

July 2, 2007

**All Commercial Banks  
(excluding RRBs)**

Dear Sir,

**Master Circular- Prudential Norms on Capital Adequacy**

Please refer to the Master Circular No. DBOD. BP. BC. 13/ 21.01.002/ 2006-2007 dated July 1, 2006 consolidating instructions/ guidelines issued to banks till June 30, 2006 on matters relating to prudential norms on capital adequacy. The Master Circular has been suitably updated by incorporating instructions issued up to 30<sup>th</sup> June 2007 and has also been placed on the RBI web-site ([http:// www.rbi.org.in](http://www.rbi.org.in)).

2. It may be noted that all relevant instructions on the above subject contained in the circulars listed in the Appendix have been consolidated. These instructions are applicable to all banks till March 30, 2008. However, for banks migrating to Basle II norms with effect from March 31, 2008, instructions contained in our circular DBOD. No. BP. BC.90 /20.06.001/2006-07 dated April 27, 2007 on "Implementation of the New Capital Adequacy Framework" will be applicable. For banks, which will not be migrating to Basle II, the instructions contained in this circular will continue to be applicable.

Yours faithfully,

**(Prashant Saran)**  
**Chief General Manager-in-Charge**

## ***Master Circular on 'Prudential Norms on Capital Adequacy'***

### **Purpose**

The Reserve Bank of India decided in April 1992 to introduce a risk asset ratio system for banks (including foreign banks) in India as a capital adequacy measure in line with the Capital Adequacy Norms prescribed by Basel Committee. This circular prescribes the risk weights for the balance sheet assets, non-funded items and other off-balance sheet exposures and the minimum capital funds to be maintained as ratio to the aggregate of the risk weighted assets and other exposures, as also, capital requirements in the trading book, on an ongoing basis.

### **Previous instructions**

This master circular consolidates and updates the instructions on the above subject contained in the circulars listed in Annex 11.

### **Application**

To all the commercial banks, excluding Regional Rural Banks

### **Structure**

1. **Introduction**
  - 1.1. Capital
  - 1.2. Credit Risk
  - 1.3. Market Risk
2. **Guidelines**
  - 2.1. Components of Capital
  - 2.2. Capital charge for Market risk
  - 2.3. Capital adequacy for Subsidiaries
  - 2.4. Procedure for computation of CRAR
3. **Annex**
4. **Glossary**

## **1. INTRODUCTION**

This master circular covers instructions regarding the components of capital and capital charge required to be provided for by the banks for credit and market risks. It deals with providing explicit capital charge for credit and market risk and addresses the issues involved in computing capital charges for interest rate related instruments in the trading book, equities in the trading book and foreign exchange risk (including gold and other precious metals) in both trading and banking books. Trading book for the purpose of these guidelines includes securities included under the Held for Trading category, securities included under the available for sale category, open gold position limits, open foreign exchange position limits, trading positions in derivatives, and derivatives entered into for hedging trading book exposures.

### **1.1. Capital**

The basic approach of capital adequacy framework is that a bank should have sufficient capital to provide a stable resource to absorb any losses arising from the risks in its business. Capital is divided into tiers according to the

characteristics/qualities of each qualifying instrument. For supervisory purposes capital is split into two categories: Tier I and Tier II. These categories represent different instruments' quality as capital. Tier I capital consists mainly of share capital and disclosed reserves and it is a bank's highest quality capital because it is fully available to cover losses. Tier II capital on the other hand consists of certain reserves and certain types of subordinated debt. The loss absorption capacity of Tier II capital is lower than that of Tier I capital.

## **1.2. Credit Risk**

Credit risk is most simply defined as the potential that a bank's borrower or counterparty may fail to meet its obligations in accordance with agreed terms. It is the possibility of losses associated with diminution in the credit quality of borrowers or counterparties. In a bank's portfolio, losses stem from outright default due to inability or unwillingness of a customer or a counterparty to meet commitments in relation to lending, trading, settlement and other financial transactions. Alternatively, losses result from reduction in portfolio arising from actual or perceived deterioration in credit quality.

For most banks, loans are the largest and the most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank, including in the banking book and in the trading book, and both on and off balance sheet. Banks increasingly face credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, inter-bank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options and in guarantees and settlement of transactions.

The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio, as well as, the risk in the individual credits or transactions. Banks should have a keen awareness of the need to identify measure, monitor and control credit risk, as well as, to determine that they hold adequate capital against these risks and they are adequately compensated for risks incurred.

## **1.3. Market Risk**

Market risk refers to the risk to a bank resulting from movements in market prices in particular changes in interest rates, foreign exchange rates and equity and commodity prices. In simpler terms, it may be defined as the possibility of loss to a bank caused by changes in the market variables. The Bank for International Settlements (BIS) defines market risk as "the risk that the value of 'on' or 'off' balance sheet positions will be adversely affected by movements in equity and interest rate markets, currency exchange rates and commodity prices". Thus, Market Risk is the risk to the bank's earnings and capital due to changes in the market level of interest rates or prices of securities, foreign exchange and equities, as well as, the volatilities of those changes.

## 2. GUIDELINES

### 2.1. Components of Capital

**Capital funds:** The capital funds for the banks are being discussed under two heads i.e. the capital funds of Indian banks and the capital funds of foreign banks operating in India

**2.1.1. Capital funds of Indian banks:** For Indian banks, 'capital funds' would include the components Tier I capital and Tier II capital.

**2.1.1.1. Elements of Tier I capital:** The elements of Tier I capital include

- i) Paid-up capital (ordinary shares), statutory reserves, and other disclosed free reserves, if any.
- ii) Innovative Perpetual Debt Instruments (IPDI) eligible for inclusion as Tier I capital
- iii) Perpetual non-cumulative preference shares eligible for inclusion as Tier I capital - subject to laws in force from time to time;
- iv) Capital reserves representing surplus arising out of sale proceeds of assets.

The guidelines governing the Innovative Perpetual Debt Instruments eligible for inclusion as Tier I capital indicating the minimum regulatory requirements are furnished in Annex 1

**2.1.1.2. Elements of Tier II capital:** The elements of Tier II capital include undisclosed reserves, revaluation reserves, general provisions and loss reserves, hybrid capital instruments, subordinated debt, deferred revenue expenditure under VRS and investment reserve account.

#### a. Undisclosed reserves

They can be included in capital, if they represent accumulations of post-tax profits and are not encumbered by any known liability and should not be routinely used for absorbing normal loss or operating losses. .

#### b. Revaluation reserves

It would be prudent to consider revaluation reserves at a discount of 55 percent while determining their value for inclusion in Tier II capital. Such reserves will have to be reflected on the face of the Balance Sheet as revaluation reserves.

#### c. General provisions and loss reserves

Such reserves can be included in Tier II capital 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. Adequate care must be taken to see that sufficient provisions have been made to meet all known losses and foreseeable potential losses before considering general provisions and loss reserves to be part of Tier II capital. General provisions/loss reserves will be admitted up to a maximum of 1.25 percent of total risk weighted assets.

'Floating Provisions' held by the banks, which is general in nature and not made against any identified assets, may be treated as a part of Tier II capital within the overall ceiling of 1.25 percent of total risk weighted assets, if such provisions are not netted off from gross NPAs to arrive at disclosure of net NPAs

**d. Hybrid debt capital instruments**

Those instruments which 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. At present following instruments have been recognized and placed under this category.

- i. Debt capital instruments eligible for inclusion as Upper Tier II capital; and
- ii. Redeemable cumulative preference shares eligible for inclusion as Tier II capital - subject to laws in force from time to time.

The guidelines governing the instruments at (i) above, indicating the minimum regulatory requirements are furnished in Annex 2.

**e. Subordinated debt**

- i. To be eligible for inclusion in Tier II capital, the instrument should be fully paid-up, unsecured, subordinated to the claims of other creditors, free of restrictive clauses, and should not be redeemable at the initiative of the holder or without the consent of the Reserve Bank of India. They often carry a fixed maturity, and as they approach maturity, they should be subjected to progressive discount, for inclusion in Tier II capital. Instruments with an initial maturity of less than 5 years or with a remaining maturity of one year should not be included as part of Tier II capital. The quantum of subordinated debt instruments eligible to be reckoned as Tier II capital will be limited to 50 percent of Tier I capital.
- ii. Banks can raise, with the approval of their Boards, rupee-subordinated debt as Tier II capital, subject to the terms and conditions given in the Annex 3.
- iii. Banks should indicate the amount of subordinated debt raised as Tier II capital by way of explanatory notes/ remarks in the Balance Sheet as well as in Schedule 5 to the Balance Sheet under 'Other Liabilities & Provisions'.

**f. Deferred Revenue Expenditure under VRS**

In the case of public sector banks, the bonds issued to the VRS employees as a part of the compensation package, net of the unamortised VRS Deferred Revenue Expenditure, could be treated as Tier II capital, subject to compliance with the terms and conditions stipulated in para 2.1.1.2 (e)(ii).

**g. Investment Reserve Account**

In the event of provisions created on account of depreciation in the 'Available for Sale' or 'Held for Trading' categories being found to be in excess of the required amount in any year, the excess should be credited to the Profit & Loss 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 Investment Reserve Account in Schedule 2 –“Reserves & Surplus” under the head

“Revenue and other 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.

- h. Banks are allowed to include the ‘General Provisions on Standard Assets’ and ‘provisions held for country exposures’ in Tier II capital. However, the provisions on ‘standard assets’ together with other ‘general provisions/ loss reserves’ and ‘provisions held for country exposures’ will be admitted as Tier II capital up to a maximum of 1.25 per cent of the total risk-weighted assets.

### **2.1.2. Capital funds of foreign banks operating in India**

For the foreign banks operating in India, ‘capital funds’ would include the two components i.e. Tier I capital and Tier II capital.

#### **2.1.2.1. Elements of Tier I capital:** The elements of Tier I capital include

- i) Interest-free funds from Head Office kept in a separate account in Indian books specifically for the purpose of meeting the capital adequacy norms.
- ii) Innovative Instruments eligible for inclusion as Tier I capital
- iii) Statutory reserves kept in Indian books.
- iv) Remittable surplus retained in Indian books which is not repatriable so long as the bank functions in India.

#### **2.1.2.2. Elements of Tier II capital:** The elements of Tier II capital include the following elements.

- a) Elements of Tier II capital as applicable to Indian banks.
- b) Head Office (HO) borrowings raised in foreign currency (for inclusion in Upper Tier II Capital) subject to the terms and conditions as mentioned at para 7 of Annex 2 to this circular. Foreign banks also would not require prior approval of RBI for raising subordinated debt in foreign currency through borrowings from Head Office for inclusion in Tier II capital.

#### **2.1.2.3.** Regarding the capital of foreign banks they are also required to follow the following instructions.

- a) The foreign banks are required to furnish to Reserve Bank, (if not already done), an undertaking to the effect that the banks will not remit abroad the remittable surplus retained in India and included in Tier I capital as long as the banks function in India.
- b) These funds may be retained in a separate account titled as ‘Amount Retained in India for Meeting Capital to Risk-weighted Asset Ratio (CRAR) Requirements’ under ‘Capital Funds’.
- c) An auditor’s certificate to the effect that these funds represent surplus remittable to Head Office once tax assessments are completed or tax appeals are decided and do not include funds in the nature of provisions towards tax or for any other contingency may also be furnished to Reserve Bank.
- d) Foreign banks operating in India are permitted to hedge their entire Tier I capital held by them in Indian books subject to the following conditions:
  - (i) The forward contract should be for tenor of one year or more and may be rolled over on maturity. Rebooking of cancelled hedge will require prior approval of Reserve Bank

- (ii) The capital funds should be available in India to meet local regulatory and CRAR requirements. Therefore, foreign currency funds accruing out of hedging should not be parked in nostro accounts but should remain swapped with banks in India at all times.
- (iii) Capital reserve representing surplus arising out of sale of assets in India held in a separate account and which is not eligible for repatriation so long as the bank functions in India.
- (iv) Interest-free funds remitted from abroad for the purpose of acquisition of property and held in a separate account in Indian books.
- (v) The net credit balance, if any, in the inter-office account with Head Office/overseas branches will not be reckoned as capital funds. However, any debit balance in Head Office account will have to be set-off against the capital.
- (vi) Foreign banks in India may raise Head Office (HO) borrowings in foreign currency for inclusion as Tier I /Tier II capital subject to the same terms and conditions as indicated at para 7 of Annex 1 & 2.
- e) Foreign banks operating in India are also required to comply with the instructions on limits for Tier II elements and norms on cross holdings as applicable to Indian banks. The elements of Tier I & Tier II capital do not include foreign currency loans granted to Indian parties. The foreign banks are also required to follow the guidelines given at Annex 4 on the subordinated debt-head office borrowings in foreign currency raised by foreign banks operating in India for inclusion in Tier II capital

### **2.1.3. Deductions from computation of Capital funds:**

#### **2.1.3.1. Tier I capital:** The following deductions should be made from Tier I capital

- a) Equity investments in subsidiaries, intangible assets and losses in the current period and those brought forward from previous periods should be deducted from Tier I capital.
- b) In the case of public sector banks which have introduced Voluntary Retirement Scheme (VRS), in view of the extra-ordinary nature of the event, the VRS related Deferred Revenue Expenditure would not be reduced from Tier I capital. However, it will attract 100% risk weight for capital adequacy purpose.
- c) Creation of deferred tax asset (DTA) results in an increase in Tier I capital of a bank without any tangible asset being added to the banks' balance sheet. Therefore, DTA, which is an intangible asset, should be deducted from Tier I capital.

#### **2.1.3.2. Tier I & Tier II Capital**

#### **Credit Enhancements pertaining to Securitization of Standard Assets**

##### **a) Treatment of First Loss Facility**

The first loss credit enhancement provided by the originator shall be reduced from capital funds and the deduction shall be capped at the amount of capital that the bank would have been required to hold for the full value of the assets, had they not been securitised. The deduction shall be made at 50% from Tier I and 50% from Tier II capital.

##### **b) Treatment of Second Loss Facility**

The second loss credit enhancement provided by the originator shall be reduced from capital funds to the full extent. The deduction shall be made 50% from Tier I and 50% from Tier II capital.

**c) Treatment of credit enhancements provided by third party**

In case, the bank is acting as a third party service provider, the first loss credit enhancement provided by it shall be reduced from capital to the full extent as indicated at para (a) above.

**d) Underwriting by an originator**

Securities issued by the SPVs and devolved / held by the banks in excess of 10 per cent of the original amount of issue, including secondary market purchases, shall be deducted 50% from Tier I capital and 50% from Tier II capital.

**e) Underwriting by third party service providers**

If the bank has underwritten securities issued by SPVs devolved and held by banks which are below investment grade will be deducted from capital at 50% from Tier I and 50% from Tier II.

**2.1.4. Limit for Tier II elements**

Tier II elements should be limited to a maximum of 100 percent of total Tier I elements for the purpose of compliance with the norms.

**2.1.5. Norms on cross holdings**

- (i) A bank's / FI's investments in all types of instruments listed at 2.1.5 (ii) below, which are issued by other banks / FIs and are eligible for capital status for the investee bank / FI, will be limited to 10 per cent of the investing bank's capital funds (Tier I plus Tier II capital).
- (ii) Banks' / FIs' investment in the following instruments will be included in the prudential limit of 10 per cent referred to at 2.1.5(i) above.
  - a. Equity shares;
  - b. Innovative Perpetual Debt Instruments eligible as Tier I capital;
  - c. Preference shares eligible for capital status;
  - d. Subordinated debt instruments;
  - e. Debt capital Instruments qualifying for Upper Tier II status ; and
  - f. Any other instrument approved as in the nature of capital.
- (iii) Banks / FIs should not acquire any fresh stake in a bank's equity shares, if by such acquisition, the investing bank's / FI's holding exceeds 5 per cent of the investee bank's equity capital.
- (iv) Banks' / FIs' investments in the equity capital of subsidiaries are at present deducted from their Tier I capital for capital adequacy purposes. Investments in the instruments issued by banks / FIs which are listed at paragraph 2.1.5(ii) above, which are not deducted from Tier I capital of the investing bank/ FI, will attract 100 per cent risk weight for credit risk for capital adequacy purposes.



**Note:**

Following investments are excluded from the purview of the ceiling of 10 percent prudential norm prescribed above:

- a) Investments in equity shares of other banks /FIs in India held under the provisions of a statute.
- b) Strategic investments in equity shares of other banks/FIs incorporated outside India as promoters/significant shareholders (i.e. Foreign Subsidiaries / Joint Ventures / Associates).
- c) Equity holdings outside India in other banks / FIs incorporated outside India.

**2.1.6. Swap Transactions**

Banks are advised not to enter into swap transactions involving conversion of fixed rate rupee liabilities in respect of Innovative Tier I/Tier II bonds into floating rate foreign currency liabilities.

**2.1.7. Minimum requirement of capital funds**

Banks are required to maintain a minimum CRAR of 9 percent on an ongoing basis.

**2.2. Capital charge for Market risk**

**2.2.1.** As an initial step towards prescribing capital requirement for market risk, banks were advised to:

- i) assign an additional risk weight of 2.5 per cent on the entire investment portfolio;
- ii) assign a risk weight of 100 per cent on the open position limits on foreign exchange and gold; and
- iii) build up Investment Fluctuation Reserve up to a minimum of five per cent of the investments held in Held for Trading and Available for Sale categories in the investment portfolio.

**2.2.2.** Subsequently, keeping in view the ability of the banks to identify and measure market risk, it was decided to assign explicit capital charge for market risk. Thus banks are required to maintain capital charge for market risk on securities included in the Held for Trading and Available for Sale categories, open gold position, open forex position, trading positions in derivatives and derivatives entered into for hedging trading book exposures. Consequently, the additional risk weight of 2.5% towards market risk on the investment included under Held for Trading and Available for Sale categories is not required.

**2.2.3.** To begin with, capital charge for market risks is applicable to banks on a global basis. At a later stage, this would be extended to all groups where the controlling entity is a bank.

**2.2.4.** Banks are required to manage the market risks in their books on an ongoing basis and ensure that the capital requirements for market risks are being maintained on a continuous basis, i.e. at the close of each business day. Banks

are also required to maintain strict risk management systems to monitor and control intra-day exposures to market risks.

**2.2.5. Capital charge for interest rate risk:** The capital charge for interest rate related instruments and equities would apply to current market value of these items in bank's trading book. The current market value will be determined as per extant RBI guidelines on valuation of investments. The minimum capital requirement is expressed in terms of two separate capital charges i.e. *Specific risk charge* for each security both for short and long positions and *General market risk charge* towards interest rate risk in the portfolio where long and short positions in different securities or instruments can be offset. In India short position is not allowed except in case of derivatives and Central Government Securities. The banks have to provide the capital charge for interest rate risk in the trading book other than derivatives as per the guidelines given below for both *specific risk* and *general risk* after measuring the risk of holding or taking positions in debt securities and other interest rate related instruments in the trading book.

**2.2.5.1. Specific risk:** This refers to risk of loss caused by an adverse price movement of a security principally due to factors related to the issuer. The specific risk charge is designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer. The specific risk charge is graduated for various exposures under three heads i.e. claims on Government, claims on banks, claims on others and is given in Annex 5

**2.2.5.2. General Market Risk:**

The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates. The capital charge is the sum of four components:

- the net short (short position is not allowed in India except in derivatives and Central Government Securities) or long position in the whole trading book;
- a small proportion of the matched positions in each time-band (the "vertical disallowance");
- a larger proportion of the matched positions across different time-bands (the "horizontal disallowance"), and
- a net charge for positions in options, where appropriate.

**2.2.5.3. Computation of capital charge for market risk:** The Basel Committee has suggested two broad methodologies for computation of capital charge for market risks i.e. the Standardised method and the banks' Internal Risk Management models (IRM) method. As banks in India are still in a nascent stage of developing internal risk management models, it has been decided that, to start with, banks may adopt the standardised method. Under the standardised method there are two principal methods of measuring market risk, a "maturity" method and a "duration" method. As "duration" method is a more accurate method of measuring interest rate risk, it has been decided to adopt Standardised Duration method to arrive at the capital charge. Accordingly, banks are required to measure the general market risk charge by calculating the price sensitivity (modified duration) of each position separately. Under this method, the mechanics are as follows:

- first calculate the price sensitivity (modified duration) of each instrument;

- next apply the assumed change in yield to the modified duration of each instrument between 0.6 and 1.0 percentage points depending on the maturity of the instrument as given in Annex 6
- slot the resulting capital charge measures into a maturity ladder with the fifteen time bands as set out in Annex 6;
- subject long and short positions (short position is not allowed in India except in derivatives and Central Government Securities) in each time band to a 5 per cent vertical disallowance designed to capture basis risk; and
- carry forward the net positions in each time-band for horizontal offsetting subject to the disallowances set out in Annex 7.

#### **2.2.5.4. Capital charge for interest rate derivatives:**

The measurement of capital charge for market risks should include all interest rate derivatives and off-balance sheet instruments in the trading book and derivatives entered into for hedging trading book exposures which would react to changes in the interest rates, like FRAs, interest rate positions, etc.

The details of measurement of capital charge for interest rate derivatives and options are furnished below.

#### **2.2.5.5. Interest rate derivatives**

The measurement system should include all interest rate derivatives and off-balance-sheet instruments in the trading book, which react to changes in interest rates, (e.g. forward rate agreements (FRAs), other forward contracts, bond futures, interest rate and cross-currency swaps and forward foreign exchange positions). Options can be treated in a variety of ways as described at para 2.2.5.5.2 below. A summary of the rules for dealing with interest rate derivatives is set out at the end of this section.

##### **a) Calculation of positions**

The derivatives should be converted into positions in the relevant underlying and be subjected to specific and general market risk charges as described in the guidelines. In order to calculate the capital charge, the amounts reported should be the market value of the principal amount of the underlying or of the notional underlying. For instruments where the apparent notional amount differs from the effective notional amount, banks must use the effective notional amount.

##### **i. Futures and forward contracts, including Forward Rate Agreements (FRA)**

These instruments are treated as a combination of a long and a short position in a notional government security. The maturity of a future or a FRA will be the period until delivery or exercise of the contract, plus - where applicable - the life of the underlying instrument. For example, a long position in a June three-month interest rate future (taken in April) is to be reported as a long position in a government security with a maturity of five months and a short position in a government security with a maturity of two months. Where a range of deliverable instruments may be delivered to fulfill the contract, the bank has flexibility to elect which deliverable security goes into the duration ladder but should take account of any conversion factor defined by the exchange.

## ii. Swaps

Swaps will be treated as two notional positions in government securities with relevant maturities. For example, an interest rate swap under which a bank is receiving floating rate interest and paying fixed will be treated as a long position in a floating rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed-rate instrument of maturity equivalent to the residual life of the swap. For swaps that pay or receive a fixed or floating interest rate against some other reference price, e.g. a stock index, the interest rate component should be slotted into the appropriate re-pricing maturity category, with the equity component being included in the equity framework. Separate legs of cross-currency swaps are to be reported in the relevant maturity ladders for the currencies concerned.

### b) Calculation of capital charges for derivatives under the standardised methodology:

#### i. Allowable offsetting of matched positions

Banks may exclude the following from the interest rate maturity framework altogether (for both specific and general market risk);

- Long and short positions (both actual and notional) in identical instruments with exactly the same issuer, coupon, currency and maturity.
- A matched position in a future or forward and its corresponding underlying may also be fully offset (the leg representing the time to expiry of the future should however be reported) and thus excluded from the calculation.

When the future or the forward comprises a range of deliverable instruments, offsetting of positions in the future or forward contract and its underlying is only permissible in cases where there is a readily identifiable underlying security which is most profitable for the trader with a short position to deliver. The price of this security, sometimes called the "cheapest-to-deliver", and the price of the future or forward contract should in such cases move in close alignment.

No offsetting will be allowed between positions in different currencies; the separate legs of cross-currency swaps or forward foreign exchange deals are to be treated as notional positions in the relevant instruments and included in the appropriate calculation for each currency.

In addition, opposite positions in the same category of instruments can in certain circumstances be regarded as matched and allowed to offset fully. To qualify for this treatment the positions must relate to the same underlying instruments, be of the same nominal value and be denominated in the same currency. In addition:

- for futures: offsetting positions in the notional or underlying instruments to which the futures contract relates must be for identical products and mature within seven days of each other;
- for swaps and FRAs: the reference rate (for floating rate positions) must be identical and the coupon closely matched (i.e. within 15 basis points); and
- for swaps, FRAs and forwards: the next interest fixing date or, for fixed coupon positions or forwards, the residual maturity must correspond within the following limits:

- less than one month hence: same day;
- between one month and one year hence: within seven days;
- over one year hence: within thirty days.

Banks with large swap books may use alternative formulae for these swaps to calculate the positions to be included in the duration ladder. The method would be to calculate the sensitivity of the net present value implied by the change in yield used in the duration method and allocate these sensitivities into the time-bands set out in Table 1 in Section 2.3.5.4.2( a)

**ii. Specific risk**

- iii.** Interest rate and currency swaps, FRAs, forward foreign exchange contracts and interest rate futures will not be subject to a specific risk charge. This exemption also applies to futures on an interest rate index (e.g. LIBOR). However, in the case of futures contracts where the underlying is a debt security, or an index representing a basket of debt securities, a specific risk charge will apply according to the credit risk of the issuer as set out in paragraphs above. **General market risk**

General market risk applies to positions in all derivative products in the same manner as for cash positions, subject only to an exemption for fully or very closely matched positions in identical instruments as defined in paragraphs above. The various categories of instruments should be slotted into the maturity ladder and treated according to the rules identified earlier.

*Table - Summary of treatment of interest rate derivatives*

<b>Instrument</b>	<b>Specific risk charge</b>	<b>General Market risk charge</b>
Exchange-traded future - Government debt security - Corporate debt security - Index on interest rates (e.g. MIBOR)	No Yes No	Yes, as two positions Yes, as two positions Yes, as two positions
OTC forward - Government debt security - Corporate debt security - Index on interest rates (e.g. MIBOR)	No Yes No	Yes, as two positions Yes, as two positions Yes, as two positions
FRAs, Swaps	No	Yes, as two positions
Forward Foreign Exchange	No	Yes, as one position in each currency
Options - Government debt security - Corporate debt security - Index on interest rates (e.g. MIBOR) - FRAs, Swaps	No Yes No No	

**2.2.5.5.2. Treatment of Options**

In recognition of the wide diversity of banks' activities in options and the difficulties of measuring price risk for options, alternative approaches are permissible as under:

- those banks which solely use purchased options<sup>1</sup> will be free to use the simplified approach described in Section (a) below;
- those banks which also write options will be expected to use one of the intermediate approaches as set out in Section (b) below.

**a) Simplified approach**

In the **simplified approach**, the positions for the options and the associated underlying, cash or forward, are not subject to the standardised methodology but rather are "carved-out" and subject to separately calculated capital charges that incorporate both general market risk and specific risk. The risk numbers thus generated are then added to the capital charges for the relevant category, i.e. interest rate related instruments, equities, and foreign exchange as described in Sections 2.2.5 to 2.2.7 of this circular. Banks which handle a limited range of purchased options only will be free to use the simplified approach set out in Table 1, below for particular trades. As an example of how the calculation would work, if a holder of 100 shares currently valued at Rs.10 each holds an equivalent put option with a strike price of Rs.11, the capital charge would be: Rs.1,000 x 18% (i.e. 9% specific plus 9% general market risk) = Rs.180, less the amount the option is in the money (Rs.11 – Rs.10) x 100 = Rs.100, i.e. the capital charge would be Rs.80. A similar methodology applies for options whose underlying is a foreign currency or an interest rate related instrument.

**Table 1** *Simplified approach: capital charges*

<b>Position</b>	<b>Treatment</b>
Long cash and Long put Or Short cash and Long call	The capital charge will be the market value of the underlying security <sup>2</sup> multiplied by the sum of specific and general market risk charges <sup>3</sup> for the underlying less the amount the option is in the money (if any) bounded at zero <sup>4</sup>
Long call or Long put	The capital charge will be the lesser of: (i) the market value of the underlying security multiplied by the sum of specific and general market risk charges <sup>3</sup> for the underlying (ii) the market value of the option <sup>5</sup>

<sup>1</sup> Unless all their written option positions are hedged by perfectly matched long positions in exactly the same options, in which case no capital charge for market risk is required

<sup>2</sup> In some cases such as foreign exchange, it may be unclear which side is the "underlying security"; this should be taken to be the asset which would be received if the option were exercised. In addition the nominal value should be used for items where the market value of the underlying instrument could be zero, e.g. caps and floors, swaptions etc.

<sup>3</sup> Some options (e.g. where the underlying is an interest rate or a currency) bear no specific risk, but specific risk will be present in the case of options on certain interest rate-related instruments (e.g. options on a corporate debt security or corporate bond index; see Section B for the relevant capital charges) and for options on equities and stock indices (see Section C). The charge under this measure for currency options will be 9%.

<sup>4</sup> For options with a residual maturity of more than six months, the strike price should be compared with the forward, not current, price. A bank unable to do this must take the "in-the-money" amount to be zero.

<sup>5</sup> Where the position does not fall within the trading book (i.e. options on certain foreign exchange or commodities positions not belonging to the trading book), it may be acceptable to use the book value instead.

## **b) Intermediate approaches**

### **i. Delta-plus method**

The *delta-plus method* uses the sensitivity parameters or "Greek letters" associated with options to measure their market risk and capital requirements. Under this method, the delta-equivalent position of each option becomes part of the standardised methodology set out in Sections 2.2.5 to 2.2.7 with the delta-equivalent amount subject to the applicable general market risk charges. Separate capital charges are then applied to the gamma and vega risks of the option positions. Banks which write options will be allowed to include delta-weighted options positions within the standardised methodology set out in Sections 2.2.5 to 2.2.7 Such options should be reported as a position equal to the market value of the underlying multiplied by the delta.

However, since delta does not sufficiently cover the risks associated with options positions, banks will also be required to measure gamma (which measures the rate of change of delta) and vega (which measures the sensitivity of the value of an option with respect to a change in volatility) sensitivities in order to calculate the total capital charge. These sensitivities will be calculated according to an approved exchange model or to the bank's proprietary options pricing model subject to oversight by the Reserve Bank of India<sup>6</sup>.

Delta-weighted positions with *debt securities or interest rates as the underlying* will be slotted into the interest rate time-bands, as set out in Table at Annex 6 under the following procedure. A two-legged approach should be used as for other derivatives, requiring one entry at the time the underlying contract takes effect and a second at the time the underlying contract matures. For instance, a bought call option on a June three-month interest-rate future will in April be considered, on the basis of its delta-equivalent value, to be a long position with a maturity of five months and a short position with a maturity of two months<sup>7</sup>. The written option will be similarly slotted as a long position with a maturity of two months and a short position with a maturity of five months. Floating rate instruments with caps or floors will be treated as a combination of floating rate securities and a series of European-style options. For example, the holder of a three-year floating rate bond indexed to six month LIBOR with a cap of 15% will treat it as:

- a. a debt security that reprices in six months; and
- b. a series of five written call options on a FRA with a reference rate of 15%, each with a negative sign at the time the underlying FRA takes effect and a positive sign at the time the underlying FRA matures<sup>8</sup>.

The capital charge for *options with equities as the underlying* will also be based on the delta-weighted positions which will be incorporated in the measure of market risk described in Section 2.2.5. For purposes of this calculation each national market is to

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<sup>6</sup> Reserve Bank of India may wish to require banks doing business in certain classes of exotic options (e.g. barriers, digitals) or in options "at-the-money" that are close to expiry to use either the scenario approach or the internal models alternative, both of which can accommodate more detailed revaluation approaches.

<sup>7</sup> A two-months call option on a bond future, where delivery of the bond takes place in September, would be considered in April as being long the bond and short a five-months deposit, both positions being delta-weighted.

<sup>8</sup> The rules applying to closely-matched positions set out in paragraph 2 (a) of this Attachment will also apply in this respect.

be treated as a separate underlying. The capital charge for *options on foreign exchange and gold positions* will be based on the method set out in Section 2.2.7. For delta risk, the net delta-based equivalent of the foreign currency and gold options will be incorporated into the measurement of the exposure for the respective currency (or gold) position.

In addition to the above capital charges arising from delta risk, there will be further capital charges for *gamma* and for *vega risk*. Banks using the delta-plus method will be required to calculate the gamma and vega for each option position (including hedge positions) separately. The capital charges should be calculated in the following way:

a. for each individual option a "gamma impact" should be calculated according to a Taylor series expansion as:

$$\text{Gamma impact} = \frac{1}{2} \times \text{Gamma} \times \text{VU}^2$$

where VU = Variation of the underlying of the option.

b. VU will be calculated as follows:

- for interest rate options if the underlying is a bond, the price sensitivity should be worked out as explained. An equivalent calculation should be carried out where the underlying is an interest rate.
- for options on equities and equity indices; which are not permitted at present, the market value of the underlying should be multiplied by 9%<sup>9</sup>;
- for foreign exchange and gold options: the market value of the underlying should be multiplied by 9%;

c. For the purpose of this calculation the following positions should be treated as *the same underlying*:

- for interest rates,<sup>10</sup> each time-band as set out in Annex 6;<sup>11</sup>
- for equities and stock indices, each national market;
- for foreign currencies and gold, each currency pair and gold;

d. Each option on the same underlying will have a gamma impact that is either positive or negative. These individual gamma impacts will be summed, resulting in a net gamma impact for each underlying that is either positive or negative. Only those net gamma impacts that are negative will be included in the capital calculation.

e. The total gamma capital charge will be the sum of the absolute value of the net negative gamma impacts as calculated above.

f. For *volatility risk*, banks will be required to calculate the capital charges by multiplying the sum of the vegas for all options on the same underlying, as defined above, by a proportional shift in volatility of  $\pm 25\%$ .

g. The *total capital charge* for vega risk will be the sum of the absolute value of the individual capital charges that have been calculated for vega risk.

## ii. Scenario approach

The *scenario approach* uses simulation techniques to calculate changes in the value of an options portfolio for changes in the level and volatility of its associated underlyings. Under this approach, the general market risk charge is determined by the scenario "grid" (i.e. the specified combination of underlying and volatility changes) that produces

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<sup>9</sup> The basic rules set out here for interest rate and equity options do not attempt to capture specific risk when calculating gamma capital charges. However, Reserve Bank may require specific banks to do so.

<sup>10</sup> Positions have to be slotted into separate maturity ladders by currency.

<sup>11</sup> Banks using the duration method should use the time-bands as set out in Annex.6



the largest loss. For the delta-plus method and the scenario approach the specific risk capital charges are determined separately by multiplying the delta-equivalent of each option by the specific risk weights set out in Section 2.2.5 and Section 2.2.6.

More sophisticated banks will also have the right to base the market risk capital charge for options portfolios and associated hedging positions on *scenario matrix analysis*. This will be accomplished by specifying a fixed range of changes in the option portfolio's risk factors and calculating changes in the value of the option portfolio at various points along this "grid". For the purpose of calculating the capital charge, the bank will revalue the option portfolio using matrices for simultaneous changes in the option's underlying rate or price and in the volatility of that rate or price. A different matrix will be set up for each individual underlying as defined in the preceding paragraph. As an alternative, at the discretion of each national authority, banks which are significant traders in options for interest rate options will be permitted to base the calculation on a minimum of six sets of time-bands. When using this method, not more than three of the time-bands as defined in Section 2.2.5 should be combined into any one set.

The options and related hedging positions will be evaluated over a specified range above and below the current value of the underlying. The range for interest rates is consistent with the assumed changes in yield in Annex 6. Those banks using the alternative method for interest rate options set out in the preceding paragraph should use, for each set of time-bands, the highest of the assumed changes in yield applicable to the group to which the time-bands belong.<sup>12</sup> The other ranges are  $\pm 9\%$  for equities and  $\pm 9\%$  for foreign exchange and gold. For all risk categories, at least seven observations (including the current observation) should be used to divide the range into equally spaced intervals.

The second dimension of the matrix entails a change in the volatility of the underlying rate or price. A single change in the volatility of the underlying rate or price equal to a shift in volatility of  $+ 25\%$  and  $- 25\%$  is expected to be sufficient in most cases. As circumstances warrant, however, the Reserve Bank may choose to require that a different change in volatility be used and / or that intermediate points on the grid be calculated.

After calculating the matrix, each cell contains the net profit or loss of the option and the underlying hedge instrument. The capital charge for each underlying will then be calculated as the largest loss contained in the matrix.

In drawing up these intermediate approaches it has been sought to cover the major risks associated with options. In doing so, it is conscious that so far as specific risk is concerned, only the delta-related elements are captured; to capture other risks would necessitate a much more complex regime. On the other hand, in other areas the simplifying assumptions used have resulted in a relatively conservative treatment of certain options positions.

Besides the options risks mentioned above, the RBI is conscious of the other risks also associated with options, e.g. rho (rate of change of the value of the option with respect

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<sup>12</sup> If, for example, the time-bands 3 to 4 years, 4 to 5 years and 5 to 7 years are combined, the highest assumed change in yield of these three bands would be 0.75.

to the interest rate) and theta (rate of change of the value of the option with respect to time). While not proposing a measurement system for those risks at present, it expects banks undertaking significant options business at the very least to monitor such risks closely. Additionally, banks will be permitted to incorporate rho into their capital calculations for interest rate risk, if they wish to do so.

#### **2.2.6. Measurement of capital charge for equity risk**

Minimum capital requirement to cover the risk of holding or taking positions in equities in the trading book is set out below. This is applied to all instruments that exhibit market behaviour similar to equities but not to non-convertible preference shares (which are covered by the interest rate risk requirements described earlier). The instruments covered include equity shares, whether voting or non-voting, convertible securities that behave like equities, for example: units of mutual funds, and commitments to buy or sell equity. Capital charge for specific risk (akin to credit risk) will be 11.25% and specific risk is computed on the banks' gross equity positions (i.e. the sum of all long equity positions and of all short equity positions – short equity position is, however, not allowed for banks in India). The general market risk charge will also be 9% on the gross equity positions.

Investments in shares and /units of VCFs may be assigned 150% risk weight for measuring the credit risk during first three years when these are held under HTM category. When these are held under or transferred to AFS, the capital charge for specific risk component of the market risk as required in terms of the present guidelines on computation of capital charge for market risk, may be fixed at 13.5% to reflect the risk weight of 150%. The charge for general market risk component would be at 9% as in the case of other equities

#### **2.2.7. Measurement of capital charge for foreign exchange and gold open positions**

Foreign exchange open positions and gold open positions are at present risk weighted at 100%. Thus, capital charge for foreign exchange and gold open position is 9% at present. These open positions, limits or actual whichever is higher, would continue to attract capital charge at 9%. This is in line with the Basel Committee requirement.

### **2.3. Capital Adequacy for Subsidiaries**

**2.3.1.** The Basel Committee on Banking Supervision has proposed that the New Capital Adequacy Framework should be extended to include, on a consolidated basis, holding companies that are parents of banking groups. On prudential considerations, it is necessary to adopt best practices in line with international standards, while duly reflecting local conditions.

**2.3.2.** Accordingly, banks may voluntarily build-in the risk weighted components of their subsidiaries into their own balance sheet on notional basis, at par with the risk weights applicable to the bank's own assets. Banks should earmark additional capital in their books over a period of time so as to obviate the possibility of impairment to their net worth when switchover to unified balance sheet for the group as a whole is adopted after sometime. Thus banks were asked to provide additional capital in their books in phases, beginning from the year ended March 2001.

**2.3.3.** A consolidated bank defined as a group of entities which include a licensed bank should maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) as applicable to the parent bank on an ongoing basis. While computing capital funds, parent bank may consider the following points :

- i. Banks are required to maintain a minimum capital to risk weighted assets ratio of 9%. Non-bank subsidiaries are required to maintain the capital adequacy ratio prescribed by their respective regulators. In case of any shortfall in the capital adequacy ratio of any of the subsidiaries, the parent should maintain capital in addition to its own regulatory requirements to cover the shortfall.
- ii. Risks inherent in deconsolidated entities (i.e., entities which are not consolidated in the Consolidated Prudential Reports) in the group need to be assessed and any shortfall in the regulatory capital in the deconsolidated entities should be deducted (in equal proportion from Tier I and Tier II capital) from the consolidated bank's capital in the proportion of its equity stake in the entity.

#### **2.4. Procedure for computation of CRAR**

**2.4.1.** While calculating the aggregate of funded and non-funded exposure of a borrower for the purpose of assignment of risk weight, banks may 'net-off' against the total outstanding exposure of the borrower -

- (a) advances collateralised by cash margins or deposits,
- (b) credit balances in current or other accounts which are not earmarked for specific purposes and free from any lien,
- (c) in respect of any assets where provisions for depreciation or for bad debts have been made
- (d) claims received from DICGC/ ECGC and kept in a separate account pending adjustment, and
- (e) subsidies received against advances in respect of Government sponsored schemes and kept in a separate account.

**2.4.2.** After applying the conversion factor as indicated in Annex 8, the adjusted off Balance Sheet value shall again be multiplied by the risk weight attributable to the relevant counter-party as specified.

**2.4.3. Computation of CRAR for Foreign Exchange and Interest Rate related Contracts:** Foreign exchange contracts include- Cross currency interest rate swaps, Forward foreign exchange contracts, Currency futures, Currency options purchased, and other contracts of a similar nature

Foreign exchange contracts with an original maturity of 14 calendar days or less, irrespective of the counterparty, may be assigned "zero" risk weight as per international practice.

As in the case of other off-Balance Sheet items, a two stage calculation prescribed below shall be applied:

- (a) Step 1 - The notional principal amount of each instrument is multiplied by the conversion factor given below:

Original Maturity	Conversion Factor
Less than one year	2%
One year and less than two years	5% (i.e. 2% + 3%)
For each additional year	3%

(b) Step 2 - The adjusted value thus obtained shall be multiplied by the risk weight age allotted to the relevant counter-party as given in II of Annex 8.

#### 2.4.4. Computation of CRAR for Interest Rate related Contracts::

Interest rate contracts include the Single currency interest rate swaps, Basis swaps, Forward rate agreements, Interest rate futures, Interest rate options purchased and other contracts of a similar nature

As in the case of other off-Balance Sheet items, a two stage calculation prescribed below shall be applied:

(a) Step 1 - The notional principal amount of each instrument is multiplied by the percentages given below:

Original Maturity	Conversion Factor
Less than one year	0.5%
One year and less than two years	1.0%
For each additional year	1.0%

(b) Step 2 -The adjusted value thus obtained shall be multiplied by the risk weightage allotted to the relevant counter-party as given in II of Annex 8.

#### 2.4.5. Aggregation of capital charge for market risks

2.4.5.1. The capital charges for specific risk and general market risk are to be computed separately before aggregation. For computing the total capital charge for market risks, the calculations may be plotted in the proforma as depicted in Table 2 below.

**Table-2: Total capital charge for market risk** (Rs. in crore)

Risk Category	Capital charge
<b>I. Interest Rate (a+b)</b>	
a. General market risk	
<ul style="list-style-type: none"> <li>• Net position (parallel shift)</li> <li>• Horizontal disallowance (curvature)</li> <li>• Vertical disallowance (basis)</li> <li>• Options</li> </ul>	
b. Specific risk	
<b>II. Equity (a+b)</b>	
a. General market risk	
b. Specific risk	
<b>III. Foreign Exchange &amp; Gold</b>	
<b>IV. Total capital charge for market risks (I+II+III)</b>	

#### 2.4.6. Calculation of total risk-weighted assets and capital ratio

- 2.4.6.1.** Arrive at the risk weighted assets for credit risk in the banking book and for counterparty credit risk on all OTC derivatives.
- 2.4.6.2.** Convert the capital charge for market risk to notional risk weighted assets by multiplying the capital charge arrived at as above in Proforma by  $100 \div 9$  [the present requirement of CRAR is 9% and hence notional risk weighted assets are arrived at by multiplying the capital charge by  $(100 \div 9)$ ]
- 2.4.6.3.** Add the risk-weighted assets for credit risk as at 2.4.6.1 above and notional risk-weighted assets of trading book as at 2.4.6.2 above to arrive at total risk weighted assets for the bank.
- 2.4.6.4.** Compute capital ratio on the basis of regulatory capital maintained and risk-weighted assets.

#### 2.4.7. Computation of capital available for market risk:

Capital required for supporting credit risk should be deducted from total capital funds to arrive at capital available for supporting market risk as illustrated in Table 3 below.

**Table-3: Computation of Capital for Market Risk** (Rs. in Crore)

1	Capital funds		105
	• Tier I capital -----	55	
	• Tier II capital -----	50	
2	Total risk weighted assets		1140
	• RWA for credit risk -----	1000	
	• RWA for market risk -----	140	
3	Total CRAR		9.21
4	Minimum capital required to support credit risk (1000*9%)		90
	• Tier I - 45 (@ 4.5% of 1000) -----	45	
	• Tier II - 45 (@ 4.5% of 1000) -----	45	
5	Capital available to support market risk (105 - 90)		15
	• Tier I - (55 - 45) -----	10	
	• Tier II - (50 - 45) -----	5	

#### 2.5. Worked out Examples:

Two examples for computing capital charge for market risk and credit risk are given in Annex 9.

**Terms and conditions for inclusion of Innovative Perpetual  
Debt Instruments as Tier I capital**

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The Innovative Perpetual Debt Instruments (Innovative Instruments) that may be issued as bonds or debentures by Indian banks should meet the following terms and conditions to qualify for inclusion as Tier I Capital for capital adequacy purposes.

**1. Terms of issue of innovative instruments**

*i) Currency of issue*

Banks shall issue innovative instruments in Indian Rupees as well as in foreign currency. Banks may augment their capital funds through the issue of IPDI in foreign currency, subject to compliance with the under mentioned requirements:

- a) IPDI issued in foreign currency should comply with all terms and conditions applicable in the guidelines issued on January 25, 2006, unless specifically modified in these guidelines.
- b) Not more than 49% of the eligible amount can be issued in foreign currency.
- c) IPDI issued in foreign currency shall be outside the limits for foreign currency borrowings indicated in sub paragraphs 1.i.a and 1.i.b of Annex 2.

*ii) Amount*

The amount of innovative instruments to be raised may be decided by the Board of Directors of banks.

*iii) Limits*

Innovative instruments shall not exceed 15 per cent of total Tier I capital. The above limit will be based on the amount of Tier I capital as on March 31 of previous year after deduction of goodwill and other intangible assets but before the deduction of investments.

*iv) Maturity period*

The innovative instruments shall be perpetual.

*v) Rate of interest*

The interest payable to the investors may be either at a fixed rate or at a floating rate referenced to a market determined rupee interest benchmark rate.

*vi) Options*

Innovative instruments shall not be issued with a 'put option'. However banks may issue the instruments with a 'call option' subject to strict compliance with each of the following conditions:

- a) Call option can be exercised after the instrument has run for at least ten years; and
- b) Call option shall be exercised only with the prior approval of RBI (Department of Banking Operations & Development). While considering the proposals received from banks for exercising the call option the RBI would, among other things, take into consideration the bank's CRAR position both at the time of exercise of the call option and after the exercise of the call option.

*vii) Step-up option*

The issuing bank may have a step-up option which may be exercised only once during the whole life of the instrument, in conjunction with the call option, after the lapse of ten years from the date of issue. The step-up shall not be more

than 100 bps. The limits on step-up apply to the all-in cost of the debt to the issuing banks.

*viii) Lock-In Clause*

- a) Innovative instruments shall be subjected to a lock-in clause in terms of which the issuing bank shall not be liable to pay interest, if
  - the bank's CRAR is below the minimum regulatory requirement prescribed by RBI; or
  - the impact of such payment results in bank's CRAR falling below or remaining below the minimum regulatory requirement prescribed by RBI;
- b) However, banks may pay interest with the prior approval of RBI when the impact of such payment may result in net loss or increase the net loss, provided the CRAR remains above the regulatory norm. For this purpose 'Net Loss' would mean either (a) the accumulated loss at the end of the previous financial year; or (b) the loss incurred during the current financial year.
- c) The interest shall not be cumulative.
- d) All instances of invocation of the lock-in clause should be notified by the issuing banks to the Chief General Managers-in-Charge of Department of Banking Operations & Development and Department of Banking Supervision of the Reserve Bank of India, Mumbai.

*ix) Seniority of claim*

The claims of the investors in innovative instruments shall be

- a) Superior to the claims of investors in equity shares; and
- b) Subordinated to the claims of all other creditors.

*x) Discount*

The innovative instruments shall not be subjected to a progressive discount for capital adequacy purposes since these are perpetual.

*xi) Other conditions*

- a) Innovative instruments should be fully paid-up, unsecured, and free of any restrictive clauses.
- b) Investment in these instruments by FIIs and NRIs shall be within an overall limit of 49% and 24% of the issue respectively, subject to the investment by each FII not exceeding 10% of the issue and investment by each NRI not exceeding 5% of the issue.
- c) Investment by FIIs in IPDI raised in Indian Rupees shall be outside the ECB limit for rupee denominated corporate debt (currently USD 1.5 billion) fixed for investment by FIIs in corporate debt instruments.
- d) Banks should compute their overall eligibility level for raising capital through Innovative Perpetual Debt Instruments with reference to the Tier I capital as on the last annual balance sheet date (i.e. March 31). A bank may raise fresh capital through Innovative Perpetual Debt Instruments from FIIs and NRIs up to 49 percent and 24 percent, respectively, of the amount proposed to be raised within one year or the eligible limit whichever is less. The bank should, however, raise the remaining amount from the domestic investors within a period of one year from the date of issue to FIIs / NRIs, to ensure compliance with the limits set for FIIs and NRIs at the end of the one year period.
- e) Banks should comply with the terms and conditions, if any, stipulated by SEBI / other regulatory authorities in regard to issue of the instruments.

## **2. Compliance with Reserve Requirements**

The total amount raised by a bank through IPDIs shall not be reckoned as liability for calculation of net demand and time liabilities for the purpose of reserve requirements and, as such, will not attract CRR/SLR requirements

## **3. Reporting Requirements**

Banks issuing innovative instruments shall submit a report to the Chief General Manager-in-charge, Department of Banking Operations & Development, Reserve Bank of India, Mumbai giving details of the debt raised, including the terms of issue specified at item 1 above together with a copy of the offer document soon after the issue is completed.

## **4. Investment in innovative instruments issued by other banks/ FIs**

- A bank's investment in innovative instruments issued by other banks and financial institutions will be reckoned along with the investment in other instruments eligible for capital status while computing compliance with the overall ceiling of 10 percent for cross holding of capital among banks/FIs prescribed vide circular DBOD.BP.BC.No.3/ 21.01.002/ 2004-05 dated 6th July 2004 and also subject to cross holding limits.

- Bank's investments in innovative instruments issued by other banks/ financial institutions will attract a 100% risk weight for capital adequacy purposes.

## **5. Grant of advances against innovative instruments**

Banks should not grant advances against the security of the innovative instruments issued by them.

6. Disclosure Banks may indicate the amount raised by issue of IPDI by way of explanatory notes / remarks in the Balance Sheet as well as Schedule 5 under 'Other Liabilities & Provisions'

## **6. Raising of innovative Instruments for inclusion as Tier I capital by foreign banks in India**

Foreign banks in India may raise Head Office (HO) borrowings in foreign currency for inclusion as Tier I capital subject to the same terms and conditions as mentioned in items 1 to 5 above for Indian banks. In addition, the following terms and conditions would also be applicable:

### *i) Maturity period*

If the amount of innovative Tier I capital raised as Head Office borrowings shall be retained in India on a perpetual basis .

### *ii) Rate of interest*

Rate of interest on innovative Tier I capital raised as HO borrowings should not exceed the on-going market rate. Interest should be paid at half-yearly rests.

### *iii) Withholding tax*

Interest payments to the HO will be subject to applicable withholding tax.

### *iv) Documentation*

The foreign bank raising innovative Tier I capital as HO borrowings should obtain a letter from its HO agreeing to give the loan for supplementing the capital base for the Indian operations of the foreign bank. The loan documentation should confirm that the loan given by Head Office shall be eligible for the same level of seniority of claim as the investors in innovative instruments capital instruments issued by Indian banks. The loan agreement will be governed by and construed in accordance with the Indian law.

### *v) Disclosure*

The total eligible amount of HO borrowings shall be disclosed in the balance sheet under the head 'Innovative Tier I capital raised in the form of Head Office borrowings in foreign currency'.



vi) *Hedging*

The total eligible amount of HO borrowing should remain fully swapped in Indian Rupees with the bank at all times.

vii) *Reporting and certification*

Details regarding the total amount of innovative Tier I capital raised as HO borrowings, along with a certification to the effect that the borrowing is in accordance with these guidelines, should be advised to the Chief General Managers-in-Charge of the Department of Banking Operations & Development (International Banking Section), Department of External Investments & Operations and Foreign Exchange Department (Forex Markets Division), Reserve Bank of India, Mumbai.

**Terms and conditions applicable to Debt capital Instruments to qualify for inclusion as Upper Tier II Capital**

The debt capital instruments that may be issued as bonds / debentures by Indian banks should meet the following terms and conditions to qualify for inclusion as Upper Tier II Capital for capital adequacy purposes.

**1. Terms of Issue of Upper Tier II Capital instruments**

*i) Currency of issue*

Banks shall issue Upper Tier II instruments in Indian Rupees. Instruments in foreign currency can be issued without seeking the prior approval of the Reserve Bank of India, subject to compliance with the under mentioned requirements:

- a. Upper Tier II Instruments issued in foreign currency should comply with all terms and conditions applicable as detailed in the guidelines issued on January 25, 2006, unless specifically modified.
- b. The total amount of Upper Tier II Instruments issued in foreign currency shall not exceed 25% of the unimpaired Tier I capital. This eligible amount will be computed with reference to the amount of Tier I capital as on March 31 of the previous financial year, after deduction of goodwill and other intangible assets but before the deduction of investments.
- c. This will be in addition to the existing limit for foreign currency borrowings by Authorised Dealers in terms of Master Circular No. RBI/2006-07/24 dated July 1, 2006 on Risk Management and Inter-Bank Dealings.
- d. Investment by FII's in Upper Tier II Instruments raised in Indian Rupees shall be outside the limit for investment in corporate debt instruments i.e., USD 1.5 billion. However, investment by FII's in these instruments will be subject to a separate ceiling of USD 500 million.

*ii) Amount*

The amount of Upper Tier II instruments to be raised may be decided by the Board of Directors of banks.

*iii) Limits*

Upper Tier II instruments along with other components of Tier II capital shall not exceed 100% of Tier I capital. The above limit will be based on the amount of Tier I capital after deduction of goodwill and other intangible assets but before the deduction of investments.

*iv) Maturity period*

The Upper Tier II instruments should have a minimum maturity of 15 years.

*v) Rate of interest*

The interest payable to the investors may be either at a fixed rate or at a floating rate referenced to a market determined rupee interest benchmark rate.

*vi) Options*

Upper Tier II instruments shall not be issued with a 'put option'. However banks may issue the instruments with a 'call option' subject to strict compliance with each of the following conditions:

- Call options may be exercised only if the instrument has run for at least ten years;
  - Call options shall be exercised only with the prior approval of RBI (Department of Banking Operations & Development). While considering the proposals received from banks for exercising the call option the RBI would, among other things, take into consideration the bank's CRAR position both at the time of exercise of the call option and after exercise of the call option.
- vii) Step-up option*
- The issuing bank may have a step-up option which may be exercised only once during the whole life of the instrument, in conjunction with the call option, after the lapse of ten years from the date of issue. The step-up shall not be more than 100 bps. The limits on step-up apply to the all-in cost of the debt to the issuing banks.
- viii) Lock-In Clause*
- a. Upper Tier II instruments shall be subjected to a lock-in clause in terms of which the issuing bank shall not be liable to pay either interest or principal, even at maturity, if
    - the bank's CRAR is below the minimum regulatory requirement prescribed by RBI, or
    - the impact of such payment results in bank's CRAR falling below or remaining below the minimum regulatory requirement prescribed by RBI.
  - b. However, banks may pay interest with the prior approval of RBI when the impact of such payment may result in net loss or increase the net loss provided CRAR remains above the regulatory norm. For this purpose 'Net Loss' would mean either (a) the accumulated loss at the end of the previous financial year; or (b) the loss incurred during the current financial year.
  - c. The interest amount due and remaining unpaid may be allowed to be paid in the later years in cash/ cheque subject to the bank complying with the above regulatory requirement. While paying such unpaid interest and principal, banks are allowed to pay compound interest at a rate not exceeding the coupon rate of the relative Upper Tier II bonds, on the outstanding principal and interest.
  - d. All instances of invocation of the lock-in clause should be notified by the issuing banks to the Chief General Managers-in-Charge of Department of Banking Operations & Development and Department of Banking Supervision of the Reserve Bank of India, Mumbai.
- ix) Seniority of claim*
- The claims of the investors in Upper Tier II instruments shall be
- Superior to the claims of investors in instruments eligible for inclusion in Tier I capital; and
  - Subordinate to the claims of all other creditors.
- x) Discount*
- The Upper Tier II instruments shall be subjected to a progressive discount for capital adequacy purposes as in the case of long-term subordinated debt over the last five years of their tenor. As they approach maturity these instruments should be subjected to progressive discount as indicated in the table below for being eligible for inclusion in Tier II capital.

Remaining Maturity of Instruments	Rate of Discount (%)
Less than one year	100
One year and more but less than two years	80
Two years and more but less than three years	60
Three years and more but less than four years	40
Four years and more but less than five years	20

*xi) Redemption*

Upper Tier II instruments shall not be redeemable at the initiative of the holder. All redemptions shall be made only with the prior approval of the Reserve Bank of India (Department of Banking Operations & Development).

*xii) Other conditions*

- i. Upper Tier II instruments shall be fully paid-up, unsecured, and free of any restrictive clauses.
- ii. Investment in Upper Tier II instruments by FIIs shall be within the limits as laid down in the ECB Policy for investment in debt instruments. In addition, NRIs shall also be eligible to invest in these instruments as per existing policy.
- iii. Banks should comply with the terms and conditions, if any, stipulated by SEBI/other regulatory authorities in regard to issue of the instruments.

## 2. Compliance with Reserve Requirements

- i) The funds collected by various branches of the bank or other banks for the issue and held pending finalisation of allotment of the Upper Tier II Capital instruments will have to be taken into account for the purpose of calculating reserve requirements.
- ii) The total amount raised by a bank through Upper Tier II instruments shall be reckoned as liability for the calculation of net demand and time liabilities for the purpose of reserve requirements and, as such, will attract CRR/SLR requirements.

## 3. Reporting Requirements

Banks issuing Upper Tier II instruments shall submit a report to the Chief General Manager-in-charge, Department of Banking Operations & Development, Reserve Bank of India, Mumbai giving details of the debt raised, including the terms of issue specified at item 1 above together with a copy of the offer document soon after the issue is completed.

## 4. Investment in Upper Tier II instruments issued by other banks/ FIs

- A bank's investment in Upper Tier II instruments issued by other banks and financial institutions will be reckoned along with the investment in other instruments eligible for capital status while computing compliance with the overall ceiling of 10 percent for cross holding of capital among banks/FIs prescribed vide circular DBOD.BP.BC.No.3/ 21.01.002/ 2004-05 dated 6<sup>th</sup> July 2004 and also subject to cross holding limits.

- Bank's investments in Upper Tier II instruments issued by other banks/ financial institutions will attract a 100% risk weight for capital adequacy purposes.

## 5. Grant of advances against Upper Tier II instruments

Banks shall not grant advances against the security of the Upper Tier II instruments issued by them.

## 6. Disclosure

Banks may indicate the amount raised by issue of Upper Tier II instruments by way of explanatory notes / remarks in the Balance Sheet as well as Schedule 5 under 'Other Liabilities & Provisions

## 7. Raising of Upper Tier II Instruments by foreign banks in India

Foreign banks in India may raise Head Office (HO) borrowings in foreign currency for inclusion as Upper Tier II capital subject to the same terms and conditions as mentioned in items 1 to 5 above for Indian banks. In addition, the following terms and conditions would also be applicable:

- i) *Maturity period*  
If the amount of Upper Tier II capital raised as Head Office borrowings is in tranches, each tranche shall be retained in India for a minimum period of fifteen years.
- ii) *Rate of interest*  
Rate of interest on Upper Tier II capital raised as HO borrowings should not exceed the on-going market rate. Interest should be paid at half-yearly rests.
- iii) *Withholding tax*  
Interest payments to the HO will be subject to applicable withholding tax.
- iv) *Documentation*  
The foreign bank raising Upper Tier II capital as HO borrowings should obtain a letter from its HO agreeing to give the loan for supplementing the capital base for the Indian operations of the foreign bank. The loan documentation should confirm that the loan given by Head Office shall be eligible for the same level of seniority of claim as the investors in Upper Tier II debt capital instruments issued by Indian banks. The loan agreement will be governed by and construed in accordance with the Indian law.
- v) *Disclosure*  
The total eligible amount of HO borrowings shall be disclosed in the balance sheet under the head 'Upper Tier II capital raised in the form of Head Office borrowings in foreign currency'.
- vi) *Hedging*  
The total eligible amount of HO borrowing should remain fully swapped in Indian Rupees with the bank at all times.
- vii) *Reporting and certification*  
Details regarding the total amount of Upper Tier II capital raised as HO borrowings, along with a certification to the effect that the borrowing is in accordance with these guidelines, should be advised to the Chief General Managers-in-Charge of the Department of Banking Operations & Development (International Banking Division), Department of External Investments & Operations and Foreign Exchange Department (Forex Markets Division), Reserve Bank of India, Mumbai.

**Terms and conditions for issue of unsecured bonds as  
Subordinated Debt by banks to raise Tier II capital**

**I. Rupee Subordinated Debt**

**1. Terms of Issue of Bond**

To be eligible for inclusion in Tier II capital, terms of issue of the bonds as subordinated debt instruments should be in conformity with the following:

*i) Amount*

The amount of subordinated debt to be raised may be decided by the Board of Directors of the bank.

*ii) Maturity period*

- a. Subordinated debt instruments with an initial maturity period of less than 5 years, or with a remaining maturity of one year should not be included as part of Tier II capital. Further, they should be subjected to progressive discount as they approach maturity at the rates shown below:

Remaining Maturity of Instruments	Rate of Discount (%)
Less than one year	100
More than One year and less than Two years	80
More than Two years and less than Three years	60
More than Three years and less than Four years	40
More than Four years and less than Five years	20

- b. The bonds should have a minimum maturity of 5 years. However if the bonds are issued in the last quarter of the year i.e., from 1<sup>st</sup> January to 31<sup>st</sup> March, they should have a minimum tenure of sixty three months.

*iii) Rate of interest*

The interest rate should not be more than 200 basis points above the yield on Government of India securities of equal residual maturity at the time of issuing bonds. The instruments should be 'vanilla' with no special features like options, etc.

*iv) Other conditions*

- o The instruments should be fully paid-up, unsecured, subordinated to the claims of other creditors, free of restrictive clauses and should not be redeemable at the initiative of the holder or without the consent of the Reserve Bank of India.
- o Necessary permission from Foreign Exchange Department should be obtained for issuing the instruments to NRIs/OCBs/FIIs.
- o Banks should comply with the terms and conditions, if any, set by SEBI/other regulatory authorities in regard to issue of the instruments.
- o In the case of foreign banks rupee subordinated debt should be issued by the Head Office of the bank, through the Indian branch after obtaining specific approval from Foreign Exchange Department.

**2. Inclusion in Tier II capital**

Subordinated debt instruments will be limited to 50 per cent of Tier-I Capital of the bank. These instruments, together with other components of Tier II capital, should not exceed 100% of Tier I capital.

### **3. Grant of advances against bonds**

Banks should not grant advances against the security of their own bonds.

### **4. Compliance with Reserve Requirements**

The total amount of Subordinated Debt raised by the bank has to be reckoned as liability for the calculation of net demand and time liabilities for the purpose of reserve requirements and, as such, will attract CRR/SLR requirements.

### **5. Treatment of Investment in subordinated debt**

Investments by banks in subordinated debt of other banks will be assigned 100% risk weight for capital adequacy purpose. Also, the bank's aggregate investment in Tier II bonds issued by other banks and financial institutions shall be within the overall ceiling of 10 percent of the investing bank's total capital. The capital for this purpose will be the same as that reckoned for the purpose of capital adequacy.

## **II. Subordinated Debt in foreign currency and Subordinated Debt in the form of Foreign Currency Borrowings from Head Office by foreign banks**

Banks may take approval of RBI on a case-by-case basis.

### **III. Reporting Requirements**

The banks should submit a report to Reserve Bank of India giving details of the capital raised, such as, amount raised, maturity of the instrument, rate of interest together with a copy of the offer document soon after the issue is completed.

**Subordinated debt – Head Office borrowings  
in foreign currency raised by foreign banks operating  
in India for inclusion in Tier II capital**

Detailed guidelines on the standard requirements and conditions for Head Office (HO) borrowings in foreign currency raised by foreign banks operating in India for inclusion , as subordinated debt in Tier II capital are as indicated below:-

**Amount of borrowing**

2. The total amount of HO borrowing in foreign currency will be at the discretion of the foreign bank. However, the amount eligible for inclusion in Tier II capital as subordinated debt will be subject to a maximum ceiling of 50% of the Tier I capital maintained in India, and the applicable discount rate mentioned in para 5 below. Further as per extant instructions, the total of Tier II capital should not exceed 100% of Tier I capital.

**Maturity period**

3. Head Office borrowings should have a minimum initial maturity of 5 years. If the borrowing is in tranches, each tranche will have to be retained in India for a minimum period of five years. HO borrowings in the nature of perpetual subordinated debt, where there may be no final maturity date, will not be permitted.

**Features**

4. The HO borrowings should be fully paid up, i.e. the entire borrowing or each tranche of the borrowing should be available in full to the branch(es) in India. It should be unsecured, subordinated to the claims of other creditors of the foreign bank in India, free of restrictive clauses and should not be redeemable at the instance of the HO.

**Rate of discount**

5. The HO borrowings will be subjected to progressive discount as they approach maturity at the rates indicated below:

Remaining maturity of borrowing	Rate of discount
More than 5 years	Not Applicable (the entire amount can be included as subordinated debt in Tier II capital subject to the ceiling mentioned in para 2)
More than 4 years and less than 5 years	20%
More than 3 years and less than 4 years	40%
More than 2 years and less than 3 years	60%
More than 1 year and less than 2 years	80%
Less than 1 year	100% (No amount can be treated as subordinated debt for Tier II capital)

**Rate of interest**

6. The rate of interest on HO borrowings should not exceed the on-going market rate. Interest should be paid at half yearly rests.



**Withholding tax**

7. The interest payments to the HO will be subject to applicable withholding tax.

**Repayment**

8. All repayments of the principal amount will be subject to prior approval of Reserve Bank of India, Department of Banking Operations and Development.

**Documentation**

9. The bank should obtain a letter from its HO agreeing to give the loan for supplementing the capital base for the Indian operations of the foreign bank. The loan documentation should confirm that the loan given by Head Office would be subordinated to the claims of all other creditors of the foreign bank in India. The loan agreement will be governed by, and construed in accordance with the Indian law. Prior approval of the RBI should be obtained in case of any material changes in the original terms of issue.

**Disclosure**

10. The total eligible amount of HO borrowings may be disclosed in the balance sheet under the head 'Subordinated loan in the nature of long term borrowings in foreign currency from Head Office'.

**Reserve requirements**

11. The total amount of HO borrowings is to be reckoned as liability for the calculation of net demand and time liabilities for the purpose of reserve requirements and, as such, will attract CRR/SLR requirements.

**Hedging**

12. The total eligible amount of HO borrowing should remain fully swapped with banks at all times. The swap should be in Indian rupees.

**Reporting & Certification**

13. Such borrowings done in compliance with the guidelines set out above would not require prior approval of RBI. However, information regarding the total amount of borrowing raised from Head Office under this circular, along with a certification to the effect that the borrowing is as per the guidelines, should be advised to the Chief General Managers-in-Charge of the Department of Banking Operations & Development (International Banking Section), Department of External Investments & Operations and Foreign Exchange Department (Forex Markets Division), RBI, Mumbai.

## CAPITAL CHARGE FOR SPECIFIC RISK

Sr. No.	Nature of investment	Maturity	Specific risk capital charge (as % of exposure)
<b>Claims on Government</b>			
1.	Investments in Government Securities.	All	0.0
2.	Investments in other approved securities guaranteed by Central/ State Government.	All	0.0
3.	Investments in other securities where payment of interest and repayment of principal are guaranteed by Central Govt. (This will include investments in Indira/Kisan Vikas Patra (IVP/KVP) and investments in Bonds and Debentures where payment of interest and principal is guaranteed by Central Govt.)	All	0.0
4.	Investments in other securities where payment of interest and repayment of principal are guaranteed by State Governments.	All	0.0
5.	Investments in other approved securities where payment of interest and repayment of principal are not guaranteed by Central/State Govt.	All	1.80
6.	Investments in Government guaranteed securities of Government Undertakings which do not form part of the approved market borrowing programme.	All	1.80
7.	Investment in state government guaranteed securities included under items 2, 4 and 6 above where the investment is non-performing. However the banks need to maintain capital at 9.0% only on those State Government guaranteed securities issued by the defaulting entities and not on all the securities issued or guaranteed by that State Government.	All	9.00
<b>Claims on Banks</b>			
8	Claims on banks, including investments in securities which are guaranteed by banks as to payment of interest and repayment of principal	For residual term to final maturity 6 months or less	0.30
		For residual term to final maturity between 6 and 24 months	1.125

<b>Sr. No.</b>	<b>Nature of investment</b>	<b>Maturity</b>	<b>Specific risk capital charge (as % of exposure)</b>
		For residual term to final maturity exceeding 24 months	1.80
9.	Investments in subordinated debt instruments and bonds issued by other banks for their Tier II capital.	All	9.00
	<b>Claims on Others</b>		
10.	Investment in Mortgage Backed Securities (MBS) of residential assets of Housing Finance Companies (HFCs) which are recognised and supervised by National Housing Bank (subject to satisfying terms & conditions given in Annex 8.2	All	4.50
11	Investment in Mortgage Backed Securities (MBS) which are backed by housing loan qualifying for 50% risk weight.	All	4.50
12.	Investment in securitised paper pertaining to an infrastructure facility	All	4.50
13.	All other investments including investment in securities issued by SPVs set up for securitisation transactions	All	9.00
14	Direct investment in equity shares, convertible bonds, debentures and units of equity oriented mutual funds	All	11.25
15	Investment in Mortgaged Backed Securities and other securitised exposures to Commercial Real Estate	All	13.5
16	Investments in Venture Capital Funds	All	13.5
17	Investments in instruments issued by NBFC-ND-SI	All	11.25

The category 'claim on Government' will include all forms of Government securities including dated Government securities, Treasury bills and other short-term investments and instruments where repayment of both principal and interest are fully guaranteed by the Government. The category 'Claims on others' will include issuers of securities other than Government and banks.

**ANNEX 6  
DURATION METHOD**

(Time bands and assumed changes in yield)

<b>Time Bands</b>	<b>Assumed Change in Yield</b>
<b>Zone 1</b>	
1 month or less	1.00
1 to 3 months	1.00
3 to 6 months	1.00
6 to 12 months	1.00
<b>Zone 2</b>	
1.0 to 1.9 years	0.90
1.9 to 2.8 years	0.80
2.8 to 3.6 years	0.75
<b>Zone 3</b>	
3.6 to 4.3 years	0.75
4.3 to 5.7 years	0.70
5.7 to 7.3 years	0.65
7.3 to 9.3 years	0.60
9.3 to 10.6 years	0.60
10.6 to 12 years	0.60
12 to 20 years	0.60
over 20 years	0.60

## Horizontal Disallowances

Zones	Time band	Within the zones	Between adjacent zones	Between zones 1 and 3
Zone 1	1 month or less	40%	40%	100%
	1 to 3 months			
	3 to 6 months			
	6 to 12 months			
Zone 2	1.0 to 1.9 years	30%		
	1.9 to 2.8 years			
	2.8 to 3.6 years			
Zone 3	3.6 to 4.3 years	30%		
	4.3 to 5.7 years			
	5.7 to 7.3 years			
	7.3 to 9.3 years			
	9.3 to 10.6 years			
	10.6 to 12 years			
	12 to 20 years			
over 20 years				

Note: Capital charges should be calculated for each currency separately and then summed with no offsetting between positions of opposite sign. In the case of those currencies in which business is insignificant (where the turnover in the respective currency is less than 5 per cent of overall foreign exchange turnover), separate calculations for each currency are not required. The bank may, instead, slot within each appropriate time-band, the net long or short position for each currency. However, these individual net positions are to be summed within each time-band, irrespective of whether they are long or short positions, to produce a gross position figure. In the case of residual currencies the gross positions in each time-band will be subject to the assumed change in yield set out in table with no further offsets.

## Risk Weights for Calculation of CRAR

## I. Domestic Operations:

## A Funded Risk Assets

Sr. No.	Item of asset or liability	Risk Weight %
<b>I</b>	<b>Balances</b>	
1.	Cash, balances with RBI	0
2.	i. Balances in current account with other banks	20
	ii. Claims on Bank	20
<b>II</b>	<b>Investments(Applicable to securities held in HTM)</b>	
1.	Investments in Government Securities.	0
2.	Investments in other approved securities guaranteed by Central/ State Government. <i>Note: If the repayment of principal / interest in respect of State Government Guaranteed securities included in item 2, 4 and 6 has remained in default, for a period of more than 90 days banks should assign 102.5% risk weight. However the banks need to assign 102.5% risk weight only on those State Government guaranteed securities issued by the defaulting entities and not on all the securities issued or guaranteed by that State Government.</i>	0
3.	Investments in other securities where payment of interest and repayment of principal are guaranteed by Central Govt. (This will include investments in Indira/Kisan Vikas Patra (IVP/KVP) and investments in Bonds and Debentures where payment of interest and principal is guaranteed by Central Govt.) <i>(cf para (i) of circular listed at item 4 part 'B' of Annex 1)</i>	0
4.	Investments in other securities where payment of interest and repayment of principal are guaranteed by State Governments.	0
5.	Investments in other approved securities where payment of interest and repayment of principal are not guaranteed by Central/State Govt.	20
6.	Investments in Government guaranteed securities of Government Undertakings which <b>do not</b> form part of the approved market borrowing programme.	20
7.	Claims on commercial banks	20
8.	Investments in bonds issued by other banks	20
9.	Investments in securities which are guaranteed by banks as to payment of interest and repayment of principal.	20
10.	Investments in subordinated debt instruments and bonds issued by other banks or Public Financial Institutions for their Tier II capital.	100
11.	Deposits placed with SIDBI/NABARD in lieu of shortfall in lending to priority sector.	100

12.	Investment in Mortgage Backed Securities (MBS) of residential assets of Housing Finance Companies (HFCs) which are recognised and supervised by National Housing Bank (subject to satisfying terms & conditions given in Annex 8).	50
13	Investment in Mortgage Backed Securities (MBS) which are backed by housing loan qualifying for 50% risk weight.	50
14.	Investment in securitised paper pertaining to an infrastructure facility. (subject to satisfying terms & conditions given in Annex 9.3).	50
15	Investments in debentures/ bonds/ security receipts/ Pass Through Certificates issued by Securitisation Company / SPVs/ Reconstruction Company and held by banks as investment	100
16.	All other investments including investments in securities issued by PFIs.	100
	<i>Note:</i> Equity investments in subsidiaries, intangible assets and losses deducted from Tier I capital should be assigned zero weight	
17	Direct investment in equity shares, convertible bonds, debentures and units of equity oriented mutual funds	125
18	Investment in Mortgaged Backed Securities and other securitised exposures to Commercial Real Estate	150
19	Investments in Venture Capital Funds	150
20	Securities issued by SPVs in respect of securitisation standard asset transactions underwritten and devolved by originator banks during the stipulated period of three months	100
21	Securities issued by SPVs in respect of securitisation standard asset transactions underwritten and devolved to bank as party service provider during the stipulated period of three months	100
22	NPA Investment purchased from other banks	100
23	Investments in instruments issued by NBFC-ND-SI	125
<b>III</b>	<b>Loans &amp; Advances</b> including bills purchased and discounted and other credit facilities	
1.	Loans guaranteed by Govt. of India	0
2.	Loans guaranteed by State Govts. <i>Note: If the loans guaranteed by State Govts. have remained in default for a period of more than 90 days a risk weight of 100 percent should be assigned.</i>	0
3.	Loans granted to public sector undertakings of Govt. of India	100
4.	Loans granted to public sector undertakings of State Govts.	100

5.		
(i)	For the purpose of credit exposure, bills purchased/discounted /negotiated under LC (where payment to the beneficiary is not under reserve) is treated as an exposure on the LC issuing bank and assigned risk weight as is normally applicable to inter-bank exposures.	20
(ii)	Bills negotiated under LCs 'under reserve', bills purchased/discounted/negotiated without LCs, will be reckoned as exposure on the borrower constituent. Accordingly, the exposure will attract a risk weight appropriate to the borrower.	
	(i) Govt	0
	(ii) Banks	20
	(iii) Others	100
6.	Others including PFIs	100
7.	Leased assets	100
8.	Advances covered by DICGC/ECGC <b>Note:</b> The risk weight of 50% should be limited to the amount guaranteed and not the entire outstanding balance in the accounts. In other words, the outstandings in excess of the amount guaranteed, will carry 100% risk weight.	50
9.	SSI Advances Guaranteed by Credit Guarantee Fund Trust for Small Industries (CGTSI) up to the guaranteed portion. <b>Note:</b> Banks may assign zero risk weight for the guaranteed portion. The balance outstanding in excess of the guaranteed portion would attract a risk-weight as appropriate to the counter-party. Two illustrative examples are given in Annex 8.	0
10.	Insurance cover under Business Credit Shield the product of New India Assurance Company Ltd. (Subject to Conditions given in Annex 8.4) <b>Note:</b> The risk weight of 50% should be limited to the amount guaranteed and not the entire outstanding balance in the accounts. In other words, the outstandings in excess of the amount guaranteed, will carry 100% risk weight.	50
11	Advances against term deposits, Life policies, NSCs, IVPs and KVPs where adequate margin is available.	0
12.	Loans and Advances granted to staff of banks which are fully covered by superannuation benefits and mortgage of flat/house.	20
13.	Housing loans to individuals against the mortgage of residential housing properties above Rs.20 lakhs	75
14	Housing loans to individuals against the mortgage of residential housing properties upto Rs.20 lakhs	50
15	Consumer credit including personal loans and credit cards	125
16	Loans up to Rs.1 lakh against gold and silver ornaments	50
17.	Takeout Finance	



	(i) Unconditional takeover (in the books of lending institution)	20
	(a) Where full credit risk is assumed by the taking over institution	
	(b) Where only partial credit risk is assumed by taking over institution	20
	i) the amount to be taken over	100
	ii) the amount not to be taken over	
	(ii) Conditional take-over (in the books of lending and Taking over institution)	100
18	Advances against shares to individuals for investment in equity shares (including IPOs/ESOPs), bonds and debentures, units of equity oriented mutual funds, etc.	125
19	Secured and unsecured advances to stock brokers	125
20	Fund based exposures commercial real estate	150
21	Funded liquidity facility for securitisation of standard asset transactions	100
22	NPA purchased from other banks	100
23	Loans & Advances NBFC-ND-SI	125
<b>IV</b>	<b>Other Assets</b>	
1.	Premises, furniture and fixtures	100
2.	Income tax deducted at source (net of provision)	0
	Advance tax paid (net of provision)	0
	Interest due on Government securities	0
	Accrued interest on CRR balances and claims on RBI on account of Government transactions (net of claims of Government/RBI on banks on account of such transactions)	0
	All other assets	100

## B. Off-Balance Sheet Items

The credit risk exposure attached to off-Balance Sheet items has to be first calculated by multiplying the face value of each of the off-Balance Sheet items by 'credit conversion factor' as indicated in the table below. This will then have to be again multiplied by the weights attributable to the relevant counter-party as specified above.

Sr. No.	Instruments	Credit Conversion Factor (%)
1.	Direct credit substitutes e.g. general guarantees of indebtedness (including standby L/Cs serving as financial guarantees for loans and securities) and acceptances (including endorsements with the character of acceptance).	100
2.	Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby L/Cs related to particular transactions).	50
3.	Short-term self-liquidating trade-related contingencies (such as documentary credits collateralized by the underlying shipments).	20
4.	Sale and repurchase agreement and asset sales with recourse, where the credit risk remains with the bank.	100
5.	Forward asset purchases, forward deposits and partly paid shares and securities, which represent commitments with certain drawdown.	100
6.	Note issuance facilities and revolving underwriting facilities.	50
7.	Other commitments (e.g., formal standby facilities and credit lines) with an original maturity of over one year.	50
8.	Similar commitments with an original maturity upto one year, or which can be unconditionally cancelled at any time.	0
9.	Aggregate outstanding foreign exchange contracts of original maturity -	
	• less than one year	2
	• for each additional year or part thereof	3
10.	Take-out Finance in the books of taking-over institution	
	(i) Unconditional take-out finance	100
	(ii) Conditional take-out finance	50
	<b>Note:</b> As the counter-party exposure will determine the risk weight, it will be 100 percent in respect of all borrowers or zero percent if covered by Government guarantee.	
11	Non-Funded exposures to commercial real estate	150
12	Guarantees issued on behalf of stock brokers and market makers	125
13	Commitment to provide liquidity facility for securitisation of standard asset transactions	100
14	Second loss credit enhancement for securitisation of standard asset transactions provided by third party	100
15	Non-funded exposure to NBFC-ND-SI	125

**NOTE:** In regard to off-balance sheet items, the following transactions with non-bank counterparties will be treated as claims on banks and carry a risk-weight of 20%

Guarantees issued by banks against the counter guarantees of other banks.

Rediscounting of documentary bills accepted by banks. Bills discounted by banks which have been accepted by another bank will be treated as a funded claim on a bank.

In all the above cases banks should be fully satisfied that the risk exposure is in fact on the other bank.

**C. Risk weights for Open positions**

<b>Sr. No.</b>	<b>Item</b>	<b>Risk weight (%)</b>
1.	Foreign exchange open position.	100
2.	Open position in gold <b>Note:</b> The risk weighted position both in respect of foreign exchange and gold open position limits should be added to the other risk weighted assets for calculation of CRAR	100

**D. Risk weights for Forward Rate Agreement (FRA) /Interest Rate Swap (IRS)**

For reckoning the minimum capital ratio, the computation of risk weighted assets on account of FRAs / IRS should be done as per the two steps procedure set out below:

**Step 1**

The notional principal amount of each instruments is to be multiplied by the conversion factor given below:

<b>Original Maturity</b>	<b>Conversion Factor</b>
Less than one year	0.5 per cent
One year and less than two years	1.0 per cent
For each additional year	1.0 per cent

**Step 2**

The adjusted value thus obtained shall be multiplied by the risk weightage allotted to the relevant counter-party as specified below:

<b>Counter party</b>	<b>Risk weight</b>
Banks	20 per cent
Central & State Govt.	0 per cent
All others	100 per cent

**II. Overseas operations (applicable only to Indian banks having branches abroad)****A. Funded Risk Assets**

<b>Sr. No.</b>	<b>Item of asset or liability</b>	<b>Risk Weight %</b>
i)	Cash	0
ii)	Balances with Monetary Authority	0
iii)	Investments in Government securities	0
iv)	Balances in current account with other banks	20
v)	All other claims on banks including but not limited to funds loaned in money markets, deposit placements, investments in CDs/FRNs. Etc.	20
vi)	Investment in non-bank sectors	100
vii)	Loans and advances, bills purchased and discounted and other credit facilities	
	a) Claims guaranteed by Government of India.	0
	b) Claims guaranteed by State Governments	0
	c) Claims on public sector undertakings of Government of India.	100
	d) Claims on public sector undertakings of State Governments	100
	e) Others	100
viii)	All other banking and infrastructural assets	100

**B. Non-funded risk assets**

<b>Sr. No.</b>	<b>Instruments</b>	<b>Credit Conversion Factor (%)</b>
i)	Direct credit substitutes, e.g. general guarantees of indebtedness (including standby letters of credit serving as financial guarantees for loans and securities) and acceptances (including endorsements)	100

Sr. No.	Instruments	Credit Conversion Factor (%)
	with the character of acceptances)	
ii)	Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions)	50
iii)	Short-term self-liquidating trade related contingencies- such as documentary credits collateralised by the underlying shipments	20
iv)	Sale and repurchase agreement and asset sales with recourse, where the credit risk remains with the bank.	100
v)	Forward asset purchases, forward deposits and partly paid shares and securities, which represent commitments with certain draw down	100
vi)	Note issuance facilities and revolving underwriting facilities	50
vii)	Other commitments (e.g. formal standby facilities and credit lines) with an original maturity of over one year.	50
viii)	Similar commitments with an original maturity up to one year, or which can be unconditionally cancelled at any time.	0

**SSI Advances Guaranteed by Credit Guarantee Fund Trust for Small Industries (CGTSI) – Risk weights and Provisioning norms (paragraph I (A)(III)(9) of Annex 8)**

**Risk-Weight**

Example I

CGTSI Cover : 75% of the amount outstanding or 75% of the unsecured amount or Rs.18.75 lakh , whichever is less

Realisable value of Security : Rs.1.50 lakh

- |                                              |                  |
|----------------------------------------------|------------------|
| a) Balance outstanding                       | : Rs. 10.00 lakh |
| b) Realisable value of security              | : Rs. 1.50 lakh  |
| c) Unsecured amount (a) - (b)                | : Rs 8.50 lakh   |
| d) Guaranteed portion (75% of (c) )          | : Rs. 6.38 lakh  |
| e) Uncovered portion (8.50 lakh – 6.38 lakh) | : Rs. 2.12 lakh  |

Risk-weight on (b) and (e) – Linked to the counter party

Risk-weight on (d) – Zero

Example II

CGTSI cover : 75% of the amount outstanding or 75% of the unsecured amount or Rs.18.75 lakh whichever is less

Realisable value of Security : Rs. 10.00 lakh.

- |                                              |                  |
|----------------------------------------------|------------------|
| a) Balance outstanding                       | : Rs. 40.00 lakh |
| b) Realisable value of security              | : Rs. 10.00 lakh |
| c) Unsecured amount (a) - (b)                | : Rs. 30.00 lakh |
| d) Guaranteed portion (max.)                 | : Rs. 18.75 lakh |
| e) Uncovered portion (Rs.30 lakh-18.75 lakh) | : Rs. 11.25 lakh |

Risk-weight (b) and (e) - Linked to the counter party

Risk-weight on (d) - Zero

\*\*\*\*\*

**Terms and conditions for the purpose of liberal Risk Weight for Capital Adequacy for investments in Mortgage Backed Securities (MBS) of residential assets of Housing Finance Companies (HFC).**

*(Vide item (I)(A)(II)(12) of Annex 8)*

1(a) The right, title and interest of a HFC in securitised housing loans and receivables thereunder should irrevocably be assigned in favour of a Special Purpose Vehicle (SPV) / Trust.

1(b) Mortgaged securities underlying the securitised housing loans should be held exclusively on behalf of and for the benefit of the investors by the SPV/Trust.

1(c) The SPV or Trust should be entitled to the receivables under the securitised loans with an arrangement for distribution of the same to the investors as per the terms of issue of MBS. Such an arrangement may provide for appointment of the originating HFC as the servicing and paying agent. However, the originating HFC participating in a securitisation transaction as a seller, manager, servicer or provider of credit enhancement or liquidity facilities :

- i. shall not own any share capital in the SPV or be the beneficiary of the trust used as a vehicle for the purchase and securitisation of assets. Share capital for this purpose shall include all classes of common and preferred share capital;
- ii. shall not name the SPV in such manner as to imply any connection with the bank;
- iii. shall not have any directors, officers or employees on the board of the SPV unless the board is made up of at least three members and where there is a majority of independent directors. In addition, the official(s) representing the bank will not have veto powers;
- iv. shall not directly or indirectly control the SPV; or
- v. shall not support any losses arising from the securitisation transaction or by investors involved in it or bear any of the recurring expenses of the transaction.

1(d) The loans to be securitised should be loans advanced to individuals for acquiring/constructing residential houses which should have been mortgaged to the HFC by way of exclusive first charge.

1(e) The loans to be securitised should be accorded an investment grade credit rating by any of the credit rating agencies at the time of assignment to the SPV.

1(f) The investors should be entitled to call upon the issuer - SPV - to take steps for recovery in the event of default and distribute the net proceeds to the investors as per the terms of issue of MBS.

1(g) The SPV undertaking the issue of MBS should not be engaged in any business other than the business of issue and administration of MBS of individual housing loans.

1(h) The SPV or Trustees appointed to manage the issue of MBS should have to be governed by the provisions of Indian Trusts Act, 1882.

2. If the issue of MBS is in accordance with the terms and conditions stated in paragraph 1 above and includes irrevocable transfer of risk and reward of the housing loan assets to the Special Purpose Vehicle (SPV)/Trust, investment in such MBS by any bank would not be reckoned as an exposure on the HFC originating the securitised housing loan. However, it would be treated as an exposure on the underlying assets of the SPV / Trust.



**Conditions for availing concessional risk weight on investment in securitised paper pertaining to an infrastructure facility (*Vide item (I)(A)(II)(13) of Annex 8*)**

1. The infrastructure facility should satisfy the conditions stipulated in our circular DBOD. No. BP. BC. 92/21.04.048/ 2002- 2003 dated June 16, 2004.
2. The infrastructure facility should be generating income/ cash flows which would ensure servicing/ repayment of the securitised paper.
3. The securitised paper should be rated at least 'AAA' by the rating agencies and the rating should be current and valid. The rating relied upon will be deemed to be current and valid if :

The rating is not more than one month old on the date of opening of the issue, and the rating rationale from the rating agency is not more than one year old on the date of opening of the issue, and the rating letter and the rating rationale is a part of the offer document.

In the case of secondary market acquisition, the 'AAA' rating of the issue should be in force and confirmed from the monthly bulletin published by the respective rating agency.

The securitised paper should be a performing asset on the books of the investing/ lending institution.

**Conditions for availing concessional risk weight for Advances covered by Insurance cover under Business Credit Shield the product of New India Assurance Company Ltd. (Vide item (I)(A)(III)(10) of Annex 8)**

New India Assurance Company Limited (NIA) should comply with the provisions of the Insurance Act, 1938, the Regulations made thereunder - especially those relating to Reserves for unexpired risks and the Insurance Regulatory and Development Authority (Assets, Liabilities and Solvency Margin of Insurers) Regulations, 2000 and any other conditions/regulations that may be prescribed by IRDA in future, if their insurance product - Business Credit Shield (BCS) - is to qualify for the above treatment.

2. To be eligible for the above regulatory treatment in respect of export credit covered by BCS policy of **NIA, banks should ensure that:**

The BCS policy is assigned in its favour, and

NIA abides by the provisions of the Insurance Act, 1938 and the regulations made there under, especially those relating to Reserves for unexpired risks and the Insurance Regulatory and Development Authority (Assets, Liabilities and Solvency Margin of Insurers) Regulations, 2000, and any other conditions/regulations that may be prescribed by IRDA in future.

3. Banks should maintain separate account(s) for the advances to exporters, which are covered by the insurance under the "Business Credit Shield" to enable easy administration/verification of risk weights/provisions.

### Worked out examples for computing capital charge for credit and market risks

**Example I-** Case where the trading book does not contain equities and interest rate related derivative instruments

#### 1. Assumptions:

1.1. A bank may have the following position:

Sl. No	Details	Amount Rs. Crore
1	Cash & Balances with RBI	200.00
2	Bank balances	200.00
3.	Investments	2000.00
	3.1 Held for Trading (Market Value)	500.00
	3.2 Available for Sale (Market Value)	1000.00
	3.3 Held to Maturity	500.00
4	Advances (net)	2000.00
5	Other Assets	300.00
<b>6</b>	<b>Total Assets</b>	<b>4700.00</b>

1.2. In terms of counter party, the investments are assumed to be as under:

Government	- Rs.1000 crore
Banks	- Rs. 500 crore
Others	- Rs. 500 crore

1.3. For simplicity sake the details of investments are assumed to be as under:

#### i) Government securities

Date of Issue	Date of reporting	Maturity Date	Amount Rs.in crore	Coupon (%)	Type
01/03/1992	31/03/2003	01/03/2004	100	12.50	AFS
01/05/1993	31/03/2003	01/05/2003	100	12.00	AFS
01/03/1994	31/03/2003	31/05/2003	100	12.00	AFS
01/03/1995	31/03/2003	01/03/2015	100	12.00	AFS
01/03/1998	31/03/2003	01/03/2010	100	11.50	AFS
01/03/1999	31/03/2003	01/03/2009	100	11.00	AFS
01/03/2000	31/03/2003	01/03/2005	100	10.50	HFT
01/03/2001	31/03/2003	01/03/2006	100	10.00	HTM
01/03/2002	31/03/2003	01/03/2012	100	8.00	HTM
01/03/2003	31/03/2003	01/03/2023	100	6.50	HTM
<b>Total</b>			<b>1000</b>		

ii). Bank Bonds

Date of Issue	Date of reporting	Maturity Date	Amount Rs. in crore	Coupon (%)	Type
01/03/1992	31/03/2003	01/03/2004	100	12.50	AFS
01/05/1993	31/03/2003	01/05/2003	100	12.00	AFS
01/03/1994	31/03/2003	31/05/2003	100	12.00	AFS
01/03/1995	31/03/2003	01/03/2006	100	12.50	AFS
01/03/1998	31/03/2003	01/03/2007	100	11.50	HFT
<b>Total</b>			<b>500</b>		

iii). Other securities

Date of Issue	Date of reporting	Maturity Date	Amount Rs. in crore	Coupon (%)	Type
01/03/1992	31/03/2003	01/03/2004	100	12.50	HFT
01/05/1993	31/03/2003	01/05/2003	100	12.00	HFT
01/03/1994	31/03/2003	31/05/2003	100	12.00	HFT
01/03/1995	31/03/2003	01/03/2006	100	12.50	HTM
01/03/1998	31/03/2003	01/03/2017	100	11.50	HTM
<b>Total</b>			<b>500</b>		

iv). Overall position

	Break-up of total investments (Rs. in crore)			
	Government Securities	Bank bonds	Other securities	Total
<b>HFT</b>	100	100	300	<b>500</b>
<b>AFS</b>	600	400	0	<b>1000</b>
<b>Trading Book</b>	<b>700</b>	<b>500</b>	<b>300</b>	<b>1500</b>
<b>HTM</b>	300	0	200	<b>500</b>
<b>Total</b>	<b>1000</b>	<b>500</b>	<b>500</b>	<b>2000</b>

2. Computation of risk weighted assets

2.1. Risk weighted assets for credit risk

As per the guidelines, Held for Trading and Available for Sale securities would qualify to be categorized as Trading Book. Thus, trading book in the instant case would be Rs.1500 crore as indicated above. While computing the credit risk, the securities held under trading book would be excluded and hence the risk-weighted assets for credit risks would be as under:

(Rs. in crore)

Sl.No.	Details of Assets	Market Value*	Risk Weight (%)	Risk weighted Assets
1	Cash & balances with RBI	200	0	0
2	Bank balances	200	20	40
3	Investments: Government Banks Others	300 0 200	0 20 100	0 0 200
4	Advances (net)	2000	100	2000
5	Other Assets	300	100	300
6	Total Assets	<b>3200</b>		<b>2540</b>

\*Assumed as Market Value for illustration

## 2.2. Risk weighted assets for market risk ( Trading Book)

(Please refer to table in para 1.3(iv))

### a. Specific Risk

(i) Government securities: Rs.700 crore – Nil

(ii) Bank bonds:

(Rs. in crore)

Details	Capital charge	Amount	Capital charge
For residual term to final maturity 6 months or less	0.30%	200	0.60
For residual term to final maturity between 6 and 24 months	1.125%	100	1.125
For residual term to final maturity exceeding 24 months	1.80%	200	3.60
<b>Total</b>		<b>500</b>	<b>5.325</b>

(iii) Other securities : Rs.300 crore @ 9% =Rs. 27 crore

Total charge for specific risk (i)+(ii)+(iii)

= Rs.0 crore+Rs.5.325 crore + Rs.27 crore = Rs. 32.325 crore

Therefore, capital charge for specific risk in trading book is Rs.32.33 crore.

### b. General Market Risk

Modified duration is used to arrive at the price sensitivity of an interest rate related instrument. For all the securities listed below, date of reporting is taken as 31/3/2003.

(Rs. in crore)

Counter Party	Maturity Date	Amount (market value)	Coupon (%)	Capital Charge for general market risk
Govt.	01/03/2004	100	12.50	0.84
Govt.	01/05/2003	100	12.00	0.08
Govt.	31/05/2003	100	12.00	0.16
Govt.	01/03/2015	100	12.50	3.63
Govt.	01/03/2010	100	11.50	2.79
Govt.	01/03/2009	100	11.00	2.75
Govt.	01/03/2005	100	10.50	1.35
Banks	01/03/2004	100	12.50	0.84
Banks	01/05/2003	100	12.00	0.08
Banks	31/05/2003	100	12.00	0.16
Banks	01/03/2006	100	12.50	1.77
Banks	01/03/2007	100	11.50	2.29
Others	01/03/2004	100	12.50	0.84
Others	01/05/2003	100	12.00	0.08
Others	31/05/2003	100	12.00	0.16
	<b>Total</b>	<b>1500</b>		<b>17.82</b>

### c. Total charge for market risk

Adding the capital charges for specific risk as well as general market risk would give the total capital charge for the trading book of interest rate related instruments. Therefore, capital charge for Market Risks = Rs.32.33 crore + Rs.17.82 crore, i.e., Rs.50.15 crore.

d. To facilitate computation of CRAR for the whole book, this capital charge needs to be converted into equivalent risk weighted assets. In India, the minimum CRAR is 9%. Hence, the capital charge could be converted to risk weighted assets by multiplying the capital charge by  $(100 \div 9)$ , Thus risk weighted assets for market risk is  $50.15 \times (100 \div 9) = \text{Rs.}557.23$  crore.

### 2.3. Computing the capital ratio (Rs. in Crore)

1	<b>Total Capital</b>	<b>400</b>
2	Risk weighted assets for Credit Risk	2540.00
3	Risk weighted assets for Market Risk	557.23
4	<b>Total Risk weighted assets (2+3)</b>	<b>3097.23</b>
5	<b>CRAR <math>[(1 \div 4) \times 100]</math></b>	<b>12.91 %</b>

**Example 2-** indicating computation of capital charge for credit and market risks – with equities and interest rate related derivative instruments. Foreign exchange and gold open positions also have been assumed.

### Assumptions

A bank may have the following position:

Sl. No	Details	Rs. in Crore
1	Cash & Balances with	200.00
2	Bank balances	200.00
3	Investments	
	3.1 Interest Rate related Securities	
	Held for Trading	500.00
	Available for Sale	1000.00
	Held to Maturity	500.00
	<b>3.2 Equities</b>	300.00
4	Advances (net)	2000.00
5	Other Assets	300.00
<b>6</b>	<b>Total Assets</b>	<b>5000.00</b>

foreign exchange open position limit is assumed as Rs.60 crore and Gold open position is assumed at Rs.40 crore.

Let us also assume that the bank is having the following positions in interest rate related derivatives:

- (i) Interest Rate Swaps (IRS), Rs.100 crore – bank received floating rate interest and pays fixed, next interest fixing after 6 months, residual life of swap 8 years, and
- (ii) Long position in interest rate future (IRF), Rs.50 crore, delivery after 6 months, life of underlying government security 3.5 years.

In terms of counter party the investments are assumed to be as under:

a) Interest rate related securities	
Government	Rs.1000 crore
Banks	Rs. 500 crore
Corporate Bonds	Rs. 500 crore
b) Equities	
Others	Rs.300 crore

For interest rate swaps and interest rate futures the counterparties are assumed to be corporates.

For simplicity sake let us assume the details of investments in interest rate related securities as under:

i) Government securities

Date of Issue	Date of reporting	Maturity Date	Amount Rs.crore	Coupon (%)	Type
01/03/1992	31/03/2003	01/03/2004	100	12.50	AFS
01/05/1993	31/03/2003	01/05/2003	100	12.00	AFS
01/03/1994	31/03/2003	31/05/2003	100	12.00	AFS
01/03/1995	31/03/2003	01/03/2015	100	12.50	AFS
01/03/1998	31/03/2003	01/03/2010	100	11.50	AFS
01/03/1999	31/03/2003	01/03/2009	100	11.00	AFS
01/03/2000	31/03/2003	01/03/2005	100	10.50	HFT
01/03/2001	31/03/2003	01/03/2006	100	10.00	HTM
01/03/2002	31/03/2003	01/03/2012	100	8.00	HTM
01/03/2003	31/03/2003	01/03/2023	100	6.50	HTM
<b>Total</b>			<b>1000</b>		

ii) Bank Bonds

Date of Issue	Date of reporting	Maturity Date	Amount Rs.crore	Coupon (%)	Type
01/03/1992	31/03/2003	01/03/2004	100	12.50	AFS
01/05/1993	31/03/2003	01/05/2003	100	12.00	AFS
01/03/1994	31/03/2003	31/05/2003	100	12.00	AFS
01/03/1995	31/03/2003	01/03/2006	100	12.50	AFS
01/03/1998	31/03/2003	01/03/2007	100	11.50	HFT
<b>Total</b>			<b>500</b>		

iii) Other securities

Date of Issue	Date of reporting	Maturity Date	Amount Rs.crore	Coupon (%)	Type
01/03/1992	31/03/2003	01/03/2004	100	12.50	HFT
01/05/1993	31/03/2003	01/05/2003	100	12.00	HFT
01/03/1994	31/03/2003	31/05/2003	100	12.00	HFT
01/03/1995	31/03/2003	01/03/2006	100	12.50	HTM
01/03/1998	31/03/2003	01/03/2017	100	11.50	HTM
<b>Total</b>			<b>500</b>		



iv). Overall Position

	Break-up of total investments					
	Interest rate related instruments				Equity	
	Govt. Securities	Bank bonds	Other securities	Total		Grand Total
HFT	100	100	300	500	300	800
AFS	600	400	0	1000	0	1000
Trading Book	700	500	300	1500	300	1800
HTM	300	0	200	500	0	500
Grand Total	1000	500	500	2000	300	2300

**Computation of risk weighted assets**

**Risk weighted assets for credit risk**

As per the guidelines, held for trading and available for sale securities would qualify to be categorized as Trading Book. Thus trading book in respect of interest rate related investments in the instant case would be Rs.1500 crore. In addition, equities position of Rs.300 crore would be in the trading book, as indicated above. The derivative products held by banks are to be considered as part of trading book. Open position on foreign exchange and gold also would be considered for market risk. While computing the capital charge for credit risk, the securities held under trading book would be excluded and hence the credit risk based risk-weights would be as under:

(Rs. in crore)			
Details of Assets	Book Value	Risk Weight	Risk weighted Assets
Cash& RBI	200	0%	0
Bank balances	200	20%	40
Investments in (HTM category)			
Government	300	0%	0
Banks	0	20%	0
Corporate Bonds	200	100%	200
Advances (net)	2000	100%	2000
Other Assets	300	100%	300
<b>Total</b>	<b>3200</b>		<b>2540</b>
Credit Risk for OTC Derivatives:			
IRS	100 (Credit conversion factor - 1% + 1% per year)	100%	8.00

IRF	50 (Credit conversion factor for maturities less than one year – 0.5%)	100%	<b>0.25</b>
<b>Total</b>	<b>3350</b>		<b>2548.25</b>

### Risk weighted assets for market risk ( Trading Book)

( please refer to table in para 1.7(iv) )

#### a. Specific Risk

1. Investments in interest rate related instruments:

(i) Government securities – Rs.700 crore – Nil

(ii) Bank bonds

(Rs.crore)			
Details	Capital charge	Amount	Capital Charge
For residual term to final maturity 6 months or less	0.30%	200	0.600
For residual term to final maturity between 6 and 24 months	1.125%	100	1.125
For residual term to final maturity exceeding 24 months	1.80%	200	3.600
<b>Total</b>		<b>500</b>	<b>5.325</b>

(iii) Others Rs.300 crore @ 9% = Rs.27 crore

Total : (i)+(ii)+(iii)

= Rs.0 crore+Rs.5.325 crore+Rs.27 crore = Rs.32.325 crore

2. Equities – capital charge of 9% = Rs.27 crore

Total specific charge (1+2)

Therefore, capital charge for specific risk in the trading book is Rs. 59.33 crore (Rs. 32.33 crore + Rs. 27 crore).

#### b. General Market Risk

(1). Investments in interest rate related instruments:

Modified duration is used to arrive at the price sensitivity of an interest rate related instrument. For all the securities listed below, date of reporting is taken as 31/3/2003.

(Rs.crore)

Counter Party	Maturity Date	Amount market value	Coupon (%)	Capital charge for general market risk
Govt.	01/03/2004	100	12.50	0.84
Govt.	01/05/2003	100	12.00	0.08
Govt.	31/05/2003	100	12.00	0.16
Govt.	01/03/2015	100	12.50	3.63
Govt.	01/03/2010	100	11.50	2.79
Govt.	01/03/2009	100	11.00	2.75
Govt.	01/03/2005	100	10.50	1.35
Banks	01/03/2004	100	12.50	0.84
Banks	01/05/2003	100	12.00	0.08
Banks	31/05/2003	100	12.00	0.16
Banks	01/03/2006	100	12.50	1.77
Banks	01/03/2007	100	11.50	2.29
Others	01/03/2004	100	12.50	0.84
Others	01/05/2003	100	12.00	0.08
Others	31/05/2003	100	12.00	0.16
	<b>Total</b>	<b>1500</b>		<b>17.82</b>

## (2) Positions in interest rate related derivatives

## Interest rate swap

Counter Party	Maturity Date	Notional Amount (i.e., market value)	Modified duration or price sensitivity	Assumed change in yield (ACI)	Capital charge*
GOI	30/09/2003	100	0.47	1.00	0.47
GOI	31/03/2011	100	5.14	0.60	(-) 3.08
					<b>(-) 2.61</b>

## Interest rate future

Counter Party	Maturity Date	Notional Amount (i.e., market value)	Modified duration or price sensitivity	Assumed change in yield	Capital charge
GOI	30/09/2003	50	0.45	1.00	(-) 0.225
GOI	31/03/2007	50	2.84	0.75	1.070
					<b>0.840</b>

## (3) Disallowances

The price sensitivities calculated as above have been slotted into a duration-based ladder with fifteen time-bands as shown in table at the end of the Annexure. Long and short positions within a time band have been subjected to vertical disallowance of 5%. In the instant case, vertical disallowance is applicable under 3-6 month time band and 7.3-9.3 year time band. Then, net positions in each time band have been computed for

horizontal offsetting subject to the disallowances mentioned in the table. In the instant case, horizontal disallowance is applicable only in respect of Zone 3. Horizontal disallowances in respect of adjacent zones are not applicable in the instant case.

### *3.1 Calculation of Vertical Disallowance*

While calculating capital charge for general market risk on interest rate related instruments, banks should recognize the basis risk (different types of instruments whose price responds differently for movement in general rates) and gap risk (different maturities within timebands). This is addressed by a small capital charge (5%) on matched (off-setting) positions in each time band (“Vertical Disallowance”)

An off-setting position, for vertical disallowance, will be the either the sum of long positions and or the short positions within a time band, whichever is lower. In the table at the end of the annex, except for the time band 3-6 months in Zone 1 and the time band of 7.3-9.3 years, where there are off-setting positions of (-) 0.22 and 2.79, there is no off-setting position in any other time band. The sum of long positions in the 3-6 months time band is + 0.47 and the sum of short positions in this time band is (-) 0.22. This off-setting position of 0.22 is subjected to a capital charge of 5% i.e. 0.01. The sum of long positions in the 7.3-9.3 years time band is + 2.79 and the sum of short positions in this time band is (-) 3.08. This off-setting position of 2.79 is subjected to a capital charge of 5% i.e. 0.1395. It may be mentioned here that if a bank does not have both long and short positions in the same time band, there is no need for any vertical disallowance. Banks in India are not allowed to take any short position in their books, except in derivatives. Therefore, banks in India will generally not be subject to vertical disallowance unless they have a short position in derivatives.

### *3.2. Calculation of Horizontal Disallowance*

While calculating capital charge for general market risk on interest rate related instruments, banks must subject their positions to a second round of off-setting across time bands with a view to give recognition to the fact that interest rate movements are not perfectly correlated across maturity bands (yield curve risk and spread risk) i.e matched long and short positions in different time bands may not perfectly off-set. This is achieved by a “Horizontal Disallowance”.

An off-setting position, for horizontal disallowance, will be the either the sum of long positions and or the short positions within a Zone, whichever is lower. In the above example, except in Zone 3 (7.3 to 9.3 years) where there is an off-setting (matched) position of (-) 0.29 , there is no off-setting position in any other Zone. The sum of long positions in this Zone is 9.74 and the sum of short positions in this Zone is (-) 0.29 . This off-setting position of 0.29 is subject to horizontal disallowance as under:

With in the same Zone (Zone 3) 30% of 0.29	= 0.09
Between adjacent Zones (Zone 2 & 3)	= Nil
Between Zones 1 and Zone 3	= Nil

It may be mentioned here that if a bank does not have both long and short positions in different time zones, there is no need for any horizontal disallowance. Banks in India are not allowed to take any short position in their books except in derivatives.

Therefore, banks in India will generally not be subject to horizontal disallowance unless they have short positions in derivatives.

Total capital charge for interest rate related instruments is shown below

For overall net position	16.06
For vertical disallowance	0.15
For horizontal disallowance in Zone 3	0.09
For horizontal disallowance in adjacent zones	nil
For horizontal disallowance between Zone 1 & 3	Nil
<b>Total capital charge for interest rate related instruments</b>	<b>16.30</b>

(4) The total capital charge in this example for general market risk for interest rate related instruments is computed as under:

Sl.No	Capital charge	Amount (Rs.)
1	For the vertical disallowance (under 3-6 month time band)	1,12,500
2	For the vertical disallowance (under 7.3-9.3 year time band)	13,95,000
3	For the horizontal disallowance (under Zone 3)	9,00,000
4	For the horizontal disallowances between adjacent zones	0
5	For the overall net open position (17.82 – 2.61 + 0.84)	16,06,00,000
<b>6</b>	<b>Total capital charge for general market risk on interest rate related instruments (1 + 2 + 3 + 4 + 5)</b>	<b>16,30,07,500</b>

(5) Equities

Capital charge for General Market Risk for equities is 9%. Thus, general market risk capital charge on equities would work out to Rs.27 crore.

(6) Forex / Gold Open Position

Capital charge on forex/gold position would be computed at 9%. Thus the same works out to Rs.9 crore

(7) Capital charge for market risks in this example is computed as under:

( Rs. crore)

Details	Capital charge for Specific Risk	Capital charge for General Market Risk	Total
Interest Rate Related instruments	32.33	16.30	48.63
Equities	27.00	27.00	54.00
Forex/Gold	-	9.00	9.00
<b>Total</b>	<b>59.33</b>	<b>52.30</b>	<b>111.63</b>

### **Computing Capital Ratio**

To facilitate computation of CRAR for the whole book, this capital charge for market risks in the Trading Book needs to be converted into equivalent risk weighted assets. As in India, a CRAR of 9% is required, the capital charge could be converted to risk weighted assets by multiplying the capital charge by  $(100 \div 9)$ , i.e.  $\text{Rs. } 111.63 * (100 \div 9) = \text{Rs. } 1240.33$  crore. Therefore, risk weighted assets for market risk is : Rs. 1240.33 crore.

**(Rs. Crore)**

<b>1</b>	<b>Total Capital</b>	<b>400.00</b>
2	Risk weighted assets for Credit Risk	2548.25
3	Risk weighted assets for Market Risk	1240.33
<b>4</b>	<b>Total Risk weighted assets (2+3)</b>	<b>3788.58</b>
<b>5</b>	<b>CRAR <math>[(1 \div 4) * 100]</math></b>	<b>10.56 %</b>

The reporting format for the purpose of monitoring the capital ratio are given in Annex 3.11

**Example for computing the capital charge including the vertical and horizontal disallowances on interest rate related instruments**

( Para No 2.2. (b) (3) of Example 2 above)

\*\* 0.22 x 5%=0.01

@ 2.79 x 5%=0.14

# 0.29 x 30%=0.09

	Zone 1				Zone 2				Zone 3							
Time-band	0-1 month	1-3 month	3-6 month	6m - 1y	1-1.9y	1.9-2.8y	2.8-3.6y	3.6-4.3y	4.3-5.7y	5.7-7.3y	7.3-9.3y	9.3-10.6y	10.6-12y	12-20y	Over 20y	Capital Charge
<b>Position</b>		0.72		2.51		1.35	1.77	2.29		2.75	2.79		3.63			<b>17.82</b>
<b>Derivatives (long)</b>			0.47					1.07								<b>1.54</b>
<b>Derivatives (short)</b>			(-)0.22								(-) 3.08					<b>(-)3.30</b>
<b>Net Position</b>		0.72	0.25	2.51		1.35	1.77	3.36		2.75	(-)0.29		3.63			<b>16.06</b>
<b>Vertical Disallowance (5%)</b>			0.01**								0.14 @					<b>0.15</b>
<b>Horizontal Disallowance 1 (under Zone 3)</b>											0.09 #					<b>0.09</b>
<b>Horizontal disallowance 2</b>																
<b>Horizontal Disallowance3</b>																

## Reporting Formats

Reporting format for the purpose of monitoring the capital ratio is given hereunder:  
Name of bank: \_\_\_\_\_ Position as on: \_\_\_\_\_

### A. Capital Base (Rs. in crore)

Sl. No.	Details	Amount
A1.	Tier I Capital	
A2.	Tier II Capital	
A3.	Total Regulatory Capital	

### B. Risk Weighted Assets

<b>B1.</b>	<b>Risk Weighted Assets on Banking Book</b>			
	a) On-balance sheet assets			
	b) Contingent Credits			
	c) Forex contracts			
	d) Other off-balance sheet items			
	Total			
<b>B2.</b>	<b>Risk Weighted Assets on Trading Book</b>	<b>AFS</b>	<b>Other trading book exposures</b>	<b>Total</b>
	a) Capital charge on account of Specific Risk			
	i) On interest rate related instruments			
	ii) On Equities			
	<b>Sub-total</b>			
	b) Capital charge on account of general market risk			
	i) On interest rate related instruments			
	ii) On Equities			
	iii) On Foreign Exchange and gold open positions			
	<b>Sub-total</b>			
	Total Capital Charge on Trading Book			
	Total Risk weighted Assets on Trading Book (total capital charge on trading book * (100/9))			
<b>B3.</b>	<b>Total Risk Weighted Assets (B1 + B2)</b>			

### C. Capital Ratio

<b>C1</b>	<b>Capital to Risk-weighted Assets Ratio (CRAR) (A3/B3*100)</b>	
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### D. Memo items

<b>D1</b>	<b>Investment Fluctuation Reserve</b>	
<b>D2</b>	<b>Book value of securities held in HFT category</b>	
<b>D3</b>	<b>Book value of securities held in AFS category</b>	
<b>D4</b>	<b>Net unrealised gains in HFT category</b>	



<b>D5</b>	<b>Net unrealised gains in AFS category</b>	
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Banks should furnish data in the above format as on the last day of each calendar quarter to the Chief General Manager-in-Charge, Department of Banking Supervision, Central Office, World Trade Centre I, 3<sup>rd</sup> floor, Cuffe Parade, Mumbai 400 005 both in hard copy and soft copy. Soft copy in excel format may also be forwarded through e-mail to [osmos@rbi.org.in](mailto:osmos@rbi.org.in) and [dbodmrg@rbi.org.in](mailto:dbodmrg@rbi.org.in)..

## List of instructions and circulars superseded

## Part – A

## List of Circulars

No.	Circular No.	Date	Subject
1	DBOD.No.BP.BC. 57 / 21.01.002 / 2005-2006	January 25, 2006	Enhancement of banks' capital raising options for capital adequacy purposes
2.	DBOD.NO.BP.BC.23/21.01.002/2002-03	29.8.2002	Capital Adequacy and Provisioning Requirements for Export Credit Covered by Insurance/Guarantee.
3.	DBOD. No. IBS. BC.65/ 23. 10.015 / 2001-02	14.02.2002	Subordinated debt for inclusion in Tier II capital – Head Office borrowings in foreign currency by Foreign Banks operating in India
4.	DBOD No. BP. BC. 106/21.01.002/2001- 02	24.05 2002	Risk Weight on Housing Finance and Mortgage Backed Securities
5.	DBOD.No.BP.BC.128/21.04.048/00-01	7.06.2001	SSI Advances Guaranteed by Credit Guarantee Fund Trust for Small Industries (CGTSI)
6.	DBOD.BP.BC.110/21.01.002/00-01	20.04.2001	Risk Weight on Deposits placed with SIDBI /NABARD in lieu of shortfall in lending to Priority Sectors
7.	DBOD.BP.BC.83/21.01.002/00-01	28.02.2001	Loans and advances to staff – assignment of risk weight and treatment in the balance sheet.
8.	DBOD.No.BP.BC.87/21.01.002/99	08.09.99	Capital Adequacy Ratio - Risk Weight on Banks' Investments in Bonds/Securities Issued by Financial Institutions
9.	DBOD.No.BP.BC.5/21.01.002/98-99	08.02.99	Issue of Subordinated Debt for Raising Tier II Capital

<b>No.</b>	<b>Circular No.</b>	<b>Date</b>	<b>Subject</b>
10.	DBOD.No.BP.BC.119/21.01.002/ 98	28.12.98	Monetary & Credit Policy Measures - Capital Adequacy Ratio - Risk Weight on Banks' Investments in Bonds/Securities Issued by Financial Institutions
11.	DBOD.No.BP.BC.152/21.01.002/ 96	27.11.96	Capital Adequacy Measures
12.	DBOD.No.IBS.BC.64/23.61.001/ 96	24.05.96	Capital Adequacy Measures
13.	DBOD.No.BP.BC.13/21.01.002/96	08.02.96	Capital Adequacy Measures
14.	DBOD.No.BP.BC.99/21.01.002/94	24.08.94	Capital Adequacy Measures
15.	DBOD.No.BP.BC.9/21.01.002/94	08.02.94	Capital Adequacy Measures
16.	DBOD.No.IBS.BC.98/23-50-001-92/93	06.04.93	Capital Adequacy Measures - Treatment of Foreign Currency Loans to Indian Parties (DFF)
17.	DBOD.No.BP.BC.117/21.01.002-92	22.04.92	Capital Adequacy Measures
<b>18</b>	DBOD.No.BP.BC. 57 / 21.01.002 / 2006-2007	July 21, 2006	Enhancement of banks' capital raising options for capital adequacy purposes

**Part – B**

**List of Other Circulars containing Instructions/  
Guidelines/Directives related to Prudential Norms**

<b>No.</b>	<b>Circular No.</b>	<b>Date</b>	<b>Subject</b>
1	DBOD.BP.BC.105/21.01.002/2002-2003,	7.05.2003	Monetary And Credit Policy 2003-04 - Investment Fluctuation Reserve
2	DBOD.No.BP.BC.96/21.04.048/2002-03	23.4.2003	Guidelines on Sale Of Financial Assets to Securitisation Company (SC)/Reconstruction Company (RC) (Created Under The Securitisation and Reconstruction of Financial Assets And Enforcement of Security Interest Act, 2002) and Related Issues.
3	DBOD No. BP.BC. 89/21.04.018/2002-03	29.3.2003	Guidelines on compliance with Accounting Standards (AS) by banks
4	DBOD.No.BP.BC.72/21.04.018/2002-03	25.2.2003	Guidelines for Consolidated Accounting And Other Quantitative Methods to Facilitate Consolidated Supervision.
5	DBOD NO. BP.BC 71/21.04.103/2002-03	19.2.2003	Risk Management system in Banks Guidelines in Country Risk Managements
6	DBOD.No.BP.BC. 67/21.04.048/2002-2003	4.2.2003	Guidelines on Infrastructure Financing.
7	DBOD.Dir.BC. 62/13.07.09/2002-03	24.1.2003	Discounting/ Rediscounting of Bills by Banks.
8	A.P.(DIR Series) Circular No. 63	21.12.2002	Risk Management and Inter Bank Dealings
9	No.EC.CO.FMD.6/02.03.75/2002-2003	20.11.2002	Hedging of Tier I Capital
10	DBOD.No.BP.BC. 57/ 21.04.048/2001-02	10.01.2002	Valuation of investments by banks
11	DBOD.No.BC.34/12.01.001/2001-02	22.10.2001	Section 42(1) Of The Reserve Bank Of India Act, 1934 - Maintenance of Cash Reserve Ratio (CRR).
12	DBOD.BP.BC. 73/21.04.018/2000-01	30.01.2001	Voluntary Retirement Scheme (VRS) Expenditure – Accounting and Prudential Regulatory Treatment.
13	DBOD.No.BP.BC.31/21.04.048/ 2000	10.10.2000	Monetary & Credit Policy Measures – Mid term review for the year 2000-01

No.	Circular No.	Date	Subject
14	DBOD.No.BP.BC.169/21.01.002/2000	03.05.2000	Monetary & Credit Policy Measures
15	DBOD.No.BP.BC.144/21.04.048/2000	29.02.2000	Income Recognition, Asset Classification and Provisioning and Other Related Matters and Adequacy Standards - Takeout Finance
16	DBOD.No.BP.BC.121/21.04.124/ 99	03.11.99	Monetary & Credit Policy Measures
17	DBOD.No.BP.BC.101/21.04.048/ 99	18.10.99	Income Recognition, Asset Classification and Provisioning – Valuation of Investments by Banks in Subsidiaries.
18	DBOD.No.BP.BC.82/ 21.01.002/99	18.08.99	Monetary & Credit Policy Measures
19	FSC.BC.70/24.01.001 /99	17.7.1999	Equipment Leasing Activity - Accounting / Provisioning Norms
20	MPD.BC.187/07.01.279/1999-2001	7.7.1999	Forward Rate Agreements / Interest Rate Swaps
21	DBOD.No.BP.BC.24/ 21.04.048/99	30.03.99	Prudential Norms - Capital Adequacy - Income Recognition, Asset Classification and Provisioning
22	DBOD.No.BP.BC.35/ 21.01.002/99	24.04.99	Monetary & Credit Policy Measures
23	DBOD.No.BP.BC.103/21.01.002/ 98	31.10.98	Monetary & Credit Policy Measures
24	DBOD.No.BP.BC.32/ 21.04.018/98	29.04.98	Monetary and Credit Policy Measures
25	DBOD.No.BP.BC.9/21.04.018/98	27.01.1998	Balance Sheet of Bank - Disclosures
26	DBOD.No.BP.BC.9/21.04.048/97	29.01.97	Prudential Norms - Capital Adequacy, Income Recognition, Asset Classification and Provisioning
27	DBOD. BP. BC. No. 3/21.01.002/2004-05	06.07.04	Prudential norms on Capital Adequacy –Cross holding of capital among banks/ financial institutions
28	DBOD.No.BP.BC. 103 / 21.04.151/ 2003-04	June 24, 2004	Guidelines on Capital Charge for Market risks

<b>No.</b>	<b>Circular No.</b>	<b>Date</b>	<b>Subject</b>
29	DBOD.No.BP.BC. 92 / 21.04.048/2003-04	June 16, 2004	Annual Policy Statement for the year 2004-05 – Guidelines on infrastructure financing
30	DBOD.No.BP.BC. 91/21.01.002/2003-04	June 15, 2004	Annual Policy Statement for the year 2004-05 – Risk Weight for Exposure to Public Financial Institutions (PFIs)
31	F.No.11/7/2003-BOA	6 <sup>th</sup> May 2004	Permission to nationalised banks to issue subordinated debt for augmenting Tier II capital
32	DBS.FID.No.C-15/01.02.00/2003-04	15 <sup>th</sup> June 2004	Risk Weight for Exposures to PFIs
33	DBOD.BP.BC.29/21.01.048/2004-05	13 <sup>th</sup> August 2004	Prudential Norms-State Govt. guaranteed exposures
34	DBOD. BP.BC. 61 / 21.01.002/2004-05	23 <sup>rd</sup> December 2004	Mid-Term Review of the Annual Policy Statement for the year 2004-05. Risk weight on housing loans and consumer credit
35	DBOD.No.BP.BC.85/21.04.141/2004-05	30 <sup>th</sup> April 2005	Capital Adequacy- IFR
36	DBOD.No.BP.BC.16/21.04.048/2005-06	July 13,2005	Guidelines on purchase of Non-Performing Assets
37	DBOD.No.BP.BC.21/21.01.002/2005-06	July 26, 2005	Risk weight on Capital market Exposure
38	DBOD.No.BP.BC.38/21.04.141/2005-06	Oct 10, 2005	Capital Adequacy-IFR
39	DBOD.No.BP.BC.60/21.04.048/2005-06	February 1, 2006	Guidelines on Securitisation of Standard Assts
40	DBOD.No.BP.BC.73/21.04.048/2005-06	March 24, 2006	Bills Discounted under LC-Risk Weight and Exposure Norms
41	DBOD.No.BP.BC.84/21.01.002/2005-06	May 25, 2006	APS for 2006-07-Risk Weight on Exposures to Commercial Real estate and Venture Capital Funds
42	DBOD.BP.BC. 87 /21.01.002/2005-06	June 8, 2006	Innovative Tier I/Tier II Bonds - Hedging by banks through Derivative Structures

<b>No.</b>	<b>Circular No.</b>	<b>Date</b>	<b>Subject</b>
43	DBOD.NO.BP. BC. 89 / 21.04.048/ 2005-06	June 22,2006	Prudential norms on creation and utilisation of floating provisions
44	DBOD.NO.BP. BC. 53 / 21.04.048/ 2006-07	January 31, 2007	Third Quarter Review of the Annual Policy Statement on Monetary Policy for the year 2006-07-Provisioning Requirement for Standard Assets and Risk Weights for Capital Adequacy
45	IDMD.NO. /11.01.01(B)/2006-07	January 31,2007	Secondary Market Transactions in Govt. Securities - Short-selling
46	DBOD.NO.BP. BC. 92/ 21.01.002/ 2006-07	May 3, 2007	Annual Policy Statement for the year 2006-07: Risk Weight on residential housing loans

#### 4. GLOSSARY

1.	<b>Asset</b>	An asset is anything of value that is owned by a person or business
	<b>Available for Sale</b>	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.
	<b>Balance Sheet</b>	A balance sheet is a financial statement of the assets and liabilities of a trading concern, recorded at a particular point in time.
	<b>Banking Book</b>	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.
	<b>Basel Capital Accord</b>	<p>The Basel Capital Accord is an Agreement concluded among country representatives in 1988 to develop standardised risk-based capital requirements for banks across countries. The Accord was replaced with a new capital adequacy framework (Basel II), published in June 2004.</p> <p>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:</p> <ul style="list-style-type: none"> <li>▪ minimum capital requirements, which seek to refine the present measurement framework</li> <li>▪ supervisory review of an institution's capital adequacy and internal assessment process;</li> <li>▪ market discipline through effective disclosure to encourage safe and sound banking practices</li> </ul>
	<b>Basel Committee on Banking Supervision</b>	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.
	<b>Basic Indicator Approach</b>	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.
	<b>Basis Risk</b>	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.
	<b>Capital</b>	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.
	<b>Capital adequacy</b>	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.
	<b>Capital reserves</b>	That portion of a company's profits not paid out as dividends to shareholders. They are also known as undistributable reserves.
	<b>Convertible Bond</b>	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.
	<b>Core Capital</b>	Tier 1 capital is generally referred to as Core Capital
	<b>Credit risk</b>	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.
	<b>Debentures</b>	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.
	<b>Deferred Tax Assets</b>	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
	<b>Derivative</b>	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.
	<b>Duration</b>	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.
	<b>Foreign Institutional Investor</b>	An institution established or incorporated outside India which proposes to make investment in India 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.
	<b>Forward Contract</b>	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.
	<b>General provisions and loss reserves</b>	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
	<b>General risk</b>	Risk that relates to overall market conditions while specific risk is risk that relates to the issuer of a particular security
	<b>Hedging</b>	Taking action to eliminate or reduce exposure to risk
	<b>Held for Trading</b>	Securities where the intention is to trade by taking advantage of short-term price / interest rate movements.
	<b>Horizontal Disallowance</b>	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 risk 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.
	<b>Hybrid debt capital instruments</b>	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.

	<b>Interest rate risk</b>	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.
	<b>Long Position</b>	A long position refers to a position where gains arise from a rise in the value of the underlying.
	<b>Market risk</b>	Risk of loss arising from movements in market prices or rates away from the rates or prices set out in a transaction or agreement.
	<b>Modified Duration</b>	<p>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 a securities' price for a 100 basis points change in yield. It is generally accurate for only small changes in the yield.</p> $MD = -\frac{dP}{dY} \cdot \frac{1}{P}$ <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.</p>
	<b>Mortgage-backed security</b>	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.
	<b>Mutual Fund</b>	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.
	<b>Net Interest Margin</b>	Net interest margin is the net interest income divided by average interest earning assets
	<b>Net NPA</b>	Net NPA = Gross NPA – (Balance in Interest Suspense account + DICGC/ECGC claims received and held pending adjustment + Part payment received and kept in suspense account + Total provisions held)
	<b>Nostro accounts</b>	Foreign currency settlement accounts that a bank maintains with its overseas

		correspondent banks. These accounts are assets of the domestic bank.
	<b>Off-Balance Sheet exposures</b>	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 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.
	<b>Open position</b>	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.
	<b>Option</b>	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.
	<b>Risk</b>	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.
	<b>Risk Asset Ratio</b>	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'
	<b>Risk Weights</b>	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.
	<b>Securitisation</b>	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 securitisation is used by banks to move their

		assets off the balance sheet in order to improve their capital asset ratios.
	<b>Short position</b>	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.
	<b>Specific risk</b>	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).
	<b>Subordinated debt</b>	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 debt has been repaid.
	<b>Tier one (or Tier I) capital</b>	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.
	<b>Tier two (or Tier II) capital</b>	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.
	<b>Trading Book</b>	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 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.
	<b>Underwrite</b>	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.

		<p>Thus the issuer faces no risk of being left with unsold securities.</p> <p>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.</p>
	<b>Undisclosed Reserves</b>	<p>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</p>
	<b>Value at risk (VAR)</b>	<p>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.</p>
	<b>Venture capital Fund</b>	<p>A fund with the purpose of investing in start-up businesses that is perceived to have excellent growth prospects but does not have access to capital markets.</p>
	<b>Vertical Disallowance</b>	<p>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.</p>