March 20, 2007

DBOD.No.BP. 1151/21.06.001/2006-07

The Chairman / Chief Executive Officer,
All Commercial Banks
(excluding LABs & RRBs)

Dear Sir,

Prudential Guidelines on Capital Adequacy and Market Discipline – Implementation of the New Capital Adequacy Framework

Please refer to our letter DBOD.No.BP.1163/ 21.04.118/ 2005-06 dated February 15, 2005 forwarding the draft guidelines for implementation of the New Capital Adequacy Framework and inviting feedback from banks. The feedback received from a wide spectrum of banks and other stakeholders have been examined and the draft guidelines, which have been suitably revised, are furnished as an Annex to this letter.

Second consultation period

2. In view of the importance of the proposed guidelines it has been decided to provide one more opportunity to banks and other stake holders to offer their feedback / comments. Accordingly, the revised draft guidelines on implementation of the New Capital Adequacy Framework furnished in the Annex will be now open for a second round of consultation for a period of three weeks from the date on this letter. The revised draft guidelines are also placed on the website for wider access and feedback. Comments / feedback, if any, may please be addressed to the undersigned at the following address and may also be emailed without fail.

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Department of Banking Operations & Development
Reserve Bank of India,
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Since the comments / suggestions received on the first draft issued in February 2005 have already been considered, banks may not repeat the same during this round of consultation.

Yours faithfully,

[Prashant Saran]
Chief General Manager-in-Charge

ANNEX

Revised Draft Guidelines for Implementation of the New Capital Adequacy Framework

Reserve Bank of India

Mumbai

TABLE OF CONTENTS

1. INTRODUCTION 1

2 APPROACH TO IMPLEMENTATION, EFFECTIVE DATE AND PARALLEL RUN 2

3 SCOPE OF APPLICATION 5

4 CAPITAL FUNDS 5

4.1 GENERAL 5

4.2 ELEMENTS OF TIER 1 CAPITAL 7

4.3 ELEMENTS OF TIER 2 CAPITAL 9

4.4 DEDUCTIONS FROM CAPITAL 11

5 CAPITAL CHARGE FOR CREDIT RISK 14

5.1 GENERAL 14

5.2 CLAIMS ON DOMESTIC SOVEREIGNS 14

5.3 CLAIMS ON FOREIGN SOVEREIGNS 15

5.4 CLAIMS ON PUBLIC SECTOR ENTITIES (PSES) 15

5.5 CLAIMS ON MDBS, BIS AND IMF 16

5.6 CLAIMS ON BANKS 17

5.7 CLAIMS ON PRIMARY DEALERS 18

5.8 CLAIMS ON CORPORATES 18

5.9 CLAIMS INCLUDED IN THE REGULATORY RETAIL PORTFOLIOS 19

5.10 CLAIMS SECURED BY RESIDENTIAL PROPERTY 22

5.11 CLAIMS SECURED BY COMMERCIAL REAL ESTATE 22

5.12 NON-PERFORMING ASSETS (NPAS) 23

5.13 HIGHER-RISK CATEGORIES 24

5.14 OTHER ASSETS 25

5.15 OFF-BALANCE SHEET ITEMS 26

5.15.1 General 26

5.15.2 Non-market-related off balance sheet items 26

5.15.3 Market related off-balance sheet items 30

5.15.4 Current Exposure Method 31

5.15.5 Failed transactions 32

5.16 SECURITISATION EXPOSURES 34

5.16.1 General *34*

5.16.2 Deduction of securitisation exposures from capital funds *36*

5.16.3 Implicit support *37*

5.16.4 Application of external ratings *37*

5.16.5 Risk weighted securitisation exposures *38*

5.16.6 Off-balance sheet securitisation exposures *39*

5.16.7 Recognition of credit risk mitigant *40*

5.16.8 Liquidity facilities *41*

6 EXTERNAL CREDIT ASSESSMENTS 41

6.1 ELIGIBLE CREDIT RATING AGENCIES 41

6.2 SCOPE OF APPLICATION OF EXTERNAL RATINGS 42

6.3 MAPPING PROCESS 44

6.4 LONG TERM RATINGS 44

6.5 SHORT TERM RATINGS 45

6.6 USE OF UNSOLICITED RATINGS 46

6.7 USE OF MULTIPLE RATING ASSESSMENTS 47

6.8 APPLICABILITY OF ISSUE RATING TO ISSUER/ OTHER CLAIMS 47

7 CREDIT RISK MITIGATION 49

7.1 GENERAL PRINCIPLES 49

7.2 LEGAL CERTAINTY 50

7.3 CREDIT RISK MITIGATION TECHNIQUES - COLLATERALISED TRANSACTIONS 50

7.3.2 Overall framework and minimum conditions *51*

7.3.4 The comprehensive approach *52*

7.3.5 Eligible financial collateral *53*

7.3.6 Calculation of capital requirement *55*

7.3.7 Haircuts *56*

7.4 CREDIT RISK MITIGATION TECHNIQUES - ON-BALANCE SHEET NETTING 58

7.5 CREDIT RISK MITIGATION TECHNIQUES - GUARANTEES 59

7.5.4 Operational requirements for guarantees *59*

7.5.5 Additional operational requirements for guarantees *60*

7.5.6 Range of eligible guarantors (counter-guarantors) *61*

7.5.7 Risk weights *61*

7.5.8 Proportional cover *61*

7.5.9 Currency mismatches ... *61*

7.5.10 Sovereign guarantees and counter-guarantees ... *62*

7.6 MATURITY MISMATCH ... 62

7.6.3 Definition of maturity ... *63*

7.6.4 Risk weights for maturity mismatches ... *63*

7.7 TREATMENT OF POOLS OF CRM TECHNIQUES ... 64

8 CAPITAL CHARGE FOR MARKET RISK ... 64

8.1 INTRODUCTION ... 64

8.2 SCOPE AND COVERAGE OF CAPITAL CHARGE FOR MARKET RISKS ... 65

8.3 MEASUREMENT OF CAPITAL CHARGE FOR INTEREST RATE RISK ... 66

8.4 MEASUREMENT OF CAPITAL CHARGE FOR EQUITY RISK ... 72

8.5 MEASUREMENT OF CAPITAL CHARGE FOR FOREIGN EXCHANGE RISK ... 73

8.6 AGGREGATION OF THE CAPITAL CHARGE FOR MARKET RISKS ... 73

9 CAPITAL CHARGE FOR OPERATIONAL RISK ... 74

9.1 DEFINITION OF OPERATIONAL RISK ... 74

9.2 THE MEASUREMENT METHODOLOGIES ... 74

9.3 THE BASIC INDICATOR APPROACH ... 75

10 MARKET DISCIPLINE ... 77

10.1 GENERAL ... 77

10.2 ACHIEVING APPROPRIATE DISCLOSURE ... 77

10.3 INTERACTION WITH ACCOUNTING DISCLOSURES ... 78

10.4 SCOPE AND FREQUENCY OF DISCLOSURES ... 78

10.5 VALIDATION ... 79

10.6 MATERIALITY ... 79

10.7 PROPRIETARY AND CONFIDENTIAL INFORMATION ... 80

10.8 GENERAL DISCLOSURE PRINCIPLE ... 80

10.9 SCOPE OF APPLICATION ... 80

10.10 EFFECTIVE DATE OF DISCLOSURES ... 81

10.11 THE DISCLOSURE REQUIREMENTS ... 81

TABLE DF-1 ... 82

Scope of application ... *82*

TABLE DF-2 ... 83

Capital structure ... *83*

TABLE DF-3 84
Capital Adequacy *84*
TABLE DF-4 86
Credit risk : general disclosures for all banks *86*
TABLE DF-5 87
Credit risk: disclosures for portfolios subject to the standardised approach *87*
TABLE DF-6 88
Credit risk mitigation: disclosures for standardised approaches *88*
TABLE DF-7 88
Securitisation: disclosure for standardised approach *88*
TABLE DF-8 89
Market risk in trading book *89*
TABLE DF-9 90
Operational risk *90*
TABLE DF-10 90
Interest rate risk in the banking book (IRRBB) *90*

ANNEX 1 91
TERMS AND CONDITIONS APPLICABLE TO INNOVATIVE PERPETUAL DEBT INSTRUMENTS FOR INCLUSION AS TIER 1 CAPITAL 91

ANNEX 2 97
TERMS AND CONDITIONS APPLICABLE TO DEBT CAPITAL INSTRUMENTS TO QUALIFY FOR INCLUSION AS UPPER TIER 2 CAPITAL 97

ANNEX 3 104
ISSUE OF SUBORDINATED DEBT FOR RAISING LOWER TIER 2 CAPITAL 104

ANNEX 4 110
ILLUSTRATIONS ON CREDIT RISK MITIGATION 110

ANNEX 5 111
MEASUREMENT OF CAPITAL CHARGE FOR MARKET RISKS IN RESPECT OF INTEREST RATE DERIVATIVES AND OPTIONS 111

PRUDENTIAL NORMS ON CAPITAL ADEQUACY

1. Introduction

1.1 With a view to adopting the Basle Committee on Banking Supervision (BCBS) framework on capital adequacy which takes into account the elements of credit risk in various types of assets in the balance sheet as well as off-balance sheet business and also to strengthen the capital base of banks, 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. Essentially, under the above system the balance sheet assets, non-funded items and other off-balance sheet exposures are assigned prescribed risk weights and banks have to maintain unimpaired minimum capital funds equivalent to the prescribed ratio on the aggregate of the risk weighted assets and other exposures on an ongoing basis. Reserve Bank has issued guidelines to banks in June 2004 on maintenance of capital charge for market risks on the lines of 'Amendment to the Capital Accord to incorporate market risks' issued by the BCBS in 1996.

1.2 The BCBS released the "International Convergence of Capital Measurement and Capital Standards: A Revised Framework" on 26 June 2004. The Revised Framework was updated in November 2005 to include trading activities and the treatment of double default effects and a comprehensive version of the framework was issued in June 2006 incorporating the constituents of capital and the 1996 amendment to the Capital Accord to incorporate Market Risk. The Revised Framework seeks to arrive at significantly more risk-sensitive approaches to capital requirements. The Revised Framework provides a range of options for determining the capital requirements for credit risk and operational risk to allow banks and supervisors to select approaches that are most appropriate for their operations and financial markets.

2 Approach to implementation, Effective date and Parallel run

2.1 The Revised Framework consists of three-mutually reinforcing Pillars, viz. minimum capital requirements, supervisory review of capital adequacy, and market discipline. Under Pillar 1, the Framework offers three distinct options for computing capital requirement for credit risk and three other options for computing capital requirement for operational risk. These options for credit and operational risks are based on increasing risk sensitivity and allow banks to select an approach that is most appropriate to the stage of development of bank's operations. The options available for computing capital for credit risk are Standardised Approach, Foundation Internal Rating Based Approach and Advanced Internal Rating Based Approach. The options available for computing capital for operational risk are Basic Indicator Approach, Standardised Approach and Advanced Measurement Approach.

2.2 Keeping in view Reserve Bank’s goal to have consistency and harmony with international standards, it has been decided that all commercial banks in India (excluding Local Area Banks and Regional Rural Banks) shall adopt Standardised Approach (SA) for credit risk and Basic Indicator Approach (BIA) for operational risk. Banks shall continue to apply the Standardised Duration Approach (SDA) for computing capital requirement for market risks.

Effective Date

2.3 Foreign banks operating in India and Indian banks having operational presence outside India should migrate to the above selected approaches under the Revised Framework with effect from **March 31, 2008.** All other scheduled commercial banks are encouraged to migrate to these approaches under the Revised Framework in alignment with them but in any case not later than **March 31, 2009**.

Parallel run

2.4 With a view to ensuring smooth transition to the Revised Framework and with a view to providing opportunity to banks to streamline their systems

and strategies, banks were advised to have a parallel run of the revised Framework. The Boards of the banks should review the results of the parallel run on a quarterly basis. . The broad elements which need to be covered during the parallel run are as under:

i) Banks should apply the prudential guidelines on capital adequacy – both current guidelines and these guidelines on the Revised Framework – on an on-going basis and compute their Capital to Risk Weighted Assets Ratio (CRAR) under both the guidelines.

ii) An analysis of the bank's CRAR under both the guidelines should be reported to the board at quarterly intervals.

iii) The first quarterly report to the Board is to be with respect to the position as on December 31, 2006. A copy of the report should be submitted to the Reserve Bank, one each to Department of Banking Supervision, Central Office and Department of Banking Operations and Development, Central Office. While reporting the above analysis to the board, banks should also furnish a comprehensive assessment of their compliance with the other requirements relevant under the Revised Framework, which will include the following, at the minimum.

a) Board approved policy on utilization of the credit risk mitigation techniques, and collateral management,

b) Board approved policy on disclosures,

c) Board approved policy on Internal Capital Adequacy Assessment Process (ICAAP) along with the capital requirement as per ICAAP,

d) Adequacy of bank's MIS to meet the requirements under the New Capital Adequacy Framework, the initiatives taken for bridging gaps, if any, and the progress made in this regard,

e) Impact of the various elements / portfolios on the bank's CRAR under the revised framework,

f) Mechanism in place for validating the CRAR position computed as per the New Capital Adequacy Framework and the assessments / findings/ recommendations of these validation exercises,

g) Action taken with respect to any advice / guidance / direction given by the Board in the past on the above aspects.

Migration to other approaches under the Revised Framework

2.5 Banks are required to obtain the prior approval of the Reserve Bank to migrate to the Internal Rating Based Approach (IRBA) for credit risk and the Standardised Approach (TSA) or the Advanced Measurement Approach (AMA) for operational risk. Banks that propose to migrate to these approaches are encouraged to undertake an objective and strict assessment of their compliance with the minimum requirements for entry and on-going use of those approaches as prescribed in the International Convergence of Capital Measurement and Capital Standards (comprehensive version of the Revised Framework published by the Basel Committee on Banking Supervision in June 2006 – available on the Bank for International Settlements website www.bis.org). These banks may also assess their compliance with the various processes relevant to these approaches. The above assessments would help these banks in preparing a realistic roadmap indicating the specific milestones, timeline, and plans for achieving smooth and meaningful migration to the advanced approaches. A separate communication in this regard will be issued to banks at a later date, specifying the pre-requisites and procedure for approaching the Reserve Bank for seeking its prior approval for such migration. Notwithstanding the above, all banks should migrate to Standardised Approach for credit risk and Basic Indicator Approach for operational risk on the effective date.

3 Scope of Application

3.1 The revised capital adequacy norms shall be applicable uniformly to all Commercial Banks (except Local Area Banks and Regional Rural Banks), both at the solo level (global position) as well as at the consolidated level. A Consolidated bank is defined as a group of entities where a licensed bank is the controlling entity. A consolidated bank will include all group entities under its control, except the exempted entities. In terms of guidelines on preparation of consolidated prudential reports issued vide circular DBOD. No.BP.BC.72/ 21.04.018/ 2001-02 dated February 25, 2003, a consolidated bank may exclude group companies which are engaged in insurance business and businesses not pertaining to financial services. A consolidated bank should maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) as applicable to a bank on an ongoing basis.

4 Capital funds

4.1 General

4.1.1 Banks are required to maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) of 9 percent on an ongoing basis. The Reserve Bank will take into account the relevant risk factors and the internal capital adequacy assessments of each bank to ensure that the capital held by a bank is commensurate with the bank's overall risk profile. This would include, among others, the effectiveness of the bank's risk management systems in identifying, assessing / measuring, monitoring and managing various risks including interest rate risk in the banking book, liquidity risk, concentration risk and residual risk. Accordingly, the Reserve Bank will consider prescribing a higher level of minimum capital ratio for each bank under the Pillar 2 framework on the basis of their respective risk profiles and their risk management systems. Further, in terms of the Pillar 2 requirements of the New Capital Adequacy Framework, banks are expected to operate at a level well above the minimum requirement.

4.1.2 The minimum capital maintained by banks on implementation of the

Revised Framework shall be subjected to a prudential floor[1], which shall be the higher of the following amounts:

a) Minimum capital required to be maintained as per the Revised Framework;

b) A specified per cent of the minimum capital required to be maintained as per the Basel I framework for credit and market risks. The specified per cent will progressively decline as indicated in Table 1.

Table 1 – Prudential floor

Financial year ending*	March 2008	March 2009	March 2010	March 2011
Prudential Floor (as % of minimum capital requirement computed as per current (Basel I) framework for credit and market risks)	100	95	90	85
* The relevant periods shall be March 2009, 2010, 2011, and 2012 for banks implementing the Revised Framework with effect from March 31, 2009				

The adequacy and the need for the capital floors will be reviewed periodically on the basis of the quality and integrity of Basel II implementation in banks. In case the supervisory assessments indicate satisfactory level and quality of compliance by banks, the capital floor may be dispensed with even before the above four year period.

4.1.3 Banks are encouraged to maintain, at both solo and consolidated level, a Tier 1 CRAR of at least 6%. Banks which are below this level must achieve this ratio on or before March 31, 2010.

4.1.4 A bank should compute its Tier 1 CRAR and Total CRAR in the following manner:

Eligible Tier 1 capital funds[2]

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[1] The need for continuing with the prudential floor will be reviewed periodically by the Reserve Bank.

[2] Total Tier 1 capital funds, subject to prudential limits for Innovative Perpetual Debt Instruments and Perpetual non cumulative preference shares, *minus* deductions from Tier 1 capital

Tier 1 CRAR = --
Credit Risk RWA* + Market Risk RWA + Operational Risk RWA

* RWA = Risk weighted Assets

Eligible total capital funds[3]
Total CRAR = --
Credit Risk RWA + Market Risk RWA + Operational Risk RWA

4.1.5 Capital funds are broadly classified as Tier 1 and Tier 2 capital. Elements of Tier 2 capital will be reckoned as capital funds up to a maximum of 100 per cent of Tier 1 capital, after making the deductions/ adjustments referred to in paragraph 4.4.

4.2 Elements of Tier 1 capital

4.2.1 For Indian banks, Tier 1 capital would include the following elements:

i) Paid-up equity capital, statutory reserves, and other disclosed free reserves, if any;

ii) Capital reserves representing surplus arising out of sale proceeds of assets;

iii) Innovative perpetual debt instruments eligible for inclusion in Tier 1 capital which comply with the regulatory requirements as specified in Annex 1; and

iv) Any other type of instrument generally notified by the Reserve Bank from time to time for inclusion in Tier 1 capital.

4.2.2 Foreign currency translation reserve arising consequent upon application of Accounting Standard 11 (revised 2003): ‘The effects of changes in foreign exchange rates’; shall not be an eligible item of capital funds.

4.2.3 For foreign banks in India, Tier 1 capital would include the following elements:

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[3] Total of eligible Tier 1 capital funds and eligible Tier 2 capital funds, subject to prudential limits for Innovative Tier 1 instruments, Perpetual non cumulative preference shares, Upper Tier 2 instruments and

(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) Statutory reserves kept in Indian books.

(iii) Remittable surplus retained in Indian books which is not repatriable so long as the bank functions in India.

(iv) 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.

(v) Interest-free funds remitted from abroad for the purpose of acquisition of property and held in a separate account in Indian books.

(vi) Head Office borrowings in foreign currency by foreign banks operating in India for inclusion in Tier 1 capital which comply with the regulatory requirements as specified in Annex 1 and

(vii) Any other item specifically allowed by the Reserve Bank from time to time for inclusion in Tier 1 capital.

4.2.4 **Notes:**

(i) Foreign banks are required to furnish to Reserve Bank, an undertaking to the effect that the bank will not remit abroad the 'capital reserve' and ‘remittable surplus retained in India’ as long as they function in India to be eligible for including this item under Tier 1 capital.

(ii) 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'.

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subordinated debt instruments *minus* deductions from Tier 1 and Tier 2 capital

(iii) 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.

(iv) 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 the Head Office account will have to be set-off against capital.

4.2.5 **Limits on eligible Tier 1 capital**

The Innovative perpetual debt instruments, eligible to be reckoned as Tier 1 capital, will be limited to 15 percent of total Tier 1 capital as on March 31 of the previous financial year. The above limit will be based on the amount of Tier 1 capital as on March 31 of the previous financial year, after deduction of goodwill, DTA and other intangible assets but before the deduction of investments, as required in paragraph 4.4. Innovative instruments in excess of the limit shall be eligible for inclusion under Tier 2, subject to limits prescribed for Tier 2 capital.

4.3 Elements of Tier 2 capital

4.3.1 **Revaluation reserves**

These reserves often serve as a cushion against unexpected losses, but they are less permanent in nature and cannot be considered as ‘Core Capital’. Revaluation reserves arise from revaluation of assets that are undervalued on the bank’s books, typically bank premises.. 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. Therefore, it would be prudent to

consider revaluation reserves at a discount of 55 percent while determining their value for inclusion in Tier 2 capital. Such reserves will have to be reflected on the face of the Balance Sheet as revaluation reserves.

4.3.2 **General provisions and loss reserves**

Such reserves, if they are not attributable to the actual diminution in value or identifiable potential loss in any specific asset and are available to meet unexpected losses, can be included in Tier 2 capital. 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 2 capital. Banks are allowed to include the 'General Provisions on Standard Assets', Floating Provisions[4] 'Provisions held for Country Exposures', and 'Investment Reserve Account' in Tier 2 capital. However, these four items will be admitted as Tier 2 capital up to a maximum of 1.25 per cent of the total risk-weighted assets.

4.3.3 **Hybrid debt capital instruments**

In this category, fall a number of debt 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 2 capital. Banks in India are allowed to recognise funds raised through debt capital instrument which has a combination of characteristics of both equity and debt, as Upper Tier 2 capital provided the instrument complies with the regulatory requirements specified in Annex 2.

4.3.4 **Subordinated debt**

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[4] Floating Provisions held by banks, which is general in nature and not made against any identified assets may be treated as part of Tier 2 capital if such provisions are not netted off from gross NPAs to arrive at disclosure of net NPAs.

To be eligible for inclusion in Tier 2 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 2 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 2 capital. Subordinated debt instruments eligible to be reckoned as Tier 2 capital shall comply with the regulatory requirements specified in Annex 3.

4.3.5 Any other type of instrument generally notified by the Reserve Bank from time to time for inclusion in Tier 2 capital.

Limits on Tier 2 Capital

4.3.6 Upper Tier 2 instruments along with other components of Tier 2 capital shall not exceed 100% of Tier 1 capital. The above limit will be based on the amount of Tier 1 after deduction of goodwill, DTA and other intangible assets but before deduction of investments.

4.3.7 Subordinated debt instruments eligible for inclusion in Lower Tier 2 capital will be limited to 50 percent of Tier 1 capital after all deductions.

4.4 Deductions from capital

4.4.1 Intangible assets and losses in the current period and those brought forward from previous periods should be deducted from Tier 1 capital.

4.4.2 The DTA computed as under should be deducted from Tier 1 capital:

i) DTA associated with accumulated losses; **and**

ii) The DTA (excluding DTA associated with accumulated losses), net of DTL. Where the DTL is in excess of the DTA (excluding DTA associated with accumulated losses), the excess shall neither be adjusted against item (a) nor added to Tier 1 capital.

4.4.3 Any gain-on-sale arising at the time of securitisation of standard assets, as defined in paragraph 5.16.1, should be deducted from Tier 1 capital. In terms of guidelines on securitisation of standard assets, banks are allowed to amortise the profit over the period of the securities issued by the SPV. The amount of profits thus recognised in the profit and loss account through the amortisation process need not be deducted.

4.4.4 Banks should not recognise minority interests that arise from consolidation of less than wholly owned banks, securities or other financial entities in consolidated capital to the extent specified below:

i) The extent of minority interest in the capital of a less than wholly owned subsidiary which is in excess of the regulatory minimum for that entity.

ii) In case the concerned subsidiary does not have a regulatory capital requirement, the deemed minimum capital requirement for that entity may be taken as 9 per cent of the risk weighted assets of that entity.

4.4.5 Securitisation exposures, as specified in paragraph 5.16.2, shall be deducted from regulatory capital and the deduction must be made 50% from Tier 1 and 50% from Tier 2, except where expressly provided otherwise. Deductions from capital may be calculated net of any specific provisions maintained against the relevant securitisation exposures.

4.4.6 In the case of investment in financial subsidiaries and associates, the treatment will be as under for the purpose of capital adequacy:

(i) Investment above 30 per cent in the paid up equity, i.e. equity shares, of *financial entities which are not consolidated for capital purposes* with the bank and investments in other instruments eligible for regulatory capital status in those entities shall be entirely deducted at 50% from Tier 1 and 50% from Tier 2 capital.

(ii) Banks should ensure that majority owned financial entities that

are not consolidated for capital purposes and for which the investment in equity and other instruments eligible for regulatory capital status is deducted, meet their respective regulatory capital requirements. In case of any shortfall in the regulatory capital requirements in the de-consolidated entity, the shortfall shall be fully deducted at 50% from Tier 1 capital and 50% from Tier 2 capital.

4.4.7 An indicative list of institutions which may be deemed to be financial institutions for capital adequacy purposes is as under:

- Banks,
- Mutual funds,
- Insurance companies,
- Non-banking financial companies,
- Housing finance companies,
- Merchant banking companies,
- Primary dealers.

4.4.8 A bank's investments in all types of instruments listed at paragraph 4.4.9 below, excluding those deducted in terms of paragraph 4.4.6, which are issued by other banks / FIs / NBFCs / Primary Dealers and are eligible for capital status for the investee entity, should not exceed 10 per cent of the investing bank's capital funds (Tier 1 plus Tier 2 capital, after above adjustments) Any investment in excess of this limit shall be deducted at 50% from Tier 1 and 50% from Tier 2 capital. Investments in equity or instruments eligible for capital status issued by banks / FIs / NBFCs / Primary Dealers which are not deducted from capital funds will attract a risk weight of 100% or the risk weight as applicable to the ratings assigned to the relevant instruments, whichever is higher.

4.4.9 Banks' investment in the following instruments will be included in the prudential limit of 10 per cent referred to at paragraph 4.4.8 above.

a) Equity shares;

b) Preference shares eligible for capital status;

c) Subordinated debt instruments;

d) Hybrid debt capital instruments; and

e) Any other instrument approved as in the nature of capital.

5 Capital Charge for Credit Risk

5.1 General

5.1.1 Under the Standardised Approach, the rating assigned by the eligible external credit rating agencies will largely support the measure of credit risk. The Reserve Bank has identified the external credit rating agencies that meet the eligibility criteria specified under the revised Framework. Banks may rely upon the ratings assigned by the external credit rating agencies chosen by the Reserve Bank for assigning risk weights for capital adequacy purposes as per the mapping furnished in these guidelines.

5.2 Claims on Domestic Sovereigns

5.2.1 Both fund based and non fund based exposures to the central government will attract a zero risk weight.

5.2.2 Investment in State Government securities will attract zero risk weight. State government guaranteed exposures, will attract 20 per cent risk weight.

5.2.3 The risk weight applicable to central government exposures will also apply to the exposures on the Reserve Bank of India, DICGC and Credit Guarantee Fund Trust for Small Industries (CGTSI). The exposures on ECGC will attract a risk weight of 50%.

5.2.4 The above risk weights for sovereign exposures will be applicable as long as they are classified as 'standard' and performing assets. Where these sovereign exposures are classified as non-performing, they would attract risk weights as applicable to NPAs, which are detailed in Paragraph 5.12.

5.3 Claims on Foreign Sovereigns

5.3.1 Exposures on foreign sovereigns will attract risk weights as per the rating assigned[5] to those sovereigns / sovereign exposures by international rating agencies as follows:

Table 2: Claims on foreign sovereigns – Risk weights

S & P/ FITCH ratings	**AAA to AA-**	**A+ to A-**	**BBB+ to BBB-**	**BB+ to B-**	**Below B-**	**Unrated**
Moody's ratings	**Aaa to Aa**	**A**	**Baa**	**Ba to B**	**Below B**	**Unrated**
Risk weight	0 %	20 %	50 %	100 %	150 %	100 %

5.3.2 Exposures denominated in domestic currency of the foreign sovereign met out of the resources in the same currency raised in the jurisdiction[6] of that sovereign will, however, attract a risk weight of zero percent.

5.3.3 However, in case a Host Supervisor requires a more conservative treatment to such exposures in the books of the foreign branches of the Indian banks, they should adopt the requirements prescribed by the Host Country supervisors for computing capital adequacy.

5.4 Claims on public sector entities (PSEs)

5.4.1 Claims on domestic public sector entities will be risk weighted in a manner similar to claims on Corporates.

5.4.2 Claims on foreign PSEs will be risk weighted as per the rating assigned by

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[5] For example: The risk weight assigned to an investment in US Treasury Bills by SBI branch in Paris, irrespective of the currency of funding, will be determined by the rating assigned to the Treasury Bills, as indicated in Table 2 above.

[6] For example: The risk weight assigned to an investment in US Treasury Bills by SBI branch in New York will attract a zero per cent risk weight, irrespective of the rating of the claim, if the investment is funded from out of the USD denominated resources of SBI, New York. In case the SBI, New York, did not have any USD denominated resources, the risk weight will be determined by the rating assigned to the Treasury Bills, as indicated in Table 2 above.

the international rating agencies as under:

Table 3: Claims on foreign PSEs – Risk weights

S & P / FITCH ratings	**AAA to AA-**	**A+ to A-**	**BBB+ to BB-**	**Below BB-**	**Unrated**
Moody's ratings	**Aaa to Aa**	**A**	**Baa to Ba**	**Below Ba**	**Unrated**
Risk weight	20 %	50 %	100 %	150 %	100 %

5.5 Claims on MDBs, BIS and IMF

Exposures on the Bank for International Settlements (BIS), the International Monetary Fund (IMF) and the following eligible Multilateral Development Banks (MDBs) evaluated by the BCBS will be treated similar to exposures on commercial banks meeting the minimum capital adequacy requirements and assigned a uniform twenty percent risk weight :

- World Bank Group: IBRD and IFC,
- Asian Development Bank,
- African Development Bank,
- European Bank for Reconstruction & Development,
- Inter-American Development Bank,
- European Investment Bank,
- European Investment Fund,
- Nordic Investment Bank,
- Caribbean Development Bank,
- Islamic Development Bank and
- Council of Europe Development Bank.

Similarly, claims on the International Finance Facility for Immunisation (IFFIm) will also attract a twenty per cent risk weight.

5.6 Claims on banks

5.6.1 The claims denominated in Indian Rupees on banks operating in India, excluding investment in the equity shares and other instruments eligible for capital status, will be risk weighted as under:

(i) All exposures to scheduled banks, which comply with the minimum CRAR prescribed by the Reserve Bank of India, will be assigned a risk weight one category less favourable than the Sovereign. Hence all claims on these banks, including RRBs, will be risk weighted at 20%.

(ii) All exposures on non scheduled banks which meet the minimum CRAR prescribed by the Reserve Bank of India will be assigned a risk weight of 100%.

(iii) All exposures on other scheduled and non scheduled banks will be assigned a risk weight as applicable to the bank's capital adequacy position:

CRAR (%)	Risk weight
6 to < 9	150%
3 to < 6	250%
0 to < 3	400%
negative	625%

5.6.2 The claims denominated in foreign currency on banks[7] will be risk weighted as under as per the ratings assigned by international rating agencies.

Table 4: Foreign currency claims on banks – Risk weights

S &P / FITCH	**AAA to AA-**	**A+ to A-**	**BBB+ to BBB-**	**BB+ to B-**	**Below B-**	**Unrated**

[7] For example: A USD denominated claim of SBI branch in Paris on Bank of India branch in Paris, irrespective of the currency of funding, will attract a 50% risk weight if the claim is rated A+ to BBB- or is unrated.

ratings						
Moody's ratings	**Aaa to Aa**	**A**	**Baa**	**Ba to B**	**Below B**	**Unrated**
Risk weight	20 %	50 %	50 %	100 %	150 %	50 %

5.6.3 However, the claims on a bank which are denominated in 'domestic[8]' foreign currency met out of the resources in the same currency raised in that jurisdiction will be risk weighted at 20% provided the bank complies with the minimum CRAR prescribed by the concerned bank regulator(s).

5.6.4 However, in case a Host Supervisor requires a more conservative treatment for such exposures in the books of the foreign branches of the Indian banks, they should adopt the requirements prescribed by the Host supervisor for computing capital adequacy.

5.7 Claims on Primary Dealers

Claims on Primary Dealers shall be risk weighted in a manner similar to claims on corporates.

5.8 Claims on corporates

5.8.1 Claims on corporates shall be risk weighted as per the ratings assigned by the rating agencies registered with the SEBI and chosen by the Reserve Bank of India. The following table indicates the risk weight applicable to claims on corporates. The standard risk weight for unrated claims on corporates will be 100%. No claim on an unrated corporate may be given a risk weight preferential to that assigned to its sovereign of incorporation.

Table 5: Claims on corporate – Risk weights

[8] For example: A Euro denominated claim of SBI branch in Paris on BNP Paribas, Paris which is funded from out of the Euro denominated deposits of SBI, Paris will attract a 20% risk weight irrespective of the rating of the claim, provided BNP Paribas complies with the minimum CRAR stipulated by its regulator/supervisor in France. If BNP Paribas were breaching the minimum CRAR, the risk weight will be as indicated in Table 4 above.

Domestic rating agencies	AAA - AA	A	BBB	BB & below	Unrated
Risk weight	20 %	50 %	100 %	150%	100 %

5.8.2 The Reserve Bank may increase the standard risk weight for unrated claims where a higher risk weight is warranted by the overall default experience. As part of the supervisory review process, the Reserve Bank would also consider whether the credit quality of unrated corporate claims held by individual banks should warrant a standard risk weight higher than 100%. To begin with, all unrated claims on corporates in excess of Rs.10 crore will attract a risk weight of 150%.

5.8.3 With a view to reflect a higher element of inherent risk which may be latent in entities whose obligations have been subjected to re-structuring / re-scheduling either by the banks on their own or along with other bankers / creditors, unrated standard / performing exposures to these entities should be assigned a higher risk weight of 125% until satisfactory performance under the revised payment schedule has been established for one year from the date when the first payment of interest / principal falls due under the revised schedule.

5.8.4 The claims denominated in foreign currency on corporates will be risk weighted as under as per the ratings assigned by international rating agencies.

Table 6: Foreign currency claims on corporates – Risk weights

S &P / FITCH ratings	AAA to AA-	A+ to A-	BBB+ to BB-	Below BB-	Unrated
Moody's ratings	**Aaa to Aa**	**A**	**Baa to Ba**	**Below Ba**	**Unrated**
Risk weight	20 %	50 %	100 %	150 %	100 %

5.9 Claims included in the regulatory retail portfolios

5.9.1 Claims that meet all the four criteria listed below in paragraph 5.9.3 may be considered as retail claims for regulatory capital purposes and included in a regulatory retail portfolio. Exposures included in this portfolio shall be assigned a risk-weight of 75%, except as provided in paragraph 5.12 below for non performing assets.

5.9.2 The following exposures, both fund based and non fund based, shall be excluded from the regulatory retail portfolio:

(a) Exposures by way of investments in securities (such as bonds and equities), whether listed or not;

(b) Mortgage loans to the extent that they qualify for treatment as claims secured by residential property[9];

(c) Loans and advances to bank's own staff which are fully covered by superannuation benefits and mortgage of flat/ house;

(d) Capital market exposures;

(e) Consumer credit, including personal loans and credit card receivables;

(f) Venture capital funds.

5.9.3 Qualifying criteria:

(i) *Orientation criterion* - The exposure is to an individual person or persons or to a small business; Person under this clause would mean any legal person capable of entering into contracts and would include but not be restricted to individual, HUF, partnership firm, trust, private limited companies, public limited companies, co-operative societies etc. Small business is one where the total average annual turnover is less than Rs. 50 crore. The turnover criterion will be linked to the average of the last three years in the case of existing entities and projected turnover in the case of new entities.

(ii) *Product criterion* - The exposure takes the form of any of the following: revolving credits and lines of credit (including overdrafts), term loans and leases (e.g. instalment loans and leases, student and educational loans) and small business facilities and commitments.

(iii) *Granularity criterion* - Banks must ensure that the regulatory retail portfolio is sufficiently diversified to a degree that reduces the risks in the portfolio, warranting the 75% risk weight. One way of achieving this

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[9] Mortgage loans qualifying for treatment as claims secured by residential property is at paragraph 5.10.

is that no aggregate exposure to one counterpart should exceed 0.2% of the overall regulatory retail portfolio. '*Aggregate exposure*' means gross amount (i.e. not taking any benefit for credit risk mitigation into account) of all forms of debt exposures (e.g. loans or commitments) that individually satisfy the three other criteria. In addition, '*one counterpart*' means one or several entities that may be considered as a single beneficiary (e.g. in the case of a small business that is affiliated to another small business, the limit would apply to the bank's aggregated exposure on both businesses). While banks may appropriately use the group exposure concept for computing aggregate exposures, they should evolve adequate systems to ensure strict adherence with this criterion. NPAs under retail loans are to be excluded from the overall regulatory retail portfolio when assessing the granularity criterion for risk-weighting purposes.

(iv) *Low value of individual exposures*. The maximum aggregated retail exposure to one counterpart should not exceed the absolute threshold limit of Rs. 5 crore.

5.9.4 For the purpose of ascertaining compliance with the absolute threshold, exposure would mean sanctioned limit or the actual outstanding, which ever is higher, for all fund based and non-fund based facilities, including all forms of off-balance sheet exposures. In the case of term loans and EMI based facilities, where there is no scope for redrawing any portion of the sanctioned amounts, exposure shall mean the actual outstanding.

5.9.5 Banks' exposures which satisfy all the criteria prescribed for inclusion in the regulatory retail portfolio, irrespective of the sector to which the exposure is, may be included under the regulatory retail portfolio if such exposures have not been specifically addressed and given a different treatment in these guidelines.

5.9.6 The Reserve Bank would evaluate at periodic intervals the risk weight assigned to the retail portfolio with reference to the default experience for these exposures. As part of the supervisory review process, the Reserve Bank would also consider whether the credit quality of regulatory retail claims held by

individual banks should warrant a standard risk weight higher than 75 %.

5.10 Claims secured by residential property

5.10.1 Lending to individuals meant for acquiring residential property which are fully secured by mortgages on the residential property that is or will be occupied by the borrower, or that is rented, shall be risk weighted at 75%, provided there is a margin of at least 25 per cent over the amount of the loan, based on Board approved valuation policy.

5.10.2 Lending for acquiring residential property which meets the above criteria but have a margin lesser than 25% will attract a risk weight of 100%.

5.10.3 All other claims secured by residential property would attract the higher of the risk weight applicable to the counterparty or to the purpose for which the bank has extended finance.

5.10.4 Loans / exposures to intermediaries for on-lending will not be eligible for inclusion under claims secured by residential property but will be treated as claims on corporates or claims included in the regulatory retail portfolio as the case may be.

5.10.5 Investments in mortgage backed securities (MBS) backed by exposures as at paragraph 5.10.1 above will be governed by the guidelines pertaining to securitisation exposures c.f. paragraph 5.16 below.

5.11 Claims secured by commercial real estate

5.11.1 Commercial real estate exposure is defined as "fund based and non-fund based exposures secured by mortgages on commercial real estates (office buildings, retail space, multi-purpose commercial premises, multi-family residential buildings, multi-tenanted commercial premises, industrial or warehouse space, hotels, land acquisition, development and construction, setting up Special Economic Zones (SEZs) or for acquiring units in SEZs etc.).

5.11.2 Commercial real estate exposures as defined above will attract a risk weight of 150 per cent.

5.11.3 Investments in mortgage backed securities (MBS) backed by exposures as at paragraph 5.11.1 above will be governed by the guidelines pertaining to securitisation exposures c.f. paragraph 5.16 below.

5.12 Non-performing assets (NPAs)

5.12.1 The unsecured portion of NPA (other than a qualifying residential mortgage loan which is addressed in paragraph 5.12.6), net of specific provisions (including partial write-offs), will be risk-weighted as follows:

(i) 150% risk weight when specific provisions are less than 20% of the outstanding amount of the NPA ;

(ii) 100% risk weight when specific provisions are at least 20% of the outstanding amount of the NPA ;

(iii) 50% risk weight when specific provisions are at least 50% of the outstanding amount of the NPA.

5.12.2 In terms of the prudential norms, asset classification is identified borrower-wise and not facility-wise. Accordingly, for the purpose of computing the level of specific provisions in NPAs for deciding the risk-weighting, all funded exposures of a single counterparty should be reckoned.

5.12.3 For the purpose of defining the secured portion of the NPA, eligible collateral will be the same as recognised for credit risk mitigation purposes (paragraphs 7.3.5). Hence, other forms of collateral like land, buildings, plant, machinery, current assets, etc. will not be reckoned while computing the secured portion of NPAs for capital adequacy purposes.

5.12.4 In addition to the above, where a NPA is fully secured by the following forms of collateral that are not recognised for credit risk mitigation purposes, either independently or along with other eligible collateral a 100% risk weight may apply, net of specific provisions, when provisions reach 15% of the outstanding amount:

(i) Land and building which are valued by an expert valuer and

where the valuation is not more than three years old, and

(ii) Plant and machinery in good working condition at a value not higher than the depreciated value as reflected in the audited balance sheet of the borrower, which is not older than eighteen months.

5.12.5 The above collaterals (mentioned in paragraph 5.12.4) will be recognized only where the bank is having clear title to realize the sale proceeds thereof and can appropriate the same towards the amounts due to the bank. The bank's title to the collateral should be well documented. These forms of collaterals are not recognised anywhere else under the standardised approach.

5.12.6 Claims secured by residential property, as defined in paragraph 5.10.1, which are NPA will be risk weighted at 100% net of specific provisions. If the specific provisions in such loans are at least 20% but less than 50% of the outstanding amount, the risk weight applicable to the loan net of specific provisions will be 75%. If the specific provisions are 50% or more the applicable risk weight will be 50%.

5.13 Higher-risk categories

5.13.1 Fund based and non-fund based exposures to the following segments which are considered as high risk exposures will attract a higher risk weight of 150%:

a) Venture capital funds; and

b) Commercial real estate.

5.13.2 Reserve Bank may, in due course, decide to apply a 150% or higher risk weight reflecting the higher risks associated with any other exposure that may be identified as a high risk exposure.

5.14 Other Assets

5.14.1 Loans and advances to bank’s own staff which are fully covered by superannuation benefits and mortgage of flat/ house will attract a 20% risk weight.

5.14.2 Other loans and advances to bank’s own staff will be eligible for inclusion under regulatory retail portfolio and will therefore attract a 75% risk weight.

5.14.3 Consumer credit, including personal loans and credit card receivables will attract a higher risk weight of 125%.

5.14.4 ‘Capital market exposures’ and exposures to ‘Non-deposit taking systemically important non-banking financial companies’, as defined by the Reserve Bank from time to time, will attract a higher risk weight of 125%.

5.14.5 All investments in the paid up equity of non-financial entities which are not consolidated for capital purposes with the bank shall be assigned a 125 per cent risk weight.

5.14.6 Investment up to 30 per cent in the paid up equity of financial entities which are not consolidated for capital purposes with the bank shall be assigned a 125 per cent risk weight.

5.14.7 Bank's investments in innovative perpetual debt instruments eligible for inclusion as Tier 1 capital, Debt capital instruments eligible for inclusion as Upper Tier 2 capital and subordinated debt eligible for inclusion as Lower Tier 2 capital (as detailed in Annex 1, 2 and 3 respectively) issued by other banks/ financial institutions will attract risk weight of 100% or the risk weight as applicable to the ratings assigned to the relevant instruments, whichever is higher.

5.14.8 All other assets will attract a uniform risk weight of 100%.

5.15 Off-balance sheet items

5.15.1 General

i) The total risk weighted off-balance sheet credit exposure is calculated as the sum of the risk-weighted amount of the market related and non-market related off-balance sheet items. The risk-weighted amount of an off-balance sheet item that gives rise to credit exposure is generally calculated by means of a two-step process:

  (a) the notional amount of the transaction is converted into a credit equivalent amount, by multiplying the amount by the specified credit conversion factor or by applying the current exposure method, and

  (b) the resulting credit equivalent amount is multiplied by the risk weight applicable to the counterparty or type of asset.

ii) Where the off-balance sheet item is secured by eligible collateral or guarantee, the credit risk mitigation guidelines detailed in paragraph 7.3 may be applied.

5.15.2 Non-market-related off balance sheet items

i) The credit equivalent amount in relation to a non-market related off-balance sheet item like, direct credit substitutes, trade and performance related contingent items and commitments with certain drawdown, other commitments, etc. will be determined by multiplying the contracted amount of that particular transaction by the relevant credit conversion factor (CCF).

ii) Where the non-market related off-balance sheet item is an undrawn

or partially undrawn facility[10], the amount of undrawn commitment to be included in calculating the off-balance sheet non-market related credit exposures is the maximum unused portion of the commitment that could be drawn during the remaining period to maturity. Any drawn portion of a commitment forms a part of bank's on-balance sheet credit exposure.

iii) In the case of irrevocable commitments to provide off-balance sheet facilities, the original maturity will be measured from the commencement of the commitment until the time the associated facility expires. For example an irrevocable commitment with an original maturity of 12 months, to issue a 6 month documentary letter of credit, is deemed to have an original maturity of 18 months. Irrevocable commitments to provide off-balance sheet facilities should be assigned the lower of the two applicable credit conversion factors. For example, an irrevocable commitment with an original maturity of 15 months (50% - CCF) to issue a six month documentary letter of credit (20% - CCF) would attract the lower of the CCF i.e., the CCF applicable to the documentary letter of credit viz. 20%.

iv) Commitments which include ‘material adverse change’ clauses or any other provisions which are intended to relieve the bank of its obligations under certain conditions should also be included for computation of capital requirements.

v) The credit conversion factors for non-market related off-balance sheet transactions are as under:

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[10] For example: In the case of a cash credit facility for Rs.100 lakh (which is not unconditionally cancellable) where the drawn portion is Rs. 60 lakh, the undrawn portion of Rs. 40 lakh will attract a CCF of 20% (since the cash credit facility is subject to review / renewal normally once a year). The credit equivalent amount of Rs. 8 lakh (20% of Rs.40 lakh) will be assigned the appropriate risk weight as applicable to the counterparty / rating to arrive at the risk weighted asset for the undrawn portion. The drawn portion (Rs. 60 lakh) will attract a risk weight as applicable to the counterparty / rating.

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, credit enhancements, liquidity facilities for securitisation transactions), and acceptances (including endorsements with the character of acceptance). *(i.e., the risk of loss depends on the credit worthiness of the counterparty or the party against whom a potential claim is acquired)*	100
2.	Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties, indemnities and standby letters of credit related to particular transaction).	50
3.	Short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralised by the underlying shipment) for both issuing bank and confirming bank.	20
4.	Sale and repurchase agreement and asset sales with recourse, where the credit risk remains with the bank. (*These items are to be risk weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into.)*	100
5.	Forward asset purchases, forward deposits and partly paid shares and securities, which represent commitments with certain drawdown. *(These items are to be risk weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into.)*	100
6	Lending of banks' securities or posting of securities as collateral by banks, including instances where these arise out of repo style transactions (i.e., repurchase / reverse repurchase and securities	100

Sr. No.	Instruments	Credit Conversion Factor (%)
	lending / securities borrowing transactions)	
7.	Note issuance facilities and revolving underwriting facilities.	50
8	Commitments with certain drawdown	100
9.	Other commitments (e.g., formal standby facilities and credit lines) with an original maturity of a) up to one year b) over one year. Similar commitments that are unconditionally cancellable at any time by the bank without prior notice or that effectively provide for automatic cancellation due to deterioration in a borrower's credit worthiness	 20 50 0
10.	Take-out Finance in the books of taking-over institution	
	(i) Unconditional take-out finance	100
	(ii) Conditional take-out finance	50

vi) In regard to non-market related off-balance sheet items, the following transactions with non-bank counterparties will be treated as claims on banks.

- 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. If they are satisfied that the exposure is on the other bank they may assign these exposures the

risk weight applicable to banks as detailed in paragraph 5.6.

5.15.3 **Market related off-balance sheet items**

i) In calculating the risk weighted off-balance sheet credit exposures arising from market related off-balance sheet items for capital adequacy purposes, the bank should include all its market related transactions held in the banking and trading book which give rise to off-balance sheet credit risk.

ii) The credit risk on market related off-balance sheet items is the cost to a bank of replacing the cash flow specified by the contract in the event of counterparty default. This would depend, among other things, upon the maturity of the contract and on the volatility of rates underlying the type of instrument.

iii) Market related off-balance sheet items would include:

a) interest rate contracts – including single currency interest rate swaps, basis swaps, forward rate agreements, and interest rate futures;

b) foreign exchange contracts, including contracts involving gold, – includes cross currency swaps (including cross currency interest rate swaps), forward foreign exchange contracts, currency futures, currency options;

c) any other market related contracts specifically allowed by the Reserve Bank which give rise to credit risk.

iv) Exemption from capital requirements is permitted for

a) foreign exchange (except gold) contracts which have an original maturity of 14 calendar days or less; and

b) instruments traded on futures and options exchanges which are subject to daily mark-to-market and margin payments.

v) The credit equivalent amount of a market related off-balance sheet item, whether held in the banking book or trading book must be determined by the current exposure method.

5.15.4 **Current Exposure Method**

i) The credit equivalent amount of a market related off-balance sheet transaction calculated using the current exposure method is the sum of current credit exposure and potential future credit exposure of these contracts.

ii) Current credit exposure is defined as the sum of the positive mark-to-market value of these contracts. The Current Exposure Method requires periodical calculation of the current credit exposure by marking these contracts to market**,** thus capturing the current credit exposure.

iii) Potential future credit exposure is determined by multiplying the notional principal amount of each of these contracts irrespective of whether the contract has a zero, positive or negative mark-to-market value by the relevant add-on factor indicated below according to the nature and residual maturity of the instrument.

Table 7 : CCF for market related off-balance sheet items

Residual Maturity	**Conversion Factor to be applied on Notional Principal Amount**	
	Interest Rate Contract	**Gold and Exchange Rate Contract**
One year or less	0.25 %	1.0 %
Over one year to five years	0.5%	5.0 %
Over 5 years	1.5%	7.5%

iv) For contracts with multiple exchanges of principal, the add-on factors are to be multiplied by the number of remaining payments in the contract.

v) For contracts that are structured to settle outstanding exposure

following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date. In the case of interest rate contracts with remaining maturities of more than one year that meet the above criteria, the add-on factor is subject to a floor of 0.5%.

vi) No potential future credit exposure would be calculated for single currency floating/floating interest rate swaps; the credit exposure on these contracts would be evaluated solely on the basis of their mark-to-market value.

vii) Potential future exposures should be based on effective rather than apparent notional amounts. In the event that the stated notional amount is leveraged or enhanced by the structure of the transaction, banks must use the effective notional amount when determining potential future exposure. For example, a stated notional amount of USD 1 million with payments based on an internal rate of two times the BPLR would have an effective notional amount of USD 2 milllion.

5.15.5 **Failed transactions**

i) With regard to unsettled securities and foreign exchange transactions, banks are exposed to counterparty credit risk from trade date, irrespective of the booking or the accounting of the transaction. Banks are encouraged to develop, implement and improve systems for tracking and monitoring the credit risk exposure arising from unsettled transactions as appropriate for producing management information that facilitates action on a timely basis.

ii) Banks must closely monitor securities and foreign exchange transactions that have failed, starting from the day they fail for producing management information that facilitates action on a timely basis. Failed transactions give rise to risk of delayed settlement or delivery.

iii) Failure of transactions settled through a delivery-versus-payment system (DvP), providing simultaneous exchanges of securities for cash, expose banks to a risk of loss on the difference between the transaction valued at the agreed settlement price and the transaction valued at current market price (i.e. positive current exposure). Failed transactions where cash is paid without receipt of the corresponding receivable (securities, foreign currencies, or gold,) or, conversely, deliverables were delivered without receipt of the corresponding cash payment (non-DvP, or free-delivery) expose banks to a risk of loss on the full amount of cash paid or deliverables delivered. Therefore, a capital charge is required for failed transactions and must be calculated as under. The following capital treatment is applicable to all failed transactions, including transactions through recognised clearing houses. Repurchase and reverse-repurchase agreements as well as securities lending and borrowing that have failed to settle are excluded from this capital treatment.

iv) For DvP Transactions – If the payments have not yet taken place five business days after the settlement date, banks are required to calculate a **capital charge** by multiplying the positive current exposure of the transaction by the appropriate factor as under. In order to capture the information, banks will need to upgrade their information systems in order to track the number of days after the agreed settlement date and calculate the corresponding capital charge.

Number of working days after the agreed settlement date	Corresponding risk multiplier
From 5 to 15	9%
From 16 to 30	50%
From 31 to 45	75%
46 or more	100%

v) <u>For non-DvP transactions (free deliveries)</u> after the first contractual payment / delivery leg, the bank that has made the payment will treat its exposure as a loan if the second leg has not been received by the end of the business day. If the dates when two payment legs are made are the same according to the time zones where each payment is made, it is deemed that they are settled on the same day. For example, if a bank in Tokyo transfers Yen on day X (Japan Standard Time) and receives corresponding US Dollar via CHIPS on day X (US Eastern Standard Time), the settlement is deemed to take place on the same value date. Banks shall compute the capital requirement using the counterparty risk weights prescribed in these guidelines. However, if five business days after the second contractual payment / delivery date the second leg has not yet effectively taken place, the bank that has made the first payment leg will deduct from capital the full amount of the value transferred plus replacement cost, if any. This treatment will apply until the second payment / delivery leg is effectively made.

5.16 Securitisation Exposures

5.16.1 General

i) A securitisation transaction which meets the minimum requirements prescribed in the guidelines on securitisation of standard assets issued vide circular DBOD.No.BP.BC.60/ 21.04.048/ 2005-06 dated February 1, 2006, would qualify for the following prudential treatment of securitisation exposures for capital adequacy purposes. Banks' exposures to a securitisation transaction, referred to as securitisation exposures, can include, but are not restricted to the following: as investor, as credit enhancer, as liquidity provider, as underwriter, as provider of credit risk mitigants. Cash collaterals provided as credit enhancements shall also be treated as securitisation exposures. The terms used in this section with regard

to securitisation shall be as defined in the above guidelines. Further, the following definitions shall be applicable:

a) A 'credit enhancing interest only strip (I/Os)' – an on-balance sheet exposure that is recorded by the originator, which (i) represents a valuation of cash flows related to future margin income to be derived from the underlying exposures, and (ii) is subordinated to the claims of other parties to the transaction in terms of priority of repayment.

b) 'Implicit support' – the support provided by a bank to a securitisation in excess of its predetermined contractual obligation.

c) A 'gain-on-sale' – any profit realised at the time of sale of the securitised assets to SPV.

ii) Banks are required to hold regulatory capital against all of their securitisation exposures, including those arising from the provision of credit risk mitigants to a securitisation transaction, investments in asset-backed securities, retention of a subordinated tranche, and extension of a liquidity facility or credit enhancement, as set forth in the following paragraphs. Repurchased securitisation exposures must be treated as retained securitisation exposures. .

iii) An originator in a securitisation transaction which does not meet the minimum requirements prescribed in the guidelines dated February 1, 2006 and therefore do not qualify for de-recognition shall hold capital against all of the exposures associated with the securitisation transaction as if they had not been securitised[11]. Additionally, the originator shall deduct any 'gain on sale' on such transaction from Tier 1 capital.

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[11] For example: If in a securitisation transaction of Rs.100, the pool consists of 80% of AAA securities, 10% of BB securities and 10% of unrated securities and the transaction does not meet the true sale criterion, then the originator will be deemed to be holding all the exposures in that transaction. Consequently, the AAA rated securities will attract a risk weight of 20% and the face value of the BB rated securities and the unrated

5.16.2 Deduction of securitisation exposures from capital funds

i) When a bank is required to deduct a securitisation exposure from regulatory capital, the deduction must be made 50% from Tier 1 and 50% from Tier 2, except where expressly provided otherwise. Deductions from capital may be calculated net of any specific provisions maintained against the relevant securitisation exposures.

ii) Credit enhancements, including credit enhancing I/Os (net of the gain-on-sale that shall be deducted from Tier 1 as specified below) and cash collaterals, which are required to be deducted must be deducted 50% from Tier 1 and 50% from Tier 2.

iii) Banks shall deduct from Tier 1 capital any “gain-on-sale”, if permitted to be realised.

iv) Any rated securitisation exposure with a long term rating of ‘B+ and below’ when not held by an originator, and a long term rating of ‘BB+ and below’ when held by the originator shall be deducted 50% from Tier 1 and 50% from Tier 2 capital.

v) Any unrated securitisation exposure, except an eligible liquidity facility as specified in paragraph 5.16.8 should be deducted 50% from Tier 1 and 50% from Tier 2 capital. In an unrated and ineligible liquidity facility, both the drawn and undrawn portions shall be deducted 50% from Tier 1 and 50% from Tier 2 capital.

vi) The holdings of securities devolved on the originator through underwriting should be sold to third parties within three-month period following the acquisition. In case of failure to off-load within the stipulated time limit, any holding in excess of 20 per cent of the original amount of issue, including secondary market purchases, shall be deducted 50% from Tier 1 and 50% from Tier 2 capital.

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securities will be deducted. Thus the consequent impact on the capital will be Rs.21.44 (16*9% + 20).

5.16.3 Implicit support

i) The originator shall not provide any implicit support to investors in a securitisation transaction.

ii) When a bank is deemed to have provided implicit support to a securitisation:

a) It must, at a minimum, hold capital against all of the exposures associated with the securitisation transaction as if they had not been securitised.

b) Additionally, the bank would need to deduct any gain-on-sale, as defined above, from Tier 1 capital.

c) Furthermore, in respect of securitisation transactions where the bank has provided implicit support it is required to disclose publicly that (a) it has provided non-contractual support (b) the details of the implicit support and (c) the impact of the implicit support on the bank's regulatory capital.

iii) Where a securitisation transaction contains a clean up call and the clean up call can be exercised by the originator in circumstances where exercise of the clean up call effectively provides credit enhancement, the clean up call shall be treated as implicit support and the concerned securitisation transaction will attract the above prescriptions.

5.16.4 Application of external ratings

The following operational criteria concerning the use of external credit assessments apply:

i) A bank must apply external credit assessments from eligible external credit rating agencies consistently across a given type of securitisation exposure. Furthermore, a bank cannot use the credit assessments

issued by one external credit rating agency for one or more tranches and those of another external credit rating agency for other positions (whether retained or purchased) within the same securitisation structure that may or may not be rated by the first external credit rating agency. Where two or more eligible external credit rating agencies can be used and these assess the credit risk of the same securitisation exposure differently, paragraphs 6.7 will apply.

ii) If the CRM provider is not recognised as an eligible guarantor as defined in paragraph 7.5.6, the covered securitisation exposures should be treated as unrated.

iii) In the situation where a credit risk mitigant is not obtained by the SPV but rather applied to a specific securitisation exposure within a given structure (e.g. ABS tranche), the bank must treat the exposure as if it is unrated and then use the CRM treatment outlined in paragraph 7.

iv) The other aspects of application of external credit assessments will be as per guidelines given in paragraph 6 above

5.16.5 Risk weighted securitisation exposures

i) Banks shall calculate the risk weighted amount of an on-balance sheet securitisation exposure by multiplying the principal amount (after deduction of specific provisions) of the exposures by the applicable risk weight.

ii) The risk-weighted asset amount of a securitisation exposure is computed by multiplying the amount of the exposure by the appropriate risk weight determined in accordance with issue specific rating assigned to those exposures by the chosen external credit rating agencies as indicated in the following tables:

Table 8: Securitisation exposures – Risk weight mapping to long-term ratings

Domestic rating agencies	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
Risk weight	**20%**	**50%**	**100%**	**350%**	Deduction*
Risk weight for originator	**20%**	**50%**	**100%**	Deduction*	

*** governed by the provisions of paragraph 5.16.2**

iii) The risk-weighted asset amount of a securitisation exposure in respect of MBS backed by commercial real estate exposure, as defined in paragraph 5.11 above, is computed by multiplying the amount of the exposure by the appropriate risk weight determined in accordance with issue specific rating assigned to those exposures by the chosen external credit rating agencies as indicated in the following tables:

Table 9: Commercial real estate securitisation exposures – Risk weight mapping to long-term ratings

Domestic rating agencies	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ and below or unrated
Risk weight	**50%**	**100%**	**150%**	**625%**	Deduction*
Risk weight for originator	**50%**	**100%**	**150%**	Deduction*	

*** governed by the provisions of paragraph 5.16.2**

iv) Banks are not permitted to invest in unrated securities issued by an SPV as a part of the securitisation transaction. However, securitisation exposures assumed by banks which may become unrated or may be deemed to be unrated, would be deducted for capital adequacy purposes in accordance with the provisions of paragraph 5.16.2.

5.16.6 Off-balance sheet securitisation exposures

Banks shall calculate the risk weighted amount of a rated off-balance sheet securitisation exposure by multiplying the credit equivalent amount of the exposure by the applicable risk weight. The credit equivalent amount should be arrived at by multiplying the principal amount of the exposure (after

deduction of specific provisions) with a 100% CCF , unless otherwise specified.

If the OBS exposure is not rated, it must be deducted from capital, except an unrated eligible liquidity facility for which the treatment has been specified separately in paragraph 5.16.8.

5.16.7 Recognition of credit risk mitigant

i) The treatment below applies to a bank that has obtained a credit risk mitigant on a securitisation exposure. Credit risk mitigant include guarantees and eligible collateral as specified in these guidelines. Collateral in this context refers to that used to hedge the credit risk of a securitisation exposure rather than for hedging the credit risk of the underlying exposures of the securitisation transaction.

ii) When a bank other than the originator provides credit protection to a securitisation exposure, it must calculate a capital requirement on the covered exposure as if it were an investor in that securitisation. If a bank provides protection to an unrated credit enhancement, it must treat the credit protection provided as if it were directly holding the unrated credit enhancement.

iii) Capital requirements for the guaranteed / protected portion will be calculated according to CRM methodology for the standardised approach as specified in paragraph 7 below. Eligible collateral is limited to that recognised under these guidelines in paragraph 7.3.5. For the purpose of setting regulatory capital against a maturity mismatch between the CRM and the exposure, the capital requirement will be determined in accordance with paragraphs 7.6. When the exposures being hedged have different maturities, and the longest maturity must be used applying the methodology prescribed in paragraphs 7.6.4 & 7.6.5 .

5.16.8 Liquidity facilities

i) A liquidity facility will be considered as an 'eligible' facility only if it satisfies all minimum requirements prescribed in the guidelines issued on February 1, 2006. The rated liquidity facilities will be risk weighted or deducted as per the appropriate risk weight determined in accordance with the specific rating assigned to those exposures by the chosen ECAIs as indicated in the tables presented above.

ii) The unrated eligible liquidity facilities will be exempted from deductions and treated as follows.

a) The drawn and undrawn portions of an unrated eligible liquidity facilities would attract a risk weight equal to the highest risk weight assigned to any of the underlying individual exposures covered by this facility.

b) The undrawn portion of an unrated eligible liquidity will attract the following credit conversion factors for calculating the credit equivalent amount: :

- 20% for facilities with an original maturity of one year or less, or
- 50% for facilities with an original maturity of more than one year.

6 External credit assessments

6.1 Eligible Credit Rating Agencies

6.1.1 Reserve Bank has undertaken the detailed process of identifying the eligible credit rating agencies, whose ratings may be used by banks for assigning risk weights for credit risk. In line with the provisions of the New

Capital Adequacy Framework, where the facility provided by the bank possesses rating assigned by an eligible credit rating agency, the risk weight of the claim will be based on this rating.

6.1.2 In accordance with the principles laid down in the Revised Framework, the Reserve Bank of India has decided that banks may use the ratings of the following domestic credit rating agencies (arranged in alphabetical order) for the purposes of risk weighting their claims for capital adequacy purposes:

a) Credit Analysis and Research Limited;

b) CRISIL Limited;

c) FITCH Ratings; and

d) ICRA Limited.

6.2 Scope of application of external ratings

6.2.1 Banks should use the chosen credit rating agencies and their ratings consistently for each type of claim, for both risk weighting and risk management purposes. Banks will not be allowed to "cherry pick" the assessments provided by different credit rating agencies. If a bank has decided to use the ratings of some of the chosen credit rating agencies for a given type of claim, it can use only the ratings of those credit rating agencies, despite the fact that some of these claims may be rated by other chosen credit rating agencies whose ratings the bank has decided not to use Banks shall not use one agency's rating for one corporate bond, while using another agency's rating for another exposure to the same counter-party, unless the respective exposures are rated by only one of the chosen credit rating agencies, whose ratings the bank has decided to use. External assessments for one entity within a corporate group cannot be used to risk weight other entities within the same group.

6.2.2 Banks must disclose the names of the credit rating agencies that they use for the risk weighting of their assets, the risk weights associated with the particular rating grades as determined by Reserve Bank through the mapping process for each eligible credit rating agency as well as the aggregated risk weighted assets as required vide Table DF-5.

6.2.3 To be eligible for risk-weighting purposes, the external credit assessment must take into account and reflect the entire amount of credit risk exposure the bank has with regard to all payments owed to it. For example, if a bank is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with timely repayment of both principal and interest.

6.2.4 To be eligible for risk weighting purposes, the rating should be in force and confirmed from the monthly bulletin of the concerned rating agency. The rating agency should have reviewed the rating at least once during the previous 15 months.

6.2.5 An eligible credit assessment must be publicly available. In other words, a rating must be published in an accessible form and included in the external credit rating agency's transition matrix. Consequently, ratings that are made available only to the parties to a transaction do not satisfy this requirement.

6.2.6 For assets in the bank's portfolio that have contractual maturity less than or equal to one year, short term ratings accorded by the chosen credit rating agencies would be relevant. For other assets which have a contractual maturity of more than one year, long term ratings accorded by the chosen credit rating agencies would be relevant.

6.2.7 Cash credit exposures tend to be generally rolled over and also tend to be drawn on an average for a major portion of the sanctioned limits. Hence, even though a cash credit exposure may be sanctioned for period one year or less, these exposures should be reckoned as long term exposures and accordingly the long term ratings accorded by the external credit rating

agencies will be relevant.

6.3 Mapping process

6.3.1 The New Capital Adequacy Framework recommends development of a mapping process to assign the ratings issued by eligible credit rating agencies to the risk weights available under the Standardised risk weighting framework. The mapping process is required to result in a risk weight assignment consistent with that of the level of credit risk. A mapping of the credit ratings awarded by the chosen domestic credit rating agencies has been furnished below in paragraphs 6.4.1 and 6.5.4, which should be used by banks in assigning risk weights to the various exposures.

6.4 Long term ratings

6.4.1 On the basis of the above factors as well as the data made available by the rating agencies, the ratings issued by the chosen domestic credit rating agencies have been mapped to the appropriate risk weights applicable as per the Standardised approach under the Revised Framework. The rating-risk weight mapping furnished in the Table below shall be adopted by all banks in India:

Table 10 : Risk weight mapping of Long term ratings of the chosen domestic rating agencies

Long term ratings of the chosen credit rating agencies operating in India	Standardised approach risk weights
AAA	20%
AA	30%
A	50%
BBB	100%
BB & below	150%
Unrated	100%

6.4.2 Where "+" or "-" notation is attached to the rating, the corresponding main rating category risk weight should be used. For example, A+ or A- would be considered to be in the A rating category and assigned 100% risk weight.

6.4.3 If an issuer has a long-term exposure with an external long term rating that warrants a risk weight of 150%, all unrated claims on the same counter-party, whether short-term or long-term, should also receive a 150% risk weight, unless the bank uses recognised credit risk mitigation techniques for such claims.

6.5 Short term ratings

6.5.1 For risk-weighting purposes, short-term ratings are deemed to be issue-specific. They can only be used to derive risk weights for claims arising from the rated facility. They cannot be generalised to other short-term claims. In no event can a short-term rating be used to support a risk weight for an unrated long-term claim. Short-term assessments may only be used for short-term claims against banks and corporates.

6.5.2 Notwithstanding the above restriction on using an issue specific short term rating for other short term exposures the following broad principles will apply. The unrated short term claim on a counter-party will attract a risk weight of at least one level higher than the risk weight applicable to the rated short term claim on that counter-party. If a short-term rated facility to a counter-party attracts a 20% or a 50% risk-weight, unrated short-term claims to the same counter-party cannot attract a risk weight lower than 50% or 100% respectively.

6.5.3 Similarly, if an issuer has a short-term exposure with an external short term rating that warrants a risk weight of 150%, all unrated claims on the same counter-party, whether long-term or short-term, should also receive a 150% risk weight, unless the bank uses recognised credit risk mitigation techniques for such claims.

6.5.4 In respect of the issue specific short term ratings the following risk weight mapping may be adopted by banks:

Table 11 : Risk weight mapping of Short term ratings of the domestic rating agencies

Short term ratings				**Risk weights**
CARE	**CRISIL**	**Fitch**	**ICRA**	
PL1+	P1+	F1+	A1+	20%
PL1	P1	F1	A1	30%
PL2	P2	F2	A2	50%
PL3	P 3	F3	A3	100%
PL4 & PL5	P 4 & P5	B,C, D	A4 / A5	150%

6.5.5 Where "+" or "-" notation is attached to the rating, the corresponding main rating category risk weight should be used for P2/ A2/ PL2/ F2 and below, unless specified otherwise. For example, P2+ or P2- would be considered to be in the P2 rating category and assigned 50% risk weight.

6.5.6 The above risk weight mapping of both long term and short term ratings of the chosen domestic rating agencies would be reviewed annually by the Reserve Bank.

6.6 Use of unsolicited ratings

6.6.1 A rating would be treated as solicited only if the issuer of the instrument has requested the credit rating agency for the rating and has accepted the rating assigned by the agency. As a general rule, banks should use only **solicited rating from the chosen credit rating agencies.** No ratings issued by the credit rating agencies on an unsolicited basis should be considered for risk weight calculation as per the Standardised Approach.

6.7 Use of multiple rating assessments

6.7.1 Banks shall be guided by the following in respect of exposures/ obligors having multiple ratings from the eligible credit rating agencies chosen by the bank for the purpose of risk weight calculation:

(i) If there is only one rating by an eligible credit rating agency for a particular claim, that rating would be used to determine the risk weight of the claim.

(ii) If there are two ratings accorded by eligible credit rating agencies which map into different risk weights, the higher risk weight should be applied.

(iii) If there are three or more ratings accorded by eligible credit rating agencies with different risk weights, the ratings corresponding to the two lowest risk weights should be referred to and the higher of those two risk weights should be applied. i.e., the second lowest risk weight.

6.8 Applicability of issue rating to issuer/ other claims

6.8.1 Where a bank invests in a particular issue that has an issue specific rating by an eligible credit rating agency the risk weight of the claim will be based on this assessment. Where the bank's claim is not an investment in a specific assessed issue, the following general principles will apply:

(i) In circumstances where the borrower has a specific assessment for an issued debt - but the bank's claim is not an investment in this particular debt - the rating applicable to the specific debt (where the rating maps into a risk weight lower than that which applies to an unrated claim) may be applied to the bank's unassessed claim only if this claim ranks *pari passu* or senior to

the specific rated debt in all respects and the maturity of the unassessed claim is not later than the maturity of the rated claim. If not, the rating applicable to the specific debt cannot be used and the unassessed claim will receive the risk weight for unrated claims.

(ii) If either the issuer or single issue has been assigned a rating which maps into a risk weight equal to or higher than that which applies to unrated claims, a claim on the same counterparty, which is unrated by any chosen credit rating agency, will be assigned the same risk weight as is applicable to the rated exposure, if this claim ranks *pari passu* or junior to the rated exposure in all respects.

(iii) Where a bank intends to extend an issuer or an issue specific rating assigned by an eligible credit rating agency to any other exposure which the bank has on the same counterparty and which meets the above criterion, it should be extended to the entire amount of credit risk exposure the bank has with regard to that exposure i.e., both principal and interest.

(iv) With a view to avoiding any double counting of credit enhancement factors, no recognition of credit risk mitigation techniques should be taken into account if the credit enhancement is already reflected in the issue specific rating accorded by an eligible credit rating agency relied upon by the bank.

(v) Where unrated exposures are risk weighted based on the rating of an equivalent exposure to that borrower, the general rule is that foreign currency ratings would be used only for exposures in foreign currency. Domestic currency ratings, if separate, would be used to risk weight only claims denominated in the domestic currency.

7 Credit Risk Mitigation

7.1 General principles

7.1.1 Banks use a number of techniques to mitigate the credit risks to which they are exposed. For example, exposures may be collateralised in whole or in part by cash or securities, deposits from the same counterparty, guarantee of a third party, etc. The revised approach to credit risk mitigation allows a wider range of credit risk mitigants to be recognised for regulatory capital purposes than is permitted under the 1988 Framework provided these techniques meet the requirements for legal certainty as described in paragraph 7.2 below. Credit risk mitigation approach as detailed in this section is applicable to the banking book exposures. This will also be applicable for calculation of the counterparty risk charges for OTC derivatives and repo-style transactions booked in the trading book.

7.1.2 The general principles applicable to use of credit risk mitigation techniques are as under:

(i) No transaction in which Credit Risk Mitigation (CRM) techniques are used should receive a higher capital requirement than an otherwise identical transaction where such techniques are not used.

(ii) The effects of CRM will **not** be double counted. Therefore, no additional supervisory recognition of CRM for regulatory capital purposes will be granted on claims for which an issue-specific rating is used that already reflects that CRM.

(iii) Principal-only ratings will not be allowed within the CRM framework.

(iv) While the use of CRM techniques reduces or transfers credit risk, it simultaneously may increase other risks (residual risks). Residual risks include legal, operational, liquidity and market risks. Therefore, it is imperative that banks employ robust

procedures and processes to control these risks, including strategy; consideration of the underlying credit; valuation; policies and procedures; systems; control of roll-off risks; and management of concentration risk arising from the bank's use of CRM techniques and its interaction with the bank's overall credit risk profile. Where these risks are not adequately controlled, Reserve Bank may impose additional capital charges or take other supervisory actions. The disclosure requirements prescribed in Table DF-6 (paragraph 10 – Market Discipline) must also be observed for banks to obtain capital relief in respect of any CRM techniques.

7.2 Legal Certainty

In order for banks to obtain capital relief for any use of CRM techniques, the following minimum standards for legal documentation must be met. All documentation used in collateralised transactions and guarantees must be binding on all parties and legally enforceable in all relevant jurisdictions. Banks must have conducted sufficient legal review, which should be well documented, to verify this. Such verification should have a well founded legal basis for reaching the conclusion about the binding nature and enforceability of the documents. Banks should also undertake such further review as necessary to ensure continuing enforceability.

7.3 Credit risk mitigation techniques - Collateralised transactions

7.3.1 A collateralised transaction is one in which:

(i) banks have a credit exposure and that credit exposure is hedged in whole or in part by collateral posted by a counterparty or by a third party on behalf of the counterparty. Here, "counterparty" is used to denote a party to whom a bank has an on- or off-balance sheet credit exposure.

(ii) banks have a specific lien on the collateral and the requirements of legal certainty are met.

7.3.2 **Overall framework and minimum conditions**

The Revised Framework allows banks to adopt either the simple approach, which, similar to the 1988 Accord, substitutes the risk weighting of the collateral for the risk weighting of the counterparty for the collateralised portion of the exposure (generally subject to a 20% floor), or the comprehensive approach, which allows fuller offset of collateral against exposures, by effectively reducing the exposure amount by the value ascribed to the collateral. Banks in India shall adopt the Comprehensive Approach, which allows fuller offset of collateral against exposures, by effectively reducing the exposure amount by the value ascribed to the collateral. Under this approach, banks which take eligible financial collateral (e.g. cash or securities, more specifically defined below), are allowed to reduce their credit exposure to a counterparty when calculating their capital requirements to take account of the risk mitigating effect of the collateral. Credit risk mitigation is allowed only on an account-by-account basis, even within regulatory retail portfolio. However, before capital relief will be granted the standards set out below must be met:

(i) In addition to the general requirements for legal certainty, the legal mechanism by which collateral is pledged or transferred must ensure that the bank has the right to liquidate or take legal possession of it, in a timely manner, in the event of the default, insolvency or bankruptcy (or one or more otherwise-defined credit events set out in the transaction documentation) of the counterparty (and, where applicable, of the custodian holding the collateral). Furthermore banks must take all steps necessary to fulfill those requirements under the law applicable to the bank's interest in the collateral for obtaining and maintaining an enforceable security interest, e.g. by registering it with a registrar.

(ii) In order for collateral to provide protection, the credit quality of

the counterparty and the value of the collateral must not have a material positive correlation. For example, securities issued by the counterparty - or by any related group entity - would provide little protection and so would be ineligible.

(iii) Banks must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed, and that collateral can be liquidated promptly.

(iv) Where the collateral is held by a custodian, banks must take reasonable steps to ensure that the custodian segregates the collateral from its own assets.

7.3.3 A capital requirement will be applied to a bank on either side of the collateralised transaction: for example, both repos and reverse repos will be subject to capital requirements. Likewise, both sides of securities lending and borrowing transactions will be subject to explicit capital charges, as will the posting of securities in connection with a derivative exposure or other borrowing.

7.3.4 **The comprehensive approach**

(i) In the comprehensive approach, when taking collateral, banks will need to calculate their adjusted exposure to a counterparty for capital adequacy purposes in order to take account of the effects of that collateral. Banks are required to adjust both the amount of the exposure to the counterparty and the value of any collateral received in support of that counterparty to take account of possible future fluctuations in the value of either, occasioned by market movements. These adjustments are referred to as 'haircuts'. The application of haircuts will produce volatility adjusted amounts for both exposure and collateral. The volatility

adjusted amount for the exposure will be higher than the exposure and the volatility adjusted amount for the collateral will be lower than the collateral, unless either side of the transaction is cash. In other words, the 'haircut' for the exposure will be a premium factor and the 'haircut' for the collateral will be a discount factor.

(ii) Additionally where the exposure and collateral are held in different currencies an additional downwards adjustment must be made to the volatility adjusted collateral amount to take account of possible future fluctuations in exchange rates.

(iii) Where the volatility-adjusted exposure amount is greater than the volatility-adjusted collateral amount (including any further adjustment for foreign exchange risk), banks shall calculate their risk-weighted assets as the difference between the two multiplied by the risk weight of the counterparty. The framework for performing calculations of capital requirement is indicated in paragraph 7.3.6.

7.3.5 **Eligible financial collateral**

The following collateral instruments are eligible for recognition in the comprehensive approach:

(i) Cash (as well as certificates of deposit or comparable instruments, including fixed deposit receipts, issued by the lending bank) on deposit with the bank which is incurring the counterparty exposure.

(ii) Gold: Gold would include both bullion and jewellery. However, the value of the collateralized jewellery should be benchmarked to 99.99 purity.

(iii) Securities issued by Central and State Governments

(iv) Kisan Vikas Patra and National Savings Certificates provided no lock-in period is operational and if they can be encashed within the

holding period.

(v) Life insurance policies with a declared surrender value of an insurance company which is regulated by an insurance sector regulator.

(vi) Debt securities rated by a chosen Credit Rating Agency in respect of which the banks should be sufficiently confident about the market liquidity[12] where these are either:

a. at least A- when issued by public sector entities and other entities (including banks and Primary Dealers); or

b. at least P2/ A2/PL2/F2 for short-term debt instruments.

(vii) Debt securities not rated by a chosen Credit Rating Agency in respect of which the banks should be sufficiently confident about the market liquidity where these are:

a) issued by a bank; and

b) listed on a recognised exchange; and

c) classified as senior debt; and

d) all rated issues of the same seniority by the issuing bank are rated at least A- or P2/A2/PL2/F2 by a chosen Credit Rating Agency; and

e) the bank holding the securities as collateral has no information to suggest that the issue justifies a rating below A-or P2/A2/PL2/F2 (as applicable) and;

f) Banks should be sufficiently confident about the market liquidity of the security.

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[12] A debenture would meet the test of liquidity if it is traded on a recognised stock exchange(s) on at least 90% of the trading days during the preceding 365 days. Further, liquidity can be **evidenced in the trading during the previous one month in the recognised stock exchange if there are a**

(viii) Equities (including convertible bonds) that are listed on a recognised stock exchange and are included in the following indices: ‘BSE-SENSEX’ and ‘BSE-200’ of the Bombay Stock Exchange; ‘S&P CNX NIFTY’ and ‘Junior NIFTY’ of the National Stock Exchange and the main index of any other recognised stock in respect of which the banks should be sufficiently confident about the market liquidity[13].

(ix) Undertakings for Collective Investments in Transferable Securities (UCITS)[14] and mutual funds where:

- a price for the units is publicly quoted daily i.e., where the daily NAV is available in public domain; and
- the UCITS/mutual fund is limited to investing in the instruments listed in this paragraph.

7.3.6 **Calculation of capital requirement**

For a collateralised transaction, the exposure amount after risk mitigation is calculated as follows:

$$E^* = \max\{0, [E \times (1 + He) - C \times (1 - Hc - Hfx)]\}$$

where:

E*= the exposure value after risk mitigation

E = current value of the exposure for which the collateral qualifies as a risk mitigant

He= haircut appropriate to the exposure

C= the current value of the collateral received

Hc= haircut appropriate to the collateral

Hfx= haircut appropriate for currency mismatch between the collateral and exposure

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minimum of 25 trades of marketable lots in securities of each issuer.

[13] **An equity would meet the test of liquidity if it is traded on a recognised stock exchange(s) on at least 90% of the trading days during the preceding 365 days. Further, liquidity can be evidenced in the trading during the previous one month in the recognised stock exchange if there are a minimum of 25 trades of marketable lots in securities of each issuer.**

[14] UCITS are pan-European investment funds, which are public limited companies, that coordinates the distribution and management of unit trusts amongst countries within EU.

The exposure amount after risk mitigation (i.e., E*) will be multiplied by the risk weight of the counterparty to obtain the risk-weighted asset amount for the collateralised transaction.

7.3.7 **Haircuts**

(i) In principle, banks have two ways of calculating the haircuts: (i) standard supervisory haircuts, using parameters set by the Committee, and (ii) own-estimate haircuts, using banks' own internal estimates of market price volatility. Banks in India shall use only the standard supervisory haircuts for both the exposure as well as the collateral.

(ii) The *Standard Supervisory Haircuts* (assuming daily mark-to-market, daily re-margining and a 10 business day holding period) expressed as percentages are as under:

Issue rating for debt securities	Residual Maturity	Sovereigns	Other issues
AAA to AA-/ PL1/P1/F1/A1	≤ 1 year	0.5	1
	> 1 year, ≤ 5 years	2	4
	> 5 years	4	8
A + to A-/ PL2/P2/F2/A2 and Unrated bank securities (as specified below)	≤ 1 year	1	2
	> 1 year, ≤ 5 years	3	6
	> 5 years	6	12
Main index equities[15] (including convertible bonds) and Gold		15	
Other eligible equities (including convertible bonds) listed on a recognized exchange		25	
UCITs/Mutual funds		Highest haircut applicable to any security in which the fund can invest	
Cash in the same currency		0	

(iii) The standard supervisory haircuts applicable to exposure/ eligible unrated securities issued by the Central or State Governments, Indira Vikas Patras, Kisan Vikas Patras, and National Savings Certificates will be the same as applicable to AAA rated debt securities.

(iv) Sovereign will include Reserve Bank of India, MDBs, etc. which are eligible for zero per cent risk weight.

(v) The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies is 8% (also based on a 10-business day holding period and daily mark-to-market)

(vi) The standard supervisory haircuts prescribed above would apply to the security (Hc) with reference to the rating of the issuer and to the exposure (He) with reference to the rating of counterparty.

(vii) For transactions in which the banks' exposures are unrated or bank lends non eligible instruments e.g. non investment grade corporate securities the haircut to be applied on the exposure should be the same as the one for equity traded on a recognised stock exchange which is not part of main index i.e, 25%.

(viii) Illustrative examples calculating the effect of Credit Risk Mitigation is furnished in Annex **4.**

(ix) Where the collateral is a basket of assets, the haircut on the basket will be, $H = \sum_i a_i H_i$, where a_i is the weight of the asset (as measured by units of currency) in the basket and H_i the haircut applicable to that asset.

(x) For banks using the standard supervisory haircuts, the 10- business day haircuts provided above will be the basis and this haircut will be

scaled up or down depending on the type of transaction and the frequency of remargining or revaluation using the formula below:

$$H = H_{10} \sqrt{\frac{N_R + (T_M - 1)}{10}}$$

where:

H = haircut

$\boldsymbol{H_{10}}$ = 10-business day standard supervisory haircut for instrument

N_R = actual number of business days between remargining for capital market transactions or revaluation for secured transactions.

T_M = minimum holding period for the type of transaction

7.4 Credit risk mitigation techniques - On-balance sheet netting

On-balance sheet netting is confined to loans/advances and deposits, where banks have legally enforceable netting arrangements, involving specific lien with proof of documentation. They may calculate capital requirements on the basis of net credit exposures subject to the following conditions:

Where a bank,

a) has a well-founded legal basis for concluding that the netting or offsetting agreement is enforceable in each relevant jurisdiction regardless of whether the counterparty is insolvent or bankrupt;

b) is able at any time to determine the loans/advances and deposits with the same counterparty that are subject to the netting agreement; and

c) monitors and controls the relevant exposures on a net basis,

it may use the net exposure of loans/advances and deposits as the basis for its capital adequacy calculation in accordance with the formula in paragraph 7.3.6. Loans/advances are treated as exposure and deposits as collateral. The haircuts will be zero except when a currency mismatch exists. All the requirements contained in paragraph 7.3.6 and 7.6 will also apply.

7.5 Credit risk mitigation techniques - Guarantees

7.5.1 Where guarantees are direct, explicit, irrevocable and unconditional banks may take account of such credit protection in calculating capital requirements.

7.5.2 A range of guarantors are recognised. As under the 1988 Accord, a substitution approach will be applied. Thus only guarantees issued by entities with a lower risk weight than the counterparty will lead to reduced capital charges since the protected portion of the counterparty exposure is assigned the risk weight of the guarantor, whereas the uncovered portion retains the risk weight of the underlying counterparty.

7.5.3 Detailed operational requirements for guarantees eligible for being treated as a CRM are as under:

7.5.4 **Operational requirements for guarantees**

(i) A guarantee (counter-guarantee) must represent a direct claim on the protection provider and must be explicitly referenced to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and incontrovertible. The guarantee must be irrevocable; there must be no clause in the contract that would allow the protection provider unilaterally to cancel the cover or that would increase the effective cost of cover as a result of deteriorating credit quality in the guaranteed exposure. The guarantee must also be unconditional; there should be no clause in the guarantee outside the direct control of the bank that could prevent the protection

provider from being obliged to pay out in a timely manner in the event that the original counterparty fails to make the payment(s) due.

(ii) All exposures will be risk weighted after taking into account risk mitigation available in the form of guarantees. When a guaranteed exposure is classified as non-performing, the guarantee will cease to be a credit risk mitigant and no adjustment would be permissible on account of credit risk mitigation in the form of guarantees. The entire outstanding, net of specific provision and net of realisable value of eligible collaterals / credit risk mitigants, will attract the appropriate risk weight.

7.5.5 **Additional operational requirements for guarantees**

In addition to the legal certainty requirements in paragraphs 7.2 above, in order for a guarantee to be recognised, the following conditions must be satisfied:

(i) On the qualifying default/non-payment of the counterparty, the bank is able in a timely manner to pursue the guarantor for any monies outstanding under the documentation governing the transaction. The guarantor may make one lump sum payment of all monies under such documentation to the bank, or the guarantor may assume the future payment obligations of the counterparty covered by the guarantee. The bank must have the right to receive any such payments from the guarantor without first having to take legal actions in order to pursue the counterparty for payment.

(ii) The guarantee is an explicitly documented obligation assumed by the guarantor.

(iii) Except as noted in the following sentence, the guarantee covers all types of payments the underlying obligor is expected to make under the documentation governing the transaction, for example notional amount, margin payments etc. Where a guarantee covers payment of principal only, interests and other uncovered payments should be treated as an unsecured amount in accordance with paragraph 7.5.8.

7.5.6 Range of eligible guarantors (counter-guarantors)

Credit protection given by the following entities will be recognised:

(i) sovereigns, sovereign entities (including BIS, IMF, European Central Bank and European Community as well as those MDBs referred to in paragraph 5.5, ECGC and CGTSI), PSEs, banks and primary dealers with a lower risk weight than the counterparty;

(ii) other entities rated AA(-) or better. This would include guarantee cover provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor. The rating of the guarantor should be an entity rating which has factored in all the liabilities and commitments (including guarantees) of the entity.

7.5.7 Risk weights

The protected portion is assigned the risk weight of the protection provider. Exposures covered by State Government guarantees will attract a risk weight of 20%. The uncovered portion of the exposure is assigned the risk weight of the underlying counterparty.

7.5.8 Proportional cover

Where the amount guaranteed, or against which credit protection is held, is less than the amount of the exposure, and the secured and unsecured portions are of equal seniority, i.e. the bank and the guarantor share losses on a pro-rata basis capital relief will be afforded on a proportional basis: i.e. the protected portion of the exposure will receive the treatment applicable to eligible guarantees, with the remainder treated as unsecured.

7.5.9 Currency mismatches

Where the credit protection is denominated in a currency different from that in which the exposure is denominated – i.e. there is a currency mismatch –

the amount of the exposure deemed to be protected will be reduced by the application of a haircut H_{FX}, i.e.

$$GA = G \times (1 - H_{FX})$$

where:

G = nominal amount of the credit protection

H_{FX} = haircut appropriate for currency mismatch between the credit protection and underlying obligation.

Banks using the supervisory haircuts will apply a haircut of 8% for currency mismatch.

7.5.10 **Sovereign guarantees and counter-guarantees**

A claim may be covered by a guarantee that is indirectly counter-guaranteed by a sovereign. Such a claim may be treated as covered by a sovereign guarantee provided that:

(i) the sovereign counter-guarantee covers all credit risk elements of the claim;

(ii) both the original guarantee and the counter-guarantee meet all operational requirements for guarantees, except that the counter-guarantee need not be direct and explicit to the original claim; and

(iii) the cover should be robust and no historical evidence suggests that the coverage of the counter-guarantee is less than effectively equivalent to that of a direct sovereign guarantee.

7.6 Maturity Mismatch

7.6.1 Where the residual maturity of the CRM is less than that of the underlying credit exposure a maturity mismatch occurs. Where there is a maturity mismatch and the CRM has an original maturity of less than one year, the CRM is not recognised for capital purposes. In other cases where there is a maturity mismatch, partial recognition is given to the CRM for regulatory capital purposes as detailed below in paragraphs 7.6.3 to 7.6.5.

7.6.2 For the purposes of calculating risk-weighted assets, a maturity mismatch occurs when the residual maturity of a collateral is less than that of the underlying exposure.

7.6.3 **Definition of maturity**

The maturity of the underlying exposure and the maturity of the collateral should both be defined conservatively. The effective maturity of the underlying should be gauged as the longest possible remaining time before the counterparty is scheduled to fulfil its obligation, taking into account any applicable grace period. For the collateral, embedded options which may reduce the term of the collateral should be taken into account so that the shortest possible effective maturity is used. The maturity relevant here is the residual maturity.

7.6.4 **Risk weights for maturity mismatches**

As outlined in paragraph 7.6.1, collateral with maturity mismatches are only recognised when their original maturities are greater than or equal to one year. As a result, the maturity of collateral for exposures with original maturities of less than one year must be matched to be recognised. In all cases, collateral with maturity mismatches will no longer be recognised when they have a residual maturity of three months or less.

7.6.5 When there is a maturity mismatch with recognised credit risk mitigants (collateral, on-balance sheet netting and guarantees) the following adjustment will be applied.

$$Pa = P \times (t-0.25) \div (T-0.25)$$

Where:

Pa = value of the credit protection adjusted for maturity mismatch

P = credit protection (e.g. collateral amount, guarantee amount) adjusted for any haircuts

t = min (T, residual maturity of the credit protection arrangement) expressed in years

T = min (5, residual maturity of the exposure) expressed in years

7.7 Treatment of pools of CRM techniques

In the case where a bank has multiple CRM techniques covering a single exposure (e.g. a bank has both collateral and guarantee partially covering an exposure), the bank will be required to subdivide the exposure into portions covered by each type of CRM technique (e.g. portion covered by collateral, portion covered by guarantee) and the risk-weighted assets of each portion must be calculated separately. When credit protection provided by a single protection provider has differing maturities, they must be subdivided into separate protection as well.

8 Capital charge for Market Risk

8.1 Introduction

8.1.1 Market risk is defined as the risk of losses in on-balance sheet and off-balance sheet positions arising from movements in market prices. The market risk positions subject to capital charge requirement are:

(i) The risks pertaining to interest rate related instruments and equities in the trading book; and

(ii) Foreign exchange risk (including open position in precious metals) throughout the bank (both banking and trading books).

8.1.2 The guidelines in this regard are organized under the following five sections:

Section	Particulars
A	Scope and coverage of capital charge for market risks
B	Measurement of capital charge for interest rate risk in the trading book
C	Measurement of capital charge for equities in the trading book
D	Measurement of capital charge for foreign exchange risk and gold open positions
E	Aggregation of capital charge for market risks

Section A

8.2 Scope and coverage of capital charge for market risks

8.2.1 These guidelines seek to address 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 capital adequacy will include:

(i) Securities included under the Held for Trading category

(ii) Securities included under the Available for Sale category

(iii) Open gold position limits

(iv) Open foreign exchange position limits

(v) Trading positions in derivatives, and

(vi) Derivatives entered into for hedging trading book exposures.

8.2.2 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.

8.2.3 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.

8.2.4 Capital for market risk would not be relevant for securities which have already matured and remain unpaid. These securities will attract capital only for credit risk. On completion of 90 days delinquency, these will be treated on par with NPAs for deciding the appropriate risk weights for credit risk.

Section B

8.3 Measurement of capital charge for interest rate risk

8.3.1 This section describes the framework for measuring the risk of holding or taking positions in debt securities and other interest rate related instruments in the **domestic currency** in the trading book.

8.3.2 The capital charge for interest rate related instruments and equities would apply to **current market value** of these items in bank's trading book. Since banks are required to maintain capital for market risks on an ongoing basis, they are required to mark to market their trading positions on a daily basis. The current market value will be determined as per extant RBI guidelines on valuation of investments.

8.3.3 The minimum capital requirement is expressed in terms of two separately calculated charges, (i) "**specific risk**" charge for each security, which is akin to the conventional capital charge for credit risk, both for short (short position is not allowed in India except in derivatives) and long positions, and (ii) "**general market risk**" charge towards interest rate risk in the portfolio, where long and short positions (which is not allowed in India except in derivatives) in different securities or instruments can be offset.

Specific risk

8.3.4 The capital charge for specific risk is designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer. The risk weights to be used in this calculation must be consistent with those used for calculating the capital requirements in the banking book. Thus, banks using the standardised approach for credit risk in the banking book will use the standardised approach risk weights for counterparty risks in the trading book in a consistent manner. The specific risk charge where 'government' or 'banks' are counterparties will be as under:

Sr.No.	Nature of investment	Maturity	Specific risk capital (as % of exposure)
1	Investment in Government Securities	All	0.0
2	Investments in other approved securities guaranteed by Central Government	All	0.0
3	Investments in other approved securities guaranteed by State Government	All	1.8
4	Investment in other securities where payment of interest and repayment of principal are guaranteed by Central Govt	All	0.0
5	Investments in other securities where payment of interest and repayment of principal are guaranteed by State Govt.	All	1.8
6	Investment in securities included under item 5 above, where the investment is non-performing.	All	9.0
6	Investments in other approved securities where payment of interest and repayment of principal are not guaranteed by Central / State Govt.	All	1.8

7	Claims on banks, including investment in securities which are guaranteed by banks as to payment of interest and repayment of principal provided the bank is a scheduled bank which is meeting the minimum regulatory CRAR requirement.	For residual term to final maturity is six months or less	0.30
		For residual term to final maturity is between six months and twenty four months	1.125
		For residual term to final maturity is exceeding twenty four months	1.80
8	Investment in debt instruments issued by other banks which are eligible for inclusion as regulatory capital for capital adequacy purposes	All	9.0

8.3.5 The specific risk capital charge for all other securities will be determined by the ratings assigned to them by the chosen external rating agencies. In case they are unrated they will attract a specific risk capital charge of 9% of the exposure. In case the guidelines demand deduction of any exposure, the same treatment would apply when the exposure is in the trading book also.

8.3.6 Banks shall, in addition to computing specific risk charge for OTC derivatives in the trading book, calculate the counterparty credit risk charge for OTC derivatives as part of capital for credit risk as per the Standardised Approach covered in paragraph 5 above.

General Market Risk

8.3.7 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:

(i) the net short (short position is not allowed in India except in derivatives) or long position in the whole trading book;

(ii) a small proportion of the matched positions in each time-band (the "vertical disallowance");

(iii) a larger proportion of the matched positions across different time-bands (the "horizontal disallowance"), and

(iv) a net charge for positions in options, where appropriate.

8.3.8 The Basle Committee has suggested two broad methodologies for computation of capital charge for market risks. One is the standardised method and the other is the banks' internal risk management models 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:

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

(ii) 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 (see Table-12

below);

(iii) slot the resulting capital charge measures into a maturity ladder with the fifteen time bands as set out in Table-12;

(iv) subject long and short positions (short position is not allowed in India except in derivatives) in each time band to a 5 per cent vertical disallowance designed to capture basis risk; and

(v) carry forward the net positions in each time-band for horizontal offsetting subject to the disallowances set out in Table-13.

Table 12
Duration method – time bands and assumed changes in yield

Time Bands	Assumed Change in Yield
Zone 1	
1 month or less	1.00
1 to 3 months	1.00
3 to 6 months	1.00
6 to 12 months	1.00
Zone 2	
1.0 to 1.9 years	0.90
1.9 to 2.8 years	0.80
2.8 to 3.6 years	0.75
Zone 3	
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

Table 13

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		40%	
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			

Capital charge for interest rate derivatives

8.3.9 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 are furnished in Annex 5.

Capital charge for interest rate risk in foreign currencies

8.3.10 Details of computing capital charges for interest rate risks in foreign currencies are as under:

(i) Capital charges should be calculated for each currency separately and then summed with no offsetting between positions of opposite sign.

(ii) 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. The gross positions in each time-band will be subject to the assumed change in yield set out in Table-12 with no further offsets.

Section C

8.4 Measurement of capital charge for equity risk

8.4.1 At present equities are also treated as any other investments for the purpose of assigning credit risk. An additional risk weight of 2.5% is assigned on these positions to capture market risk.

8.4.2 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.

Specific and general market risk

8.4.3 Capital charge for specific risk (akin to credit risk) will be 9% 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.

Section D

8.5 **Measurement of capital charge for foreign exchange risk**

8.5.1 Foreign exchange open positions and gold open positions are at present risk-weighted at 100%. Thus, capital charge for market risks in foreign exchange and gold open position is 9%. These open positions, **limits or actual whichever is higher,** would continue to attract capital charge at 9%. This capital charge is in addition to the capital charge for credit risk on the on-balance sheet and off-balance sheet items pertaining to foreign exchange and gold transactions.

Section E

8.6 **Aggregation of the capital charge for market risks**

8.6.1 As explained earlier 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 following table:

Proforma 1

(Rs. in crore)

Risk Category	Capital charge
I. **Interest Rate (a+b)**	
a. General market risk	
i) Net position (parallel shift) ii) Horizontal disallowance (curvature) iii) Vertical disallowance (basis) iv) Options	
b. Specific risk	
II. **Equity (a+b)**	
a. General market risk	
b. Specific risk	
III. **Foreign Exchange & Gold**	
IV.**Total capital charge for market risks** (I+II+III)	

9 Capital Charge for Operational risk

9.1 Definition of operational risk

Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk, but excludes strategic and reputational risk. Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

9.2 The measurement methodologies

9.2.1 The New Capital Adequacy Framework outlines three methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity: (i) the Basic Indicator Approach; (ii) the Standardised Approach; and (iii) Advanced Measurement Approaches (AMA).

9.2.2 Banks are encouraged to move along the spectrum of available approaches as they develop more sophisticated operational risk measurement systems and practices.

9.2.3 The New Capital Adequacy Framework provides that internationally active banks and banks with significant operational risk exposures (for example, specialised processing banks) are expected to use an approach that is more sophisticated than the Basic Indicator Approach and that is appropriate for the risk profile of the institution. However, to begin with, banks in India shall compute the capital requirements for operational risk under the Basic Indicator Approach. Reserve Bank will review the capital requirement produced by the Basic Indicator Approach for general credibility, especially in relation to a bank's peers and in the event that credibility is lacking, appropriate supervisory action under Pillar 2 will be considered.

9.3 The Basic Indicator Approach

9.3.1 Under the Basic Indicator Approach, banks must hold capital for operational risk equal to the average over the previous three years of a fixed percentage (denoted alpha) of positive annual gross income. Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average. If negative gross income distorts a bank's Pillar 1 capital charge, supervisors will consider appropriate supervisory action under Pillar 2. The charge may be expressed as follows:

$$\mathbf{KBIA = [\sum (GI_{1\ldots n} \times \alpha)]/n}$$

Where

KBIA = the capital charge under the Basic Indicator Approach

GI = annual gross income, where positive, over the previous three years

n = number of the previous three years for which gross income is positive

α = 15%, which is set by the BCBS , relating the industry wide level of required capital to the industry wide level of the indicator.

9.3.2 Gross income is defined as "Net interest income" plus "net non-interest income". It is intended that this measure should:

i) be gross of any provisions (e.g. for unpaid interest) and write-offs;

ii) be gross of operating expenses, including fees paid to outsourcing service providers, *in contrast to fees paid for services that are outsourced, fees received by banks that provide outsourcing services shall be included in the definition of gross income;*

iii) exclude reversal of provisions and write-offs;

iv) exclude income recognised from the disposal of items of movable and immovable property;

v) exclude realised profits/losses from the sale of securities in the *"held to maturity" category*;

vi) exclude income from legal settlements in favour of the bank;

vii) exclude other extraordinary or irregular items of income and expenditure; and

viii) exclude income derived from insurance activities and insurance claims in favour of the bank.

9.3.3 Banks are advised to compute capital charge for operational risk under the Basic Indicator Approach as follows:

- Average of [Gross Income * alpha] for each of the last three financial years, excluding years of negative or zero gross income
- Gross income = *Net profit (+) Provisions & contingencies* ***(+)*** *operating expenses (Schedule 16) (–) items (iii) to (viii) of paragraph 9.3.2.*
- Alpha = 15 per cent

9.3.4 As a point of entry for capital calculation, no specific criteria for use of the Basic Indicator Approach are set out in the New Capital Adequacy Framework. Nevertheless, banks using this approach are encouraged to comply with the Committee's guidance on *Sound Practices for the Management and Supervision of Operational Risk*, February 2003 and the Guidance Note on Management of Operational Risk issued by the Reserve Bank of India in October 2005.

10 Market Discipline

10.1 General

10.1.1 The purpose of Market discipline (detailed in Pillar 3) in the New Framework is to complement the minimum capital requirements (detailed under Pillar 1) and the supervisory review process (detailed under Pillar 2). The aim is to encourage market discipline by developing a set of disclosure requirements which will allow market participants to assess key pieces of information on the scope of application, capital, risk exposures, risk assessment processes, and hence the capital adequacy of the institution.

10.1.2 In principle, banks' disclosures should be consistent with how senior management and the Board of directors assess and manage the risks of the bank. Under Pillar 1, banks use specified approaches/ methodologies for measuring the various risks they face and the resulting capital requirements. It is believed that providing disclosures that are based on a common framework is an effective means of informing the market about a bank's exposure to those risks and provides a consistent and comprehensive disclosure framework that enhances comparability

10.2 Achieving appropriate disclosure

10.2.1 Market discipline can contribute to a safe and sound banking environment. Hence, non-compliance with the prescribed disclosure requirements would attract a penalty, including financial penalty. However, it is not intended that direct additional capital requirements would be a response to non-disclosure, except as indicated below.

10.2.2 In addition to the general intervention measures, the Framework also anticipates a role for specific measures. Where disclosure is a qualifying criterion under Pillar 1 to obtain lower risk weightings and/or to apply specific methodologies, there would be a direct sanction (not being allowed to apply the lower risk weighting or the specific methodology).

10.3 **Interaction with accounting disclosures**

10.3.1 It is recognised that the Pillar 3 disclosure framework does not conflict with requirements under accounting standards, which are broader in scope. The BCBS has taken considerable efforts to see that the narrower focus of Pillar 3, which is aimed at disclosure of bank capital adequacy, does not conflict with the broader accounting requirements. The Reserve Bank will consider future modifications to the Market Discipline disclosures as necessary in light of its ongoing monitoring of this area and industry developments.

10.4 **Scope and frequency of disclosures**

10.4.1 Banks, including consolidated banks, should provide all Pillar 3 disclosures, both qualitative and quantitative, as at end March each year along with the annual financial statements. Banks with capital funds of Rs.100 crore or more should make certain interim disclosures on quantitative aspects, on a stand alone basis, on their respective websites. Banks in this category that do not host a website are encouraged to make the necessary arrangements to host a website by March 31, 2007. Qualitative disclosures that provide a general summary of a bank’s risk management objectives and policies, reporting system and definitions may be published only on an annual basis. With a view to enhance the ease of access to the Pillar 3 disclosures, banks may make their annual disclosures both in their annual reports as well as their respective web sites.

10.4.2 In recognition of the increased risk sensitivity of the Framework and the general trend towards more frequent reporting in capital markets, all banks with

capital funds of Rs. 500 crore or more, and their significant bank subsidiaries, must disclose their Tier 1 capital, total capital, total required capital and Tier 1 ratio and total capital adequacy ratio, on a quarterly basis.

10.5 **Validation**

The disclosures in this manner should be subjected to adequate validation. For example, since information in the annual financial statements would generally be audited, the additional material published with such statements must be consistent with the audited statements. In addition, supplementary material (such as Management's Discussion and Analysis) that is published should also be subjected to sufficient scrutiny (e.g. internal control assessments, etc.) to satisfy the validation issue. If material is not published under a validation regime, for instance in a stand alone report or as a section on a website, then management should ensure that appropriate verification of the information takes place, in accordance with the general disclosure principle set out below. In the light of the above, Pillar 3 disclosures will not be required to be audited by an external auditor, unless specified.

10.6 **Materiality**

A bank should decide which disclosures are relevant for it based on the materiality concept. Information would be regarded as material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information for the purpose of making economic decisions. This definition is consistent with International Accounting Standards and with the national accounting framework. The Reserve Bank recognises the need for a qualitative judgment of whether, in light of the particular circumstances, a user of financial information would consider the item to be material (user test). The Reserve Bank does not consider it necessary to set specific thresholds for disclosure as the user test is a useful benchmark for achieving sufficient disclosure. However, with a view to facilitate smooth transition to greater disclosures as well as to promote greater comparability among the banks' Pillar 3 disclosures, the materiality thresholds have been prescribed for certain limited disclosures.

Notwithstanding the above, banks are encouraged to apply the user test to these specific disclosures and where considered necessary make disclosures below the specified thresholds also.

10.7 Proprietary and confidential information

Proprietary information encompasses information (for example on products or systems), that if shared with competitors would render a bank's investment in these products/systems less valuable, and hence would undermine its competitive position. Information about customers is often confidential, in that it is provided under the terms of a legal agreement or counterparty relationship. This has an impact on what banks should reveal in terms of information about their customer base, as well as details on their internal arrangements, for instance methodologies used, parameter estimates, data etc. The Reserve Bank believes that the requirements set out below strike an appropriate balance between the need for meaningful disclosure and the protection of proprietary and confidential information.

10.8 General disclosure principle

Banks should have a formal disclosure policy approved by the Board of directors that addresses the bank's approach for determining what disclosures it will make and the internal controls over the disclosure process. In addition, banks should implement a process for assessing the appropriateness of their disclosures, including validation and frequency.

10.9 Scope of application

Pillar 3 applies at the top consolidated level of the banking group to which the Framework applies (as indicated above under paragraph 3 Scope of Application). Disclosures related to individual banks within the groups would not generally be required to be made by the parent bank. An exception to this arises in the disclosure of Total and Tier 1 Capital Ratios by the top consolidated entity where an analysis of significant bank subsidiaries within the group is appropriate, in order to recognise the need

for these subsidiaries to comply with the Framework and other applicable limitations on the transfer of funds or capital within the group. Pillar 3 disclosures will be required to be made by the individual banks on a standalone basis when they are not the top consolidated entity in the banking group.

10.10 Effective date of disclosures

The first of the disclosures as per these guidelines shall be made as on the effective date viz. March 31, 2008 or 2009, as the case may be. Banks are, however, encouraged to make the Pillar 3 disclosures at an earlier date.

10.11 The disclosure requirements

The following sections set out in tabular form the disclosure requirements under Pillar 3. Additional definitions and explanations are provided in a series of footnotes.

Table DF-1

Scope of application

Qualitative Disclosures (a) The name of the top bank in the group to which the Framework applies. (b) An outline of differences in the basis of consolidation for accounting and regulatory purposes, with a brief description of the entities [16] within the group (i) that are fully consolidated;[17] (ii) that are pro-rata consolidated;[18] (iii) that are given a deduction treatment; and (iv) that are neither consolidated nor deducted (e.g. where the investment is risk-weighted).
Quantitative Disclosures (c) The aggregate amount of capital deficiencies[19] in all subsidiaries not included in the consolidation i.e. that are deducted and the name(s) of such subsidiaries. (d) The aggregate amounts (e.g. current book value) of the bank's total interests in insurance entities, which are risk-weighted [20] as well as their name, their country of incorporation or residence, the proportion of ownership interest and, if different, the proportion of voting power in these entities. In addition, indicate the quantitative impact on regulatory capital of using this method versus using the deduction or alternate group-wide method.

Table DF-2

Capital structure

Qualitative Disclosures
(a) Summary information on the terms and conditions of the main features of all capital instruments, especially in the case of capital instruments eligible for inclusion in Tier 1 or in Upper Tier 2.
Quantitative Disclosures
(b) The amount of Tier 1 capital, with separate disclosure of: • paid-up share capital; • reserves; • innovative instruments; [21] • other capital instruments; • other amounts deducted from Tier 1 capital, including goodwill and investments. (c) The total amount of Tier 2 and Tier 3[22] capital (net of deductions from Tier 2 capital). (d) Debt capital instruments eligible for inclusion in Upper Tier 2 capital • Total amount outstanding • Of which amount raised during the current year • Amount eligible to be reckoned as capital funds (e) Subordinated debt eligible for inclusion in Lower Tier 2 capital • Total amount outstanding • Of which amount raised during the current year • Amount eligible to be reckoned as capital funds (f) Other deductions from capital, if any. (g) Total eligible capital.

Table DF-3

Capital Adequacy

Qualitative disclosures
(a) A summary discussion of the bank's approach to assessing the adequacy of its capital to support current and future activities.
Quantitative disclosures
(b) Capital requirements for credit risk: • Portfolios subject to standardised approach • Securitisation exposures.
(c) Capital requirements for market risk: • Standardised duration approach; - Interest rate risk - Foreign exchange risk (including gold) - Equity risk
(d) Capital requirements for operational risk: • Basic indicator approach;
(e) Total and Tier 1 capital ratio: • For the top consolidated group; and • For significant bank subsidiaries (stand alone or sub-consolidated depending on how the Framework is applied).

10.12 **Risk exposure and assessment**

The risks to which banks are exposed and the techniques that banks use to identify, measure, monitor and control those risks are important factors market participants consider in their assessment of an institution. In this section, several key banking risks are considered: credit risk, market risk, and interest rate risk in the banking book and operational risk. Also included in this section are disclosures relating to credit risk mitigation and

asset securitisation, both of which alter the risk profile of the institution. Where applicable, separate disclosures are set out for banks using different approaches to the assessment of regulatory capital.

10.13 ***General qualitative disclosure requirement***

For each separate risk area (e.g. credit, market, operational, banking book interest rate risk) banks must describe their risk management objectives and policies, including:

(i) strategies and processes;

(ii) the structure and organisation of the relevant risk management function;

(iii) the scope and nature of risk reporting and/or measurement systems;

(iv) policies for hedging and/or mitigating risk and strategies and processes for monitoring the continuing effectiveness of hedges/mitigants.

Credit risk

General disclosures of credit risk provide market participants with a range of information about overall credit exposure and need not necessarily be based on information prepared for regulatory purposes. Disclosures on the capital assessment techniques give information on the specific nature of the exposures, the means of capital assessment and data to assess the reliability of the information disclosed.

Table DF-4

Credit risk : general disclosures for all banks

Qualitative Disclosures

(a) The general qualitative disclosure requirement (paragraph 10.13) with respect to credit risk, including:

- Definitions of past due and impaired (for accounting purposes);
- Discussion of the bank's credit risk management policy;

Quantitative Disclosures

(b) Total gross credit risk exposures[23], Fund based and Non-fund based separately.

(c) Geographic distribution of exposures[24], Fund based and Non-fund based separately

- Overseas
- Domestic

(d) Industry[25] type distribution of exposures, fund based and non-fund based separately

(e) Residual contractual maturity breakdown of assets,[26]

(g) Amount of NPAs (Gross)

- Substandard
- Doubtful 1
- Doubtful 2
- Doubtful 3
- Loss

(h) Net NPAs

(i) NPA Ratios

- Gross NPAs to gross advances
- Net NPAs to net advances

(j) Movement of NPAs (Gross)

- Opening balance
- Additions
- Reductions
- Closing balance

(k) Movement of provisions for NPAs

- Opening balance
- Provisions made during the period

- Write-off
- Write-back of excess provisions
- Closing balance

(l) Amount of Non-Performing Investments

(m) Movement of provisions for depreciation on investments

- Opening balance
- Provisions made during the period
- Write-off
- Write-back of excess provisions
- Closing balance

Table DF-5

Credit risk: disclosures for portfolios subject to the standardised approach

Qualitative Disclosures (a) For portfolios under the standardised approach: • Names of credit rating agencies used, plus reasons for any changes; • Types of exposure for which each agency is used; and • A description of the process used to transfer public issue ratings onto comparable assets in the banking book;
Quantitative Disclosures (b) For exposure[27] amounts after risk mitigation subject to the standardised approach, amount of a bank's outstandings (rated and unrated) in the following three major risk buckets as well as those that are deducted; • Below 100 % risk weight • 100 % risk weight • More than 100 % risk weight • Deducted

Table DF-6

Credit risk mitigation: disclosures for standardised approaches [28]

Qualitative Disclosures*
(a) The general qualitative disclosure requirement (paragraph 10.13) with respect to credit risk mitigation including: • policies and processes for collateral valuation and management; • a description of the main types of collateral taken by the bank; • the main types of guarantor counterparty and their ceditworthiness; and • information about (market or credit) risk concentrations within the mitigation taken
Quantitative Disclosures*
(b) For disclosed credit risk portfolio under the standardised approach, the total exposure[29] that is covered by: • eligible financial collateral; and • other eligible collateral; after the application of haircuts.[30]

Table DF-7

Securitisation: disclosure for standardised approach

Qualitative Disclosures*
(a) The general qualitative disclosure requirement (paragraph 10.13) with respect to securitisation, including a discussion of: • the bank's objectives in relation to securitisation activity, including the extent to which these activities transfer credit risk of the underlying securitised exposures away from the bank to other entities; • the roles played by the bank in the securitisation process[31] and an indication of the extent of the bank's involvement in each of them; and • the regulatory capital approach that the bank follows for its securitisation activities.
(b) Summary of the bank's accounting policies for securitisation activities, including: • whether the transactions are treated as sales or financings; • recognition of gain on sale; and • key assumptions for valuing retained interests, including any significant changes since the last reporting period and the impact of such changes;

(c) Names of ECAIs used for securitisations and the types of securitisation exposure for which each agency is used.
Quantitative Disclosures*   (d) The total outstanding exposures securitised by the bank and subject to the securitisation framework by exposure type.[32,33,4]   (e) For exposures securitised by the bank and subject to the securitisation framework:[34]   • amount of impaired/past due assets securitised; and   • losses recognised by the bank during the current period[35] broken down by exposure type.   (f) Aggregate amount of securitisation exposures retained or purchased[36] broken down by exposure type.[2]   (g) Aggregate amount of securitisation exposures retained or purchased[6] broken down into a meaningful number of risk weight bands. Exposures that have been deducted entirely from Tier 1 capital, credit enhancing I/Os deducted from Total Capital, and other exposures deducted from total capital should be disclosed separately by type of underlying exposure type[2].   (h) Summary of securitisation activity presenting a comparative position for two years, as a part of the Notes on Accounts to the balance sheet: • **total number and book value of loan assets securitised – by type of underlying assets;**   • **sale consideration received for the securitised assets and gain/loss on sale on account of securitisation; and**   • form and quantum (outstanding value) of services provided by way of credit enhancement, liquidity support, post-securitisation asset servicing, etc.

Table DF-8

Market risk in trading book

Qualitative disclosures   (a) The general qualitative disclosure requirement (paragraph 10.13) for market risk including the portfolios covered by the standardised approach.
Quantitative disclosures   (b) The capital requirements for: • interest rate risk;   • equity position risk;   • foreign exchange risk; and

Table DF-9

Operational risk

Qualitative disclosures
• In addition to the general qualitative disclosure requirement (paragraph 10.13), the approach(es) for operational risk capital assessment for which the bank qualifies.

Table DF-10

Interest rate risk in the banking book (IRRBB)

Qualitative Disclosures*
(a) The general qualitative disclosure requirement (paragraph 10.13), including the nature of IRRBB and key assumptions, including assumptions regarding loan prepayments and behaviour of non-maturity deposits, and frequency of IRRBB measurement.
Quantitative Disclosures*
(b) The increase (decline) in earnings and economic value (or relevant measure used by management) for upward and downward rate shocks according to management's method for measuring IRRBB, broken down by currency (where the turnover is more than 5 per cent of the total turnover).

ANNEX 1

Terms and conditions applicable to Innovative Perpetual Debt Instruments for inclusion as Tier 1 capital

(Vide paragraph 4.2.1(iii))

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 1 Capital for capital adequacy purposes.

1. Terms of Issue of innovative instruments in Indian Rupees

i) Amount

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

ii) Limits

The total amount raised by a bank through innovative instruments shall not exceed 15 per cent of total Tier 1 capital. The eligible amount will be computed with reference to the amount of Tier 1 capital as on March 31 of the previous financial year, after deduction of goodwill, DTA and other intangible assets but before the deduction of investments, as required in paragraph 4.4. Innovative instruments in excess of the above limits shall be eligible for inclusion under Tier 2, subject to limits prescribed for Tier 2 capital. However, investors' rights and obligations would remain unchanged.

iii) Maturity period

The innovative instruments shall be perpetual.

iv) 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.

v) 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 may 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 exercise of the call option.

vi) 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.

vii) 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

1. the bank's CRAR is below the minimum regulatory requirement prescribed by RBI; OR

2. the impact of such payment results in bank's capital to risk assets ratio (CRAR) falling below or remaining below the minimum regulatory requirement prescribed by Reserve Bank of India;

(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.

(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.

viii) 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.

ix) Discount

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

x) Other conditions

a) Innovative instruments should be fully paid-up, unsecured, and free of any restrictive clauses.

b) Investment by FIIs in innovative instruments 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. 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) Banks should comply with the terms and conditions, if any, stipulated by SEBI / other regulatory authorities in regard to issue of the instruments.

2. Terms of issue of innovative instruments in foreign currency

Banks may augment their capital funds through the issue of innovative instruments in foreign currency without seeking the prior approval of the Reserve Bank of India, subject to compliance with the undermentioned requirements:

i) Innovative instruments issued in foreign currency should comply with all terms and conditions as applicable to the instruments issued in Indian Rupees.

ii) Not more than 49% of the eligible amount can be issued in foreign currency.

iii) Innovative instruments issued in foreign currency shall be outside the limits for foreign currency borrowings indicated below:

- 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 1 capital as on March 31 of the previous financial year, after deduction of goodwill and other intangible assets but before the deduction of investments.
- 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.

3. Compliance with Reserve Requirements

The total amount raised by a bank through innovative instruments 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.

4. 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.

5. Investment in innovative instruments issued by other banks/ FIs

i) 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.

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

6. Grant of advances against innovative instruments

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

7. Raising of innovative Instruments for inclusion as Tier 1 capital by foreign banks in India

Foreign banks in India may raise Head Office (HO) borrowings in foreign currency for inclusion as Tier 1 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 1 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 1 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 1 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 1 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 1 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.

ANNEX 2

Terms and conditions applicable to Debt capital Instruments to qualify for inclusion as Upper Tier 2 Capital

(Vide paragraph 4.3.3)

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 2 Capital for capital adequacy purposes.

1. Terms of Issue of Upper Tier 2 Capital instruments in Indian Rupees

i) Amount

The amount of Upper Tier 2 instruments to be raised may be decided by the Board of Directors of banks.

ii) Limits

Upper Tier 2 instruments along with other components of Tier 2 capital shall not exceed 100% of Tier 1 capital. The above limit will be based on the amount of Tier 1 capital after deduction of goodwill, DTA and other intangible assets but before the deduction of investments, as required in paragraph 4.4.

iii) Maturity period

The Upper Tier 2 instruments should have a minimum maturity of 15 years.

iv) 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.

v) Options

Upper Tier 2 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 may be exercised only if the instrument has run for at least ten years;

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 exercise of the call option.

vi) 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.

vii) Lock-In Clause

a) Upper Tier 2 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

1. the bank's CRAR is below the minimum regulatory requirement prescribed by RBI OR

2. the impact of such payment results in bank's capital to risk assets ratio (CRAR) falling below or remaining below the minimum regulatory requirement prescribed by Reserve Bank of India.

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.

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.

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.

viii) Seniority of claim

The claims of the investors in Upper Tier 2 instruments shall be

a) Superior to the claims of investors in instruments eligible for inclusion in Tier 1 capital; and

b) Subordinate to the claims of all other creditors.

ix) Discount

The Upper Tier 2 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 2 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

x) Redemption

Upper Tier 2 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).

xi) Other conditions

i. Upper Tier 2 instruments should be fully paid-up, unsecured, and free of any restrictive clauses.

ii. Investment by FIIs in Upper Tier 2 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 FIIs in these instruments will be subject to a separate ceiling of USD 500 million. 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. Terms of issue of Upper Tier 2 capital instruments in foreign currency

Banks may augment their capital funds through the issue of Upper Tier 2 Instruments in foreign currency without seeking the prior approval of the Reserve Bank of India, subject to compliance with the undermentioned requirements:

i) Upper Tier 2 Instruments issued in foreign currency should comply with all terms and conditions applicable to instruments issued in Indian Rupees.

ii) The total amount of Upper Tier 2 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 1 capital as on March 31 of the previous financial year, after deduction of goodwill and other intangible assets but before the deduction of investments.

iii) 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.

3. 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 2 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 2 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.

4. Reporting Requirements

Banks issuing Upper Tier 2 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.

5. Investment in Upper Tier 2 instruments issued by other banks/ FIs

i) A bank's investment in Upper Tier 2 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.

ii) Bank's investments in Upper Tier 2 instruments issued by other banks/ financial institutions will attract a 100% risk weight for capital adequacy purposes.

6. Grant of advances against Upper Tier 2 instruments

Banks should not grant advances against the security of the Upper Tier 2 instruments issued by them.

7. Raising of Upper Tier 2 Instruments by foreign banks in India

Foreign banks in India may raise Head Office (HO) borrowings in foreign currency for inclusion as Upper Tier 2 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 2 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 2 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 2 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 2 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 2 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 2 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.

ANNEX 3

Issue of subordinated debt for raising Lower Tier 2 capital
(Vide paragraph 4.3.4)

The Reserve Bank has given autonomy to Indian banks to raise rupee subordinated debt as Tier 2 capital, subject to strict compliance with the following terms and conditions. Foreign banks have also been given autonomy for raising subordinated debt in foreign currency through borrowings from Head Office for inclusion in Tier 2 capital, subject to strict compliance with the terms and conditions given in Part 2 of this *Annex.*

PART 1 – Issue of Rupee denominated subordinated debt by Indian banks, which is eligible for inclusion in lower Tier 2 capital

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 banks.

(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 1st January to 31st March, they should have a minimum tenure of sixty three months.

(iii) 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.The instruments should be 'vanila' with no special features like options etc.

(iv) Other conditions

- 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.
- Necessary permission from Foreign Exchange Department should be obtained for issuing the instruments to NRIs/OCBs/FIIs.
- Banks should comply with the terms and conditions, if any, set by SEBI/other regulatory authorities in regard to issue of the instruments.

d) 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 2 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 2 capital, should not exceed 100% of Tier 1 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 2 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

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.

Part 2 - Raising of Head Office borrowings in foreign currency by foreign banks operating in India for inclusion in Tier 2 capital

Detailed guidelines on the standard requirements and conditions for Head Office borrowings in foreign currency raised by foreign banks operating in India for inclusion , as subordinated debt in Tier 2 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 2 capital as subordinated debt will be subject to a maximum ceiling of 50% of the Tier 1 capital maintained in India, and the applicable discount rate mentioned in para 5 below. Further as per extant instructions, the total of Tier 2 capital should not exceed 100% of Tier 1 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 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 2 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 2 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 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 entire 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 Reserve Bank of India. 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), Reserve Bank of India, Mumbai.

Annex 4

Illustrations on Credit risk mitigation

(Vide paragraph 7.3.6)

$$E^* = Max \{0, [E \times (1 + H_e) – C \times (1- H_c-H_{fx})] \}$$

Where,

E^*	=	Exposure value after risk mitigation
E	=	Current value of the exposure
H_e	=	Haircut appropriate to the exposure
C	=	Current value of the collateral received
H_C	=	Haircut appropriate to the collateral
H_{FX}	=	Haircut appropriate for currency mismatch between the collateral and exposure

	Case 1	Case 2	Case 3	Case 4	Case 5	Case 6	Case 7*
Exposure	100	100	100	100	100	100	100
Maturity of Exposure (Yrs)	2	3	6	2	3	3	3
Nature of exposure	Corporate	Corporate	Corporate	Corporate	Corporate	Corporate	Corporate
Currency	INR	INR	USD	INR	INR	INR	INR
Rating of exposure	BB	A	BBB	Unrated	AAA	B-	B-
Haircut for exposure	0.15	0.06	0.12	0.25	0.04	0.25	0.25
Collateral	100	100	100	100	125	100	100
Maturity of collateral (Yrs)	2	3	6		3	3	0.5
Nature of collateral	Sovereign	Bank Bonds	Corporate Bonds	Equity - outside main index	Equity - in main index	Corporate Bonds	Corporate Bonds
Currency	INR	INR	INR	INR	INR	INR	INR
Rating of collateral	A	Unrated	AA			AAA	BBB
Haircut for collateral	0.03	0.06	0.08	0.25	0.12	0.04	0.06
Haircut for currency mismatch			0.08				
Exposure after haircut	115	106	112	125	104	125	
Collateral after haircut	97	94	84	75	110	96	
Net Exposure	18	12	28	50	0	29	100
Risk weight	150	50	100	100	20	150	150
RWA	27	6	28	50	0	43.5	150
CASE 4, 6 and 7 : The haircut for the exposure is the highest as applicable to other equities							
CASE 5 : As value of the collateral is higher than the exposure after haircuts, the exposure is zero.							
CASE 7 : Ineligible for CRM since the maturity of the collateral is less than one year and rating is below A-.							

Annex 5

Measurement of capital charge for market risks in respect of interest rate derivatives and options

(Vide paragraph 8.3.9)

A. 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 in B.1 below. A summary of the rules for dealing with interest rate derivatives is set out in the Table at the end of this section.

1. 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.

(a) Futures and forward contracts, including forward rate agreements

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.

(b) 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 repricing 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.

2. Calculation of capital charges for derivatives under the standardised methodology

(a) 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 12 in Section B.

(b) Specific risk

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.

(c) 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

Instrument	Specific risk charge	General Market risk charge
Exchange-traded future		
- Government debt security	No	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
- Index on interest rates (e.g. MIBOR)	No	Yes, as two positions
OTC forward		
- Government debt security	No	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
- Index on interest rates (e.g. MIBOR)	No	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	No	
- Corporate debt security	Yes	
- Index on interest rates (e.g. MIBOR)	No	
- FRAs, Swaps	No	

B. Treatment of Options

1. 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[37] will be free to use the simplified approach described in Section I below;
- those banks which also write options will be expected to use one of the intermediate approaches as set out in Section II below.

2. 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 B to D. 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 Section B to D 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. 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 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 B and Section C.

I. Simplified approach

3. Banks which handle a limited range of purchased options only will be free to use the simplified approach set out in Table A 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 A

Simplified approach: capital charges

Position	Treatment
Long cash and Long put Or Short cash and Long call	The capital charge will be the market value of the underlying security[38] multiplied by the sum of specific and general market risk charges[39] for the underlying less the amount the option is in the money (if any) bounded at zero[40]
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[3] for the underlying (ii) the market value of the option[41]

II. Intermediate approaches

(a) Delta-plus method

4. Banks which write options will be allowed to include delta-weighted options positions within the standardised methodology set out in Section B - D. 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[42].

5. 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 12 of Section B, 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[43]. 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:

(i) a debt security that reprices in six months; and

(ii) 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[44].

6. 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 C. For purposes of this calculation each national market is to 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 D. 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.

7. 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:

(i) for ***each individual option*** a "gamma impact" should be calculated according to a Taylor series expansion as:

Gamma impact = ½ x Gamma x VU^2

where VU = Variation of the underlying of the option.

(ii) 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%[45];
- for foreign exchange and gold options: the market value of the underlying should be multiplied by 9%;

(iii) For the purpose of this calculation the following positions should be treated as ***the same underlyin*g**:

- for interest rates,[46] each time-band as set out in Table 12 of Section B;[47]
- for equities and stock indices, each national market;
- for foreign currencies and gold, each currency pair and gold;

(iv) 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.

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

(vi) 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 ±25%.

(vii) 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.

(b) Scenario approach

8. 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 analysi*s. 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 paragraph 7 above. 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 B should be combined into any one set.

9. 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 Table 12 of Section B. Those banks using the alternative method for interest rate options set out in paragraph 8 above 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.[48] The other ranges are ±9 % for equities and ±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.

10. 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.

11. 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.

12. 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.

13. 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 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.