act responsibly in rating CP issuances and continuously monitor the rating assigned to an issue and disseminate rating revisions, if any, to public through its publications and on its website.

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- (b) A CRA must publicly disseminate the ratings of the CP and any subsequent change in the ratings, on the date of rating or change in rating, as the case may be.

10. Applicability of other directions/regulations etc

Issuers of CPs shall abide by any direction/regulation/guideline issued by any regulator or other authority in respect of issue / investment of CPs provided that such directions/regulations/guidelines do not conflict with these directions.

11. Non-applicability of Certain Other Directions

Nothing contained in the Non-Banking Financial Companies Acceptance of Public Deposits (Reserve Bank) Directions, 1998 shall apply to the raising of funds by issuance of CP, by any NBFC when such funds are raised in accordance with these directions.

Annexure I

Proforma of Commercial Paper (CP)

To be stamped as per the applicable rate in force in the State in which it is to be issued

(NAME OF THE ISSUING COMPANY/INSTITUTION)

SERIAL NO.

Issued at: _____ Date of Issue: _____

(PLACE)

Date of Maturity: _____ without days of grace.

(If such date happens to fall on a holiday, payment shall be made on the immediate preceding working day)

For value received _____ hereby (NAME OF THE ISSUING COMPANY/ INSTITUTION)

Promises to pay _____ or order on the

(NAME OF THE INVESTOR)

maturity date as specified above the sum of ` _____ (in words) upon presentation and surrender of this Commercial Paper to

_____.

(NAME OF THE ISSUNG AND PAYING AGENT)

For and on behalf of _____

(NAME OF THE ISSUING COMPANY / INSTITUTION)

(AUTHORISED SIGNATORY / SIGNATORIES)

ALL ENDORSEMENTS UPON THIS COMMERCIAL PAPER MUST BE CLEAN AND DISTINCT. EACH ENDORSEMENT SHOULD BE WRITTEN WITHIN THE SPACE ALLOTTED.

Pay to _____ or order the amount within named.

(NAME OF THE TRANSFEREE)

For and on behalf of

(NAME OF THE TRANSFEROR)

Minimum disclosure in the Offer Document

- i. Details of outstanding CPs and other debt instruments as on date of new issuance including date of issuance, amount issued, maturity date, amount outstanding, credit rating, name of credit rating agency and name of IPA
- ii. Summary of last three years' audited financials or if the issuer has not been in existence for three years, available audited financials, material litigation and regulatory strictures
- iii. Details of default of CPs or any other borrowings for past three years.
- iv. Details of current tranche including amount, current credit rating, name of credit rating agency, its validity period and details of IPA
- v. End-use of funds

IPA CERTIFICATE

We have a valid IPA agreement with the _____

(Name of Issuing Company/Institution)

2. We have verified the documents viz., board resolution and certificate issued by Credit Rating Agency submitted by [*Name of the Issuing Company/Institution*] and certify that the documents are in order. Certified copies of original documents are held in our custody.

3.* We also hereby certify that the signatures of the executants of the attached Commercial Paper bearing Sr. No. _____ dated _____ for ` _____

(Rupees _____) (in words) tally with the specimen signatures filed by [*Name of the issuing Company/Institution*].

(Authorised Signatory/Signatories)

(Name and address of Issuing and Paying Agent)

Place:

Date:

* (Applicable to Commercial Paper in physical form/Strike out if not applicable)

Marginal Cost of Funds based Lending Rate (MCLR)

Marginal Cost of Funds Based Lending Rate (MCLR)

The marginal cost of funds based lending rate (MCLR) refers to the minimum interest rate of a bank below which it cannot lend, except in some cases allowed by the RBI. It is an internal benchmark or reference rate for the bank. MCLR actually describes the method by which the minimum interest rate for loans is determined by a bank - on the basis of marginal cost or the additional or incremental cost of arranging one more rupee to the prospective borrower.

The MCLR methodology for fixing interest rates for advances was introduced by the Reserve Bank of India with effect from April 1, 2016. This new methodology replaces the base rate system introduced in July 2010. In other words, all rupee loans sanctioned and credit limits renewed w.e.f. April 1, 2016 would be priced with reference to the Marginal Cost of Funds based Lending Rate (MCLR) which will be the internal benchmark (means a reference rate determined internally by the bank) for such purposes.

Existing loans and credit limits linked to the Base Rate (internal benchmark rate used to determine interest rates up till 31 March 2016) or Benchmark Prime Lending Rate (BPLR or the internal benchmark rate used to determine the interest rates on advances/loans sanctioned upto June 30, 2010.) would continue till repayment or renewal, as the case may be. However, existing borrowers will have the option to move to the Marginal Cost of Funds based Lending Rate (MCLR) linked loan at mutually acceptable terms.

Reasons for Introducing MCLR

RBI decided to shift from base rate to MCLR because the rates based on marginal cost of funds are more sensitive to changes in the policy rates. This is very essential for the effective implementation of monetary policy. Prior to MCLR system, different banks were following different methodologies for calculation of base rate /minimum rate – that is either on the basis of average cost of funds or marginal cost of funds or blended cost of funds. Thus, MCLR aims to-

- Improve the transmission of policy rates into the lending rates of banks.

Marginal Cost of Funds based Lending Rate (MCLR)

- Bring transparency in the methodology followed by banks for determining interest rates on advances.
- Ensure availability of bank credit at interest rates which are fair to borrowers as well as banks.
- Enable banks to become more competitive and enhance their long run value and contribution to economic growth.

Calculation of MCLR

The MCLR is a tenor linked internal benchmark (tenor means the amount of time left for the repayment of a loan). The actual lending rates are determined by adding the components of spread to the MCLR. Banks will review and publish their MCLR of different maturities, every month, on a pre-announced date.

The MCLR comprises of the following:

(a) **Marginal cost of funds** which is a novel concept under the MCLR methodology comprises of Marginal cost of borrowings and return on net worth, appropriately weighed.

It can thus be expressed in the following equation,

$$\text{MARGINAL COST OF FUNDS} = (92\% \times \text{MARGINAL COST OF BORROWINGS}) + (8\% \times \text{RETURN ON NET WORTH})$$

Thus, marginal cost of borrowings has a weightage of 92% while return on net worth has 8% weightage in the marginal cost of funds. Here, the weight given to return on net worth is set equivalent to the 8% of risk weighted assets prescribed as Tier I capital for the bank. The marginal cost of borrowing refers to the average rates at which deposits of a similar maturity were raised in the specified period preceding the date of review, weighed by their outstanding balance in the bank's books. It can be expressed as under:

Rates offered on deposits of a similar maturity on the date of review/ rates at which funds raised X Balance outstanding as a percentage of total funds (other than equity) as on any day, but not more than seven calendar days prior to the date from which the MCLR becomes effective.

(b) **Negative carry on account of Cash reserve ratio (CRR)**- Negative carry on the mandatory CRR arises because the return on CRR balances is NIL. Negative carry on mandatory Statutory Liquidity Ratio (SLR) balances may arise if the actual return thereon is less than the cost of funds.

(c) **Operating Cost**- associated with providing the loan product, including cost of raising funds, but excluding those costs which are separately recovered by way of service charges.

(d) **Tenor Premium**- The change in tenor premium cannot be borrower specific or loan class specific. In other words, the tenor premium will be uniform for all types of loans for a given residual tenor.

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Banks may publish every month the internal benchmark/ MCLR for the following maturities:

- Overnight MCLR,
- One-month MCLR,
- Three-month MCLR,
- Six month MCLR,
- One year MCLR.
- MCLR for any other maturity which the bank considers fit

Banks have the freedom to offer all categories of advances on fixed or floating interest rates. Banks have to determine their actual lending rates on floating rate advances in all cases by adding the components of spread to the MCLR. Accordingly, there cannot be lending below the MCLR of a particular maturity, for all loans linked to that benchmark. Fixed rate loans upto three years are also priced with reference to MCLR.

However, certain loans like Fixed rate loans of tenor above three years, special loan schemes formulated by Government of India, Advances to banks' depositors against their own deposits, Advances to banks' own employees etc. are not linked to MCLR.

Base Rate Versus MCLR

Base rate calculation is based on cost of funds, minimum rate of return, i.e. margin or profit, operating expenses and cost of maintaining cash reserve ratio while the MCLR is based on *marginal* cost of funds, tenor premium, operating expenses and cost of maintaining cash reserve ratio. The main factor of difference is the calculation of marginal cost under MCLR. Marginal cost is charged on the basis of following factors- interest rate for various types of deposits, borrowings and return on net worth. Therefore MCLR is largely determined by marginal cost of funds and especially by deposit rates and repo rates.

FAQs on Marginal Cost of Funds Based Lending Rate (MCLR)

Q1. The guidelines specify that MCLR calculated using methodology prescribed shall correspond to the tenor of funds in the single largest maturity bucket provided it is more than 30% of the entire funds reckoned for determining the MCLR. But my bank does not have a single time bucket which more than 30% share of the funds has reckoned for MCLR. In such a case, the MCLR calculated as per the methodology indicated shall correspond to which tenor?

Ans: Let's assume a bank has following maturity profile of borrowings:

Marginal Cost of Funds based Lending Rate (MCLR)

Sr. No.	Original Maturity	Balance outstanding as a percentage of total funds (other than equity)	Cumulative weightage
1	5 years & above	15.1%	15.1%
2	3 years & above but less than 5 years	11.8%	26.9%
3	2 years & above but less than 3 years	9.3%	36.2%
4	1 year & above but less than 2 years	16.9%	53.1%
5	6 months & above but less than 1 year	24.3%	77.4%
6	91 days & above but less than 6 months	10.5%	87.9%
7	Up to 90 days	12.1%	100%
	Total	100%	

In this case, the MCLR shall correspond to the weightage average of tenor of the first three time buckets.

Q2. Whether the tenor premium charged will be for contractual tenor or residual tenor?

Ans: Since floating rate loans are subject to periodic resets, the tenor premium will be the appropriate premium for the residual period up to the next reset date.

Q3. What will be the denominator used for arriving at the operating cost for computing MCLR?

Ans: Banks may calculate all operating costs as a percentage of marginal cost of funds for computing MCLR.

Q4. Clarify the definition of short term borrowings.

Ans: A short term borrowing means borrowing of tenor up to but less than one year.

Q5. Can components of spread be negative?

Ans: The components of the spread i.e. business strategy and Credit risk premium shall have either a positive value or be zero. In other words, the spread components cannot be negative.

Q6. Banks grant fixed rate loans to long term projects where initial debt facility consists of loan for a medium term say 5 to 7 years. These loans are then refinanced after the specified period. Will these types of loans be permitted under MCLR system?

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Ans: Banks can grant fixed rate loans to long term projects wherein the interest rate are fixed till the loan is due for refinancing. The loan, at the time of refinancing, will be treated as a fresh fixed rate loan with a maturity period equal to the period upto the next date of refinancing. Such fixed rate loans will fall under the directions contained in Section 13(d)(v) of Reserve Bank of India (Interest Rate on Advances) Directions, 2016.

Q7. Will interest rates on fixed rate loans (or fixed portion of hybrid loans) be based on the date of sanction or disbursement?

Ans: The interest charged on fixed rate loans as well as the fixed portion of hybrid loans will be the interest rate mentioned in the sanction letter.

Prudential Norms for Classification, Valuation and Operation of Investment Portfolio by Banks

1. Introduction

The Reserve Bank of India issues guidelines for the investment portfolio of the banks, keeping in view the developments in the financial markets and taking into consideration the evolving international practices.

1.1 Investment Policy

(i) Banks should frame Internal Investment Policy Guidelines and obtain the Board's approval. The investment policy may be suitably framed / amended to include Primary Dealer (PD) activities also. Within the overall framework of the investment policy, the PD business undertaken by the bank will be limited to dealing, underwriting and market-making in Government Securities. Investments in Corporate / PSU/ FI bonds, Commercial Papers, Certificate of Deposits, debt mutual funds and other fixed income securities will not be deemed to be part of PD business. The investment policy guidelines should be implemented to ensure that operations in securities are conducted in accordance with sound and acceptable business practices. While framing the investment policy, the following guidelines are to be kept in view by the banks:

- (a) Banks may sell a government security already contracted for purchase provided:-
- (i) The purchase contract is confirmed prior to the sale
 - (ii) The purchase contract is guaranteed by Clearing Corporation of India Ltd. (CCIL) or the security is contracted for purchase from the Reserve Bank,
 - (iii) The sale transaction will settle either in the same settlement cycle as the preceding purchase contract, or in a subsequent settlement cycle so that the delivery obligation under the sale contract is met by the securities acquired under the purchase contract (e.g., when a security is purchased on T+0 basis, it can be sold on either T+0 or T+1 basis on the day of the purchase; if however it is purchased on T+1 basis, it can be sold on T+1 basis on the day of purchase or

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on T+0 or T+1 basis on the next day). For purchase of securities from the Reserve Bank through Open Market Operations (OMO), no sale transaction should be contracted prior to receiving the confirmation of the deal/advice of allotment from the Reserve Bank.

- In addition to the above, the Scheduled Commercial Banks (SCBs) (other than RRBs and LABs) and PDs have been permitted to short sell Government securities in accordance with the requirements specified in *Annex I-A*.
 - Further, the NDS-OM members have been permitted to transact on 'When Issued' basis in Central Government dated securities, subject to the guidelines specified in *Annex I-B*.
- (b) Banks successful in the auction of primary issue of Government Securities may enter into contracts for sale of the allotted securities in accordance with the terms and conditions as per *Annex I-C*.
- (c) The settlement of all outright secondary market transactions in Government Securities is being done on a standardized T+1 basis effective from May 24, 2005. Settlements on T+2 basis is permitted for outright secondary market transactions in Government Securities undertaken by FPIs and reported on NDS-OM, subject to following conditions:
- (i) All sale and purchase transactions in Government securities, where at least one of the parties is an FPI, will be settled only on T+2 basis. These will include deals between a domestic entity and an FPI, deals between two FPIs of different custodians, deals between a custodian and its FPI Gilt Account Holder, and deals between two FPI Gilt account Holders of the same custodian.
 - (ii) All other trades not involving an FPI will continue to be settled on T+1 basis.
 - (iii) Custodian bank of the FPI selling the security or the counterparty entity selling the security to the FPI will have to report the deal on trade date itself within the prescribed reporting time.
 - (iv) Custodian bank of the FPI buying the security can report the deal till next business day upto prescribed reporting time.
- Guidelines on DVP III settlement issued vide *Circular IDMD.PDRS.05/10.02.01/2003-04 dated March 29, 2004* and as updated from time to time shall continue to apply for such transactions settled on T+2 basis.
- (d) All the transactions put through by a bank, either on outright basis or ready forward basis whether through the mechanism of Subsidiary General Ledger (SGL) Account or Bank Receipt (BR), should be reflected on the same day in its investment account and, accordingly, for SLR purpose wherever applicable. With a view to bringing in uniformity

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in the methodology of accounting for investments in Government securities, banks should follow 'Settlement Date' accounting for recording purchase and sale of transactions in Government Securities.

- (e) Banks should be circumspect while acting as agents of their broker clients for carrying out transactions in securities on behalf of brokers.
- (f) Any instance of return of SGL from the Public Debt Office (PDO) of the Reserve Bank for want of sufficient balance in the account should be immediately brought to the Reserve Bank's notice with details of the transactions.
- (g) Banks desirous of making investment in equity shares/ debentures should observe the following guidelines:
 - (i) Build up adequate expertise in equity research by establishing a dedicated equity research department, as warranted by their scale of operations.
 - (ii) Formulate a transparent policy and procedure for investment in shares, etc., with the approval of the Board.
 - (iii) The decision in regard to direct investment in shares, convertible bonds and debentures should be taken by the Investment Committee set up by the bank's Board. The Investment Committee should be held accountable for the investments made by the bank.
- (ii) Banks should clearly lay down the broad investment objectives to be followed while undertaking transactions in securities on their own investment account and on behalf of clients, clearly define the authority to put through deals, procedure to be followed for obtaining the sanction of the appropriate authority, procedure to be followed while putting through deals, various prudential exposure limits and the reporting system. While laying down such investment policy guidelines, banks should obtain the approval of respective Boards and strictly observe Reserve Bank's detailed instructions on the following aspects:
 - a. STRIPS (Paragraph 1.1.1)
 - b. Ready Forward (buy back) deals in G-Sec (Paragraph 1.1.2)
 - c. Transactions through Subsidiary General Ledger A/c (Paragraph 1.1.3)
 - d. Use of Bank Receipts (Paragraph 1.1.4)
 - e. Retailing of Government Securities (Paragraph 1.1.5)
 - f. Internal Control System (Paragraph 1.1.6)
 - g. Dealings through Brokers (Paragraph 1.1.7)
 - h. Audit, Review and Reporting (Paragraph 1.1.8)
- (iii) The aforesaid instructions will be applicable *mutatis mutandis*, to the subsidiaries and mutual funds established by banks, except where they are contrary to or inconsistent with

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specific regulations of Securities and Exchange Board of India (SEBI) and the Reserve Bank, governing their operations.

1.1.1 Separate Trading of Registered Interest and Principal Securities (STRIPS)

STRIPS stands for Separate Trading of Registered Interest and Principal Securities. Stripping is a process of converting periodic coupon payments of an existing Government Security into tradable zero-coupon securities, which will usually trade in the market at a discount and are redeemed at face value. For instance, stripping a five-year Government Security would yield 10 coupon securities (representing the coupons), maturing on the respective coupon dates and one principal security representing the principal amount, maturing on the redemption date of the five-year security. Reconstitution is the reverse process of stripping, where, the Coupon STRIPS and Principal STRIPS are reassembled into the original Government Security. Detailed guidelines outlining the process of stripping/reconstitution and other operational procedures regarding transactions in STRIPS are given in *Annex I-D*.

1.1.2 Ready Forward Contracts in Government Securities.

The terms and conditions subject to which ready forward contracts (including reverse ready forward contracts) may be entered into are as under:

- (a)** Ready forward contracts may be undertaken only in (i) Dated Securities and Treasury Bills issued by Government of India and (ii) Dated Securities issued by State Governments.
- (b)** Ready forward contracts in the above-mentioned securities may be entered into by:
 - (i) persons or entities maintaining a Subsidiary General Ledger (SGL) account with RBI, Mumbai and
 - (ii) the following categories of entities which do not maintain SGL accounts with the Reserve Bank but maintain gilt accounts (i.e. gilt account holders) with a bank or any other entity (i.e. the custodian) permitted by the Reserve Bank to maintain Constituent Subsidiary General Ledger (CSGL) account with its PDO, Mumbai:
 - (a) Any scheduled bank
 - (b) Any PD authorised by the Reserve Bank
 - (c) Any Non-Banking Financial Company (NBFC) registered with the Reserve Bank, other than Government Companies as defined in Section 617 of the Companies Act, 1956
 - (d) Any mutual fund registered with the SEBI
 - (e) Any housing finance company registered with the National Housing Bank (NHB)
 - (f) Any insurance company registered with the Insurance Regulatory and Development Authority (IRDA)
 - (g) Any non-scheduled Urban Co-operative bank

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- (h) Any listed company, having a gilt account with a SCB, subject to the following conditions:
 - (1) The minimum period for Reverse Repo (lending of funds) by listed companies is seven days. However, listed companies can borrow funds through repo for shorter periods including overnight.
 - (2) Where the listed company is a 'buyer' of securities in the first leg of the repo contract (i.e. lender of funds), the custodian through which the repo transaction is settled should block these securities in the gilt account and ensure that these securities are not further sold or re-repoed during the repo period but are held for delivery under the second leg.
 - (3) The counterparty to the listed companies for repo / reverse repo transactions should be either a bank or a PD maintaining SGL Account with the Reserve Bank.
- (i) Any unlisted company which has been issued special securities by the Government of India and having gilt account with a SCB; subject to the following conditions in addition to the conditions stipulated for listed company:
 - (1) The eligible unlisted companies can enter into ready forward transactions as the borrower of funds in the first leg of the repo contract only against the collateral of the special securities issued to them by the Government of India.
 - (2) The counterparty to the eligible unlisted companies for repo transactions should be either a bank or a PD maintaining SGL account with the Reserve Bank.
- (c) All persons or entities specified at (b ii) above can enter into ready forward transactions among themselves subject to the following restrictions:
 - (i) An SGL account holder may not enter into a ready forward contract with its own constituent. That is, ready forward contracts should not be undertaken between a custodian and its gilt account holder,
 - (ii) Any two gilt account holders maintaining their gilt accounts with the same custodian (i.e., the CSGL account holder) may not enter into ready forward contracts with each other.
 - (iii) Co-operative banks may not enter into ready forward contracts with NBFCs. This restriction would not apply to repo transactions between Urban Co-operative banks and authorised PDs in Government Securities.
- (d) All ready forward contracts shall be reported on the Negotiated Dealing System (NDS). In respect of ready forward contracts involving gilt account holders, the custodian (i.e., the CSGL account holder) with whom the gilt accounts are maintained will be responsible for reporting the deals on the NDS on behalf of the constituents (i.e. the gilt account holders).

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- (e) All ready forward contracts shall be settled through the SGL Account/CSGL Account maintained with the RBI, Mumbai, with the Clearing Corporation of India Ltd. (CCIL) acting as the central counter party for all such ready forward transactions.
- (f) The custodians should put in place an effective system of internal control and concurrent audit to ensure that:
 - (i) ready forward transactions are undertaken only against the clear balance of securities in the gilt account;
 - (ii) all such transactions are promptly reported on the NDS; and
 - (iii) other terms and conditions referred to above have been complied with.
- (g) The RBI regulated entities can undertake ready forward transactions only in securities held in excess of the prescribed Statutory Liquidity Ratio (SLR) requirements.
- (h) No sale transaction shall be put through, in the first leg of a ready forward transaction by CSGL constituent entities without actually holding the securities in the portfolio.
- (i) Re-repo is permitted in government securities, including state development loans and Treasury Bills, acquired under reverse repo, subject to following conditions:
 - (i) Scheduled commercial banks and Primary Dealers (PDs) maintaining subsidiary general ledger (SGL) account with the Reserve Bank of India will be permitted to re-repo the securities acquired under reverse repo;
 - (ii) Mutual Funds and Insurance Companies maintaining SGL account with the Reserve Bank will also be permitted to re-repo the securities acquired under reverse repo, subject to the approval of the regulators concerned;
 - (iii) Re-repo of securities can be undertaken only after receipt of confirmation / matching of first leg of repo transaction;
 - (iv) Re-repo period should not exceed the residual period of the initial repo;
 - (v) Eligible entities undertaking re-repo transactions should 'flag' the transactions as a re-repo on the authorised reporting platform. Participants may review their systems and controls to ensure strict compliance with the requirement of reporting of re-repo transactions.
 - (vi) All repo / re-repo transactions should be subject to internal audit and concurrent audit. Violation of the regulatory guidelines, if any, may be brought to the notice of Chief General Manager, Financial Markets Regulation Department, Reserve Bank of India, Mumbai.
 - (vii) Default in payment of cash or delivery of security shall be viewed seriously and subject to penal measures as prescribed in RBI Circular IDMD.DOD.17/11.01.01(B)/2010-11 dated July 14,2010, as amended from time to time. Reserve Bank may also take any

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action including temporary or permanent debarment of the SGL account holder from the repo market as it may deem fit, for violation / circumvention of the regulatory guidelines or if Reserve Bank is of the view that the entity has attempted to manipulate the market, involved in market abuse, or provided information that was incorrect, inaccurate, or incomplete.

- (viii) These guidelines are not applicable to repo transactions executed with the Reserve Bank as counterparty.
- (ix) All eligible entities are also required to adhere to the prudential guidelines prescribed by their respective regulators from time to time for undertaking repo transactions.
- (j) Securities purchased under the ready forward contracts shall not be sold during the period of the contract except by entities permitted to undertake short selling.
- (k) Double ready forward deals in any security are strictly prohibited.
- (l) The guidelines for uniform accounting for Repo / Reverse Repo transactions are set out in Paragraph 4.

1.1.3 Transactions through SGL account

The following instructions should be followed by banks for purchase / sale of securities through SGL A/c, under the Delivery Versus Payment System wherein the transfer of securities takes place simultaneously with the transfer of funds. It is, therefore, necessary for both the selling bank and the buying bank to maintain current account with the Reserve Bank. As no 'Overdraft facility' in the current account would be extended, adequate balance in current account should be maintained by banks for effecting any purchase transaction.

- (i) All transactions in Government Securities for which SGL facility is available should be put through SGL account only.
- (ii) Under no circumstance, a SGL transfer form issued by a bank in favour of another bank should bounce for want of sufficient balance of securities in the SGL A/c of seller or for want of sufficient balance of funds in the current a/c of the buyer.
- (iii) The SGL transfer form received by purchasing banks should be deposited in their SGL account immediately, i.e., the date of lodgment of the SGL Form with the Reserve Bank shall be within one working day after the date of signing of the Transfer Form. While in cases of OTC trades, the settlement has to be only on 'spot' delivery basis as per Section 2(i) of the Securities Contracts (Regulations) Act, 1956, in cases of deals on the recognised Stock Exchanges, the settlement should be within the delivery period as per their rules, bye laws and regulations. In all the cases, participants must indicate the deal/trade/contract date in Part C of the SGL Form under 'Sale date'. Where this is not completed, the SGL Form will not be accepted by the Reserve Bank.
- (iv) No sale should be effected by way of return of SGL form held by the bank.

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(v) SGL transfer forms should be signed by two authorised officials of the bank whose signatures should be recorded with the respective PDOs of the Reserve Bank and other banks.

(vi) The SGL transfer forms should be in the standard format prescribed by the Reserve Bank and printed on semi-security paper of uniform size. They should be serially numbered and there should be a control system in place to account for each SGL form.

(vii) Records of SGL transfer forms issued/ received should be maintained.

(viii) If a SGL transfer form bounces for want of sufficient balance in the SGL A/c, the (selling) bank which has issued the form will be liable to the following penal action against it :

(a) The amount of the SGL form (cost of purchase paid by the purchaser of the security) would be debited immediately to the current account of the selling bank with the Reserve Bank.

(b) In the event of an overdraft arising in the current account following such a debit, penal interest would be charged by the Reserve Bank, on the amount of the overdraft, at a rate of 3 percentage points above the SBI Discount and Finance House of India's (SBIDFHI) call money lending rate on the day in question. However, if the SBIDFHI's closing call money rate is lower than the prime lending rate of banks, as stipulated in the Reserve Bank's interest rate directive in force, the applicable penal rate to be charged will be 3 percentage points above the prime lending rate of the bank concerned.

(c) 'SGL bouncing' shall mean failure of settlement of a Government Securities transaction on account of insufficiency of funds in the current account of the buyer or insufficiency of securities in the SGL / CSGL account of the seller, maintained with the Reserve Bank. In the event of bouncing of SGL transfer forms and failure of the account holder concerned to offer satisfactory explanation for such bouncing, the account holder shall be liable to pay penalties as under:

(i) Graded monetary penalties subject to a *maximum penalty of ₹5 lakhs* per instance;

Sl. No	Applicable to	Monetary penalty	Illustration [Penal amount on ₹5 crore default]
1	First three defaults in a financial year (April to March)	0.10% (10 paise per ₹100 FV)	₹50,000/-
2	Next three defaults in the same financial year	0.25% (25 paise per ₹100 FV.)	₹1,25,000/-
3	Next three defaults in the same financial year	0.50% (50 paise per ₹100 FV)	₹2,50,000/-

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- (ii) On the tenth default in a financial year, the eligible entities will be debarred from using the SGL A/c for undertaking short sales in Government Securities even to the extent permissible under Circular IDMD.No./11.01.01 (B)/2006-07 as amended from time to time, during the remaining portion of the financial year. In the next financial year, upon being satisfied that the a/c holder in question has effected improvements in its internal control systems, the Reserve Bank may grant specific approval for undertaking short sales by using the SGL A/c facility.
- (iii) The monetary penalty may be paid by the account holder concerned by way of a cheque or through electronic mode for the amount favouring the Reserve Bank, within five working days of the receipt of intimation of order imposing penalty from the Reserve Bank.
- (d) Any bouncing of SGL transfer forms issued by selling banks in favour of the buying bank should immediately be brought to the notice of the Regional Office of DBS of the Reserve Bank by the buying bank.
- (ix) The defaulting member shall make appropriate disclosure, on the number of instances of default as well as the quantum of penalty paid to the Reserve Bank during the financial year, under the "Notes to Account" in its balance sheet.
- (x) The Reserve Bank reserves the right to take any action including temporary or permanent debarment of the SGL account holder, in accordance with the powers conferred under the Government Securities Act, 2006 as it may deem fit, for violation of the terms and conditions of the opening and maintenance of SGL/ CSGL accounts or breach of the operational guidelines issued from time to time.

1.1.4 Use of Bank Receipt (BR)

The banks should follow the following instructions for issue of BRs:

- (a) No BR should be issued under any circumstance in respect of transactions in Government Securities for which SGL facility is available.
- (b) Even in the case of other securities, BR may be issued for ready transactions only, under the following circumstances:
 - (i) The scrips are yet to be issued by the issuer and the bank is holding the allotment advice.
 - (ii) The security is physically held at a different centre and the bank is in a position to physically transfer the security and give delivery thereof within a short period.
 - (iii) The security has been lodged for transfer / interest payment and the bank is holding necessary records of such lodgments and will be in a position to give physical delivery of the security within a short period.

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- (c) No BR should be issued on the basis of a BR (of another bank) held by the bank and no transaction should take place on the basis of a mere exchange of BRs held by the bank.
- (d) BRs could be issued covering transactions relating to banks' own Investments Accounts only, and no BR should be issued by banks covering transactions relating to either the Accounts of Portfolio Management Scheme (PMS) Clients or Other Constituents' Accounts, including brokers.
- (e) No BR should remain outstanding for more than 15 days.
- (f) A BR should be redeemed only by actual delivery of scrips and not by cancellation of the transaction/ set off against another transaction. If a BR is not redeemed by delivery of scrips within the validity period of 15 days, the BR should be deemed as dishonoured and the bank which has issued the BR should refer the case to the Reserve Bank, explaining the reasons for which the scrips could not be delivered within the stipulated period and the proposed manner of settlement of the transaction.
- (g) BRs should be issued on semi-security paper, in the standard format (prescribed by IBA), serially numbered and signed by two authorised officials of the bank, whose signatures are recorded with other banks. As in the case of SGL forms, there should be a control system in place to account for each BR form.
- (h) Separate registers of BRs issued and BRs received should be maintained and arrangements should be put in place to ensure that these are systematically followed up and liquidated within the stipulated time limit.
- (i) The banks should also have a proper system for the custody of unused BR Forms and their utilization. The existence and operations of these controls at the concerned offices/ departments of the bank should be reviewed, among others, by the statutory auditors and a certificate to this effect may be forwarded every year to the Regional Office of Department of Banking Supervision (DBS), RBI, under whose jurisdiction the Head Office of the bank is located.
- (j) Any violation of the instructions relating to BRs would invite penal action, which could include raising of reserve requirements, withdrawals of refinance facility from the Reserve Bank and denial of access to money markets. The Reserve Bank may also levy such other penalty as it may deem fit in accordance with the provisions of the Banking Regulation Act, 1949.

1.1.5 Retailing of Government Securities

Banks may undertake retailing of Government Securities with non-bank clients subject to the following conditions:

- (i) Such retailing should be on outright basis and there is no restriction on the period between sale and purchase.

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(ii) The retailing of Government Securities should be on the basis of ongoing market rates/ yield curve emerging out of secondary market transactions.

1.1.6 Internal Control System

Banks should observe the following guidelines for internal control system in respect of investment transactions:

(a) There should be a clear functional separation of (i) trading, (ii) settlement, monitoring and control and (iii) accounting. Similarly, there should be a functional separation of trading and back office functions relating to banks' own Investment Accounts, Portfolio Management Scheme (PMS) Clients' Accounts and other Constituents (including brokers') accounts. Portfolio Management services may be provided to clients, subject to strictly following the guidelines in regard thereto (covered in Master Circular – Para-Banking Activities). Further, PMS Clients Accounts should be subjected to a separate audit by external auditors.

(b) In the interest of maintaining integrity and orderly conditions in the government securities market, all SGL/CSGL account holders should adhere to the FIMMDA code of conduct while executing trades on NDS-OM and in the OTC market.

(c) For every transaction entered into, the trading desk should prepare a deal slip which should contain data relating to nature of the deal, name of the counter-party, whether it is a direct deal or through a broker, and if through a broker, name of the broker, details of security, amount, price, contract date and time. The deal slips should be serially numbered and controlled separately to ensure that each deal slip has been properly accounted for. Once the deal is concluded, the dealer should immediately pass on the deal slip to the back office for recording and processing.

(d) For each deal there must be a system of issue of confirmation to the counterparty. The timely receipt of requisite written confirmation from the counterparty, which must include all essential details of the contract, should be monitored by the back office.

(e) With respect to transactions matched on the NDS-OM module, since CCIL is the central counterparty to all deals, exposure of any counterparty for a trade is only to CCIL and not to the entity with whom a deal matches. Besides, details of all deals on NDS-OM are available to the counterparties as and when required by way of reports on NDS-OM itself. In view of the above, the need for counterparty confirmation of deals matched on NDS-OM does not arise. The deals in Government Security transactions in OTC market that are mandated to be settled through CCIL by reporting on the NDS, are not required to be confirmed physically as OTC deals depend on electronic confirmation by the back offices of both the counterparties on NDS system like the NDS-OM deals.

However, all Government Securities transactions, other than those mentioned above, will continue to be physically confirmed by the back offices of the counterparties, as hitherto.

(f) Banks are required to report OTC trades in Commercial Papers (CPs) and Certificate of

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Deposits (CDs) and OTC repo trades in corporate debt securities, CPs, CDs and non-convertible debentures (NCDs) of original maturity less than one year on F-TRAC - the reporting platform of Clearcorp Dealing Systems (India) Ltd. (CDSIL). These trades have to be physically confirmed by the back offices of the counterparties. In F-TRAC, both the counterparties individually report their respective sides of the trades and the trades are validated for trade details before matching by F-TRAC. This ensures implicit confirmation by both counterparties. Further, the details of the transactions are available on the F-TRAC system. The requirement of exchange of physical confirmation of trades matched on F-TRAC is waived subject to the following conditions:

- (i) Participants entering into one time bilateral agreement for eliminating the exchange of confirmation.
- (ii) Participants adhering to the extant laws such as stamp duty as may be applicable.
- (iii) Participants ensuring adherence to a sound risk management framework and complying with all the regulatory and legal requirements and practices, in this regard.

The dispensation with respect to waiver of physical confirmation will be subject to review in case of any change in ownership of the F-TRAC platform or reporting arrangements thereof.

(g) Once a deal has been concluded, there should not be any substitution of the counter party bank by another bank by the broker, through whom the deal has been entered into; likewise, the security sold/purchased in the deal should not be substituted by another security.

(h) On the basis of vouchers passed by the back office (which should be done after verification of actual contract notes received from the broker/ counterparty and confirmation of the deal by the counterparty), the Accounts Section should independently write the books of account.

(i) In the case of transaction relating to PMS Clients' Accounts (including brokers), all the relative records should give a clear indication that the transaction belongs to PMS Clients/ other constituents and does not belong to bank's own Investment Account and the bank is acting only in its fiduciary/ agency capacity.

(j) Balances as per bank's books should be reconciled at quarterly intervals with the balances in the books of PDOs. If the number of transactions so warrant, reconciliation should be undertaken more frequently, say on a monthly basis. This reconciliation should be periodically checked by the internal audit department.

(k) A system for verification of the authenticity of the BRs and SGL transfer forms received from the other banks and confirmation of authorised signatories should be put in place.

(l) Banks should put in place a reporting system to report to their top management, on a weekly basis, the details of transactions in securities, details of bouncing of SGL transfer forms issued by other banks and BRs outstanding for more than one month and a review of investment transactions undertaken during the period.

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- (m) Banks should not draw cheques on their account with the Reserve Bank for third party transactions, including inter-bank transactions. For such transactions, bankers' cheques/ pay orders should be issued.
- (n) In case of investment in shares, the surveillance and monitoring of investment should be done by the Audit Committee of the Board, which shall review in each of its meetings, the total exposure of the bank to capital market, both fund based and non-fund based, in different forms as stated above and ensure that the guidelines issued by the Reserve Bank are complied with and adequate risk management and internal control systems are in place.
- (o) The Audit Committee should keep the Board informed about the overall exposure to capital market, the compliance with the Reserve Bank and Board guidelines, adequacy of risk management and internal control systems.
- (p) In order to avoid any possible conflict of interest, it should be ensured that the stockbrokers as directors on the Boards of banks or in any other capacity, do not involve themselves in any manner with the Investment Committee or in the decisions in regard to making investments in shares, etc., or advances against shares.
- (q) The internal audit department should audit the transactions in securities on an ongoing basis, monitor the compliance with the laid down management policies and prescribed procedures and report the deficiencies directly to the management of the bank.
- (r) The banks' managements should ensure that there are adequate internal control and audit procedures for ensuring proper compliance of the instructions in regard to the conduct of the investment portfolio. Banks should institute a regular system of monitoring compliance with the prudential and other guidelines issued by the Reserve Bank. Banks should get compliance in key areas certified by their statutory auditors and furnish such audit certificate to the Regional Office of DBS, RBI under whose jurisdiction the HO of the bank falls.

1.1.7 Engagement of brokers

- (i) For engagement of brokers to deal in investment transactions, the banks should observe the following guidelines:
 - (a) Transactions between one bank and another bank should not be put through the brokers' accounts. The brokerage on the deal payable to the broker, if any (if the deal was put through with the help of a broker), should be clearly indicated on the notes/ memorandum put up to the top management seeking approval for putting through the transaction.
 - (b) If a deal is put through with the help of a broker, the role of the broker should be restricted to that of bringing the two parties to the deal together.
 - (c) While negotiating the deal, the broker is not obliged to disclose the identity of the counterparty to the deal. On conclusion of the deal, he should disclose the counterparty and his contract note should clearly indicate the name of the counterparty. It should

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also be ensured by the bank that the broker note contains the exact time of the deal. Their back offices may ensure that the deal time on the broker note and the deal ticket is the same. The bank should also ensure that their concurrent auditors audit this aspect.

- (d) On the basis of the contract note disclosing the name of the counterparty, settlement of deals between banks, viz. both fund settlement and delivery of security should be directly between the banks and the broker should have no role to play in the process.
- (e) With the approval of their top managements, banks should prepare a panel of approved brokers which should be reviewed annually or more often if so warranted. Clear-cut criteria should be laid down for empanelment of brokers, including verification of their creditworthiness, market reputation, etc. A record of broker-wise details of deals put through and brokerage paid, should be maintained.
- (f) A disproportionate part of the business should not be transacted through only one or a few brokers. Banks should fix aggregate contract limits for each of the approved brokers. A limit of 5% of total transactions through brokers (both purchase and sales) entered into by a bank during a year should be treated as the aggregate upper contract limit for each of the approved brokers. This limit should cover both the business initiated by a bank and the business offered/brought to the bank by a broker. Banks should ensure that the transactions entered into through individual brokers during a year normally do not exceed this limit. However, if for any reason it becomes necessary to exceed the aggregate limit for any broker, specific reasons for the same should be recorded, in writing, by the authority empowered to put through the deals. Further, the Board should be informed of this, *post facto*. However, the norm of 5% would not be applicable to banks' dealings through PDs.
- (g) The concurrent auditors who audit the treasury operations should scrutinise the business done through brokers also and include it in their monthly report to the Chief Executive Officer of the bank. Besides, the business put through any individual broker or brokers in excess of the limit, with the reasons for the same, should be covered in the half-yearly review to the Board of Directors/Local Advisory Board. These instructions also apply to subsidiaries and mutual funds of the banks.

[Certain clarifications on the instructions are furnished in the **Annex II**.]

- (ii) Inter-bank securities transactions should be undertaken directly between banks and no bank should engage the services of any broker in such transactions.

Exceptions:

Note (i): Banks may undertake securities transactions among themselves or with non-bank clients through members of the National Stock Exchange (NSE), OTC Exchange of India

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(OTCEI), the Stock Exchange, Mumbai (BSE) and MCX Stock Exchange (MCX-SX). If such transactions are not undertaken on the NSE, OTCEI, BSE or MCX-SX, the same should be undertaken by banks directly, without engaging brokers.

Note (ii): Although the Securities Contracts (Regulation) Act, 1956 defines the term 'securities' to mean corporate shares, debentures, Government Securities and rights or interest in securities, the term 'securities' here would exclude corporate shares. The Provident / Pension Funds and Trusts registered under the Indian Trusts Act, 1882, will be outside the purview of the expression 'non-bank clients' for the purpose of note (i) above.

1.1.8 Audit, review and reporting of investment transactions

Banks should adhere to the following instructions in regard to audit, review and reporting of investment transactions:

- (a) Banks should undertake a half-yearly review (as of March 31 and September 30) of their investment portfolio, which should, apart from other operational aspects of investment portfolio, clearly indicate amendments made to the Investment Policy and certify adherence to laid down internal investment policy and procedures and the Reserve Bank guidelines, and put up the same before their respective Boards within a month, i.e. by end-April and end-October.
- (b) A copy of the review report put up to the Bank's Board should be forwarded to the Reserve Bank (concerned Regional Office of DBS, RBI) by May 15 and November 15 respectively.
- (c) In view of the possibility of abuse, treasury transactions should be separately subjected to concurrent audit by internal auditors and the results of their audit should be placed before the CMD of the bank once every month. Banks need not forward copies of the above mentioned concurrent audit reports to the Reserve Bank. However, the major irregularities observed in these reports and the position of compliance thereto may be incorporated in the half yearly review of the investment portfolio.

1.2 Non- SLR investments

1.2.1 (i) Appraisal

Banks have made significant investments in privately placed unrated bonds and, in certain cases, in bonds issued by corporates which are not their borrowers. While assessing such investment proposals on private placement basis, in the absence of standardized and mandated disclosures, including credit rating, banks may not be in a position to conduct proper due diligence to take an investment decision. Thus, there could be deficiencies in the appraisal of privately placed issues.

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(ii) *Disclosure requirements in offer documents*

The risk arising from inadequate disclosure in offer documents should be recognized. In this connection, Securities Exchange Board of India (SEBI) has notified the Securities and Exchange Board of India (Issue and Listing of Debt Securities) Regulations, 2008 and also simplified listing agreement for Debt Securities vide their circular dated May 11, 2009 and subsequent amendments, both for issuers whose equity shares are listed or not listed on the Exchange. Banks may henceforth make investments only in those securities which adhere to the SEBI regulations with respect to the disclosure norms for issue of debt securities. Even in case of investment in non-SLR debt securities which are not listed, banks may ensure that the disclosure standards prescribed by SEBI are adhered to. All other guidelines issued by RBI with respect to investment in Non-SLR securities remain unchanged.

(iii) *Internal assessment*

With a view to ensuring that the investments by banks in issues through private placement, both of the borrower customers and non-borrower customers, do not give rise to systemic concerns, it is necessary that banks should ensure that their investment policies duly approved by the Board of Directors are formulated after taking into account the following aspects:

- (a) The Boards of banks should lay down the policy and prudential limits on investments in bonds and debentures including those on private placement basis, sub limits for PSU bonds, corporate bonds, guaranteed bonds, issuer ceiling, etc.
 - (b) Investment proposals should be subjected to the same degree of credit risk analysis as any loan proposal. Banks should make their own internal credit analysis and rating even in respect of rated issues and should not entirely rely on the ratings of external agencies. The appraisal should be more stringent in respect of investments in instruments issued by non-borrower customers.
 - (c) Strengthen their internal rating systems which should also include building up of a system of regular (quarterly or half-yearly) tracking of the financial position of the issuer with a view to ensuring continuous monitoring of the rating migration of the issuers/issues.
 - (d) As a matter of prudence, banks should stipulate entry-level minimum ratings/ quality standards and industry-wise, maturity-wise, duration-wise, issuer-wise etc. limits to mitigate the adverse impacts of concentration and the risk of illiquidity.
 - (e) Banks should put in place proper risk management systems for capturing and analysing the risk in respect of these investments and taking remedial measures in time.
- (iv) Banks may exercise due caution, while taking any investment decision to subscribe to bonds, debentures, shares etc., and refer to the 'list of defaulters/willful defaulters disseminated by the Reserve Bank /obtained from the Credit Information Companies to ensure

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that investments are not made in companies/entities which are defaulters / willful defaulters to banks/FIs. Some of the companies may be undergoing adverse financial position, turning their accounts to sub-standard category due to recession in their industry segment. Despite restructuring facility provided under the Reserve Bank guidelines, the banks have been reported to be reluctant to extend further finance, though considered warranted on merits of the case. Banks may not refuse proposals for such investments in companies whose director's name(s) find place in the list of defaulters / willful defaulters disseminated by the Reserve Bank/obtained from the Credit Information Companies and particularly in respect of those loan accounts, which have been restructured under extant RBI guidelines (after the respective bank's board approval in case of willful defaulters), provided the proposal is viable and satisfies all parameters for such credit extension.

1.2.2 *Coverage- Prudential guidelines on investments in nonSLR securities*

These guidelines cover banks' investments in non-SLR securities issued by corporates, banks, FIs and State and Central Government sponsored institutions, Special Purpose Vehicles (SPVs) etc., including capital gains bonds, bonds eligible for priority sector status. The guidelines will apply to investments both in the primary market as well as the secondary market.

Regulatory requirements

1.2.3 Banks should not invest in Non-SLR securities of original maturity of less than one-year, other than Commercial Paper and Certificates of Deposits and NCDs with original or initial maturity up to one year issued by corporates (including NBFCs), which are covered under RBI guidelines. However, while investing in such NCDs banks should be guided by the extant prudential guidelines in force, ensure that the issuer has disclosed the purpose for which the NCDs are being issued in the disclosure document and such purposes are eligible for bank finance to Non-Banking Financial Companies under extant RBI guidelines.

1.2.4 Banks should undertake usual due diligence in respect of investments in non-SLR securities. Present RBI regulations preclude banks from extending credit facilities for certain purposes. Banks should ensure that such activities are not financed by way of funds raised through the non-SLR securities.

Listing and rating requirements

1.2.5 The guidelines on listing and rating pertaining to non-SLR securities vide paragraphs 1.2.7 to 1.2.16 are not applicable to banks' investments in:

- (a) Securities directly issued by the Central and State Governments, which are not reckoned for SLR purposes.
- (b) Equity shares
- (c) Units of equity oriented mutual fund schemes, viz. those schemes where any part of the corpus can be invested in equity

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- (d) Equity/debt instruments/Units issued by Venture capital funds
- (e) Commercial Paper
- (f) Certificates of Deposit
- (g) Non Convertible Debentures (NCDs) with original or initial maturity up to one year issued by corporates (including NBFCs)
- (h) Securities acquired by way of conversion of debt, subject to periodic reporting to the Reserve Bank in the DSB return on Asset Quality.

1.2.6 Definitions of a few terms used in these guidelines have been given in *Annex III* with a view to ensure uniformity in approach while implementing the guidelines.

1.2.7 Banks must not invest in unrated non-SLR securities. However, banks may invest in unrated bonds of companies engaged in infrastructure activities, within the ceiling of 10 per cent for unlisted non-SLR securities as prescribed vide paragraph 1.2.10 below.

1.2.8 While making investments in non-SLR debt securities, banks should ensure that such investments are made only in listed debt securities of companies which comply with the requirements of the SEBI, except to the extent indicated in paragraphs 1.2.9 and 1.2.10 below.

Fixing of prudential limits

1.2.9 Bank's investment in unlisted non-SLR securities should not exceed 10 per cent of its total investment in non-SLR securities as on March 31, of the previous year, and such investment should comply with the disclosure requirements as prescribed by SEBI for listed companies. As there is a time lag between issuance and listing of securities, investment in non-SLR debt securities (both primary and secondary market) by banks where the security is proposed to be listed on the Exchange(s) may be considered as investment in listed security at the time of making investment. However, if such security is not listed within the period specified, the same will be reckoned for the 10 per cent limit specified for unlisted non-SLR securities. In case such investments included under unlisted non-SLR securities lead to a breach of the 10 per cent limit, the bank would not be allowed to make further investment in non-SLR securities (both primary and secondary market) as also in unrated bonds issued by companies engaged in infrastructure activities till such time bank's investment in unlisted non-SLR securities comes within the limit of 10 per cent.

1.2.10 Bank's investment in unlisted non-SLR securities may exceed the limit of 10 per cent, by an additional 10 per cent, provided the investment is on account of investment in Securitisation papers issued for infrastructure projects, and bonds/debentures issued by Securitisation Companies (SCs) and Reconstruction Companies (RCs) set up under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest

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Act, 2002 (SARFAESI Act) and registered with the Reserve Bank. In other words, investments exclusively in securities specified in this paragraph could be up to the maximum permitted limit of 20 per cent of non-SLR investment.

1.2.11 The total investment by banks in liquid/short term debt schemes (by whatever name called) of mutual funds with weighted average maturity of portfolio of not more than 1 year, will be subject to a prudential cap of 10 per cent of their net worth as on March 31 of the previous year. The weighted average maturity would be calculated as average of the remaining period of maturity of securities weighted by the sums invested.

1.2.12 Investment in the following will not be reckoned as 'unlisted non-SLR securities' for computing compliance with the prudential limits prescribed in the above guidelines:

- (i) Security Receipts issued by SCs / RCs registered with the Reserve Bank.
- (ii) Investment in Asset Backed Securities (ABS) and Mortgage Backed Securities (MBS), which are rated at or above the minimum investment grade. However, there will be close monitoring of exposures to ABS on a bank specific basis based on monthly reports submitted to the Department of Banking Supervision, Reserve Bank of India, under the Supervisory Reporting System.
- (iii) Investments in unlisted convertible debentures. However, investments in these instruments would be treated as "Capital Market Exposure".

1.2.13 The investments in RIDF/SIDBI/RHDF deposits may not be reckoned as part of the numerator as well as denominator for computing compliance with the prudential limit of 10 per cent of its total non-SLR securities as on March 31 of the previous year.

1.2.14 With effect from January 1, 2005, only investment in units of such mutual fund schemes, which have an exposure to unlisted securities of less than 10 per cent of the corpus of the fund, will be treated on par with listed securities for the purpose of compliance with the prudential limits prescribed in the above guidelines. While computing the exposure to the unlisted securities for compliance with the norm of less than 10 percent of the corpus of the mutual fund scheme, Treasury Bills, Collateralised Borrowing and Lending Obligations (CBLO), Repo/ Reverse Repo and Bank Fixed Deposits may not be included in the numerator.

1.2.15 For the purpose of the prudential limits prescribed in the guidelines, the denominator, viz., 'non-SLR investments', would include investment under the following four categories in Schedule 8 to the balance sheet viz., 'shares', 'bonds & debentures', 'subsidiaries/joint ventures' and 'others'.

1.2.16 Banks whose investment in unlisted non-SLR securities are within the prudential limit of 10 per cent of its total non-SLR securities as on March 31, of the previous year may make fresh investment in such securities and up to the prudential limits.

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Role of Boards

1.2.17 Banks should ensure that their investment policies, duly approved by the Board of Directors, are formulated after taking into account all the relevant issues specified in these guidelines on investment in non-SLR securities. Banks should put in place proper risk management systems for capturing and analysing the risk in respect of non-SLR investment and taking remedial measures in time. Banks should also put in place appropriate systems to ensure that investment in privately placed instruments is made in accordance with the systems and procedures prescribed under respective bank's investment policy.

1.2.18 Boards of banks should review the following aspects of non-SLR investments at least at quarterly intervals:

- (a) Total business (investment and divestment) during the reporting period.
- (b) Compliance with the prudential limits prescribed by the Board for non-SLR investment.
- (c) Compliance with the prudential guidelines issued by the Reserve Bank on non-SLR securities.
- (d) Rating migration of the issuers/ issues held in the bank's books and consequent diminution in the portfolio quality.
- (e) Extent of non-performing investments in the non-SLR category.

Disclosures

1.2.19 In order to help in the creation of a central database on private placement of debt, a copy of all offer documents should be filed with one of the credit information companies, which has obtained Certificate of Registration from the Reserve Bank, by the investing banks. Further, any default relating to interest/ installment in respect of any privately placed debt should also be reported to all the four credit information companies, by the investing banks along with a copy of the offer document.

1.2.20 Banks should disclose the details of the issuer composition of non-SLR investments and the non-performing non-SLR investments in the 'Notes on Accounts' of the balance sheet, as indicated in *Annex IV*.

1.2.21 Trading and Settlement in Corporate Debt Securities

As per the SEBI guidelines, all trades with the exception of spot transactions in a listed debt security shall be executed only on the trading platform of a stock exchange. In addition to complying with the SEBI guidelines, banks should report their secondary market OTC trades in Corporate Bonds within 15 minutes of the trade on any of the stock exchanges (NSE, BSE and MCX-SX).

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1.2.22 All OTC trades in corporate bonds shall necessarily be cleared and settled through the National Securities Clearing Corporation Ltd. (NSCCL) or Indian Clearing Corporation Ltd. (ICCL) or MCX-SX Clearing Corporation Ltd. (MCX-SX CCL) as per the norms specified by the NSCCL, ICCL and MCX-SX CCL from time to time.

1.2.23 *Repo in Corporate Debt Securities*

Eligible entities can undertake repo in corporate debt securities as per detailed guidelines given in *Annex I-E*.

1.2.24 *OTC transactions in Securitized Debt Instruments*

Banks should report their secondary market OTC trades in securitized debt instruments within 15 minutes of the trade on any of the stock exchanges (NSE, BSE and MCX-SX).

These trades may be cleared and settled through any of the clearing corporations (NSCCL, ICCL and MCX-SX CCL).

1.2.25. *Settlement of OTC Transactions in Certificates of Deposit (CDs) and Commercial Papers (CPs)*

Banks shall report their OTC transactions in CDs and CPs on F-TRAC platform managed by Clearcorp Dealing System (India) Ltd. (CDSIL) within 15 minutes of the trade for online dissemination of market information.

Further, all OTC trades in CDs and CPs shall necessarily be cleared and settled through the National Securities Clearing Corporation Limited (NSCCL) or Indian Clearing Corporation Limited (ICCL) or MCX-SX Clearing Corporation Limited (MCX-SX CCL) as per the norms specified by NSCCL, ICCL and CCL from time to time.

1.2.26 *Limits on Banks' Exposure to Capital Markets*

A. Solo Basis

The aggregate exposure of a bank to the capital markets in all forms (both fund based and non- fund based) should not exceed 40 per cent of its net worth as on March 31 of the previous year. Within this overall ceiling, the bank's direct investment in shares, convertible bonds/ debentures, units of equity-oriented mutual funds and all exposures to Venture Capital Funds (VCFs) [both registered and unregistered] should not exceed 20 per cent of its net worth.

B. Consolidated Basis

The aggregate exposure of a consolidated bank to capital markets (both fund based and non-fund based) should not exceed 40 per cent of its consolidated net worth as on March 31 of the previous year. Within this overall ceiling, the aggregate direct exposure by way of the consolidated bank's investment in shares, convertible bonds / debentures, units of equity-

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oriented mutual funds and all exposures to VCFs ([both registered and unregistered]) should not exceed 20 per cent of its consolidated net worth.

The above-mentioned ceilings are the maximum permissible and a bank's Board of Directors is free to adopt a lower ceiling for the bank, keeping in view its overall risk profile and corporate strategy. Banks are required to adhere to the ceilings on an ongoing basis.

1.2.27 Investments in Long Term Bonds issued by banks for Financing of Infrastructure and Affordable Housing

Banks can invest in the long term bonds issued by other banks for financing of infrastructure and affordable housing, subject to the following conditions:

- (i) An investing bank's investment in a specific issue of such bonds will be capped at 2% of the investing bank's Tier 1 Capital or 5% of the issue size, whichever is lower.
- (ii) An investing bank's aggregate holding in such bonds will be capped at 10% of its total Non-SLR investments.
- (iii) Not more than 20% of the primary issue size of such bond issuance can be allotted to banks.
- (iv) Banks cannot hold their own bonds.

(a) General

1.a.1 Reconciliation of holdings of Government Securities – Audit Certificate

Banks should furnish a 'Statement of the Reconciliation of Bank's Investments (held in own Investment account, as also under PMS)', as at the end of every accounting year duly certified by the bank's auditors. The statement should reach the Regional Office of the DBS, RBI, under whose jurisdiction the bank's head office is located within one month from the close of the accounting year. Banks, in the letters of appointment issued to their external auditors, may suitably include the aforementioned requirement of reconciliation. The format for the statement and the instructions for compiling the same are given in Annex V.

1.a.2 Transactions in securities - Custodial functions

While exercising the custodial functions on behalf of their merchant banking subsidiaries, these functions should be subject to the same procedures and safeguards as would be applicable to other constituents. Accordingly, full particulars should be available with the subsidiaries of banks of the manner in which the transactions have been executed. Banks should also issue suitable instructions in this regard to the department/office undertaking the custodial functions on behalf of their subsidiaries.

1.a.3 Investment Portfolio of banks - transactions in Government Securities

In the light of fraudulent transactions in the guise of Government Securities transactions in physical format, RBI has been taking measures for further reducing the scope of trading in

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physical forms. These measures are as under:

- (i) For banks, which do not have SGL account with the Reserve Bank, only one gilt account can be opened.
- (ii) In case the gilt accounts are opened with a SCB, the account holder has to open a designated funds account (for all gilt account related transactions) with the same bank.
- (iii) The entities maintaining the gilt / designated funds accounts will be required to ensure availability of clear funds in the designated funds accounts for purchases and of sufficient securities in the gilt account for sales before putting through the transactions.
- (iv) No transaction by the bank should be undertaken in physical form with any broker.
- (v) Banks should ensure that brokers approved for transacting in Government Securities are registered with the debt market segment of NSE/BSE/OTCEI.

2. Classification

- (i) The entire investment portfolio of the banks (including SLR securities and non-SLR securities) should be classified under the following three categories:

Held to Maturity', 'Available for Sale' 'Held for Trading'.

However, in the balance sheet, the investments will be disclosed as per the existing six classifications namely :

- (a) Government securities
 - (b) Other approved securities
 - (c) Shares
 - (d) Debentures & Bonds
 - (e) Subsidiaries/ joint ventures
 - (f) Others (CP, Mutual Fund Units, etc.).
- (ii) Banks should decide the category of the investment at the time of acquisition and the decision should be recorded on the investment proposals.

2.1 Held to Maturity

- (i) The securities acquired by the banks with the intention to hold them up to maturity will be classified under 'Held to Maturity (HTM)'.
 - (ii) Banks are allowed to include investments included under HTM category upto 25 per cent of their total investments.
 - (iii) Banks are permitted to exceed the limit of 25 per cent of total investment under HTM category provided:

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- (a) the excess comprises only of SLR securities, and
- (b) the total SLR securities held in the HTM category is not more than 22.5 per cent with effect from July 11, 2015 and 22.0 per cent with effect from September 19, 2015, of their Demand and Time Liabilities (DTL) as on the last Friday of the second preceding fortnight.
- (iv) Banks may hold the following securities under HTM:
 - (a) SLR Securities upto the extent permitted.
 - (b) Non-SLR securities included under HTM as on September 2, 2004.
 - (c) Re-capitalization bonds received from the Government of India towards their re-capitalisation requirement and held in Investment portfolio.
 - (d) Investment in the equity of subsidiaries and joint ventures (a Joint Venture would be one in which the bank, along with its subsidiaries, holds more than 25 percent of the equity).
 - (e) RIDF/SIDBI/RHDF deposits.
 - (f) Investment in long-term bonds (with a minimum residual maturity of seven years) issued by companies engaged in infrastructure activities. The minimum residual maturity of seven years should be at the time of investment in these bonds. Once invested, banks may continue to classify these investments under HTM category even if the residual maturity falls below seven years subsequently. However banks' investments in long term bonds issued by other banks for their financing of infrastructure and affordable housing loans are not to be held in HTM category.
- (v) No fresh non-SLR securities, are permitted to be included in HTM, with effect from September 2, 2004 except the following:
 - (a) Fresh re-capitalization bonds received from the Government of India, towards their re-capitalization requirement and held in their investment portfolio. This will not include re-capitalization bonds of other banks acquired for investment purposes.
 - (b) Fresh investment in the equity of subsidiaries and joint ventures.
 - (c) RIDF / SIDBI/RHDF deposits.
 - (d) Investment in long-term bonds (with a minimum residual maturity of seven years) issued by companies engaged in infrastructure activities.
- (vi) The investments as specified at para 2.1 (ii)(c), (d) and (f) above may, at the discretion of the banks, be classified under HTM but are not accounted for the purpose of ceiling of 25 per cent specified for this category.
- (vii) Profit on sale of investments in this category should be first taken to the Profit & Loss Account, and thereafter be appropriated to the 'Capital Reserve Account'. It is clarified that the

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amount so appropriated would be net of taxes and the amount required to be transferred to Statutory Reserves. Loss on sale will be recognized in the Profit & Loss Account.

2.2 Available for Sale & Held for Trading

(i) The securities acquired by the banks with the intention to trade by taking advantage of the short-term price/interest rate movements will be classified under 'Held for Trading (HFT)'.

(ii) The securities which do not fall within the above two categories will be classified under 'Available for Sale (AFS)'.

(iii) The banks will have the freedom to decide on the extent of holdings under HFT and AFS. This will be decided by them after considering various aspects such as basis of intent, trading strategies, risk management capabilities, tax planning, manpower skills, capital position.

(iv) The investments classified under HFT would be those from which the bank expects to make a gain by the movement in interest rates/market rates. These securities are to be sold within 90 days.

(v) Profit or loss on sale of investments in both the categories will be taken to the Profit & Loss Account.

2.3 Shifting among categories

(i) Banks may shift investments to/from HTM with the approval of the Board of Directors once a year. Such shifting will normally be allowed at the beginning of the accounting year. No further shifting to/from HTM will be allowed during the remaining part of that accounting year, except when explicitly permitted by RBI.

(ii) If the value of sales and transfers of securities to/from HTM category exceeds 5 per cent of the book value of investments held in HTM category at the beginning of the year, banks should disclose the market value of the investments held in the HTM category and indicate the excess of book value over market value for which provision is not made. This disclosure is required to be made in 'Notes to Accounts' in banks' audited Annual Financial Statements. However, the one-time transfer of securities to/from HTM category with the approval of Board of Directors permitted to be undertaken by banks at the beginning of the accounting year. Further, additional shifting of securities explicitly permitted by the Reserve Bank from time to time, direct sales from HTM for bringing down SLR holdings in HTM category, sales to the Reserve Bank of India under pre-announced OMO auctions and repurchase of Government securities by Government of India from banks will be excluded from the 5 per cent cap.

(iii) Banks may shift investments from AFS to HFT with the approval of their Board of Directors/ ALCO/ Investment Committee. In case of exigencies, such shifting may be done with the approval of the Chief Executive of the bank/Head of the ALCO, but should be ratified by the Board of Directors/ ALCO.

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(iv) Shifting of investments from HFT to AFS is generally not allowed. However, it will be permitted only under exceptional circumstances like not being able to sell the security within 90 days due to tight liquidity conditions, or extreme volatility, or market becoming unidirectional. Such transfer is permitted only with the approval of the Board of Directors/ALCO/ Investment Committee.

(v) Transfer of scrips from AFS / HFT category to HTM category should be made at the lower of book value or market value. In other words, in cases where the market value is higher than the book value at the time of transfer, the appreciation should be ignored and the security should be transferred at the book value. In cases where the market value is less than the book value, the provision against depreciation held against this security (including the additional provision, if any, required based on valuation done on the date of transfer) should be adjusted to reduce the book value to the market value and the security should be transferred at the market value.

In the case of transfer of securities from HTM to AFS / HFT category-

- (a) If the security was originally placed under the HTM category at a discount, it may be transferred to AFS / HFT category at the acquisition price / book value. (It may be noted that as per existing instructions banks are not allowed to accrue the discount on the securities held under HTM category and, therefore, such securities would continue to be held at the acquisition cost till maturity). After transfer, these securities should be immediately re-valued and resultant depreciation, if any, may be provided.
- (b) If the security was originally placed in the HTM category at a premium, it may be transferred to the AFS / HFT category at the amortised cost. After transfer, these securities should be immediately re-valued and resultant depreciation, if any, may be provided.

In the case of transfer of securities from AFS to HFT category or vice-versa, the securities need not be re-valued on the date of transfer and the provisions for the accumulated depreciation, if any, held may be transferred to the provisions for depreciation against the HFT securities and vice-versa.

3. Valuation

3.1 Held to Maturity

(i) Investments classified under HTM need not be marked- to -market and will be carried at acquisition cost, unless it is more than the face value, in which case the premium should be amortised over the period remaining for maturity. The banks should reflect the amortised amount in 'Schedule 13 – Interest Earned: Item II – Income on Investments', as a deduction. However, the deduction need not be disclosed separately. The book value of the security should continue to be reduced to the extent of the amount amortised during the relevant accounting period.

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- (ii) Banks should recognise any diminution, other than temporary, in the value of their investments in subsidiaries/ joint ventures, which are included under HTM and provide therefor. Such diminution should be determined and provided for each investment individually.
- (iii) The need to determine whether any impairment has occurred is a continuous process and the need for such determination will arise in the following circumstances:
 - (a) On the happening of an event which suggests that impairment has occurred. This would include:
 - (i) the company has defaulted in repayment of its debt obligations.
 - (ii) the loan amount of the company with any bank has been restructured.
 - (iii) the credit rating of the company has been downgraded to below investment grade.
 - (b) When the company has incurred losses for a continuous period of three years and the net worth has consequently been reduced by 25% or more.

In the case of new company or a new project when the originally projected date of achieving the breakeven point has been extended i.e., the company or the project has not achieved break-even within the gestation period as originally envisaged.

When the need to determine whether impairment has occurred arises in respect of a subsidiary, joint venture or a material investment, the bank should obtain a valuation of the investment by a reputed/qualified valuer and make provision for the impairment, if any.

3.2 Available for Sale

The individual scrips in the "Available for Sale" category will be marked to market at quarterly or at more frequent intervals. Domestic Securities under this category shall be valued scrip-wise and depreciation/ appreciation shall be aggregated for each classification referred to in item 2(i) above. Foreign investments under this category shall be valued scrip-wise and depreciation/ appreciation shall be aggregated for five classifications (viz. Government securities (including local authorities), Shares, Debentures & Bonds, Subsidiaries and/or joint ventures abroad and Other investments (to be specified)). Further, the investment in a particular classification, both in domestic and foreign securities, may be aggregated for the purpose of arriving at net depreciation/appreciation of investments under that category. Net depreciation, if any, shall be provided for. Net appreciation, if any, should be ignored. Net depreciation required to be provided for in any one classification should not be reduced on account of net appreciation in any other classification. The banks may continue to report the foreign securities under three categories (Government securities (including local authorities), Subsidiaries and/or joint ventures abroad and other investments (to be specified)) in the balance sheet. The book value of the individual securities would not undergo any change after the marking of market.

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3.3 Held for Trading

The individual scrips in the Held for Trading category will be marked to market at monthly or at more frequent intervals and provided for as in the case of those in the "Available for Sale" category. Consequently, the book value of the individual securities in this category would also not undergo any change after marking to market.

3.4 Investment Fluctuation Reserve & Investment Reserve Account *Investment Fluctuation Reserve*

(i) With a view to building up of adequate reserves to guard against any possible reversal of interest rate environment in future due to unexpected developments, banks were advised to build up Investment Fluctuation Reserve (IFR) of a minimum 5 per cent of the investment portfolio within a period of 5 years.

(ii) To ensure smooth transition to Basel II norms, banks were advised in June 24, 2004 to maintain capital charge for market risk in a phased manner over a two year period, as under:

(a) In respect of securities included in the HFT category, open gold position limit, open foreign exchange position limit, trading positions in derivatives and derivatives entered into for hedging trading book exposures by March 31, 2005, and

(b) In respect of securities included in the AFS category by March 31, 2006.

(iii) With a view to encourage banks for early compliance with the guidelines for maintenance of capital charge for market risks, it was advised in April 2005 that banks which have maintained capital of at least 9 per cent of the risk weighted assets for both credit risk and market risk for both HFT (items as indicated at (a) above) and AFS categories may treat the balance in excess of 5 per cent of securities included under HFT and AFS categories, in the IFR, as Tier I capital. Banks satisfying the above were allowed to transfer the amount in excess of the said 5 per cent in the IFR to Statutory Reserve.

(iv) Banks were advised in October 2005 that, if they have maintained capital of at least 9 per cent of the risk weighted assets for both credit risk and market risks for both HFT (items as indicated at 3.4 ii(a) above) and AFS category as on March 31, 2006, they would be permitted to treat the entire balance in the IFR as Tier I capital. For this purpose, banks may transfer the balance in the IFR 'below the line' in the Profit and Loss Appropriation Account to Statutory Reserve, General Reserve or balance of Profit & Loss (P&L) Account.

Investment reserve account

(v) In the event, provisions created on account of depreciation in the 'AFS' or 'HFT' categories are found to be in excess of the required amount in any year, the excess should be credited to the P&L Account and an equivalent amount (net of taxes, if any and net of transfer to Statutory Reserves as applicable to such excess provision) should be appropriated to an IRA Account in Schedule 2 – "Reserves & Surplus" under the head "Revenue and Other

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Reserves", and would be eligible for inclusion under Tier-II within the overall ceiling of 1.25 per cent of total Risk Weighted Assets prescribed for General Provisions/ Loss Reserves.

(vi) Banks may utilise IRA as follows:

The provisions required to be created on account of depreciation in the AFS and HFT categories should be debited to the P&L Account and an equivalent amount (net of tax benefit, if any, and net of consequent reduction in the transfer to Statutory Reserve), may be transferred from the IRA to the P&L Account.

Illustratively, banks may draw down from the IRA to the extent of provision made during the year towards depreciation in investment in AFS and HFT categories (net of taxes, if any, and net of transfer to Statutory Reserves as applicable to such excess provision). In other words, a bank which pays a tax of 30 per cent and should appropriate 25 per cent of the net profits to Statutory Reserves, can draw down ₹52.50 from the IRA, if the provision made for depreciation in investments included in the AFS and HFT categories is ₹100.

(vii) The amounts debited to the P&L Account for provision should be debited under the head 'Expenditure - Provisions & Contingencies'. The amount transferred from the IRA to the P&L Account, should be shown as 'below the line' item in the Profit and Loss Appropriation Account, after determining the profit for the year. Provision towards any erosion in the value of an asset is an item of charge on the profit and loss account, and hence should appear in that account before arriving at the profit for the accounting period. Adoption of the following would not only be adoption of a wrong accounting principle but would, also result in a wrong statement of the profit for the accounting period:

- (a) the provision is allowed to be adjusted directly against an item of Reserve without being shown in the profit and loss account, or
- (b) a bank is allowed to draw down from the IRA before arriving at the profit for the accounting period (i.e., above the line), or
- (c) a bank is allowed to make provisions for depreciation on investment as a below the line item, after arriving at the profit for the period,

Hence none of the above options are permissible.

(viii) In terms of our guidelines on payment of dividend by banks, dividends should be payable only out of current year's profit. The amount drawn down from the IRA will, therefore, not be available to a bank for payment of dividend among the shareholders. However, the balance in the IRA transferred 'below the line' in the Profit and Loss Appropriation Account to Statutory Reserve, General Reserve or balance of P&L Account would be eligible to be reckoned as Tier I capital.

3.5 Market value

The 'market value' for the purpose of periodical valuation of investments included in the AFS and HFT categories would be the market price of the scrip as available from the trades/ quotes

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on the stock exchanges, SGL account transactions, price list of RBI, prices declared by Primary Dealers Association of India (PDAI) jointly with the Fixed Income Money Market and Derivatives Association of India (FIMMDA) periodically.

In respect of *unquoted securities*, the procedure as detailed below should be adopted.

3.5.1 Central Government Securities

- (i) Banks should value the unquoted Central Government securities on the basis of the prices/ YTM rates put out by the PDAI/ FIMMDA at periodical intervals.
- (ii) Treasury Bills should be valued at carrying cost.

3.5.2 State Government Securities

State Government securities will be valued applying the Yield to Maturity (YTM) method by marking it up by 25 basis points above the yields of the Central Government Securities of equivalent maturity put out by PDAI/ FIMMDA periodically.

3.5.3 Other 'approved' Securities

Other approved securities will be valued applying the YTM method by marking it up by 25 basis points above the yields of the Central Government Securities of equivalent maturity put out by PDAI/ FIMMDA periodically.

3.6 Unquoted Non-SLR securities

3.6.1 Debentures/ Bonds

All debentures/ bonds should be valued on the YTM basis. Such debentures/ bonds may be of different companies having different ratings. These will be valued with appropriate mark-up over the YTM rates for Central Government Securities as put out by PDAI/ FIMMDA periodically. The mark-up will be graded according to the ratings assigned to the debentures/ bonds by the rating agencies subject to the following: -

- (a) The rate used for the YTM for rated debentures/ bonds should be at least 50 basis points above the rate applicable to a Government of India loan of equivalent maturity.

Note:

The special securities, which are directly issued by Government of India to the beneficiary entities, which do not carry SLR status, may be valued at a spread of 25 basis points above the corresponding yield on Government of India Securities, with effect from the financial year 2008 -09. At present, such special securities comprise Oil Bonds, Fertilizer Bonds, bonds issued to the State Bank of India (during the recent rights issue), Unit Trust of India, Industrial Finance Corporation of India Ltd., Food Corporation of India, Industrial Investment Bank of India Ltd., the erstwhile Industrial Development Bank of India and the erstwhile Shipping Development Finance Corporation.

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- (b) The rate used for the YTM for unrated debentures/ bonds should not be less than the rate applicable to rated debentures/ bonds of equivalent maturity. The mark-up for the unrated debentures/ bonds should appropriately reflect the credit risk borne by the bank.
- (c) Where the debentures/ bonds are quoted and there have been transactions within 15 days prior to the valuation date, the value adopted should not be higher than the rate at which the transaction is recorded on the stock exchange.

3.6.2 Bonds issued by State Distribution Companies (Discoms) under Financial Restructuring Plan

- (i) If these bonds are traded and quoted, they will be valued at their current 'Market Value' as defined in paragraph 3.5 of this Master Circular.
- (ii) In case the bonds are not traded and quoted, they will be valued on YTM basis. The relevant YTM will be YTM rates for Central Government Securities of equivalent maturities as put out by FIMMDA on the valuation day with the following mark-ups:
 - (a) During the period when bonds' liabilities are with the State Discoms and
 - if guaranteed by respective State Governments – 75 basis points
 - if not guaranteed by respective State Governments – 100 basis points
 - (b) During the period when bonds' liabilities are with the respective State Governments – 50 basis points.

3.6.3 Zero coupon bonds (ZCBs)

ZCBs should be shown in the books at carrying cost, i.e., acquisition cost plus discount accrued at the rate prevailing at the time of acquisition, which may be marked to market with reference to the market value. In the absence of market value, the ZCBs may be marked to market with reference to the present value of the ZCB. The present value of the ZCBs may be calculated by discounting the face value using the 'Zero Coupon Yield Curve', with appropriate mark up as per the zero coupon spreads put out by FIMMDA periodically. In case the bank is still carrying the ZCBs at acquisition cost, the discount accrued on the instrument should be notionally added to the book value of the scrip, before marking it to market.

3.6.4 Preference Shares

The valuation of preference shares should be on YTM basis. The preference shares will be issued by companies with different ratings. These will be valued with appropriate mark-up over the YTM rates for Central Government Securities put out by the PDAI/FIMMDA periodically. The mark-up will be graded according to the ratings assigned to the preference shares by the rating agencies subject to the following:

- (a) The YTM rate should not be lower than the coupon rate/ YTM for a Govt loan of equivalent maturity.

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- (b) The rate used for the YTM for unrated preference shares should not be less than the rate applicable to rated preference shares of equivalent maturity. The mark-up for the unrated preference shares should appropriately reflect the credit risk borne by the bank.
- (c) Investments in preference shares as part of the project finance may be valued at par for a period of two years after commencement of production or five years after subscription whichever is earlier.
- (d) Where investment in preference shares is as part of rehabilitation, the YTM rate should not be lower than 1.5% above the coupon rate/ YTM for Govt loan of equivalent maturity.
- (e) Where preference dividends are in arrears, no credit should be taken for accrued dividends and the value determined on YTM should be discounted by at least 15 per cent if arrears are for one year, and more if arrears are for more than one year. The depreciation/provision requirement arrived at in the above manner in respect of non-performing shares where dividends are in arrears shall not be allowed to be set-off against appreciation on other performing preference shares.
- (f) The preference share should not be valued above its redemption value.
- (g) When a preference share has been traded on stock exchange within 15 days prior to the valuation date, the value should not be higher than the price at which the share was traded.

3.6.5 Equity Shares

The equity shares in the bank's portfolio should be marked to market preferably on a daily basis, but at least on a weekly basis. Equity shares for which current quotations are not available or where the shares are not quoted on the stock exchanges, should be valued at break-up value (without considering 'revaluation reserves', if any) which is to be ascertained from the company's latest balance sheet (which should not be more than one year prior to the date of valuation). In case the latest balance sheet is not available the shares are to be valued at Re.1 per company.

3.6.6 Mutual Funds Units (MF Units)

Investment in quoted MF Units should be valued as per Stock Exchange quotations. Investment in un-quoted MF Units is to be valued on the basis of the latest re-purchase price declared by the MF in respect of each particular Scheme. In case of funds with a lock-in period, where repurchase price/ market quote is not available, Units could be valued at Net Asset Value (NAV). If NAV is not available, then these could be valued at cost, till the end of the lock- in period. Wherever the re-purchase price is not available, the Units could be valued at the NAV of the respective scheme.

3.6.7 Commercial Paper

Commercial paper should be valued at the carrying cost.

3.6.8 Investments in Regional Rural Banks (RRBs)

Investment in RRBs is to be valued at carrying cost (i.e. book value) on a consistent basis.

3.8. Investment in securities issued by Securitization Company (SC) / Reconstruction Company (RC)

When banks / FIs invest in the SRs / Pass-Through Certificates (PTCs) issued by SCs / RCs, in respect of the financial assets sold by them to the SCs / RCs, the sale shall be recognized in the books of the banks / FIs at the lower of:

- the redemption value of the SRs / PTCs, and
- the Net Book Value (NBV) (i.e. Book value less provisions held), of the financial asset.

The above investment should be carried in the books of the bank / FI at the price as determined above until its sale or realization, and on such sale or realization, the loss or gain must be dealt with as under:

(i) If the sale to SC/ RC is at a price below the net book value (NBV) (i.e., book value less provisions held), the shortfall should be debited to the profit and loss account of that year. Banks can also use countercyclical / floating provisions for meeting any shortfall on sale of NPAs i.e., when the sale is at a price below the net book value (NBV).

However, for assets sold on or after February 26, 2014 and upto March 31, 2016, as an incentive for early sale of NPAs, banks can spread over any shortfall, if the sale value is lower than the NBV, over a period of two years. This facility of spreading over the shortfall will be subject to necessary disclosures in the Notes to Account in Annual Financial Statements of the banks.

(ii) Banks may reverse the excess provision on sale of NPAs, if the sale value is for a value higher than the NBV, to its profit and loss account in the year the amounts are received. However, banks can reverse excess provision arising out of sale of NPAs only when the cash received (by way of initial consideration and / or redemption of SRs / PTCs) is higher than the net book value (NBV) of the asset. Further, reversal of excess provision will be limited to the extent to which cash received exceeds the NBV of the asset.

With regard to assets sold before February 26, 2014, the quantum of excess provision reversed to the profit and loss account on account of sale of NPAs shall be disclosed in the financial statements of the bank under 'Notes to Accounts'.

All instruments received by banks / FIs from SC / RC as sale consideration for financial assets sold to them and also other instruments issued by SC / RC in which banks / FIs invest will be in the nature of non-SLR securities. Accordingly, the valuation, classification and other norms applicable to investment in non-SLR instruments prescribed by the Reserve Bank from time to time would be applicable to bank's / FI's investment in debentures / bonds / security receipts / PTCs issued by SC / RC. However, if any of the above instruments issued by SC / RC is

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limited to the actual realisation of the financial assets assigned to the instruments in the concerned scheme the bank / FI shall reckon the Net Asset Value (NAV), obtained from SC / RC from time to time, for valuation of such investments.

3.9 Valuation and classification of banks' investment in VCFs

3.9.1 The quoted equity shares / bonds/ units of VCFs in the bank's portfolio should be held under AFS and marked to market preferably on a daily basis, but at least on a weekly basis, in line with valuation norms for other equity shares as per existing instructions.

3.9.2 Banks' investments in unquoted shares/bonds/units of VCFs may, at the discretion of the bank, be classified under HTM for initial period of three years and valued at cost during this period.

3.9.3 For this purpose, the period of three years will be reckoned separately for each disbursement made by the bank to VCF as and when the committed capital is called up. However, to ensure conformity with the existing norms for transferring securities from HTM, transfer of all securities which have completed three years as mentioned above will be effected at the beginning of the next accounting year in one lot to coincide with the annual transfer of investments from HTM category.

3.9.4 After three years, the unquoted units/shares/bonds should be transferred to AFS category and valued as under:

(i) Units: In the case of investments in the form of units, the valuation will be done at the NAV shown by the VCF in its financial statements. Depreciation, if any, on the units based on NAV has to be provided at the time of shifting the investments to AFS category from HTM category as also on subsequent valuations which should be done at quarterly or more frequent intervals based on the financial statements received from the VCF. At least once in a year, the units should be valued based on the audited results. However, if the audited balance sheet/ financial statements showing NAV figures are not available continuously for more than 18 months as on the date of valuation, the investments are to be valued at Rupee 1 per VCF.

(ii) Equity: In the case of investments in the form of shares, the valuation can be done at the required frequency based on the break-up value (without considering 'revaluation reserves', if any) which is to be ascertained from the company's (VCF's) latest balance sheet (which should not be more than 18 months prior to the date of valuation). Depreciation, if any on the shares has to be provided at the time of shifting the investments to AFS category as also on subsequent valuations which should be done at quarterly or more frequent intervals. If the latest balance sheet available is more than 18 months old, the shares are to be valued at Rupee 1 per company.

(iii) Bonds: The investment in the bonds of VCFs, if any, should be valued as per prudential norms for classification, valuation and operation of investment portfolio by banks issued by the Reserve Bank from time to time.

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3.9.5 Valuation norms on conversion of outstanding

Equity, debentures and other financial instruments acquired by way of conversion of outstanding principal and / or interest should be classified in the AFS category, and valued in accordance with the extant instructions on valuation of banks' investment portfolio. Equity classified as standard asset should be valued either at market value, if quoted, or at break-up value, if not quoted (without considering the revaluation reserve, if any) which is to be ascertained from the company's latest balance sheet. In case the latest balance sheet is not available, the shares are to be valued at Re.1. Equity instrument classified as NPA should be valued at market value, if quoted, and in case where equity is not quoted, it should be valued at Re.1. Depreciation on the instruments acquired by way of conversion, *whether classified as standard or NPA*, should not be offset against the appreciation in any other securities held under the AFS category.

3.10 Non-Performing Investments (NPI)

3.10.1 In respect of securities included in any of the three categories where interest/principal is in arrears, banks should not reckon income on the securities and should also make appropriate provisions for the depreciation in the value of the investment. The banks should not set-off the depreciation requirement in respect of these non-performing securities against the appreciation in respect of other performing securities.

3.10.2 An NPI, similar to a non performing advance (NPA), is one where:

- (i) Interest/ installment (including maturity proceeds) is due and remains unpaid for more than 90 days.
- (ii) The above would apply mutatis-mutandis to preference shares where the fixed dividend is not paid. If the dividend on preference shares (cumulative or non- cumulative) is not declared/paid in any year it would be treated as due/unpaid in arrears and the date of balance sheet of the issuer for that particular year would be reckoned as due date for the purpose of asset classification.
- (iii) In the case of equity shares, in the event the investment in the shares of any company is valued at Re.1 per company on account of the non-availability of the latest balance sheet in accordance with the instructions contained in paragraph 28 of the Annex to Circular DBOD.BP.BC.32/ 21.04.048/ 2000-01 dated October 16, 2000, those equity shares would also be reckoned as NPI.
- (iv) If any credit facility availed by the issuer is NPA in the books of the bank, investment in any of the securities, including preference shares issued by the same issuer would also be treated as NPI and vice versa. However, if only the preference shares are classified as NPI, the investment in any of the other performing securities issued by the same issuer may not be classified as NPI and any performing credit facilities granted to that borrower need not be treated as NPA.

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(v) The investments in debentures/bonds, which are deemed to be in the nature of advance, would also be subjected to NPI norms as applicable to investments.

(vi) In case of conversion of principal and/or interest into equity, debentures, bonds, etc., such instruments should be treated as NPA *ab initio* in the same asset classification category as the loan if the loan's classification is substandard or doubtful on implementation of the restructuring package and provision should be made as per the norms.

3.10.3 Government guaranteed investments

(i) With effect from the year ending March 31, 2006, investment in State Government guaranteed securities, including those in the nature of 'deemed advance', will attract prudential norms for identification of NPI and provisioning, when interest/ installment of principal (including maturity proceeds) or any other amount due to the bank remains unpaid for more than 90 days.

(ii) The prudential treatment for Central Government Guaranteed bonds has to be identical to Central Government guaranteed advances. Hence, bank's investments in bonds guaranteed by Central Government need not be classified as NPI until the Central Government has repudiated the guarantee when invoked. However, this exemption from classification as NPI is not for the purpose of recognition of income.

4. Uniform Accounting for Repo / Reverse Repo Transactions

4.1 The revised accounting guidelines effective from April 1, 2010 are applicable to market repo transactions in Government Securities and corporate debt securities. These accounting norms will, however, not apply to repo / reverse repo transactions conducted under the Liquidity Adjustment Facility (LAF) with the Reserve Bank.

4.2 Market participants may undertake repos from any of the three categories of investments, namely., *Held for Trading, Available for Sale and Held To Maturity*.

4.3 The economic essence of a repo transaction, viz., borrowing (lending) of funds by selling (purchasing) securities shall be reflected in the books of the repo participants, by accounting the same as collateralized lending and borrowing transaction, with an agreement to repurchase, on the agreed terms. Accordingly, the repo seller, i.e., borrower of funds in the first leg, shall not exclude the securities sold under repo but continue to carry the same in his investment account (please see the illustration given in the Annex) reflecting his continued economic interest in the securities during the repo period. On the other hand, the repo buyer, i.e., lender of funds in the first leg, shall not include the securities purchased under repo in his investment account but show it in a separate sub-head (please see the Annex). The securities would, however, be transferred from the repo seller to repo buyer as in the case of normal outright sale/purchase transactions and such movement of securities shall be reflected using the Repo/Reverse Repo Accounts and contra entries. In the case of repo seller, the Repo Account is credited in the first leg for the securities sold (funds received), while the same is

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reversed when the securities are repurchased in the second leg. Similarly, in the case of repo buyer, the Reverse Repo Account is debited for the amount of securities purchased (funds lent) and the same is reversed in the second leg when the securities are sold back.

4.4 The first leg of the repo transaction should be contracted at the prevailing market rates. The reversal (second leg) of the transaction shall be such that the difference between the consideration amounts of first and second legs should reflect the repo interest.

4.5 The accounting principles to be followed while accounting for repo / reverse repo transactions are as under:

(i) Coupon / Discount

The repo seller shall continue to accrue the coupon/discount on the securities sold under repo even during the repo period while the repo buyer shall not accrue the same.

In case the interest payment date of the security offered under repo falls within the repo period, the coupons received by the buyer of the security should be passed on to the seller of the security on the date of receipt as the cash consideration payable by the seller in the second leg does not include any intervening cash flows.

(ii) Repo Interest Income / Expenditure

After the second leg of the repo / reverse repo transaction is over, the difference between consideration amounts of the first leg and second leg of the repo shall be reckoned as Repo Interest Income / Expenditure in the books of the repo buyer / seller respectively; and the balance outstanding in the Repo Interest Income / Expenditure account should be transferred to the P&L Account as an income or an expenditure. As regards repo / reverse repo transactions *outstanding on the balance sheet date*, only the accrued income / expenditure *till the balance sheet date* should be taken to the P & L account. Any repo income / expenditure for the remaining period should be reckoned for the next accounting period.

(iii) Marking to Market

The repo seller shall continue to mark to market the securities sold under repo transactions as per the *investment classification of the security*. To illustrate, in case the securities sold by banks under repo transactions are out of the *Available for Sale* category, then the mark to market valuation for such securities should be done at least once a quarter. For entities which do not follow any investment classification norms, the *valuation for securities sold under repo transactions may be in accordance with the valuation norms followed by them in respect of securities of similar nature*.

4.6 Accounting Methodology

The accounting methodology to be followed along with the illustrations is given in *Annexes VII-A and VII-B*. Participants using more stringent accounting principles may continue using the same principles. Further, to obviate the disputes arising out of repo transactions, the

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participants should enter into bilateral Master Repo Agreement as per the documentation finalized by FIMMDA. The Master Repo Agreement finalised by FIMMDA is not mandatory for repo transactions in Government Securities settling through a Central Counter Party (CCP) [e.g. (CCIL), having various safeguards like haircut, MTM price, margin, Multilateral netting, closing out, right to set off, settlement guarantee fund/ collaterals, defaults, risk management and dispute resolution/ arbitration etc. However, Master Repo Agreement is mandatory for repo transactions in Corporate Debt Securities, which are settled bilaterally without involving a CCP.

4.7 Classification of Accounts

Banks shall classify the balances in Repo A/c under Schedule 4 under item I (ii) or I (iii) as appropriate. Similarly, the balances in Reverse Repo A/c shall be classified under Schedule 7 under item I (ii) a or I (ii) b as appropriate. The balances in Repo interest expenditure A/c and Reverse Repo interest income A/c shall be classified under Schedule 15 (under item II or III as appropriate) and under Schedule 13 (under item III or IV as appropriate) respectively. The balance sheet classification for other participants shall be governed by the guidelines issued by the respective regulators.

4.8 Disclosure

The disclosures as prescribed in *Annex VI* should be made by banks in the 'Notes on Accounts' to the Balance Sheet.

4.9 Treatment for Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR)

(i) *Government securities:*

The regulatory treatment of market repo transactions in Government securities will continue as hitherto, i.e., the funds borrowed under repo will continue to be exempt from CRR/SLR computation and the security acquired under reverse repo shall continue to be eligible for SLR.

(ii) *Corporate debt securities:*

In respect of repo transactions in corporate debt securities, as advised vide IDMD.DOD.05/11.08.38/2009-10 dated January 8, 2010-

- (a) The amount borrowed by a bank through repo shall be reckoned as part of its Demand and Time Liabilities (DTL) and the same shall attract CRR/SLR.
- (b) The borrowings of a bank through repo in corporate bonds shall be reckoned as its liabilities for reserve requirement and, to the extent these liabilities are to the banking system, they shall be netted as per clause (d) of the explanation under section 42(1) of the RBI Act, 1934. Such borrowings shall, however, be subject to the prudential limits for inter-bank liabilities.

5. GENERAL

5.1 Income recognition

(i) Banks may book income on accrual basis on securities of corporate bodies/ public sector undertakings in respect of which the payment of interest and repayment of principal have been guaranteed by the Central Government or a State Government, provided interest is serviced regularly and as such is not in arrears.

(ii) Banks may book income from dividend on shares of corporate bodies on accrual basis provided dividend on the shares has been declared by the corporate body in its Annual General Meeting and the owner's right to receive payment is established.

(iii) Banks may book income from Government Securities and bonds and debentures of corporate bodies on accrual basis, where interest rates on these instruments are predetermined and provided interest is serviced regularly and is not in arrears.

(iv) Banks may book income from units of mutual funds on cash basis.

5.2 Broken Period Interest

Banks should not capitalize the Broken Period Interest paid to seller as part of cost, but treat it as an item of expenditure under P&L Account in respect of investments in Government and other approved securities. It is to be noted that the above accounting treatment does not take into account the tax implications and, hence, the banks should comply with the requirements of Income Tax Authorities in the manner prescribed by them.

5.3 Dematerialized Holding

Banks should settle the transactions in securities as notified by SEBI only through depositories. Banks are permitted to make fresh investments in and hold bonds and debentures, privately placed or otherwise, and equity instruments only in dematerialized form.

5.4 Investment in Zero Coupon Bonds and Low Coupon Bonds issued by corporates

In view of high credit risk involved in long term Zero Coupon Bonds (ZCBs) issued by corporates (including those issued by NBFCs) banks should not invest in such ZCBs unless the issuer builds up sinking fund for all accrued interest and keeps it invested in liquid investments/ securities (Government bonds). It had come to our notice that banks are investing in bonds which carry very low coupons that are not market related and therefore are redeemed at maturity with substantial premium. These bonds, therefore, carry credit risk similar to ZCBs. Banks should not invest in such Low Coupon Bonds unless the issuer builds up a sinking fund to the extent of the difference in the accrued interest calculated on the basis of YTM applicable to the bond and the actual coupon payable on the bond and keeps it invested in liquid investments/ securities (Government bonds). Further, banks should also put in place conservative limits for their investments in such bonds.

Annex I-A [Para 1.1 (i) (a)]

Short sale in Government Securities

1. Banks may undertake short sale of Central Government dated securities, subject to the short position being covered within a maximum period of three months, including the day of trade. Such short positions shall be covered by outright purchase of an equivalent amount of the same security or through a long position in the When Issued (WI) market or allotment in primary auction. However, it may be noted that the closure of the long position in WI market (by sale of the WI securities) would lead to a reestablishment of short position to the extent of the sale in the WI market. The short positions may be reflected in 'Securities Short Sold (SSS) A/c', specifically created for this purpose. For the purposes of this circular short sale and notional short sale are defined as under:

2. 'Short Sale' is defined as sale of securities one does not own. A bank can also undertake 'notional' short sale where it can sell a security short from HFT even if the security is held under its HFT/AFS/HTM book. The resultant 'notional' short position would be subject to the same regulatory requirements as in the case of a short sale. For the purpose of these guidelines, short sale would include 'notional' short sale as well. The short sale by banks and the cover transaction shall not affect the holdings and valuation of the same security in HFT/AFS/HTM categories in any way.

3. Short sale transactions can be undertaken by banks, subject to the following conditions:

Minimum requirements

(a) Banks are permitted to execute the sale leg of short sale transactions in the OTC market, in addition to the NDS-OM platform. The cover leg of the short sale transaction can, however, be executed either on or outside the NDS-OM platform.

(b) The sale leg as well as the cover leg of the transaction should be accounted in the HFT category.

(c) Under no circumstances, should participants fail to deliver, on settlement date, the securities sold short. Failures to deliver securities short sold shall be treated as an instance of 'SGL bouncing' and the concerned banks will be liable to disciplinary action prescribed in respect of SGL bouncing, besides attracting such further regulatory action as may be considered necessary.

(d) At no point of time should a bank accumulate a short position (face value) in any security in the HFT category in excess of the following limits:

(i) **Liquid securities:** 0.75 per cent of the total outstanding stock issued of each security or ₹600 crore, whichever is lower.

(ii) **Illiquid securities:** 0.25 per cent of the total outstanding stock issued of each security.

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(e) In case a liquid security becomes illiquid during the period of short sale resulting in a lower short sale limit, a bank can continue to hold the already executed short position till it is closed out. Any fresh short position in such securities, however, should be undertaken within the applicable limits for illiquid securities.

(f) The short sale position executed in the OTC market should be reported on the NDS-OM platform within 15 minutes of the execution of the trade. Banks undertaking short sale and related cover transactions should indicate the same through proper tagging on the platform.

(g) Banks undertaking the 'notional' short sale would cover the same through a subsequent outright purchase or carry the short position beyond overnight by acquiring the security under reverse repo but not use the securities already held in their portfolio for delivery against the short sale.

(h) Banks shall be entirely responsible for ensuring strict compliance with the above prudential limits on real time basis for which they may put in place appropriate systems and internal controls. The controls provided in the trading platform (NDS-OM) are merely in the nature of additional tools and should not be cited as a reason for any breach of internal or regulatory limits. The information regarding the outstanding stock of each Government of India dated security is being made available on the RBI website (URL: <http://rbi.org.in/Scripts/NDSUserXsl.aspx>). The list of liquid securities for compliance with the limits shall be provided by FIMMDA from time to time.

(i) Banks which undertake short sale transactions shall mark-to-market their entire HFT portfolio, including the short positions, *on a daily basis* and account for the resultant mark-to-market gains / losses as per the relevant guidelines for marking-to-market of the HFT portfolio.

(j) Gilt Accounts Holders (GAHs), under CSGL facility, are not permitted to undertake short sales. Entities maintaining CSGL Accounts are required to ensure that no short sale is undertaken by the GAHs.

Borrowing security (through the repo market) to meet delivery obligations

Since securities that are short sold are to be *invariably* delivered on the settlement date, participants are permitted to meet their delivery obligations by acquiring securities in the repo market. Accordingly, with a view to enable participants to run short positions across settlement cycles, banks have been permitted to use the securities acquired under a reverse repo to meet the delivery obligation of the short sale transaction. While the reverse repos can be rolled over, it is emphasised that the delivery obligations under the successive reverse repo contracts are also to be invariably met, failing which the concerned banks shall attract the regulatory action as specified above. It may, however, be noted that the permission to use securities acquired under reverse repo as above applies only to securities acquired under market repo and not to securities acquired under RBI's Liquidity Adjustment Facility.

Policy and internal control mechanisms

(i) Before actually undertaking transactions in terms of this circular, banks shall put in place a written policy on short sale, which should be approved by their respective Boards of Directors. The policy should lay down the internal guidelines which should include, *inter alia*, risk limits on short position, an aggregate nominal short sale limit (in terms of Face Value) across all eligible securities, stop loss limits, the internal control systems to ensure adherence to regulatory and internal guidelines, reporting of short selling activity to the Board and the Reserve Bank, procedure to deal with violations, etc. Banks shall also put in place a system to detect violations if any, immediately, certainly within the same trading day.

(ii) Banks may review their systems and controls to ensure strict compliance with all regulatory requirements of short sale and cover transactions. Any violation of regulatory guidelines noticed in this regard should immediately be reported to the Chief General Manager, Financial Markets Regulation Department (FMRD), Reserve Bank of India, Mumbai.

(iii) In addition to the internal control mechanisms, the concurrent auditors should specifically verify compliance with these instructions, as well as with internal guidelines and report violations, if any, within a reasonably short time, to the appropriate internal authority. As part of their monthly reporting, concurrent auditors may verify whether the independent back/mid office has taken cognizance of lapses, if any, and whether they have reported the same within the required time frame to the appropriate internal authority. Any violation of regulatory guidelines noticed in this regard should immediately be reported to the respective PDO where the SGL account is maintained and FMRD, Reserve Bank of India, Mumbai.

(iv) Default in payment of cash or delivery of security shall be viewed seriously and would be subject to penal measures as prescribed in RBI Circular IDMD.DOD.17/11.01.01(B)/2010-11 dated July 14, 2010 as amended from time to time. Reserve Bank may also take any action including temporary or permanent debarment of the SGL account holder from the short sale market as it may deem fit, for violation / circumvention of the regulatory guidelines or if Reserve Bank is of the view that the bank has attempted to manipulate the market, involved in market abuse, or provided information that was incorrect, inaccurate, or incomplete.

(v) Banks should submit a duly certified report of the daily security-wise short sale position, as per the format given below, to the Financial Markets Regulation Department, Reserve Bank of India, Mumbai on a monthly basis by 8th of the succeeding month. The soft copy of the report should be emailed to fmrd@rbi.org.in.

Monthly reporting of Short Sale transaction in GOI Securities

Report for the month of _____

Name of bank/PD: _____ Security: _____

Amount in ₹ Crore

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Sl. No.	Trade Date	Short position at the beginning of the day	Securities short sold during the Day		Short position covered during the day through				Short position at the end of the day	Maximum Short position during the day	Regulatory Limit
			NDS-OM	OTC	NDS-OM	WI	OTC	Primary Auction			
# 0.75% of the outstanding stock or ₹ 600 crore whichever is lower for liquid securities and 0.25% of the outstanding stock for illiquid securities. The categorization of liquid / illiquid securities shall be as determined by FIMMDA											
Note: Each security to be tabulated separately.											

- 1 Age (in number of days) of the oldest uncovered short sale transaction as on the last day of the month: _____ days.
- 2 Age (in number of days) of the oldest short sale transaction covered during the month: _____ days.

Certified that there were no violations of extant regulatory guidelines on short sale in Government of India Securities [Concurrent / Internal Auditor]

“When Issued” Market-Guidelines

Annex I-B [Para 1.1i) (a)]

'When, as and if issued' (commonly known as 'when-issued' (WI)) security refers to a security that has been authorized for issuance but not yet actually issued. 'WI' trading takes place between the time a new issue is announced and the time it is actually issued. All 'when issued' transactions are on an 'if' basis, to be settled if and when the actual security is issued.

Mechanics of Operation

Transactions in a security on a 'WI' basis shall be undertaken in the following manner:

- (a) 'WI' transactions can be undertaken in the case of securities that are being reissued as well as newly issued, on a selective basis.
- (b) 'WI' transactions would commence on the issue notification date and it would cease on the working day immediately preceding the date of issue.
- (c) All 'WI' transactions for all trade dates will be contracted for settlement on the date of issue.
- (d) At the time of settlement on the date of issue, trades in the 'WI' security will be netted off with trades in the existing security, in the case of reissued securities.
- (e) The originating transactions (sale or purchase of 'WI' securities) shall be undertaken only on NDS-OM. Any reversal of a 'WI' transaction can, however, be undertaken on or outside the NDS-OM platform.
- (f) Only PDs can take a short position in the 'WI' market. In other words, non-PD entities can sell the 'WI' security to any counterparty only if they have a preceding purchase contract for equivalent or higher amount.
- (g) Open Positions in the 'WI' market are subject to the following limits:

Category	Reissued security	Newly issued security
Non-PDs	Long Position, not exceeding 5 per cent of the notified amount.	Long Position, not exceeding 5 per cent of the notified amount.
PD	Long or Short Position, not exceeding 10 per cent of the notified amount	Short Position, not exceeding 6 per cent and Long Position, not exceeding 10 per cent of the notified amount.

- (h) In the event of cancellation of the auction for whatever reason, all 'WI' trades will be deemed null and void *ab initio* on grounds of *force majeure*.

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Internal Control

All banks participating in the 'WI' market are required to have in place a written policy on 'WI' trading which should be approved by the Board of Directors. The policy should lay down the internal guidelines which should include, *inter alia*, risk limits on 'WI' position (including, in the case of reissued securities, overall position in the security, i.e., 'WI' plus the existing security), an aggregate nominal limit (in terms of Face Value) for 'WI' and in the case of reissued securities, 'WI' plus the existing security, the internal control arrangements to ensure adherence to regulatory and internal guidelines, reporting of 'WI' activity to the top management, procedure to deal with violations, etc. A system should be in place to detect violations immediately, certainly within the trading day.

The concurrent auditors should specifically verify compliance with these instructions and report violations on the date of trade itself, within a reasonably short time, to the appropriate internal authority. As part of their monthly reporting, concurrent auditors may verify whether the independent back/mid office has taken cognizance of all such lapses and reported the same within the required time frame. Any violation of regulatory guidelines noticed in this regard should immediately be reported to the PDO, Mumbai and FMRD, Reserve Bank of India.

Annex I-C [Para 1.1 i) (b)]

Investment portfolio of banks – Transactions in securities –Conditions subject to which securities allotted in the auctions for primary issues can be sold

- (i) The contract for sale can be entered into only once by the allottee bank on the basis of an authenticated allotment advice issued by the Reserve Bank. The buyer from an allottee in a primary auction is also permitted to re-sell the security subject to compliance with the terms and conditions stipulated in our Circular No. IDMD.PDRS.337/10.02.01/2005-06 dated July 20, 2005 and IDMD.PDRS.05/10.02.01/2003-04 dated March 29, 2004. Any sale of securities should be only on a T + 0 or T + 1 settlement basis.
- (ii) The contract for sale of allotted securities can be entered into by banks with entities maintaining SGL Account with the Reserve Bank as well as with and between CSGL account holders for delivery and settlement on the next working day through the Delivery versus Payment (DvP) system.
- (iii) The face value of securities sold should not exceed the face value of securities indicated in the allotment advice.
- (iv) Services of brokers can be availed for carrying out sale of securities allotted in primary issues on the same day.
- (v) Separate record of such sale deals should be maintained containing details such as number and date of allotment advice, description and the face value of securities allotted, the purchase consideration, the number, date of delivery and face value of securities sold, sale consideration, the date and details of actual delivery i.e. SGL Form No., etc. This record should be made available to the Reserve Bank for verification. Banks should immediately report any cases of failure to maintain such records.
- (vi) Such type of sale transactions of Government Securities allotted in the auctions for primary issues on the same day and based on authenticated allotment advice should be subjected to concurrent audit and the relative audit report should be placed before the Executive Director or the Chairman and Managing Director of the Bank once every month. A copy thereof should also be sent to DBS, RBI, Central Office, Mumbai.
- (vii) Banks will be solely responsible for any failure of the contracts due to the securities not being credited to their SGL account on account of non-payment / bouncing of cheque, etc.
- (viii) Banks can repo G-Sec (on T+0 basis) that have already been contracted for sale (on T+1 basis). Banks, while undertaking such transactions, shall ensure that adequate balances are available in their SGL / CSGL accounts to ensure settlement of the transactions on the date of settlement.

Annex I – D [Para 1.1.1]

Guidelines on Stripping/Reconstitution of Government Securities

Stripping is a process of converting periodic coupon payments of an existing Government Security into tradable zero-coupon securities, which will usually trade in the market at a discount and are redeemed at face value. Thus, stripping a five-year security would yield 10 coupon securities (representing the coupons), maturing on the respective coupon dates and one principal security representing the principal amount, maturing on the redemption date of the five- year security. Reconstitution is the reverse of stripping, where, the Coupon STRIPS and Principal STRIPS are reassembled into the original Government Security.

2. In terms of Explanation to section 11(2) of the Government Securities Act 2006, "A Government security may be stripped separately for interest and principal or reconstituted on the application of the holder subject to such terms and conditions as may be specified". Accordingly, the terms and conditions for stripping and/or reconstitution of Securities issued by the Government of India have been notified by the Reserve Bank vide Notification IDMD.1762/2009-10 dated October 16, 2009 (*Annex I-D-1*)

Process of Stripping/Reconstitution

3. Stripping/Reconstitution will be carried out at RBI as an automated process within the Negotiated Dealing System (NDS). The process of stripping/reconstitution will be a straight-through process without any manual intervention. Requests for stripping/reconstitution will be generated and approved by market participants on the NDS and the same will, thereafter, flow to a PD of their choice for authorization. After authorization by the PD, such requests would be received and processed by the system (PDO-NDS) and necessary accounting entries posted in the accounts of the requesting participant for the STRIPS created/securities reconstituted. The NDS will carry out the necessary validation checks like eligibility of securities, balances available, etc., on the requests for stripping/reconstitution made by participants. However, participants are required to ensure that sufficient balances are available in their accounts before putting through requests for stripping/reconstitution.

4. Normally, ISIN for Government Securities are assigned at the time of auction of the securities. However, in the case of STRIPS, as these securities are created at the request of the participant, ISIN as well as nomenclature for STRIPS are created automatically based on a predefined algorithm (see Annex I-D-2).

5. Individual STRIPS (Coupon as well as Principal) will have a face value of ₹100.

Eligibility

6. Any entity, including individuals, holding balances of Government Securities that are eligible for stripping/reconstitution (as notified by RBI from time to time) can strip/reconstitute these securities. However, a participant (non-PD) desirous of stripping/reconstituting his balance of eligible Government Securities/STRIPS should generate a request on the NDS for

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stripping/ reconstitution by choosing any one of the Primary Dealers. Such requests for stripping/ reconstitution by non-PD members shall be authorized by the PD and thereafter flow to the NDS for appropriate action (stripping/reconstitution). Requests for stripping/ reconstitution by GAH shall be placed by the GAH with their respective custodians, who, in turn, will place the requests, on behalf of its constituents, in the NDS. Since stripping/reconstitution is permitted only in respect of securities held in electronic form, any participant desirous of stripping/ reconstituting Government Securities should have a SGL Account with the Reserve Bank or a Gilt Account with a custodian maintaining a CSGL Account with the Reserve Bank. In the case of Primary Dealers, they can place requests directly in the NDS for stripping/reconstitution and need not route the same through another PD.

7. Initially, all PDs would be eligible to authorize stripping/reconstitution requests. However, Reserve Bank, at its discretion, can exclude any PD from authorizing such requests. Market participants will have the flexibility to choose a PD of their choice while submitting requests for stripping/ reconstitution. PDs will act as market makers in STRIPS and provide two-way quote in the market.

Timings

8. Requests for stripping can be submitted by participants between 9.00 am and 2.00 pm only. All requests for stripping, received by the system (PDO-NDS), will be processed at 2.00 pm and necessary book entries will be passed in the SGL account of the participants to credit the due amount of STRIPS (coupon as well as principal) on account of stripping. All requests that have not been authorized by 2.00 pm will be rejected by the system. Stripping requests cannot be approved/ authorized after 2.00 pm on any business/working day.

9. Similarly, requests for reconstitution can be submitted between 9.00 am and 2.00 pm only. However, the requests for reconstitution would be processed online i.e., as and when such requests are authorized by the PD, and the necessary accounting entries would be passed in the SGL account of the requesting participant immediately subject to availability of sufficient and necessary balances. As indicated at paragraph 8 above, requests for reconstitution that are not authorized by 2.00 pm will be rejected by the system. No reconstitution request can be approved/ authorized after 2.00 pm on any business/working day. Since reconstitution requests are processed online, such requests, whenever routed through a PD, must be authorized by the PD within 15 minutes of the receipt of the system notification (authorization request).

Eligible Securities

10. The Reserve Bank will notify, from time to time, the securities that are eligible for stripping/reconstitution. To begin with, securities issued by Government of India, other than floating rate bonds, with coupon dates as 2nd January and 2nd July, will be eligible for stripping/reconstitution. Thus, all outstanding securities issued by Government of India, except

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floating rate bonds, with coupon dates/maturity date as 2nd January and 2nd July, irrespective of the year of maturity, will be eligible for stripping/reconstitution.

Minimum amount for stripping/reconstitution

11. The minimum amount of securities that needs to be submitted for Stripping/Reconstitution will be ₹1 crore (face value) and in multiples thereof.

Accounting and Valuation

12. STRIPS, being zero coupon securities, trade at a discount and are redeemed at face value. Thus, STRIPS will have to be valued and accounted for as zero coupon bonds and in the manner prescribed in in this Master Circular.

13. The discount rates used for valuation of STRIPS at inception should be market-based. However, in case traded zero-coupon rates are not available, the zero coupon yields published by FIMMDA should be used instead.

14. Accounting entries in the SGL accounts as a consequence of stripping/reconstitution, will be passed at the face value. Thus, when a participant places a request for stripping, his SGL account will be debited by the face value of the Government Security submitted for this purpose, and will be simultaneously credited with the aggregate face value of Coupon STRIPS (equal to the aggregate coupon amounts) as well as the face value of Principal STRIPS (equal to the face value of the government security). An illustration is given in *Annex I-D-3*.

15.1 However, on the day of stripping, the STRIPS should be recognised in the books of account of the participant at their discounted value and at the same time, the Government Security in question should be de-recognized. The accounting treatment for reconstitution should be exactly the opposite of stripping. The detailed procedure for accounting of STRIPS is given below.

15.2 The stripping/reconstitution, per se, should not result in any profit or loss. As the present value of the STRIPS (coupon as well as principal) discounted using the Zero Coupon Yield Curve (ZCYC) will not be equal to the book value/market value of the security, the value of STRIPS shall be normalized using a factor that will be the ratio of the book value or market value of the security (whichever is lower) to the sum total of the market value of all STRIPS created out of the security (illustration given in Annex –I-D-4). This will ensure that the sum total of the market value of STRIPS equals the book value/market value of the security, whichever is lower.

15.3 Banks can strip eligible Government Securities held under the AFS/HFT category of their investment portfolio. However, if strips are to be created out of securities held in the HTM category, then the security first needs to be transferred to AFS/HFT category. The shifting of securities from HTM category for the purpose of stripping will be as per the relevant guidelines prescribed by DBR on prudential norms for classification, valuation and operation of investment portfolio by banks.

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15.4 In case STRIPS are created from securities held in the HTM portfolio, the securities should be transferred from the HTM category to the AFS/HFT category (as per the shifting discipline from HTM) and the shifted security shall be carried at the least of the book value/market value. Depreciation, if any, shall be provided for and appreciation, if any, ignored as hitherto. Thereafter, the lower of the book value/market value will be used for normalizing the market value of individual STRIPS to the book value/market value. Post- stripping, the book value/market value of the existing securities will be derecognized and replaced by the normalized value of STRIPS whose sum total shall exactly equal the book value/market value of the extinguished security (thereby ensuring that there is no profit or loss on account of stripping). Any appreciation, arising due to the shifting of the security from HTM shall be ignored. The same methodology would follow for securities that are stripped from the AFS/HFT portfolio.

15.5 (i) Before a security is stripped, it must be marked to market. Appreciation, if any, should be ignored and depreciation, if any, must be recognised if the market value is lower than the book value. Such depreciation cannot be aggregated for the purpose of arriving at net depreciation/appreciation of investment under the AFS/HFT category. The book value/ market value of the security, whichever is lower, must be used to normalize the STRIPS.

(ii) The Normalization principle, on stripping/reconstitution will be applied on the clean price of the security (without considering the accrued interest) as the accrued interest is booked as income/expenditure.

(iii) Normalization should also be applied in the case of reconstitution (even when STRIPS are acquired from the market).

(iv) The book value of the STRIPS (ZCBs) should be valued and marked to market as per extant DBR guidelines. Accordingly, the book value of the STRIPS shall be marked up to the extent of accrued interest before MTM. In other words, once a security has been acquired, it will attract the treatment accorded to any other zero coupon security.

SLR Status of STRIPS

16. STRIPS will be reckoned as eligible Government Securities for SLR purposes and retain all the characteristics of Government Security. They will be eligible securities for market repo as well as repo under LAF of RBI but with appropriate haircut.

Trading in STRIPS

17. To begin with, STRIPS will be tradable only in the OTC market. Hence, trades in STRIPS will have to be undertaken in the OTC market and reported on NDS for clearing and settlement through CCIL.

18. Short sale of STRIPS shall not be permitted.

19. Participants shall not sell STRIPS/securities upfront based on the requests placed by them for stripping/reconstitution. Accordingly, sale transaction in STRIPS/securities shall be

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undertaken by participants only after the securities are stripped/reconstituted and the same is reflected in the SGL account of the participant.

Fees & Charges

20. Reserve Bank will not charge any fees for stripping/reconstitution of Government Securities. Further, to begin with, PDs, who are the "authorized entities" for authorizing requests for stripping/reconstitution in the PDO-NDS may also not charge the participants for carrying out this activity.

Terms and conditions for Stripping

I. Definitions

(a) "STRIPS" (Separate Trading of Registered Interest and Principal of Securities) are distinct, separate securities that are created from the cash flows of a Government security and shall consist of –

- (i) Coupon STRIPS, where the single cash flow of the STRIPS represents a coupon flow of the original security
- (ii) Principal STRIPS, where the single cash flow of the STRIPS represents the principal cash flow of the original security.

Explanation: Stripping of a security shall result in Coupon STRIPS for all outstanding coupon payments and one Principal STRIPS for the redemption payment. Each STRIPS accordingly becomes a ZCB since it has only one cash flow at maturity. Each STRIPS shall be a distinct Government Security and shall have a separate and distinct International Securities Identification Number (ISIN).

(b) "Stripping" means the process of separating the cash flows associated with a regular Government Security i.e., each outstanding semi-annual coupon payment and the final principal payment into separate securities.

(c) "Reconstitution" means the reverse process of stripping, where the individual STRIPS i.e., both coupon STRIPS and Principal STRIPS are reassembled to get back the original security.

(d) "Authorized entity" means a PD or any other entity recognized by the Reserve Bank to accept requests from the holders of Government Securities for stripping/reconstitution of the securities and submission to the Reserve Bank.

II. Terms and Conditions for STRIPS

1. The process of stripping/reconstitution of Government Securities shall be carried out at RBI, PDO in the PDO-NDS (Negotiated Dealing System).
2. All dated Government Securities other than floating rate bonds having coupon payment dates on 2nd January and 2nd July, irrespective of the year of maturity shall be eligible for Stripping/Reconstitution.
3. All Coupon STRIPS with the same maturity date shall have the same ISIN, regardless of the underlying security from which the interest payments were stripped, and coupon STRIPS of the same cash flow shall be fungible (interchangeable). The ISIN of Coupon STRIPS shall be different from the ISIN of Principal STRIPS, even if they have the same maturity date, and shall not be fungible.

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4. Stripping/reconstitution may be done at the option of the holder at any time from the date of issuance of a Government Security till its maturity.
5. Stripping/reconstitution shall be permitted only in the eligible Government Securities held in the Subsidiary General Ledger (SGL)/Constituent Subsidiary General Ledger (CSGL) accounts maintained at the PDO, RBI, Mumbai. Physical securities shall not be eligible for stripping/reconstitution.
6. Holders of Government Securities shall place their requests for stripping/ reconstitution only with an "Authorized entity".
7. Reserve Bank will not charge any fees on stripping/reconstitution.
8. The amount of securities that could be tendered for stripping/reconstitution shall be a minimum of ₹1 crore and in multiples thereof.
9. These terms and conditions shall come into effect from the date of this Notification.

ISIN for STRIPS

Structure:

I	N			M	M	Y	Y				
Country code		Issuer type/state code		Month and year of maturity of the STRIP				Security type	Subsequent strips/series serial number		Checksum digit

Example of a CG Principal STRIP maturing in March 2011:

I	N	0	0	0	3	1	1	P	0	1	
Country code		Issuer type/state code		Month and year of maturity of the STRIP				Security type	Subsequent strips/series serial number		Checksum digit

Example of a CG Coupon STRIP maturing in March 2011:

I	N	0	0	0	3	1	1	C	0	1	
Country code		Issuer type/state code		Month and year of maturity of the STRIP				Security type	Subsequent strips/series serial number		Checksum digit

Nomenclature for Coupon STRIPS

GSDDMONYYYYC; where GS=Government Security, DDMONYYYY=date of maturity of the STRIPS and C=Coupon STRIP. (Ex. A coupon STRIP maturing on March 25, 2011 would be written as **GS25MAR2011C**)

Nomenclature for Principal STRIPS

x.xx%GSDDMONYYYYP; where x.xx is the coupon of the parent security from which the principal STRIP has been generated, GS=Government Security, DDMONYYYY=date of maturity of the STRIPS and P=Principal STRIPS. (Ex. A principal STRIP generated from, say, 7.99%2019 maturing on 02 July 2019 will be written as **7.99%GS02JUL2019P**)

Stripping of securities – An illustration

Strippable Securities

Security	Date of Maturity
9.39% 2011	02-Jul-11
12.30 % 2016	02-Jul-16

Investor "A" Portfolio as on October 16, 2009 (in the books of PDO, Mumbai)

Security	₹ (Cr) {Face Value}
9.39% 2011	100.00
12.30 % 2016	250.00

On March 17, 2010, investor "A" strips ₹5 Cr worth of 9.39%2011 & ₹10 Cr worth of 12.30%2016 STRIPS generated

9.39% 2011		
	02 July 10	2,347,500
	02 Jan 11	2,347,500
	02 July 11	2,347,500
Principal STRIP (PS)	02 July 11	50,000,000

Each coupon strip = $\{9.39\%/2\} \times 5$ Cr.

12.30 % 2016		
	02 July 10	6,150,000
	02 Jan 11	6,150,000
	02 July 11	6,150,000
	02 Jan 12	6,150,000
	02 July 12	6,150,000
	02 Jan 13	6,150,000
	02 July 13	6,150,000
	02 Jan 14	6,150,000
	02 July 14	6,150,000
	02 Jan 15	6,150,000
	02 July 15	6,150,000
	02 Jan 16	6,150,000
	02 July 16	6,150,000
Principal STRIP (PS)	02 July 16	100,000,000

Each coupon strip = $\{12.30\%/2\} \times 10$ Cr.

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Portfolio as on March 17, 2010 after stripping (in the books of PDO, Mumbai)

Security	Amount (₹) {Face Value}
9.39% 2011	950,000,000
12.30 % 2016	2,400,000,000
CS 02 July 10	8,497,500
CS 02 Jan 11	8,497,500
CS 02 July 11	8,497,500
CS 02 Jan 12	6,150,000
CS 02 July 12	6,150,000
CS 02 Jan 13	6,150,000
CS 02 July 13	6,150,000
CS 02 Jan 14	6,150,000
CS 02 July 14	6,150,000
CS 02 Jan 15	6,150,000
CS 02 July 15	6,150,000
CS 02 Jan 16	6,150,000
CS 02 July 16	6,150,000
PS 02 July 11	50,000,000
PS 02 July 16	100,000,000

CS=Coupon STRIPS; PS=Principal STRIP

Annex I-D-4**Procedure for normalization of STRIPS (at stripping/reconstitution) to ensure no profit/loss**

(For illustration only)

Security 12.30% 2016

Date of maturity 02-Jul-16

Coupon 12.30%

Date of Stripping Mar-10

(1) Market value of 12.30% on 03-Mar-10 129.96

(2) Book Value 120.00

(3) Sum total of PV of STRIPS 127.87

(4) Normalization Factor [(2) ÷ (3)] 0.9385

	Maturity Date	Maturity amount	ZCYC	PV of STRIPS (Market Value)	Normalized value of STRIPS
	(a)	(b)	(c)	(d)	[0.9385 x (d)]
1	2/Jul/10	6.15	4.0683	6.0274	5.6564
2	2/Jan/11	6.15	4.6948	5.8711	5.5098
3	2/Jul/11	6.15	5.3212	5.6841	5.3343
4	2/Jan/12	6.15	5.6128	5.5055	5.1666
5	2/Jul/12	6.15	5.9044	5.3174	4.9901
6	2/Jan/13	6.15	6.1339	5.1305	4.8147
7	2/Jul/13	6.15	6.3633	4.9392	4.6352
8	2/Jan/14	6.15	6.4744	4.7663	4.4730
9	2/Jul/14	6.15	6.5855	4.5946	4.3118
10	2/Jan/15	6.15	6.7227	4.4187	4.1467
11	2/Jul/15	6.15	6.8599	4.2439	3.9827
12	2/Jan/16	6.15	6.9971	4.0707	3.8201
13	2/Jul/16	106.15	7.1343	67.3029	63.1606
TOTAL				127.87	120.00

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Notes:

1. The security is presumed to be held in HTM category and hence is to be shifted to AFS/HFT before stripping, marked-to-market and the lower of the book value or market value will be used to arrive at the normalization factor.
2. In case the market value of 12.30% 2016 is less than the book value then the market value, instead of the book value, will be used to normalize the STRIPS, i.e., the normalization factor would be
$$\text{MARKET VALUE} \div \text{SUM TOTAL OF PV OF STRIPS}$$
where the PV of STRIPS are arrived at by discounting the cash flow using the ZCYC.
3. Securities in AFS/HFT will be normalized using the same principle (i.e., lower of market value/book value).

Annex I – E [Para 1.2.23]

Repo in Corporate Debt Securities (Reserve Bank) Directions, 2015

1. Short title and commencement of the directions

These directions may be called the Repo in Corporate Debt Securities (Reserve Bank) Directions, 2015.

2. Definitions

(a) 'Corporate Debt Security' means non-convertible debt securities, which create or acknowledge indebtedness, including debentures, bonds and such other securities of a company or a body corporate constituted by or under a Central or State Act, whether constituting a charge on the assets of the company or body corporate or not, but does not include debt securities issued by Government or such other persons as may be specified by the Reserve Bank, security receipts and securitized debt instruments"

(b) 'Security Receipts' means a security as defined in clause (zg) of section 2 of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (54 of 2002)

(c) 'Securitized debt instrument' means securities of the nature referred to in sub-clause (ie) of clause (h) of section 2 of the Securities Contracts (Regulation) Act, 1956 (42 of 1956).

3. Eligible underlying collateral for repo in Corporate Debt Securities

(a) Listed corporate debt securities of original maturity of more than one year which are rated 'AA' or above by the rating agencies registered with Securities and Exchange Board of India (SEBI), that are held in the security account of the repo seller, in DEMAT form.

(b) Commercial Papers (CPs), Certificates of Deposit (CDs) and Non-Convertible Debentures (NCDs) of original maturity upto one year which are rated A2 or above by the rating agencies registered with SEBI.

(c) Bonds which are rated 'AA' or above, by the rating agencies registered with SEBI or internationally recognised rating agencies, and which are issued by multilateral financial institutions like the World Bank Group (e.g., IBRD, IFC), the Asian Development Bank or the African Development Bank and other such entities as may be notified by the Reserve Bank of India from time to time.

4. Eligible Participants

The following entities shall be eligible to undertake repo transactions in corporate debt securities:

(a) Any scheduled commercial bank excluding RRBs and LABs;

(b) Any Primary Dealer authorised by the Reserve Bank;

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- (c) Any non-banking financial company registered with the Reserve Bank of India, including Government companies as defined in sub-section (45) of section 2 of the Companies Act, 2013, which adhere to the prudential norms for NBFCs prescribed by Department of Non-Banking Regulation, Reserve Bank of India from time to time"
- (d) All-India Financial Institutions, namely, Exim Bank, NABARD, NHB and SIDBI;
- (e) India Infrastructure Finance Company Limited;
- (f) Any scheduled urban cooperative bank subject to adherence to conditions prescribed by the Reserve Bank;
- (g) Other regulated entities, subject to the approval of the regulators concerned, viz.,
- (i) Any mutual fund registered with the Securities and Exchange Board of India;
- (ii) Any housing finance company registered with the National Housing Bank; and
- (iii) Any insurance company registered with the Insurance Regulatory and Development Authority
- (h) Any other entity specifically permitted by the Reserve Bank.

5. Tenor

Repos in corporate debt securities shall be for a minimum period of one day and a maximum period of one year.

6. Trading

Participants shall enter into repo transactions in corporate debt securities in the OTC market.

7. Reporting of Trades

All repo trades shall be reported within 15 minutes of the trade on the reporting platform of Clearcorp Dealing Systems (India) Ltd. (CDSIL).

8. Settlement of trades

- (a) All repo trades in corporate debt securities shall settle either on a T+0, T+1 or T+2 basis under DvP I (gross basis) framework.
- (b) Repo transactions in corporate debt securities shall be settled through the clearing house of the National Stock Exchange (NSE), i.e., the National Securities Clearing Corporation Limited (NSCCL), the clearing house of the Bombay Stock Exchange (BSE), i.e., Indian Clearing Corporation Limited (ICCL), and the clearing house of the MCX-Stock Exchange, i.e., MCX-SX Clearing Corporation Limited (CCL), as per the norms specified by NSCCL, ICCL and CCL from time to time.
- (c) On the date of reversal of repo trades, the clearing houses shall compute the obligations of the parties and facilitate settlement on DvP-I basis.

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9. *Prohibition on sale of repoed security*

The security acquired under repo shall not be sold by the repo buyer (lender of the funds) during the period of repo.

10. *Haircut*

A rating based minimum haircut as prescribed by Reserve Bank of India (or higher as may be decided by the participants depending on the term of the repo and the remargining frequency) shall be applicable on the market value of the corporate debt security prevailing on the date of 1st leg of repo trade. Presently, the minimum haircut prescribed is as under :

Rating	AAA / A1	AA+ / A2+	AA / A2
Minimum haircut	7.5%	8.5%	10%

11. *Valuation*

For arriving at the market value of the corporate debt security, the participants undertaking repo in corporate bonds may refer to the credit spreads published by the FIMMDA.

12. *Capital Adequacy*

The repo transactions in corporate debt securities shall attract capital charge in terms of relevant provisions of the Master Circular on 'Basel III Capital Regulations'

13. *Disclosure*

The details of corporate debt securities lent or acquired under repo or reverse repo transactions shall be disclosed in the "Notes on Accounts" to the Balance Sheet.

14. *Accounting*

The repo transactions in corporate debt securities shall be accounted as per the guidelines on uniform accounting for repo / reverse repo transactions.

15. *Computation of CRR / SLR & borrowing limit*

(a) The amount borrowed by a bank through repo in corporate debt securities shall be reckoned as part of its Demand and Time Liabilities (DTL) and the same shall attract CRR / SLR.

(b) The borrowings of a bank through repo in corporate debt securities shall be reckoned as its liabilities for reserve requirement and, to the extent these liabilities are to the banking system, they shall be netted as per clause (d) of the explanation under section 42(1) of the RBI Act, 1934. Such borrowings shall, however, be subject to the prudential limits for inter-bank liabilities prescribed vide Circular [DBOD.BP.BC.66/21.01.002/2006-07](#) dated March 06, 2007.

16. *Documentation*

The participants shall enter into bilateral Master Repo Agreement as per the documentation finalized by the FIMMDA.

Annex II [Para 1.1.7 (i) (g)]

Investment portfolio of banks - Transactions in securities - Aggregate contract limit for individual brokers

Sl. No.	Issue Raised	Response
1.	The year should be calendar year or financial year?	Since banks close their accounts at the end of March, it may be more convenient to follow the financial year. However, the banks may follow calendar year or any other period of 12 months provided, it is consistently, followed in future.
2.	Whether the limit is to be observed with reference to total transactions of the previous year as the total transactions of the current year should be known only at the end of the year?	The limit has to be observed with reference to the year under review. While operating the limit, the bank should keep in view the expected turnover of the current year which may be based on turnover of the previous year and anticipated rise or fall in the volume of business in the current year.
3.	Whether to arrive at the total transactions of the year, transactions entered into directly with counter-parties i.e. where no brokers are involved would also be taken into account	Not necessary. However, if there are any direct deals with the brokers as purchasers or sellers the same would have to be included in the total transactions to arrive at the limit of transactions to be done through an individual broker.
4.	Whether in case of Ready Forward (R/F) deals both the legs of the deals i.e. purchase as well as sale will be included to arrive at the volume of total transactions?	Yes. This is however only theoretical as R/F transactions in Govt. Security is now prohibited except in Treasury Bills and the 3 year dated securities issued by conversion of Treasury Bills recently.
5.	Whether central loan/state loan/treasury bills etc. purchased subscriptions/ auction will be, included in the volume of total transactions?	No, as brokers are not involved as intermediaries.
6.	It is possible that even though bank	If the offer received is more

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	considers that a particular broker has touched the prescribed limit of 5% he may come with an offer during the remaining period of the year which the bank may find it to its advantage as compared to offers received from the other brokers who have not yet done business upto the prescribed limit.	advantageous the limit for the broker may be exceeded, the reasons therefor recorded and approval of the competent authority / Board obtained <i>post facto</i> .
7.	Whether the transactions conducted on behalf of the clients would also be included in the total transactions of the year?	Yes. If they are conducted through the brokers.
8.	For a bank which rarely deals through brokers and consequently the volume of business is small maintaining the broker-wise limit of 5% may mean splitting the orders in small values amongst different brokers and there may also arise price differential.	There may be no need to split an order. If any deal causes the particular broker's share to exceed 5% limit, our circular provides the necessary flexibility in as much as Board's <i>post facto</i> approval can be obtained.
9.	During the course of the year it may not be possible to reasonably predict what will be the total quantum of transactions through brokers as a result of which there could be deviation in complying with the norm of 5%.	The bank may get <i>post facto</i> approval from the Board after explaining to it the circumstances under which the limit was exceeded.
10.	Some of the small private sector banks have mentioned that where the volume of business particularly the transactions done through brokers is small the observance of 5% limit may be difficult. A suggestion has therefore been made that the limit may be required to be observed if the business done through a broker exceeds a cut-off point of say ₹10 crore.	As already observed the limit of 5 per cent can be exceeded subject to reporting the transactions to the competent authority <i>post facto</i> . Hence, no change in our instructions is considered necessary.

Annex –III [Para 1.2.4]

Guidelines on Investments by Banks in Non-SLR Investment Portfolio by Banks

Definitions

1. With a view to imparting clarity and to ensure that there is no divergence in the implementation of the guidelines, some of the terms used in the guidelines on non-SLR investments are defined below.

2. A security will be treated as rated if it is subjected to a detailed rating exercise by an external rating agency in India, which is registered with SEBI and is carrying a current or valid rating. The rating relied upon will be deemed to be current or valid if:

- (I) The credit rating letter relied upon is not more than one month old on the date of opening of the issue. ??
- (II) The rating rationale from the rating agency is not more than one year old on the date of opening of the issue. ??
- (III) The rating letter and the rating rationale is a part of the offer document.
- (IV) In the case of secondary market acquisition, the credit rating of the issue should be in force and confirmed from the monthly bulletin published by the respective rating agency.

Securities which do not have a current or valid rating by an external rating agency would be deemed as *unrated securities*.

3. The investment grade ratings awarded by each of the external rating agencies operating in India would be identified by the IBA / FIMMDA. These would also be reviewed by IBA / FIMMDA at least once a year.

4. A 'listed security' is a security which is listed in a stock exchange.

Annex-IV [Para 1.2.21]

Prudential Guidelines on Management of the Non-SLR Investment Portfolio by Banks - Disclosure Requirements

Banks should make the following disclosures in the 'Notes on Accounts' of the balance sheet in respect of their non-SLR investment portfolio.

(i) Issuer composition of Non SLR investments

(₹ in crore)						
Sl. No	Issuer	Amount	Extent of private placement	Extent of 'below investment grade' securities	Extent of 'unrated' securities	Extent of 'unlisted' securities
1	2	3	4	5	6	7
1.	PSUs					
2.	FIs					
3.	Banks					
4.	Private Corporates					
5.	Subsidiaries Joint ventures					
6.	Others					
7.	Provision held towards depreciation		XXX	XXX	XXX	XXX
	TOTAL *					

Note:

1. *Total under column 3 should tally with the total of investments included under the following categories in Schedule 8 to the balance sheet:

(a) Shares (b) Debentures & Bonds (c) Subsidiaries/joint ventures (d) Others

2. Amounts reported under columns 4, 5, 6 and 7 above may not be mutually exclusive.

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(ii) *Non-performing Non-SLR investments*

Particulars	Amount (₹ Crore)
Opening balance	
Additions during the year since 1st April	
Reductions during the above period	
Closing balance	
Total provisions held	

Annex V [Para 1.3.1]

RETURN / STATEMENT NO:9

Proforma Statement showing the position of Reconciliation of Investment Account as on 31st March

Name of the bank/ Institution:

Face value ₹ in crore

Particulars	General Ledger Balance	SGL Balance		BRs held	SGL Forms held	Actual Scrips Held	Outstanding deliveries
		As per PDO Books	As per bank's/ institution's books				
1	2	3	4	5	6	7	8
Central Govt							
State Government							
Other Approved							
Public Sector							
Units of UTI (1964)							
Others (Shares & Debenture)							
TOTAL							

Signature of the Authorised Official with the Name and Designation

Note: Similar statements may be furnished in respect of PMS client's Accounts and other constituents' Accounts (including Brokers). In the case of PMS/other constituents' accounts, the face value and book value of securities appearing in the relevant registers of the bank should be mentioned under Column 2.

General instructions for compiling reconciliation statement

(a) Column - 2 (GL balances)

It is not necessary to give complete details of securities in the format. Only aggregate amount of face value against each category may be mentioned. The corresponding book value of securities may be indicated in bracket under the amount of face value of securities under each category.

(b) Column - 3 and 4 (SGL balances)

In the normal course balances indicated against column three and four should agree with each other. In case of any difference on account of any transaction not being recorded either in PDO or in the books of the bank this should be explained giving full details of each transaction.

(c) Column - 5 (BRs held)

If the bank is holding any BRs for purchases for more than 30 days from the date of its issue, particulars of such BRs should be given in a separate statement.

(d) Column - 6 (SGL forms held)

Aggregate amount of SGL forms received for purchases, which have not been tendered with PDO, should be given here.

(e) Column - 7

Aggregate amount of all scrips held in the form of bonds, letters of allotments, subscription receipts as also certificates of entries in the books of accounts of the issuer (for other than government securities), etc. including securities which have been sold but physical delivery has not been given should be mentioned.

(f) Column - 8 (outstanding deliveries)

This relates to BRs issued by the bank, where the physicals/scrips have not been delivered but the balance in General Ledger has been reduced. If any BR issued is outstanding for more than thirty days the particulars of such BRs may be given in a separate list indicating reasons for not affecting the delivery of scrips.

(g) General

Face value of securities indicated against each item in column two should be accounted for under any one of the columns from four to seven. Similarly, amount of outstanding deliveries (BRs issued) which has been indicated in column eight will have to be accounted for under one of the columns four to seven. Thus the total of columns two and eight should tally with total of columns four to seven.

Annex VI [Para 4.8]

Disclosures

The following disclosures should be made by banks in the 'Notes on Accounts' to the Balance Sheet.

(₹ in crore)				
	Minimum outstanding during the year	Maximum outstanding during the year	Daily Average outstanding during the year	As March on 31
Securities sold under repos				
Securities purchased under reverse repos				

Annex VII-A [Para 4.6]

Recommended Accounting Methodology for accounting of Repo / Reverse Repo transactions

(i) The following accounts may be maintained , viz. i) Repo Account, ii) Reverse Repo Account, iii) Reverse Repo Interest Income Account, iv) Repo Interest Expenditure Account v) Reverse Repo Interest Receivable Account and vi) Repo Interest Payable Account.

(ii) In addition to the above, the following 'contra' accounts may also be maintained, viz. i) Securities Sold under Repo Account, (ii) Securities Purchased under Reverse Repo Account, (iii) Securities Receivable under Repo Account and (iv) Securities Deliverable under Reverse Repo Account.

Repo

(iii) In a repo transaction, the securities should be sold in the first leg at market related prices and re-purchased in the second leg at the same prices. The consideration amount in the second leg would, however, include the repo interest. The sale and repurchase should be reflected in the Repo Account.

(iv) Though the securities are not excluded from the repo seller's investment account and not included in the repo buyer's investment account, the transfer of securities shall be reflected by using the necessary contra entries.

Reverse Repo

(v) In a reverse repo transaction, the securities should be purchased in the first leg at prevailing market prices and sold in the second leg at the same prices. The consideration amount in the second leg would, however, include the repo interest. The purchase and sale should be reflected in the Reverse Repo Account.

(vi) The balances in the Reverse Repo Account shall not be a part of the Investment Account for balance sheet purposes but can be reckoned for SLR purposes if the securities acquired under reverse repo transactions are approved securities.

Other aspects relating to Repo/Reverse Repo

(vii) In case the interest payment date of the securities sold under repo falls within the repo period, the coupons received by the buyer of the security should be passed on to the seller on the date of receipt as the cash consideration payable by the seller in the second leg does not include any intervening cash flows.

(viii) To reflect the accrual of interest in respect of the outstanding repo transactions at the end of the accounting period, appropriate entries should be passed in the Profit and Loss account to reflect Repo Interest Income / Expenditure in the books of the buyer / seller

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respectively and the same should be debited / credited as an expenditure payable/income receivable. Such entries passed should be reversed on the first working day of the next accounting period.

(ix) Repo seller continues to accrue coupon/discount as the case may be, even during the repo period while the repo buyer shall not accrue the same.

(x) Illustrative examples are given in Annex – VII-B

Annex VII-B [Para 4.6]

Illustrative examples for accounting of Repo / Reverse repo Transactions

While in the body of the circular, the term "repo" is used generically to include both repo and reverse repo (which is simply a mirror image of a repo transaction), in this Annex the accounting guidelines have been set out separately for repo and reverse repo for clarity.

A. Repo/Reverse Repo of dated security

1. Details of Repo in a coupon bearing security

Security offered under repo	6.35% 2020	
Coupon payment dates	02 January and 02 July	
Market Price of security	₹90.9100	(1)
Date of the repo	28-Mar-2010	
Repo interest rate	5.00%	
Tenor of the repo	5 days	
Reversal date for the repo	02-Apr-20 10	
Broken period interest for the first leg*	$6.35\% \times 86 / 360 \times 100 = 1.5169$	(2)
Cash consideration for the first leg	$(1) + (2) = 92.4269$	(3)
Repo interest**	$92.4269 \times 5 / 365 \times 5.00\% = 0.0633$	(4)
Cash Consideration for the second leg	$(3) + (4) = 92.4269 + 0.0633 = 92.4902$	

* Using 30/360 day count convention

** Using Actual/365 day count convention

2. Accounting for Repo Seller (Borrower of Funds)

First leg

	Debit	Credit
Cash	92.4269	
Repo A/c		92.4269
Securities Receivable under Repo A/c (by contra)	92.4269	
Securities Sold under Repo A/c (by contra)		92.4269

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Second Leg

	Debit	Credit
Repo A/c	92.4269	
Repo Interest Expenditure A/c	0.0633	
Cash A/c		92.4902
Securities Sold under Repo A/c (by contra)	92.4269	
Securities Receivable under Repo A/c (by contra)		92.4269

3. Accounting for Repo Buyer (Lender of Funds)

First leg

	Debit	Credit
Reverse Repo A/c	92.4269	
Cash A/c		92.4269
Securities Purchased under Reverse Repo A/c (by contra)	92.4269	
Securities Deliverable under Reverse Repo A/c (by contra)		92.4269

Second Leg

	Debit	Credit
Cash A/c	92.4902	
Reverse Repo A/c		92.4269
Reverse Repo Interest Income A/c		0.0633
Securities Deliverable under Reverse Repo A/c (by contra)	92.4269	
Securities Purchased under Reverse Repo A/c (by contra)		92.4269

4. Ledger entries for the adjustment accounts Securities Receivable under Repo A/c

Debit		Credit	
To Securities Sold under Repo A/c (repo 1 st leg)	92.4269	By Securities Sold under Repo A/c (repo 2 nd leg)	92.4269

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Securities Sold under Repo A/c

Debit		Credit	
To Securities Receivable under Repo A/c (repo 2 nd leg)	92.4269	By Securities Receivable under Repo A/c (repo 1 st leg)	92.4269

Securities Purchased under Repo A/c

Debit		Credit	
To Securities Deliverable under Reverse Repo A/c (reverse repo 1 st leg)	92.4269	By Securities Deliverable under Reverse Repo A/c (reverse repo 2 nd leg)	92.4269

Securities Deliverable under Repo A/c

Debit		Credit	
To Securities Purchased under Reverse Repo A/c (reverse repo 2 nd leg)	92.4269	By Securities Purchased under Reverse repo A/c (Reverse Repo 1 st leg)	92.4269

5. If the balance sheet date falls during the tenor of the repo, participants may use the transit accounts, i.e., Repo Interest Payable A/c and Reverse Repo Interest Receivable A/c to record the accrued interest and reverse the same the following day. The balances in the repo interest receivable and payable shall be taken to the P & L Account with appropriate entries passed in the Balance sheet, as below:-

Transaction Leg	1st leg	Balance Sheet Date	2nd leg
Dates	28-Mar-10	31-Mar-10	02-Apr-10

a) Entries in the Books of Repo Seller (borrower of funds) on 31-Mar-10

Account Head	Debit	Credit
Repo Interest Expenditure A/c [Balances under the account to be transferred to P & L]	0.0506 (being the repo interest for 4 days)	
Repo Interest Payable A/c		0.0506
Account Head	Debit	Credit
P & L A/c	0.0506	
Repo Interest Expenditure A/c		0.0506

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b) Reversal of entries in the Books of Repo Seller (borrower of funds) on 01-Apr-10

Account Head	Debit	Credit
Repo Interest Payable A/c	0.0506	
Repo Interest Expenditure		0.0506

c) Entries in books of Repo Buyer (Lender of Funds) on 31-Mar-10

Account Head	Debit	Credit
Reverse Repo Interest Receivable A/c	0.0506	
Reverse Repo Interest Income A/c [Balances under the account to be transferred to P & L]		0.0506 (Being the repo interest for 4 days)
Account Head	Debit	Credit
Reverse Repo Interest Income A/c	0.0506	
P & L A/c		0.0506

d) Reversal of entries in the Books of Repo Buyer (Lender of Funds) on 01-Apr-10

Account Head	Debit	Credit
Reverse Repo Interest Income A/c	0.0506	
Reverse Repo Interest Receivable A/c		0.0506

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 07 May 2010	
Price of the security offered under Repo	₹99.0496	(1)
Date of the Repo	28-Mar-2010	
Repo interest rate	5%	
Tenor of the repo	5 days	
Total cash consideration for the first leg	99.0496	(2)
Repo interest *	$99.0496 \times 5\% \times 5 / 365 = 0.0678$	(3)
Cash consideration for the second leg	$(2)+(3) = 99.0496 + 0.0678 = 99.1174$	

* Using Actual/365 day count convention

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2. Accounting for Repo Seller (Borrower of Funds)

First leg

	Debit	Credit
Cash	99.0496	
Repo A/c		99.0496
Securities Receivable under Repo A/c (by contra)	99.0496	
Securities Sold under Repo A/c (by contra)		99.0496

Second Leg

	Debit	Credit
Repo A/c	99.0496	
Repo Interest Expenditure A/c	0.0678	
Cash A/c		99.1174
Securities Sold under Repo A/c (by contra)	99.0496	
Securities Receivable under Repo A/c (by contra)		99.0496

3. Accounting for Repo Buyer (Lender of Funds)

First leg

	Debit	Credit
Reverse Repo A/c	99.0496	
Cash A/c		99.0496
Securities Purchased under Reverse Repo A/c (by contra)	99.0496	
Securities Deliverable under Reverse Repo A/c (by contra)		99.0496

Second Leg

	Debit	Credit
Cash A/c	99.1174	
Reverse Repo A/c		99.0496
Reverse Repo Interest Income A/c		0.0678
Securities Deliverable under Reverse Repo A/c (by contra)	99.0496	
Securities Purchased under Reverse Repo A/c (by contra)		99.0496

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4. Ledger entries for the adjustment accounts *Securities Receivable under Repo A/c*

Debit		Credit	
To Securities Sold under Repo A/c (repo 1st leg)	99.0496	By Securities Sold under Repo A/c (repo 2nd leg)	99.0496

Securities Sold under Repo A/c

Debit		Credit	
To Securities Receivable under Repo A/c (repo 2 nd leg)	99.0496	By Securities Receivable under Repo A/c (repo 1 st leg)	99.0496

Securities Purchased under Repo A/c

Debit		Credit	
To Securities Deliverable under Reverse Repo A/c (reverse repo 1 st leg)	99.0496	By Securities Deliverable under Reverse Repo A/c (reverse repo 2 nd leg)	99.0496

Securities Deliverable under Repo A/c

Debit		Credit	
To Securities Purchased under Reverse Repo A/c (reverse repo 2 nd leg)	99.0496	By Securities Purchased under Reverse Repo A/c (reverse repo 1 st leg)	99.0496

5. If the balance sheet date falls during the tenor of the repo, participants may use the transit accounts, i.e. Repo Interest Payable A/c and Reverse Repo Interest Receivable A/c to record the accrued interest and reverse the same the following day. The balances in the repo interest receivable and payable shall be taken to the P & L Account with appropriate entries passed in the Balance sheet, as below:-

Transaction Leg _□	1st leg	Balance Sheet Date	2nd leg
Dates	28-Mar-10	31-Mar-10	02-Apr-10

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a) Entries in the Books of Repo Seller (borrower of funds) on 31-Mar-10

Account Head	Debit	Credit
Repo Interest Expenditure A/c [Balances under the account to be transferred to P & L]	0.0543 (being the repo interest for 4 days)	
Repo Interest payable A/c		0.0543
Account Head	Debit	Credit
P & L A/c	0.0543	
Repo Interest Expenditure A/c		0.0543

b) Reversal of entries in the Books of Repo Seller (borrower of funds) on 01-Apr-10

Account Head	Debit	Credit
Repo Interest Payable A/c	0.0543	
Repo Interest Expenditure		0.0543

c) Entries in books of Repo Buyer (Lender of Funds) on 31-Mar-10

Account Head	Debit	Credit
Reverse Repo Interest Receivable A/c	0.0543	
Reverse Repo Interest Income A/c [Balances under the account to be transferred to P & L]		0.0543 (Being the repo interest for 4 days)
Account Head	Debit	Credit
Reverse Repo Interest Income A/c	0.0543	
P & L A/c		0.0543

d) Reversal of entries in the Books of Repo Buyer (Lender of Funds) on 01-Apr-10

Account Head	Debit	Credit
Reverse Repo Interest Income A/c	0.0543	
Reverse Repo Interest Receivable A/c		0.0543

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Objective Type Questions

Derivatives – Forward Contracts

1. Derivatives can be used by an exporter for managing-
 - (a) **Currency Risk**
 - (b) Cargo Risk
 - (c) Credit Risk
 - (d) All of the above
2. The term RISK in business refers to-
 - (a) Chance of losing Business
 - (b) Chance of making Losses
 - (c) **Uncertainty associated with expected event leading to loss or gain**
 - (d) Threat from competitors
3. Derivatives are so called because -
 - (a) They are subsidiary products in the market
 - (b) They are derived from combination of different assets
 - (c) **Their value is dependent on the value of some other fundamental variable**
 - (d) They are traded on derivative exchanges
4. The following is not a feature of a derivative instrument-
 - (a) It is a financial instrument
 - (b) **Its use always leads to profit**
 - (c) It is executable on a future date
 - (d) Its pay-off is dependent on the value of any other basic variable
5. A derivative can be -
 - (a) OTC product only

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- (b) Exchange traded product only
 - (c) **OTC product or exchange-traded product**
 - (d) Always OTC Product and exchange-traded product combined
6. The following is not a feature of exchange-traded derivative -
- (a) It is of a standard size
 - (b) It is available only on specified exchanges
 - (c) **The seller is always a bank**
 - (d) None of the above
7. Under the forward exchange contract-
- (a) The exchange rate is determined on the future date
 - (b) The parties agree to meet at a future date for finalization
 - (c) **Delivery of foreign exchange is done on a predetermined future date**
 - (d) None of the above
8. Forward contract facility is available only for-
- (a) Genuine trade transaction
 - (b) **Genuine foreign exchange exposure**
 - (c) Exporters
 - (d) Traders in Goods
9. A bank has entered into an option forward contract with an export customer. That means -
- (a) The bank has the option to accept or not to accept delivery under the contract
 - (b) The customer has the option delivery or not to delivery foreign exchange under the contract
 - (c) **The customer has the option to deliver the foreign exchange during the option period**
 - (d) The bank has the option to accept foreign exchange under the contract during the option period
10. The option period for a forward contract can be for a maximum period of-
- (a) 21 days

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- (b) **One month**
 - (c) 10 days
 - (d) Six months
11. The bank should verify the letter of credit / sale contract for booking a -
- (a) Forward sale contract
 - (b) **Forward purchase contract**
 - (c) Cancelling a forward contract
 - (d) None of the above
12. Forward purchase contract cannot be booked for -
- (a) Exporters of services
 - (b) Full-fledged money changers
 - (c) Deferred exporters
 - (d) **None of the above**
13. Normally, forward purchase contract booked should be used by the customer -
- (a) **For executing the export order for which the contract was booked**
 - (b) For any export order from the same buyer
 - (c) For any export order for the same commodity
 - (d) For any export order
14. The period for which a forward purchase contract is booked -
- (a) Should not be earlier than 6 months from the expected date of shipment of the goods concerned
 - (b) **Should not be later than 6 months from the expected date of shipment of the goods concerned**
 - (c) Should be within 6 months from the date of booking
 - (d) Can be any period for which the bank can find cover
15. For booking a forward sale contract, the bank should verify -
- (a) The letter of credit
 - (b) The import licence
 - (c) **The letter of credit or purchase order**
 - (d) None of the above

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16. For extending the due date of a forward contract, the bank should take prior permission from -
- (a) Reserve Bank of India
 - (b) FEDAI
 - (c) Bank's board of directors
 - (d) **None of the above**
17. Forward contracts without production of documentary evidence and on the declaration of the customer can be booked -
- (a) Only for exporters
 - (b) **Upto 50% of the limits worked on previous performance basis**
 - (c) Up to 100% of the limits worked on previous performance basis
 - (d) Without any limit
18. Cancellation and re-booking of forward contracts is permitted -
- (a) **For exposures for any period for exporters and for exposures up to one year for others**
 - (b) Only for exporters
 - (c) Only for importers
 - (d) When cancelled within six months of booking the contract
19. Currency future is not -
- (a) Traded on futures exchanges
 - (b) A special type of forward contract
 - (c) Of standard size
 - (d) **None of the above**
20. The margin for a currency future should be maintained with the clearing house by-
- (a) The buyer
 - (b) The seller
 - (c) **Both the buyer and the seller**
 - (d) Either the buyer or the seller as per the agreement between them
21. The marking-to-market in respect of a currency future refers to
- (a) Putting up for sale specific lot of futures

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- (b) **Adjusting the margin money of buyer and seller to reflect the current value of futures**
 - (c) Quoting rates for different maturities
 - (d) Allotting futures among different brokers
22. The futures exchange prescribes an initial margin of USD 5,000 and maintenance margin of USD 3,000 against one Euro futures. The maximum level of margin that buyer of futures should keep with the exchange for one futures is -
- (a) **USD 5,000**
 - (b) USD 3,000 and if a special call is given USD 5,000
 - (c) USD 8,000
 - (d) USD 5,000 and if a special call is given additional USD 3,000
23. The marking to market of a futures contract is done -
- (a) Daily, based on the opening price for the day
 - (b) Weekly, based on the opening price for the week
 - (c) **Daily, based on the closing price for the previous day**
 - (d) Weekly, based on the closing price for the previous week
24. For the balance kept in the margin account for futures-
- (a) Interest is paid at riskless rate
 - (b) Interest is paid at LIBOR rate
 - (c) Interest is paid for the surplus over the required minimum
 - (d) **No interest is paid**
25. A feature of currency options that distinguishes it from other derivatives is -
- (a) It carries premium to be paid upfront
 - (b) It is option to enter into the contract
 - (c) **The buyer has only right, but no obligation to executive the contract**
 - (d) The seller has the right, but no obligation to execute the contract
26. The following statement with respect to currency option is wrong-
- (a) **Call option will be used by exporters**
 - (b) Put option gives the buyer the right to sell the foreign currency

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- (c) Foreign currency rupee option is available in India
 - (d) An American option can be executed on any day during its currency
27. For contingency exposure of foreign exchange, the best derivative that can be used to hedge is -
- (a) Forwards
 - (b) Futures
 - (c) **Options**
 - (d) Swaps
28. The strike price under an option is -
- (a) The price at which the option is auctioned
 - (b) **The exchange rate at which the currencies are agreed to be exchanged under the contract**
 - (c) Lower of the market price and the agreed price
 - (d) None of the above
29. An option is at-the-money when -
- (a) The strike price is greater than the spot price, in the case of a call option
 - (b) The strike price is greater than the spot price, in the case of a put option
 - (c) The option has a ready market
 - (d) **The strike price and spot price are same**
30. The intrinsic value of an option is -
- (a) The difference between the option price and spot price at the time of entering into the contract
 - (b) **The difference between the option price and spot price estimated to prevail on the due date**
 - (c) The difference between the option price and spot price prevailing on the due date
 - (d) None of the above
31. Where an option is out of the money -
- (a) The premium will be refunded to the buyer
 - (b) The buyer is unable to take up the contract
 - (c) **The seller gains to the extent of the premium received**
 - (d) No further purchase by the buyer is permitted

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32. Banks permitted to run option book are required to fulfill the condition of -
- (a) Continuous profit for at least 3 years
 - (b) Minimum CRAR of 9%
 - (c) Minimum net worth of ₹ 200 crores
 - (d) **All the above**
33. In India, option contracts cannot be used to cover contingency exposure except -
- (a) By export houses
 - (b) **For submission of bids in foreign exchange**
 - (c) By units in SEZs
 - (d) None of the above
34. The customers are entitled to write options only by fulfilling the condition -
- (a) They make adequate protective measures
 - (b) They write only upto 25% of their exposures
 - (c) **That it is done as a cost reduction measure and does not result in net receipt of premium**
 - (d) That premium receivable is higher than the premium payable
35. A knock-in option becomes effective -
- (a) When the spot rate reaches a particular level from below
 - (b) When the spot rate reaches a particular level from above
 - (c) **Either (a) or (b)**
 - (d) Neither (a) nor (b)
36. This is a barrier option -
- (a) **Knock-in-option**
 - (b) Asian option
 - (c) Plain vanilla option
 - (d) None of the above
37. Range Forwards and Ratio Range Forwards are -
- (a) **Cost effective methods of option contracts**
 - (b) The range for which forward contracts are available

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- (c) The option period under forward contract
 - (d) Types of special derivative instruments
38. In a participatory forward, the buyer is-
- (a) Protected fully from losses and gains fully from exchange rate changes
 - (b) Protected fully from losses but does not gain from exchange rate changes
 - (c) Protected partially from losses and gains partially from exchange rate changes
 - (d) **Protected fully from losses and gains partly from exchange rate changes**
39. While borrowing for long term on floating rate basis, the interest risk is -
- (a) The interest rate may fall in the market in future
 - (b) **The interest rate may increase in the market in future**
 - (c) The loan may not be renewed, if interest rate falls in the market
 - (d) None of the above
40. Capital Risk caused by an increase in Market Rate of interest will result in-
- (a) Interest outgo will be higher on borrowings
 - (b) Investors do not share in the market rate increase
 - (c) **Holders of Fixed Income Securities find the value of the assets falling**
 - (d) Both borrowers and investors lose on tax
41. An Interest rate swap helps the user to -
- (a) Fix the cost of borrowing
 - (b) **Reduce the Cost of Borrowing**
 - (c) Cover Exchange Risk
 - (d) Avail Tax Benefit
42. Zero Coupon Swap is an agreement -
- (a) Involving Exchange of Zero coupon bonds
 - (b) Whereby only one party makes payment periodically
 - (c) **Whereby one of the counterparties makes payment in lump sum instead of periodically**
 - (d) None of the above
43. The acronym CIRCUS Stands for -
- (a) Currency Interest Rate Swap

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- (b) Circular Currency Swap
 - (c) Combined Income Range Currency Swap
 - (d) **Combined Interest Rate and Currency Swap**
44. A forward rate agreement helps the user to -
- (a) **Fix the cost of borrowing**
 - (b) Reduce the cost of borrowing
 - (c) Cover exchange Risk
 - (d) Avail Tax benefit
45. The swap arrangement where principal amounts are not exchanged, but only periodical interest payments are made will be a -
- (a) Currency swap
 - (b) Cross currency interest rate swap
 - (c) **Interest rate swap**
 - (d) Non-financial swap
46. Under the interest rate option, the buyer -
- (a) Avoids un-favorable movement in interest rates
 - (b) Gains from favorable movement in interest rates
 - (c) **Both (a) and (b) above**
 - (d) Gains nothing, only the seller gains
47. An Interest rate cap is a series of -
- (a) **Call options**
 - (b) Put options
 - (c) Periodical payments
 - (d) Differential payments
48. FRAs can be used for -
- (a) Hedging
 - (b) Arbitraging
 - (c) Speculating
 - (d) **Any of the above**

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49. Interest Rate collar involves -
- (a) Simultaneous purchase of interest rate cap and floor
 - (b) Purchasing a series of caps
 - (c) **Purchase of cap and sale of floor**
 - (d) Purchasing caps for half value
50. Which of the following statements is true?
- (a) Exchange exposure leads to exchange risk
 - (b) **Exchange risk leads to exchange exposure**
 - (c) Exchange exposure and exchange risk are unrelated
 - (d) None of the above
51. The net potential gain or loss likely to arise from exchange rate changes is -
- (a) Exchange exposure
 - (b) **Exchange risk**
 - (c) Profit / loss on foreign exchange
 - (d) Exchange difference
52. The exchange loss / gain due to transaction exposure is reckoned on -
- (a) Entering into a transaction in foreign exchange
 - (b) Quoting a price for a foreign currency transaction
 - (c) **Conversion of foreign currency into domestic currency**
 - (d) Entry in the books of accounts
53. Transaction exposure can be hedged -
- (a) By internal methods only
 - (b) By external methods only
 - (c) Either by internal methods or by external methods, but not by both
 - (d) **Either by internal methods or by external methods or a combination of both**
54. The external methods of hedging transaction exposure do not include-
- (a) Forward contract hedge
 - (b) Money market hedge
 - (c) **Cross hedging**
 - (d) Futures hedging

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55. The true cost of hedging transaction exposure by using forward market is -
- (a) The difference between agreed rate and the spot rate at the time of entering into the contract
 - (b) **The difference between agreed rate and the spot rate on the due date of the contract**
 - (c) The forward premium / discount annualized
 - (d) None of the above
56. Money market hedge involves -
- (a) **Borrowing / investing the concerned currency in the money market and squaring the position on the due date of receivable / payable.**
 - (b) Borrowing / investing the concerned currency in the money market and covering the position immediately in the forward market.
 - (c) Covering an exposure in the domestic currency.
 - (d) Simultaneous borrowing and lending the money market.
57. The cost of hedging through options includes -
- (a) Option premium
 - (b) Interest on option premium till due date of the contract
 - (c) **Both (a) and (b) above**
 - (d) (a) above and difference between option price and spot price
58. Hedging with options is best recommended for -
- (a) Hedging receivables
 - (b) Hedging payables
 - (c) **Hedging contingency exposures**
 - (d) Hedging foreign currency loans
59. A firm operating in India cannot hedge its foreign currency exposure through -
- (a) Forwards
 - (b) Futures
 - (c) Options
 - (d) **None of the above**
60. Internal hedge for transaction exposure does not include
- (a) Exposure netting

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- (b) **Choosing currency of invoicing**
 - (c) Cross hedging
 - (d) None of the above
61. Foreign currency exposure can be avoided by -
- (a) Entering into forward contracts
 - (b) **Denominating the transaction in domestic currency**
 - (c) Exposure netting
 - (d) Maintaining foreign currency account
62. Maintaining a foreign currency account is helpful in -
- (a) Avoiding transaction cost
 - (b) Avoiding exchange risk
 - (c) **Avoiding both transaction cost and exchange risk**
 - (d) Avoiding exchange risk and domestic currency depreciation
63. The following method does not result in sharing of exchange risk between importer and exporter -
- (a) Denominating in a third currency
 - (b) Denominating partly in the importer's currency and partly in the exporter's currency
 - (c) Entering an exchange rate clause in the contract
 - (d) **Denominating in domestic currency**
64. Leading refers to –
- (a) Advancing of receivables
 - (b) Advancing of payable
 - (c) **Advancing payments either receivables or payables**
 - (d) Advancing of receivables and delaying of payables

Treasury Management

1. If A invests ₹24 at 7 % interest rate for 5 years, total value at the end of five years is:
- (a) 31.66

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- (b) **33.66**
 - (c) 36.66
 - (d) 39.66
2. What is the effective annual rate of 12% compounded semi-annually?
- (a) 11.24%
 - (b) 12.00%
 - (c) **12.36%**
 - (d) 2.54%
3. What is the effective annual rate of 12% compounded continuously?
- (a) 11.27%
 - (b) 12.00%
 - (c) 12.68%
 - (d) **12.75%**
4. A study is done to see if there is a linear relationship between the life expectancy of an individual and the year of birth. The year of birth is _____.
- (a) Unable to determine
 - (b) dependent variable
 - (c) **independent variable**
 - (d) None of the above
5. Which of the following is an appropriate reason for using statistical sampling?
- (a) Statistical sampling will be looked upon by the courts as providing superior audit evidence.
 - (b) **Statistical sampling requires the auditor to make fewer judgmental decisions.**
 - (c) Statistical sampling aids the auditor in evaluating results.
 - (d) Statistical sampling is more convenient to use than non-statistical sampling.
6. Which of the following best illustrates the concept of sampling risk?
- (a) An auditor may select audit procedures that are not appropriate to achieve the specific objective.

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- (b) The documents related to the chosen sample may not be available for inspection.
 - (c) **A randomly chosen sample may not be representative of the population as a whole.**
 - (d) An auditor may fail to recognize deviations in the documents examined.
7. The advantage of using statistical sampling techniques is that such techniques
- (a) **Mathematically measure risk.**
 - (b) Eliminate the need for judgmental decisions.
 - (c) Are easier to use than other sampling techniques.
 - (d) Have been established in the courts to be superior to non-statistical sampling.
8. Gradual shifting of a time series over a long period of time is called:
- (a) periodicity
 - (b) cycle
 - (c) regression
 - (d) **trend**
9. Seasonal components,
- (a) cannot be predicted
 - (b) **are regular repeated patterns**
 - (c) are long runs of observations above or below the trend line
 - (d) reflect a shift in the series over time
10. Short-term, unanticipated, and nonrecurring factors in a time series provide the random variability known as:
- (a) uncertainty
 - (b) the forecast error
 - (c) the residuals
 - (d) **the irregular component**
11. The focus of smoothing methods is to smooth:
- (a) **irregular component**
 - (b) wide seasonal variations
 - (c) significant trend effects
 - (d) long range forecasts

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12. Linear trend is calculated as $T_t = 28.5 + .75t$. The trend projection for period 15 is:
- (a) 11.25
 - (b) 28.50
 - (c) **39.75**
 - (d) 44.25
13. The forecasting method that is appropriate when the time series has no significant trend, cyclical, or seasonal effect is:
- (a) **moving averages**
 - (b) mean squared error
 - (c) mean average deviation
 - (d) qualitative forecasting methods
14. In 3 years you are to receive 50,000. If the interest rate were to suddenly increase, the present value of that future amount to you would.
- (a) fall.
 - (b) **rise***
 - (c) remain unchanged
 - (d) cannot be determined without more information
15. You are considering investing in a zero-coupon bond that sells for 2,500. At maturity in 16 years, it will be redeemed for 10,000. What approximate annual rate of growth does this represent?
- (a) 8 percent
 - (b) **9 percent**
 - (c) 12 percent
 - (d) 25 percent
16. For 1,000 you can purchase a 5-year ordinary annuity that will pay you yearly an amount of 263.80 for 5 years. The compound annual interest rate implied by this arrangement closest to $1000 = 263.80(PVIFA, X\%, 5)$ is:
- (a) 8 per.cent
 - (b) 9 per.cent
 - (c) **10 per.cent**
 - (d) 11 per.cent

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17. The value of a 4 year 12 per cent bond with face value of ₹100, if coupon payments are made every half year and a prevailing interest rate is 10%, is:
- (a) 96.46
 - (b) 106.46**
 - (c) 116.46
 - (d) 86.46
18. If the prevailing interest rate is greater than the coupon rate of a bond then the
- (a) Bond is traded at a premium
 - (b) Bond is traded at a discount**
 - (c) Bond is available at zero premium
 - (d) Bond price does not matter
19. Value of a bond depends on its yield. Which of the following is true when price of a bond goes up:
- (a) Yield goes up
 - (b) Yield goes down**
 - (c) Yield remains unchanged
 - (d) Yield and bond price go hand in hand
20. Consider a bond maturing in 3 years with face value of ₹100 and coupon rate of 6 per cent. The price prevailing today at prevailing interest rate of 8 per cent is:
- (a) ₹96.43
 - (b) ₹94.85**
 - (c) ₹98.15
 - (d) ₹100.00
21. If a firm's market to book value ratio is currently greater than 1.0, it implies :
- (a) The firm's equity is currently valued at less than what the stockholders invested in the firm.
 - (b) The firm's equity is currently valued at more than what the stockholders invested in the firm.**
 - (c) The firm is currently a poor buy in the market place.
 - (d) None of the above.

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22. Shareholders of target companies are typically paid in
- (a) Government bonds held by the target company
 - (b) Government bonds held by the acquiring company
 - (c) **Cash and / or shares of the acquiring company**
 - (d) None of the above
23. An increase in a firm's expected growth rate would normally cause the firm's rate of return to
- (a) Increase
 - (b) Decrease
 - (c) Fluctuate
 - (d) **Possibly increase, possibly decrease, or possibly remain unchanged.**
24. In the expected rate of return on a stock exceeds the required rate
- (a) The stock is experiencing supernormal growth.
 - (b) The stock should be sold.
 - (c) The company is probably not trying to maximize price per share.
 - (d) **The stock is a good buy.**
25. Trailing P/E is current market price divided by
- (a) **Most recent four quarters' EPS**
 - (b) Current book value
 - (c) Last year market price
 - (d) Average of last 4 years EPS
26. Firms that intend to buy only a small percentage of the outstanding stock can buy them in the market, in a process called
- (a) Repurchase tender offer
 - (b) **Open market purchase**
 - (c) Privately negotiated repurchase
 - (d) None of the above
27. In the valuation of a business if price to sales ratio of ABC Ltd is 0.35 and revenue is ₹ 150 lakh, then the market value of equity of ABC Ltd will be
- (a) ₹ 30.50 lakh

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- (b) ₹ 52.50 lakh
 - (c) ₹ 428.50 lakh
 - (d) ₹ 500.25 lakh
28. Identify which of the following is not a financial liability
- (a) **AB Ltd has 1 lakh ₹ 10 ordinary shares in issue**
 - (b) AB Ltd has 1 lakh 8% Rs 10 redeemable preference shares in issue
 - (c) AB Ltd has ₹ 2,00,000 of 6% bonds in issue
 - (d) Both (i) and (ii)
29. If a bond is currently trading at a premium then—
- (a) **It's current yield is more than its yield-to-maturity.**
 - (b) It's current yield is less than its yield-to-maturity.
 - (c) It's current yield is equal to its yield-to-maturity.
 - (d) Nothing can be concluded.
30. Share, Y currently sells for ₹ 50. It is expected that in one year it will either rise to ₹ 55 or decline to ₹ 45. The value of a European Call, if the strike price of the underlying share is ₹ 48 and the risk free interest rate is 9% p.a. is :
- (a) ₹ 9.33
 - (b) ₹ 11.33
 - (c) ₹ 18.33
 - (d) ₹ 20.50
31. Which one of the following statements is not true about Efficient Markets?
- (a) Share price behave randomly and do not show any systematic pattern in the behaviour
 - (b) Shares prices fully reflect all available information.
 - (c) **Price of one share is independent of the price of other shares in the market.**
 - (d) None can earn abnormally high profits on a constant basis.
32. Hindustan Telecom, a national telecom company, is considering purchasing a smaller company, Tee Telecom. Analysis project that the merger will result in incremental free flows and interest tax saving with a combined present value of Rs 100 crores and they have determined that the appropriate discount rate for valuing tee Telecom is 16 percent.

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- Tee Telecom has 50 Lakh share outstanding. Tee Telecom's current price is ₹ 170. What is the maximum price per share that Hindustan should offer?
- (a) ₹ 150
 - (b) ₹ 200**
 - (c) ₹ 250
 - (d) ₹ 300
33. Bharat Gas Corporation has ₹ 100 crores worth of common equity on its balance sheet, and 50 lakhs shares of stock outstanding. The company's Market Value Added (MVA) is ₹ 24 crores. What is the company's stock price?
- (a) ₹ 230
 - (b) ₹ 238
 - (c) ₹ 248**
 - (d) ₹ 264
34. The price of a company's share is ₹ 100 and the value of growth opportunities is ₹ 25. The company's capitalization rate is 20%. The P/E ratio is
- (a) 15%**
 - (b) 11.25%
 - (c) 20%
 - (d) 5%
35. A firm has PAT of ₹ 33.6 lakh with extraordinary income of ₹ 6 lakh. Cost of capital is 20% and the applicable tax rate is 40%. The value of the firm is
- (a) ₹ 250 lakh
 - (b) ₹ 150 lakh**
 - (c) ₹ 180 lakh
 - (d) ₹ 168 lakh
36. Free Cash Flow to Equity (FCFE) at the end of last year of explicit forecast period is ₹ 10 lakh. If cost of capital is 15% and steady growth rate is 5%, the terminal value of the firm is
- (a) ₹ 100 lakh
 - (b) ₹ 10 lakh**

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- (c) ₹ 10.5 lakh
 - (d) ₹ 105 lakh
37. A share has a current market price of ₹ 30. One month call is available at a strike price of ₹ 29. It is known that after 1 month, this share price may be ₹ 32 or ₹ 28. If the risk free rate is 8%, the value of the call is
- (a) ₹3.
 - (b) Nil
 - (c) Re. 1
 - (d) Re. 1.67
38. The number of shares outstanding as on 31.03.09 for a company is 10 lakh and it has reported net profit of ₹ 20 lakh for the year 2008-2009. The company decides to repurchase 20% shares at ₹ 32 per share. The P/E ratio remains unchanged after repurchase. The post-buyback price/share is
- (a) ₹ 42
 - (b) ₹ 32
 - (c) ₹ 40
 - (d) ₹ 25.6

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Forex - Terminology

Accrual

The apportionment of premiums and discounts on forward exchange transactions that relate directly to deposit swap (interest arbitrage) deals, over the period of each deal.

Adjustment

Official action normally occasioned by a change either in the internal economic policies to correct a payment imbalance or in the official currency rate.

Aggressive

Traders and / or price action are acting with conviction.

Arbitrage

The simultaneous purchase or sale of a financial product in order to take advantage of small price differentials between markets.

Asian central banks

Refers to the central banks or monetary authorities of Asian countries. These institutions have been increasingly active in major currencies as they manage growing pools of foreign currency reserves arising from trade surpluses. Their market interest can be substantial and influence currency direction in the short-term.

Ask (offer) price

The price at which the market is prepared to sell a product. Prices are quoted two-way as Bid / Ask. The Ask price is also known as the Offer.

In FX trading, 'Ask' represents the price at which a trader can buy the base currency, shown to the right in a currency pair. For example, in the quote USD/CHF 1.4527/32, the base currency is USD, and the Ask price is 1.4532, meaning you can buy one US dollar for 1.4532 Swiss francs.

In CFD trading, the 'Ask' also represents the price at which a trader can buy the product. For example, in the quote for UK OIL 111.13/111.16, the product quoted is UK OIL and the 'Ask' price is £111.16 for one unit of the underlying market.

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AUS 200

A name for the Australian Securities Exchange (ASX 200) which is an index of the top 200 companies (by market capitalization) listed on the Australian stock exchange.

At best

An instruction given to a dealer to buy or sell at the best rate that can be obtained.

At or better

An order to deal for a specific price or better.

Balance of trade

The value of a country's exports minus its imports.

Barrier level

A certain price of great importance included in the structure of a Barrier Option. If a Barrier Level price is reached, the terms of a specific Barrier Option call for a series of events to occur.

Barrier option

Any number of different option structures (such as knock-in, knock-out, no touch, double-no-touch-DNT) that attaches great importance to a specific price trading. In a no-touch barrier, a large defined payout is awarded to the buyer of the option by the seller if the strike price is not 'touched' before expiry. This creates an incentive for the option seller to drive prices through the strike level and creates an incentive for the option buyer to defend the strike level.

Base currency

The first currency in a currency pair. It shows how much the base currency is worth as measured against the second currency. For example, if the USD/CHF rate equals 1.6215, then one USD is worth CHF 1.6215. In the FX market, the US Dollar is normally considered the 'base' currency for quotes, meaning that quotes are expressed as a unit of \$1 USD per the other currency quoted in the pair. The primary exceptions to this rule are the British Pound, the Euro and the Australian Dollar.

Base rate

The lending rate of the central bank of a given country.

Basis point

A unit of measurement used to describe the minimum change in the price of a product.

Bearish / Bear market

Negative for price direction; favoring a declining market. For example, "We are bearish EUR/USD" means that we think the Euro will weaken against the dollar.

Bears

Traders who expect prices to decline and may be holding short positions.

Bid price

The price at which the market is prepared to buy a product. Prices are quoted two-way as Bid/Ask.

In FX trading, the Bid represents the price at which a trader can sell the base currency, shown to the left in a currency pair. For example, in the quote USD/CHF 1.4527/32, the base currency is USD, and the Bid price is 1.4527, meaning you can sell one US Dollar for 1.4527 Swiss francs.

In CFD trading, the Bid also represents the price at which a trader can sell the product. For example, in the quote for UK OIL 111.13/111.16, the Bid price is £111.13 for one unit of the underlying market.

Bid / ask spread

The difference between the Bid and the Ask (Offer) price

Big figure

Refers to the first 3 digits of a currency quote, such as 117 USD/JPY or 1.26 in EUR/USD. If the price moves by 1.5 big figures, it has moved 150 pips.

BIS

The Bank for International Settlements located in Basel, Switzerland, is the central bank for central banks. The BIS frequently acts as the market intermediary between national central banks and the market. The BIS has become increasingly active as central banks have increased their currency reserve management. When the BIS is reported to be buying or selling at a level, it is usually for a central bank and thus the amounts can be large. The BIS is used to avoid markets mistaking buying or selling interest for official government intervention.

Bollinger bands

A tool used by technical analysts. A band plotted two standard deviations on either side of a simple moving average, which often indicates support and resistance levels.

Book

In a professional trading environment, a 'book' is the summary of a trader's or desk's total positions.

British Retail Consortium (BRC) shop price index

A British measure of the rate of inflation at various surveyed retailers. This index only looks at price changes in goods purchased in retail outlets.

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Buck

Market slang for 1 million units of a dollar-based currency pair or for the US dollar in general.

Bullish / Bull market

Favoring a strengthening market and rising prices. For example, "We are bullish EUR/USD" means that we think the Euro will strengthen against the dollar.

Bulls

Traders who expect prices to rise and who may be holding long positions.

Buy

Taking a long position on a product.

Cable

The GBP/USD pair. "Cable" earned its nickname because the rate was originally transmitted to the US via a transatlantic cable beginning in the mid 1800's when the GBP was the currency of international trade.

Call option

A currency trade which exploits the interest rate difference between two countries. By selling a currency with a low rate of interest and buying a currency with a high rate of interest, the trader will receive the interest difference between the two countries while this trade is open.

Canadian Ivey Purchasing Managers (CIPM) index

A monthly gauge of Canadian business sentiment issued by the Richard Ivey Business School.

Candlestick chart

A chart that indicates the trading range for the day as well as the opening and closing price. If the open price is higher than the close price, the rectangle between the open and close price is shaded. If the close price is higher than the open price, that area of the chart is not shaded.

Capitulation

A point at the end of an extreme trend when traders who are holding losing positions exit those positions. This usually signals that the expected reversal is just around the corner.

Cash market

The market in the actual underlying markets on which a derivatives contract is based.

Cash price

The price of a product for instant delivery; i.e. the price of a product at that moment in time.

Central bank

A government or quasi-governmental organization that manages a country's monetary policy. For example, the US central bank is the Federal Reserve and the German central bank is the Bundesbank.

CFDs

A Contract for Difference (or CFD) is a type of derivative that gives exposure to the change in value of an underlying asset (such as an index or equity). It allows traders to leverage their capital (by trading notional amounts far higher than the money in their account) and provides all the benefits of trading securities, without actually owning the product. In practical terms, if you buy a CFD at \$10 then sell it at \$11, you will receive the \$1 difference. Conversely, if you went short on the trade and sold at \$10 before buying back at \$11, you would pay the \$1 difference.

Choppy

Short-lived price moves with limited follow-through that are not conducive to aggressive trading.

Cleared funds

Funds that are freely available, sent in to settle a trade.

Clearing

The process of settling a trade.

Closed position

Exposure to a financial contract, such as currency, that no longer exists. A position is closed by placing an equal and opposite deal to offset the open position. Once closed, a position is 'squared'.

Closing

The process of stopping (closing) a live trade by executing a trade ;that is the exact opposite of the open trade.

Closing price

The price at which a product was traded to close a position. It can also refer to the price of the last transaction in a day trading session.

Collateral

An asset given to secure a loan or as a guarantee of performance.

Commission

A fee that is charged for buying or selling a product.

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Commodity currencies

Currencies from economies whose exports are heavily based in natural resources, often specifically referring to Canada, New Zealand, Australia and Russia.

Components

The dollar pairs that make up the crosses (i.e. EUR/USD + USD/JPY are the components of EUR/JPY). Selling the cross through the components refers to selling the dollar pairs in alternating fashion to create a cross position.

Confirmation

A document exchanged by counterparts to a transaction that states the terms of said transaction.

Consolidation

A period of range-bound activity after an extended price move.

Construction spending

Measures the amount of spending towards new construction, released monthly by the U.S. Department of Commerce's Census Bureau.

Contagion

The tendency of an economic crisis to spread from one market to another

Contract

The standard unit of forex trading.

Contract note

A confirmation sent that outlines the exact details of the trade.

Contract size

The notional number of shares one CFD represents.

Controlled risk

A position which has a limited risk because of a Guaranteed Stop.

Convergence of MAs

A technical observation that describes moving averages of different periods moving towards each other, which generally forecasts a price consolidation.

Corporate action

An event that changes the equity structure (and usually share price) of a stock. For example, acquisitions, dividends, mergers, splits and spinoffs are all corporate actions.

Counter currency

The second listed currency in a currency pair.

Counterparty

One of the participants in a financial transaction.

Country risk

Risk associated with a cross-border transaction, including but not limited to legal and political conditions.

Crater

The market is ready to sell-off hard.

Crown currencies

Refers to CAD (Canadian Dollar), Aussie (Australian Dollar), Sterling (British Pound) and Kiwi (New Zealand Dollar) – currencies of the Commonwealth countries.

CTAs

Refers to commodity trading advisors, speculative traders whose activity can resemble that of short-term hedge funds; frequently refers to the Chicago-based or futures-oriented traders.

Currency pair

The two currencies that make up a foreign exchange rate, for example EUR/USD.

Currency risk

The probability of an adverse change in exchange rates.

Currency symbols

A three-letter symbol that represents a specific currency, for example USD (US Dollar).

Current account

The sum of the balance of trade (exports minus imports of goods and services), net factor income (such as interest and dividends) and net transfer payments (such as foreign aid). The balance of trade is typically the key component to the current account.

Day trader

Speculators who take positions in commodities and then liquidate those positions prior to the close of the same trading day.

Day trading

Making an open and close trade in the same product in one day.

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Deal

A term that denotes a trade done at the current market price. It is a live trade as opposed to an order.

Dealer

An individual or firm that acts as a principal or counterpart to a transaction. Principals take one side of a position, hoping to earn a spread (profit) by closing out the position in a subsequent trade with another party. In contrast, a broker is an individual or firm that acts as an intermediary, putting together buyers and sellers for a fee or commission.

Dealing spread

The difference between the buying and selling price of a contract.

Defend a level

Action taken by a trader, or group of traders, to prevent a product from trading at a certain price or price zone, usually because they hold a vested interest in doing so, such as a barrier option.

Deficit

A negative balance of trade or payments.

Delisting

Removing a stock's listing on an exchange.

Delivery

A trade where both sides make and take actual delivery of the product traded.

Delta

The ratio between the change in price of a product and the change in price of its underlying market.

Devaluation

When a pegged currency is allowed to weaken or depreciate based on official actions; the opposite of a revaluation.

Discount rate

Interest rate that an eligible depository institution is charged to borrow short-term funds directly from the Federal Reserve Bank.

Divergence

In technical analysis, a situation where price and momentum move in opposite directions, such as prices rising while momentum is falling. Divergence is considered either positive (bullish) or negative (bearish); both kinds of divergence signal major shifts in price direction. Positive /

bullish divergence occurs when the price of a security makes a new low while the momentum indicator starts to climb upward. Negative/bearish divergence happens when the price of the security makes a new high, but the indicator fails to do the same and instead moves lower. Divergences frequently occur in extended price moves and frequently resolve with the price reversing direction to follow the momentum indicator.

Divergence of MAs

A technical observation that describes moving averages of different periods moving away from each other, which generally forecasts a price trend.

DJIA or Dow

Abbreviation for the Dow Jones Industrial Average or US30.

Dove

Dovish refers to data or a policy view that suggests easier monetary policy or lower interest rates. The opposite of hawkish.

Downtrend

Price action consisting of lower-lows and lower-highs.

DXYSY

Symbol for US Dollar Index.

ECB

European Central Bank, the central bank for the countries using the Euro.

Economic indicator

A government-issued statistic that indicates current economic growth and stability. Common indicators include employment rates, Gross Domestic Product (GDP), inflation, retail sales, etc.

End of day order (EOD)

An order to buy or sell at a specified price that remains open until the end of the trading day, typically at 5pm / 17:00 New York.

EST/EDT

The time zone of New York City, which stands for United States Eastern Standard Time / Eastern Daylight time.

ESTX50

A name for the Euronext 50 index.

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EURO

The currency of the Eurozone.

European Monetary Union (EMU)

An umbrella name for the group of policies that aims to coordinate economic and fiscal policies across EU Member States.

European session

07:00 – 16:00 (London).

Euro zone labor cost index

Measures the annualized rate of inflation in the compensation and benefits paid to civilian workers and is seen as a primary driver of overall inflation.

Euro zone Organization for Economic Co-operation and Development (OECD) leading indicator

A monthly index produced by the OECD. It measures overall economic health by combining ten leading indicators including average weekly hours, new orders, consumer expectations, housing permits, stock prices and interest rate spreads.

Expiry date / price

The precise date and time when an option will expire. The two most common option expiries are 10:00am ET (also referred to as 10:00 NY time or NY cut) and 3:00pm Tokyo time (also referred to as 15:00 Tokyo time or Tokyo cut). These time periods frequently see an increase in activity as option hedges unwind in the spot market.

Extended

A market that is thought to have traveled too far, too fast.

Fair value

The difference between the price of a derivative contract and the underlying cash market price. Fair value means there are no arbitrage opportunities between the two prices.

Fed

The Federal Reserve Bank, the central bank of the United States, or the FOMC (Federal Open Market Committee), the policy-setting committee of the Federal Reserve.

Figure / The figure

Refers to the price quotation of '00' in a price such as 00-03 (1.2600-03) and would be read as 'figure-three.' If someone sells at 1.2600, traders would say 'the figure was given' or 'the figure was hit.'

Fill

When an order has been fully executed.

Fill or kill

An order which cannot be filled in its entirety, will be cancelled.

Fix

One of approximately 5 times during the FX trading day when a large amount of currency must be bought or sold to fill a commercial customer's orders. Typically these times are associated with market volatility. The regular fixes are as follows (all times NY):

5:00 am – Frankfurt

6:00 am – London

10:00 am – WMHCO (World Market House Company)

11:00 am – WMHCO (World Market House Company) – more important

8:20 am – IMM

8:15am – ECB

Flat / square

Dealer jargon used to describe a position that has been completely reversed, e.g. you bought \$500,000 and then sold \$500,000, thereby creating a neutral (flat) position.

Follow-through

Fresh buying or selling interest after a directional break of a particular price level. The lack of follow-through usually indicates a directional move that will not be sustained and may reverse.

FOMC

Federal Open Market Committee, the policy-setting committee of the US Federal Reserve.

FOMC minutes

Written record of FOMC policy-setting meetings are released 3 weeks following a meeting. The minutes provide more insight into the FOMC's deliberations and can generate significant market reactions.

Forward

The pre-specified exchange rate for a foreign exchange contract settling at some agreed future date, based upon the interest rate differential between the two currencies involved.

Forward points

The pips added to or subtracted from the current exchange rate to calculate a forward price.

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FRA40

A name for the index of the top 40 companies (by market capitalization) listed on the French stock exchange. FRA40 is also known as CAC 40.

FTSE 100

The name of the UK 100 Index.

Fundamental analysis

The assessment of all information available on a tradable product to determine its future outlook and therefore predict where the price is heading. Often non-measurable and subjective assessments, as well as quantifiable measurements, are made in fundamental analysis.

Future

An agreement between two parties to execute a transaction at a specified time in the future when the price is agreed in the present.

Futures contract

An obligation to exchange a good or instrument at a set price and specified quantity grade at a future date. The primary difference between a Future and a Forward is that Futures are typically traded over an exchange (Exchange- Traded Contracts - ETC), versus Forwards, which are considered Over The Counter (OTC) contracts. An OTC is any contract NOT traded on an exchange.

G7

Group of 7 Nations - United States, Japan, Germany, United Kingdom, France, Italy and Canada.

G8

Group of 8 - G7 nations plus Russia.

Gap / Gapping

A quick market move in which prices skip several levels without any trades occurring. Gaps usually follow economic data or news announcements.

Gearing (also known as leverage or margin)

Gearing refers to trading a notional value that is greater than the amount of capital a trader is required to hold in his or her trading account. It is expressed as a percentage or a fraction.

GER30

An index of the top 30 companies (by market capitalization) listed on the German stock exchange – another name for the DAX.

Given

Refers to a bid being hit or selling interest.

Giving it up

A technical level succumbs to a hard-fought battle.

Going long

The purchase of a stock, commodity or currency for investment or speculation – with the expectation of the price increasing.

Going short

The selling of a currency or product not owned by the seller – with the expectation of the price decreasing.

Gold (Gold's relationship)

Commonly accepted that gold moves in the opposite direction of the US dollar. The long-term correlation coefficient is largely negative, but shorter-term correlations are less reliable.

Gold certificate

A certificate of ownership that gold investors use to purchase and sell the commodity instead of dealing with transfer and storage of the physical gold itself.

Gold contract

The standard unit of trading gold is one contract which is equal to 10 troy ounces.

'Good 'Till Canceled Order – (GTC)

An order to buy or sell at a specified price that remains open until filled or until the client cancels.

Greenback

Nickname for the US dollar

Gross domestic product (GDP)

Total value of a country's output, income or expenditure produced within its physical borders.

Gross national product

Gross domestic product plus income earned from investment or work abroad.

Guaranteed order

A kind of order that protects a trader against the market gapping. It guarantees to fill your order at the price asked.

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Guaranteed stop

A stop-loss order guaranteed to close your position at a level you dictate, should the market move to or beyond that point. It is guaranteed even if there is gapping in the market.

Gunning, gunned

Refers to traders pushing to trigger known stops or technical levels in the market.

Handle

Every 100 pips in the FX market starting with 000.

Hawk – hawkish

A country's monetary policy-makers are referred to as 'hawkish' when they believe that higher interest rates are needed, usually to combat inflation or restrain rapid economic growth or both.

Hedge

A position or combination of positions that reduces the risk of your primary position.

Hit the bid

To sell at the current market bid.

HK40 / HKHI

A name for the Hong Kong Hang Seng Index.

Illiquid

Little volume being traded in the market; a lack of liquidity often creates choppy market conditions.

IMM

International Monetary Market, the Chicago-based currency futures market that is part of the Chicago Mercantile Exchange.

IMM futures

A traditional futures contract based on major currencies against the US dollar. IMM futures are traded on the floor of the Chicago Mercantile Exchange.

INDU

Abbreviation for the Dow Jones Industrial Average.

Inflation

An economic condition whereby prices for consumer goods rise, eroding purchasing power.

Interbank rates

The Foreign Exchange rates which large international banks quote to each other.

Intervention

Action by a central bank to affect the value of its currency by entering the market. Concerted intervention refers to action by a number of central banks to control exchange rates.

ISM manufacturing index

An index that assesses the state of the US manufacturing sector by surveying executives on expectations for future production, new orders, inventories, employment and deliveries. Values over 50 generally indicate an expansion, while values below 50 indicate contraction.

ISM non-manufacturing

An index that surveys service sector firms for their outlook, representing the other 80% of the US economy not covered by the ISM Manufacturing Report. Values over 50 generally indicate an expansion, while values below 50 indicate contraction.

Japanese economy watchers survey

Measures the mood of businesses that directly service consumers such as waiters, drivers and beauticians. Readings above 50 generally signal improvements in sentiment.

Japanese machine tool orders

Measures the total value of new orders placed with machine tool manufacturers. Machine tool orders are a measure of the demand for companies that make machines, a leading indicator of future industrial production. Strong data generally signals that manufacturing is improving and that the economy is in an expansion phase.

Keep the powder dry

To limit your trades due to inclement trading conditions. In either choppy or extremely narrow markets, it may be better to stay on the sidelines until a clear opportunity arises.

Kiwi

Nickname for NZD/USD.

Knock-ins

Option strategy that requires the underlying product to trade at a certain price before a previously bought option becomes active. Knock-ins is used to reduce premium costs of the underlying option and can trigger hedging activities once an option is activated.

Knock-outs

Option that nullifies a previously bought option if the underlying product trades a certain level. When a knock-out level is traded, the underlying option ceases to exist and any hedging may have to be unwound.

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Leading indicators

Statistics that are considered to predict future economic activity.

LIBOR

The London Inter-Bank Offered Rate. Banks use LIBOR as a base rate for international lending.

Limits / Limit order

An order that seeks to buy at lower levels than the current market or sell at higher levels than the current market. A limit order sets restrictions on the maximum price to be paid or the minimum price to be received. As an example, if the current price of USD/YEN is 117.00/05, then a limit order to buy USD would be at a price below the current market, e.g. 116.50.

Long position

A position that appreciates in value if market price increases. When the base currency in the pair is bought, the position is said to be long. This position is taken with the expectation that the market will rise.

Lot

A unit to measure the amount of the deal. The value of the deal always corresponds to an integer number of lots.

Macro

The longest-term traders who base their trade decisions on fundamental analysis. A "macro" trade's holding period can last anywhere from around 6 months to multiple years.

Margin call

A request from a broker or dealer for additional funds or other collateral on a position that has moved against the customer.

Market capitalization

The total value of a listed company – share price multiplied by the number of shares issued.

Market maker

A dealer who regularly quotes both bid and ask prices and is ready to make a two-sided market for any financial product.

Mark-to-market

Process of re-evaluating all open positions in the light of current market prices. These new values then determine margin requirements.

MoM

Abbreviation for month over month, which is the change in a data series relative to the prior month's level.

Net position

The amount of currency bought or sold which has not yet been offset by opposite transactions.

Offer (also known as the Ask price)

The price at which the market is prepared to sell a product. Prices are quoted two-way as Bid/Offer. The Offer price is also known as the 'Ask'. The 'Ask' represents the price at which a trader can buy the base currency, which is shown to the right in a currency pair. For example, in the quote USD/CHF 1.4527/32, the base currency is USD, and the

'Ask' price is 1.4532, meaning you can buy one US dollar for 1.4532 Swiss francs.

In CFD trading, the 'Ask' represents the price a trader can buy the product. For example, in the quote for UK OIL 111.13/111.16, the product quoted is UK OIL and the 'Ask' price is £111.16 for one unit of the underlying market.

Open order

An order that will be executed when a market moves to its designated price. Normally associated with Good 'til ?Cancelled Orders. Til or till??

Open position

An active trade with corresponding unrealized P&L, which has not been offset by an equal and opposite deal.

Option

A derivative which gives the right, but not the obligation, to buy or sell a product at a specific price before a specified date.

Over the counter (OTC)

Used to describe any transaction that is not conducted via an exchange.

Overnight position

A trade that remains open until the next business day.

Pair

The forex quoting convention of matching one currency against the other.

Paneled

A very heavy round of selling.

Parabolic

A market that moves a great distance in a very short period of time, frequently moving in an accelerating fashion that resembles one half of a parabola. Parabolic moves can be either up or down.

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Pips

The smallest unit of price for any foreign currency, 'pips' refer to digits added to or subtracted from the fourth decimal place, i.e. 0.0001.

Political risk

Exposure to changes in governmental policy which may have an adverse effect on an investor's position.

Portfolio

A collection of investments owned by an entity.

Position

The net total holdings of a given product.

Premium

The amount by which the forward or futures price exceeds the spot price.

Price transparency

Describes quotes to which every market participant has equal access.

Purchasing managers index (PMI)

An economic indicator which indicates the performance of manufacturing companies within a country.

Put option

A product which gives the owner the right, but not the obligation, to sell it at a specified price.

Rally

A recovery in price after a period of decline.

Range

When a price is trading between a defined high and low, moving within these two boundaries without breaking out from them.

Real money

Traders of significant size including pension funds, asset managers, insurance companies, etc. They are viewed as indicators of major long-term market interest, as opposed to shorter-term, intra-day speculators.

Resistance level

A price that might act as a ceiling. The opposite of support.

Retail investor

An individual investor who trades with money from personal wealth, rather than on behalf of an institution.

Revaluation

When a pegged currency is allowed to strengthen or rise as a result of official actions; the opposite of a devaluation.

Rollover

A rollover is the simultaneous closing of an open position for today's value date and the opening of the same position for the next day's value date at a price reflecting the interest rate differential between the two currencies.

In the spot forex market, trades must be settled in two business days. For example, if a trader sells 100,000 Euros on Tuesday, then the trader must deliver 100,000 Euros on Thursday, unless the position is rolled over. As a service to customers, all open forex positions at the end of the day (5:00 PM New York time) are automatically rolled over to the next settlement date. The rollover (or swap) adjustment is simply the accounting of the cost-of-carry on a day-to-day basis.

Round trip

A trade that has been opened and subsequently closed by an equal and opposite deal.

Running profit / loss

An indicator of the status of your open positions; that is, unrealized money that you would gain or lose should you close all your open positions at that point in time.

SEC

Securities and Exchange Commission.

Short position

An investment position that benefits from a decline in market price. When the base currency in the pair is sold, the position is said to be short.

Short squeeze

A situation in which traders are heavily positioned on the short side and a market catalyst causes them to cover (buy) in a hurry, causing a sharp price increase.

Short-covering

After a decline, traders who earlier went short begin buying back.

Shorts

Traders who have sold, or shorted, a product, or those who are bearish on the market.

Sidelines, sit on hands

Traders staying out of the markets due to directionless, choppy, unclear market conditions are said to be 'on the sidelines' or 'sitting on their hands'.

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Simple Moving Average (SMA)

A simple average of a pre-defined number of price bars. For example, a 50 period daily chart SMA is the average closing price of the previous 50 daily closing bars. Any time interval can be applied.

Sovereign names

Refers to central banks active in the spot market.

Spot market

A market whereby products are traded at their market price for immediate exchange.

Spot price

The current market price. Settlement of spot transactions usually occurs within two business days.

Spot trade

The purchase or sale of a product for immediate delivery (as opposed to a date in the future). Spot contracts are typically settled electronically.

Spread

The difference between the bid and offer prices.

Square

Purchase and sales are in balance and thus the dealer has no open position.

Stop loss hunting

When a market seems to be reaching for a certain level that is believed to be heavy with stops. If stops are triggered, then the price will often jump through the level as a flood of stop-loss orders are triggered.

Stop order

A stop order is an order to buy or sell once a pre-defined price is reached. When the price is reached, the stop order becomes a market order and is executed at the best available price. It is important to remember that stop orders can be affected by market gaps and slippage, and will not necessarily be executed at the stop level if the market does not trade at this price. A stop order will be filled at the next available price once the stop level has been reached. Placing contingent orders may not necessarily limit your losses.

Stop entry order

This is an order placed to buy above the current price, or to sell below the current price. These orders are useful if you believe that the market is heading in one direction and you have a target entry price.

Stop loss order

This is an order placed to sell below the current price (to close a long position), or to buy above the current price (to close a short position). Stop loss orders are an important risk management tool. By setting stop loss orders against open positions you can limit your potential downside should the market move against you. Remember that stop orders do not guarantee your execution price, a stop order is triggered once the stop level is reached, and will be executed at the next available price.

Stops building

Refers to stop-loss orders building up; the accumulation of stop-loss orders to buy above the market in an up move, or to sell below the market in a down move.

Strike price

The defined price at which the holder of an option can buy or sell the product.

Suspended trading

A temporary halt in the trading of a product.

Swap

A currency swap is the simultaneous sale and purchase of the same amount of a given currency at a forward exchange rate.

T/P

Stands for "take profit." Refers to limit orders that look to sell above the level that was bought, or buy back below the level that was sold.

Takeover

Assuming control of a company by buying its stock.

Technical analysis

The process by which charts of past price patterns are studied for clues as to the direction of future price movements.

Tomorrow next (Tom/Next)

Simultaneous buying and selling of a currency for delivery the following day.

Trade balance

Measures the difference in value between imported and exported goods and services. Nations with trade surpluses (exports greater than imports), such as Japan, tend to see their currencies appreciate, while countries with trade deficits (imports greater than exports), such as the US, tend to see their currencies weaken.

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Trade size

The number of units of product in a contract or lot.

Trading bid

A pair is acting strong and/or moving higher; bids keep entering the market and pushing prices up.

Trading halt

A postponement to trading that is not a suspension from trading.

Trading heavy

A market that feels like it wants to move lower, usually associated with an offered market that will not rally despite buying attempts.

Trading offered

A pair is acting weak and/or moving lower, and offers to sell keep coming into the market.

Trading range

The range between the highest and lowest price of a stock usually expressed with reference to a period of time. For example: 52-week trading range.

Trailing stop

A trailing stop allows a trade to continue to gain in value when the market price moves in a favorable direction, but automatically closes the trade if the market price suddenly moves in an unfavorable direction by a specified distance. Placing contingent orders may not necessarily limit your losses.

Transaction cost

The cost of buying or selling a financial product.

Trend

Price movement that produces a net change in value. An uptrend is identified by higher highs and higher lows. A downtrend is identified by lower highs and lower lows.

Two-way price

When both a bid and offer rate is quoted for an FX transaction.

Ugly

Describing unforgiving market conditions that can be violent and quick.

UK HBOS house price index

Measures the relative level of UK house prices for an indication of trends in the UK real estate sector and their implication for the overall economic outlook. This index is the longest monthly data series of any UK housing index, published by the largest UK mortgage lender (Halifax Building Society/Bank of Scotland).

Unrealized gain/loss

The theoretical gain or loss on open positions valued at current market rates, as determined by the broker in his sole discretion. Unrealized Gains/Losses become Profits/Losses when the position is closed.

Uptick

A new price quote at a price higher than the preceding quote.

Uptick rule

In the US, a regulation whereby a security may not be sold short unless the last trade prior to the short sale was at a price lower than the price at which the short sale is executed.

US prime rate

The interest rate at which US banks will lend to their prime corporate customers.

Value date

Also known as the maturity date, it is the date on which counterparts to a financial transaction agree to settle their respective obligations, i.e., exchanging payments. For spot currency transactions, the value date is normally two business days forward.

Variation margin

Fund traders must hold in their accounts to have the required margin necessary to cope with market fluctuations.

VIX or Volatility index

Shows the market's expectation of 30-day volatility. It is constructed using the implied volatilities of a wide range of S&P 500 index options. The VIX is a widely-used measure of market risk and is often referred to as the "investor fear gauge."

Wedge chart pattern

Chart formation that shows a narrowing price range over time, where price highs in an ascending wedge decrease incrementally, or in a descending wedge, price declines are incrementally smaller. Ascending wedges typically conclude with a downside breakout, and descending wedges typically terminate with upside breakouts.

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Whipsaw

Slang for a highly volatile market where a sharp price movement is quickly followed by a sharp reversal.

Wholesale prices

Measures the changes in prices paid by retailers for finished goods. Inflationary pressures typically show earlier than the headline retail.

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Treasury - Terminology

Arbitrage

In its simplest form, arbitrage involves buying and selling the same security, more or less simultaneously, to profit from a price disparity. In the forex market, arbitrage trades capitalize on forward exchange rates being out of line with the interest differential.

Call Option

A financial (DERIVATIVE) instrument giving the right but no obligation to the holder to buy a security (or currency) at a predetermined price (or exchange rate) from the option seller. The option holder (buyer) pays the option seller a *premium* for this privilege. If the option can be exercised at any time before its maturity, it is called an *American* option. *European* options, in contrast, can be exercised only on maturity.

Call and PUT options in cross-currencies (i.e., USD/JPY, Euro/USD, GBP/USD, etc.) are allowed to be bought and sold by banks in India on a fully hedged basis. The option seller should be a bank abroad. USD/INR options are on the anvil.

In the context of bonds, a call option gives the issuer the right to redeem the bonds before maturity. This will happen if interest rates have fallen since the issue was made. A put option enables investors to redeem the bond before maturity and will happen if interest rates rise after the issue.

Capital Adequacy

The minimum unencumbered, undiluted capital, consisting of paid-up equity, free reserves and long-term subordinated debt that a bank must maintain as a percentage of its risk assets. Currently 9%.

Capital Fund

Comprises Tier I and Tier II Capital of the Bank.

Cash Market

The market for a financial instrument like bonds, equities, foreign exchange.

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Cash Reserve Ratio (CRR)

CRR is the percentage of Net Demand and Time Liabilities (NDTL) that scheduled commercial banks must maintain with the RBI as cash.

Clearing

The process of exchanging securities and funds through a Clearing House after a trade/deal is concluded.

Clearing House

An Indian example of a Clearing House is CCIL, which clears trades in G-Secs. Some Clearing Houses (abroad) combine the functions of clearing and custody.

Clean Price / Dirty Price

The price of a debt instrument excluding interest for the period elapsed since the last coupon was paid is called the clean price. Market prices are clean prices. Dirty price includes interest from the last coupon date to the settlement date.

Country Risk

The possibility that a country will default on its Government's obligations to foreigners and / or on the foreign liabilities of its banking system/private sector for lack of foreign exchange reserves.

Current / Capital Account Transactions

1. Transactions involving imports and exports of goods and services and interest / dividends on financial investments are current account transactions.
2. Transactions involving deposits and financial investments in India or abroad by foreigners / foreign entities and Indian individuals/entities respectively are capital account transactions.

Current Yield

Annual coupon on a bond divided by the purchase price or market price of the security.

CRISIL

Short for Credit Rating Information Services of India Ltd, which rates debt issues and other financial obligations in the Indian market.

DEMAT

The existence of securities in electronic form in depositories and depository participants.

Dematted / Dematting

The process of converting physical securities to electronic (demat) form.

Depository Participant(s) (DPs)

Satellites of apex depositories - NSDL or CDSL. They maintain records of ownership of securities.

Derivatives

Financial instruments or contracts based on an underlying cash instrument. An example is a forward contract in foreign exchange in which the purchase / sale of a currency for a future date is fixed today. The forward contract is “derived” and exists because of spot transactions between the two currencies, that is, the existence of a spot (cash) market, which is a fundamental condition. The price of a derivative is a function of the price of the underlying instrument or product in the cash market and other variables such as interest rates, time to maturity of the derivative and volatility of prices in the cash market.

FEDAI

Short for Foreign Exchange Dealers’ Association of India, a body comprising representatives of the foreign exchange departments of banks and entrusted with the formulation of norms for inter- bank and merchant forex transactions and self-regulation of forex markets.

Forward Premium

A currency is at a premium in the forward market when fewer can be bought for a forward maturity than spot.

Forward Discount

Refers to the value of a currency in the forward market, i.e., for future delivery. When a currency is at a discount compared to the spot rate, it is worthless or, in other words, is cheaper to buy in the forward market than for spot settlement.

FIMMDA

Acronym for *Fixed Income Money Market and Derivatives Association of India*, a body comprising representatives of the treasury departments of banks and entrusted with the responsibility of self-regulation of money markets and fixed income and derivative markets.

Floors

An interest rate option product which protects lenders/investors from falling interest rates.

FRAs

Short for *Forward Rate Agreements*. Enables FRA buyer or seller to lock-in a rate of interest for a future period. An example of how it is structured is a bank selling a 6-6 FRA @7%. This means the FRA buyer will pay 7% interest for the 6-month period commencing 6 months hence (therefore referred as as 6-6), irrespective of the actual market rate for 6 months at that time.

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Forward Contracts (Forex)

Forex deals between two currencies to be settled on a future date specified at the time of the deal.

Hedging

Insulating (for example) interest rate exposures from market fluctuations, mostly using derivative instruments like swaps and futures. (See Interest Rate Swap below).

Interest Rate Swap (IRS)

A derivative transaction in which one party pays a fixed rate of interest and the counterparty pays a floating rate of interest (reset at predetermined intervals) on an agreed principal.

For example, Bank A might pay 9% fixed (semi-annually) to Bank B and Bank B pays MIBOR + 0.25%, (half-yearly) to Bank A on ₹100cr. No exchange of principal takes place at the beginning or end. Only interest payments or the net flow from Bank A to Bank B or vice-versa at six- monthly intervals takes place.

This swap protects Bank A' s investments from a rise in interest rates as it receives and pays offsetting fixed rates through the swap.

INFINET

Short for *Indian Financial Network*. A secure closed-user group (CUG) hybrid network consisting of VSATs and closed lines. Membership is restricted to entities having SGL and current accounts with the RBI. All banks and PDs are obliged to become members of INFINET, as only INFINET members can participate in the NDS and CCIL Settlements.

Issuing and Paying Agent (IPA)

The bank responsible for due diligence, issue and redemption in the issue of *Commercial Paper (CP)* by a corporate.

Liquidity Adjustment Facility (LAF)

A facility designed by the RBI to mop up excess liquidity or supply liquidity to the banking system on a daily basis through repo/ reverse repo auctions.

Thus, if the market is surplus in funds, the RBI will attract more reverse repos. When the market is short of liquidity , LAFs will attract more repos. (Repos and reverse repo are used here from the perspective of the RBI, it borrows cash in a repo and borrows securities in a reverse repo).

LIBOR

London Interbank Offer Rate, the rate at which banks in London lend and borrow U.S. dollars from one another.

Market Participants and Players

Product	Participants/Players
1. Call Money, Notice/Term Money	Banks, Primary Dealers, Financial institutions, mutual funds, insurance companies – the last three only as lenders.
2. Repos	Banks, PDs and mutual funds
3. Certificates of Deposit (CDs)	Can be issued only by banks and financial institutions. For issues by financial institutions, the maturity should be at least one year. No restrictions on the buy side.
4. Commercial Paper (CP)	Can be issued only by credit-rated corporates. No restrictions on the buy side.
5. Government of India securities State Government securities	T-bills / Issued by Government of India / State Governments through the RBI. No restrictions on buy side.
6. Government of India-Securities	No restrictions Government-guaranteed securities on buying.
7. Non-SLR Bonds	Issued by corporates – no buy / sell restrictions.
8. Spot Foreign Exchange	Only forex authorised branches of banks and term-lending institutions on both buy and sell sides. Corporates and individuals must have underlying physical and approved current / capital account transactions and must route their deals through authorised dealers.
9. Forward Contracts in Foreign exchange	As for spot foreign exchange
10. Derivatives	Entirely inter-bank, inter-institutional product on originating side.
11. Equities and Mutual Funds	Primary issues by corporates / mutual funds. No restrictions on buy and sell sides.

Market makers

Entities (brokers, banks, institutions) which maintain a market (liquidity) in a security or a currency by always quoting buy (bid) and sell (offer) prices for the security or currency.

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Marked-to-Market

The valuation of a security at its market price on a continuous basis. Applied generally on trading positions in the securities and forex markets to determine the profit (or loss) on these exposures.

MIBOR

Mumbai Inter-bank Offer Rate (MIBOR) is the interest rate at which a bank can borrow in the money market.

MIFOR

Mumbai Inter-bank Forward Offered Rate indicates the sum of LIBOR and the forward premium on USD/INR.

NDTL

Short for *Net Demand and Time Liabilities*.

The liability base of a bank, as defined by the RBI, on which the bank must maintain minimum CRR and SLR as prescribed by the RBI.

Net Owned Funds (NOF)

Paid-up equity plus free unencumbered reserves also called net worth of a bank.

Nostro Accounts

Nostro Accounts are foreign currency accounts maintained with correspondent banks to facilitate clearing forex transactions of the Bank.

Non-SLR Bonds/Securities

Debt instruments that do not qualify for inclusion in the SLR of a bank. Usually corporate bonds.

NSDL

Short for *National Securities Depository Ltd*, the apex depository for electronic custody, ownership and transfer of securities, of which DPs are members.

Offer(s)

The price(s) at which market makers / sellers want to sell securities or foreign exchange to the market.

Open Market Operations (OMOs)

When the RBI itself buys securities from or sells securities to the market, they are called open market operations or OMOs. The RBI's actions have the effect of decreasing the money supply when selling securities to the market and increasing the money supply when buying securities from the market.

On-the-run

Recently issued or latest issues of G-Secs. which are generally most active in the secondary market.

On balance sheet

Items of assets and liabilities which figure in the balance sheet. Examples are paid-up capital, reserves, borrowings, investments, fixed assets, etc.

Off balance sheet

Items which do not appear in the main balance sheet. Examples are contingent liabilities such as guarantees and LCs. Swaps are also treated as such.

PDO (Public Debt Office)

RBI's department maintaining SGL accounts and handling SGL transfers.

Put Option

A financial instrument giving the holder the right but no obligation to sell a security at a predetermined price and during or at a predetermined time to the option seller.

Primary Dealers (PDs)

These are the intermediaries between the RBI and the market. They are under an obligation to take a minimum percentage of the primary issues of securities by the RBI through the central bank's auctions as and when they take place. For this commitment, they are paid a commission by the RBI, based on the value of securities absorbed by them.

Reporting Fortnight / Friday

This is the day of the week, every alternate week, for which banks must report their closing Net Demand and Time Liabilities (NDTL) to the RBI. The RBI checks their compliance with the Cash Reserve Ratio (CRR) and Statutory Liquidity Ratio (SLR) obligations based on the NDTL data provided by the banks on reporting Fridays. Reporting fortnight refers to the gap between two reporting Fridays.

Repo / Reverse Repo

Repo is short for repurchase agreement.

A repurchase agreement, as the name suggests, is a contract to buy securities today and sell them back on a future date at a price fixed today. The securities are nominally transferred to the buyer but the seller has full entitlement to interest/dividends and all other benefits accruing as if he is the owner of the securities between the time of sale and buyback.

The difference between the repurchase price (future) and sale price (today) is normally based on the inter-bank rate of interest for the tenor of the repo.

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The buyer of securities in a repo in effect borrows securities and gives cash while the seller in the repo lends securities and receives cash. The transaction is termed repo for the seller of securities and *reverse repo* for the buyer of securities.

Risk Weight

The full capital ratio for 'risky' assets is 9%. Risk weight is the proportion of the full capital ratio applicable to individual assets / asset categories. For example, G-Secs carry a risk weight of 2.5%. This means the capital provision for the G-Secs asset category should be 2.5% of 9%, i.e., 0.225% of the investment in G-Secs. Similarly, if the risk weight is 50%, the capital provision required for the asset is 4.5%.

RTGS (Real Time Gross Settlement)

System of clearing trades in securities immediately on completion of a deal. Is possible on STP platform. RBI / NDS / CCIL plan to move to RTGS mode in the near future in the G-Secs market.

Securitization

The conversion of loans into tradable securities based on the underlying cash flows from the loans for interest payments and principal amortization.

Settlement

The process of exchanging securities and funds after a trade / deal is concluded. If done through a clearing house, it is called clearing. The custodian is responsible for accepting or delivering securities bought or sold by its clients. Depository participants are examples of custodians. In Western countries, major banks also perform the role of custodians. They may even settle and guarantee trades on behalf of their clients.

Settlement of foreign exchange deals involve crediting and debiting NOSTRO accounts for cross-currency deals (i.e., deals entirely in foreign currencies) and NOSTRO account and rupee account for USD/INR deals.

Sensex

The BSE index of its 30 most actively traded shares.

Short(s)

A sale position in the cash or futures markets without the investor actually owning the underlying shares. The trade anticipates the price will decline, enabling squaring up the (short) sale at a lower price.

Short selling

Selling securities without actually owning the securities, in the expectation of buying them back at a lower price later.

SGL Depository and SGL

The SGL (short for *Subsidiary General Ledger Depository*) is a computerized system of records of ownership of SLR securities issued by the Government of India and State Governments.

The RBI pays the coupons and redeems the SGL securities on the interest due and redemption dates.

SLR Bonds / Securities

Securities notified by the RBI the ownership of which by a bank qualifies for inclusion in the computation of the SLR of the bank.

Statutory Liquidity Ratio (SLR)

The *Statutory Liquidity Ratio* is the mandatory minimum percentage of Net Demand and Time Liabilities (NDTL), which scheduled commercial banks must invest in notified securities (also called SLR Securities). This is monitored by the RBI with reference to the NDTL position in each bank at the close of every reporting fortnight (alternate Fridays). Currently the SLR is 25%.

Subsidiary General Ledger (SGL)

An electronic record of ownership of G-Secs / T-bills / State Government Securities maintained by the RBI.

STRIPS

Separation of interest from principal in a fixed income instrument. Each interest payment till maturity is converted into a security, which is priced on prevailing market interest rates for that maturity. The principal becomes a separate security representing a one-off payment on maturity and is similarly priced. A stripped security becomes, in essence, a series of zero coupon securities representing interest and principal cash flows from the security.

Spot

Foreign exchange deals between two currencies to be settled two working days after the deal.

SWIFT

'Society for Worldwide Interbank Financial Telecommunication' is a co-operative society created under Belgian law and having its Corporate Office at Brussels. The Society, which has been in operation since May 1977 and covers most of Western Europe and North America, operates a computer-guided communication system to rationalize international payment transfers. It comprises a computer network system between participating banks with two operating centers, in Amsterdam and Brussels, where messages can be stored temporarily before being transmitted to the relevant bank's terminal.

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Standard Assets

Loans / investments which are not in arrears or default with regard to interest and principal.

Trading Portfolio

As defined by the RBI, the trading portfolio of a bank consists of securities bought with a view to profit from short-term upward movements in their prices. They must be compulsorily marked-to-market.

T-bills

Short for Treasury Bills. Sovereign debt of the Government of India. Qualifies for inclusion in the SLR. Issued through auctions by the RBI. Maximum maturity is one year. A discount instrument.

Tail

The lower among the bid prices is an auction, if bids are arranged in descending order.

Tier I Capital

Consists of paid-up equity and free reserves and constitutes the core capital of the Bank.

Tier II Capital

Consists of revaluation reserves, general provisions and loss reserves and subordinated debt in the form of long-term bonds and Investment Fluctuation Reserve.

Subordinated debt issued by banks / FIs / NBFCs to meet Tier II capital requirements are called Tier II bonds.

TT Buying / Selling Rates

Rates quoted by a bank for immediate purchases/sales of foreign exchange. Usually the inter-bank rate \pm bank's spread. TT buying/selling rates are converted to TT forward rates by applying the applicable forward premiums on the foreign currency.

VOSTRO Accounts

VOSTRO Accounts are rupee accounts maintained by outside India banks with Indian Banks to clear their rupee transactions.

Value Date

Payment date to settle a transaction, that is, the date on which funds will actually be credited or debited.

Volatility

The standard deviation (average deviation of individual prices from the mean) of a series of prices of a financial instrument. Measures the fluctuation over time in the market price of an instrument and is extensively used in the valuation of financial instruments.

Yield Curve

A plot of YTM against time for various maturities for a specific class of bonds. Usually done for G-Secs (or Treasuries), in which case it is described as the Treasury benchmark (risk-free) yield curve.

YTM (Yield to Maturity)

The rate of interest which equates the present value of future interest payments and principal redemption with today's price of the bond.

Zero Coupon Yield

The yield on bonds paying no coupons and cumulating interest till maturity.

Asset-Liability Management – Terminology

Asset

An asset is anything of value that is owned by a person or business.

Available for Sale

The securities available for sale are those securities where the intention of the bank is neither to trade nor to hold till maturity. These securities are valued at the fair value which is determined by reference to the best available source of current market quotations or other data relative to current value.

Balance Sheet

A balance sheet is a financial statement of the assets and liabilities of a trading concern, recorded at a particular point in time.

Banking Book

The banking book comprises assets and liabilities, which are contracted basically on account of relationship or for steady income and statutory obligations and are generally held till maturity.

Bankruptcy Index

Developed by Edward I. Altman on a sample of 66 manufacturing companies, it is a formula used to predict a company's likelihood of going bankrupt. The Z-score is reputed for becoming more accurate as a firm nears bankruptcy. As a general rule, a score below 1.81 is dangerous while a score above 2.99 is comfortable.

$Z = 1.2(X_1) + 1.4(X_2) + 3.3(X_3) + 0.6(X_4) + 1.0(X_5)$, with

$X_1 = (\text{Working capital} = \text{Current assets} - \text{Current Liabilities}) / \text{total assets}$

$X_2 = \text{Retained earnings} / \text{total assets}$

$X_3 = \text{EBIT} / \text{total assets}$

$X_4 = (\text{Market value of equity} = \text{Market Price per share} * \text{Number of stocks}) / \text{total debt}$

$X_5 = \text{Asset turnover} = \text{Sales} / \text{Total Assets}$.

Basel Capital Accord

The Basel Capital Accord is an Agreement concluded among country representatives in 1988 to develop standardized risk-based capital requirements for banks across countries. The Accord was replaced with a new capital adequacy framework (Basel II), published in June 2004. Basel II is based on three mutually reinforcing pillars that allow banks and supervisors to evaluate properly the various risks that banks face.

These three pillars are: minimum capital requirements, which seek to refine the present measurement; supervisory review of an institution's capital adequacy and internal assessment process and market discipline through effective disclosure to encourage safe and sound banking practices.

Basel Committee on Banking Supervision

The Basel Committee is a committee of bank supervisors consisting of members from each of the G10 countries. The Committee is a forum for discussion on the handling of specific supervisory problems. It coordinates the sharing of supervisory responsibilities among national authorities in respect of banks' foreign establishments with the aim of ensuring effective supervision of banks' activities worldwide.

Basic Indicator Approach

An operational risk measurement technique permitted under Basel II. The approach sets a charge for operational risk as a fixed percentage ("alpha factor") of a single indicator. The indicator serves as a proxy for the bank's risk exposure.

Basis Risk

The risk that the interest rate of different assets, liabilities and off-balance sheet items may change in different magnitude is termed as basis risk.

Capital

Capital refers to the funds (e.g., money, loans, equity) which are available to carry on a business, make an investment, and generate future revenue. Capital also refers to physical assets which can be used to generate future returns.

Capital adequacy

A measure of the adequacy of an entity's capital resources in relation to its current liabilities and also in relation to the risks associated with its assets. An appropriate level of capital adequacy ensures that the entity has sufficient capital to support its activities and that its net worth is sufficient to absorb adverse changes in the value of its assets without becoming insolvent. For example, under BIS (Bank for International Settlements) rules, banks are required to maintain a certain level of capital against their risk-adjusted assets.

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Capital reserves

That portion of a company's profits not paid out as dividends to shareholders. They are also known as un-distributable reserves.

Cash Ratio:

Measures the extent to which current obligations can be paid from cash or near cash assets.

$$\text{Current Assets} = \text{Current liabilities}$$

Convertible Bond

A bond giving the investor the option to convert the bond into equity at a fixed conversion price or as per a pre-determined pricing formula.

Core Capital

Tier 1 capital is generally referred to as Core Capital.

Credit risk

Risk that a party to a contractual agreement or transaction will be unable to meet their obligations or will default on commitments. Credit risk can be associated with almost any transaction or instrument such as swaps, repos, CDs, foreign exchange transactions, etc. Specific types of credit risk include sovereign risk, country risk, legal or force majeure risk, marginal risk and settlement risk.

Debentures

Bonds issued by a company bearing a fixed rate of interest usually payable half yearly on specific dates and principal amount repayable on a particular date on redemption of the debentures.

Deferred Tax Assets

Unabsorbed depreciation and carry forward of losses which can be set-off against future taxable income which is considered as timing differences result in deferred tax assets. The deferred Tax Assets are accounted as per the Accounting Standard 22. Deferred Tax Assets have an effect of decreasing future income tax payments, which indicates that they are prepaid income taxes and meet definition of assets, whereas deferred tax liabilities have an effect of increasing future year's income tax payments, which indicates that they are accrued income taxes and meet definition of liabilities.

Derivative

A derivative instrument derives much of its value from an underlying product. Examples of derivatives include futures, options, forwards and swaps. For example, a forward contract can be derived from the spot currency market and the spot markets for borrowing and lending. In the past, derivative instruments tended to be restricted only to those products which could be derived from spot markets. However, today the term seems to be used for any product that can be derived from any other.

Duration

Duration (Macaulay duration) measures the price volatility of fixed income securities. It is often used in the comparison of the interest rate risk between securities with different coupons and different maturities. It is the weighted average of the present value of all the cash flows associated with a fixed income security. It is expressed in years. The duration of a fixed income security is always shorter than its term to maturity, except in the case of zero coupon securities where they are the same.

Electoral Bonds

Electoral Bond is a financial instrument for making donations to political parties. These are issued by Scheduled Commercial Banks upon authorization from the Central Government to intending donors, but only against cheque and digital payments (it cannot be purchased by paying cash). The bonds shall be redeemable in the designated account of a registered political party within the prescribed time limit from issuance of bond.

Financial Stability Report (FSR)

The FSR reflects the overall assessment on the stability of India's financial system and its resilience to risks emanating from global and domestic factors. Besides, the Report also discusses issues relating to development and regulation of the financial sector.

Foreign Institutional Investor

An institution established or incorporated outside India which proposes to make investment in India in securities; provided that a domestic asset management company or domestic portfolio manager who manages funds raised or collected or brought from outside India for investment in India on behalf of a sub-account shall be deemed to be a Foreign Institutional Investor.

Forward Contract

A forward contract is an agreement between two parties to buy or sell an agreed amount of a commodity or financial instrument at an agreed price for delivery on an agreed future date. In contrast to a futures contract, a forward contract is not transferable or exchange tradable, its terms are not standardized and no margin is exchanged. The buyer of the forward contract is said to be long the contract and the seller is said to be short the contract.

General provisions and loss reserves

Such reserves, if they are not attributable to the actual diminution in value or identifiable potential loss in any specific asset and are available to meet unexpected losses, can be included in Tier II capital.

General risk

Risk that relates to overall market conditions while specific risk is the risk that relates to the issuer of a particular security.

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Hedging

Taking action to eliminate or reduce exposure to risk.

Held for Trading

Securities where the intention is to trade by taking advantage of short-term price / interest rate movements.

Horizontal Disallowance

A disallowance of offsets to required capital used the BIS Method for assessing market risk for regulatory capital. In order to calculate the capital required for interest rate risk of a trading portfolio, the BIS Method allows offsets of long and short positions. Yet interest rate risks of instruments at different horizontal points of the yield curve are not perfectly correlated. Hence, the BIS Method requires that a portion of these offsets be disallowed.

Hybrid debt capital instruments

In this category fall a number of capital instruments which combine certain characteristics of equity and certain characteristics of debt. Each has a particular feature which can be considered to affect its quality as capital. Where these instruments have close similarities to equity, in particular when they are able to support losses on an ongoing basis without triggering liquidation, they may be included in Tier II capital.

Index of Sustainable Growth

Developed by Robert L. Higgins, this index helps to determine the level of growth of sales beyond which external capital will be needed. In other words, when planning for a specific growth in sales, one must be aware of whether external financing will be needed.

$$g = \frac{(X_1 (1 - X_2) (1 + X_3))}{(X_4 - (X_1 (1 - X_2) (1 + X_3)))} \quad \text{with}$$

X_1 = Profit Margin = (Income before Taxes / Sales) × 100

X_2 = Dividend Payout Ratio = Total Dividends / Net Income

X_3 = Leverage = Liabilities / Equity X_4 = (Assets/Sales) × 100

If sales growth forecast are above g:

- External financing (equity or debt) should be sought after,
- Or the profit margin should be improved,
- Or the distribution of dividends should be lower,
- Or the level of assets should be lower (lease instead of buy).

Interest rate risk

Risk that the financial value of assets or liabilities (or inflows/outflows) will be altered because of fluctuations in interest rates. For example, the risk that future investment may have to be made at lower rates and future borrowings at higher rates.

Long Position

A long position refers to a position where gains arise from a rise in the value of the underlying.

Market risk

Risk of loss arising from movements in market prices or rates away from the rates or prices set out in a transaction or agreement.

Modified Duration

The modified duration or volatility of an interest bearing security is its Macaulay Duration divided by one plus the coupon rate of the security. It represents the percentage change in the securities' price for a 100-basis point change in yield. It is generally accurate for only small changes in the yield.

$$MD = - dP / dY \times 1/P$$

Where, MD= Modified Duration.

P = Gross price (i.e. clean price plus accrued interest).

dP = Corresponding small change in price.

dY = Small change in yield compounded with the frequency of the coupon payment.

Mortgage-backed security

A bond-type security in which the collateral is provided by a pool of mortgages. Income from the underlying mortgages is used to meet interest and principal repayments.

Mutual Fund

Mutual Fund is a mechanism for pooling the resources by issuing units to the investors and investing funds in securities in accordance with objectives as disclosed in offer document. A fund established in the form of a trust to raise monies through the sale of units to the public or a section of the public under one or more schemes for investing in securities, including money market instruments.

Net Interest Margin

Net interest margin is the net interest income divided by average interest earning assets.

Net NPA

Net NPA = Gross NPA – (Balance in Interest Suspense account + DICGC / ECGC claims

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received and held pending adjustment + Part payment received and kept in suspense account + Total provisions held).

NOSTRO accounts

Foreign currency settlement accounts that a bank maintains with its overseas correspondent banks. These accounts are assets of the domestic bank.

Off-Balance Sheet exposures

Off-Balance Sheet exposures refer to the business activities of a bank that generally do not involve booking assets (loans) and taking deposits. Off-balance sheet activities normally generate fees, but also produce liabilities or assets that are deferred or contingent and thus, do not appear on the institution's balance sheet until or unless they become actual assets or liabilities.

Open position

It is the net difference between the amounts payable and amounts receivable in a particular instrument or commodity. It results from the existence of a net long or net short position in the particular instrument or commodity.

Option

An option is a contract which grants the buyer the right, but not the obligation, to buy (call option) or sell (put option) an asset, commodity, currency or financial instrument at an agreed rate (exercise price) on or before an agreed date (expiry or settlement date). The buyer pays the seller an amount called the premium in exchange for this right. This premium is the price of the option.

Risk

The possibility of an outcome not occurring as expected. It can be measured and is not the same as uncertainty, which is not measurable. In financial terms, risk refers to the possibility of financial loss. It can be classified as credit risk, market risk and operational risk.

Risk Asset Ratio

A bank's risk asset ratio is the ratio of a bank's risk assets to its capital funds. Risk assets include assets other than highly rated government and government agency obligations and cash, for example, corporate bonds and loans. The capital funds include capital and undistributed reserves. The lower the risk asset ratio the better the bank's 'capital cushion'.

Risk Weights

Basel II sets out a risk-weighting schedule for measuring the credit risk of obligors. The risk weights are linked to ratings given to sovereigns, financial institutions and corporations by external credit rating agencies.

Securitization

The process whereby similar debt instruments / assets are pooled together and repackaged into marketable securities which can be sold to investors. The process of loan securitization is used by banks to move their assets off the balance sheet in order to improve their capital asset ratios.

Short position

A short position refers to a position where gains arise from a decline in the value of the underlying. It also refers to the sale of a security in which the seller does not have a long position.

Specific risk

Within the framework of the BIS proposals on market risk, 'specific risk' refers to the risk associated with a specific security, issuer or company, as opposed to the risk associated with a market or market sector (general risk).

Subordinated debt

Refers to the status of the debt. In the event of the bankruptcy or liquidation of the debtor, subordinated debt only has a secondary claim on repayments, after other debts have been repaid.

Tier one (or Tier I) capital

A term used to refer to one of the components of regulatory capital. It consists mainly of share capital and disclosed reserves (minus goodwill, if any). Tier I items are deemed to be of the highest quality because they are fully available to cover losses. The other categories of capital defined in Basel II are Tier II (or supplementary) capital and Tier III (or additional supplementary) capital.

Tier two (or Tier II) capital

Refers to one of components of regulatory capital. Also known as supplementary capital, it consists of certain reserves and certain types of subordinated debt. Tier II items qualify as regulatory capital to the extent that they can be used to absorb losses arising from a bank's activities. Tier II's capital loss absorption capacity is lower than that of Tier I capital.

Times Interest Earned:

Also known as Coverage Ratio, it indicates the ability of the company to meet its interest costs.

= Operating Profit / Interest charges

Trading Book

A trading book or portfolio refers to the book of financial instruments held for the purpose of short-term trading, as opposed to securities that would be held as a long-term investment. The

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trading book refers to the assets that are held primarily for generating profit on short- term differences in prices / yields. The price risk is the prime concern of banks in trading book.

Underwrite

Generally, to 'underwrite' means to assume a risk for a fee. Its two most common contexts are:

- (a) *Securities*: A dealer or investment bank agrees to purchase a new issue of securities from the issuer and distribute these securities to investors. The underwriter may be one person or part of an underwriting syndicate. Thus the issuer faces no risk of being left with unsold securities.
- (b) *Insurance*: A person or company agrees to provide financial compensation against the risk of fire, theft, death, disability, etc., for a fee called a premium.

Undisclosed Reserves

These reserves often serve as a cushion against unexpected losses, but they are less permanent in nature and cannot be considered as 'Core Capital'. Revaluation reserves arise from revaluation of assets that are undervalued on the bank's books, typically bank premises and marketable securities. The extent to which the revaluation reserves can be relied upon as a cushion for unexpected losses depends mainly upon the level of certainty that can be placed on estimates of the market values of the relevant assets, the subsequent deterioration in values under difficult market conditions or in a forced sale, potential for actual liquidation at those values, tax consequences of revaluation, etc.

Value at Risk (VaR)

It is a method for calculating and controlling exposure to market risk. VaR is a single number (currency amount) which estimates the maximum expected loss of a portfolio over a given time horizon (the holding period) and at a given confidence level.

Venture capital Fund

A fund with the purpose of investing in start-up business that is perceived to have excellent growth prospects but does not have access to capital markets.

Vertical Disallowance

In the BIS Method for determining regulatory capital necessary to cushion market risk, a reversal of the offsets of a general risk charge of a long position by a short position in two or more securities in the same time band in the yield curve where the securities have differing credit risks.

Yield to Maturity (YTM)

The Yield to maturity (YTM) is the yield promised to the bondholder on the assumption that the bond will be held to maturity and coupon payments will be reinvested at the YTM. It is a measure of the return of the bond.

International Glossary on Valuation

Adjusted Book Value Method – a method within the asset approach whereby all assets and liabilities (including off-balance sheet, intangible, and contingent) are adjusted to their fair market values (NOTE: In Canada on a going concern basis).

Asset (Asset-Based) Approach – a general way of determining a value indication of a business, business ownership interest, or security using one or more methods based on the value of the assets net of liabilities.

Beta – a measure of systematic risk of a stock; the tendency of a stock's price to correlate with changes in a specific index.

Blockage Discount – an amount or percentage deducted from the current market price of a publicly traded stock to reflect the decrease in the per share value of a block of stock that is of a size that could not be sold in a reasonable period of time given normal trading volume.

Discount for Lack of Control – an amount or percentage deducted from the pro rata share of value of 100% of an equity interest in a business to reflect the absence of some or all of the powers of control.

Discount for Lack of Marketability – an amount or percentage deducted from the value of an ownership interest to reflect the relative absence of marketability.

Discount for Lack of Voting Rights – an amount or percentage deducted from the per share value of a minority interest voting share to reflect the absence of voting rights.

Equity Risk Premium – a rate of return added to a risk-free rate to reflect the additional risk of equity instruments over risk free instruments (a component of the cost of equity capital or equity discount rate).

Intrinsic Value – the value that an investor considers, on the basis of an evaluation or available facts, to be the “true” or “real” value that will become the market value when other investors reach the same conclusion. When the term applies to options, it is the difference between the exercise price or strike price of an option and the market value of the underlying security.

Invested Capital – the sum of Equity and Debt in a Business Enterprise. Debt is typically (a) all interest bearing debt or (b) long-term interest-bearing debt. When the term is used, it should be supplemented by a specific definition in the given valuation context.

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Key Person Discount – an amount or percentage deducted from the value of an ownership interest to reflect the reduction in value resulting from the actual or potential loss of a key person in a business enterprise.

Levered Beta – the beta reflecting a Capital Structure that includes debt.

Market Multiple – the market value of a company's stock or invested capital divided by a company measure (such as economic benefits, number of customers).

Normalized Earnings – economic benefits adjusted for nonrecurring, non-economic or other unusual items to eliminate anomalies and/or facilitate comparisons.

Price / Earnings Multiple – the price of a share of stock divided by its earnings per share.

Rate of Return – an amount of income (loss) and/or change in value realized or anticipated on an investment, expressed as a percentage of that investment.

Systematic Risk – the risk that is common to all risky securities and cannot be eliminated through diversification.

The measure of systematic risk in stocks is the beta coefficient.

Unlevered Beta – the beta reflecting a capital structure without debt.

Unsystematic Risk – the risk specific to an individual security that can be avoided through diversification.

Frequently used Abbreviations

ACH	-	Automated Clearing Houses
ACU	-	Asian Clearing Union
AD	-	Authorised Dealer
ADB	-	Asian Development Bank
ADR	-	American Depository Receipt
AFS	-	Available for Sale
AIFI	-	All India Financial Institutions
ALD	-	Aggregate Liabilities to the Depositors
ALM	-	Asset Liability Management
AMFI	-	Association of Mutual Funds in India
AML	-	Anti Money Laundering
AMS	-	Aggregate Measures of Support
ARCIL	-	Asset Reconstruction Company of India Ltd.
ARDC	-	Agriculture Refinance and Development Corporation
ASEAN	-	Association of South East Asian Nations
BCBS	-	Basel Committee on Banking Supervision
BCP	-	Business Continuity Plan
BFS	-	Board for Financial Supervision
BFSI	-	Banking, Financial Services and Insurance
BIFR	-	Board for Industrial and Financial Reconstruction
BIS	-	Bank for International Settlements
BoP	-	Balance of Payments
BPLR	-	Benchmark Prime Lending Rate
CBLO	-	Collateralized Borrowing and Lending Obligation

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CBoT	-	Chicago Board of Trade
CCIL	-	Clearing Corporation of India Limited
CD	-	Certificate of Deposit
CDR	-	Corporate Debt Restructuring
CEPT	-	Common External Preferential Tariff
CFMS	-	Centralized Funds Management System
CFS	-	Consolidated Financial Statement
CFTS	-	Centralized Funds Transfer System
CGRA	-	Currency and Gold Revaluation Account
CGTSI	-	Credit Guarantee Fund Trust for Small Industries
CIB	-	Capital Indexed Bond
CIBIL	-	Credit Information Bureau of India Limited
CLF	-	Collateralized Lending Facility
CPI	-	Consumer Price Index
CPI-IW	-	Consumer Price Index for Industrial Workers
CPR	-	Consolidated Prudential Report
CP	-	Commercial Paper
CPSS	-	Committee on Payment and Settlement Systems
CRAR	-	Capital to Risk-Weighted Assets Ratio
CRM	-	Country Risk Management
CRR	-	Cash Reserve Ratio
CSGL	-	Constituents' Subsidiary General Ledger Account
CVPS	-	Currency Verification and Processing System
DBOD	-	Department of Banking Operations and Development
DBS	-	Department of Banking Supervision
DCA	-	Debtor-Creditor Agreement
DFHI	-	Discount and Finance House of India
DFI	-	Development Finance Institution
DFRC	-	Duty Free Replenishment Certificate
DICGC	-	Deposit Insurance and Credit Guarantee Corporation

Frequently used Abbreviations

DNSS	-	Deferred Net Settlement System
DP	-	Depository Participant
DRI	-	Differential Rate of Interest
DRS	-	Disaster Recovery System
DSS	-	Debt Swap Scheme
DRT	-	Debt Recovery Tribunal
DTA	-	Domestic Tariff Area
DTL	-	Demand and Time Liabilities
D v P	-	Delivery versus Payment
EC	-	Exchange Control
ECB	-	External Commercial Borrowing
ECD	-	Exchange Control Department
ECGC	-	Export Credit Guarantee Corporation
ECR	-	Export Credit Refinance
ECS	-	Electronic Clearing Services
EDI	-	Electronic Data Interchange
EEA	-	Exchange Equalization Account
EEFC	-	Exchange Earners' Foreign Currency Account
EFT	-	Electronic Funds Transfer
EKMS	-	Enterprise Knowledge Management System
EME	-	Emerging Market Economy
EMU	-	European Monetary Union
EOU	-	Export Oriented Unit
EPCG	-	Export Promotion Capital Goods
EU	-	European Union
EXIM	-	Export Import
FCA	-	Foreign Currency Assets
FCNRA	-	Foreign Currency Non-Resident Account
FCNR (B)	-	Foreign Currency Non-Resident (Banks)
FCRA	-	Forward Contract Regulation Act

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FCCB	-	Foreign Currency Convertible Bond
FDI	-	Foreign Direct investment
FEDAI	-	Foreign Exchange Dealers' Association of India
FED	-	Foreign Exchange Department
FEMA	-	Foreign Exchange Management Act
FER	-	Foreign Exchange Reserves
FET-ERS	-	Foreign Exchange Transactions Electronic Reporting System
FII	-	Foreign Institutional Investor
FIMMDA	-	Fixed Income Money Market and Derivatives Association of India
FRA	-	Forward Rate Agreement
FRB	-	Floating Rate Bond
FRBM	-	Fiscal Responsibility and Budget Management
FSSA	-	Financial System Stability Assessments
FTT	-	Foreign Travel Tax
G-20	-	Group of Twenty
GAAP	-	Generally Accepted Accounting Principles
GATS	-	General Agreement on Trade in Services
GATT	-	General Agreement on Tariffs and Trade
GDCF	-	Gross Domestic Capital Formation
GDP	-	Gross Domestic Product
GDS	-	Gross Domestic Saving
GDR	-	Global Depository Receipt
GFCF	-	Gross Fixed Capital Formation
GFD	-	Gross Fiscal Deficit
GRF	-	Guarantee Redemption Fund
GSO	-	Green Shoe Option
HFT	-	Held for Trading
HTM	-	Held to Maturity
IAS	-	Integrated Accounting System
ICA	-	Inter-creditor Agreement

Frequently used Abbreviations

ICDs	-	Inter-Corporate Deposits
ICOR	-	Incremental Capital Output Ratio
IDL	-	Intra-day Liquidity
IDMD	-	Internal Debt Management Department
IDR	-	Indian Depository Receipt
IFC	-	International Finance Corporation
IFCI	-	Industrial Finance Corporation of India
IFI	-	International Financial Institution
IFR	-	Investment Fluctuation Reserve
IIBI	-	Industrial Investment Bank of India
IIP	-	Index of Industrial Production
IIP	-	International Investment Position
IMF	-	International Monetary Fund
IMFC	-	International Monetary and Financial Committee
INFINET	-	Indian Financial Network
IRB	-	Internal Rating Based
IRDA	-	Insurance Regulatory and Development Authority
IRF	-	Interest Rate Future
IRS	-	Interest Rate Swap
ISA	-	Information System Audits
ISP	-	Information Security Policy
LAF	-	Liquidity Adjustment Facility
LaR	-	Liquidity at Risk
LC	-	Letter of Credit
LIBOR	-	London Inter-Bank Offered Rate
LIFFE	-	London Inter-Bank Financial Futures Exchange
M3	-	Broad Money
MBS	-	Mortgage-Backed Securities
MIFOR	-	Mumbai Inter-Bank Forward Offered Rate
MNBC	-	Miscellaneous Non-Banking Company

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MoU	-	Memorandum of Understanding
MPI	-	Macro-Prudential Indicator
MSS	-	Market Stabilization Scheme
MTFRP	-	Medium-Term Fiscal Reforms Programme
NAV	-	Net Asset Value
NFA	-	Net Foreign Assets
NBFC	-	Non-Banking Financial Company
NCAER	-	National Council of Applied Economic Research
NCD	-	Non-Convertible Debenture
NDA	-	Net Domestic Assets
NDS	-	Negotiated Dealing System
NDTL	-	Net Demand and Time Liabilities
NEER	-	Nominal Effective Exchange Rate
NEFT	-	National Electronic Funds Transfer
NIC	-	National Industrial Credit
NOF	-	Net-Owned Fund
NPA	-	Non-Performing Asset
NPC	-	National Payments Council
NRE	-	Non-Resident External
NRI	-	Non-Resident Indian
NR(NR)RD	-	Non-Resident (Non-Repatriable) Rupee Deposits
NRO	-	Non-Resident Ordinary Accounts
NRSR	-	Non-Resident Special Rupee Deposits
NSSF	-	National Small Saving Fund
NSDL	-	National Securities Depository Ltd.
NSS	-	National Settlement System
NIC	-	National Industrial Credit
OBU	-	Offshore Banking Unit
OCB	-	Overseas Corporate Body
OLTAS	-	Online Tax Accounting Systems

Frequently used Abbreviations

OMO	-	Open Market Operation
OPAC	-	Online Public Access Catalogue
OPEC	-	Organisation of Petroleum Exporting Countries
OSMOS	-	Off-site Monitoring and Surveillance
OTCEI	-	Over-the-Counter Exchange of India
OTS	-	One-Time Settlement
PCA	-	Prompt Corrective Action
PCD	-	Partially Convertible Debenture
PD	-	Primary Dealer
PDO	-	Public Debt Office
PFI	-	Public Financial Institution
PIO	-	Person of Indian Origin
PKI	-	Public Key Infrastructure
PLR	-	Prime Lending Rate
PMO	-	Primary Market Operations
PMS	-	Portfolio Management Services
PSRS	-	Prudential Supervisory Reporting System
PSSC	-	Payment and Settlement Systems Committee
PTA	-	Preferential Trading Agreement
QIS	-	Quantitative Impact Study
RBS	-	Risk-Based Supervision
RC	-	Reconstruction Companies
REER	-	Real Effective Exchange Rate
RFC (D)	-	Resident Foreign Currency (Domestic)
Repo	-	Ready Forward/Repurchase Agreement
RIB	-	Resurgent India Bond
RIDF	-	Rural Infrastructure Development Fund
RIN	-	Risk Intelligence Network
RNBC	-	Residuary Non-Banking Company
ROA	-	Return on Total Assets

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ROE	-	Return on Equity
RPT	-	Risk Profile Template
RSSS	-	Recommendations for Securities Settlement System
RTGS	-	Real Time Gross Settlement
RTIA	-	Regional Trade and Investment Area
SAFE	-	South Asian Federation of Stock Exchanges
SAFTA	-	South Asian Free Trade Agreement
SASF	-	Stressed Assets Stabilization Fund
SCRA	-	Securities Contracts (Regulation) Act, 1956
SDF	-	Submission of Declaration Form
SDRM	-	Sovereign Debt Restructuring Mechanism
SDR	-	Special Drawing Right
SEFER	-	Securities held as Foreign Exchange Reserves
SEFT	-	Special Electronic Funds Transfer
SFMS	-	Structured Financial Messaging Solution
SGL	-	Subsidiary General Ledger
SIPS	-	Systemically Important Payment System
SITP	-	Strategic Information Technology Plan
SLR	-	Statutory Liquidity Ratio
SME	-	Small and Medium Enterprise
SPV	-	Special Purpose Vehicle
SSS	-	Securities Settlement System
STP	-	Straight Through Processing
SIFI	-	Systemically Important Financial Intermediaries
SWIFT	-	Society for Worldwide Inter-bank Financial Telecommunications
TAC	-	Technical Advisory Committee
TBT	-	Technical Barriers to Trade
TFPG	-	Total Factor Productivity Growth
TIN	-	Tax Information Network
UIP	-	Uncovered Interest Parity

Frequently used Abbreviations

UNCTAD	-	United Nations Conference for Trade and Development
VaR	-	Value at Risk
WADR	-	Weighted Average Discount Rate
WDM	-	Wholesale Debt Market
WMA	-	Ways and Means Advance
WPI	-	Wholesale Price Index
Y-on-Y	-	Year-on-Year
YTM	-	Yield-to-Maturity

Checklist on Internal Audit for Treasury Market Risk Management

Stages of Internal Audit



Risk and Audit Matrix

Risk and Audit Matrix

	High	High Risk	Very High Risk	Extreme Risk
Business Risk	Medium	Medium Risk	High Risk	Very High Risk
	Low	Low Risk	Medium Risk	High Risk
		Low	Medium	High
				Control Risk

Checklist on Internal Audit for Treasury Market Risk Management

Treasury Dealing Room

- Authorized by the bank's risk management committee.
- Interface to international and domestic financial markets.
- Clearing house for matching.
- Managing and controlling market risk.
- Provide funding, liquidity, investment support

Organizational Structure of Bank's Treasury

Dealing

- Risk taking
- Performed by front office

Risk management

- Performed by mid office

Management Information

- Performed by mid office

Verification

- Confirmation of deals
- Settlement of deals
- Accounting and reconciliation
- Back office

Internal Control System

- Functional separation of trading, settlement, monitoring , control and accounting.
- Functional separation of trading and back office functions such as investment accounts of banks, client's portfolio management scheme, broker's accounts.
- External audit of portfolio management scheme of clients.
- Dealing slip for each transaction by the trading desk
 - Nature of deal
 - Number of counter parties

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- Direct deal or deal through a broker
- Quantum of securities traded
- Price of securities traded
- Contract date and time

System of Treasury Deal

- No substitution of counter party once trading has been conducted.
- No substitution of security purchased or sold once trading has been conducted.
- Maintenance of independent books of accounts by the accounts section.
- Maintenance of Subsidiary General Ledger (SGL) account and Bank Receipt records.
- Reconciliation of bank's books with balances in the books of public debt office at quarterly intervals

Reporting to Top Management

- Reports on a weekly basis.
- Details of transactions in securities.
- Details of SGL transfer forms issued by other banks that have bounced.
- Bank receipts outstanding for more than one month.
- Review of investment transactions.

Monitoring by the Audit Committee

- Total exposure of the bank to capital market (fund based and non fund based).
- Ensuring compliance of RBI guidelines.
- Monitoring of risk management system.
- Monitoring of internal control system.
- Ensure that stock brokers as directors in the bank Board do not take part in investment committee decisions.

Treasury Risk

- **Market risk**
 - Risk to the bank's earnings and capital through changes in market rates, security prices, foreign exchange and equity instruments

Checklist on Internal Audit for Treasury Market Risk Management

- **Liquidity risk**
 - Ability of banks to meet its liabilities
 - Funding risk
 - Time risk
 - Call risk
- **Interest rate risk**
 - Possibility that interest rates adversely affects the bank's financial position
 - Bank's earnings measured through net interest margin
 - Economic valuation of banks
- **Foreign exchange rate risk**
 - Loss suffered by banks due to adverse movement of exchange rate
- **Credit Risk**
 - Possible loss of principal and or interest
- **Operational risk**
 - Risk of direct or indirect loss from inadequate internal processes, people, systems, external events

Market Risk Limit

- Past performance of the trading unit
- Experience and expertise of the traders
- Quality of internal control
- Pricing, valuation and measurement systems in place
- Projected level of trading activity
- Liquidity of products and markets
- Efficiency of systems in place to settle trades
- Notional or volume limit
- Stop loss limit
- Gap or maturity band limit
- Value-at-risk limit

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- Options limit
 - Delta limit
 - Gamma limit
 - Vega limit
 - Theta limit
 - Rho limit

Guidelines on Internal Control System

- Risk identification processes
- Control environment
- Reliability and integrity of management information system
- Statutory compliance of internal regulator
- Budgetary control
- Verification of investment trades
- Compliance with the internal audit report

Risk Based Internal Audit

- Review of risk systems
- Compliance with money laundering regulations
- Identification of potential internal business risks
- Identification of measures and systems to control risks
- Establishment of corrective parameters
- Follow up of review reports by the internal audit committee

Check List for Internal Audit

I. General

- Policies for all treasury activities.
- Policies in tune with the nature of operations.
- Responsible persons are associated with the policies.
- Policy specifies types and purposes of the financial instruments.

Checklist on Internal Audit for Treasury Market Risk Management

- Policy specifies frequency of reporting and reporting authority.
- Maintenance of cash reserve ratio and statutory liquidity ratio requirements.

II. Organisation Structure

- Treasury activities are supervised by an officer independent of the day-to-day activities.
- Effective segregation of key duties (treasury dealing, settlement of accounting, reconciliation of accounts).
- Policies and procedures are documented and are easily accessible to all staff.
- Defined job descriptions and delegations for key treasury positions.
- Availability of sufficient resources to operate the treasury effectively.
- Segregation between functions of authorization, execution and recording of transactions.

III. Personnel: Training, Compliance and Performance

- Trained personnel.
- Verification of employees' references.
- Verification of documents signed by employees at the time of joining.

IV. Deal Execution Process

- Confirmation of transactions concluded by the dealing room with the back office manager.
- Systematic filing of procedure.
- Examine third party payment.
- Outward confirmations are recorded in a register.

V. Limits

- Counterparty exposure limit for all brokers, lenders, etc.
- Dealing limits (maximum amount, a person can transact without seeking higher level approval).
- Product limits (maximum exposure in a particular instrument or product).
- Sector limits (maximum investment in a particular sector).

VI. Recording Control

- Control over Documents
- Timely and accurate execution of money market deals and recordings.

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- Receipt of all documents and statements from concerned parties (brokers, bankers, lenders, etc.).
- Numbering and filing of copies for ease of reference.
- Control over Accounting Procedures
- Adequate systems to track all matured investments.
- Accurate recording and accounting of positions.
- Counter checking of records by an independent person.
- All deals are recorded in the General Ledger.
- Account reconciliation has been done and time frame has been set for clearing all outstanding items.
- Inspection of source documents.

VII. Reconciliation of Bank Accounts and Treasury Records with the General Ledger

- Bank balance with bank statement.
- Reconciliation of treasury records with the general ledger.

VIII. Cash Management

- Effective procedure for monitoring daily cash position.
- Planning of the liquidity needs for normal operating conditions and emergency situations by management.
- Trend analysis of cash forecasting.
- Bank statements.
- Review of liquidity position.

IX. Investment

- Review and follow up of investment strategy.
- Authority level and monetary limits set for investment in different instruments.
- Documentation of list of investments.
- Analysis of investment portfolio statements.
- Holding of investments in the bank's name.
- Documents with regard to ownership of investments.
- Bank utilises the services of third party investment managers.

Checklist on Internal Audit for Treasury Market Risk Management

- Control of the investment managers' activities.
- Appraisal of investment managers
- Compliance with investment policies by investment managers.
- Evaluation of internal / external investment managers' performance.

X. Documentation for Derivative Transactions

- Usage of International Swaps and Derivatives Association (ISDA) documentation, with suitable modifications.
- Confirmation for each derivative transaction with details of the terms of the contract such as gross amount, rate, value date, etc.
- Individual transaction confirmation.
- Evaluation of legal capacity, power and authority of the counterparty to enter into derivative transactions.
- Documentation of the agreement with the counterparty prior to undertaking any derivatives business with them.
- Documentation regarding customer suitability, appropriateness, etc.

XI. Investment in Debt Securities

- Frequency of interest payments.
- Information about the issuer and the credit rating.
- Terms of issue such as use of issue proceeds, monitoring agency, appointment of trustees, secured or unsecured nature of bonds, assets underlying the security and credit-worthiness of the organisation.
- Comparison of the Yield To Maturity (YTM) of the debt security with the YTM of other comparable debt securities of the same class and features.

Check List for Treasury Audit (Domestic & Forex Treasury)

Domestic Treasury

Investment & Treasury Department

Typical Infrastructure

(Physical & Functional Separation)

Front Office (Dealers) & (Trading)

Back Office / Mid Office (Settlement) & (Monitoring)

Accounts Department & Accounting

Important documents

- Investment Policy of the Bank
- Latest Master Circulars issued by Reserve Bank of India
- Subsequent Circulars & Monetary Policy issued by Reserve Bank of India

Investment Policy

- Can never over-ride RBI Circulars
- Can be stringent than RBI Circulars
- Defines authority matrix
- Defines internal functioning of the department
- Stop Loss / Take Profit Limits
- Must be approved by Board

Types Of Domestic Transactions

- Repo and Reverse Repo
- (Repo = Borrowing of Money and Reverse Repo = Borrowing of Security)
- Re-Repo permitted

Check List for Treasury Audit (Domestic & Forex Treasury)

Funding by selling an instrument with repurchase on forward basis

- Dated G-Sec
- State Govt. Securities
- T-Bills

Double Ready Forward prohibited

Short Sale of Securities

- Actual
- Notional
- Chronological order of recording transactions (Time Stamp of Deal Ticket)
- Reported Deals
- Category of Security (HFT)
- Monthly Certification by Concurrent Auditors

Regulatory Restrictions on Call Money Transactions

Participants

Scheduled Commercial Banks

Borrowing: Fortnightly Average should be within 100% of Tire I and II Capital – Max 125% in day

Lending: Fortnightly Average should be within 25% of Tier I & II Capital – Max 50% in day

Co-operative Banks

Borrowing: Daily 2% of last March aggregate deposits

Lending: No Limit

Other Important Aspects

CCIL

- NDS OM : Negotiated Dealing System Order Match
- CBLO: Collateralized Borrowing Lending obligation
- FX Clear: Fx Currency Trading Platform

Dealing through Brokers

Minutes of Investment Committee

Module-III : Theory and Practice of Forex and Treasury Management

Half Yearly Review of Investment Portfolio to be placed before Board within 30 days & forwarded to RBI

Regulatory Restrictions

Non-SLR-Listed / Unlisted

- SIDBI Deposits
- Equity Shares
- Bonds / Debentures
- Preference Shares
- Investments in Subsidiaries & JVs

Investments in Non-SLR

Type	Restrictions
Unlisted Non-SLR Security	10% of the total Non-SLR as on last 31 st March
Securitization Papers issued by Infra Projects, Bonds issued by Securitization Companies	Additional 10% (But within overall ceiling of 20% of last 31 st March total Non-SLR)
Unrated Non-SLR Securities	Prohibited
Unrated Bonds of Infra Bonds	Within 10% ceiling of unlisted Non-SLR
Original tenure of Security	At least of 12 months (Except of CDs / CPs)

- Need to comply with disclosure requirement by SEBI (even for private placements)
- Debt securities to carry credit rating not less than investable grade (i.e., should be at least BBB – rated)

Regulatory restrictions on investments: Liquid MFs < 12 m

- Weighted average maturity of Liquid MFs less than one year should be within a cap of 10% of net worth as 31st March of last year..

Repo in Corporate Debt Securities

- Instrument used for Repo should not be of original maturity of less than one year (except CD / CPs / NCDs covered by RBI Guidelines)
- Should be held in DEMAT Form & Listed
- Should be rated AA and above

Check List for Treasury Audit (Domestic & Forex Treasury)

Exposure to Equity Market

(Solo as well as Consolidated exposure)

(Ref. Para 2.3.1. of RBI Master Circular on Exposure Norms)

Type	Limit
	(% age of Net Worth as on March 31 of Previous Year)
Aggregate (Fund & Non-Fund Based)	40%
Direct Investments	20%

Examples of Direct Exposures (20%)

- Investment in Shares
- Convertible Bonds / Debentures
- Equity Oriented MFs
- Exposures to VC Funds

Zero Coupon Bonds or Low Coupon Bonds

- Banks can invest in such bonds only if the issuer builds up sinking fund for all accrued interest and keeps the same invested in liquid investments / securities (Government Bonds)
- (Banks advised to put in place additional conservative limits)
- Investment in Long Term Bonds issued by Banks to finance Infrastructure & Affordable Housing
 - Lower of 2% of investing Bank's Tier I Capital or 5% of Issue Size
 - Total Exposure to such bonds to be within 10% of Total Non-SLR investments
 - Allotment to banks in Primary issue size capped at 20%
 - Banks cannot hold own bonds

Types of Investments

HTM – Held to Maturity

AFS – Available for Sale

HFT – Held for Trading

Balance Sheet Disclosure

- Government Securities

Module-III : Theory and Practice of Forex and Treasury Management

- Other Approved Securities
- Shares
- Debentures & Bonds
- Subsidiaries and JVs
- Others (CPs, MF Units, etc.)

HTM – Held to Maturity

Should be within 25% of total investments excluding:

- Investments in Subsidiaries and JVs
- Re-capitalization Bonds issued by GOI
- Long Term Bonds issued by Infra Companies with residual tenure of not less than 7 Years

Permitted Securities w.e.f. 02.Sep.2004.

- SLR Securities
- Non-SLR securities classified under HTM as on 02.Sep.2004
- Recapitalization Bonds issued by GOI
- Investment in Subsidiaries / JVs
- RIDF / SIDBI / RHDF Deposits
- Long Term Bonds issued by Infra Companies with residual tenure of not less than 7 Years
- 25% ceiling can be exceeded w.e.f. 02.Sep.04 subject to the following:
 - Excess consists of only SLR Securities, upto 22.50% ^ of DTL as on last Friday of Second preceding fortnight.
 - No Fresh Non-SLR securities permitted to be included in HTM except few.
 - ^ 22.50% w.e.f. 11.Jul.15 / ^ 22.00% w.e.f. 19.Sep.15
 - ^ Additional shifting at the beginning of Jul, Sep'15 permitted (Ref. Circular dated 07.10.14)

Latest Circular Issued on December 10, 2015 stipulates the following limits:

Effective Date	SLR to be brought down along with ceiling on SLR to HTM
09.Jan.2016	21.50
02.Apr.2016	21.25
09.Jul.2016	21.00

Check List for Treasury Audit (Domestic & Forex Treasury)

01.Oct.2016	20.75
07.Jan.2017	20.50

Accounting

Profit would be first accounted in Profit & Loss Account and then appropriated to Capital Reserve Account (Net of Taxes)

Loss would be accounted in P & L Account

HFT / AFS

Accounting

Profit / Loss would be accounted in Profit & Loss Account

Valuation of Investments – HTM

- Are NOT marked to market
- Diminish in Value other than temporary (i.e., impairment) is to be recognized
 - Default in repayment of its debt obligation
 - Loan with any bank is restructured
 - Credit Rating of the Company is downgraded below investable grade (BBB--)
 - Incurs Loss for a continuous period of 3 Years and Net Worth is reduced by 25% or more
 - New Company / Project If break-even point is extended beyond gestation period.
 - Premium in Book Value over face value to be amortized over the residual period.
 - Amortization to be accounted for as a deduction under "Income on Investment – Interest Earned"

Valuation of Investments – AFS

Marked to Market at least at quarterly intervals

- Step – I
 - Scrip-wise Valuation
- Step – II
 - Classification wise aggregation
(Govt. Securities / Shares / Debentures & Bonds / Subsidiaries & JVs / Others)

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— Step – III

Ignore Appreciation and provide Depreciation

Book Value NOT to undergo any change

Valuation of Investments – HFT

Same as AFS except that it needs to be marked- to –market ??? at least at monthly intervals.

Shifting of Category – HFT / AFS / HTM

HTM to AFS / HFT

- Approval of Board required
- Normally be allowed only at the beginning of the year
- No further shifting to / from allowed

Accounting HTM to AFS / HFT

- Transferred at Book Value (Net of amortization)
- Immediately marked to market and provision for depreciation made on the same day
- Thus, Book Value remains unchanged

Disclosure Requirements – HTM to AFS / HFT

If value of sale and transfer of securities to / from HTM Category > 5% of Book Value of opening HTM

Market Value and Book Value of HTM to be disclosed along with disclosure of excess of BV over MV for which provision not made.

Accounting

AFS / HFT to HTM

Transferred at Book Value or Market Value whichever is lower (provision for depreciation would be used in case Market Value being lower than Book Value)

AFS to HFT

- Approval of Board required / ALCO / Investment Committee
- In case of exigencies, CEO or Head of ALCO can also approve the same which should be later on ratified

HFT to AFS

- Generally not permitted
- Permitted only in exceptional circumstances
- Approval of Board / ALCO / Investment Committee required

Check List for Treasury Audit (Domestic & Forex Treasury)

AFS to / from HFT – Accounting

- Transferred at Book Value along with corresponding depreciation provision
- Book Value remains unchanged

Important Concepts (IFR)

Investment Fluctuation Reserves (IFR)

- 5% of Investment Portfolio which is created out of Profit and Loss Account but reversible below the line
- Now the concept has been dispensed with

Apr'05

Banks maintaining capital adequacy of 9%, excess IFR over 5% of AFS / HFT would be considered as Tier I Capital

Oct'05

Banks maintaining Capital adequacy of 9% as on Mar'06, entire IFR can be considered as Tier I Capital

Investment Reserve Account (IRA)

- Created out of excess of depreciation provision of AFS / HFT reversed in P & L A/C through below the line appropriation
- Reversible at net of 25% appropriation to Statutory Reserves and net of Tax Rate, below the line (thus 100% Depreciation provision requirement can reverse IRA to the extent of 52.50%)
- Dividends are payable out of current year's profit and therefore IRA cannot be used for the same

Valuation of Securities

Basic Concepts

Yield = Coupon Rate

(+) Discount

(-) Premium

(+) Risk Spread

Inter-relation between

Coupon Rate / YTM / Maturity Period / Price

(FIMMDA Fixed Income Money Market & Derivatives Association of India Subject to traded price in last fortnight)

Module-III : Theory and Practice of Forex and Treasury Management

Refer FIMMDA sheet

1. Central Government Securities
2. State Government Securities
Refer FIMMDA Par Yield Curve & Risk Spreads
3. Unquoted non-SLR Securities
4. Preference Shares

Carrying Cost

5. Treasury Bills (T-Bills)
6. Commercial Papers
7. Regional Rural Bank (RRBs)

Carrying Cost as Book Value and use ZCYC (Zero Coupon Yield Curve) plus spread and arrive discounted PV

8. Zero Coupon Bonds (ZCBs)

If Listed – MV and if unlisted break-up value

9. Equity Shares

Others

10. Securities (Equity / Debentures, etc.) acquired by conversion of advances
11. Bonds issued by State Electricity Companies (Discoms)

Others

12. Mutual Funds
13. VCFs
 - Initially should be classified under HTM for 3 years
 - Subsequently should be classified under AFS (the transfer would be at the beginning of the subsequent year)
 - M2M should be on daily / weekly basis
14. Securities issued by Securitization / Reconstruction Company
 - Lower of Redemption Value and Net Book Value (Book Value less Provision)
 - Incentive to spread shortfall over two years if asset is sold between 26.Feb.2014 to 31.Mar.2016

NPI Norms

1. Interest / Installments due for more than 90 days

Check List for Treasury Audit (Domestic & Forex Treasury)

2. Same for Preference Shares whether cumulative or non-cumulative. Due date to be the date of balance sheet
3. Unlisted Equity shares to be valued at Re. 1 if financials are not available
4. Advances and Investments – Both are classified in the same category with the exception of preference shares
5. Conversion of Advances into Instruments to be considered as NPIs *ab initio* based on restructuring package in same asset classification
6. State Government Guaranteed Investments – similar to Advances
7. Central Government Guaranteed Investments – similar to Advances
8. Investments which are NPIs, 100% provision is required

Income Recognition

- Should be done on accrual basis except for income from units of MFs wherein cash basis is to be strictly followed.
- Concept of Yield
- Concept of 360 days / 365 days
- Money Market Instruments – 365 days
- G-Sec – 360 days
- Due date Diary

Certification Requirements & Role of Auditor

- Monthly Certification of Short Sale Transactions by Concurrent Auditors
- Monthly Concurrent Audit reports to be placed before CMD
- Yearly certification of “Statement of Reconciliation of Bank’s Investments” by Auditors [Investment Register (aspect of NPIs), Investments kept with Branches]
- Statutory Auditors to certify correctness of computation of DTL / NDTL and CRR / SLR
- Statutory Auditors to issue certificate of compliance in key areas (RBI circulars)

CRR / SLR

CRR - Cash Reserve Ratio - 4%

SLR - Statutory Liquid Ratio – 19.50%

DTL - Demand and Time Liabilities

Module-III : Theory and Practice of Forex and Treasury Management

CRR

- Cash
- Balance with Reserve Bank of India

SLR

- Cash or cash equivalents (Current Account with other SCBs)
- Gold (at price not exceeding MV)
- Government Securities
- Treasury Bills
- SLR Bonds

Concept of DTL

- Demand Liabilities
- Current Deposits
- Demand portion of Saving Bank A/C
- Margins held against BG / LC
- Matured Fixed Deposits (MFD)
- DD / PO / MTs / TTs Payable
- Adverse Balance in Advances A/C
- Unclaimed Deposits
- Time Liabilities

Liabilities of the bank which are payable otherwise than on demand like FDRs, RDs, Time liability portion of Saving Bank A/Cs, Staff security Deposits, etc.

- Other Demand and Time Liabilities (ODTL) include –
- Interest accrued on deposits
- Bills payable
- Unpaid dividend, suspense account
- Net credit balance in Branch Adjustment account except for credit entries outstanding for more than 5 years
- Net Liability towards banking system in India
- Netting off of liability against assets is permitted with respect to only banking system in India and not with respect to banking system outside India, thus, adverse NOSTRO Balances

Check List for Treasury Audit (Domestic & Forex Treasury)

Major Exclusions

- Paid up Capital
- Reserves and Surplus
- Loan taken from RBI
- Refinance from EXIM Bank, NHB, NABARD, SIDBI
- Funds borrowed under G-Sec Repo
- Claims received from DICGC pending adjustment
- ECGC / Insurance claims received
- Amounts received from court receiver
- Adhoc provisions made (which are not made for any particular liability)
- Eligible amount of incremental FCNR (B) and NRE deposits of maturities 3 years and above with base date 26.Jul.2013 & o/s as on 07.Mar.2014

Typical discrepancies in calculation of DTL / NDTL

- Adverse book balance of NOSTRO Accounts
- Nostro Reconciliation Items
- Interest Payable on Deposits which is accrued but not due
- Buyers' Credits availed by customers of the bank

Forex Treasury

Types of Transactions

- Inter-Bank Transactions
- Merchant Transactions
- Regular Sale and Purchase
- Currency Swap
- IRSCCS (Interest Rate Swap and Cross Currency Swap)
- Placement and Borrowings
- Currency Futures
- Currency Options

Typical Issues related to Forex Treasury

- Nostro Reconciliation – Forced / Automated & age-wise analysis
- Inter-Branch Transactions vis-à-vis Nostro Reconciliation

Module-III : Theory and Practice of Forex and Treasury Management

- Non-recording of transactions in Nostro Mirror
- Value dating of Merchant transactions in Nostro
- Buyer's Credit
- Cancellation of Forward – Passing of benefit to customers
- Valuation
- RBI Exposure Norms
- RBI Reporting Compliances

Forex Treasury – Exposure Norms

Investment in Overseas Market

Money Market / Debt Market Instrument issued by foreign state with less than one year tenure
(AA (-) S & P / FITCH Aa3 Moody's)

Debt instrument other than money market

(Board to lay down)

Loans / Overdraft

All types of overseas foreign currency borrowings

(100% of unimpaired Tier I Capital or USD 100 mio whichever is higher)

Borrowing beyond 50% of unimpaired Tier I Capital

(1. Adherence to Board approved policy 2. CRAR of 12% 3. Minimum Maturity of 3 years 4. FEMA / NOPL compliance)

Borrowing from whom?

(International / Multilateral Financial Institutions in which GOI is shareholding member or is established by one or more governments)

Net Overnight Open Position Limit (NOOPL)

(Board to decide subject to 25% of Tier I and II capital)

Calculate Net Open Position in single currency

- Net Spot Position
- Net Forward Position
- Net Option Position
- Net Spot Position
 - Difference between foreign currency assets & Liabilities

Check List for Treasury Audit (Domestic & Forex Treasury)

- Net Forward Position
 - Spot Transactions Not yet Settled
 - Forward Transactions
 - Guarantees & similar commitments
 - Net future income / expenses not yet accrued but hedged
 - Net receivable / payable of currency futures
- Net Option Position
 - Delta equivalent spot currency position

Calculate Overall Net Open Position

- i. Calculate Net open position for each currency
- ii. Calculate Net open position in Gold
- iii. Convert all into Rupee Terms as per RBI / FEDAI guidelines. All derivatives to be reported on the basis of PV adjustments
- iv. Arrive at the sum of net short positions
- v. Arrive at the sum of net long positions

(Overall net forex position is higher of (iv) and (v))

Aggregate GAP Limit

Board to decide and communicate to RBI subject to upper cap of 6 times of Tier I & II Capital.