

## **Master Circular on Basel III Capital Regulations**

### **Part A: Guidelines on Minimum Capital Requirement**

#### **1. Introduction**

**1.1** Basel III reforms are the response of Basel Committee on Banking Supervision (BCBS) to improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, thus reducing the risk of spill over from the financial sector to the real economy. During Pittsburgh summit in September 2009, the G20 leaders committed to strengthen the regulatory system for banks and other financial firms and also act together to raise capital standards, to implement strong international compensation standards aimed at ending practices that lead to excessive risk-taking, to improve the over-the-counter derivatives market and to create more powerful tools to hold large global firms to account for the risks they take. For all these reforms, the leaders set for themselves strict and precise timetables. Consequently, the Basel Committee on Banking Supervision (BCBS) released comprehensive reform package entitled "*Basel III: A global regulatory framework for more resilient banks and banking systems*" (known as Basel III capital regulations) in December 2010.

**1.2** Basel III reforms strengthen the bank-level i.e. micro prudential regulation, with the intention to raise the resilience of individual banking institutions in periods of stress. Besides, the reforms have a macro prudential focus also, addressing system wide risks, which can build up across the banking sector, as well as the procyclical amplification of these risks over time. These new global regulatory and supervisory standards mainly seek to raise the quality and level of capital to ensure banks are better able to absorb losses on both a going concern and a gone concern basis, increase the risk coverage of the capital framework, introduce leverage ratio to serve as a backstop to the risk-based capital measure, raise the standards for the supervisory review process (Pillar 2) and public disclosures (Pillar 3) etc. The macro prudential aspects of Basel III are largely enshrined in the capital buffers. Both the buffers i.e. the capital conservation buffer and the countercyclical buffer are intended to protect the banking sector from periods of excess credit growth.

**1.3** Reserve Bank issued Guidelines based on the Basel III reforms on capital regulation on May 2, 2012, to the extent applicable to banks operating in India. The Basel III capital regulation has been implemented from April 1, 2013 in India in phases and it will be fully implemented as on March 31, 2019.

**1.4** Further, on a review, the parallel run and prudential floor for implementation of Basel II vis-à-vis Basel I have been discontinued<sup>1</sup>.

#### **2. Approach to Implementation and Effective Date**

**2.1** The Basel III capital regulations continue to be based on three-mutually reinforcing Pillars, viz. minimum capital requirements, supervisory review of capital adequacy, and market discipline of the Basel II capital adequacy framework<sup>2</sup>. Under Pillar 1, the Basel III framework will continue to offer the three distinct options for computing capital requirement for credit risk and three other options for computing capital requirement for operational risk, *albeit* with certain modifications / enhancements. 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 (BIA), The Standardised

<sup>1</sup> Please refer to the [circular DBOD.BP.BC.No.95/21.06.001/2012-13 dated May 27, 2013](#) on Prudential Guidelines on Capital Adequacy and Market Discipline New Capital Adequacy Framework (NCAF) - Parallel Run and Prudential Floor.

<sup>2</sup> For reference, please refer to the Master Circular on Prudential Guidelines on Capital Adequacy and Market Discipline - New Capital Adequacy Framework (NCAF) issued vide [circular DBOD.No.BP.BC.4/21.06.001/2015-16 dated July 1, 2015](#) .

Approach (TSA) and Advanced Measurement Approach (AMA).

**2.2** Keeping in view the Reserve Bank's goal to have consistency and harmony with international standards, it was decided in 2007 that all commercial banks in India (excluding Local Area Banks and Regional Rural Banks) should adopt Standardised Approach for credit risk, Basic Indicator Approach for operational risk by March 2009 and banks should continue to apply the Standardised Duration Approach (SDA) for computing capital requirement for market risks.

**2.3** Having regard to the necessary upgradation of risk management framework as also capital efficiency likely to accrue to the banks by adoption of the advanced approaches, the following time schedule was laid down for implementation of the advanced approaches for the regulatory capital measurement in July 2009:

S.No.	Approach	The earliest date of making application by banks to the RBI	Likely date of approval by the RBI
a.	Internal Models Approach (IMA) for Market Risk	April 1, 2010	March 31, 2011
b.	The Standardised Approach (TSA) for Operational Risk	April 1, 2010	September 30, 2010
c.	Advanced Measurement Approach (AMA) for Operational Risk	April 1, 2012	March 31, 2014
d.	Internal Ratings-Based (IRB) Approaches for Credit Risk (Foundation- as well as Advanced IRB)	April 1, 2012	March 31, 2014

**2.4** Accordingly, banks were advised to undertake an internal assessment of their preparedness for migration to advanced approaches and take a decision with the approval of their Boards, whether they would like to migrate to any of the advanced approaches. Based on bank's internal assessment and its preparation, a bank may choose a suitable date to apply for implementation of advanced approach. Besides, banks, at their discretion, would have the option of adopting the advanced approaches for one or more of the risk categories, as per their preparedness, while continuing with the simpler approaches for other risk categories, and it would not be necessary to adopt the advanced approaches for all the risk categories simultaneously. However, banks should invariably obtain prior approval of the RBI for adopting any of the advanced approaches.

**2.5 Effective Date:** The Basel III capital regulations are being implemented in India with effect from April 1, 2013. Banks have to comply with the regulatory limits and minima as prescribed under Basel III capital regulations, on an ongoing basis. To ensure smooth transition to Basel III, appropriate transitional arrangements have been provided for meeting the minimum Basel III capital ratios, full regulatory adjustments to the components of capital etc. Consequently, Basel III capital regulations would be fully implemented as on March 31, 2019. In view of the gradual phase-in of regulatory adjustments to the Common Equity component of Tier 1 capital under Basel III, certain specific prescriptions of Basel II capital adequacy framework (e.g. rules relating to deductions from regulatory capital, risk weighting of investments in other financial entities etc.) will also continue to apply till March 31, 2017 on the remainder of regulatory adjustments not treated in terms of Basel III rules (refer to paragraph 4.5.2).

### **3. Scope of Application of Capital Adequacy Framework**

**3.1** A bank shall comply with the capital adequacy ratio requirements at two levels:

- (a) the consolidated ("Group") level<sup>3</sup> capital adequacy ratio requirements, which

<sup>3</sup> 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

measure the capital adequacy of a bank based on its capital strength and risk profile after consolidating the assets and liabilities of its subsidiaries / joint ventures / associates etc. except those engaged in insurance and any non-financial activities; and

(b) the standalone (“Solo”) level capital adequacy ratio requirements, which measure the capital adequacy of a bank based on its standalone capital strength and risk profile.

Accordingly, overseas operations of a bank through its branches will be covered in both the above scenarios.

**3.2** For the purpose of these guidelines, the subsidiary is an enterprise that is controlled by another enterprise (known as the parent). Banks will follow the definition of ‘control’ as given in the applicable accounting standards.

### **3.3 Capital Adequacy at Group / Consolidated Level**

3.3.1 All banking and other financial subsidiaries except subsidiaries engaged in insurance and any non-financial activities (both regulated and unregulated) should be fully consolidated for the purpose of capital adequacy. This would ensure assessment of capital adequacy at the group level, taking into account the risk profile of assets and liabilities of the consolidated subsidiaries.

3.3.2 The insurance and non-financial subsidiaries / joint ventures / associates etc. of a bank **should not** be consolidated for the purpose of capital adequacy. The equity and other regulatory capital investments in the insurance and non-financial subsidiaries will be deducted from consolidated regulatory capital of the group. Equity and other regulatory capital investments in the unconsolidated insurance and non-financial entities of banks (which also include joint ventures / associates of the parent bank) will be treated in terms of paragraphs 4.4.9 and 5.13.6 respectively.

3.3.3 All regulatory adjustments indicated in paragraph 4.4 are required to be made to the consolidated Common Equity Tier 1 capital of the banking group as indicated therein.

3.3.4 Minority interest (i.e. non-controlling interest) and other capital issued out of consolidated subsidiaries as per paragraph 3.3.1 that is held by third parties will be recognized in the consolidated regulatory capital of the group subject to certain conditions as stipulated in paragraph 4.3.

3.3.5 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 unconsolidated entity, the shortfall shall be fully deducted from the Common Equity Tier 1 capital.

### **3.4 Capital Adequacy at Solo Level**

3.4.1 While assessing the capital adequacy of a bank at solo level, all regulatory adjustments indicated in paragraph 4.4 are required to be made. In addition, investments in the capital instruments of the subsidiaries, which are consolidated in the consolidated financial statements of the group, will also have to be deducted from the corresponding capital instruments issued by the bank.

3.4.2 In case of any shortfall in the regulatory capital requirements in the unconsolidated entity (e.g. insurance subsidiary), the shortfall shall be fully deducted from the Common Equity Tier 1 capital.

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services. A consolidated bank should maintain a minimum Capital to Risk-weighted Assets Ratio (CRAR) as applicable to a bank on an ongoing basis. Please also refer to [circular DBOD.No.FSD.BC.46/24.01.028/2006-07 dated December 12, 2006](#).

## 4. Composition of Regulatory Capital

### 4.1 General

Banks are required to maintain a minimum Pillar 1 Capital to Risk-weighted Assets Ratio (CRAR) of 9% on an on-going basis (other than capital conservation buffer and countercyclical capital buffer etc.). 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, banks are expected to operate at a level well above the minimum requirement. A bank should compute Basel III capital ratios in the following manner:

$$\text{Common Equity Tier 1 capital ratio} = \frac{\text{Common Equity Tier 1 Capital}}{\text{Credit Risk RWA}^* + \text{Market Risk RWA} + \text{Operational Risk RWA}}$$

$$\text{Tier 1 capital ratio} = \frac{\text{Eligible Tier 1 Capital}}{\text{Credit Risk RWA}^* + \text{Market Risk RWA} + \text{Operational Risk RWA}}$$

$$\text{Total Capital (CRAR\#)} = \frac{\text{Eligible Total Capital}}{\text{Credit Risk RWA} + \text{Market Risk RWA} + \text{Operational Risk RWA}}$$

\* RWA = Risk weighted Assets;

# Capital to Risk Weighted Asset Ratio

### 4.2 Elements of Regulatory Capital and the Criteria for their Inclusion in the Definition of Regulatory Capital

#### 4.2.1 Components of Capital

Total regulatory capital will consist of the sum of the following categories:

- (i) Tier 1 Capital (going-concern capital<sup>4</sup>)
  - (a) Common Equity Tier 1
  - (b) Additional Tier 1
- (ii) Tier 2 Capital (gone-concern capital)

#### 4.2.2 Limits and Minima

(i) As a matter of prudence, it has been decided that scheduled commercial banks (excluding LABs and RRBs) operating in India shall maintain a minimum total capital (MTC) of 9% of total risk weighted assets (RWAs) i.e. capital to risk weighted assets (CRAR). This will be further divided into different components as described under paragraphs 4.2.2(ii) to 4.2.2(viii).

(ii) Common Equity Tier 1 (CET1) capital must be at least 5.5% of risk-weighted assets (RWAs) i.e. for credit risk + market risk + operational risk on an ongoing basis.

(iii) Tier 1 capital must be at least 7% of RWAs on an ongoing basis. Thus, within the minimum Tier 1 capital, Additional Tier 1 capital can be admitted maximum at 1.5% of RWAs.

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<sup>4</sup> From regulatory capital perspective, going-concern capital is the capital which can absorb losses without triggering bankruptcy of the bank. Gone-concern capital is the capital which will absorb losses only in a situation of liquidation of the bank.

(iv) Total Capital (Tier 1 Capital plus Tier 2 Capital) must be at least 9% of RWAs on an ongoing basis. Thus, within the minimum CRAR of 9%, Tier 2 capital can be admitted maximum up to 2%.

(v) If a bank has complied with the minimum Common Equity Tier 1 and Tier 1 capital ratios, then the excess Additional Tier 1 capital can be admitted for compliance with the minimum CRAR of 9% of RWAs.

(vi) In addition to the minimum Common Equity Tier 1 capital of 5.5% of RWAs, banks are also required to maintain a capital conservation buffer (CCB) of 2.5% of RWAs in the form of Common Equity Tier 1 capital. Details of operational aspects of CCB have been furnished in **paragraph 15**. Thus, with full implementation of capital ratios<sup>5</sup> and CCB the capital requirements are summarised as follows:

	<b>Regulatory Capital</b>	<b>As % to RWAs</b>
(i)	Minimum Common Equity Tier 1 Ratio	5.5
(ii)	Capital Conservation Buffer (comprised of Common Equity)	2.5
(iii)	Minimum Common Equity Tier 1 Ratio plus Capital Conservation Buffer [(i)+(ii)]	8.0
(iv)	Additional Tier 1 Capital	1.5
(v)	Minimum Tier 1 Capital Ratio [(i) +(iv)]	7.0
(vi)	Tier 2 Capital	2.0
(vii)	Minimum Total Capital Ratio (MTC) [(v)+(vi)]	9.0
(viii)	Minimum Total Capital Ratio plus Capital Conservation Buffer [(vii)+(ii)]	11.5

(vii) For the purpose of all prudential exposure limits linked to capital funds, the 'capital funds'<sup>6</sup> will be defined as the sum of all eligible Common Equity Tier 1 capital, Additional Tier 1 capital and Tier 2 capital, net of regulatory adjustments and deductions.

#### 4.2.3 Common Equity Tier 1 Capital

##### 4.2.3.1 Common Equity – Indian Banks

###### A. Elements of Common Equity Tier 1 Capital

Elements of Common Equity component of Tier 1 capital will comprise the following:

- (i) Common shares (paid-up equity capital) issued by the bank which meet the criteria for classification as common shares for regulatory purposes as given in **Annex 1**;
- (ii) Stock surplus (share premium) resulting from the issue of common shares;
- (iii) Statutory reserves;
- (iv) Capital reserves representing surplus arising out of sale proceeds of assets;
- (v) Other disclosed free reserves, if any;
- (vi) Balance in Profit & Loss Account at the end of the previous financial year;

<sup>5</sup> For smooth migration to these capital ratios, transitional arrangements have been provided as detailed in paragraph 4.5.

<sup>6</sup> The definition of capital funds for the purpose of prudential exposures is only an interim measure. The applicability of this definition is being reviewed by the RBI based on the large exposures framework. In this context, please refer to the 'Discussion Paper on Large Exposures Framework and Enhancing Credit Supply through Market Mechanism' issued by RBI on March 27, 2015.

- (vii) Banks may reckon the profits in current financial year for CRAR calculation on a quarterly basis provided the incremental provisions made for non-performing assets at the end of any of the four quarters of the previous financial year have not deviated more than 25% from the average of the four quarters. The amount which can be reckoned would be arrived at by using the following formula:

$$EP_t = \{NP_t - 0.25 * D * t\}$$

Where;

$EP_t$  = Eligible profit up to the quarter 't' of the current financial year; t varies from 1 to 4

$NP_t$  = Net profit up to the quarter 't'

D = average annual dividend paid during last three years

- (viii) While calculating capital adequacy at the consolidated level, common shares issued by consolidated subsidiaries of the bank and held by third parties (i.e. minority interest) which meet the criteria for inclusion in Common Equity Tier 1 capital (refer to paragraph 4.3.2); and
- (ix) Less: Regulatory adjustments / deductions applied in the calculation of Common Equity Tier 1 capital [i.e. to be deducted from the sum of items (i) to (viii)].

#### **B. Criteria for Classification as Common Shares for Regulatory Purposes**

Common Equity is recognised as the highest quality component of capital and is the primary form of funding which ensures that a bank remains solvent. Therefore, under Basel III, common shares to be included in Common Equity Tier 1 capital must meet the criteria as furnished in **Annex 1**.

#### **4.2.3.2 Common Equity Tier 1 Capital – Foreign Banks' Branches**

##### **A. Elements of Common Equity Tier 1 Capital**

Elements of Common Equity Tier 1 capital will remain the same and consist of the following:

- (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) Interest-free funds remitted from abroad for the purpose of acquisition of property and held in a separate account in Indian books provided they are non-repatriable and have the ability to absorb losses regardless of their source;
- (v) 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; and
- (vi) Less: Regulatory adjustments / deductions applied in the calculation of Common Equity Tier 1 capital [i.e. to be deducted from the sum of items (i) to (v)].

## **B. Criteria for Classification as Common Equity for Regulatory Purposes**

The instruments to be included in Common Equity Tier 1 capital must meet the criteria furnished in **Annex 2**.

### **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 Common Equity 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'.
- (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, the debit balance in the Head Office account will have to be set-off against capital subject to the following provisions<sup>7</sup>:
  - (a) If net overseas placements with Head Office / other overseas branches / other group entities (Placement minus borrowings, excluding Head Office borrowings for Tier I and II capital purposes) exceed 10% of the bank's minimum CRAR requirement, the amount in excess of this limit would be deducted from Tier I capital.
  - (b) For the purpose of the above prudential cap, the net overseas placement would be the higher of the overseas placements as on date and the average daily outstanding over year to date.
  - (c) The overall cap on such placements / investments will continue to be guided by the present regulatory and statutory restrictions i.e. net open position limit and the gap limits approved by the Reserve Bank of India, and Section 25 of the Banking Regulation Act, 1949. All such transactions should also be in conformity with other FEMA guidelines.

### **4.2.4 Additional Tier 1 Capital**

#### **4.2.4.1 Additional Tier 1 Capital – Indian Banks**

##### **A. Elements of Additional Tier 1 Capital**

Additional Tier 1 capital will consist of the sum of the following elements:

- (i) Perpetual Non-Cumulative Preference Shares (PNCPS), which comply with the regulatory requirements as specified in **Annex 3**;
- (ii) Stock surplus (share premium) resulting from the issue of instruments included in Additional Tier 1 capital;
- (iii) Debt capital instruments eligible for inclusion in Additional Tier 1 capital, which comply with the regulatory requirements as specified in **Annex 4**;

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<sup>7</sup> Please refer to the [circular DBOD.No.BP.BC.28/21.06.001/2012-13 dated July 9, 2012](#) on 'Treatment of Head Office Debit Balance - Foreign Banks'.

- (iv) Any other type of instrument generally notified by the Reserve Bank from time to time for inclusion in Additional Tier 1 capital;
- (v) While calculating capital adequacy at the consolidated level, Additional Tier 1 instruments issued by consolidated subsidiaries of the bank and held by third parties which meet the criteria for inclusion in Additional Tier 1 capital (refer to paragraph 4.3.3); and
- (vi) Less: Regulatory adjustments / deductions applied in the calculation of Additional Tier 1 capital [i.e. to be deducted from the sum of items (i) to (v)].

**B. Criteria for Classification as Additional Tier 1 Capital for Regulatory Purposes**

(i) Under Basel III, the criteria for instruments to be included in Additional Tier 1 capital have been modified to improve their loss absorbency as indicated in **Annex 3, 4 and 16**. Criteria for inclusion of Perpetual Non-Cumulative Preference Shares (PNCPS) in Additional Tier 1 Capital are furnished in **Annex 3**. Criteria for inclusion of Perpetual Debt Instruments (PDI) in Additional Tier 1 Capital are furnished in **Annex 4**. **Annex 16** contains criteria for loss absorption through conversion / write-down / write-off of Additional Tier 1 instruments on breach of the pre-specified trigger and of all non-common equity regulatory capital instruments at the point of non-viability.

**4.2.4.2 Elements and Criteria for Additional Tier 1 Capital – Foreign Banks’ Branches**

Various elements and their criteria for inclusion in the Additional Tier 1 capital are as follows:

- (i) Head Office borrowings in foreign currency by foreign banks operating in India for inclusion in Additional Tier 1 capital which comply with the regulatory requirements as specified in **Annex 4 and Annex 16**;
- (ii) Any other item specifically allowed by the Reserve Bank from time to time for inclusion in Additional Tier 1 capital; and
- (iii) Less: Regulatory adjustments / deductions applied in the calculation of Additional Tier 1 capital [i.e. to be deducted from the sum of items (i) to (ii)].

**4.2.5 Elements of Tier 2 Capital**

Under Basel III, there will be a single set of criteria governing all Tier 2 debt capital instruments.

**4.2.5.1 Tier 2 Capital - Indian Banks**

**A. Elements of Tier 2 Capital**

*(i) General Provisions and Loss Reserves*

- a. Provisions or loan-loss reserves held against future, presently unidentified losses, which are freely available to meet losses which subsequently materialize, will qualify for inclusion within Tier 2 capital. Accordingly, General Provisions on Standard Assets, Floating Provisions<sup>8</sup>, incremental provisions in respect of unhedged foreign currency exposures<sup>9</sup>, Provisions held for Country Exposures, Investment Reserve Account, excess provisions which arise on account of sale of NPAs and ‘countercyclical provisioning buffer<sup>10</sup>’ will qualify for inclusion in Tier 2 capital. However, these items together will be admitted as Tier 2 capital up to a maximum of 1.25% of the total credit risk-weighted assets

<sup>8</sup> Banks will continue to have the option to net off such provisions from Gross NPAs to arrive at Net NPA or reckoning it as part of their Tier 2 capital as per [circular DBOD.NO.BP.BC 33/21.04.048/2009-10 dated August 27, 2009](#).

<sup>9</sup> Please refer to [circular DBOD.No.BP.BC.85/21.06.200/2013-14 dated January 15, 2014](#) as well as [circular DBOD.No.BP.BC.116/21.06.200/2013-14 dated June 3, 2014](#) on “Capital and Provisioning Requirements for Exposures to entities with Unhedged Foreign Currency Exposure”

<sup>10</sup> Please refer to [circular DBOD.No.BP.BC.87/21.04.048/2010-11 dated April 21, 2011](#) on provisioning coverage ratio (PCR) for advances.

under the standardized approach. Under Internal Ratings Based (IRB) approach, where the total expected loss amount is less than total eligible provisions, banks may recognise the difference as Tier 2 capital up to a maximum of 0.6% of credit-risk weighted assets calculated under the IRB approach.

b. Provisions ascribed to identified deterioration of particular assets or loan liabilities, whether individual or grouped should be excluded. Accordingly, for instance, specific provisions on NPAs, both at individual account or at portfolio level, provisions in lieu of diminution in the fair value of assets in the case of restructured advances, provisions against depreciation in the value of investments will be excluded.

(ii) Debt Capital Instruments issued by the banks;

(iii) Preference Share Capital Instruments [Perpetual Cumulative Preference Shares (PCPS) / Redeemable Non-Cumulative Preference Shares (RNCPS) / Redeemable Cumulative Preference Shares (RCPS)] issued by the banks;

(iv) Stock surplus (share premium) resulting from the issue of instruments included in Tier 2 capital;

(v) While calculating capital adequacy at the consolidated level, Tier 2 capital instruments issued by consolidated subsidiaries of the bank and held by third parties which meet the criteria for inclusion in Tier 2 capital (refer to paragraph 4.3.4);

(vi) Revaluation reserves at a discount of 55%<sup>11</sup>;

(vii) Any other type of instrument generally notified by the Reserve Bank from time to time for inclusion in Tier 2 capital; and

(viii) Less: Regulatory adjustments / deductions applied in the calculation of Tier 2 capital [i.e. to be deducted from the sum of items (i) to (vii)].

#### **B. Criteria for Classification as Tier 2 Capital for Regulatory Purposes**

Under Basel III, the criteria for instruments<sup>12</sup> to be included in Tier 2 capital have been modified to improve their loss absorbency as indicated in **Annex 5, 6 and 16**. Criteria for inclusion of Debt Capital Instruments as Tier 2 capital are furnished in **Annex 5**. Criteria for inclusion of Perpetual Cumulative Preference Shares (PCPS) / Redeemable Non-Cumulative Preference Shares (RNCPS) / Redeemable Cumulative Preference Shares (RCPS) as part of Tier 2 capital are furnished in **Annex 6**. **Annex 16** contains criteria for loss absorption through conversion / write-off of all non-common equity regulatory capital instruments at the point of non-viability.

#### **4.2.5.2 Tier 2 Capital – Foreign Banks’ Branches**

##### **A. Elements of Tier 2 Capital**

Elements of Tier 2 capital in case of foreign banks’ branches will be as under:

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<sup>11</sup> 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% 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.

<sup>12</sup> Please also refer [circular DBOD.BP.BC.No.75/21.06.001/2010-11 dated January 20, 2011](#) on ‘Regulatory Capital Instruments – Step up Option’ doing away with step up option. Banks may also refer to the BCBS Press Release dated September 12, 2010 indicating announcements made by the Group of Governors and Heads of Supervision on higher global minimum capital standards.

- (i) General Provisions and Loss Reserves (as detailed in paragraph 4.2.5.1.A.(i) above);
- (ii) Head Office (HO) borrowings in foreign currency received as part of Tier 2 debt capital;
- (iii) Revaluation reserves at a discount of 55%; and
- (iv) Less: Regulatory adjustments / deductions applied in the calculation of Tier 2 capital [i.e. to be deducted from the sum of items (i) and (iii)].

**B. Criteria for Classification as Tier 2 Capital for Regulatory Purposes**

Criteria for inclusion of Head Office (HO) borrowings in foreign currency received as part of Tier 2 debt Capital for foreign banks are furnished in **Annex 5 and Annex 16**.

**4.3 Recognition of Minority Interest (i.e. Non-Controlling Interest) and Other Capital Issued out of Consolidated Subsidiaries that is Held by Third Parties**

4.3.1 Under Basel III, the minority interest is recognised only in cases where there is considerable explicit or implicit assurance that the minority interest which is supporting the risks of the subsidiary would be available to absorb the losses at the consolidated level. Accordingly, the portion of minority interest which supports risks in a subsidiary that is a bank will be included in group's Common Equity Tier 1. Consequently, minority interest in the subsidiaries which are not banks will not be included in the regulatory capital of the group. In other words, the proportion of surplus capital which is attributable to the minority shareholders would be excluded from the group's Common Equity Tier 1 capital. Further, as opposed to Basel II, a need was felt to extend the minority interest treatment to other components of regulatory capital also (i.e. Additional Tier 1 capital and Tier 2 capital). Therefore, under Basel III, the minority interest in relation to other components of regulatory capital will also be recognised.

**4.3.2 Treatment of Minority Interest Corresponding to Common Shares Issued by Consolidated Subsidiaries**

Minority interest arising from the issue of common shares by a fully consolidated subsidiary of the bank may receive recognition in Common Equity Tier 1 capital only if: (a) the instrument giving rise to the minority interest would, if issued by the bank, meet all of the criteria for classification as common shares for regulatory capital purposes as stipulated in **Annex 1**; and (b) the subsidiary that issued the instrument is itself a bank<sup>13</sup>. The amount of minority interest meeting the criteria above that will be recognised in consolidated Common Equity Tier 1 capital will be calculated as follows:

- (i) Total minority interest meeting the two criteria above minus the amount of the surplus Common Equity Tier 1 capital of the subsidiary attributable to the minority shareholders.
- (ii) Surplus Common Equity Tier 1 capital of the subsidiary is calculated as the Common Equity Tier 1 of the subsidiary minus the lower of: (a) the minimum Common Equity Tier 1 capital requirement of the subsidiary plus the capital conservation buffer (i.e. 8.0% of risk weighted assets) and (b) the portion of the consolidated minimum Common Equity Tier 1 capital requirement plus the capital conservation buffer (i.e. 8.0% of consolidated risk weighted assets) that relates to the subsidiary<sup>14</sup>.
- (iii) The amount of the surplus Common Equity Tier 1 capital that is attributable to the minority shareholders is calculated by multiplying the surplus Common Equity Tier 1 by the percentage of Common Equity Tier 1 that is held by minority shareholders.

<sup>13</sup> For the purposes of this paragraph, All India Financial Institutions, Non-banking Financial Companies regulated by RBI and Primary Dealers will be considered to be a bank.

<sup>14</sup> The ratios used as the basis for computing the surplus (8.0%, 9.5% and 11.5%) in paragraphs 4.3.2, 4.3.3 and 4.3.4 respectively will not be phased-in.

#### **4.3.3 Treatment of Minority Interest Corresponding to Tier 1 Qualifying Capital Issued by Consolidated Subsidiaries**

Tier 1 capital instruments issued by a fully consolidated subsidiary of the bank to third party investors (including amounts under paragraph 4.3.2) may receive recognition in Tier 1 capital only if the instruments would, if issued by the bank, meet all of the criteria for classification as Tier 1 capital. The amount of this capital that will be recognised in Tier 1 capital will be calculated as follows:

- (i) Total Tier 1 capital of the subsidiary issued to third parties minus the amount of the surplus Tier 1 capital of the subsidiary attributable to the third party investors.
- (ii) Surplus Tier 1 capital of the subsidiary is calculated as the Tier 1 capital of the subsidiary minus the lower of: (a) the minimum Tier 1 capital requirement of the subsidiary plus the capital conservation buffer (i.e. 9.5% of risk weighted assets) and (b) the portion of the consolidated minimum Tier 1 capital requirement plus the capital conservation buffer (i.e. 9.5% of consolidated risk weighted assets) that relates to the subsidiary.
- (iii) The amount of the surplus Tier 1 capital that is attributable to the third party investors is calculated by multiplying the surplus Tier 1 capital by the percentage of Tier 1 capital that is held by third party investors.

The amount of this Tier 1 capital that will be recognised in Additional Tier 1 capital will exclude amounts recognised in Common Equity Tier 1 capital under paragraph 4.3.2.

#### **4.3.4 Treatment of Minority Interest Corresponding to Tier 1 Capital and Tier 2 Capital Qualifying Capital Issued by Consolidated Subsidiaries**

Total capital instruments (i.e. Tier 1 and Tier 2 capital instruments) issued by a fully consolidated subsidiary of the bank to third party investors (including amounts under paragraphs 4.3.2 and 4.3.3) may receive recognition in Total Capital only if the instruments would, if issued by the bank, meet all of the criteria for classification as Tier 1 or Tier 2 capital. The amount of this capital that will be recognised in consolidated Total Capital will be calculated as follows:

- (i) Total capital instruments of the subsidiary issued to third parties minus the amount of the surplus Total Capital of the subsidiary attributable to the third party investors.
- (ii) Surplus Total Capital of the subsidiary is calculated as the Total Capital of the subsidiary minus the lower of: (a) the minimum Total Capital requirement of the subsidiary plus the capital conservation buffer (i.e. 11.5% of risk weighted assets) and (b) the portion of the consolidated minimum Total Capital requirement plus the capital conservation buffer (i.e. 11.5% of consolidated risk weighted assets) that relates to the subsidiary.
- (iii) The amount of the surplus Total Capital that is attributable to the third party investors is calculated by multiplying the surplus Total Capital by the percentage of Total Capital that is held by third party investors.

The amount of this Total Capital that will be recognised in Tier 2 capital will exclude amounts recognised in Common Equity Tier 1 capital under paragraph 4.3.2 and amounts recognised in Additional Tier 1 under paragraph 4.3.3.

4.3.5 An illustration of calculation of minority interest and other capital issued out of consolidated subsidiaries that is held by third parties is furnished in **Annex 17**.

#### **4.4 Regulatory Adjustments / Deductions**

The following paragraphs deal with the regulatory adjustments / deductions which will be

applied to regulatory capital **both** at solo and consolidated level.

#### 4.4.1 **Goodwill and all Other Intangible Assets**

(i) Goodwill and all other intangible assets should be deducted from Common Equity Tier 1 capital including any goodwill included in the valuation of significant investments in the capital of banking, financial and insurance entities which are outside the scope of regulatory consolidation. In terms of AS 23 – Accounting for investments in associates, goodwill/capital reserve arising on the acquisition of an associate by an investor should be included in the carrying amount of investment in the associate but should be disclosed separately. Therefore, if the acquisition of equity interest in any associate involves payment which can be attributable to goodwill, this should be deducted from the Common Equity Tier 1 of the bank.

(ii) The full amount of the intangible assets is to be deducted net of any associated deferred tax liabilities which would be extinguished if the intangible assets become impaired or derecognized under the relevant accounting standards. For this purpose, the definition of intangible assets would be in accordance with the Indian accounting standards. Losses in the current period and those brought forward from previous periods should also be deducted from Common Equity Tier 1 capital, if not already deducted.

(iii) Application of these rules at consolidated level would mean deduction of any goodwill and other intangible assets from the consolidated Common Equity which is attributed to the Balance Sheets of subsidiaries, in addition to deduction of goodwill and other intangible assets which pertain to the solo bank.

#### 4.4.2 **Deferred Tax Assets (DTAs)**

(i) The DTAs computed as under should be deducted from Common Equity Tier 1 capital:

(a) DTA associated with accumulated losses; and

(b) 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 Common Equity Tier 1 capital. DTAs may be netted with associated deferred tax liabilities (DTLs) only if the DTAs and DTLs relate to taxes levied by the same taxation authority and offsetting is permitted by the relevant taxation authority. The DTLs permitted to be netted against DTAs must exclude amounts that have been netted against the deduction of goodwill, intangibles and defined benefit pension assets.

(ii) Application of these rules at consolidated level would mean deduction of DTAs from the consolidated Common Equity which is attributed to the subsidiaries, in addition to deduction of DTAs which pertain to the solo bank.

#### 4.4.3 **Cash Flow Hedge Reserve**

(i) The amount of the cash flow hedge reserve which relates to the hedging of items that are not fair valued on the balance sheet (including projected cash flows) should be derecognised in the calculation of Common Equity Tier 1. This means that positive amounts should be deducted and negative amounts should be added back. This treatment specifically identifies the element of the cash flow hedge reserve that is to be derecognised for prudential purposes. It removes the element that gives rise to artificial volatility in Common Equity, as in this case the reserve only reflects one half of the picture (the fair value of the derivative, but not the changes in fair value of the hedged future cash flow).

(ii) Application of these rules at consolidated level would mean derecognition of cash flow hedge reserve from the consolidated Common Equity which is attributed to

the subsidiaries, in addition to derecognition of cash flow hedge reserve pertaining to the solo bank.

#### **4.4.4 Shortfall of the Stock of Provisions to Expected Losses**

The deduction from capital in respect of a shortfall of the stock of provisions to expected losses under the Internal Ratings Based (IRB) approach should be made in the calculation of Common Equity Tier 1. The full amount is to be deducted and should not be reduced by any tax effects that could be expected to occur if provisions were to rise to the level of expected losses.

#### **4.4.5 Gain-on-Sale Related to Securitisation Transactions**

(i) As per Basel III rule text, banks are required to derecognise in the calculation of Common Equity Tier 1 capital, any increase in equity capital resulting from a securitisation transaction, such as that associated with expected future margin income (FMI) resulting in a gain-on-sale. However, as per existing guidelines on securitization of standard assets issued by RBI, banks are not permitted to recognise the gain-on-sale in the P&L account including cash profits. Therefore, there is no need for any deduction on account of gain-on-sale on securitization. Banks are allowed to amortise the profit including cash profit over the period of the securities issued by the SPV. However, if a bank is following an accounting practice which in substance results in recognition of realized or unrealized gains at the inception of the securitization transactions, the treatment stipulated as per Basel III rule text as indicated in the beginning of the paragraph would be applicable.

(ii) Application of these rules at consolidated level would mean deduction of gain-on-sale from the consolidated Common Equity which is recognized by the subsidiaries in their P&L and / or equity, in addition to deduction of any gain-on-sale recognised by the bank at the solo level.

#### **4.4.6 Cumulative Gains and Losses due to Changes in Own Credit Risk on Fair Valued Financial Liabilities**

(i) Banks are required to derecognise in the calculation of Common Equity Tier 1 capital, all unrealised gains and losses which have resulted from changes in the fair value of liabilities that are due to changes in the bank's own credit risk. In addition, with regard to derivative liabilities, derecognise all accounting valuation adjustments arising from the bank's own credit risk. The offsetting between valuation adjustments arising from the bank's own credit risk and those arising from its counterparties' credit risk is not allowed. If a bank values its derivatives and securities financing transactions (SFTs) liabilities taking into account its own creditworthiness in the form of debit valuation adjustments (DVAs), then the bank is required to deduct all DVAs from its Common Equity Tier 1 capital, irrespective of whether the DVAs arises due to changes in its own credit risk or other market factors. Thus, such deduction also includes the deduction of initial DVA at inception of a new trade. In other words, though a bank will have to recognize a loss reflecting the credit risk of the counterparty (i.e. credit valuation adjustments-CVA), the bank will not be allowed to recognize the corresponding gain due to its own credit risk.

(ii) Application of these rules at consolidated level would mean derecognition of unrealised gains and losses which have resulted from changes in the fair value of liabilities that are due to changes in the subsidiaries' credit risk, in the calculation of consolidated Common Equity Tier 1 capital, in addition to derecognition of any such unrealised gains and losses attributed to the bank at the solo level.

#### **4.4.7 Defined Benefit Pension Fund<sup>15</sup> Assets and Liabilities**

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<sup>15</sup> It includes other defined employees' funds also.

- (i) Defined benefit pension fund liabilities, as included on the balance sheet, must be fully recognised in the calculation of Common Equity Tier 1 capital (i.e. Common Equity Tier 1 capital cannot be increased through derecognising these liabilities). For each defined benefit pension fund that is an asset on the balance sheet, the asset should be deducted in the calculation of Common Equity Tier 1 net of any associated deferred tax liability which would be extinguished if the asset should become impaired or derecognised under the relevant accounting standards.
- (ii) Application of these rules at consolidated level would mean deduction of defined benefit pension fund assets and recognition of defined benefit pension fund liabilities pertaining to subsidiaries in the consolidated Common Equity Tier 1, in addition to those pertaining to the solo bank.
- (iii) In terms of circular DBOD.No.BP.BC.80/21.04.018/2010-11 dated February 9, 2011, a special dispensation of amortizing the expenditure arising out of second pension option and enhancement of gratuity over a period of 5 years was permitted to public sector banks as also select private sector banks who were parties to 9<sup>th</sup> bipartite settlement with Indian Banks Association (IBA). Further, in terms of this circular, the unamortised expenditure is not required to be reduced from Tier 1 capital. It is not possible to retain this dispensation under Basel III, as all pension fund liabilities are required to be recognized in the balance sheet under Basel III. Accordingly, from April 1, 2013, banks should deduct the entire amount of unamortized expenditure from common equity Tier 1 capital for the purpose of capital adequacy ratios.

#### 4.4.8 Investments in Own Shares (Treasury Stock)

(i) Investment in a bank's own shares is tantamount to repayment of capital and therefore, it is necessary to knock-off such investment from the bank's capital with a view to improving the bank's quality of capital. This deduction would remove the double counting of equity capital which arises from direct holdings, indirect holdings via index funds and potential future holdings as a result of contractual obligations to purchase own shares.

(ii) Banks should not repay their equity capital without specific approval of Reserve Bank of India. Repayment of equity capital can take place by way of share buy-back, investments in own shares (treasury stock) or payment of dividends out of reserves, none of which are permissible. However, banks may end up having indirect investments in their own stock if they invest in / take exposure to mutual funds or index funds / securities which have long position in bank's share. In such cases, banks should look through holdings of index securities to deduct exposures to own shares from their Common Equity Tier 1 capital. Following the same approach outlined above, banks must deduct investments in their own Additional Tier 1 capital in the calculation of their Additional Tier 1 capital and investments in their own Tier 2 capital in the calculation of their Tier 2 capital. In this regard, the following rules may be observed:

- (a) If the amount of investments made by the mutual funds / index funds / venture capital funds / private equity funds / investment companies in the capital instruments of the investing bank is known; the indirect investment would be equal to bank's investments in such entities multiplied by the percent of investments of these entities in the investing bank's respective capital instruments.
- (b) If the amount of investments made by the mutual funds / index funds / venture capital funds / private equity funds / investment companies in the capital instruments of the investing bank is not known but, as per the investment policies / mandate of these entities such investments are permissible; the indirect investment would be equal to bank's investments in these entities

multiplied by 10%<sup>16</sup> of investments of such entities in the investing bank's capital instruments. Banks must note that this method does not follow corresponding deduction approach i.e. all deductions will be made from the Common Equity Tier 1 capital even though, the investments of such entities are in the Additional Tier 1 / Tier 2 capital of the investing banks.

(iii) Application of these rules at consolidated level would mean deduction of subsidiaries' investments in their own shares (direct or indirect) in addition to bank's direct or indirect investments in its own shares while computing consolidated Common Equity Tier 1.

#### 4.4.9 Investments in the Capital of Banking, Financial and Insurance Entities<sup>17</sup>

##### 4.4.9.1 Limits on a Bank's Investments in the Capital of Banking, Financial and Insurance Entities

- (i) A bank's investment in the capital instruments issued by banking, financial and insurance entities is subject to the following limits:
- (a) A bank's investments in the **capital instruments** issued by banking, financial and insurance entities should not exceed 10% of its **capital funds**, but after all deductions mentioned in paragraph 4 (upto paragraph 4.4.8).
  - (b) Banks should not acquire any fresh stake in a bank's equity shares, if by such acquisition, the investing bank's holding exceeds 5% of the investee bank's equity capital.
  - (c) Under the provisions of Section 19(2) of the Banking Regulation Act, 1949, a banking company cannot hold shares in any company whether as pledgee or mortgagee or absolute owner of an amount exceeding 30% of the paid-up share capital of that company or 30% of its own paid-up share capital and reserves, whichever is less.
  - (d) Equity investment by a bank in a subsidiary company, financial services company, financial institution, stock and other exchanges should not exceed 10% of the bank's paid-up share capital and reserves.
  - (e) Equity investment by a bank in companies engaged in non-financial services activities would be subject to a limit of 10% of the investee company's paid up share capital or 10% of the bank's paid up share capital and reserves, whichever is less.
  - (f) Equity investments in any non-financial services company held by (a) a bank; (b) entities which are bank's subsidiaries, associates or joint ventures or entities directly or indirectly controlled by the bank; and (c) mutual funds managed by AMC's controlled by the bank should in the aggregate not exceed 20% of the investee company's paid up share capital.
  - (g) A bank's equity investments in subsidiaries and other entities that are engaged in financial services activities together with equity investments in entities engaged in non-financial services activities should not exceed 20% of the bank's paid-up share capital and reserves. The cap of 20% would not apply for investments classified under 'Held for Trading' category and which are not held beyond 90 days.
- (ii) An indicative list of institutions which may be deemed to be financial institutions other than banks and insurance companies for capital adequacy purposes is as under:

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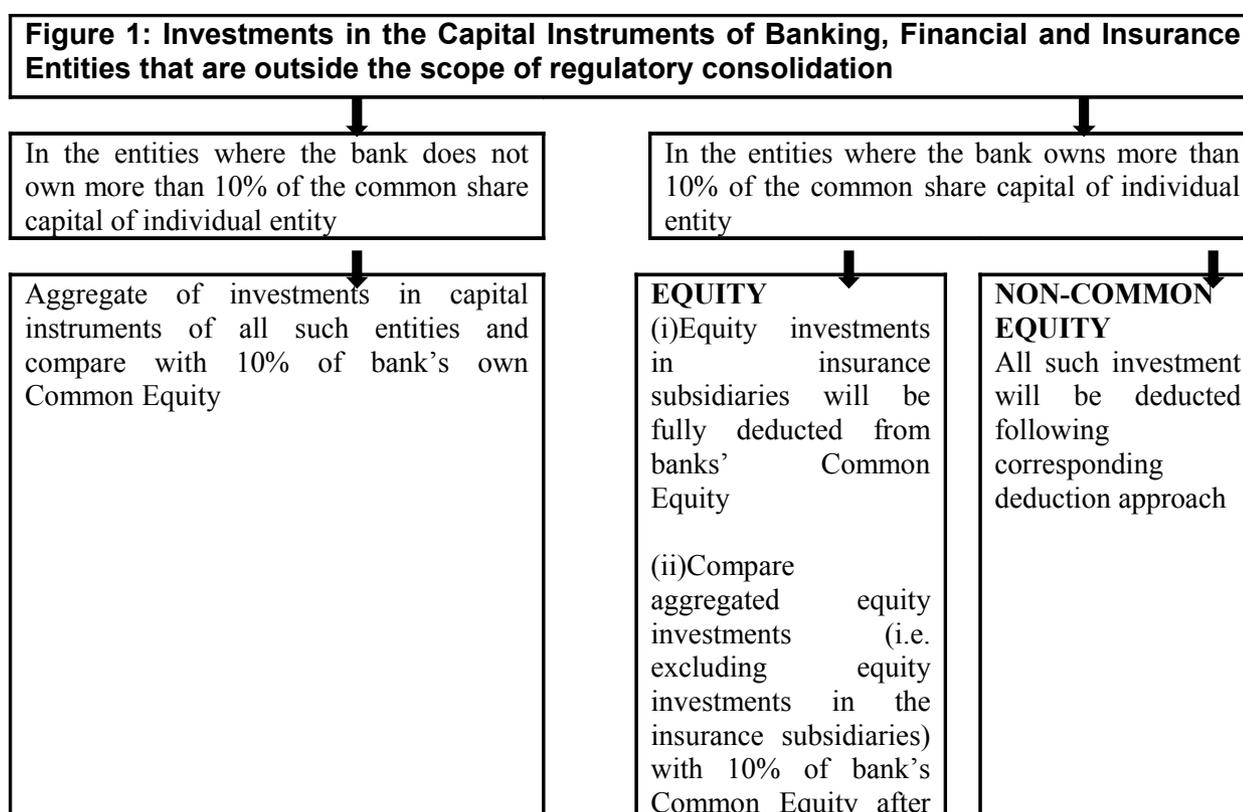
<sup>16</sup> In terms of Securities and Exchange Board of India (Mutual Funds) Regulations 1996, no mutual fund under all its schemes should own more than ten per cent of any company's paid up capital carrying voting rights.

<sup>17</sup> These rules will be applicable to a bank's equity investments in other banks and financial entities, even if such investments are exempted from 'capital market exposure' limit.

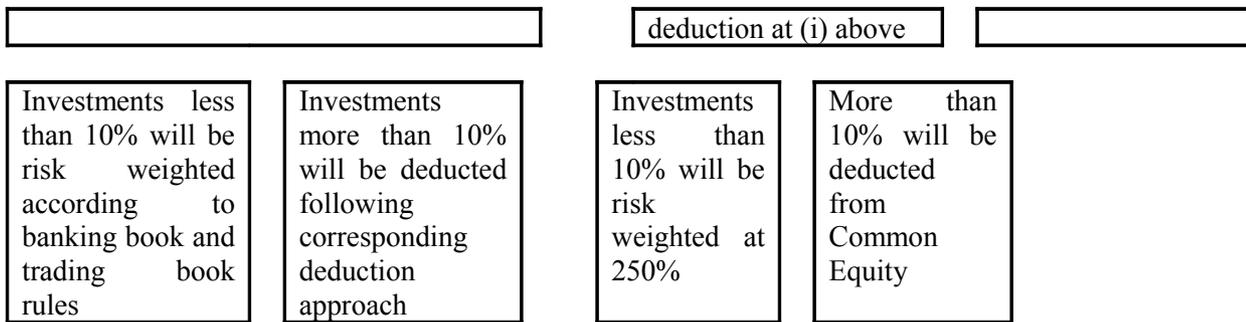
- Asset Management Companies of Mutual Funds / Venture Capital Funds / Private Equity Funds etc;
  - Non-Banking Finance Companies;
  - Housing Finance Companies;
  - Primary Dealers;
  - Merchant Banking Companies;
  - Entities engaged in activities which are ancillary to the business of banking under the B.R. Act, 1949; and
  - Central Counterparties (CCPs).
- (iii) Investments made by a banking subsidiary/ associate in the equity or non-equity regulatory capital instruments issued by its parent bank should be deducted from such subsidiary's regulatory capital following corresponding deduction approach, in its capital adequacy assessment on a solo basis. The regulatory treatment of investment by the non-banking financial subsidiaries / associates in the parent bank's regulatory capital would, however, be governed by the applicable regulatory capital norms of the respective regulators of such subsidiaries / associates.

#### 4.4.9.2 Treatment of a Bank's Investments in the Capital Instruments Issued by Banking, Financial and Insurance Entities within Limits

The investment of banks in the regulatory capital instruments of other financial entities contributes to the inter-connectedness amongst the financial institutions. In addition, these investments also amount to double counting of capital in the financial system. Therefore, these investments have been subjected to stringent treatment in terms of deduction from respective tiers of regulatory capital. A schematic representation of treatment of banks' investments in capital instruments of financial entities is shown in **Figure 1** below. Accordingly, all investments<sup>18</sup> in the capital instruments issued by banking, financial and insurance entities within the limits mentioned in **paragraph 4.4.9.1** will be subject to the following rules:



<sup>18</sup> For this purpose, investments held in AFS / HFT category may be reckoned at their market values, whereas, those held in HTM category may be reckoned at values appearing in the Balance sheet of the Bank.



**(A) Reciprocal Cross- Holdings in the Capital of Banking, Financial and Insurance Entities**

Reciprocal cross holdings of capital might result in artificially inflating the capital position of banks. Such holdings of capital will be fully deducted. Banks must apply a “corresponding deduction approach” to such investments in the capital of other banks, other financial institutions and insurance entities. This means the deduction should be applied to the same component of capital (Common Equity, Additional Tier 1 and Tier 2 capital) for which the capital would qualify if it was issued by the bank itself. For this purpose, a holding will be treated as reciprocal cross holding if the investee entity has also invested in any class of bank’s capital instruments which need not necessarily be the same as the bank’s holdings.

**(B) Investments in the Capital of Banking, Financial and Insurance Entities which are outside the Scope of Regulatory Consolidation and where the Bank does not Own more than 10% of the Issued Common Share Capital of the Entity**

- (i) The regulatory adjustment described in this section applies to investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation and where the bank does not own more than 10% of the issued common share capital of the entity. In addition:
  - (a) Investments include direct, indirect<sup>19</sup> and synthetic holdings of capital instruments. For example, banks should look through holdings of index securities to determine their underlying holdings of capital.
  - (b) Holdings in both the banking book and trading book are to be included. Capital includes common stock (paid-up equity capital) and all other types of cash and synthetic capital instruments (e.g. subordinated debt).
  - (c) Underwriting positions held for five working days or less can be excluded. Underwriting positions held for longer than five working days must be included.
  - (d) If the capital instrument of the entity in which the bank has invested does not meet the criteria for Common Equity Tier 1, Additional Tier 1, or Tier 2 capital of the bank, the capital is to be considered common shares for the purposes of this regulatory adjustment<sup>20</sup>.
  - (e) With the prior approval of RBI a bank can temporarily exclude certain investments where these have been made in the context of resolving or providing financial assistance to reorganise a distressed institution.
- (ii) If the total of all holdings listed in paragraph (i) above, in aggregate exceed 10% of the bank’s Common Equity (after applying all other regulatory adjustments in full listed prior to this one), then the amount above 10% is required to be deducted, applying a corresponding deduction approach. This means the deduction should be

<sup>19</sup> Indirect holdings are exposures or part of exposures that, if a direct holding loses its value, will result in a loss to the bank substantially equivalent to the loss in the value of direct holding.

<sup>20</sup> If the investment is issued out of a regulated financial entity and not included in regulatory capital in the relevant sector of the financial entity, it is not required to be deducted.

applied to the same component of capital for which the capital would qualify if it was issued by the bank itself. Accordingly, the amount to be deducted from common equity should be calculated as the total of all holdings which in aggregate exceed 10% of the bank's common equity (as per above) multiplied by the common equity holdings as a percentage of the total capital holdings. This would result in a Common Equity deduction which corresponds to the proportion of total capital holdings held in Common Equity. Similarly, the amount to be deducted from Additional Tier 1 capital should be calculated as the total of all holdings which in aggregate exceed 10% of the bank's Common Equity (as per above) multiplied by the Additional Tier 1 capital holdings as a percentage of the total capital holdings. The amount to be deducted from Tier 2 capital should be calculated as the total of all holdings which in aggregate exceed 10% of the bank's Common Equity (as per above) multiplied by the Tier 2 capital holdings as a percentage of the total capital holdings. (Please refer to illustration given in **Annex 11**).

- (iii) If, under the corresponding deduction approach, a bank is required to make a deduction from a particular tier of capital and it does not have enough of that tier of capital to satisfy that deduction, the shortfall will be deducted from the next higher tier of capital (e.g. if a bank does not have enough Additional Tier 1 capital to satisfy the deduction, the shortfall will be deducted from Common Equity Tier 1 capital).
- (iv) Investments below the threshold of 10% of bank's Common Equity, which are not deducted, will be risk weighted. Thus, instruments in the trading book will be treated as per the market risk rules and instruments in the banking book should be treated as per the standardised approach or internal ratings-based approach (as applicable). For the application of risk weighting the amount of the holdings which are required to be risk weighted would be allocated on a pro rata basis between the Banking and Trading Book. However, in certain cases, such investments in both scheduled and non-scheduled commercial banks will be fully deducted from Common Equity Tier 1 capital of investing bank as indicated in paragraphs 5.6, 8.3.5 and 8.4.4.
- (v) For the purpose of risk weighting of investments in as indicated in para (iv) above, investments in securities having comparatively higher risk weights will be considered for risk weighting to the extent required to be risk weighted, both in banking and trading books. In other words, investments with comparatively poor ratings (i.e. higher risk weights) should be considered for the purpose of application of risk weighting first and the residual investments should be considered for deduction.

**(C) Significant Investments in the Capital of Banking, Financial and Insurance Entities which are outside the Scope of Regulatory Consolidation<sup>21</sup>**

(i) The regulatory adjustment described in this section applies to investments in the capital of banking, financial and insurance entities that are outside the scope of regulatory consolidation where the bank owns more than 10% of the issued common share capital of the issuing entity or where the entity is an affiliate<sup>22</sup> of the bank. In addition:

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- Investments include direct, indirect<sup>23</sup> and synthetic holdings of capital instruments. For example, banks should look through holdings of index securities to determine

<sup>21</sup> Investments in entities that are outside of the scope of regulatory consolidation refers to investments in entities that have not been consolidated at all or have not been consolidated in such a way as to result in their assets being included in the calculation of consolidated risk-weighted assets of the group.

<sup>22</sup> An affiliate of a bank is defined as a company that controls, or is controlled by, or is under common control with, the bank. Control of a company is defined as (1) ownership, control, or holding with power to vote 20% or more of a class of voting securities of the company; or (2) consolidation of the company for financial reporting purposes.

<sup>23</sup> Indirect holdings are exposures or part of exposures that, if a direct holding loses its value, will result in a loss to the bank substantially equivalent to the loss in the value of direct holding.

their underlying holdings of capital.

- Holdings in both the banking book and trading book are to be included. Capital includes common stock and all other types of cash and synthetic capital instruments (e.g. subordinated debt).
- Underwriting positions held for five working days or less can be excluded. Underwriting positions held for longer than five working days must be included.
- If the capital instrument of the entity in which the bank has invested does not meet the criteria for Common Equity Tier 1, Additional Tier 1, or Tier 2 capital of the bank, the capital is to be considered common shares for the purposes of this regulatory adjustment<sup>24</sup>.
- With the prior approval of RBI a bank can temporarily exclude certain investments where these have been made in the context of resolving or providing financial assistance to reorganise a distressed institution.

**(ii) Investments other than Common Shares**

All investments included in para (i) above which are not common shares must be fully deducted following a corresponding deduction approach. This means the deduction should be applied to the same tier of capital for which the capital would qualify if it was issued by the bank itself. If the bank is required to make a deduction from a particular tier of capital and it does not have enough of that tier of capital to satisfy that deduction, the shortfall will be deducted from the next higher tier of capital (e.g. if a bank does not have enough Additional Tier 1 capital to satisfy the deduction, the shortfall will be deducted from Common Equity Tier 1 capital).

**(iii) Investments which are Common Shares**

All investments included in para (i) above which are common shares and which exceed 10% of the bank's Common Equity (after the application of all regulatory adjustments) will be deducted while calculating Common Equity Tier 1 capital. The amount that is not deducted (upto 10% if bank's common equity invested in the equity capital of such entities) in the calculation of Common Equity Tier 1 will be risk weighted at 250% (refer to illustration in **Annex 11**). However, in certain cases, such investments in both scheduled and non-scheduled commercial banks will be fully deducted from Common Equity Tier 1 capital of investing bank as indicated in paragraphs 5.6, 8.3.5 and 8.4.4.

4.4.9.3 With regard to computation of indirect holdings through mutual funds or index funds, of capital of banking, financial and insurance entities which are outside the scope of regulatory consolidation as mentioned in paragraphs 4.4.9.2(B) and 4.4.9.2(C) above, the following rules may be observed:

(i) If the amount of investments made by the mutual funds / index funds / venture capital funds / private equity funds / investment companies in the capital instruments of the financial entities is known; the indirect investment of the bank in such entities would be equal to bank's investments in these entities multiplied by the percent of investments of such entities in the financial entities' capital instruments.

(ii) If the amount of investments made by the mutual funds / index funds / venture capital funds / private equity funds / investment companies in the capital instruments of the investing bank is not known but, as per the investment policies / mandate of these entities such investments are permissible; the indirect investment would be equal to bank's investments in these entities multiplied by maximum permissible limit which these entities are authorized to invest in the financial entities' capital instruments.

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<sup>24</sup> If the investment is issued out of a regulated financial entity and not included in regulatory capital in the relevant sector of the financial entity, it is not required to be deducted.

(iii) If neither the amount of investments made by the mutual funds / index funds / venture capital funds / private equity funds in the capital instruments of financial entities nor the maximum amount which these entities can invest in financial entities are known but, as per the investment policies / mandate of these entities such investments are permissible; the entire investment of the bank in these entities would be treated as indirect investment in financial entities. Banks must note that this method does not follow corresponding deduction approach i.e. all deductions will be made from the Common Equity Tier 1 capital even though, the investments of such entities are in the Additional Tier 1 / Tier 2 capital of the investing banks.

4.4.9.4 Application of these rules at consolidated level would mean:

- (i) Identifying the relevant entities below and above threshold of 10% of common share capital of investee entities, based on aggregate investments of the consolidated group (parent plus consolidated subsidiaries) in common share capital of individual investee entities.
- (ii) Applying the rules as stipulated in paragraphs 4.4.9.2(A), 4.4.9.2(B) and 4.4.9.2(C) and segregating investments into those which will be deducted from the consolidated capital and those which will be risk weighted. For this purpose,
  - investments of the entire consolidated entity in capital instruments of investee entities will be aggregated into different classes of instruments.
  - the consolidated Common Equity of the group will be taken into account.

4.4.9.5 It has come to our notice that certain investors such as Employee Pension Funds have subscribed to regulatory capital issues of commercial banks concerned. These funds enjoy the counter guarantee by the bank concerned in respect of returns. When returns of the investors of the capital issues are counter guaranteed by the bank, such investments will not be considered as regulatory capital for the purpose of capital adequacy.

4.4.10 As indicated in paragraphs 3.3.2 and 3.4.1, equity investments in non-financial subsidiaries should be fully deducted from the consolidated and solo CET1 capital of the bank respectively, after making all the regulatory adjustments as indicated in above paragraphs.

4.4.11 Intra Group Transactions and Exposures

Attention is invited to [circular DBOD.No.BP.BC.96/21.06.102/ 2013-14 dated February 11, 2014](#) on “Guidelines on Management of Intra-Group Transactions and Exposures” in terms of which intra-group exposures beyond permissible limits subsequent to March 31, 2016, if any, would be deducted from Common Equity Tier 1 capital of the bank.

#### 4.5 Transitional Arrangements

4.5.1 In order to ensure smooth migration to Basel III without aggravating any near term stress, appropriate transitional arrangements have been made. The transitional arrangements for capital ratios began **as on April 1, 2013**. However, the phasing out of non-Basel III compliant regulatory capital instruments began from **January 1, 2013**<sup>25</sup>. Capital ratios and deductions from Common Equity will be fully phased-in and implemented as on March 31, 2019. The phase-in arrangements for banks operating in India are indicated in the following Table:

**Table 1: Transitional Arrangements-Scheduled Commercial Banks (excluding LABs and RRBs)**

	(% of RWAs)						
Minimum capital ratios	April 1, 2013	March 31, 2014	March 31, 2015	March 31, 2016	March 31, 2017	March 31, 2018	March 31, 2019

<sup>25</sup> Please refer to paragraph 3 of the [DBOD.No.BP.BC.88/21.06.201/2012-13 dated March 28, 2013](#) on ‘Guidelines on Implementation of Basel III Capital Regulations in India - Clarifications’ read with [circular DBOD.No.BP.BC.102/21.06.201/2013-14 dated March 27, 2014](#).

Minimum Common Equity Tier 1 (CET1)	4.5	5	5.5	5.5	5.5	5.5	5.5
Capital conservation buffer (CCB)	-	-	-	0.625	1.25	1.875	2.5
Minimum CET1+ CCB	4.5	5	5.5	6.125	6.75	7.375	8
Minimum Tier 1 capital	6	6.5	7	7	7	7	7
Minimum Total Capital*	9	9	9	9	9	9	9
Minimum Total Capital +CCB	9	9	9	9.625	10.25	10.875	11.5
Phase-in of all deductions from CET1 (in %) #	20	40	60	80	100	100	100

\* The difference between the minimum total capital requirement of 9% and the Tier 1 requirement can be met with Tier 2 and higher forms of capital;

# The same transition approach will apply to deductions from Additional Tier 1 and Tier 2 capital.

4.5.2 The regulatory adjustments (i.e. deductions and prudential filters) would be fully deducted from Common Equity Tier 1 only by March 31, 2017. During this transition period, the remainder not deducted from Common Equity Tier 1 / Additional Tier 1 / Tier 2 capital will continue to be subject to treatments given under Basel II capital adequacy framework<sup>26</sup>.

To illustrate:

- if a deduction amount is taken off CET1 under the Basel III rules, the treatment for it in 2013 is as follows: 20% of that amount is taken off CET1 and 80% of it is taken off the tier where this deduction used to apply under existing treatment (e.g. in case of DTAs, irrespective of their origin, they are currently deducted from Tier 1 capital. Under new rules, 20% of the eligible deduction will be made to CET1 and 80% will be made to balance Tier 1 capital in the year 2013).
- if the item to be deducted under new rules based on Basel III, is risk weighted under existing framework, the treatment for it in 2013 is as follows: 20% of the amount is taken off CET1, and 80% is subject to the risk weight that applies under existing framework.

4.5.3 The treatment of capital issued out of subsidiaries and held by third parties (e.g. minority interest) will also be phased in. Where such capital is eligible for inclusion in one of the three components of capital according to paragraphs 4.3.2, 4.3.3 and 4.3.4, it can be included from April 1, 2013. Where such capital is not eligible for inclusion in one of the three components of capital but is included under the existing guidelines, 20% of this amount should be excluded from the relevant component of capital on April 1, 2013, 40% on March 31, 2014, 60% on March 31, 2015, 80% on March 31, 2016 and reach 100% on March 31, 2017.

4.5.4 Capital instruments which no longer qualify as non-common equity Tier 1 capital or Tier 2 capital (e.g. IPDI and Tier 2 debt instruments with step-ups) will be phased out beginning January 1, 2013. Fixing the base at the nominal amount of such instruments outstanding on January 1, 2013, their recognition will be capped at 90% from January 1, 2013, with the cap reducing by 10 percentage points in each subsequent year<sup>27</sup>. This cap will

<sup>26</sup> Master Circular on Prudential Guidelines on Capital Adequacy and Market Discipline - New Capital Adequacy Framework (NCAF) issued vide [circular DBOD.No.BP.BC.4/ 21.06.001/2015-16 dated July 1, 2015](#).

<sup>27</sup> The base should only include instruments that will be grandfathered. If an instrument is derecognized on January 1, 2013, it does not count towards the base fixed on January 1, 2013. Also, the base for the transitional arrangements should reflect the outstanding amount which is eligible to be included in the relevant tier of capital under the existing framework applied as on December 31, 2012. Further, for Tier 2 instruments which have begun to amortise before January 1, 2013, the base for grandfathering should take into account the amortised amount, and not the full nominal amount. Thus, individual instruments will continue to be amortised at a rate of 20% per year while the aggregate cap will be reduced at a rate of 10% per year.

be applied to Additional Tier 1 and Tier 2 capital instruments separately and refers to the total amount of instruments outstanding which no longer meet the relevant entry criteria. To the extent an instrument is redeemed, or its recognition in capital is amortised, after January 1, 2013, the nominal amount serving as the base is not reduced. In addition, instruments, specifically those with an incentive to be redeemed will be treated as follows:

4.5.4.1 If the non-common equity regulatory capital instrument has been issued prior to September 12, 2010, then the treatment indicated in paragraphs from 4.5.4.1(A) to 4.5.4.1(D) will apply:

(A) If the instrument does not have a call and a step-up and other incentive to redeem - (i) if it meets all the other criteria, including the non-viability criteria, then such instrument will continue to be fully recognised from January 1, 2013; (ii) if the instrument does not meet the other criteria, including the non-viability criteria, then it will be phased out from January 1, 2013.

(B) If the instrument has a call and a step-up and the effective maturity date was prior to September 12, 2010 and the call option was not exercised - (i) if the instrument meets the all other criteria, including the non-viability criteria, then such instrument will continue to be fully recognised from January 1, 2013; (ii) if the instrument does not meet the other criteria, including the non-viability criteria, then it will be phased out from January 1, 2013.

(C) If the instrument has a call and a step-up and the effective maturity date is between September 12, 2010 and December 31, 2012 and the call option is not exercised – (i) if the instrument meets the all other criteria, including the non-viability criteria, then such instrument will continue to be fully recognised from January 1, 2013; (ii) if the instrument does not meet the other criteria, including the non-viability criteria, then it will be fully derecognised from January 1, 2013. However, if such instrument meets all other criteria except the non-viability criteria then it will be phased out from January 1, 2013.

(D) If the instrument has a call and a step-up and the effective maturity date is after January 1, 2013 - (i) the instrument will be phased out from January 1, 2013 till the call option is exercised; (ii) if the call option is not exercised and it meets the all other criteria, including the non-viability criteria, then the instrument will be phased out from January 1, 2013 till the call date and fully recognised after the call date. However, if it does not meet all the criteria including the non-viability criteria, then the instrument will be phased out from January 1, 2013 till the call date and fully derecognised after the call date.

4.5.4.2 If the non-common equity regulatory capital instrument has been issued between September 12, 2010 and December 31, 2012<sup>28</sup>, then the treatment indicated in paragraphs from 4.5.4.2(A) to 4.5.4.2(C) will apply:

(A) If such instrument meets all the criteria including non-viability criteria, then it will continue to be fully recognised from January 1, 2013.

(B) If such instrument does not meet all the criteria including non-viability criteria, then it will be fully derecognised from January 1, 2013.

(C) If such instrument meets all the criteria except the non-viability criteria, then it will be phased out from January 1, 2013.

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To calculate the base in cases of instruments denominated in foreign currency, which no longer qualify for inclusion in the relevant tier of capital (but will be grandfathered) should be included using their value in the reporting currency of the bank as on January 1, 2013. The base will therefore be fixed in the reporting currency of the bank throughout the transitional period. During the transitional period instruments denominated in a foreign currency should be valued as they are reported on the balance sheet of the bank at the relevant reporting date (adjusting for any amortisation in the case of Tier 2 instruments) and, along with all other instruments which no longer meet the criteria for inclusion in the relevant tier of capital, will be subject to the cap.

<sup>28</sup> Please refer [circular DBOD.BP.BC.No.75/21.06.001/2010-11 dated January 20, 2011](#) on 'Regulatory Capital Instruments – Step up Option'. Banks may also refer to the BCBS Press Release dated September 12, 2010 indicating announcements made by the Group of Governors and Heads of Supervision on higher global minimum capital standards

4.5.4.3 Non-common equity regulatory capital instrument issued on or after January 1, 2013 must comply with all the eligibility criteria including the non-viability criteria in order to be an eligible regulatory capital instrument (Additional Tier 1 or Tier 2 capital). Otherwise, such instrument will be fully derecognised as eligible capital instrument.

4.5.4.4 A schematic representation of above mentioned phase-out arrangements has been shown in the **Annex 19**.

4.5.5 Capital instruments which do not meet the criteria for inclusion in Common Equity Tier 1 will be excluded from Common Equity Tier 1 as on April 1, 2013.

4.5.6 An illustration of transitional arrangements - Capital instruments which no longer qualify as non-common equity Tier 1 capital or Tier 2 capital is furnished in the **Annex 12**.

## **5. Capital Charge for Credit Risk**

### **5.1 General**

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 claims on the central government will attract a zero risk weight. Central Government guaranteed claims will attract a zero risk weight.

5.2.2 The Direct loan / credit / overdraft exposure, if any, of banks to the State Governments and the investment in State Government securities will attract zero risk weight. State Government guaranteed claims will attract 20 per cent risk weight.

5.2.3 The risk weight applicable to claims on central government exposures will also apply to the claims on the Reserve Bank of India, DICGC, Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) and Credit Risk Guarantee Fund Trust for Low Income Housing (CRGFTLIH)<sup>29</sup>. The claims on ECGC will attract a risk weight of 20 per cent.

5.2.4 The above risk weights for both direct claims and guarantee claims will be applicable as long as they are classified as 'standard' / 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.

5.2.5 The amount outstanding in the account styled as 'Amount receivable from Government of India under Agricultural Debt Waiver Scheme, 2008' shall be treated as a claim on the Government of India and would attract zero risk weight for the purpose of capital adequacy norms. However, the amount outstanding in the accounts covered by the Debt Relief Scheme shall be treated as a claim on the borrower and risk weighted as per the extant norms.

5.2.6 The above risk weights will be applied if such exposures are denominated in Indian Rupees and also funded in Indian Rupees.

### **5.3 Claims on Foreign Sovereigns**

5.3.1 Claims on foreign sovereigns will attract risk weights as per the rating assigned<sup>30</sup> to those sovereigns / sovereign claims by international rating agencies as follows:

<sup>29</sup> Please refer to the [circular DBOD.No.BP.BC-90/21.04.048/2012-13 dated April 16, 2013](#) on Advances Guaranteed by 'Credit Risk Guarantee Fund Trust for Low Income Housing (CRGFTLIH) - Risk Weights and Provisioning'.

<sup>30</sup> 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.

**Table 2: Claims on Foreign Sovereigns – Risk Weights**

<b>S&amp;P*/ ratings</b>	<b>Fitch</b>	<b>AAA to AA</b>	<b>A</b>	<b>BBB</b>	<b>BB to B</b>	<b>Below B</b>	<b>Unrated</b>
<b>Moody's ratings</b>		<b>Aaa to Aa</b>	<b>A</b>	<b>Baa</b>	<b>Ba to B</b>	<b>Below B</b>	<b>Unrated</b>
<b>Risk weight (%)</b>		0	20	50	100	150	100

\* Standard & Poor's

5.3.2 Claims denominated in domestic currency of the foreign sovereign met out of the resources in the same currency raised in the jurisdiction<sup>31</sup> 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 claims 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 the international rating agencies as under:

**Table 3: Claims on Foreign PSEs – Risk Weights**

<b>S&amp;P/ Fitch ratings</b>	<b>AAA to AA</b>	<b>A</b>	<b>BBB to BB</b>	<b>Below BB</b>	<b>Unrated</b>
<b>Moody's ratings</b>	<b>Aaa to Aa</b>	<b>A</b>	<b>Baa to Ba</b>	<b>Below Ba</b>	<b>Unrated</b>
<b>RW (%)</b>	20	50	100	150	100

#### **5.5 Claims on MDBs, BIS and IMF**

Claims 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 claims on scheduled banks meeting the minimum capital adequacy requirements and assigned a uniform twenty per cent risk weight:

- (a) World Bank Group: IBRD and IFC,
- (b) Asian Development Bank,
- (c) African Development Bank,
- (d) European Bank for Reconstruction and Development,
- (e) Inter-American Development Bank,
- (f) European Investment Bank,
- (g) European Investment Fund,
- (h) Nordic Investment Bank,
- (i) Caribbean Development Bank,
- (j) Islamic Development Bank and
- (k) Council of Europe Development Bank.

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

#### **5.6 Claims on Banks (Exposure to capital instruments)**

<sup>31</sup> 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.

5.6.1 In case of a banks' investment in capital instruments of other banks, the following such **investments** would not be deducted, but would attract appropriate risk weights (refer to the paragraph 4.4.9 above:

- (i) Investments in **capital instruments** of banks where the investing bank holds not more than 10% of the issued common shares of the investee banks, subject to the following conditions:
- Aggregate of these investments, together with investments in the capital instruments in insurance and other financial entities, do not exceed 10% of Common Equity of the investing bank; and
  - The equity investment in the investee entities is outside the scope of regulatory consolidation.
- (ii) **Equity investments** in other banks where the investing bank holds more than 10% of the issued common shares of the investee banks, subject to the following conditions:
- Aggregate of these investments, together with such investments in insurance and other financial entities, do not exceed 10% of Common Equity of the investing bank.
  - The equity investment in the investee entities is outside the scope of regulatory consolidation.

Accordingly, the claims on banks incorporated in India and the branches of foreign banks in India, other than those deducted in terms of paragraph 4.4.9 above, will be risk weighted as under:

**Table 4: Claims on Banks<sup>32</sup> Incorporated in India and Foreign Bank Branches in India**

	Risk Weights (%)					
	All Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks)			All Non-Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks)		
Level of Common Equity Tier 1 capital (CET1) including applicable capital conservation buffer (CCB) (%) of the investee bank (where applicable)	Investments referred to in paragraph 5.6.1 (i)	Investments referred to in paragraph 5.6.1 (ii)	All other claims	Investments referred to in paragraph 5.6.1 (i)	Investments referred to in paragraph 5.6.1 (ii)	All Other Claims
1	2	3	4	5	6	7
Applicable Minimum CET1 + Applicable CCB and above	125 % or the risk weight as per the rating of the instrument or counterparty, whichever is higher	250	20	125% or the risk weight as per the rating of the instrument or counterparty, whichever is higher	300	100

<sup>32</sup> For claims held in AFS and HFT portfolios, please see the paragraphs 8.3.5 and 8.4.4 under 'capital charge for market risk'

	Risk Weights (%)					
	All Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co- Operative Banks)			All Non-Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co- Operative Banks )		
Applicable Minimum CET1 + CCB = 75% and <100% of applicable CCB <sup>33</sup>	150	300	50	250	350	150
Applicable Minimum CET1 + CCB = 50% and <75% of applicable CCB	250	350	100	350	450	250
Applicable Minimum CET1 + CCB = 0% and <50% of applicable CCB	350	450	150	625	Full deduction*	350
Minimum CET1 less than applicable minimum	625	Full deduction*	625	Full deduction*	Full deduction*	625

\* The deduction should be made from Common Equity Tier 1 Capital.

**Notes:**

- (i) In the case of banks where no capital adequacy norms have been prescribed by the RBI, the lending / investing bank may calculate the CRAR of the cooperative bank concerned, notionally, by obtaining necessary information from the investee bank, using the capital adequacy norms as applicable to the commercial banks. In case, it is not found feasible to compute CRAR on such notional basis, the risk weight of 350 or 625 per cent, as per the risk perception of the investing bank, should be applied uniformly to the investing bank's entire exposure.
- (ii) In case of banks where capital adequacy norms are not applicable at present, the matter of investments in their capital-eligible instruments would not arise for now. However, this Table above will become applicable to them, if in future they issue any capital instruments where other banks are eligible to invest.
- (iii) Till such time the investee banks have not disclosed their Basel III capital ratios publicly, the risk weights / capital charges may be arrived at based on the applicable tables / paragraph as contained in the [Master Circular DBOD.No.BP.BC.4/21.06.001/2015-16 dated July 1, 2015](#) on Prudential Guidelines on Capital Adequacy and Market Discipline - New Capital Adequacy Framework.

5.6.2 The claims on foreign banks will be risk weighted as under as per the ratings assigned by international rating agencies.

**Table 5: Claims on Foreign Banks – Risk Weights**

S &P / Fitch ratings	AAA to AA	A	BBB	BB to B	Below B	Unrated
Moody's ratings	Aaa to Aa	A	Baa	Ba to B	Below B	Unrated
Risk weight (%)	20	50	50	100	150	50

The exposures of the Indian branches of foreign banks, guaranteed / counter-guaranteed by the overseas Head Offices or the bank's branch in another country would amount to a claim on the parent foreign bank and would also attract the risk weights as per Table 5 above.

<sup>33</sup> For example, as on March 31, 2016, minimum Common Equity Tier 1 of 5.5% and CCB between equal to 75% of 1.25% and less than 1.25%.

5.6.3 However, the claims on a bank which are denominated in 'domestic'<sup>34</sup> foreign currency met out of the resources in the same currency raised in that jurisdiction will be risk weighted at 20 per cent 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 claims 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, AFCs and NBFC-IFCs

5.8.1 Claims on corporates<sup>35</sup>, exposures on Asset Finance Companies (AFCs) and Non-Banking Finance Companies-Infrastructure Finance Companies (NBFC-IFC)<sup>36</sup>, shall be risk weighted as per the ratings assigned by the rating agencies registered with the SEBI and accredited by the Reserve Bank of India. The following table indicates the risk weight applicable to claims on corporates, AFCs and NBFC-IFCs.

**Table 6: Part A – Long term Claims on Corporates – Risk Weights**

Domestic agencies rating	AAA	AA	A	BBB	BB & below	Unrated
Risk weight (%)	20	30	50	100	150	100

**Table 6: Part B - Short Term Claims on Corporates - Risk Weights**

CARE	CRISIL	India Ratings and Research Private Limited (India Ratings)	ICRA	Brickwork	SMERA Ratings Ltd. (SMERA) <sup>37</sup>	(%)
CARE A1+	CRISIL A1+	IND A1+	ICRA A1+	Brickwork A1+	SMERA A1+	20
CARE A1	CRISIL A1	IND A1	ICRA A1	Brickwork A1	SMERA A1	30
CARE A2	CRISIL A2	IND A2	ICRA A2	Brickwork A2	SMERA A2	50
CARE A3	CRISIL A3	IND A3	ICRA A3	Brickwork A3	SMERA A3	100
CARE A4 & D	CRISIL A4 & D	IND A4 & D	ICRA A4 & D	Brickwork A4 & D	SMERA A4 & D	150
Unrated	Unrated	Unrated	Unrated	Unrated	Unrated	100

### Note:

(i) Risk weight on claims on AFCs would continue to be governed by credit rating of the AFCs, except that claims that attract a risk weight of 150 per cent under NCAF shall be reduced to a level of 100 per cent.

(ii) No claim on an unrated corporate may be given a risk weight preferential to that

<sup>34</sup> 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 per cent 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.

<sup>35</sup> Claims on corporates will include all fund based and non-fund based exposures other than those which qualify for inclusion under 'sovereign', 'bank', 'regulatory retail', 'residential mortgage', 'non performing assets', specified category addressed separately in these guidelines.

<sup>36</sup> [Circular DBOD.No.BP.BC.74/21.06.001/2009-10 dated February 12, 2010.](#)

<sup>37</sup> Please refer to [circular DBOD.BP.BC.No.59/21.06.007/2013-14 dated October 17, 2013.](#)

assigned to its sovereign of incorporation.

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 per cent.

5.8.3 With a view to reflecting a higher element of inherent risk which may be latent in entities whose obligations have been subjected to re-structuring / re-scheduling either by banks on their own or along with other bankers / creditors, the unrated standard / performing claims on these entities should be assigned a higher risk weight 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. The applicable risk weights will be 125 per cent.

5.8.4 The claims on non-resident corporates will be risk weighted as under as per the ratings assigned by international rating agencies.

**Table 7: Claims on Non-Resident Corporates – Risk Weights**

<b>S&amp;P/ Fitch Ratings</b>	<b>AAA to AA</b>	<b>A</b>	<b>B to B</b>	<b>Below BB</b>	<b>Unrated</b>
<b>Moody's ratings</b>	<b>Aaa to Aa</b>	<b>A</b>	<b>Ba to B</b>	<b>Below Ba</b>	<b>Unrated</b>
<b>RW (%)</b>	20	50	100	150	100

## 5.9 Claims included in the Regulatory Retail Portfolios

5.9.1 Claims (including both fund-based and non-fund based) 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. Claims included in this portfolio shall be assigned a risk-weight of 75 per cent, except as provided in paragraph 5.12 below for non-performing assets.

5.9.2 The following claims, 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<sup>38</sup> or claims secured by commercial real estate<sup>39</sup>;
- (c) Loans and Advances to bank's own staff which are fully covered by superannuation benefits and / or mortgage of flat/ house;
- (d) Consumer Credit, including Personal Loans and credit card receivables;
- (e) Capital Market Exposures;

<sup>38</sup> Mortgage loans qualifying for treatment as 'claims secured by residential property' are defined in paragraph 5.10.

<sup>39</sup> As defined in paragraph 5.11.1.

(f) Venture Capital Funds.

5.9.3 Qualifying Criteria

(i) Orientation Criterion - The exposure (both fund-based and non fund-based) 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 and HUF; small business would include 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 ` 50 crore. The turnover criterion will be linked to the average of the last three years in the case of existing entities; projected turnover in the case of new entities; and both actual and projected turnover for entities which are yet to complete three years.

(ii) Product Criterion - The exposure (both fund-based and non-fund-based) takes the form of any of the following: revolving credits and lines of credit (including overdrafts), term loans and leases (e.g. installment 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 per cent risk weight. One way of achieving this is that no aggregate exposure to one counterpart should exceed 0.2 per cent 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 ` 5 crore.

5.9.4 For the purpose of ascertaining compliance with the absolute threshold, exposure would mean sanctioned limit or the actual outstanding, whichever 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 The RBI 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 RBI would also consider whether the credit quality of regulatory retail claims held by individual banks should warrant a standard risk weight higher than 75 per cent.

**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 as indicated as per Table 7A below, based on Board approved valuation policy. LTV ratio should be computed as a percentage with total outstanding in the account (viz. "principal + accrued interest + other charges pertaining to the loan" without any netting) in the numerator and the realisable value of the residential property mortgaged to the bank in the denominator.

**Table 7A: Claims Secured by Residential Property – Risk Weights<sup>40</sup>**

Category of Loan	LTV	Ratio <sup>41</sup>	Risk	Weight
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<sup>40</sup> Please refer to the circular DBOD.BP.BC.No.104/08.12.015/2012-13 dated June 21, 2013 on Housing Sector: New sub-sector CRE (Residential Housing) within CRE & Rationalisation of provisioning, risk-weight and LTV ratios

<sup>41</sup> Please also refer to the circular DBOD.No.BP.BC.78/08.12.001/2011-12 dated February 3, 2012 on Housing Loans by Commercial Banks – Loan to Value (LTV) Ratio.

	(%)	(%)
(a) Individual Housing Loans		
(i) Up to Rs. 20 lakh	90	50
(ii) Above Rs. 20 lakh and up to Rs. 75 lakh	80	50
(iii) Above Rs.75 lakh	75	75
(b) Commercial Real Estate – Residential Housing (CRE-RH)	N A	75
(c) Commercial Real Estate (CRE)	N A	100

**Notes:**

1 - The LTV ratio should not exceed the prescribed ceiling in all fresh cases of sanction. In case the LTV ratio is currently above the ceiling prescribed for any reasons, efforts shall be made to bring it within limits.

2 - Banks' exposures to third dwelling unit onwards to an individual will also be treated as CRE exposures, as indicated in paragraph 2 in Appendix 2 of Circular DBOD.BP.BC.No.42/08.12.015/2009-10 dated September 9, 2009 on 'Guidelines on Classification of Exposures as Commercial Real Estate (CRE) Exposures'.

5.10.2 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.

5.10.3 Restructured housing loans should be risk weighted with an additional risk weight of 25 per cent to the risk weights prescribed above.

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 (refer to paragraph 5.16 below).

**5.11 Claims Classified as Commercial Real Estate Exposure**

5.11.1 Commercial Real Estate exposure is defined as per the guidelines issued vide circular DBOD.No.BP.BC.42/08.12.015/2009-10 dated September 9, 2009.

5.11.2 Claims mentioned above will attract a risk weight of 100 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 in terms of 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 per cent risk weight when specific provisions are less than 20 per cent of the outstanding amount of the NPA ;
- (ii) 100 per cent risk weight when specific provisions are at least 20 per cent of the outstanding amount of the NPA ;
- (iii) 50 per cent risk weight when specific provisions are at least 50 per cent of the outstanding amount of the NPA

5.12.2 For the purpose of computing the level of specific provisions in NPAs for deciding

the risk-weighting, all funded NPA exposures of a single counterparty (without netting the value of the eligible collateral) should be reckoned in the denominator.

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 (paragraph 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 per cent risk weight may apply, net of specific provisions, when provisions reach 15 per cent 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 per cent net of specific provisions. If the specific provisions in such loans are at least 20 per cent but less than 50 per cent of the outstanding amount, the risk weight applicable to the loan net of specific provisions will be 75 per cent. If the specific provisions are 50 per cent or more the applicable risk weight will be 50 per cent.

### 5.13 Specified Categories

5.13.1 Fund based and non-fund based claims on Venture Capital Funds, which are considered as high risk exposures, will attract a higher risk weight of 150 per cent.

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

5.13.3 Consumer credit, including personal loans and credit card receivables but excluding educational loans, will attract a higher risk weight of 125 per cent or higher, if warranted by the external rating (or, the lack of it) of the counterparty. As gold and gold jewellery are eligible financial collateral, the counterparty exposure in respect of personal loans secured by gold and gold jewellery will be worked out under the comprehensive approach as per paragraph 7.3.4. The 'exposure value after risk mitigation' shall attract the risk weight of 125 per cent.

5.13.4 Advances classified as 'Capital market exposures' will attract a 125 per cent risk weight or risk weight warranted by external rating (or lack of it) of the counterparty, whichever is higher. These risk weights will also be applicable to all banking book exposures, which are exempted from capital market exposure ceilings for direct investments / total capital market exposures<sup>42</sup>.

5.13.5 The exposure to **capital instruments** issued by NBFCs which are not deducted and are required to be risk weighted in terms of paragraph 4.4.9.2(B) would be risk weighted at 125% or as per the external ratings, whichever is higher. The exposure to **equity instruments** issued by NBFCs which are not deducted and are required to be risk weighted in terms of paragraph 4.4.9.2(C) would be risk weighted at 250%. The claims (other than in the form of capital instruments of investee companies) on rated as well as unrated 'Non-

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<sup>42</sup> The applicable risk weight for banking book exposure / capital charge for market risk exposure for a bank's equity investments in other banks/financial institutions etc. are covered under paragraphs 5 and 8 respectively. These risk weights / capital charge will also apply to exposures which are exempt from 'capital market exposure' limit.

deposit Taking Systemically Important Non-Banking Financial Companies (NBFC-ND-SI), other than AFCs, NBFC-IFCs and NBFC-IDF, regardless of the amount of claim, shall be uniformly risk weighted at 100% (for risk weighting claims on AFCs, NBFC-IFC and NBFC-IDFs<sup>43</sup>, please refer to paragraph 5.8.1).

5.13.6 All investments in the paid-up equity of non-financial entities (other than subsidiaries) which exceed 10% of the issued common share capital of the issuing entity or where the entity is an unconsolidated affiliate as defined in paragraph 4.4.9.2(C)(i) will receive a risk weight of 1250%<sup>44</sup>. Equity investments equal to or below 10% paid-up equity of such investee companies shall be assigned a 125% risk weight or the risk weight as warranted by rating or lack of it, whichever higher.<sup>45</sup>

5.13.7 The exposure to capital instruments issued by financial entities (other than banks and NBFCs) which are not deducted and are required to be risk weighted in terms of paragraph 4.4.9.2(B) would be risk weighted at 125% or as per the external ratings whichever is higher. The exposure to equity instruments issued by financial entities (other than banks and NBFCs) which are not deducted and are required to be risk weighted in terms of paragraph 4.4.9.2(C) would be risk weighted at 250%.

5.13.8 Bank's investments in the non-equity capital eligible instruments of other banks should be risk weighted as prescribed in paragraph 5.6.1.

5.13.9 Unhedged Foreign Currency Exposure<sup>46</sup>

The extent of unhedged foreign currency exposures of entities<sup>47</sup> continues to be significant and this can increase the probability of default in times of high currency volatility. It was, therefore, decided to introduce incremental capital requirements for bank exposures to entities with unhedged foreign currency exposures (i.e. over and above the present capital requirements) as per the instructions contained in circulars DBOD.No.BP.BC.85/21.06.200/2013-14 and DBOD.No.BP.BC.116/ 21.06.200/2013-14 dated January 15, 2014 and June 3, 2014, respectively, as under:

Likely Loss/EBID (%)	Incremental Capital Requirement
Up to 75 per cent	0
More than 75 per cent	25 per cent increase in the risk weight

## 5.14 Other Assets

5.14.1 Loans and advances to bank's own staff which are fully covered by superannuation benefits and/or mortgage of flat/ house will attract a 20 per cent risk weight. Since flat / house is not an eligible collateral and since banks normally recover the dues by adjusting the superannuation benefits only at the time of cessation from service, the concessional risk weight shall be applied without any adjustment of the outstanding amount. In case a bank is holding eligible collateral in respect of amounts due from a staff member, the outstanding amount in respect of that staff member may be adjusted to the extent permissible, as indicated in paragraph 7 below.

5.14.2 Other loans and advances to bank's own staff will be eligible for inclusion under

<sup>43</sup> Please refer to [circular DBOD.No.BP.BC.74/21.06.001/2009-10 dated February 12, 2010](#)

<sup>44</sup> Equity investments in non-financial subsidiaries will be deducted from the consolidated / solo bank capital as indicated in paragraphs 3.3.2 / 3.4.1.

<sup>45</sup> Equity shares of entities acquired by banks under the guidelines on 'Strategic Debt Restructuring Scheme' contained in [circular DBR.BP.BC.No.101/21.04.132/2014-15 dated June 8, 2015](#) shall be assigned a 150% risk weight for a period of 18 months from the 'reference date'. After 18 months from the 'reference date', these shares shall be assigned risk weights as per the extant capital adequacy regulations. For this purpose, 'reference date' is the date of Joint Lenders Forum's decision to undertake Strategic Debt Restructuring.

<sup>46</sup> Please refer to the [circulars DBOD.No.BP.BC.85/21.06.200/2013-14](#) and [DBOD.No.BP.BC.116/21.06.200/2013-14](#) dated January 15, 2014 and June 3, 2014, respectively on "Capital and Provisioning Requirements for Exposures to entities with Unhedged Foreign Currency Exposure".

<sup>47</sup> In this context, 'entities' means those entities which have borrowed from banks including borrowing in INR and other currencies.

regulatory retail portfolio and will therefore attract a 75 per cent risk weight.

5.14.3 All other assets will attract a uniform risk weight of 100 per cent.

### 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 to the purpose for which the bank has extended finance or the type of asset, whichever is higher.
- (ii) Where the off-balance sheet item is secured by eligible collateral or guarantee, the credit risk mitigation guidelines detailed in paragraph 7 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 fund-based facility<sup>48</sup>, 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

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<sup>48</sup> For example: (a) 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 per cent (since the CC 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.

(b) A TL of Rs. 700 cr is sanctioned for a large project which can be drawn down in stages over a three year period. The terms of sanction allow draw down in three stages – Rs. 150 cr in Stage I, Rs. 200 cr in Stage II and Rs. 350 cr in Stage III, where the borrower needs the bank's explicit approval for draw down under Stages II and III after completion of certain formalities. If the borrower has drawn already Rs. 50 cr under Stage I, then the undrawn portion would be computed with reference to Stage I alone i.e., it will be Rs.100 cr. If Stage I is scheduled to be completed within one year, the CCF will be 20% and if it is more than one year then the applicable CCF will be 50 per cent.

maturity of 15 months (50 per cent - CCF) to issue a six month documentary letter of credit (20 per cent - CCF) would attract the lower of the CCF i.e., the CCF applicable to the documentary letter of credit viz. 20 per cent.

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

**Table 8: Credit Conversion Factors – Non-market related Off-Balance Sheet Items**

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 lending / securities borrowing transactions)	100
7.	Note issuance facilities and revolving / non-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 <sup>49</sup>	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

- (v) In regard to non-market related off-balance sheet items, the following transactions

<sup>49</sup> However, this will be subject to banks demonstrating that they are actually able to cancel any undrawn commitments in case of deterioration in a borrower's credit worthiness failing which the credit conversion factor applicable to such facilities which are not cancellable will apply. Banks' compliance to these guidelines will be assessed under Annual Financial Inspection / Supervisory Review and Evaluation Process under Pillar 2 of RBI.

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 discounted by other banks and 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.

- (vi) Issue of Irrevocable Payment Commitment by banks to various Stock Exchanges on behalf of Mutual Funds and FII is a financial guarantee with a Credit Conversion Factor (CCF) of 100. However, capital will have to be maintained only on exposure which is reckoned as CME, i.e. 50% of the amount, because the rest of the exposure is deemed to have been covered by cash/securities which are admissible risk mitigants as per capital adequacy framework. Thus, capital is to be maintained on the amount taken for CME and the risk weight would be 125% thereon.
- (vii) For classification of banks guarantees<sup>50</sup> viz. direct credit substitutes and transaction-related contingent items etc. (Sr. No. 1 and 2 of Table 8 above), the following principles should be kept in view for the application of CCFs:

(a) Financial guarantees are direct credit substitutes wherein a bank irrevocably undertakes to guarantee the repayment of a contractual financial obligation. Financial guarantees essentially carry the same credit risk as a direct extension of credit i.e., the risk of loss is directly linked to the creditworthiness of the counterparty against whom a potential claim is acquired. An indicative list of financial guarantees, attracting a CCF of 100 per cent is as under:

- Guarantees for credit facilities;
- Guarantees in lieu of repayment of financial securities;
- Guarantees in lieu of margin requirements of exchanges;
- Guarantees for mobilisation advance, advance money before the commencement of a project and for money to be received in various stages of project implementation;
- Guarantees towards revenue dues, taxes, duties, levies etc. in favour of Tax/ Customs / Port / Excise Authorities and for disputed liabilities for litigation pending at courts;
- Credit Enhancements;
- Liquidity facilities for securitisation transactions;
- Acceptances (including endorsements with the character of acceptance);
- Deferred payment guarantees.

(b) Performance guarantees are essentially transaction-related contingencies that involve an irrevocable undertaking to pay a third party in the event the counterparty fails to fulfil or perform a contractual non-financial obligation. In such transactions, the risk of loss depends on the event which need not necessarily be related to the creditworthiness of the counterparty involved. An indicative list of performance guarantees, attracting a CCF of 50 per cent is as under:

- Bid bonds;
- Performance bonds and export performance guarantees;
- Guarantees in lieu of security deposits / earnest money deposits (EMD) for participating in tenders;
- Retention money guarantees;
- Warranties, indemnities and standby letters of credit related to particular transaction.

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<sup>50</sup> Please refer to the [circular DBOD.No.BP.BC.89 /21.04.009 /2012-13 dated April 02, 2013](#) on 'New Capital Adequacy Framework- Non-market related Off Balance Sheet Items- Bank Guarantees'.

### 5.15.3 Treatment of Total Counterparty Credit Risk

5.15.3.1 The total capital charge for counterparty credit risk will cover the default risk as well as credit migration risk of the counterparty reflected in mark-to-market losses on the expected counterparty risk (such losses being known as credit value adjustments, CVA). Counterparty risk may arise in the context of OTC derivatives and Securities Financing Transactions. Such instruments generally exhibit the following abstract characteristics:

- The transactions generate a current exposure or market value.
- The transactions have an associated random future market value based on market variables.
- The transactions generate an exchange of payments or an exchange of a financial instrument against payment.
- Collateral may be used to mitigate risk exposure and is inherent in the nature of some transactions.
- Short-term financing may be a primary objective in that the transactions mostly consist of an exchange of one asset for another (cash or securities) for a relatively short period of time, usually for the business purpose of financing. The two sides of the transactions are not the result of separate decisions but form an indivisible whole to accomplish a defined objective.
- Netting may be used to mitigate the risk<sup>51</sup>.
- Positions are frequently valued (most commonly on a daily basis), according to market variables.
- Remargining may be employed.

The 'capital charge for default risk' will be calculated using **Current Exposure Method** as explained in **paragraph 5.15.3.5**. The 'capital charge for CVA risk' will be calculated as explained in **paragraph 5.15.3.6**. The Current Exposure method is applicable only to OTC derivatives. The counterparty risk on account of Securities Financing Transactions is covered in **paragraph 7.3.8** of the Master Circular.

5.15.3.2 Exemption from capital requirements for counterparty risk is permitted for foreign exchange (except gold) contracts which have an original maturity of 14 calendar days or less.

#### 5.15.3.3 Definitions and general terminology

**Counterparty Credit Risk (CCR)** is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, CCR creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

**Securities Financing Transactions (SFTs)** are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, collateralised borrowing and lending (CBLO) and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin

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<sup>51</sup> Please refer to [DBOD.No.BP.BC.48/21.06.001/2010-11 October 1, 2010](#) on Prudential Norms for Off-Balance Sheet Exposures of Banks – Bilateral netting of counterparty credit exposures. As indicated therein, bilateral netting of mark-to-market (MTM) values arising on account of derivative contracts is not permitted.

agreements.

**Hedging Set** is a group of risk positions from the transactions within a single netting set for which only their balance is relevant for determining the exposure amount or EAD under the CCR standardised method.

**Current Exposure** is the larger of zero, or the market value of a transaction or portfolio of transactions within a netting set with a counterparty that would be lost upon the default of the counterparty, assuming no recovery on the value of those transactions in bankruptcy. Current exposure is often also called Replacement Cost.

**Credit Valuation Adjustment** is an adjustment to the mid-market valuation of the portfolio of trades with a counterparty. This adjustment reflects the market value of the credit risk due to any failure to perform on contractual agreements with a counterparty. This adjustment may reflect the market value of the credit risk of the counterparty or the market value of the credit risk of both the bank and the counterparty.

**One-Sided Credit Valuation Adjustment** is a credit valuation adjustment that reflects the market value of the credit risk of the counterparty to the firm, but does not reflect the market value of the credit risk of the bank to the counterparty.

A **central counterparty**<sup>52</sup> (CCP) is a clearing house that interposes itself between counterparties to contracts traded in one or more financial markets, becoming the buyer to every seller and the seller to every buyer and thereby ensuring the future performance of open contracts. A CCP becomes counterparty to trades with market participants through novation, an open offer system, or another legally binding arrangement. For the purposes of the capital framework, a CCP is a financial institution.

A **qualifying central counterparty** (QCCP) is an entity that is licensed to operate as a CCP (including a license granted by way of confirming an exemption), and is permitted by the appropriate regulator / overseer to operate as such with respect to the products offered. This is subject to the provision that the CCP is based and prudentially supervised in a jurisdiction where the relevant regulator/overseer has established, and publicly indicated that it applies to the CCP on an ongoing basis, domestic rules and regulations that are consistent with the CPSS-IOSCO Principles for Financial Market Infrastructures.

A **clearing member** is a member of, or a direct participant in, a CCP that is entitled to enter into a transaction with the CCP, regardless of whether it enters into trades with a CCP for its own hedging, investment or speculative purposes or whether it also enters into trades as a financial intermediary between the CCP and other market participants<sup>53</sup>.

A **client** is a party to a transaction with a CCP through either a clearing member acting as a financial intermediary, or a clearing member guaranteeing the performance of the client to the CCP.

**Initial margin** means a clearing member's or client's funded collateral posted to the CCP to mitigate the potential future exposure of the CCP to the clearing member arising from the possible future change in the value of their transactions. For the purposes of these guidelines, initial margin does not include contributions to a CCP for mutualised loss sharing arrangements (i.e. in case a CCP uses initial margin to mutualise losses among the clearing members, it will be treated as a default fund exposure).

**Variation margin** means a clearing member's or client's funded collateral posted on a daily or intraday basis to a CCP based upon price movements of their transactions.

**Trade exposures** include the current<sup>54</sup> and potential future exposure of a clearing member or a client to a CCP arising from OTC derivatives, exchange traded derivatives transactions or SFTs, as well as initial margin.

**Default funds**, also known as clearing deposits or guarantee fund contributions (or any other names), are clearing members' funded or unfunded contributions towards, or underwriting of, a CCP's mutualised loss sharing arrangements. The description given by a CCP to its

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<sup>52</sup> Please refer to [circular DBOD.No.BP.BC.28/21.06.201/2013-14 dated July 2, 2013](#).

<sup>53</sup> For the purpose of these guidelines, where a CCP has a link to a second CCP, that second CCP is to be treated as a clearing member of the first CCP. Whether the second CCP's collateral contribution to the first CCP is treated as initial margin or a default fund contribution will depend upon the legal arrangement between the CCPs. In such cases, if any, RBI should be consulted for determining the treatment of this initial margin and default fund contributions.

<sup>54</sup> For the purpose of this definition, the current exposure of a clearing member includes the variation margin due to the clearing member but not yet received.

mutualised loss sharing arrangements is not determinative of their status as a default fund; rather, the substance of such arrangements will govern their status.

**Offsetting transaction** means the transaction leg between the clearing member and the CCP when the clearing member acts on behalf of a client (e.g. when a clearing member clears or novates a client's trade).

5.15.3.4 When entering into bilateral OTC derivative transactions, banks are required to hold capital to protect against the risk that the counterparty defaults and for credit valuation adjustment (CVA) risk. The CVA charge is introduced as part of the Basel III framework as explained in **paragraphs 5.15.3.5 and 5.15.3.6** below.

#### 5.15.3.5 Default Risk Capital Charge for CCR

The exposure amount for the purpose of computing for default risk capital charge for counterparty credit risk will be calculated using the **Current Exposure Method (CEM)** described as under:

(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. For this purpose, credit equivalent amount will be adjusted for legally valid eligible financial collaterals in accordance with **paragraph 7.3 – Credit Risk Mitigation Techniques – Collateralised Transactions** and the provisions held by the bank for CVA losses.

(ii) The CVA loss will be calculated as a prudent valuation adjustment as per prudent valuation guidance contained in **paragraph 8.8.1**, without taking into account any offsetting debit valuation adjustments (DVA) which have been deducted from capital (please see paragraph 4.4.6). The CVA loss deducted from exposures to determine outstanding EAD is the CVA loss gross of all DVA which have been separately deducted from capital. To the extent DVA has not been separately deducted from a bank's capital, the CVA loss used to determine outstanding EAD will be net of such DVA. Risk Weighted Assets for a given OTC derivative counterparty may be calculated as the applicable risk weight under the Standardised or IRB approach multiplied by the outstanding EAD of the counterparty. This reduction of EAD by CVA losses does not apply to the determination of the CVA risk capital charge as per formula given in **paragraph 5.15.3.6 (ii)**.

(iii) While computing the credit exposure banks may exclude 'sold options', provided the entire premium / fee or any other form of income is received / realised.

(iv) 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.

(v) 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 9: Credit Conversion Factors for Market-Related Off-Balance Sheet Items<sup>55</sup>**

	Credit Conversion Factors (%)	
	Interest Rate Contracts	Exchange Rate Contracts and Gold
One year or less	0.50	2.00
Over one year to five years	1.00	10.00
Over five years	3.00	15.00

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

(vii) 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

<sup>55</sup> Please refer to paragraph 8.6.3 for credit default swaps.

next reset date. However, in the case of interest rate contracts which have residual maturities of more than one year and meet the above criteria, the CCF or add-on factor is subject to a floor of 1.0%.

(viii) 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.

(ix) 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 / Base Rate would have an effective notional amount of USD 2 million.

### 5.15.3.6 Capitalisation of mark-to-market counterparty risk losses (CVA capital charge)

(i) In addition to the default risk capital requirement for counterparty credit risk, banks are also required to compute an additional capital charge to cover the risk of mark-to-market losses on the expected counterparty risk (such losses being known as credit value adjustments, CVA) to OTC derivatives. The CVA capital charge will be calculated in the manner indicated below in para (ii). Banks are not required to include in this capital charge (a) transactions with a central counterparty (CCP); and (b) securities financing transactions (SFTs).

(ii) Banks should use the following formula to calculate a **portfolio capital charge** for CVA risk for their counterparties:

$$K = 2.33 \cdot \sqrt{h} \cdot \sqrt{\left( \sum_i 0.5 \cdot w_i \cdot (M_i \cdot EAD_i^{total} - M_i^{hedged} B_i) - \sum_{ind} w_{ind} \cdot M_{ind} \cdot B_{ind} \right)^2 + \sum_i 0.75 \cdot w_i^2 \cdot (M_i \cdot EAD_i^{total} - M_i^{hedged} B_i)^2}$$

- **h** is the one-year risk horizon (in units of a year),  $h = 1$ .
- **w<sub>i</sub>** is the weight applicable to counterparty 'i'. Counterparty 'i' should be mapped to one of the seven weights **w<sub>i</sub>** based on its external rating, as shown in the **Table** below in the last bullet point.
- **EAD<sub>i</sub><sup>total</sup>** is the gross exposure at default of counterparty 'i' without taking into account the effect of bilateral netting<sup>56</sup> including the effect of collateral as per the existing Current Exposure Method (CEM) as applicable to the calculation of counterparty risk capital charges for such counterparty by the bank. The exposure should be discounted by applying the factor  $(1 - \exp(-0.05 \cdot M_i)) / (0.05 \cdot M_i)$ .
- **B<sub>i</sub>** is the notional of purchased single name CDS hedges (summed if more than one position) referencing counterparty 'i', and used to hedge CVA risk. This notional amount should be discounted by applying the factor  $(1 - \exp(-0.05 \cdot M_i^{hedged})) / (0.05 \cdot M_i^{hedged})$ .
- **B<sub>ind</sub>** is the full notional of one or more index CDS of purchased protection, used to hedge CVA risk. This notional amount should be discounted by applying the factor  $(1 - \exp(-0.05 \cdot M_{ind})) / (0.05 \cdot M_{ind})$ .
- **w<sub>ind</sub>** is the weight applicable to index hedges. The bank must map indices to one of the seven weights **w<sub>i</sub>** based on the average spread of index 'ind'.
- **M<sub>i</sub>** is the effective maturity of the transactions with counterparty 'i'. **M<sub>i</sub>** is the notional weighted average maturity of all the contracts with counterparty 'i'.

<sup>56</sup> Please refer to the [circular DBOD.No.BP.BC.48/21.06.001/2010-11 dated October 1, 2010](#) on bilateral netting of counterparty credit, which states that owing to legal issues bilateral netting of counterparty exposures is not permitted in India. Therefore, each transaction with counterparty becomes its own netting set.

- $M_i^{hedge}$  is the maturity of the hedge instrument with notional  $B_i$  (the quantities  $M_i^{hedge} \cdot B_i$  are to be summed if these are several positions).
- $M^{ind}$  is the maturity of the index hedge 'ind'. In case of more than one index hedge position, it is the notional weighted average maturity.
- For any counterparty that is also a constituent of an index on which a CDS is used for hedging counterparty credit risk, the notional amount attributable to that single name (as per its reference entity weight) may be subtracted from the index CDS notional amount and treated as a single name hedge ( $B_i$ ) of the individual counterparty with maturity based on the maturity of the index.
- The weights are given in the Table below, which are based on the external rating of the counterparty:

**Weights ( $w_i$ )**

Rating	$W_i$
AAA	0.7%
AA	0.7%
A	0.8%
BBB	1.0%
BB	2.0%
B and unrated	3.0%
CCC	10.0% <sup>57</sup>

- In cases where the unrated counterparty is a scheduled commercial bank, banks may use the following Table to arrive at the implied ratings of the counterparty-bank and consequently, the  $W_i$

	Applicable Risk weight of the Counterparty-bank according to Table 4 of paragraph 5.6	Implied ratings	$W_i$	
• Banks monitor position	20	AAA/AA	0.7%	will have to continuously the capital adequacy of their counterparty
	50	A	0.8%	
	100	BBB	1%	
	150	BB	2%	
	625	CCC	10%	

banks so that the effect of any change in the implied ratings is adequately reflected in CVA capital charge calculations.

An illustration of CVA risk capital charge has been furnished in **Annex 13**.

### 5.15.3.7 Calculation of the Aggregate CCR and CVA Risk Capital Charges

The total CCR capital charge for the bank is determined as the sum of the following two components:

- The sum over all counterparties of the CEM based capital charge determined as per **paragraph 5.15.3.5**; and
- The standardised CVA risk capital charge determined as per **paragraph 5.15.3.6**<sup>58</sup>

<sup>57</sup> Please refer to the revised version of Basel III capital rules (bcbs189.doc) issued by the BCBS vide press release on June 1, 2011.

<sup>58</sup> Please refer to the [circular DBOD.No.BP.BC.88/21.06.201/2012-13 dated March 28, 2013](#) on 'Implementation of Basel III Capital Regulations in India – Clarifications', read with [circular DBOD.No.BP.BC.81/21.06.201/2013-14 dated December 31, 2013](#) in terms of which the requirements for CVA risk capital charges would become effective as on April 1, 2014.

### **5.15.3.8 Capital requirement for exposures to Central Counterparties (CCPs)**

#### **Scope of Application**

- (i) Exposures to central counterparties arising from OTC derivatives transactions, exchange traded derivatives transactions and securities financing transactions (SFTs) will be subject to the counterparty credit risk treatment as indicated in this paragraph below.
- (ii) Exposures arising from the settlement of cash transactions (equities, fixed income, spot FX, commodity etc.) are not subject to this treatment. The settlement of cash transactions remains subject to the treatment described in paragraph 5.15.4 of this Master Circular.
- (iii) When the clearing member-to-client leg of an exchange traded derivatives transaction is conducted under a bilateral agreement, both the client bank and the clearing member are to capitalise that transaction as an OTC derivative.
- (iv) For the purpose of capital adequacy framework, CCPs will be considered as financial institution. Accordingly, a bank's investments in the capital of CCPs will be guided in terms of paragraph 4.4.9 of this Master Circular.
- (v) Capital requirements will be dependent on the nature of CCPs viz. Qualifying CCPs (QCCPs) and non-Qualifying CCPs. A Qualifying CCP has been defined under paragraph 5.15.3.3 of this Master Circular.
  - a. Regardless of whether a CCP is classified as a QCCP or not, a bank retains the responsibility to ensure that it maintains adequate capital for its exposures. Under Pillar 2, a bank should consider whether it might need to hold capital in excess of the minimum capital requirements if, for example, (i) its dealings with a CCP give rise to more risky exposures or (ii) where, given the context of that bank's dealings, it is unclear that the CCP meets the definition of a QCCP.
  - b. Banks may be required to hold additional capital against their exposures to QCCPs via Pillar 2, if in the opinion of RBI, it is necessary to do so. This might be considered appropriate where, for example, an external assessment such as an Financial Sector Assessment Program (FSAP) of International Monetary Fund / World Bank has found material shortcomings in the CCP or the regulation of CCPs, and the CCP and / or the CCP regulator have not since publicly addressed the issues identified.
  - c. Where the bank is acting as a clearing member, the bank should assess through appropriate scenario analysis and stress testing whether the level of capital held against exposures to a CCP adequately addresses the inherent risks of those transactions. This assessment will include potential future or contingent exposures resulting from future drawings on default fund commitments, and/or from secondary commitments to take over or replace offsetting transactions from clients of another clearing member in case of this clearing member defaulting or becoming insolvent.
  - d. A bank must monitor and report to senior management and the appropriate committee of the Board (e.g. Risk Management Committee) on a regular basis (quarterly or at more frequent intervals) all of its exposures to CCPs, including exposures arising from trading through a CCP and exposures arising from CCP membership obligations such as default fund contributions.
  - e. Unless Reserve Bank (DBR) requires otherwise, the trades with a former QCCP may continue to be capitalised as though they are with a QCCP for a period not exceeding three months from the date it ceases to qualify as a QCCP. After that time, the bank's exposures with such a central counterparty must be capitalised according to rules applicable for non-QCCP.

### **5.15.3.9 Exposures to Qualifying CCPs (QCCPs)**

#### **(i) Trade exposures**

##### ***Clearing member exposures to QCCPs***

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- (a) Where a bank acts as a clearing member of a QCCP for its own purposes, a risk weight of 2% must be applied to the bank's trade exposure to the QCCP in respect of OTC derivatives transactions, exchange traded derivatives transactions and SFTs.
- (b) The exposure amount for such trade exposure will be calculated in accordance with the Current Exposure Method (CEM) for derivatives and rules as applicable for capital adequacy for Repo / Reverse Repo-style transactions<sup>59</sup>.
- (c) Where settlement is legally enforceable on a net basis in an event of default and regardless of whether the counterparty is insolvent or bankrupt, the total replacement cost of all contracts relevant to the trade exposure determination can be calculated as a net replacement cost if the applicable close-out netting sets meet the requirements set out in **Annex 20** of these guidelines.
- (d) Banks will have to demonstrate that the conditions mentioned in **Annex 20** are fulfilled on a regular basis by obtaining independent and reasoned legal opinion as regards legal certainty of netting of exposures to QCCPs. Banks may also obtain from the QCCPs, the legal opinion taken by the respective QCCPs on the legal certainty of their major activities such as settlement finality, netting, collateral arrangements (including margin arrangements); default procedures etc.

#### **Clearing member exposures to clients**

The clearing member will always capitalise its exposure (including potential CVA<sup>60</sup> risk exposure) to clients as bilateral trades, irrespective of whether the clearing member guarantees the trade or acts as an intermediary between the client and the QCCP. However, to recognize the shorter close-out period for cleared transactions, clearing members can capitalize the exposure to their clients by multiplying the EAD by a scalar which is not less than 0.71.

#### **Client bank exposures to clearing member**

- I. Where a bank is a client of the clearing member, and enters into a transaction with the clearing member acting as a financial intermediary (i.e. the clearing member completes an offsetting transaction with a QCCP), the client's exposures to the clearing member will receive the treatment applicable to the paragraph "clearing member exposure to QCCPs" of this section (mentioned above), if following conditions are met:
  - (a) The offsetting transactions are identified by the QCCP as client transactions and collateral to support them is held by the QCCP and / or the clearing member, as applicable, under arrangements that prevent any losses to the client due to:
    - (i) the default or insolvency of the clearing member;
    - (ii) the default or insolvency of the clearing member's other clients; and
    - (iii) the joint default or insolvency of the clearing member and any of its other clients.

The client bank must obtain an independent, written and reasoned legal opinion that concludes that, in the event of legal challenge, the relevant courts and administrative authorities would find that the client would bear no losses on account of the insolvency of an intermediary under the relevant law, including:

- the law(s) applicable to client bank, clearing member and QCCP;
  - the law of the jurisdiction(s) of the foreign countries in which the client bank, clearing member or QCCP are located
  - the law that governs the individual transactions and collateral; and
  - the law that governs any contract or agreement necessary to meet this condition (a).
- (b) Relevant laws, regulations, rules, contractual, or administrative arrangements provide that the offsetting transactions with the defaulted or insolvent clearing member are highly likely to continue to be indirectly transacted through the QCCP, or by the QCCP, should the clearing member default or become insolvent. In such circumstances, the client positions and collateral with the QCCP will be transferred

<sup>59</sup> Please refer to paragraph 7.3.8 of this Master Circular.

<sup>60</sup> Please refer to Guidelines on Implementation of Basel III Capital Regulations in India - Clarifications ([Circular DBOD.No.BP.BC.88/21.06.201/2012-13 dated March 28, 2013](#) read with [circular DBOD.No.BP.BC.81/21.06.201/2013-14 dated December 31, 2013](#)) in terms of which CVA risk capital charges would become effective as on April 1, 2014.

at the market value unless the client requests to close out the position at the market value. In this context, it may be clarified that if relevant laws, regulations, rules, contractual or administrative agreements provide that trades are highly likely to be ported, this condition can be considered to be met. If there is a clear precedent for transactions being ported at a QCCP and intention of the participants is to continue this practice, then these factors should be considered while assessing if trades are highly likely to be ported. The fact that QCCP documentation does not prohibit client trades from being ported is not sufficient to conclude that they are highly likely to be ported. Other evidence such as the criteria mentioned in this paragraph is necessary to make this claim.

- II. Where a client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default or become jointly insolvent, but all other conditions mentioned above are met and the concerned CCP is a QCCP, a risk weight of 4% will apply to the client's exposure to the clearing member.
- III. Where the client bank does not meet the requirements in the above paragraphs, the bank will be required to capitalize its exposure (including potential CVA risk exposure) to the clearing member as a bilateral trade.
- IV. Under situations in which a client enters into a transaction with the QCCP with a clearing member guaranteeing its performance, the capital requirements will be based on paragraph 5 of this Master Circular.

#### ***Treatment of posted collateral***

- (a) In all cases, any assets or collateral posted must, from the perspective of the bank posting such collateral, receive the risk weights that otherwise applies to such assets or collateral under the capital adequacy framework, regardless of the fact that such assets have been posted as collateral. Thus collateral posted from Banking Book will receive Banking Book treatment and collateral posted from Trading Book will receive Trading Book treatment. Where assets or collateral of a clearing member or client are posted with a QCCP or a clearing member and are not held in a bankruptcy remote manner, the bank posting such assets or collateral must also recognise credit risk based upon the assets or collateral being exposed to risk of loss based on the creditworthiness of the entity<sup>61</sup> holding such assets or collateral.
- (b) Collateral posted by the clearing member (including cash, securities, other pledged assets, and excess initial or variation margin, also called over-collateralisation), that is held by a custodian<sup>62</sup>, and is bankruptcy remote from the QCCP, is not subject to a capital requirement for counterparty credit risk exposure to such bankruptcy remote custodian.
- (c) Collateral posted by a client, that is held by a custodian, and is bankruptcy remote from the QCCP, the clearing member and other clients, is not subject to a capital requirement for counterparty credit risk. If the collateral is held at the QCCP on a client's behalf and is not held on a bankruptcy remote basis, a 2% risk weight will be applied to the collateral if the conditions established in paragraph on "client bank exposures to clearing members" of this section are met (mentioned above). A risk weight of 4% will be made applicable if a client is not protected from losses in the case that the clearing member and another client of the clearing member jointly default or become jointly insolvent, but all other conditions mentioned in paragraph on "client bank exposures to clearing members" of this section are met.
- (d) If a clearing member collects collateral from a client for client cleared trades and this collateral is passed on to the QCCP, the clearing member may recognize this

<sup>61</sup> Where the entity holding such assets or collateral is the QCCP, a risk-weight of 2% applies to collateral included in the definition of trade exposures. The relevant risk-weight of the QCCP will apply to assets or collateral posted for other purposes.

<sup>62</sup> In this paragraph, the word "custodian" may include a trustee, agent, pledgee, secured creditor or any other person that holds property in a way that does not give such person a beneficial interest in such property and will not result in such property being subject to legally-enforceable claims by such persons, creditors, or to a court-ordered stay of the return of such property, should such person become insolvent or bankrupt.

collateral for both the QCCP - clearing member leg and the clearing member - client leg of the client cleared trade. Therefore, initial margins (IMs) as posted by clients to clearing members mitigate the exposure the clearing member has against these clients.

## (ii) Default Fund Exposures to QCCPs

- (a) Where a default fund is shared between products or types of business with settlement risk only (e.g. equities and bonds) and products or types of business which give rise to counterparty credit risk i.e., OTC derivatives, exchange traded derivatives or SFTs, all of the default fund contributions will receive the risk weight determined according to the formulae and methodology set forth below, without apportioning to different classes or types of business or products.
- (b) However, where the default fund contributions from clearing members are segregated by product types and only accessible for specific product types, the capital requirements for those default fund exposures determined according to the formulae and methodology set forth below must be calculated for each specific product giving rise to counterparty credit risk. In case the QCCP's prefunded own resources are shared among product types, the QCCP will have to allocate those funds to each of the calculations, in proportion to the respective product specific exposure i.e. EAD.
- (c) Clearing member banks are required to capitalise their exposures arising from default fund contributions to a qualifying CCP by applying the following formula:
- Clearing member banks may apply a risk-weight of 1250% to their default fund exposures to the qualifying CCP, subject to an overall cap on the risk-weighted assets from all its exposures to the QCCP (i.e. including trade exposures) equal to 20% of the trade exposures to the QCCP. More specifically, the Risk Weighted Assets (RWA) for both bank *i*'s trade and default fund exposures to each QCCP are equal to<sup>63</sup>:  
$$\text{Min} \{ (2\% * TE_i + 1250\% * DF_i); (20\% * TE_i) \}$$

Where;  
 $TE_i$  is bank *i*'s trade exposure to the QCCP; and  
 $DF_i$  is bank *i*'s pre-funded contribution to the QCCP's default fund.

### 5.15.3.10 Exposures to Non-qualifying CCPs

- (a) Banks must apply the Standardised Approach for credit risk according to the category of the counterparty, to their trade exposure to a non-qualifying CCP<sup>64</sup>.
- (b) Banks must apply a risk weight of 1250% to their default fund contributions to a non-qualifying CCP.
- (c) For the purposes of this paragraph, the default fund contributions of such banks will include both the funded and the unfunded contributions which are liable to be paid should the CCP so require. Where there is a liability for unfunded contributions (i.e. unlimited binding commitments) the Reserve Bank will determine in its Pillar 2 assessments the amount of unfunded commitments to which 1250% risk weight should apply.

### 5.15.4 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.

<sup>63</sup> The 2% risk weight on trade exposures does not apply additionally, as it is included in the equation.

<sup>64</sup> In cases where a CCP is to be considered as non-QCCP and the exposure is to be reckoned on CCP, the applicable risk weight will be according to the ratings assigned to the CCPs.

- (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 and Central Counterparties. 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 (in per cent)
From 5 to 15	9
From 16 to 30	50
From 31 to 45	75
46 or more	100

- (v) For non-DvP transactions (free deliveries) 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 receive a risk weight of 1250% on 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, as stipulated in [circular DBOD.No.BP.BC.60/21.04.048/2005-06 dated February 1, 2006](#) on 'Guidelines on Securitisation of Standard Assets', [circular DBOD.No.BP.BC.103/21.04.177/2011-12 dated May 07, 2012](#) on 'Revision to the Guidelines on Securitisation Transactions' and [circular DBOD.No.BP.BC-25/21.04.177/2013-14 dated July 1, 2013](#) on 'Revision to the Guidelines on Securitisation Transactions-Reset of Credit Enhancement' 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 01, 2006, May 07, 2012 and July 1, 2013 and therefore does 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<sup>65</sup>. Additionally, the originator shall deduct any 'gain on sale' on such transaction from Tier I capital. This capital would be in addition to the capital which the bank is required to maintain on its other existing exposures to the securitization transaction.
- (iv) Operational criteria for Credit Analysis<sup>66</sup>

In addition to the conditions specified in the RBI Guidelines dated February 1, 2006, May 7, 2012 and July 1, 2013 on Securitisation of standard assets in order to qualify for de-recognition of assets securitised, the bank must have the information specified in paragraphs (a) through (c) below:

- (a) As a general rule, a bank must, on an ongoing basis, have a comprehensive understanding of the risk characteristics of its individual securitisation exposures, whether on balance sheet or off balance sheet, as well as the risk characteristics of the pools underlying its securitisation exposures.
- (b) Banks must be able to access performance information on the underlying pools on an on-going basis in a timely manner. Such information may include, as appropriate: exposure type; percentage of loans 30, 60 and 90 days past due; default rates; prepayment rates; loans in foreclosure; property type; occupancy; average credit score or other measures of creditworthiness; average loan-to-value ratio; and industry and geographic diversification.
- (c) A bank must have a thorough understanding of all structural features of a securitisation transaction that would materially impact the performance of the bank's exposures to the transaction, such as the contractual waterfall and waterfall-related triggers, credit enhancements, liquidity enhancements, market value triggers, and deal-specific definitions of default.

### 5.16.2 Treatment of Securitisation Exposures<sup>67</sup>

<sup>65</sup> For example: If in a securitisation transaction of Rs.100, the pool consists of 80 per cent of AAA securities, 10 per cent of BB securities and 10 per cent 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 per cent and the face value of the BB rated securities and the unrated securities will be deducted. Thus the consequent impact on the capital will be Rs.21.44 (16\*9 % + 20).

<sup>66</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010](#)

<sup>67</sup> Para 12 and 13 of RBI Guidelines dated February 1, 2006 have been replaced by para 5.16.2 of this

- (i) Credit enhancements which are first loss positions should be risk weighted at 1250%.
- (ii) 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 will receive a risk weight of 1250%.
- (iii) Any unrated securitisation exposure, except an eligible liquidity facility as specified in **paragraph 5.16.8** should be risk weighted at 1250%. In an unrated and ineligible liquidity facility, both the drawn and undrawn portions (after applying a CCF of 100%) shall receive a risk weight of 1250%.
- (iv) 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% of the original amount of issue, including secondary market purchases, shall receive a risk weight of 1250%.

### 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) Furthermore, in respect of securitisation transactions where the bank is deemed to have 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, **paragraph 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**.
- (v) A bank is not permitted to use any external credit assessment for risk weighting purposes where the assessment is at least partly based on unfunded support provided by the bank. For example, if a bank buys an ABS / MBS where it provides an unfunded securitisation exposure extended to the securitisation programme (e.g. liquidity facility or credit enhancement), and that exposure plays a role in determining the credit assessment on the securitised assets/various tranches of the ABS/MBS, the bank must treat the securitised assets/various tranches of the ABS/MBS as if these were not rated. The bank must continue to hold capital against the other securitisation exposures it provides (e.g. against the liquidity facility and/or credit enhancement).<sup>68</sup>

#### 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 10: Securitisation Exposures – Risk Weight Mapping to Long-Term Ratings**

Domestic rating agencies	AAA	AA	A	BBB	BB	B and below or unrated
Risk weight for banks other than originators (%)	20	30	50	100	350	1250
Risk weight for originator (%)	20	30	50	100	1250	

- (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 10-A: Commercial Real Estate Securitisation Exposures – Risk Weight mapping to long-term ratings**

Domestic Rating Agencies	AAA	AA	A	BBB	BB	B and below or unrated
Risk weight for banks other than originators (%)	100	100	100	150	400	1250
Risk weight for originator (%)	100	100	100	150	1250	

- (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 treated for capital adequacy purposes in accordance with the provisions of **paragraph 5.16.2**.

<sup>68</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010](#)

- (v) There should be transfer of a significant credit risk associated with the securitised exposures to the third parties for recognition of risk transfer. In view of this, the total exposure of banks to the loans securitised in the following forms should not exceed 20% of the total securitised instruments issued:
- Investments in equity / subordinate / senior tranches of securities issued by the SPV including through underwriting commitments
  - Credit enhancements including cash and other forms of collaterals including over-collateralisation, but excluding the credit enhancing interest only strip
  - Liquidity support.

If a bank exceeds the above limit, the excess amount would be risk weighted at 1250 per cent. Credit exposure on account of interest rate swaps/ currency swaps entered into with the SPV will be excluded from the limit of 20 per cent as this would not be within the control of the bank.

- (vi) If an originating bank fails to meet the requirement laid down in the paragraphs 1.1 to 1.7 of Section A / paragraphs 1.1 to 1.6 of Section B of the [circular DBOD.No.BP.BC.103/21.04.177/ 2011-12 dated May 07, 2012](#) on 'Revision to the Guidelines on Securitisation Transactions', it will have to maintain capital for the securitized assets/ assets sold as if these were not securitized/ sold. This capital would be in addition to the capital which the bank is required to maintain on its other existing exposures to the securitisation transaction.
- (vii) The investing banks will assign a risk weight of 1250 per cent to the exposures relating to securitization/ or assignment where the requirements in the paragraphs 2.1 to 2.3 of Section A / or paragraphs 2.1 to 2.8 of Section B, respectively, of the [circular DBOD.No.BP.BC.103/21.04.177/ 2011-12 dated May 07, 2012](#) on 'Revision to the Guidelines on Securitisation Transactions' dated May 07, 2012 are not met.
- (viii) Under the transactions involving transfer of assets through direct assignment of cash flows and the underlying securities, the capital adequacy treatment for direct purchase of corporate loans will be as per the rules applicable to corporate loans directly originated by the banks. Similarly, the capital adequacy treatment for direct purchase of retail loans, will be as per the rules applicable to retail portfolios directly originated by banks except in cases where the individual accounts have been classified as NPA, in which case usual capital adequacy norms as applicable to retail NPAs will apply. No benefit in terms of reduced risk weights will be available to purchased retail loans portfolios based on rating because this is not envisaged under the Basel II Standardized Approach for credit risk.

#### 5.16.6 Off-Balance Sheet Securitisation Exposures

- (i) 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 per cent CCF, unless otherwise specified.
- (ii) If the off-balance sheet 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 Mitigants (CRMs)

- (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 **paragraph 7.6**. When the exposures being hedged have different maturities, the longest maturity must be used applying the methodology prescribed in **paragraphs 7.6.3 and 7.6.4**.

#### 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 External Credit Assessment Institutions (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 facility 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 facility will attract a credit conversion factor of 50%.<sup>69</sup>

#### 5.16.9 Re-Securitisation Exposures/ Synthetic Securitisations/ Securitisation with Revolving Structures (with or without early amortization features)

At present, banks in India including their overseas branches, are not permitted to assume exposures relating to re-securitisation / Synthetic Securitisations/ Securitisations with Revolving Structures (with or without early amortization features), as defined in [circular DBOD.No.BP.BC.103/21.04.177/ 2011-12 dated May 07, 2012](#) on 'Revision to the Guidelines on Securitisation Transactions'. However, some of the Indian banks have invested in CDOs and other similar securitization exposures through their overseas branches before issuance of [circular RBI/2008-09/302.DBOD.No.BP.BC.89/21.04.141 /2008-09 dated December 1, 2008](#). Some of these exposures may be in the nature of re-securitisation. For such exposures, the risk weights would be assigned as under:

**Table 11: Re-securitisation Exposures – Risk Weight Mapping to Long-Term Ratings**

Domestic rating agencies	AAA	AA	A	BBB	BB	B and below or unrated
Risk weight for banks other than originators (%)	40	60	100	225	650	1250
Risk weight for originator (%)	40	60	100	225	1250	

**Table 11 A: Commercial Real Estate Re-Securitisation Exposures – Risk Weight Mapping to Long-Term Ratings**

<sup>69</sup> [Master Circular DBOD.No.BP.:BC.73 / 21.06.001 / 2009-10 dated Feb 8, 2010](#).

Domestic rating agencies	AAA	AA	A	BBB	BB and below or unrated
Risk weight for banks other than originators (%)	200	200	200	400	1250
Risk weight for originator (%)	200	200	200	400	1250

All other regulatory norms would be applicable as prescribed above in this paragraph (paragraph 5.16).

## 5.17 Capital Adequacy Requirement for Credit Default Swap (CDS) Positions in the Banking Book

### 5.17.1 Recognition of External / Third-party CDS Hedges

5.17.1.1 In case of Banking Book positions hedged by bought CDS positions, no exposure will be reckoned against the reference entity / underlying asset in respect of the hedged exposure, and exposure will be deemed to have been substituted by the protection seller, if the following conditions are satisfied:

- (a) Operational requirements mentioned in paragraph 4 of circular DBOD.BP.BC.No.61/21.06.203/2011-12 dated November 30, 2011 on Prudential Guidelines on Credit Default Swaps (CDS) are met (refer to **Annex 7** of these guidelines);
- (b) The risk weight applicable to the protection seller under the Standardised Approach for credit risk is lower than that of the underlying asset; and
- (c) There is no maturity mismatch between the underlying asset and the reference / deliverable obligation. If this condition is not satisfied, then the amount of credit protection to be recognised should be computed as indicated in [paragraph 5.17.1.3 \(ii\)](#) below.

5.17.1.2 If the conditions 5.17.1.1 (a) and (b) above are not satisfied or the bank breaches any of these conditions subsequently, the bank shall reckon the exposure on the underlying asset; and the CDS position will be transferred to Trading Book where it will be subject to specific risk, counterparty credit risk and general market risk (wherever applicable) capital requirements as applicable to Trading Book.

5.17.1.3 The unprotected portion of the underlying exposure should be risk-weighted as applicable under the Standardised Approach for credit risk. The amount of credit protection shall be adjusted if there are any mismatches between the underlying asset/ obligation and the reference / deliverable asset / obligation with regard to asset or maturity. These are dealt with in detail in the following paragraphs.

(i) **Asset Mismatches:** Asset mismatch will arise if the underlying asset is different from the reference asset or deliverable obligation. Protection will be reckoned as available by the protection buyer only if the mismatched assets meet the requirements that (1) the reference obligation or deliverable obligation ranks pari passu with or is junior to the underlying obligation, and (2) the underlying obligation and reference obligation or deliverable obligation share the same obligor (i.e. the same legal entity) and legally enforceable cross-default or cross-acceleration clauses are in place.

(ii) **Maturity Mismatches:** The protection buyer would be eligible to reckon the amount of protection if the maturity of the credit derivative contract were to be equal or more than the maturity of the underlying asset. If, however, the maturity of the CDS contract is less than the maturity of the underlying asset, then it would be construed as a maturity mismatch. In case of maturity mismatch the amount of protection will be determined in the following manner:

- a. If the residual maturity of the credit derivative product is less than **three months** no protection will be recognized.

- b. If the residual maturity of the credit derivative contract is **three months** or more protection proportional to the period for which it is available will be recognised.

When there is a maturity mismatch 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

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

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

*Example:* Suppose the underlying asset is a corporate bond of Face Value of Rs.100 where the residual maturity is of 5 years and the residual maturity of the CDS is 4 years. The amount of credit protection is computed as under:  
 $100 * \{(4 - 0.25) \div (5 - 0.25)\} = 100 * (3.75 \div 4.75) = 78.95$

- c. Once the residual maturity of the CDS contract reaches **three months**, protection ceases to be recognised.

### 5.17.2 Internal Hedges

Banks can use CDS contracts to hedge against the credit risk in their existing corporate bonds portfolios. A bank can hedge a Banking Book credit risk exposure either by an internal hedge (the protection purchased from the trading desk of the bank and held in the Trading Book) or an external hedge (protection purchased from an eligible third party protection provider). When a bank hedges a Banking Book credit risk exposure (corporate bonds) using a CDS booked in its Trading Book (i.e. using an internal hedge), the Banking Book exposure is not deemed to be hedged for capital purposes unless the bank transfers the credit risk from the Trading Book to an eligible third party protection provider through a CDS meeting the requirements of **paragraph 5.17** vis-à-vis the Banking Book exposure. Where such third party protection is purchased and is recognised as a hedge of a Banking Book exposure for regulatory capital purposes, no capital is required to be maintained on internal and external CDS hedge. In such cases, the external CDS will act as indirect hedge for the Banking Book exposure and the capital adequacy in terms of **paragraph 5.17**, as applicable for external/ third party hedges, will be applicable.

## 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 Revised Framework<sup>70</sup>, 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) Brickwork Ratings India Pvt. Limited (Brickwork);

<sup>70</sup> Please refer to the Document 'International Convergence of Capital Measurement and Capital Standards' (June 2006) released by the Basel Committee on Banking Supervision.

- (b) Credit Analysis and Research Limited;
- (c) CRISIL Limited;
- (d) ICRA Limited;
- (e) India Ratings and Research Private Limited (India Ratings); and
- (f) SMERA Ratings Ltd. (SMERA)<sup>71</sup>

6.1.2.1 The Reserve Bank of India has decided that banks may use the ratings of the following international credit rating agencies (arranged in alphabetical order) for the purposes of risk weighting their claims for capital adequacy purposes where specified:

- a. Fitch;
- b. Moody's; and
- c. Standard & Poor's

## 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 and to arbitrarily change the use of 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 counterparty, 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-4 of Annex 18](#).

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

<sup>71</sup> Please refer to [circular DBOD.BP.BC.No.59/21.06.007/2013-14 dated October 17, 2013](#).

exposure may be sanctioned for period of one year or less, these exposures should be reckoned as long term exposures and accordingly the long term ratings accorded by the chosen credit rating agencies will be relevant. Similarly, banks may use long-term ratings of a counterparty as a proxy for an unrated short- term exposure on the same counterparty subject to strict compliance with the requirements for use of multiple rating assessments and applicability of issue rating to issuer / other claims as indicated in **paragraphs 6.4, 6.5, 6.7 and 6.8** below.

### 6.3 Mapping Process

The Revised 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 12 below shall be adopted by all banks in India:

**Table 12: Risk Weight Mapping of Long Term Ratings of the chosen Domestic Rating Agencies**

CARE	CRISIL	India Ratings and Research Private Limited (India Ratings)	ICRA	Brickwork	SMERA Ratings Ltd. (SMERA)	Standardised approach risk weights (in per cent)
CARE AAA	CRISIL AAA	IND AAA	ICRA AAA	Brickwork AAA	SMERA AAA	20
CARE AA	CRISIL AA	IND AA	ICRA AA	Brickwork AA	SMERA AA	30
CARE A	CRISIL A	IND A	ICRA A	Brickwork A	SMERA A	50
CARE BBB	CRISIL BBB	IND BBB	ICRA BBB	Brickwork BBB	SMERA BBB	100
CARE BB, CARE B, CARE C & CARE D	CRISIL BB, CRISIL B, CRISIL C & CRISIL D	IND BB, IND B, IND C & IND D	ICRA BB, ICRA B, ICRA C & ICRA D	Brickwork BB, Brickwork B, Brickwork C & Brickwork D	SMERA BB, SMERA B, SMERA C & SMERA D	150
Unrated	Unrated	Unrated	Unrated	Unrated	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 50 per cent 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 per cent, all unrated claims on the same counter-party, whether short-term or long-term, should also receive a 150 per cent 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 counterparty 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 counterparty attracts a 20 per cent or a 50 per cent risk-weight, unrated short-term claims to the same counter-party cannot attract a risk weight lower than 30 per cent or 100 per cent 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 per cent, all unrated claims on the same counter-party, whether long-term or short-term, should also receive a 150 per cent 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 shall be adopted by banks:

**Table 13: Risk Weight Mapping of Short Term Ratings of Domestic Rating Agencies**

CARE	CRISIL	India Ratings and Research Private Limited (India Ratings)	ICRA	Brickwork	SMERA Ratings Ltd. (SMERA)	Standardised approach risk weights (in per cent)
CARE A1+	CRISIL A1+	IND A1+	ICRA A1+	Brickwork A1+	SMERA A1+	20
CARE A1	CRISIL A1	IND A1	ICRA A1	Brickwork A1	SMERA A1	30
CARE A2	CRISIL A2	IND A2	ICRA A2	Brickwork A2	SMERA A2	50
CARE A3	CRISIL A3	IND A3	ICRA A3	Brickwork A3	SMERA A3	100
CARE A4 & D	CRISIL A4 & D	IND A4 & D	ICRA A4 & D	Brickwork A4 & D	SMERA A4 & D	150
Unrated	Unrated	Unrated	Unrated	Unrated	Unrated	100

6.5.5 Where “+” or “-” notation is attached to the rating, the corresponding main rating category risk weight should be used for A2 and below, unless specified otherwise. For example, A2+ or A2- would be considered to be in the A2 rating category and assigned 50 per cent 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

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

Banks shall be guided by the following in respect of exposures / obligors having multiple

ratings from the chosen credit rating agencies chosen by the bank for the purpose of risk weight calculation:

- (i) If there is only one rating by a chosen 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 chosen credit rating agencies that map into different risk weights, the higher risk weight should be applied.
- (iii) If there are three or more ratings accorded by chosen 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 a chosen 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,<sup>72</sup> except where the rated claim is a short term obligation as specified in paragraph 6.5.2. 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) In circumstances where the borrower has an issuer assessment, this assessment typically applies to senior unsecured claims on that issuer. Consequently, only senior claims on that issuer will benefit from a high quality issuer assessment. Other unassessed claims of a highly assessed issuer will be treated as unrated. If either the issuer or a single issue has a low quality assessment (mapping into a risk weight equal to or higher than that which applies to unrated claims), an unassessed claim on the same counterparty that ranks *pari-passu* or is subordinated to either the senior unsecured issuer assessment or the exposure assessment will be assigned the same risk weight as is applicable to the low quality assessment.
- (iii) Where a bank intends to extend an issuer or an issue specific rating assigned by a chosen 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 a chosen credit rating agency relied upon by the bank.

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<sup>72</sup> In a case where a short term claim on a counterparty is rated as A1+ and a long term claim on the same counterparty is rated as AAA, then a bank may assign a 30 per cent risk weight to an unrated short term claim and 20 per cent risk weight to an unrated long term claim on that counterparty where the seniority of the claim ranks *pari-passu* with the rated claims and the maturity of the unrated claim is not later than the rated claim. In a similar case where a short term claim is rated A1+ and a long term claim is rated A, the bank may assign 50 per cent risk weight to an unrated short term or long term claim .

- (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.

6.8.2 If the conditions indicated in **paragraph 6.8.1** above are not satisfied, the rating applicable to the specific debt cannot be used and the claims on NABARD/SIDBI/NHB<sup>73</sup> on account of deposits placed in lieu of shortfall in achievement of priority sector lending targets/sub-targets shall be risk weighted as applicable for unrated claims, i.e. 100%.

## 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-5 of Annex 18** 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

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<sup>73</sup> Please refer to the [circular DBOD.BP.BC.No.103/21.06.001/2012-13 dated June 20, 2013](#) on 'Risk Weights on Deposits Placed with NABARD / SIDBI / NHB in lieu of Shortfall in Achievement of Priority Sector Lending Targets / Sub-targets'.

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 requirement. 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 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 per cent 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.

- (v) Banks must ensure that sufficient resources are devoted to the orderly operation of margin agreements with OTC derivative and securities-financing counterparties banks, as measured by the timeliness and accuracy of its outgoing calls and response time to incoming calls. Banks must have collateral management policies in place to control, monitor and report the following to the Board or one of its Committees:
- the risk to which margin agreements exposes them (such as the volatility and liquidity of the securities exchanged as collateral),
  - the concentration risk to particular types of collateral,
  - the reuse of collateral (both cash and non-cash) including the potential liquidity shortfalls resulting from the reuse of collateral received from counterparties, and
  - the surrender of rights on collateral posted to counterparties.

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. It may be noted that the purpose underlying the application of haircut is to capture the market-related volatility inherent in the value of exposures as well as of the eligible financial collaterals. Since the value of credit exposures acquired by banks in the course of their banking operations, would not be subject to market volatility, (since the loan disbursement / investment would be a "cash" transaction) though the value of eligible financial collateral would be, the haircut stipulated in **Table-14** (paragraph 7.3.7) would apply in respect of credit transactions only to the eligible collateral but not to the credit exposure of the bank. On the other hand, exposures of banks, arising out of repo-style transactions would require upward adjustment for volatility, as the value of security sold/lent/pledged in the repo transaction, would be subject to market volatility. Hence, such exposures shall attract haircut.
- (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 collateralised jewellery should be arrived at after notionally converting these 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 banks should be sufficiently confident about the market liquidity<sup>74</sup> where these are either:
  - (a) Attracting 100 per cent or lesser risk weight i.e., rated at least BBB(-) when issued by public sector entities and other entities (including banks and Primary Dealers); or
  - (b) Attracting 100 per cent or lesser risk weight i.e., rated at least CARE A3/ CRISIL A3/ India Ratings and Research Private Limited (India Ratings) A3/ICRA A3/Brickwork A3/ SMERA A3 for short-term debt instruments.
- (vii) Debt Securities not rated by a chosen Credit Rating Agency in respect of which 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 BBB(-) or CARE A3/ CRISIL A3/ India Ratings and Research Private Limited (India Ratings) A3/ICRA A3/Brickwork A3/SMERA A3 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 BBB(-) or CARE A3/ CRISIL A3/ India Ratings and Research Private Limited (India Ratings) A3/ICRA A3/Brickwork A3/SMERA A3 (as applicable) and;
  - (f) Banks should be sufficiently confident about the market liquidity of the security.
- (viii) Units of Mutual Funds regulated by the securities regulator of the jurisdiction of the

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<sup>74</sup> A debenture would meet the test of liquidity if it is traded on a recognised stock exchange(s) on at least 90 per cent 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.

bank's operation mutual funds where:

- (a) a price for the units is publicly quoted daily i.e., where the daily NAV is available in public domain; and
  - (b) Mutual fund is limited to investing in the instruments listed in this paragraph.
- (ix) Re-securitisations, irrespective of any credit ratings, are not eligible financial collateral.

### 7.3.6 Calculation of capital requirement

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

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

where:

- E\* = the exposure value after risk mitigation
- E = current value of the exposure for which the collateral qualifies as a risk mitigant
- H<sub>e</sub> = haircut appropriate to the exposure
- C = the current value of the collateral received
- H<sub>c</sub> = haircut appropriate to the collateral
- H<sub>fx</sub> = haircut appropriate for currency mismatch between the collateral and exposure

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. Illustrative examples calculating the effect of Credit Risk Mitigation is furnished in **Annex 8**.

### 7.3.7 Haircuts

- (i) In principle, banks have two ways of calculating the haircuts: (i) standard supervisory haircuts, using parameters set by the Basel 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)<sup>75</sup>, expressed as percentages, would be as furnished in Table 14.
- (iii) The ratings indicated in Table 14 represent the ratings assigned by the domestic rating agencies. In the case of exposures toward debt securities issued by foreign Central Governments and foreign corporates, the haircut may be based on ratings of the international rating agencies, as indicated in Table 15.
- (iv) Sovereign will include Reserve Bank of India, DICGC and CGTMSE, CRGFTLIH which are eligible for zero per cent risk weight.
- (v) Banks may apply a zero haircut for eligible collateral where it is a National Savings Certificate, Kisan Vikas Patras, surrender value of insurance policies and banks' own deposits.
- (vi) The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies is eight per cent (also based on a 10-business day holding period and daily mark-to-market).

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<sup>75</sup> Holding period will be the time normally required by the bank to realise the value of the collateral.

**Table 14: Standard Supervisory Haircuts for Sovereign and other securities which constitute Exposure and Collateral**

Sl. No.	Issue Rating for Debt securities	Residual Maturity (in years)	Haircut (in percentage)
<b>A</b>	<b>Securities issued / guaranteed by the Government of India and issued by the State Governments (Sovereign securities)</b>		
i	Rating not applicable – as Government securities are not currently rated in India	≤ 1 year	0.5
		> 1 year and ≤ 5 years	2
		> 5 years	4
<b>B</b>	<b>Domestic debt securities other than those indicated at Item No. A above including the securities guaranteed by Indian State Governments</b>		
ii	AAA to AA A1	≤ 1 year	1
		> 1 year and ≤ 5 years	4
		> 5 years	8
iii	A to BBB A2, A3 and unrated bank securities as specified in paragraph 7.3.5 (vii) of the circular	≤ 1 year	2
		> 1 year and ≤ years	6
		> 5 years	12
iv	Units of Mutual Funds		Highest haircut applicable to any of the above securities, in which the eligible mutual fund {cf. paragraph 7.3.5 (viii)} can invest
<b>C</b>	<b>Cash in the same currency</b>		0
<b>D</b>	<b>Gold</b>		15
<b>E</b>	<b>Securitisation Exposures<sup>76</sup></b>		
ii	AAA to AA	≤ 1 year	2
		> 1 year and ≤ 5 years	8
		> 5 years	16
iii	A to BBB and unrated bank securities as specified in paragraph 7.3.5 (vii) of the circular	≤ 1 year	4
		> 1 year and ≤ years	12
		> 5 years	24

**Table 15: Standard Supervisory Haircut for Exposures and Collaterals which are obligations of foreign central sovereigns / foreign corporates**

Issue rating for debt securities as assigned by international rating agencies	Residual Maturity	Sovereigns (%)	Other Issues (%)
AAA to AA / A1	≤ 1 year	0.5	1
	> 1 year and < or = 5 years	2	4
	> 5 years	4	8
A to BBB / A2 / A3 and Unrated Bank Securities	≤ 1 year	1	2
	> 1 year and < or = 5 years	3	6
	> 5 years	6	12

<sup>76</sup> Including those backed by securities issued by foreign sovereigns and foreign corporates.

(vii) For transactions in which banks' exposures are unrated or bank lends non-eligible instruments (i.e. non-investment grade corporate securities), the haircut to be applied on a exposure should be 25 per cent. (Since, at present, the repos are allowed only in the case of Government securities, banks are not likely to have any exposure which will attract the provisions of this clause. However, this would be relevant, if in future, repos/security lending transactions are permitted in the case of unrated corporate securities).

(viii) 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 the amount/value of the asset in units of currency) in the basket and  $H_i$ , the haircut applicable to that asset.

(ix) Adjustment for different holding periods:

For some transactions, depending on the nature and frequency of the revaluation and remargining provisions, different holding periods (other than 10 business-days) are appropriate. The framework for collateral haircuts distinguishes between repo-style transactions (i.e. repo/reverse repos and securities lending/borrowing), "other capital-market-driven transactions" (i.e. OTC derivatives transactions and margin lending) and secured lending. In capital-market-driven transactions and repo-style transactions, the documentation contains remargining clauses; in secured lending transactions, it generally does not. In view of different holding periods, in the case of these transactions, the minimum holding period shall be taken as indicated below:

Transaction type	Minimum holding Period	Condition
Repo-style transaction	five business days	daily remargining
Other capital market transactions	ten business days	daily remargining
Secured lending	twenty business days	daily revaluation

The haircut for the transactions with other than 10 business-days minimum holding period, as indicated above, will have to be adjusted by scaling up/down the haircut for 10 business-days indicated in the Table 14, as per the formula given in paragraph 7.3.7 (xi) below.

(x) Adjustment for non-daily mark-to-market or remargining:

In case a transaction has margining frequency different from daily margining assumed, the applicable haircut for the transaction will also need to be adjusted by using the formula given in paragraph 7.3.7 (xi) below.

(xi) Formula for adjustment for different holding periods and / or non-daily mark-to-market or remargining:

Adjustment for the variation in holding period and margining / mark-to-market, as indicated in paragraph (ix) and (x) above will be done as per the following formula:

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

Where;

H = haircut

$H_{10}$  = 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

### 7.3.8 Capital Adequacy Framework for Repo-/Reverse Repo-style transactions.

The repo-style transactions also attract capital charge for Counterparty credit risk (CCR), in addition to the credit risk and market risk. The CCR is defined as the risk of default by the counterparty in a repo-style transaction, resulting in non-delivery of the security lent/pledged/sold or non-repayment of the cash.

#### A. Treatment in the books of the borrower of funds:

- (i) Where a bank has borrowed funds by selling / lending or posting, as collateral, of securities, the 'Exposure' will be an off-balance sheet exposure equal to the 'market value' of the securities sold/lent as scaled up after applying appropriate haircut. For the purpose, the haircut as per Table 14 would be used as the basis which should be applied by using the formula in paragraph 7.3.7 (xi), to reflect minimum (prescribed) holding period of five business-days for repo-style transactions and the variations, if any, in the frequency of re-margining, from the daily margining assumed for the standard supervisory haircut. The 'off-balance sheet exposure' will be converted into 'on-balance sheet' equivalent by applying a credit conversion factor of 100 per cent, as per item 5 in **Table 8** (paragraph 5.15).
- (ii) The amount of money received will be treated as collateral for the securities lent/sold/pledged. Since the collateral is cash, the haircut for it would be zero.
- (iii) The credit equivalent amount arrived at (i) above, net of amount of cash collateral, will attract a risk weight as applicable to the counterparty.
- (iv) As the securities will come back to the books of the borrowing bank after the repo period, it will continue to maintain the capital for the credit risk in the securities in the cases where the securities involved in repo are held under HTM category, and capital for market risk in cases where the securities are held under AFS/HFT categories. The capital charge for credit risk / specific risk would be determined according to the credit rating of the issuer of the security. In the case of Government securities, the capital charge for credit / specific risk will be 'zero'.

#### B. Treatment in the books of the lender of funds:

- (i) The amount lent will be treated as on-balance sheet/funded exposure on the counter party, collateralised by the securities accepted under the repo.
- (ii) The exposure, being cash, will receive a zero haircut.
- (iii) The collateral will be adjusted downwards/marked down as per applicable haircut.
- (iv) The amount of exposure reduced by the adjusted amount of collateral, will receive a risk weight as applicable to the counterparty, as it is an on- balance sheet exposure.
- (v) The lending bank will not maintain any capital charge for the security received by it as collateral during the repo period, since such collateral does not enter its balance sheet but is only held as a bailee.

### 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;
- (c) monitors and controls the relevant exposures on a net basis; and
- (d) monitors and controls its roll-off risks.

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 **paragraph 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

### 7.5.6 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, CRGFTLIH), banks and primary dealers with a lower risk weight than the counterparty.
- (ii) Other entities that are externally rated except when credit protection is provided to a securitisation exposure. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.
- (iii) When credit protection is provided to a securitisation exposure, other entities that currently are externally rated BBB- or better and that were externally rated A- or better at the time the credit protection was provided. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.
- (iv) In case of securitisation transactions, SPEs cannot be recognised as eligible guarantors.

### 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 per cent. 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.,

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

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 eight per cent 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.

### 7.5.11 ECGC Guaranteed Exposures:

Under the Export Credit insurance<sup>77</sup> for banks on Whole Turnover Basis, the guarantee/insurance cover given by ECGC for export credit exposures of the banks ranges between 50% and 75% for pre-shipment credit and 50% to 85% in case of post-shipment credit. However, the ECGC's total liability on account of default by the exporters is capped by an amount specified as Maximum Liability (ML). In this context, it is clarified that risk weight (as given in para 5.2.3 of this Master Circular) applicable to the claims on ECGC should be capped to the ML amount specified in the whole turnover policy of the ECGC. The banks are required to proportionately distribute the ECGC maximum liability amount to all individual export credits that are covered by the ECGC Policy. For the covered portion of individual export credits, the banks may apply the risk weight applicable to claims on ECGC. For the remaining portion of individual export credit, the banks may apply the risk weight as per the rating of the counter-party. The Risk Weighted Assets computation can be mathematically represented as under:

<i>Size of individual export credit exposure i</i>	$A_i$	
<i>Size of individual covered export credit exposure i</i>	$B_i$	
<i>Sum of individual covered export credit exposures</i>	$\sum B_i$	
<i>Where:</i>		
<i>i = 1 to n, if total number of exposures is n</i>		
<i>Maximum Liability Amount</i>	$ML$	
<i>Risk Weight of counter party for exposure i</i>		$RW_i$
<i>RWA for ECGC Guaranteed Export Credit:</i>		
$\sum \left[ \left( \frac{B_i}{\sum B_i} * ML * 20\% \right) + \left\{ A_i - \left( \frac{B_i}{\sum B_i} * ML \right) \right\} * RW_i \right]$		

### 7.6 Maturity Mismatch

<sup>77</sup> DBOD Mailbox Clarification dated October 18, 2013.

7.6.1 For the purpose of calculating risk-weighted assets, a maturity mismatch occurs when the residual maturity of collateral is less than that of the underlying exposure. 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 7.6.2 to 7.6.4. In case of loans collateralised by the bank's own deposits, even if the tenor of such deposits is less than three months or deposits have maturity mismatch vis-à-vis the tenor of the loan, the provisions of paragraph 7.6.1 regarding derecognition of collateral would not be attracted provided an explicit consent of the depositor has been obtained from the depositor (i.e. borrower) for adjusting the maturity proceeds of such deposits against the outstanding loan or for renewal of such deposits till the full repayment of the underlying loan.

#### 1.1.1.

### 7.6.2 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.

### 7.6.3 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.

7.6.4 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

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).

## 8.2 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 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.

8.2.3 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.

## 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 trading book.

8.3.2 The capital charge for interest rate related instruments 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 designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer, both for short (short position is not allowed in India except in derivatives and Central Government Securities) 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 and Central Government Securities) in different securities or instruments can be offset.

8.3.4 For the debt securities held under AFS category, in view of the possible longer holding period and attendant higher specific risk, the banks shall hold total capital charge for market risk equal to greater of (a) or (b) below:

- (a) Specific risk capital charge, computed notionally for the AFS securities treating them as held under HFT category (as computed according to Table 16: Part A / C / E(i) / F / G / H, as applicable) plus the General Market Risk Capital Charge.

- (b) Alternative total capital charge for the AFS category computed notionally treating them as held in the banking book (as computed in accordance with Table 16: Part B / D / E(ii) / F / G / I, as applicable)

**A. Specific Risk**

8.3.5 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 specific risk charges for various kinds of exposures would be applied as detailed below:

Sr. No.	Nature of debt securities / issuer	Table to be followed
a.	Central, State and Foreign Central Governments' Bonds: (i) Held in HFT category (ii) Held in AFS category	Table 16 – Part A Table 16 – Part B
b.	Banks' Bonds: (i) Held in HFT category (ii) Held in AFS category	Table 16 – Part C Table 16 – Part D
c.	Corporate Bonds (other than Bank Bonds): (i) Held in HFT category (ii) Held in AFS category	Table 16 – Part E(i) Table 16 – Part E(ii)
d.	Securitized Debt Instruments Held in HFT and AFS categories	Table 16 – Part F
e.	Re-securitized Debt Instruments Held in HFT and AFS categories	Table 16 – Part G
f.	Non-common Equity Capital Instruments issued by Financial Entities other than Banks (i) Held in HFT category (ii) Held in AFS category	Table 16 – Part H Table 16 – Part I
g.	Equity Investments in Banks Held in HFT and AFS Categories	Table 19 – Part A
h.	Equity Investments in Financial Entities (other than Banks) Held in HFT and AFS Categories	Table 19 – Part B
i.	Equity Investments in Non-financial (commercial) Entities	Table 19 – Part C

**Table 16 – Part A: Specific Risk Capital Charge for Sovereign securities issued by Indian and foreign sovereigns – Held by banks under the HFT Category**

Sr. No.	Nature of Investment	Residual Maturity	Specific risk capital (as % of exposure)
<b>A.</b>	<b>Indian Central Government and State Governments</b>		
1.	Investment in Central and State Government Securities	All	0.00
2.	Investments in other approved securities guaranteed by Central Government	All	0.00
3.	Investments in other approved securities guaranteed by State Government	6 months or less	0.28
		More than 6 months and up to and including 24 months	1.13
		More than 24 months	1.80
4.	Investment in other securities where payment of interest and repayment of principal are guaranteed by Central	All	0.00

Sr. No.	Nature of Investment	Residual Maturity	Specific risk capital (as % of exposure)
	Government		
5.	Investments in other securities where payment of interest and repayment of principal are guaranteed by State Government.	6 months or less	0.28
		More than 6 months and up to and including 24 months	1.13
		More than 24 months	1.80
<b>B.</b>	<b>Foreign Central Governments</b>		
1.	AAA to AA	All	0.00
2.	A to BBB	6 months or less	0.28
		More than 6 months and up to and including 24 months	1.13
		More than 24 months	1.80
3.	BB to B	All	9.00
4.	Below B	All	13.50
5.	Unrated	All	13.50

**Table 16 – Part B: Alternative Total Capital Charge for securities issued by Indian and foreign sovereigns - Held by banks under the AFS Category**

Sr. No.	Nature of Investment	Residual Maturity	Specific risk capital (as % of exposure)
<b>A.</b>	<b>Indian Central Government and State Governments</b>		
1.	Investment in Central and State Government Securities	All	0.00
2.	Investments in other approved securities guaranteed by Central Government	All	0.00
3.	Investments in other approved securities guaranteed by State Government	All	1.80
4.	Investment in other securities where payment of interest and repayment of principal are guaranteed by Central Government	All	0.00
5.	Investments in other securities where payment of interest and repayment of principal are guaranteed by State Government.	All	1.80
<b>B.</b>	<b>Foreign Central Governments</b>		
1.	AAA to AA	All	0.00
2.	A	All	1.80
3.	BBB	All	4.50
4.	BB to B	All	9.00
5.	Below B	All	13.50
	Unrated	All	9.00

**Table 16 - Part C: Specific risk capital charge for bonds issued by banks  
– Held by banks under the HFT category**

	Residual maturity	Specific risk capital charge (%)			
		All Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks)		All Non-Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks )	
Level of Common Equity Tier 1 capital (CET1) including applicable capital conservation buffer (CCB) (%) of the investee bank (where applicable)		Investment s in capital instrument s (other than equity#) referred to in para 5.6.1(i)	All other claims	Investment s in capital instrument s (other than equity#) referred to in para 5.6.1(i)	All other Claims
1	2	3	4	5	6
Applicable Minimum CET1 + Applicable CCB and above	≤6 months	1.75	0.28	1.75	1.75
	> 6 months and ≤ 24 months	7.06	1.13	7.06	7.06
	>24 months	11.25	1.8	11.25	11.25
Applicable Minimum CET1 + CCB = 75% and <100% of applicable CCB	All Maturities	13.5	4.5	22.5	13.5
Applicable Minimum CET1 + CCB = 50% and <75% of applicable CCB	All Maturities	22.5	9	31.5	22.5
Applicable Minimum CET1 + CCB = 0% and <50% of applicable CCB	All Maturities	31.5	13.5	56.25	31.5
Minimum CET1 less than applicable minimum	All Maturities	56.25	56.25	Full deduction*	56.25

\* The deduction should be made from Common Equity Tier 1 Capital.

# refer to para 8.4.4 below for specific risk capital charge on equity instruments.

**Notes:**

- (i) In case of banks where no capital adequacy norms have been prescribed by the RBI, the lending / investing bank may calculate the applicable Common Equity Tier 1 and capital conservation buffer of the bank concerned, notionally, by obtaining necessary information from the investee bank and using the capital adequacy norms as applicable to the commercial banks. In case, it is not found feasible to compute applicable Common Equity Tier 1 and capital conservation buffer on such notional basis, the specific risk capital charge of 31.5% or 56.25 %, as per the risk perception of the investing bank, should be applied uniformly to the investing bank's entire exposure.
- (ii) In case of banks where capital adequacy norms are not applicable at present, the matter of investments in their capital-eligible instruments would not arise for now. However, this Table above will become applicable to them, if in future they issue any capital instruments where other banks are eligible to invest.

- (iii) The existing specific risk capital charges up to 9% have been scaled up to reflect the application of specific risk charge corresponding to risk weight of 125% instead of 100%. For instance the existing specific risk charge for exposure to capital instrument issued by scheduled banks with applicable Common Equity Tier 1 and capital conservation buffer more than 9% and instrument having a residual maturity of less than 6 month is 1.4%. This is scaled up as under:

$$1.4 * 125\% = 1.75$$

- (iv) Till such time the investee banks have not disclosed their Basel III capital ratios publicly, the risk weights / capital charges may be arrived at based on the tables/paragraph as contained in the [Master Circular DBOD.No.BP.BC.4/21.06.001/2015-16 dated July 1, 2015](#) on Prudential Guidelines on Capital Adequacy and Market Discipline - New Capital Adequacy Framework.

**Table 16 - Part D: Alternative Total Capital Charge for bonds issued by banks – Held by banks under AFS category (subject to the conditions stipulated in paragraph 8.3.4)**

	Specific risk capital charge (%)			
	All Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks)		All Non-Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks)	
Level of Common Equity Tier 1 capital (CET1) including applicable capital conservation buffer (CCB) (%) of the investee bank (where applicable)	Investments in capital instruments (other than equity#) referred to in para 5.6.1(i)	All other claims	Investments in capital instruments (other than equity#) referred to in para 5.6.1(i)	All other claims
1	2	3	4	5
Applicable Minimum CET1 + Applicable CCB and above	11.25	1.8	11.25	11.25
Applicable Minimum CET1 + CCB = 75% and <100% of applicable CCB	13.5	4.5	22.5	13.5
Applicable Minimum CET1 + CCB = 50% and <75% of applicable CCB	22.5	9	31.5	22.5
Applicable Minimum CET1 + CCB = 0% and <50% of applicable CCB	31.5	13.5	56.25	31.5
Minimum CET1 less than applicable minimum	56.25	56.25	Full deduction*	56.25

\* deduction should be made from Common Equity Tier 1 capital

# refer to para 8.4.4 below for specific risk capital charge on equity instruments

**Notes:**

- (i) In the case of banks where no capital adequacy norms have been prescribed by the RBI, the lending / investing bank may calculate the applicable Common Equity Tier 1 and capital conservation buffer of the bank concerned, notionally, by obtaining necessary information from the investee bank and using the capital adequacy norms as applicable to the commercial banks. In case, it is not found feasible to compute applicable Common Equity Tier 1 and capital conservation buffer on such notional basis, the specific risk capital charge of 31.5% or 56.25 %, as per the risk perception of the investing bank, should be applied uniformly to the investing bank's entire exposure.

- (ii) In case of banks where capital adequacy norms are not applicable at present, the matter of investments in their capital-eligible instruments would not arise for now. However, the Table above will become applicable to them, if in future they issue any capital instruments where other banks are eligible to invest.
- (iii) Till such time the investee banks have not disclosed their Basel III capital ratios publicly, the risk weights / capital charges may be arrived at based on the applicable tables / paragraph as contained in the [Master Circular DBOD.No.BP.BC.4/21.06.001/2015-16 dated July 1, 2015](#) on Prudential Guidelines on Capital Adequacy and Market Discipline - New Capital Adequacy Framework.

**Table 16 – Part E (i)<sup>78</sup>: Specific Risk Capital Charge for Corporate Bonds (Other than bank bonds) – Held by banks under HFT Category**

* Rating by the ECAI	Residual maturity	Specific Risk Capital Charge (in %)
AAA to BBB	6 months or less	0.28
	Greater than 6 months and up to and including 24 months	1.14
	Exceeding 24 months	1.80
BB and below	All maturities	13.5
Unrated (if permitted)	All maturities	9

\* These ratings indicate the ratings assigned by Indian rating agencies/ECAIs or foreign rating agencies. In the case of foreign ECAIs, the rating symbols used here correspond to Standard and Poor. The modifiers “+” or “-” have been subsumed with the main rating category.

**Table 16 – Part E (ii): Alternative Total Capital Charge for Corporate Bonds (Other than bank bonds) – Held by banks under AFS Category**

* Rating by the ECAI	Total Capital Charge (in per cent)
AAA	1.8
AA	2.7
A	4.5
BBB	9.0
BB and below	13.5
Unrated	9.0

\* These ratings indicate the ratings assigned by Indian rating agencies/ECAIs or foreign rating agencies. In the case of foreign ECAIs, the rating symbols used here correspond to Standard and Poor. The modifiers “+” or “-” have been subsumed with the main rating category.

**Table 16 – Part F: Specific Risk Capital Charge for Securitised Debt Instruments (SDIs) – Held by banks under HFT and AFS Category**

* Rating by the ECAI	Specific Risk Capital Charge	
	Securitisation Exposures (in %)	Securitisation Exposures (SDIs) relating to Commercial Real Estate Exposures (in %)
AAA	1.8	9.0
AA	2.7	9.0
A	4.5	9.0
BBB	9.0	9.0

<sup>78</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010.](#)

BB	31.5 (100.0 in the case of originators)	31.5 (100.0 in the case of originators)
B and below or unrated	100.0	100.0

\* These ratings indicate the ratings assigned by Indian rating agencies/ECAIs or foreign rating agencies. In the case of foreign ECAIs, the rating symbols used here correspond to Standard and Poor. The modifiers “+” or “-” have been subsumed with the main rating category.

**Table 16 – Part G: Specific Risk Capital Charge for Re-securitised Debt Instruments (RSDIs) – Held by banks under HFT and AFS Category**

* Rating by the ECAI	Specific Risk Capital Charge	
	Re-Securitisation Exposures (in %)	Re-Securitisation Exposures (RSDIs) relating to Commercial Real Estate Exposures (in %)
AAA	3.6	18
AA	5.4	18
A	9.0	18
BBB	18	18
BB	63 (100 in the case of originators)	63 (100 in the case of originators)
B and below or unrated	100	100

\* These ratings indicate the ratings assigned by Indian rating agencies/ECAIs or foreign rating agencies. In the case of foreign ECAIs, the rating symbols used here correspond to Standard and Poor. The modifiers “+” or “-” have been subsumed with the main rating category.

**Table 16 - Part H: Specific risk capital charge for non-common equity capital instruments issued by financial entities other than bank – Held by banks under the HFT category**

	Residual maturity	Specific risk capital charge (%)
		Investments in non-common equity capital instruments of financial entities other than banks referred to in paragraph 5.6.1(i)*
1	2	3
Specific risk charge	≤6 months	1.75
	> 6 months and ≤ 24 months	7.06
	>24 months	11.25

\* Investments falling under para 5.6.1 (ii) will be deducted following corresponding deduction approach

**Table 16 - Part I: Alternative Total Capital Charge for non-common equity capital instruments issued financial entities other than banks - Held by banks under the AFS category**

	Specific risk capital charge (%)
	Investments in non- common equity capital instruments of financial entities other than banks referred to in para 5.6.1(i)
1	2
Specific risk charge	11.25

8.3.6 Banks shall, in addition to computing the counterparty credit risk (CCR) charge for

OTC derivatives, as part of capital for credit risk as per the Standardised Approach covered in **paragraph 5** above, also compute the specific risk charge for OTC derivatives in the trading book as required in terms of **Annex 9**.

## B. 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 and Central Government Securities) 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 Separate maturity ladders should be used for each currency and capital charges should be calculated for each currency separately and then summed with no offsetting between positions of opposite sign. In the case of those currencies in which business is insignificant (where the turnover in the respective currency is less than 5 per cent of overall foreign exchange turnover), separate calculations for each currency are not required. The bank may, instead, slot within each appropriate time-band, the net long or short position for each currency. However, these individual net positions are to be summed within each time-band, irrespective of whether they are long or short positions, to produce a gross position figure. The gross positions in each time-band will be subject to the assumed change in yield set out in Table-18 with no further offsets.

8.3.9 The Basel 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 17**);
- (iii) slot the resulting capital charge measures into a maturity ladder with the fifteen time bands as set out in **Table 17**;
- (iv) subject long and short positions (short position is not allowed in India except in derivatives and Central Government Securities) in each time band to a 5 per cent vertical disallowance designed to capture basis risk; and
- (v) carry forward the net positions in each time-band for horizontal offsetting

subject to the disallowances set out in **Table 18**.

**Table 17 - Duration Method – Time Bands and Assumed changes in Yield**

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

**Table 18 - Horizontal Disallowances**

Zones	Time band	Within the zones	Between adjacent zones	Between zones 1 and 3
<b>Zone 1</b>	1 month or less	40%	40%	100%
	1 to 3 months			
	3 to 6 months			
	6 to 12 months			
<b>Zone 2</b>	1.0 to 1.9 years	30%	40%	100%
	1.9 to 2.8 years			
	2.8 to 3.6 years			
<b>Zone 3</b>	3.6 to 4.3 years	30%	40%	100%
	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				

8.3.10 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 **Annex 9**.

#### **8.4 Measurement of Capital Charge for Equity Risk**

8.4.1 The capital charge for equities would apply on their current market value in bank's trading book. 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**

8.4.2 Capital charge for specific risk (akin to credit risk) will be 11.25 per cent or capital charge in accordance with the risk warranted by external rating (or lack of it) of the

counterparty, whichever is higher and specific risk is computed on 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). In addition, the general market risk charge will also be 9 per cent on the gross equity positions. These capital charges will also be applicable to all trading book exposures, which are exempted from capital market exposure ceilings for direct investments.

8.4.3 Specific Risk Capital Charge for banks' investment in Security Receipts will be 13.5 per cent (equivalent to 150 per cent risk weight). Since the Security Receipts are by and large illiquid and not traded in the secondary market, there will be no General Market Risk Capital Charge on them (vide mailbox clarification dated January 18, 2010).

8.4.4 The specific risk charge for bank's investments in the equity of other banks / other financial entities / non-financial entities will be as under:

**Table 19 – Part A: Specific risk charge for bank's investments in the equity of other banks held in HFT and AFS portfolios**

Level of Common Equity Tier 1 capital (CET1) including applicable capital conservation buffer (CCB) (%) of the investee bank (where applicable)	All Scheduled Banks (Commercial, Regional Rural Banks, Local Area Banks and Co-Operative Banks)		All Non-scheduled Banks (Commercial, Local Area Banks and Co-Operative Banks) (in %)	
	Equity investments in other banks referred to in:		Equity investments in other banks referred to in:	
	para 5.6.1(i)	para 5.6.1(ii)	para 5.6.1(i)	para 5.6.1(ii)
Applicable Minimum CET1 + Applicable CCB and above	11.25	22.5	11.25	27
Applicable Minimum CET1 + CCB = 75% and <100% of applicable CCB	13.5	27	22.5	31.5
Applicable Minimum CET1 + CCB = 50% and <75% of applicable CCB	22.5	31.5	31.5	40.5
Applicable Minimum CET1 + CCB = 0% and <50% of applicable CCB	31.5	40.5	56.25	Full deduction*
Minimum CET1 less than applicable minimum	50	Full deduction*	Full deduction*	Full deduction*

\* Full deduction should be made from Common Equity Tier 1 capital

**Notes:**

Till such time the investee banks have not disclosed their Basel III capital ratios publicly, the risk weights / capital charges may be arrived at based on the tables/paragraph as contained in the [Master Circular DBOD.No.BP.BC.4/21.06.001/2015-16 dated July 1, 2015](#) on Prudential Guidelines on Capital Adequacy and Market Discipline - New Capital Adequacy Framework.

**Table 19 – Part B: Specific risk charge for bank's investments in the equity of financial entities other than banks**

	Equity investments in financial entities other than banks referred to in:	
	para 5.6.1(i)	para 5.6.1(ii)
Specific risk charge (%)	11.25	22.5

**Table 19 – Part C: Specific risk charge for bank's investments in the equity of non-financial (commercial) entities**

	Equity investments in non-financial entities

	where a bank does not own more than 10% of the equity capital of investee companies	which are more than 10% of the equity capital of investee companies or which are affiliates of the bank (these exposures need not attract general market risk charge)
Specific risk charge (%)	11.25	100

## 8.5 Measurement of Capital Charge for Foreign Exchange Risk

The bank's net open position in each currency should be calculated by summing:

- The net spot position (i.e. all asset items less all liability items, including accrued interest, denominated in the currency in question);
- The net forward position (i.e. all amounts to be received less all amounts to be paid under forward foreign exchange transactions, including currency futures and the principal on currency swaps not included in the spot position);
- Guarantees (and similar instruments) that are certain to be called and are likely to be irrecoverable;
- Net future income/expenses not yet accrued but already fully hedged (at the discretion of the reporting bank);
- Depending on particular accounting conventions in different countries, any other item representing a profit or loss in foreign currencies;
- The net delta-based equivalent of the total book of foreign currency options

Foreign exchange open positions and gold open positions are at present risk-weighted at 100 per cent. Thus, capital charge for market risks in foreign exchange and gold open position is 9 per cent. These open positions, **limits or actual whichever is higher**, would continue to attract capital charge at 9 per cent. 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.

## 8.6 Measurement of Capital Charge for Credit Default Swap (CDS) in the Trading Book

### 8.6.1 General Market Risk

A credit default swap does not normally create a position for general market risk for either the protection buyer or protection seller. However, the present value of premium payable / receivable is sensitive to changes in the interest rates. In order to measure the interest rate risk in premium receivable / payable, the present value of the premium can be treated as a notional position in Government securities of relevant maturity. These positions will attract appropriate capital charge for general market risk. The protection buyer / seller will treat the present value of the premium payable / receivable equivalent to a short / long notional position in Government securities of relevant maturity.

### 8.6.2 Specific Risk for Exposure to Reference Entity

A CDS creates a notional long / short position for specific risk in the reference asset / obligation for protection seller / protection buyer. For calculating specific risk capital charge, the notional amount of the CDS and its maturity should be used. The specific risk capital charge for CDS positions will be as per [Tables](#) below.

<p><b>Table 20: Specific Risk Capital Charges for bought and sold CDS positions in the Trading Book : Exposures to entities other than Commercial Real Estate Companies / NBFC-ND-SI</b></p>
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Upto 90 days			After 90 days	
Ratings by the ECAI*	Residual Maturity of the instrument	Capital charge	Ratings by the ECAI*	Capital charge
AAA to BBB	6 months or less	0.28 %	AAA	1.8 %
	Greater than 6 months and up to and including 24 months	1.14%	AA	2.7%
	Exceeding 24 months	1.80%	A	4.5%
BB and below	All maturities	13.5%	BB and below	13.5%
Unrated (if permitted)	All maturities	9.0%	Unrated (if permitted)	9.0%

\* These ratings indicate the ratings assigned by Indian rating agencies / ECAIs or foreign rating agencies. In the case of foreign ECAIs, the rating symbols used here correspond to Standard and Poor. The modifiers "+" or "-" have been subsumed within the main category.

**Table 21: Specific Risk Capital Charges for bought and sold CDS positions in the Trading Book : Exposures to Commercial Real Estate Companies / NBFC-ND-SI#**

Ratings by the ECAI*	Residual Maturity of the instrument	Capital charge
AAA to BBB	6 months or less	1.4%
	Greater than 6 months and up to and including 24 months	7.7%
	Exceeding 24 months	9.0%
BB and below	All maturities	9.0%
Unrated (if permitted)	All maturities	9.0%

# The above table will be applicable for exposures up to 90 days. Capital charge for exposures to Commercial Real Estate Companies / NBFC-ND-SI beyond 90 days shall be taken at 9.0%, regardless of rating of the reference / deliverable obligation.

\* These ratings indicate the ratings assigned by Indian rating agencies / ECAIs or foreign rating agencies. In the case of foreign ECAIs, the rating symbols used here correspond to Standard and Poor. The modifiers "+" or "-" have been subsumed within the main category.

#### 8.6.2.1 Specific Risk Capital Charges for Positions Hedged by CDS<sup>79</sup>

- (i) Banks may fully offset the specific risk capital charges when the values of two legs (i.e. long and short in CDS positions) always move in the opposite direction and broadly to the same extent. This would be the case when the two legs consist of **completely identical CDS**. In these cases, no specific risk capital requirement applies to both sides of the CDS positions.
- (ii) Banks may offset 80 per cent of the specific risk capital charges when the value of two legs (i.e. long and short) always moves in the opposite direction but not broadly to the same extent. This would be the case when a long cash position is hedged by a credit default swap and there is an exact match in terms of the reference / deliverable obligation, and the maturity of both the reference / deliverable obligation and the CDS. In addition, key features of the CDS (e.g.

<sup>79</sup> Please refer to paragraph 6.2 of Annex 7 of these guidelines for details.

credit event definitions, settlement mechanisms) should not cause the price movement of the CDS to materially deviate from the price movements of the cash position. To the extent that the transaction transfers risk, an 80% specific risk offset will be applied to the side of the transaction with the higher capital charge, while the specific risk requirement on the other side will be zero.

(iii) Banks may offset partially the specific risk capital charges when the value of the two legs (i.e. long and short) usually moves in the opposite direction. This would be the case in the following situations:

(a) The position is captured in [paragraph 8.6.2.1\(ii\)](#) but there is an asset mismatch between the cash position and the CDS. However, the underlying asset is included in the (reference / deliverable) obligations in the CDS documentation and meets the requirements in paragraph 5.17.1.3(i) above.

(b) The position is captured in paragraph 8.6.2.1(ii) but there is maturity mismatch between credit protection and the underlying asset. However, the underlying asset is included in the (reference/ deliverable) obligations in the CDS documentation.

(c) In each of the cases in paragraph (a) and (b) above, rather than applying specific risk capital requirements on each side of the transaction (i.e. the credit protection and the underlying asset), only higher of the two capital requirements will apply.

#### 8.6.2.2 **Specific Risk Charge in CDS Positions which are not meant for Hedging**

In cases not captured in [paragraph 8.6.2.1](#), a specific risk capital charge will be assessed against both sides of the positions.

#### 8.6.3 **Capital Charge for Counterparty Credit Risk**

The credit exposure for the purpose of counterparty credit risk on account of CDS transactions in the Trading Book will be calculated according to the Current Exposure Method<sup>80</sup>.

##### 8.6.3.1 **Protection Seller**

A protection seller will have exposure to the protection buyer only if the fee/premia is outstanding. In such cases, the counterparty credit risk charge for all single name long CDS positions in the Trading Book will be calculated as the sum of the current marked-to-market value, if positive (zero, if marked-to-market value is negative) and the potential future exposure add-on factors based on table given below. However, the add-on will be capped to the amount of unpaid premia.

<b>Table 22: Add-on Factors for Protection Sellers</b>	
<b>(As % of Notional Principal of CDS)</b>	
<b>Type of Reference Obligation</b>	<b>Add-on Factor</b>

<sup>80</sup> A CDS contract, which is required to be marked-to-market, creates bilateral exposure for the parties to the contract. The mark-to-market value of a CDS contract is the difference between the default-adjusted present value of protection payment (called “protection leg” / “credit leg”) and the present value of premium payable called (“premium leg”). If the value of credit leg is less than the value of the premium leg, then the marked-to-market value for the protection seller is positive. Therefore, the protection seller will have exposure to the counterparty (protection buyer) if the value of premium leg is more than the value of credit leg. In case, no premium is outstanding, the value of premium leg will be zero and the mark-to-market value of the CDS contract will always be negative for the protection seller and therefore, protection seller will not have any exposure to the protection buyer. In no case, the protection seller’s exposure on protection buyer can exceed the amount of the premium unpaid. For the purpose of capital adequacy as well as exposure norms, the measure of counterparty exposures in case of CDS transaction held in Trading Book is the Potential Future Exposure (PFE) which is measured and recognised as per Current Exposure Method.

Obligations rated BBB- and above	10%
Below BBB- and unrated	20%

### 8.6.3.2 Protection Buyer

A CDS contract creates a counterparty exposure on the protection seller on account of the credit event payment. The counterparty credit risk charge for all short CDS positions in the Trading Book will be calculated as the sum of the current marked-to-market value, if positive (zero, if marked-to-market value is negative) and the potential future exposure add-on factors based on table given below:

<b>Table 23: Add-on Factors for Protection Buyers</b>	
(As % of Notional Principal of CDS)	
<b>Type of Reference Obligation</b>	<b>Add-on Factor</b>
Obligations rated BBB- and above	10%
Below BBB- and unrated	20%

### 8.6.3.3 Capital Charge for Counterparty Risk for Collateralised Transactions in CDS

As mentioned in [paragraph 3.3](#) of the [circular IDMD.PCD.No.5053/14.03.04/2010-11 dated May 23, 2011](#), collaterals and margins would be maintained by the individual market participants. The counterparty exposure for CDS traded in the OTC market will be calculated as per the Current Exposure Method. Under this method, the calculation of the counterparty credit risk charge for an individual contract, taking into account the collateral, will be as follows:

Counterparty risk capital charge = [(RC + add-on) – CA] x r x 9%

Where;

RC = the replacement cost,

add-on = the amount for potential future exposure calculated according to [paragraph 5.17.3](#) above.

CA = the volatility adjusted amount of eligible collateral under the comprehensive approach prescribed in [paragraph 7.3](#) on "Credit Risk Mitigation Techniques - Collateralised Transactions" of these guidelines, or zero if no eligible collateral is applied to the transaction, and

r = the risk weight of the counterparty.

### 8.6.4 Treatment of Exposures below Materiality Thresholds of CDS

Materiality thresholds on payments below which no payment is made in the event of loss are equivalent to retained first loss positions and should be assigned risk weight of 1250 per cent for capital adequacy purpose by the protection buyer.

## 8.7 Aggregation of the capital charge for Market Risks

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 and Risk Weighted Assets for market risks, the calculations may be plotted in the following table:

### Proforma

(₹ in crore)

<b>Risk Category</b>	<b>Capital charge</b>	<b>Risk Weighted Assets (RWA)</b>
<b>I. Interest Rate (a+b)</b>		12.5 times the capital charge
a. General market risk		

i) Net position (parallel shift) ii) Horizontal disallowance (curvature) iii) Vertical disallowance (basis) iv) Options		
b. Specific risk		
<b>II. Equity (a+b)</b>		12.5 times the capital charge
a. General market risk		
b. Specific risk		
<b>III. Foreign Exchange and Gold</b>		12.5 times the capital charge
<b>IV. Total capital charge and RWA for market risks (I+II+III)</b>		

## 8.8 Treatment for Illiquid Positions

### 8.8.1 Prudent Valuation Guidance

- (i) This section provides banks with guidance on prudent valuation for positions that are accounted for at fair value. This guidance would be applicable to all positions enumerated in **paragraph 8.2.1** above. It is especially important for positions without actual market prices or observable inputs to valuation, as well as less liquid positions which raise supervisory concerns about prudent valuation. The valuation guidance set forth below is not intended to require banks to change valuation procedures for financial reporting purposes.
- (ii) A framework for prudent valuation practices should at a minimum include the following:

#### 8.8.1.1 Systems and Controls:

Banks must establish and maintain adequate systems and controls sufficient to give management and supervisors the confidence that their valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the organisation (such as credit analysis). Such systems must include:

- (i) Documented policies and procedures for the process of valuation. This includes clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, guidelines for the use of unobservable inputs reflecting the bank's assumptions of what market participants would use in pricing the position, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and
- (ii) Clear and independent (i.e. independent of front office) reporting lines for the department accountable for the valuation process.

#### 8.8.1.2 Valuation Methodologies:

### Marking to Market

- (i) Marking-to-market is at least the daily valuation of positions at readily available close out prices in orderly transactions that are sourced independently. Examples of readily available close out prices include exchange prices, screen prices, or quotes from several independent reputable brokers.

- (ii) Banks must mark-to-market as much as possible. The more prudent side of bid/offer should be used unless the institution is a significant market maker in a particular position type and it can close out at mid-market. Banks should maximise the use of relevant observable inputs and minimise the use of unobservable inputs when estimating fair value using a valuation technique. However, observable inputs or transactions may not be relevant, such as in a forced liquidation or distressed sale, or transactions may not be observable, such as when markets are inactive. In such cases, the observable data should be considered, but may not be determinative.

### **Marking to Model**

- (iii) Marking-to model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input. Where marking-to-market is not possible, banks should follow the guidelines on valuation of investments contained in [Master Circular DBOD No.BP.BC.3/ 21.04.141/2009-10 dated July 1, 2009](#), as amended from time to time on prudential norms for classification, valuation and operation of investment portfolio by banks. For investment and derivative positions other than those covered in the Master Circular, the valuation model used by banks must be demonstrated to be prudent. When marking to valuation model other than that prescribed in RBI / FIMMDA guidelines, an extra degree of conservatism is appropriate. RBI will consider the following in assessing whether a mark-to-model valuation is prudent:

- Senior management should be aware of the elements of the trading book or of other fair-valued positions which are subject to mark to model and should understand the materiality of the uncertainty this creates in the reporting of the risk/performance of the business.
- Market inputs should be sourced, to the extent possible, in line with market prices (as discussed above). The appropriateness of the market inputs for the particular position being valued should be reviewed regularly.
- Where available, generally accepted valuation methodologies for particular products should be used as far as possible.
- Where the model is developed by the institution itself, it should be based on appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process. The model should be developed or approved independently of the front office. It should be independently tested. This includes validating the mathematics, the assumptions and the software implementation.
- There should be formal change control procedures in place and a secure copy of the model should be held and periodically used to check valuations.
- Risk management should be aware of the weaknesses of the models used and how best to reflect those in the valuation output.
- The model should be subject to periodic review to determine the accuracy of its performance (e.g. assessing continued appropriateness of the assumptions, analysis of P&L versus risk factors, comparison of actual close out values to model outputs).
- Valuation adjustments should be made as appropriate, for example, to cover the uncertainty of the model valuation (see also valuation adjustments in paragraphs 8.8.1.2 (vi), (vii) and 8.8.2.1 to 8.8.2.4.)

### **Independent Price Verification**

- (iv) Independent price verification is distinct from daily mark-to-market. It is the process by which market prices or model inputs are regularly verified for accuracy. While daily marking-to-market may be performed by dealers, verification of market prices or model inputs should be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). It need not be performed as frequently as daily mark-to-market, since the objective, i.e. independent, marking of positions should reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marks.
- (v) Independent price verification entails a higher standard of accuracy in that the market prices or model inputs are used to determine profit and loss figures, whereas daily marks are used primarily for management reporting in between reporting dates. For independent price verification, where pricing sources are more subjective, e.g. only one available broker quote, prudent measures such as valuation adjustments may be appropriate.

### Valuation Adjustments

- (vi) As part of their procedures for marking to market, banks must establish and maintain procedures for considering valuation adjustments. RBI would particularly expect banks using third-party valuations to consider whether valuation adjustments are necessary. Such considerations are also necessary when marking to model.
- (vii) At a minimum, banks should consider the following valuation adjustments while valuing their derivatives portfolios:
- incurred CVA losses<sup>81</sup>,
  - closeout costs,
  - operational risks,
  - early termination, investing and funding costs, and
  - future administrative costs and,
  - where appropriate, model risk.

Banks may follow any recognised method/model to compute the above adjustments except provisions against incurred CVA losses. However, banks may use the following formula to calculate incurred CVA loss on derivatives transactions:

$$ICVAL_t = \text{Max} [0, \{(EE_t \cdot RP_t) - (EE_0 \cdot RP_0)\}]$$

Where;

ICVAL<sub>t</sub> = Cumulative Incurred CVA loss at time 't'.

EE<sub>t</sub> = Value of counterparty exposure projected after one year from 't' and discounted back to 't' using CEM and a risk free discount rate for one year

EE<sub>0</sub> = Counterparty exposure estimated at time '0' using CEM

RP<sub>t</sub> = Credit spread of the counterparty as reflected in the CDS or bond prices.

In cases where market based credit spreads are not available, risk premium applicable to the counterparty according to its credit grade as per the internal credit rating system of the bank used for pricing/loan approval purposes at time 't' may be used.

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<sup>81</sup> Provisions against incurred CVA losses are akin to specific provisions required on impaired assets and depreciation in case of investments held in the trading book. These provisions will be in addition to the general provisions @ 0.4% required on the positive MTM values. The provisions against incurred CVA losses may be netted off from the exposure value while calculating capital charge for default risk under the Current Exposure Method as required in terms of paragraph 5.15.3.5 (ii).

$RP_0$  = Credit spread of the counterparty as reflected in the CDS or bond prices.

In cases where market based credit spreads are not available, risk premium applicable to the counterparty according to its credit grade as per the internal credit rating system of the bank used for pricing / loan approval purposes at time '0' i.e. the date of the transaction.

**Note:** Some of other terms used above are explained below:

#### **Close-out costs**

Close-out costs adjustment factors in the cost of eliminating the market risk of the portfolio.

#### **Investing and Funding costs**

The "investing and funding costs adjustment" relating to the cost of funding and investing cash flow mismatches at rates different from the rate which models typically assume.

#### **Administrative costs adjustment**

Administrative costs adjustment relates to the costs that will be incurred to administer the portfolio"

### **8.8.2 Adjustment to the current valuation of less liquid positions for regulatory capital purposes:**

8.8.2.1 Banks must establish and maintain procedures for judging the necessity of and calculating an adjustment to the current valuation of less liquid positions for regulatory capital purposes. This adjustment may be in addition to any changes to the value of the position required for financial reporting purposes and should be designed to reflect the illiquidity of the position. An adjustment to a position's valuation to reflect current illiquidity should be considered whether the position is marked to market using market prices or observable inputs, third-party valuations or marked to model.

8.8.2.2 Bearing in mind that the assumptions made about liquidity in the market risk capital charge may not be consistent with the bank's ability to sell or hedge out less liquid positions where appropriate, banks must take an adjustment to the current valuation of these positions, and review their continued appropriateness on an on-going basis. Reduced liquidity may have arisen from market events. Additionally, close-out prices for concentrated positions and/or stale positions should be considered in establishing the adjustment. RBI has not prescribed any particularly methodology for calculating the amount of valuation adjustment on account of illiquid positions. Banks must consider all relevant factors when determining the appropriateness of the adjustment for less liquid positions. These factors may include, but are not limited to, the amount of time it would take to hedge out the position/risks within the position, the average volatility of bid/offer spreads, the availability of independent market quotes (number and identity of market makers), the average and volatility of trading volumes (including trading volumes during periods of market stress), market concentrations, the aging of positions, the extent to which valuation relies on marking-to-model, and the impact of other model risks not included in paragraph 8.8.2.2. The valuation adjustment on account of illiquidity should be considered irrespective of whether the guidelines issued by FIMMDA have taken into account the illiquidity premium or not, while fixing YTM/spreads for the purpose of valuation.

8.8.2.3 For complex products including, but not limited to, securitisation exposures, banks must explicitly assess the need for valuation adjustments to reflect two forms of model risk:

- (i) the model risk associated with using a possibly incorrect valuation methodology; and
- (ii) the risk associated with using unobservable (and possibly incorrect) calibration parameters in the valuation model.

8.8.2.4 The adjustment to the current valuation of less liquid positions made under paragraph 8.8.2.2 will not be debited to P&L Account, but will be deducted from Common Equity Tier 1 capital while computing CRAR of the bank. The adjustment may exceed those

valuation adjustments made under financial reporting/accounting standards and paragraphs 8.8.1.2 (vi) and (vii).

8.8.2.5 In calculating the eligible capital for market risk, it will be necessary first to calculate the banks' minimum capital requirement for credit and operational risk and only afterwards its market risk requirement to establish how much components of capital is available to support market risk.

## **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 (BIA); (ii) the Standardised Approach (TSA); 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 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 as 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, Reserve Bank will consider appropriate supervisory action under Pillar 2. The charge may be expressed as follows:

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

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

$\alpha$  = 15 per cent, 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 made during the year;
- (ii) be gross of operating expenses, including fees paid to outsourcing service

providers, *in addition 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 during the year in respect of provisions and write-offs made during the previous year(s);
- (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 (i.e. income derived by writing insurance policies) 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:

- (a) Average of [Gross Income \* alpha] for each of the last three financial years, excluding years of negative or zero gross income
- (b) Gross income = *Net profit (+) Provisions & contingencies (+) operating expenses (Schedule 16) (-) items (iii) to (viii) of paragraph 9.3.2.*
- (c) 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 these guidelines. Nevertheless, banks using this approach are encouraged to comply with the Basel 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.

9.3.5 Once the bank has calculated the capital charge for operational risk under BIA, it has to multiply this with 12.5 and arrive at the notional risk weighted asset (RWA) for operational risk.

## Part B: Supervisory Review and Evaluation Process (SREP)

### 10. Introduction to the SREP under Pillar 2

**10.1** The New Capital Adequacy Framework (NCAF), based on the Basel II Framework evolved by the Basel Committee on Banking Supervision, was adapted for India vide [Circular DBOD.No.BP.BC.90/20.06.001/ 2006-07 dated April 27, 2007](#). In terms of paragraph 2.4 (iii) (c) of the Annex to the aforesaid circular banks were required to have a Board-approved policy on Internal Capital Adequacy Assessment Process (ICAAP) and to assess the capital requirement as per ICAAP. It is presumed that banks would have formulated the policy and also undertaken the capital adequacy assessment accordingly.

**10.2** The Capital Adequacy Framework rests on three components or three Pillars. Pillar 1 is the Minimum Capital Ratio while Pillar 2 and Pillar 3 are the Supervisory Review Process (SRP) and Market Discipline, respectively. The guidelines in regard to the SRP and the ICAAP are furnished in this Section. An illustrative outline of the format of the ICAAP document, to be submitted to the RBI, by banks, is furnished at **Annex 15**.

**10.3** The objective of the SRP is to ensure that banks have adequate capital to support all the risks in their business as also to encourage them to develop and use better risk management techniques for monitoring and managing their risks. This in turn would require a well-defined internal assessment process within banks through which they assure the RBI that adequate capital is indeed held towards the various risks to which they are exposed. The process of assurance could also involve an active dialogue between the bank and the RBI so that, when warranted, appropriate intervention could be made to either reduce the risk exposure of the bank or augment / restore its capital. Thus, ICAAP is an important component of the SRP.

**10.4** The main aspects to be addressed under the SRP, and therefore, under the ICAAP, would include:

- (a) the risks that are not fully captured by the minimum capital ratio prescribed under Pillar 1;
- (b) the risks that are not at all taken into account by the Pillar 1; and
- (c) the factors external to the bank.

Since the capital adequacy ratio prescribed by the RBI under the Pillar 1 of the Framework is only the regulatory **minimum** level, addressing only the three specified risks (viz., credit, market and operational risks), holding additional capital might be necessary for banks, on account of both – the possibility of some under-estimation of risks under the Pillar 1 and the actual risk exposure of a bank vis-à-vis the quality of its risk management architecture. **Illustratively**, some of the risks that the banks are generally exposed to but which are not captured or not fully captured in the regulatory CRAR would include:

- (a) Interest rate risk in the banking book;
- (b) Credit concentration risk;
- (c) Liquidity risk;
- (d) Settlement risk;
- (e) Reputational risk;
- (f) Strategic risk;
- (g) Risk of under-estimation of credit risk under the Standardised approach;
- (h) Model risk i.e., the risk of under-estimation of credit risk under the IRB approaches;
- (i) Risk of weakness in the credit-risk mitigants;
- (j) Residual risk of securitisation, etc.

The quantification of currency induced credit risk will form a part of banks' Internal Capital

Adequacy Assessment Programme (ICAAP) and banks are expected to address this risk in a comprehensive manner. The ICAAP should measure the extent of currency induced credit risk<sup>82</sup> the bank is exposed to and also concentration of such exposures. Banks may also like to perform stress tests under various extreme but plausible exchange rate scenarios under ICAAP. Outcome of ICAAP may lead a bank to take appropriate risk management actions like risk reduction, maintenance of more capital or provision, etc.

It is, therefore, only appropriate that the banks make their own assessment of their various risk exposures, through a well-defined internal process, and maintain an adequate capital cushion for such risks.

**10.5** It is recognised that there is no one single approach for conducting the ICAAP and the market consensus in regard to the best practice for undertaking ICAAP is yet to emerge. The methodologies and techniques are still evolving particularly in regard to measurement of non-quantifiable risks, such as reputational and strategic risks. These guidelines, therefore, seek to provide only broad principles to be followed by banks in developing their ICAAP.

**10.6** Banks were advised to develop and put in place, with the approval of their Boards, an ICAAP commensurate with their size, level of complexity, risk profile and scope of operations. The ICAAP, which would be in addition to a bank's calculation of regulatory capital requirements under Pillar 1, was to be operationalised with effect from March 31, 2008 by the foreign banks and the Indian banks with operational presence outside India, and from March 31, 2009 by all other commercial banks, excluding the Local Area Banks and Regional Rural banks.

**10.7** The ICAAP document should, *inter alia*, include the capital adequacy assessment and projections of capital requirement for the ensuing year, along with the plans and strategies for meeting the capital requirement. An illustrative outline of a format of the ICAAP document is furnished at **Annex 15**, for guidance of the banks though the ICAAP documents of the banks could vary in length and format, in tune with their size, level of complexity, risk profile and scope of operations.

## **11. Need for Improved Risk Management<sup>83</sup>**

**11.1** While financial institutions have faced difficulties over the years for a multitude of reasons, the major causes of serious banking problems continue to be lax credit standards for borrowers and counterparties, poor portfolio risk management, and a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties. This experience is common in both advanced and developing countries.

**11.2** The financial market crisis of 2007-08 has underscored the critical importance of effective credit risk management to the long-term success of any banking organisation and as a key component to financial stability. It has provided a stark reminder of the need for banks to effectively identify, measure, monitor and control credit risk, as well as to understand how credit risk interacts with other types of risk (including market, liquidity and reputational risk). The essential elements of a comprehensive credit risk management programme include (i) establishing an appropriate credit risk environment; (ii) operating under a sound credit granting process; (iii) maintaining an appropriate credit administration, measurement and monitoring process; and (iv) ensuring adequate controls over credit risk as elaborated in our Guidance note on Credit Risk issued on October 12, 2002<sup>84</sup>.

**11.3** The recent crisis has emphasised the importance of effective capital planning and

<sup>82</sup> Please refer to [circular DBOD.No.BP.BC.85/21.06.200/2013-14](#) and [DBOD.No.BP.BC.116/21.06.200/2013-14](#) dated January 15, 2014 and June 3, 2014, respectively.

<sup>83</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010](#).

<sup>84</sup> Guidance Notes on Management of Credit Risk and Market Risk issued vide [circular DBOD.No.BP.520/21.04.103/2002-03 dated October 12, 2002](#).

longer-term capital maintenance. A bank's ability to withstand uncertain market conditions is bolstered by maintaining a strong capital position that accounts for potential changes in the bank's strategy and volatility in market conditions over time. Banks should focus on effective and efficient capital planning, as well as long-term capital maintenance. An effective capital planning process requires a bank to assess both the risks to which it is exposed and the risk management processes in place to manage and mitigate those risks; evaluate its capital adequacy relative to its risks; and consider the potential impact on earnings and capital from economic downturns. A bank's capital planning process should incorporate rigorous, forward looking stress testing, as discussed below in paragraph 12.9.

**11.4** Rapid growth in any business activity can present banks with significant risk management challenges. This was the case with the expanded use of the "originate-to-distribute" business model, off-balance sheet vehicles, liquidity facilities and credit derivatives. The originate-to-distribute model and securitisation can enhance credit intermediation and bank profitability, as well as more widely diversify risk. Managing the associated risks, however, poses significant challenges. Indeed, these activities create exposures within business lines, across the firm and across risk factors that can be difficult to identify, measure, manage, mitigate and control. This is especially true in an environment of declining market liquidity, asset prices and risk appetite. The inability to properly identify and measure such risks may lead to unintended risk exposures and concentrations, which in turn can lead to concurrent losses arising in several businesses and risk dimensions due to a common set of factors. Strong demand for structured products created incentives for banks using the originate-to-distribute model to originate loans, such as subprime mortgages, using unsound and unsafe underwriting standards. At the same time, many investors relied solely on the ratings of the credit rating agencies (CRAs) when determining whether to invest in structured credit products. Many investors conducted little or no independent due diligence on the structured products they purchased. Furthermore, many banks had insufficient risk management processes in place to address the risks associated with exposures held on their balance sheet, as well as those associated with off-balance sheet entities, such as asset backed commercial paper (ABCP) conduits and structured investment vehicles (SIVs).

**11.5** Innovation has increased the complexity and potential illiquidity of structured credit products. This, in turn, can make such products more difficult to value and hedge, and may lead to inadvertent increases in overall risk. Further, the increased growth of complex investor-specific products may result in thin markets that are illiquid, which can expose a bank to large losses in times of stress if the associated risks are not well understood and managed in a timely and effective manner.

## **12. Guidelines for the SREP of the RBI and the ICAAP of Banks**

### **12.1 Background**

12.1.1 The Basel capital adequacy framework rests on the following three mutually-reinforcing pillars:

Pillar 1: Minimum Capital Requirements - which prescribes a risk-sensitive calculation of capital requirements that, for the first time, explicitly includes operational risk in addition to market and credit risk.

Pillar 2: Supervisory Review Process (SRP) - which envisages the establishment of suitable risk management systems in banks and their review by the supervisory authority.

Pillar 3: Market Discipline - which seeks to achieve increased transparency through expanded disclosure requirements for banks.

12.1.2. The Basel Committee also lays down the following four key principles in regard to the SRP envisaged under Pillar 2:

**Principle 1:** Banks should have a process for assessing their overall capital

adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

**Principle 2:** Supervisors should review and evaluate banks' internal capital adequacy assessments and strategies, as well as their ability to monitor and ensure their compliance with the regulatory capital ratios. Supervisors should take appropriate supervisory action if they are not satisfied with the result of this process.

**Principle 3:** Supervisors should expect banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

**Principle 4:** Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk characteristics of a particular bank and should require rapid remedial action if capital is not maintained or restored.

12.1.3 It would be seen that the principles 1 and 3 relate to the supervisory expectations from banks while the principles 2 and 4 deal with the role of the supervisors under Pillar 2. Pillar 2 (Supervisory Review Process - SRP) requires banks to implement an internal process, called the Internal Capital Adequacy Assessment Process (ICAAP), for assessing their capital adequacy in relation to their risk profiles as well as a strategy for maintaining their capital levels. Pillar 2 also requires the supervisory authorities to subject all banks to an evaluation process, hereafter called Supervisory Review and Evaluation Process (SREP), and to initiate such supervisory measures on that basis, as might be considered necessary. An analysis of the foregoing principles indicates that the following broad responsibilities have been cast on banks and the supervisors:

Banks' responsibilities:

- (a) Banks should have in place a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels (Principle 1)
- (b) Banks should operate above the minimum regulatory capital ratios (*Principle 3*)

Supervisors' responsibilities

- (a) Supervisors should review and evaluate a bank's ICAAP. (Principle 2)
- (b) Supervisors should take appropriate action if they are not satisfied with the results of this process. (Principle 2)
- (c) Supervisors should review and evaluate a bank's compliance with the regulatory capital ratios. (Principle 2)
- (d) Supervisors should have the ability to require banks to hold capital in excess of the minimum. (Principle 3)
- (e) Supervisors should seek to intervene at an early stage to prevent capital from falling below the minimum levels. (Principle 4)
- (f) Supervisors should require rapid remedial action if capital is not maintained or restored. (Principle 4)

12.1.4 Thus, the ICAAP and SREP are the two important components of Pillar 2 and could be broadly defined as follows:

The ICAAP comprises a bank's procedures and measures designed to ensure the following:

- (a) An appropriate identification and measurement of risks;

- (b) An appropriate level of internal capital in relation to the bank's risk profile; and
- (c) Application and further development of suitable risk management systems in the bank.

The SREP consists of a review and evaluation process adopted by the supervisor, which covers all the processes and measures defined in the principles listed above. Essentially, these include the review and evaluation of the bank's ICAAP, conducting an independent assessment of the bank's risk profile, and if necessary, taking appropriate prudential measures and other supervisory actions.

12.1.5 These guidelines seek to provide broad guidance to banks by outlining the manner in which the SREP would be carried out by the RBI, the expected scope and design of their ICAAP, and the expectations of the RBI from banks in regard to implementation of the ICAAP.

## **12.2 Conduct of the SREP by the RBI**

12.2.1 Capital helps protect individual banks from insolvency, thereby promoting safety and soundness in the overall banking system. Minimum regulatory capital requirements under Pillar 1 establish a threshold below which a sound bank's regulatory capital must not fall. Regulatory capital ratios permit some comparative analysis of capital adequacy across regulated banking entities because they are based on certain common methodology / assumptions. However, supervisors need to perform a more comprehensive assessment of capital adequacy that considers risks specific to a bank, conducting analyses that go beyond minimum regulatory capital requirements.

12.2.2 The RBI generally expects banks to hold capital above their minimum regulatory capital levels, commensurate with their individual risk profiles, to account for all material risks. Under the SREP, the RBI will assess the overall capital adequacy of a bank through a comprehensive evaluation that takes into account all relevant available information. In determining the extent to which banks should hold capital in excess of the regulatory minimum, the RBI would take into account the combined implications of a bank's compliance with regulatory minimum capital requirements, the quality and results of a bank's ICAAP, and supervisory assessment of the bank's risk management processes, control systems and other relevant information relating to the bank's risk profile and capital position.

12.2.3 The SREP of banks would, thus, be conducted by the RBI periodically, generally, along with the RBI's Annual Financial Inspection (AFI) of banks and in the light of the data in the off-site returns received from banks in the RBI, in conjunction with the ICAAP document, which is required to be submitted every year by banks to the RBI (refer to paragraph 12.3.3.7 below). Through the SREP, the RBI would evaluate the adequacy and efficacy of the ICAAP of banks and the capital requirements derived by them therefrom. While in the course of evaluation, there would be no attempt to reconcile the difference between the regulatory minimum CRAR and the outcome of the ICAAP of a bank (as the risks covered under the two processes are different), banks would be expected to demonstrate to the RBI that the ICAAP adopted by them is fully responsive to their size, level of complexity, scope and scale of operations and the resultant risk profile / exposures, and adequately captures their capital requirements. Such an evaluation of the effectiveness of the ICAAP would help the RBI in understanding the capital management processes and strategies adopted by banks. If considered necessary, the SREP could also involve a dialogue between the bank's top management and the RBI from time to time. In addition to the periodic reviews, independent external experts may also be commissioned by the RBI, if deemed necessary, to perform *ad hoc* reviews and comment on specific aspects of the ICAAP process of a bank; the nature and extent of such a review shall be determined by the RBI.

12.2.4 Pillar 1 capital requirements will include a buffer for uncertainties surrounding the Pillar 1 regime that affect the banking population as a whole. Bank-specific uncertainties will

be treated under Pillar 2<sup>85</sup>. It is anticipated that such buffers under Pillar 1 will be set to provide reasonable assurance that a bank with good internal systems and controls, a well-diversified risk profile and a business profile well covered by the Pillar 1 regime, and which operates with capital equal to Pillar 1 requirements, will meet the minimum goals for soundness embodied in Pillar 1. However, RBI may require particular banks to operate with a buffer, over and above the Pillar 1 standard. Banks should maintain this buffer for a combination of the following:

(a) Pillar 1 minimums are anticipated to be set to achieve a level of bank creditworthiness in markets that is below the level of creditworthiness sought by many banks for their own reasons. For example, most international banks appear to prefer to be highly rated by internationally recognised rating agencies. Thus, banks are likely to choose to operate above Pillar 1 minimums for competitive reasons.

(b) In the normal course of business, the type and volume of activities will change, as will the different risk exposures, causing fluctuations in the overall capital ratio.

(c) It may be costly for banks to raise additional capital, especially if this needs to be done quickly or at a time when market conditions are unfavourable.

(d) For banks to fall below minimum regulatory capital requirements is a serious matter. It may place banks in breach of the provisions of the Banking Regulation Act and / or attract prompt corrective action on the part of RBI.

(e) There may be risks, either specific to individual banks, or more generally to an economy at large, that are not taken into account in Pillar 1.<sup>86</sup>

As a part of Supervisory Review and Evaluation Process (SREP) under Pillar 2, RBI may review the risk management measures taken by the bank and its adequacy to manage currency induced credit risk<sup>87</sup>, especially if exposure to such risks is assessed to be on higher side.

Under the SREP, the RBI would make an assessment as to whether the bank maintains adequate capital cushion to take care of the above situations. Such a cushion should be in addition to the capital conservation buffer and countercyclical capital buffer, if any, required to be maintained by the bank according to the applicable guidelines. Such cushion would generally be reflected in more than minimum capital adequacy ratio maintained by the bank after taking into account capital conservation buffer and countercyclical capital buffer.

Under the SREP, RBI would also seek to determine whether a bank's overall capital remains adequate as the underlying conditions change. Generally, material increases in risk that are not otherwise mitigated should be accompanied by commensurate increases in capital. Conversely, reductions in overall capital (to a level still above regulatory minima) may be appropriate if the RBI's supervisory assessment leads it to a conclusion that risk has materially declined or that it has been appropriately mitigated. Based on such assessment, the RBI could consider initiating appropriate supervisory measures to address its supervisory concerns. The measures could include requiring a modification or enhancement of the risk management and internal control processes of a bank, a reduction in risk exposures, or any other action as deemed necessary to address the identified supervisory concerns. These measures could also include the stipulation of a bank-specific additional capital requirement over and above what has been determined under Pillar 1.

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<sup>85</sup> Annex 3 of the Guidelines on Implementation of Basel III Capital Regulations in India issued vide [circular DBOD.No.BP.BC.98/21.06.201/2011-2012 dated May 2, 2012](#).

<sup>86</sup> If a bank has identified some capital add-on to take care of an identified Pillar 2 risk or inadequately capitalised Pillar 1 risk, that add-on can be translated into risk weighted assets as indicated in this paragraph below, which should be added to the total risk weighted assets of the bank. No additional Pillar 2 buffer need be maintained for such identified risks.

<sup>87</sup> Please refer to [circular DBOD.No.BP.BC.85/21.06.200/2013-14](#) and [DBOD.No.BP.BC.116/21.06.200/2013-14](#) dated January 15, 2014 and June 3, 2014, respectively.

12.2.5 As and when the advanced approaches envisaged in the Basel capital adequacy framework are permitted to be adopted in India, the SREP would also assess the ongoing compliance by banks with the eligibility criteria for adopting the advanced approaches.

### **12.3 The Structural Aspects of the ICAAP**

12.3.1 This section outlines the broad parameters of the ICAAP that banks are required to comply with in designing and implementing their ICAAP.

12.3.2 Every bank to have an ICAAP

Reckoning that the Basel II framework is applicable to all commercial banks (except the Local Area Banks and the Regional Rural Banks), both at the solo level (global position) as well as at the consolidated level, the ICAAP should be prepared, on a solo basis, at every tier for each banking entity within the banking group, as also at the level of the consolidated bank (i.e., a group of entities where the licensed bank is the controlling entity). This requirement would also apply to the foreign banks which have a branch presence in India and their ICAAP should cover their Indian operations only.

12.3.3 ICAAP to encompass firm-wide risk profile <sup>88</sup>

12.3.3.1 General firm-wide risk management principles:

Senior management should understand the importance of taking an integrated, firm-wide perspective of a bank's risk exposure, in order to support its ability to identify and react to emerging and growing risks in a timely and effective manner. The purpose of this guidance is the need to enhance firm-wide oversight, risk management and controls around banks' capital markets activities, including securitisation, off-balance sheet exposures, structured credit and complex trading activities.

A sound risk management system should have the following key features:

- Active board and senior management oversight;
- Appropriate policies, procedures and limits;
- Comprehensive and timely identification, measurement, mitigation, controlling, monitoring and reporting of risks;
- Appropriate management information systems (MIS) at the business and firm-wide level; and
- Comprehensive internal controls.

12.3.3.2 Board and Senior Management Oversight:

The ultimate responsibility for designing and implementation of the ICAAP lies with the bank's board of directors of the bank and with the Chief Executive Officer in the case of the foreign banks with branch presence in India. It is the responsibility of the board of directors and senior management to define the institution's risk appetite and to ensure that the bank's risk management framework includes detailed policies that set specific firm-wide prudential limits on the bank's activities, which are consistent with its risk taking appetite and capacity. In order to determine the overall risk appetite, the board and senior management must first have an understanding of risk exposures on a firm-wide basis. To achieve this understanding, the appropriate members of senior management must bring together the perspectives of the key business and control functions. In order to develop an integrated firm-wide perspective on risk, senior management must overcome organisational silos between business lines and share information on market developments, risks and risk

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<sup>88</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010.](#)

mitigation techniques. As the banking industry is exhibiting the tendency to move increasingly towards market-based intermediation, there is a greater probability that many areas of a bank may be exposed to a common set of products, risk factors or counterparties. Senior management should establish a risk management process that is not limited to credit, market, liquidity and operational risks, but incorporates all material risks. This includes reputational, legal and strategic risks, as well as risks that do not appear to be significant in isolation, but when combined with other risks could lead to material losses.

The Board of Directors and senior management should possess sufficient knowledge of all major business lines to ensure that appropriate policies, controls and risk monitoring systems are effective. They should have the necessary expertise to understand the capital markets activities in which the bank is involved – such as securitisation and off-balance sheet activities – and the associated risks. The board and senior management should remain informed on an on-going basis about these risks as financial markets, risk management practices and the bank's activities evolve. In addition, the board and senior management should ensure that accountability and lines of authority are clearly delineated. With respect to new or complex products and activities, senior management should understand the underlying assumptions regarding business models, valuation and risk management practices. In addition, senior management should evaluate the potential risk exposure if those assumptions fail. Before embarking on new activities or introducing products new to the institution, the board and senior management should identify and review the changes in firm-wide risks arising from these potential new products or activities and ensure that the infrastructure and internal controls necessary to manage the related risks are in place. In this review, a bank should also consider the possible difficulty in valuing the new products and how they might perform in a stressed economic environment. The Board should ensure that the senior management of the bank:

- (i) establishes a risk framework in order to assess and appropriately manage the various risk exposures of the bank;
- (ii) develops a system to monitor the bank's risk exposures and to relate them to the bank's capital and reserve funds;
- (iii) establishes a method to monitor the bank's compliance with internal policies, particularly in regard to risk management; and
- (iv) effectively communicates all relevant policies and procedures throughout the bank.

A bank's risk function and its chief risk officer (CRO) or equivalent position should be independent of the individual business lines and report directly to the chief executive officer (CEO) / Managing Director and the institution's board of directors. In addition, the risk function should highlight to senior management and the board risk management concerns, such as risk concentrations and violations of risk appetite limits.

#### 12.3.3.4 Policies, procedures, limits and controls:

The structure, design and contents of a bank's ICAAP should be approved by the Board of Directors to ensure that the ICAAP forms an integral part of the management process and decision making culture of the bank. Firm-wide risk management programmes should include detailed policies that set specific firm-wide prudential limits on the principal risks relevant to a bank's activities. A bank's policies and procedures should provide specific guidance for the implementation of broad business strategies and should establish, where appropriate, internal limits for the various types of risk to which the bank may be exposed. These limits should consider the bank's role in the financial system and be defined in relation to the bank's capital, total assets, earnings or, where adequate measures exist, its overall risk level.

A bank's policies, procedures and limits should:

- Provide for adequate and timely identification, measurement, monitoring, control and mitigation of the risks posed by its lending, investing, trading, securitisation, off-balance sheet, fiduciary and other significant activities at the business line and firm-wide levels;
- Ensure that the economic substance of a bank's risk exposures, including reputational risk and valuation uncertainty, are fully recognised and incorporated into the bank's risk management processes;
- Be consistent with the bank's stated goals and objectives, as well as its overall financial strength;
- Clearly delineate accountability and lines of authority across the bank's various business activities, and ensure there is a clear separation between business lines and the risk function;
- Escalate and address breaches of internal position limits;
- Provide for the review of new businesses and products by bringing together all relevant risk management, control and business lines to ensure that the bank is able to manage and control the activity prior to it being initiated; and
- Include a schedule and process for reviewing the policies, procedures and limits and for updating them as appropriate.

#### 12.3.3.5 Identifying, measuring, monitoring and reporting of risk:

- (i) A bank's MIS should provide the board and senior management in a clear and concise manner with timely and relevant information concerning their institutions' risk profile. This information should include all risk exposures, including those that are off-balance sheet. Management should understand the assumptions behind and limitations inherent in specific risk measures.
- (ii) The key elements necessary for the aggregation of risks are an appropriate infrastructure and MIS that (i) allow for the aggregation of exposures and risk measures across business lines and (ii) support customised identification of concentrations and emerging risks. MIS developed to achieve this objective should support the ability to evaluate the impact of various types of economic and financial shocks that affect the whole of the financial institution. Further, a bank's systems should be flexible enough to incorporate hedging and other risk mitigation actions to be carried out on a firm-wide basis while taking into account the various related basis risks.
- (iii) To enable proactive management of risk, the board and senior management need to ensure that MIS is capable of providing regular, accurate and timely information on the bank's aggregate risk profile, as well as the main assumptions used for risk aggregation. MIS should be adaptable and responsive to changes in the bank's underlying risk assumptions and should incorporate multiple perspectives of risk exposure to account for uncertainties in risk measurement. In addition, it should be sufficiently flexible so that the institution can generate forward-looking bank-wide scenario analyses that capture management's interpretation of evolving market conditions and stressed conditions. Third-party inputs or other tools used within MIS (e.g. credit ratings, risk measures, models) should be subject to initial and ongoing validation.
- (iv) A bank's MIS should be capable of capturing limit breaches and there should be procedures in place to promptly report such breaches to senior management, as well as to ensure that appropriate follow-up actions are taken. For instance, similar exposures should be aggregated across business platforms (including the banking

and trading books) to determine whether there is a concentration or a breach of an internal position limit.

#### 12.3.3.6 Internal controls:

Risk management processes should be frequently monitored and tested by independent control areas and internal, as well as external, auditors. The aim is to ensure that the information on which decisions are based is accurate so that processes fully reflect management policies and that regular reporting, including the reporting of limit breaches and other exception-based reporting, is undertaken effectively. The risk management function of banks must be independent of the business lines in order to ensure an adequate separation of duties and to avoid conflicts of interest.

Since a sound risk management process provides the basis for ensuring that a bank maintains adequate capital, the board of directors of a bank shall set the tolerance level for risk.

#### 12.3.3.7 Submission of the outcome of the ICAAP to the Board and the RBI

As the ICAAP is an ongoing process, a written record on the outcome of the ICAAP should be periodically submitted by banks to their board of directors. Such written record of the internal assessment of its capital adequacy should include, *inter alia*, the risks identified, the manner in which those risks are monitored and managed, the impact of the bank's changing risk profile on the bank's capital position, details of stress tests/scenario analysis conducted and the resultant capital requirements. The reports shall be sufficiently detailed to allow the Board of Directors to evaluate the level and trend of material risk exposures, whether the bank maintains adequate capital against the risk exposures and in case of additional capital being needed, the plan for augmenting capital. The board of directors would be expected make timely adjustments to the strategic plan, as necessary.

Based on the outcome of the ICAAP as submitted to and approved by the Board, the ICAAP Document, in the format furnished at **Annex 15**, should be furnished to the RBI (i.e., to the CGM-in-Charge, Department of Banking Supervision, Central Office, Reserve Bank of India, World Trade Centre, Centre I, Colaba, Cuffe Parade, Mumbai – 400 005). The document should reach the RBI latest by end of the first quarter (i.e. April-June) of the relevant financial year.

### 12.4 Review of the ICAAP Outcomes

The board of directors shall, at least once a year, assess and document whether the processes relating the ICAAP implemented by the bank successfully achieve the objectives envisaged by the board. The senior management should also receive and review the reports regularly to evaluate the sensitivity of the key assumptions and to assess the validity of the bank's estimated future capital requirements. In the light of such an assessment, appropriate changes in the ICAAP should be instituted to ensure that the underlying objectives are effectively achieved.

### 12.5 ICAAP to be an Integral part of the Management and Decision-making Culture

The ICAAP should from an integral part of the management and decision-making culture of a bank. This integration could range from using the ICAAP to internally allocate capital to various business units, to having it play a role in the individual credit decision process and pricing of products or more general business decisions such as expansion plans and budgets. The integration would also mean that ICAAP should enable the bank management to assess, on an ongoing basis, the risks that are inherent in their activities and material to the institution.

### 12.6 The Principle of Proportionality

The implementation of ICAAP should be guided by the principle of proportionality. Though

banks are encouraged to migrate to and adopt progressively sophisticated approaches in designing their ICAAP, the RBI would expect the degree of sophistication adopted in the ICAAP in regard to risk measurement and management to be commensurate with the nature, scope, scale and the degree of complexity in the bank's business operations. The following paragraphs **illustratively** enumerate the broad approach which could be considered by banks with varying levels of complexity in their operations, in formulating their ICAAP.

**(A)** In relation to a bank that defines its activities and risk management practices as **simple**, in carrying out its ICAAP, that bank could:

- (a) identify and consider that bank's largest losses over the last 3 to 5 years and whether those losses are likely to recur;
- (b) prepare a short list of the most significant risks to which that bank is exposed;
- (c) consider how that bank would act, and the amount of capital that would be absorbed in the event that each of the risks identified were to materialise;
- (d) consider how that bank's capital requirement might alter under the scenarios in (c) and how its capital requirement might alter in line with its business plans for the next 3 to 5 years; and
- (e) document the ranges of capital required in the scenarios identified above and form an overall view on the amount and quality of capital which that bank should hold, ensuring that its senior management is involved in arriving at that view.

**(B)** In relation to a bank that define its activities and risk management practices as **moderately complex**, in carrying out its ICAAP, that bank could:

- (a) having consulted the operational management in each major business line, prepare a comprehensive list of the major risks to which the business is exposed;
- (b) estimate, with the aid of historical data, where available, the range and distribution of possible losses which might arise from each of those risks and consider using shock stress tests to provide risk estimates;
- (c) consider the extent to which that bank's capital requirement adequately captures the risks identified in (a) and (b) above;
- (d) for areas in which the capital requirement is either inadequate or does not address a risk, estimate the additional capital needed to protect that bank and its customers, in addition to any other risk mitigation action that bank plans to take;
- (e) consider the risk that the bank's own analyses of capital adequacy may be inaccurate and that it may suffer from management weaknesses which affect the effectiveness of its risk management and mitigation;
- (f) project that bank's business activities forward in detail for one year and in less detail for the next 3 to 5 years, and estimate how that bank's capital and capital requirement would alter, assuming that business develops as expected;
- (g) assume that business does not develop as expected and consider how that bank's capital and capital requirement would alter and what that bank's reaction to a range of adverse economic scenarios might be;
- (h) document the results obtained from the analyses in (b), (d), (f), and (g) above in a detailed report for that bank's top management / board of directors; and

- (i) ensure that systems and processes are in place to review the accuracy of the estimates made in (b), (d), (f) and (g) (i.e., systems for back testing) vis-à-vis the performance / actuals.

**(C)** In relation to a bank that define its activities and risk management practices as **complex**, in carrying out its ICAAP, that bank could follow a proportional approach to that bank's ICAAP which should cover the issues identified at (a) to (d) in paragraph (B) above, but is likely also to involve the use of models, most of which will be integrated into its day-to-day management and operations.

Models of the kind referred to above may be linked so as to generate an overall estimate of the amount of capital that a bank considers appropriate to hold for its business needs. A bank may also link such models to generate information on the economic capital considered desirable for that bank. A model which a bank uses to generate its target amount of economic capital is known as an economic capital model (ECM). Economic capital is the target amount of capital which optimises the return for a bank's stakeholders for a desired level of risk. For example, a bank is likely to use value-at-risk (VaR) models for market risk, advanced modelling approaches for credit risk and, possibly, advanced measurement approaches for operational risk. A bank might also use economic scenario generators to model stochastically its business forecasts and risks. However, banks would need prior approval of the RBI for migrating to the advanced approaches envisaged in the Basel II Framework.

Such a bank is also likely to be part of a group and to be operating internationally. There is likely to be centralised control over the models used throughout the group, the assumptions made and their overall calibration.

### **12.7 Regular Independent Review and Validation**

The ICAAP should be subject to regular and independent review through an internal or external audit process, separately from the SREP conducted by the RBI, to ensure that the ICAAP is comprehensive and proportionate to the nature, scope, scale and level of complexity of the bank's activities so that it accurately reflects the major sources of risk that the bank is exposed to. A bank shall ensure appropriate and effective internal control structures, particularly in regard to the risk management processes, in order to monitor the bank's continued compliance with internal policies and procedures. As a minimum, a bank shall conduct periodic reviews of its risk management processes, which should ensure:

- (a) the integrity, accuracy, and reasonableness of the processes;
- (b) the appropriateness of the bank's capital assessment process based on the nature, scope, scale and complexity of the bank's activities;
- (c) the timely identification of any concentration risk;
- (d) the accuracy and completeness of any data inputs into the bank's capital assessment process;
- (e) the reasonableness and validity of any assumptions and scenarios used in the capital assessment process; and
- (f) that the bank conducts appropriate stress testing;

### **12.8 ICAAP to be a Forward-looking Process**

The ICAAP should be forward looking in nature, and thus, should take into account the expected / estimated future developments such as strategic plans, macro-economic factors, etc., including the likely future constraints in the availability and use of capital. As a minimum, the management of a bank shall develop and maintain an appropriate strategy that would ensure that the bank maintains adequate capital commensurate with the nature, scope, scale, complexity and risks inherent in the bank's on-balance-sheet and off-balance-sheet

activities, and should demonstrate as to how the strategy dovetails with the macro-economic factors.

Thus, banks shall have an explicit, Board-approved capital plan which should spell out the institution's objectives in regard to level of capital, the time horizon for achieving those objectives, and in broad terms, the capital planning process and the allocate responsibilities for that process. The plan shall outline:

### **12.9 ICAAP to be a Risk-based Process**

The adequacy of a bank's capital is a function of its risk profile. Banks shall, therefore, set their capital targets which are consistent with their risk profile and operating environment. As a minimum, a bank shall have in place a sound ICAAP, which shall include all **material** risk exposures incurred by the bank. There are some types of risks (such as reputation risk and strategic risk) which are less readily quantifiable; for such risks, the focus of the ICAAP should be more on qualitative assessment, risk management and mitigation than on quantification of such risks. Banks' ICAAP document shall clearly indicate for which risks a quantitative measure is considered warranted, and for which risks a qualitative measure is considered to be the correct approach.

### **12.10 ICAAP to Include Stress Tests and Scenario Analyses**

As part of the ICAAP, the management of a bank shall, as a minimum, conduct relevant stress tests periodically, particularly in respect of the bank's material risk exposures, in order to evaluate the potential vulnerability of the bank to some unlikely but plausible events or movements in the market conditions that could have an adverse impact on the bank. The use of stress testing framework can provide a bank's management a better understanding of the bank's likely exposure in extreme circumstances. In this context, the attention is also invited to the RBI [circular DBOD.No.BP.BC.101/21.04.103/2006-07](#) and [DBOD.BP.BC.No.75/21.04.103/2013-14](#) dated June 26, 2007 and December 2, 2013, respectively on stress testing. The banks are urged to take necessary measures for implementing an appropriate formal stress testing framework by the date specified which would also meet the stress testing requirements under the ICAAP of the banks.

### **12.11 Use of Capital Models for ICAAP**

While the RBI does not expect the banks to use complex and sophisticated econometric models for internal assessment of their capital requirements, and there is no RBI-mandated requirement for adopting such models, the banks, with international presence, were required, in terms of paragraph 17 of our Circular DBOD.No.BP(SC).BC. 98 / 21.04.103 / 99 dated October 7, 1999, to develop suitable methodologies, by March 31, 2001, for estimating and maintaining economic capital. However, some of the banks, which have relatively complex operations and are adequately equipped in this regard, may like to place reliance on such models as part of their ICAAP. While there is no single prescribed approach as to how a bank should develop its capital model, a bank adopting a model-based approach to its ICAAP shall be able to, *inter alia*, demonstrate:

- (a) Well documented model specifications, including the methodology / mechanics and the assumptions underpinning the working of the model;
- (b) The extent of reliance on the historical data in the model and the system of back testing to be carried out to assess the validity of the outputs of the model vis-à-vis the actual outcomes;
- (c) A robust system for independent validation of the model inputs and outputs;
- (d) A system of stress testing the model to establish that the model remains valid even under extreme conditions / assumptions;
- (e) The level of confidence assigned to the model outputs and its linkage to the

bank's business strategy;

- (f) The adequacy of the requisite skills and resources within the banks to operate, maintain and develop the model.

### **13. Select Operational Aspects of the ICAAP**

This Section outlines in somewhat greater detail the scope of the risk universe expected to be normally captured by the banks in their ICAAP.

#### **13.1 Identifying and Measuring Material Risks in ICAAP**

- (i) The first objective of an ICAAP is to identify all material risks. Risks that can be reliably measured and quantified should be treated as rigorously as data and methods allow. The appropriate means and methods to measure and quantify those material risks are likely to vary across banks.
- (ii) Some of the risks to which banks are exposed include credit risk, market risk, operational risk, interest rate risk in the banking book, credit concentration risk and liquidity risk (as briefly outlined below). The RBI has issued guidelines to the banks on asset liability management, management of country risk, credit risk, operational risk, etc., from time to time. A bank's risk management processes, including its ICAAP, should, therefore, be consistent with this existing body of guidance. However, certain other risks, such as reputational risk and business or strategic risk, may be equally important for a bank and, in such cases, should be given same consideration as the more formally defined risk types. For example, a bank may be engaged in businesses for which periodic fluctuations in activity levels, combined with relatively high fixed costs, have the potential to create unanticipated losses that must be supported by adequate capital. Additionally, a bank might be involved in strategic activities (such as expanding business lines or engaging in acquisitions) that introduce significant elements of risk and for which additional capital would be appropriate.
- (iii) Additionally, if banks employ risk mitigation techniques, they should understand the risk to be mitigated and the potential effects of that mitigation, reckoning its enforceability and effectiveness, on the risk profile of the bank.

#### **13.2 Credit Risk<sup>89</sup>**

13.2.1 Banks should have methodologies that enable them to assess the credit risk involved in exposures to individual borrowers or counterparties as well as at the portfolio level. Banks should be particularly attentive to identifying credit risk concentrations and ensuring that their effects are adequately assessed. This should include consideration of various types of dependence among exposures, incorporating the credit risk effects of extreme outcomes, stress events, and shocks to the assumptions made about the portfolio and exposure behaviour. Banks should also carefully assess concentrations in counterparty credit exposures, including counterparty credit risk exposures emanating from trading in less liquid markets, and determine the effect that these might have on the bank's capital adequacy.

13.2.2 Banks should assess exposures, regardless of whether they are rated or unrated<sup>90</sup>, and determine whether the risk weights applied to such exposures, under the Standardised Approach, are appropriate for their inherent risk. In those instances where a

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<sup>89</sup> Annex 3 of the Guidelines on Implementation of Basel III Capital Regulations in India issued vide [circular DBOD.No.BP.BC.98/21.06.2011-2012 dated May 2, 2012](#).

<sup>90</sup> In such cases it would be in order for banks to derive notional external ratings of the unrated exposure by mapping their internal credit risk ratings / grades of the exposure used for pricing purposes with the external ratings scale.

bank determines that the inherent risk of such an exposure, particularly if it is unrated, is significantly higher than that implied by the risk weight to which it is assigned, the bank should consider the higher degree of credit risk in the evaluation of its overall capital adequacy. For more sophisticated banks, the credit review assessment of capital adequacy, at a minimum, should cover four areas: risk rating systems, portfolio analysis/aggregation, securitisation/complex credit derivatives, and large exposures and risk concentrations.

### 13.2.3 *Counterparty credit risk (CCR)*

(i) The bank must have counterparty credit risk management policies, processes and systems that are conceptually sound and implemented with integrity relative to the sophistication and complexity of a bank's holdings of exposures that give rise to counterparty credit risk (CCR). A sound counterparty credit risk management framework shall include the identification, measurement, management, approval and internal reporting of CCR.

(ii) The bank's risk management policies must take account of the market, liquidity, legal and operational risks that can be associated with CCR and, to the extent practicable, interrelationships among those risks. The bank must not undertake business with a counterparty without assessing its creditworthiness and must take due account of both settlement and pre-settlement credit risk. These risks must be managed as comprehensively as practicable at the counterparty level (aggregating counterparty exposures with other credit exposures) and at the enterprise-wide level.

(iii) The Board of directors and senior management must be actively involved in the CCR control process and must regard this as an essential aspect of the business to which significant resources need to be devoted. The daily reports prepared on a firm's exposures to CCR must be reviewed by a level of management with sufficient seniority and authority to enforce both reductions of positions taken by individual credit managers or traders and reductions in the bank's overall CCR exposure.

(iv) The bank's CCR management system must be used in conjunction with internal credit and trading limits.

(v) The measurement of CCR must include monitoring daily and intra-day usage of credit lines. The bank must measure current exposure gross and net of collateral held where such measures are appropriate and meaningful (e.g. OTC derivatives, margin lending, etc.). Measuring and monitoring peak exposure or potential future exposure (PFE), both the portfolio and counterparty levels is one element of a robust limit monitoring system. Banks must take account of large or concentrated positions, including concentrations by groups of related counterparties, by industry, by market, customer investment strategies, etc.

(vi) The bank must have an appropriate stress testing methodology in place to assess the impact on the counterparty credit risk of abnormal volatilities in market variables driving the counterparty exposures and changes in the creditworthiness of the counterparty. The results of this stress testing must be reviewed periodically by senior management and must be reflected in the CCR policies and limits set by management and the board of directors. Where stress tests reveal particular vulnerability to a given set of circumstances, management should explicitly consider appropriate risk management strategies (e.g. by hedging against that outcome, or reducing the size of the firm's exposures).

(vii) The bank must have a routine in place for ensuring compliance with a documented set of internal policies, controls and procedures concerning the operation of the CCR management system. The firm's CCR management system must be well documented, for example, through a risk management manual that describes the basic principles of the risk management system and that provides an explanation of the empirical techniques used to measure CCR.

(viii) The bank must conduct an independent review of the CCR management system regularly through its own internal auditing process. This review must include both the activities of the business credit and trading units and of the independent CCR control unit. A review of the overall CCR management process must take place at regular intervals (ideally not less than once a year) and must specifically address, at a minimum:

- the adequacy of the documentation of the CCR management system and process;
- the organisation of the collateral management unit;
- the organisation of the CCR control unit;
- the integration of CCR measures into daily risk management;
- the approval process for risk pricing models and valuation systems used by front and back-office personnel;
- the validation of any significant change in the CCR measurement process;
- the scope of counterparty credit risks captured by the risk measurement model;
- the integrity of the management information system;
- the accuracy and completeness of CCR data;
- the accurate reflection of legal terms in collateral and netting agreements into exposure measurements; the verification of the consistency, timeliness and reliability of data sources used to run internal models, including the independence of such data sources;
- the accuracy and appropriateness of volatility and correlation assumptions;
- the accuracy of valuation and risk transformation calculations; and
- the verification of the model's accuracy through frequent back-testing.

(ix) Banks should make an assessment as part of their ICAAP as to whether the bank's evaluation of the risks contained in the transactions that give rise to CCR and the bank's assessment of whether the Current Exposure Method (CEM) captures those risks appropriately and satisfactorily. In cases where, under SREP, it is determined that CEM does not capture the risk inherent in the bank's relevant transactions (as could be the case with structured, more complex OTC derivatives), RBI may require the bank to apply the CEM on a transaction-by-transaction basis (i.e. no netting will be recognized even if it is permissible legally).

**13.3 Market Risk:** A bank should be able to identify risks in trading activities resulting from a movement in market prices. This determination should consider factors such as illiquidity of instruments, concentrated positions, one-way markets, non-linear/deep out-of-the money positions, and the potential for significant shifts in correlations. Exercises that incorporate extreme events and shocks should also be tailored to capture key portfolio vulnerabilities to the relevant market developments.

**13.4 Operational Risk:** A bank should be able to assess the potential risks resulting from inadequate or failed internal processes, people, and systems, as well as from events external to the bank. This assessment should include the effects of extreme events and shocks relating to operational risk. Events could include a sudden increase in failed processes across business units or a significant incidence of failed internal controls.

**13.5 Interest Rate Risk in the Banking Book (IRRBB):** A bank should identify the risks

associated with the changing interest rates on its on-balance sheet and off-balance sheet exposures in the banking book from both, a short-term and long-term perspective. This might include the impact of changes due to parallel shocks, yield curve twists, yield curve inversions, changes in the relationships of rates (basis risk), and other relevant scenarios. The bank should be able to support its assumptions about the behavioural characteristics of its non-maturity deposits and other assets and liabilities, especially those exposures characterised by embedded optionality. Given the uncertainty in such assumptions, stress testing and scenario analysis should be used in the analysis of interest rate risks. While there could be several approaches to measurement of IRRBB, an illustrative approach for measurement of IRRBB is furnished at **Annex 10**. The banks would, however, be free to adopt any other variant of these approaches or entirely different methodology for computing / quantifying the IRRBB provided the technique is based on objective, verifiable and transparent methodology and criteria.

**13.6 Credit Concentration Risk:** A risk concentration is any single exposure or a group of exposures with the potential to produce losses large enough (relative to a bank's capital, total assets, or overall risk level) to threaten a bank's health or ability to maintain its core operations. Risk concentrations have arguably been the single most important cause of major problems in banks. Concentration risk resulting from concentrated portfolios could be significant for most of the banks.

The following **qualitative criteria** could be adopted by banks to demonstrate that the credit concentration risk is being adequately addressed:

- (a) While assessing the exposure to concentration risk, a bank should keep in view that the calculations of Basel capital adequacy framework are based on the assumption that a bank is well diversified.
- (b) While the banks' single borrower exposures, the group borrower exposures and capital market exposures are regulated by the exposure norms prescribed by the RBI, there could be concentrations in these portfolios as well. In assessing the degree of credit concentration, therefore, a bank shall consider not only the foregoing exposures but also consider the degree of credit concentration in a particular economic sector or geographical area. Banks with operational concentration in a few geographical regions, by virtue of the pattern of their branch network, shall also consider the impact of adverse economic developments in that region, and their impact on the asset quality.
- (c) The performance of specialised portfolios may, in some instances, also depend on key individuals / employees of the bank. Such a situation could exacerbate the concentration risk because the skills of those individuals, in part, limit the risk arising from a concentrated portfolio. The impact of such key employees / individuals on the concentration risk is likely to be correspondingly greater in smaller banks. In developing its stress tests and scenario analyses, a bank shall, therefore, also consider the impact of losing key personnel on its ability to operate normally, as well as the direct impact on its revenues.

As regards the **quantitative criteria** to be used to ensure that credit concentration risk is being adequately addressed, the credit concentration risk calculations shall be performed at the counterparty level (i.e., large exposures), at the portfolio level (i.e., sectoral and geographical concentrations) and at the asset class level (i.e., liability and assets concentrations). In this regard, a reference is invited to paragraph 3.2.2 (c) of the Annex to our Circular DBOD.No.BP.(SC).BC.98/21.04.103/ 99 dated October 7, 1999 regarding Risk Management System in Banks in terms of which certain prudential limits have been stipulated in regard to 'substantial exposures' of banks. As a prudent practice, banks may like to ensure that their aggregate exposure (including non-funded exposures) to all 'large borrowers' does not exceed at any time, 800 per cent of their 'capital funds' (as defined for the purpose of extant exposure norms of the RBI). The 'large borrower' for this purpose

could be taken to mean as one to whom the bank's aggregate exposure (funded as well as non-funded) exceeds 10 per cent of the bank's capital funds. The banks would also be well advised to pay special attention to their industry-wise exposures where their exposure to a particular industry exceeds 10 per cent of their aggregate credit exposure (including investment exposure) to the industrial sector as a whole.

There could be several approaches to the measurement of credit concentration the banks' portfolio. One of the approaches commonly used for the purpose involves computation of Herfindahl-Hirshman Index (HHI). It may please be noted that the HHI as a measure of concentration risk is only one of the possible methods and the banks would be free to adopt any other appropriate method for the purpose, which has objective and transparent criteria for such measurement.

Risk concentrations should be analysed on both solo and consolidated basis.<sup>91</sup> Risk concentrations should be viewed in the context of a single or a set of closely related risk-drivers that may have different impacts on a bank. These concentrations should be integrated when assessing a bank's overall risk exposure. A bank should consider concentrations that are based on common or correlated risk factors that reflect more subtle or more situation-specific factors than traditional concentrations, such as correlations between market, credit risks and liquidity risk.

The growth of market-based intermediation has increased the possibility that different areas of a bank are exposed to a common set of products, risk factors or counterparties. This has created new challenges for risk aggregation and concentration management. Through its risk management processes and MIS, a bank should be able to identify and aggregate similar risk exposures across the firm, including across legal entities, asset types (e.g. loans, derivatives and structured products), risk areas (e.g. the trading book) and geographic regions. In addition to the situations described in para 13.6 (b) above, risk concentrations can arise include:

- exposures to a single counterparty, or group of connected counterparties ;
- exposures to both regulated and non-regulated financial institutions such as hedge funds and private equity firms;
- trading exposures/market risk;
  - exposures to counterparties (e.g. hedge funds and hedge counterparties) through the execution or processing of transactions (either product or service);
  - funding sources;
  - assets that are held in the banking book or trading book, such as loans, derivatives and structured products; and
  - off-balance sheet exposures, including guarantees, liquidity lines and other commitments.

Risk concentrations can also arise through a combination of exposures across these broad categories. A bank should have an understanding of its firm-wide risk concentrations resulting from similar exposures across its different business lines. Examples of such business lines include subprime exposure in lending books; counterparty exposures; conduit exposures and SIVs; contractual and non-contractual exposures; trading activities; and underwriting pipelines. While risk concentrations often arise due to direct exposures to borrowers and obligors, a bank may also incur a concentration to a particular asset type indirectly through investments backed by such assets (e.g. collateralised debt obligations – CDOs), as well as exposure to protection providers guaranteeing the performance of the specific asset type (e.g. monoline insurers). In this context, it may be noted that while banks in India are presently not allowed to pursue most of such business lines/assume most of such exposures without RBI's permission, their foreign branches may have such

<sup>91</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010.](#)

exposures booked before issuance of circular DBOD.No.BP.BC.89/21.04.141/2008-09 dated December 1, 2008. A bank should have in place adequate, systematic procedures for identifying high correlation between the creditworthiness of a protection provider and the obligors of the underlying exposures due to their performance being dependent on common factors beyond systematic risk (i.e. “wrong way risk”).

Procedures should be in place to communicate risk concentrations to the board of directors and senior management in a manner that clearly indicates where in the organisation each segment of a risk concentration resides. A bank should have credible risk mitigation strategies in place that have senior management approval. This may include altering business strategies, reducing limits or increasing capital buffers in line with the desired risk profile. While it implements risk mitigation strategies, the bank should be aware of possible concentrations that might arise as a result of employing risk mitigation techniques.

Banks should employ a number of techniques, as appropriate, to measure risk concentrations. These techniques include shocks to various risk factors; use of business level and firm-wide scenarios; and the use of integrated stress testing and economic capital models. Identified concentrations should be measured in a number of ways, including for example consideration of gross versus net exposures, use of notional amounts, and analysis of exposures with and without counterparty hedges. A bank should establish internal position limits for concentrations to which it may be exposed. When conducting periodic stress tests a bank should incorporate all major risk concentrations and identify and respond to potential changes in market conditions that could adversely impact their performance and capital adequacy.

The assessment of such risks under a bank’s ICAAP and the supervisory review process should not be a mechanical process, but one in which each bank determines, depending on its business model, its own specific vulnerabilities. An appropriate level of capital for risk concentrations should be incorporated in a bank’s ICAAP, as well as in Pillar 2 assessments. Each bank should discuss such issues with its supervisor.

A bank should have in place effective internal policies, systems and controls to identify, measure, monitor, manage, control and mitigate its risk concentrations in a timely manner. Not only should normal market conditions be considered, but also the potential build-up of concentrations under stressed market conditions, economic downturns and periods of general market illiquidity. In addition, the bank should assess scenarios that consider possible concentrations arising from contractual and non-contractual contingent claims. The scenarios should also combine the potential build-up of pipeline exposures together with the loss of market liquidity and a significant decline in asset values.

**13.7 Liquidity Risk:** A bank should understand the risks resulting from its inability to meet its obligations as they come due, because of difficulty in liquidating assets (market liquidity risk) or in obtaining adequate funding (funding liquidity risk). This assessment should include analysis of sources and uses of funds, an understanding of the funding markets in which the bank operates, and an assessment of the efficacy of a contingency funding plan for events that could arise.

The recent financial market crisis underscores the importance of assessing the potential impact of liquidity risk on capital adequacy in a bank’s ICAAP<sup>92</sup>. Senior management should consider the relationship between liquidity and capital since liquidity risk can impact capital adequacy which, in turn, can aggravate a bank’s liquidity profile.

In September 2008, the Basel Committee on Banking Supervision published Principles for Sound Liquidity Risk Management and Supervision, which stresses that banks need to have strong liquidity cushions in order to weather prolonged periods of financial market stress and illiquidity. The standards address many of the shortcomings experienced by the banking sector during the market turmoil that began in mid-2007, including those related to stress testing practices contingency funding plans, management of on- and off-balance sheet

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<sup>92</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010.](#)

activity and contingent commitments.

This liquidity guidance outlines requirements for sound practices for the liquidity risk management of banks. The fundamental principle is that a bank should both assiduously manage its liquidity risk and also maintain sufficient liquidity to withstand a range of stress events. Liquidity is a critical element of a bank's resilience to stress, and as such, a bank should maintain a liquidity cushion, made up of unencumbered, high quality liquid assets, to protect against liquidity stress events, including potential losses of unsecured and typically available secured funding sources.

A key element in the management of liquidity risk is the need for strong governance of liquidity risk, including the setting of a liquidity risk tolerance by the board. The risk tolerance should be communicated throughout the bank and reflected in the strategy and policies that senior management set to manage liquidity risk. Another facet of liquidity risk management is that a bank should appropriately price the costs, benefits and risks of liquidity into the internal pricing, performance measurement, and new product approval process of all significant business activities.

A bank is expected to be able to thoroughly identify, measure and control liquidity risks, especially with regard to complex products and contingent commitments (both contractual and non-contractual). This process should involve the ability to project cash flows arising from assets, liabilities and off-balance sheet items over various time horizons, and should ensure diversification in both the tenor and source of funding. A bank should utilise early warning indicators to identify the emergence of increased risk or vulnerabilities in its liquidity position or funding needs. It should have the ability to control liquidity risk exposure and funding needs, regardless of its organisation structure, within and across legal entities, business lines, and currencies, taking into account any legal, regulatory and operational limitations to the transferability of liquidity.

A bank's failure to effectively manage intraday liquidity could leave it unable to meet its payment obligations at the time expected, which could lead to liquidity dislocations that cascade quickly across many systems and institutions. As such, the bank's management of intraday liquidity risks should be considered as a crucial part of liquidity risk management. It should also actively manage its collateral positions and have the ability to calculate all of its collateral positions.

While banks typically manage liquidity under "normal" circumstances, they should also be prepared to manage liquidity under "stressed" conditions. A bank should perform stress tests or scenario analyses on a regular basis in order to identify and quantify their exposures to possible future liquidity stresses, analysing possible impacts on the institutions' cash flows, liquidity positions, profitability, and solvency. The results of these stress tests should be discussed thoroughly by management, and based on this discussion, should form the basis for taking remedial or mitigating actions to limit the bank's exposures, build up a liquidity cushion, and adjust its liquidity profile to fit its risk tolerance. The results of stress tests should also play a key role in shaping the bank's contingency funding planning, which should outline policies for managing a range of stress events and clearly sets out strategies for addressing liquidity shortfalls in emergency situations.

As public disclosure increases certainty in the market, improves transparency, facilitates valuation, and strengthens market discipline, it is important that banks publicly disclose information on a regular basis that enables market participants to make informed decisions about the soundness of their liquidity risk management framework and liquidity position.

### **13.8 Off-Balance Sheet Exposures and Securitisation Risk**

Banks' use of securitisation has grown dramatically over the last several years. It has been used as an alternative source of funding and as a mechanism to transfer risk to investors. While the risks associated with securitisation are not new to banks, the recent financial turmoil highlighted unexpected aspects of credit risk, concentration risk, market risk, liquidity risk, legal risk and reputational risk, which banks failed to adequately address. For instance,

a number of banks that were not contractually obligated to support sponsored securitisation structures were unwilling to allow those structures to fail due to concerns about reputational risk and future access to capital markets. The support of these structures exposed the banks to additional and unexpected credit, market and liquidity risk as they brought assets onto their balance sheets, which put significant pressure on their financial profile and capital ratios.

Weaknesses in banks' risk management of securitisation and off-balance sheet exposures resulted in large unexpected losses during the financial crisis. To help mitigate these risks, a bank's on- and off-balance sheet securitisation activities should be included in its risk management disciplines, such as product approval, risk concentration limits, and estimates of market, credit and operational risk.

In light of the wide range of risks arising from securitisation activities, which can be compounded by rapid innovation in securitisation techniques and instruments, minimum capital requirements calculated under Pillar 1 are often insufficient. All risks arising from securitisation, particularly those that are not fully captured under Pillar 1, should be addressed in a bank's ICAAP. These risks include:

- Credit, market, liquidity and reputational risk of each exposure;
- Potential delinquencies and losses on the underlying securitised exposures;
- Exposures from credit lines or liquidity facilities to special purpose entities;
- Exposures from guarantees provided by monolines and other third parties.

Securitisation exposures should be included in the bank's MIS to help ensure that senior management understands the implications of such exposures for liquidity, earnings, risk concentration and capital. More specifically, a bank should have the necessary processes in place to capture in a timely manner, updated information on securitisation transactions including market data, if available, and updated performance data from the securitisation trustee or servicer.

### **13.9 Reputational Risk and Implicit Support<sup>93</sup>**

#### **13.9.1 Provision of Implicit Support for Securitization Transactions**

(i) Provision of implicit support to a transaction, whether contractual (i.e. credit enhancements provided at the inception of a securitised transaction) or non-contractual (implicit support) can take numerous forms. For instance, contractual support can include over collateralisation, credit derivatives, spread accounts, contractual recourse obligations, subordinated notes, credit risk mitigants provided to a specific tranche, the subordination of fee or interest income or the deferral of margin income, and clean-up calls that exceed 10 percent of the initial issuance. Examples of implicit support include the purchase of deteriorating credit risk exposures from the underlying pool, the sale of discounted credit risk exposures into the pool of securitised credit risk exposures, the purchase of underlying exposures at above market price or an increase in the first loss position according to the deterioration of the underlying exposures.

(ii) The provision of implicit (or non-contractual) support, as opposed to contractual credit support (i.e. credit enhancements), raises significant supervisory concerns. For traditional securitisation structures the provision of implicit support undermines the clean break criteria, which when satisfied would allow banks to exclude the securitised assets from regulatory capital calculations. For synthetic securitisation structures, it negates the significance of risk transference. By providing implicit support, banks signal to the market that the risk is still with the bank and has not in effect been transferred. The institution's capital calculation therefore

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<sup>93</sup> Annex 3 of the Guidelines on Implementation of Basel III Capital Regulations in India issued vide [circular DBOD.No.BP.BC.98/21.06.201/2011-2012 dated May 2, 2012](#).

understates the true risk. Accordingly, national supervisors are expected to take appropriate action when a banking organisation provides implicit support.

(iii) When a bank has been found to provide implicit support to a securitisation, it will be required to hold capital against all of the underlying exposures associated with the structure as if they had not been securitised. It will also be required to disclose publicly that it was found to have provided non-contractual support, as well as the resulting increase in the capital charge (as noted above). The aim is to require banks to hold capital against exposures for which they assume the credit risk, and to discourage them from providing non-contractual support.

(iv) If a bank is found to have provided implicit support on more than one occasion, the bank is required to disclose its transgression publicly and the Reserve Bank will take appropriate action that may include, but is not limited to, one or more of the following:

- The bank may be prevented from gaining favourable capital treatment on securitised assets for a period of time to be determined by the Reserve Bank;
- The bank may be required to hold capital against all securitised assets as though the bank had created a commitment to them, by applying a conversion factor to the risk weight of the underlying assets;
- For purposes of capital calculations, the bank may be required to treat all securitised assets as if they remained on the balance sheet; and
- The bank may be required by the Reserve Bank to hold regulatory capital in excess of the minimum risk-based capital ratios.

(v) During the SREP, Reserve Bank will determine implicit support and may take appropriate supervisory action to mitigate the effects. Pending any investigation, the bank may be prohibited from any capital relief for planned securitisation transactions (moratorium). The action of Reserve Bank will be aimed at changing the bank's behaviour with regard to the provision of implicit support, and to correct market perception as to the willingness of the bank to provide future recourse beyond contractual obligations.

### **13.9.2 Reputational Risk on Account of Implicit Support**

(i) Reputational risk can be defined as the risk arising from negative perception on the part of customers, counterparties, shareholders, investors, debt-holders, market analysts, other relevant parties or regulators that can adversely affect a bank's ability to maintain existing, or establish new, business relationships and continued access to sources of funding (e.g. through the interbank or securitisation markets). Reputational risk is multidimensional and reflects the perception of other market participants. Furthermore, it exists throughout the organisation and exposure to reputational risk is essentially a function of the adequacy of the bank's internal risk management processes, as well as the manner and efficiency with which management responds to external influences on bank-related transactions.

(ii) Reputational risk can lead to the provision of implicit support, which may give rise to credit, liquidity, market and legal risk - all of which can have a negative impact on a bank's earnings, liquidity and capital position. A bank should identify potential sources of reputational risk to which it is exposed. These include the bank's business lines, liabilities, affiliated operations, off-balance sheet vehicles and the markets in which it operates. The risks that arise should be incorporated into the bank's risk management processes and appropriately addressed in its ICAAP and liquidity contingency plans.

(iii) Prior to the 2007 upheaval, many banks failed to recognise the reputational risk associated with their off-balance sheet vehicles. In stressed conditions some firms went beyond their contractual obligations to support their sponsored securitisations and off balance sheet vehicles. A bank should incorporate the exposures that could give rise to reputational risk into its assessments of whether the requirements under the securitisation

framework have been met and the potential adverse impact of providing implicit support.

(iv) Reputational risk may arise, for example, from a bank's sponsorship of securitisation structures such as ABCP conduits and SIVs, as well as from the sale of credit exposures to securitisation trusts. It may also arise from a bank's involvement in asset or funds management, particularly when financial instruments are issued by owned or sponsored entities and are distributed to the customers of the sponsoring bank. In the event that the instruments were not correctly priced or the main risk drivers not adequately disclosed, a sponsor may feel some responsibility to its customers, or be economically compelled, to cover any losses. Reputational risk also arises when a bank sponsors activities such as money market mutual funds, in-house hedge funds and real estate investment trusts. In these cases, a bank may decide to support the value of shares / units held by investors even though it is not contractually required to provide the support.

(v) The financial market crisis has provided several examples of banks providing financial support that exceeded their contractual obligations. In order to preserve their reputation, some banks felt compelled to provide liquidity support to their SIVs, which was beyond their contractual obligations. In other cases, banks purchased ABCP issued by vehicles they sponsored in order to maintain market liquidity. As a result, these banks assumed additional liquidity and credit risks, and also put pressure on capital ratios.

(vi) Reputational risk also may affect a bank's liabilities, since market confidence and a bank's ability to fund its business are closely related to its reputation. For instance, to avoid damaging its reputation, a bank may call its liabilities even though this might negatively affect its liquidity profile. This is particularly true for liabilities that are components of regulatory capital, such as hybrid / subordinated debt. In such cases, a bank's capital position is likely to suffer.

(vii) Bank management should have appropriate policies in place to identify sources of reputational risk when entering new markets, products or lines of activities. In addition, a bank's stress testing procedures should take account of reputational risk so management has a firm understanding of the consequences and second round effects of reputational risk.

(viii) Once a bank identifies potential exposures arising from reputational concerns, it should measure the amount of support it might have to provide (including implicit support of securitisations) or losses it might experience under adverse market conditions. In particular, in order to avoid reputational damages and to maintain market confidence, a bank should develop methodologies to measure as precisely as possible the effect of reputational risk in terms of other risk types (eg credit, liquidity, market or operational risk) to which it may be exposed. This could be accomplished by including reputational risk scenarios in regular stress tests. For instance, non-contractual off-balance sheet exposures could be included in the stress tests to determine the effect on a bank's credit, market and liquidity risk profiles. Methodologies also could include comparing the actual amount of exposure carried on the balance sheet versus the maximum exposure amount held off-balance sheet, that is, the potential amount to which the bank could be exposed.

(ix) A bank should pay particular attention to the effects of reputational risk on its overall liquidity position, taking into account both possible increases in the asset side of the balance sheet and possible restrictions on funding, should the loss of reputation result in various counterparties' loss of confidence.

(x) In contrast to contractual credit exposures, such as guarantees, implicit support is a more subtle form of exposure. Implicit support arises when a bank provides post-sale support to a securitisation transaction in excess of any contractual obligation. Implicit support may include any letter of comfort provided by the originator in respect of the present or future liabilities of the SPV. Such non-contractual support exposes a bank to the risk of loss, such as loss arising from deterioration in the credit quality of the securitisation's underlying assets.

(xi) By providing implicit support, a bank signals to the market that all of the risks inherent in the securitised assets are still held by the organisation and, in effect, had not been

transferred. Since the risk arising from the potential provision of implicit support is not captured ex ante under Pillar 1, it must be considered as part of the Pillar 2 process. In addition, the processes for approving new products or strategic initiatives should consider the potential provision of implicit support and should be incorporated in a bank's ICAAP.

### **13.10 Risk Evaluation and Management**

A bank should conduct analyses of the underlying risks when investing in the structured products (permitted by RBI) and must not solely rely on the external credit ratings assigned to securitisation exposures by the credit rating agencies. A bank should be aware that external ratings are a useful starting point for credit analysis, but are no substitute for full and proper understanding of the underlying risk, especially where ratings for certain asset classes have a short history or have been shown to be volatile. Moreover, a bank also should conduct credit analysis of the securitisation exposure at acquisition and on an ongoing basis. It should also have in place the necessary quantitative tools, valuation models and stress tests of sufficient sophistication to reliably assess all relevant risks.

When assessing securitisation exposures, a bank should ensure that it fully understands the credit quality and risk characteristics of the underlying exposures in structured credit transactions, including any risk concentrations. In addition, a bank should review the maturity of the exposures underlying structured credit transactions relative to the issued liabilities in order to assess potential maturity mismatches.

A bank should track credit risk in securitisation exposures at the transaction level and across securitisations exposures within each business line and across business lines. It should produce reliable measures of aggregate risk. A bank also should track all meaningful concentrations in securitisation exposures, such as name, product or sector concentrations, and feed this information to firm-wide risk aggregation systems that track, for example, credit exposure to a particular obligor.

A bank's own assessment of risk needs to be based on a comprehensive understanding of the structure of the securitisation transaction. It should identify the various types of triggers, credit events and other legal provisions that may affect the performance of its on- and off-balance sheet exposures and integrate these triggers and provisions into its funding/liquidity, credit and balance sheet management. The impact of the events or triggers on a bank's liquidity and capital position should also be considered.

Banks globally, either underestimated or did not anticipate that a market-wide disruption could prevent them from securitising warehoused or pipeline exposures and did not anticipate the effect this could have on liquidity, earnings and capital adequacy. As part of its risk management processes, a bank should consider and, where appropriate, mark-to-market warehoused positions, as well as those in the pipeline, regardless of the probability of securitising the exposures. It should consider scenarios which may prevent it from securitising its assets as part of its stress testing and identify the potential effect of such exposures on its liquidity, earnings and capital adequacy.

A bank should develop prudent contingency plans specifying how it would respond to funding, capital and other pressures that arise when access to securitisation markets is reduced. The contingency plans should also address how the bank would address valuation challenges for potentially illiquid positions held for sale or for trading. The risk measures, stress testing results and contingency plans should be incorporated into the bank's risk management processes and its ICAAP, and should result in an appropriate level of capital under Pillar 2 in excess of the minimum requirements.

A bank that employs risk mitigation techniques should fully understand the risks to be mitigated, the potential effects of that mitigation and whether or not the mitigation is fully effective. This is to help ensure that the bank does not understate the true risk in its assessment of capital. In particular, it should consider whether it would provide support to the securitisation structures in stressed scenarios due to the reliance on securitisation as a funding tool.

### 13.11 Valuation Practices

The characteristics of complex structured products, including securitisation transactions, make their valuation inherently difficult due, in part, to the absence of active and liquid markets, the complexity and uniqueness of the cash waterfalls, and the links between valuations and underlying risk factors. As mentioned earlier, banks in India are presently not allowed to assume such exposures without RBI's permission. However, their foreign branches may have such exposures booked before issuance of [circular DBOD.No. BP.BC.89/21.04.141/2008-09 dated December 1, 2008](#). The absence of a transparent price from a liquid market means that the valuation must rely on models or proxy-pricing methodologies, as well as on expert judgment. The outputs of such models and processes are highly sensitive to the inputs and parameter assumptions adopted, which may themselves be subject to estimation error and uncertainty. Moreover, calibration of the valuation methodologies is often complicated by the lack of readily available benchmarks. Therefore, a bank is expected to have adequate governance structures and control processes for fair valuing exposures for risk management and financial reporting purposes. The valuation governance structures and related processes should be embedded in the overall governance structure of the bank, and consistent for both risk management and reporting purposes. The governance structures and processes are expected to explicitly cover the role of the board and senior management. In addition, the board should receive reports from senior management on the valuation oversight and valuation model performance issues that are brought to senior management for resolution, as well as all significant changes to valuation policies.

A bank should also have clear and robust governance structures for the production, assignment and verification of financial instrument valuations. Policies should ensure that the approvals of all valuation methodologies are well documented. In addition, policies and procedures should set forth the range of acceptable practices for the initial pricing, marking-to-market/model, valuation adjustments and periodic independent revaluation. New product approval processes should include all internal stakeholders relevant to risk measurement, risk control, and the assignment and verification of valuations of financial instruments.

A bank's control processes for measuring and reporting valuations should be consistently applied across the firm and integrated with risk measurement and management processes. In particular, valuation controls should be applied consistently across similar instruments (risks) and consistent across business lines (books). These controls should be subject to internal audit. Regardless of the booking location of a new product, reviews and approval of valuation methodologies must be guided by a minimum set of considerations. Furthermore, the valuation/new product approval process should be supported by a transparent, well-documented inventory of acceptable valuation methodologies that are specific to products and businesses.

In order to establish and verify valuations for instruments and transactions in which it engages, a bank must have adequate capacity, including during periods of stress. This capacity should be commensurate with the importance, riskiness and size of these exposures in the context of the business profile of the institution. In addition, for those exposures that represent material risk, a bank is expected to have the capacity to produce valuations using alternative methods in the event that primary inputs and approaches become unreliable, unavailable or not relevant due to market discontinuities or illiquidity. A bank must test and review the performance of its models under stress conditions so that it understands the limitations of the models under stress conditions.

The relevance and reliability of valuations is directly related to the quality and reliability of the inputs. A bank is expected to apply the accounting guidance provided to determine the relevant market information and other factors likely to have a material effect on an instrument's fair value when selecting the appropriate inputs to use in the valuation process. Where values are determined to be in an active market, a bank should maximise the use of relevant observable inputs and minimise the use of unobservable inputs when estimating fair value using a valuation technique. However, where a market is deemed inactive, observable

inputs or transactions may not be relevant, such as in a forced liquidation or distress sale, or transactions may not be observable, such as when markets are inactive. In such cases, accounting fair value guidance provides assistance on what should be considered, but may not be determinative. In assessing whether a source is reliable and relevant, a bank should consider, among other things:

- the frequency and availability of the prices/quotes;
- whether those prices represent actual regularly occurring transactions on an arm's length basis;
- the breadth of the distribution of the data and whether it is generally available to the relevant participants in the market;
- the timeliness of the information relative to the frequency of valuations;
- the number of independent sources that produce the quotes/prices;
- whether the quotes/prices are supported by actual transactions;
- the maturity of the market; and
- the similarity between the financial instrument sold in a transaction and the instrument held by the institution.

A bank's external reporting should provide timely, relevant, reliable and decision useful information that promotes transparency. Senior management should consider whether disclosures around valuation uncertainty can be made more meaningful. For instance, the bank may describe the modelling techniques and the instruments to which they are applied; the sensitivity of fair values to modelling inputs and assumptions; and the impact of stress scenarios on valuations. A bank should regularly review its disclosure policies to ensure that the information disclosed continues to be relevant to its business model and products and to current market conditions.

### **13.12 Sound Stress Testing Practices**

Stress testing is an important tool that is used by banks as part of their internal risk management that alerts bank management to adverse unexpected outcomes related to a broad variety of risks, and provides an indication to banks of how much capital might be needed to absorb losses should large shocks occur. Moreover, stress testing supplements other risk management approaches and measures. It plays a particularly important role in:

- providing forward looking assessments of risk,
- overcoming limitations of models and historical data,
- supporting internal and external communication,
- feeding into capital and liquidity planning procedures,
- informing the setting of a banks' risk tolerance,
- addressing existing or potential, firm-wide risk concentrations, and
- facilitating the development of risk mitigation or contingency plans across a range of stressed conditions.

Stress testing is especially important after long periods of benign risk, when the fading memory of negative economic conditions can lead to complacency and the underpricing of

risk, and when innovation leads to the rapid growth of new products for which there is limited or no loss data.

It should be recognised that improvements in stress testing alone cannot address all risk management weaknesses, but as part of a comprehensive approach, stress testing has a leading role to play in strengthening bank corporate governance and the resilience of individual banks and the financial system.

Stress testing should form an integral part of the overall governance and risk management culture of the bank. Board and senior management involvement in setting stress testing objectives, defining scenarios, discussing the results of stress tests, assessing potential actions and decision making is critical in ensuring the appropriate use of stress testing in banks' risk governance and capital planning. Senior management should take an active interest in the development in, and operation of, stress testing. The results of stress tests should contribute to strategic decision making and foster internal debate regarding assumptions, such as the cost, risk and speed with which new capital could be raised or that positions could be hedged or sold. Board and senior management involvement in the stress testing program is essential for its effective operation.

A bank's capital planning process should incorporate rigorous; forward looking stress testing that identifies possible events or changes in market conditions that could adversely impact the bank. Banks, under their ICAAPs should examine future capital resources and capital requirements under adverse scenarios. In particular, the results of forward-looking stress testing should be considered when evaluating the adequacy of a bank's capital buffer. Capital adequacy should be assessed under stressed conditions against a variety of capital ratios, including regulatory ratios, as well as ratios based on the bank's internal definition of capital resources. In addition, the possibility that a crisis impairs the ability of even very healthy banks to raise funds at reasonable cost should be considered.

A bank should develop methodologies to measure the effect of reputational risk in terms of other risk types, namely credit, liquidity, market and other risks that they may be exposed to in order to avoid reputational damages and in order to maintain market confidence. This could be done by including reputational risk scenarios in regular stress tests. For instance, including non-contractual off-balance sheet exposures in the stress tests to determine the effect on a bank's credit, market and liquidity risk profiles.

A bank should carefully assess the risks with respect to commitments to off-balance sheet vehicles and third-party firms related to structured credit securities and the possibility that assets will need to be taken on balance sheet for reputational reasons. Therefore, in its stress testing programme, a bank should include scenarios assessing the size and soundness of such vehicles and firms relative to its own financial, liquidity and regulatory capital positions. This analysis should include structural, solvency, liquidity and other risk issues, including the effects of covenants and triggers.

### **13.13 Sound Compensation Practices**

Risk management must be embedded in the culture of a bank. It should be a critical focus of the CEO/Managing Director, Chief Risk Officer (CRO), senior management, trading desk and other business line heads and employees in making strategic and day-to-day decisions. For a broad and deep risk management culture to develop and be maintained over time, compensation policies must not be unduly linked to short-term accounting profit generation. Compensation policies should be linked to longer-term capital preservation and the financial strength of the firm, and should consider risk-adjusted performance measures. In addition, a bank should provide adequate disclosure regarding its compensation policies to stakeholders. Each bank's board of directors and senior management have the responsibility to mitigate the risks arising from remuneration policies in order to ensure effective firm-wide risk management.

Compensation practices at large financial institutions are one factor among many that contributed to the financial crisis that began in 2007. High short-term profits led to generous

bonus payments to employees without adequate regard to the longer-term risks they imposed on their firms. These incentives amplified the excessive risk-taking that has threatened the global financial system and left firms with fewer resources to absorb losses as risks materialised. The lack of attention to risk also contributed to the large, in some cases extreme absolute level of compensation in the industry. As a result, to improve compensation practices and strengthen supervision in this area, particularly for systemically important firms, the Financial Stability Board (formerly the Financial Stability Forum) published its Principles for Sound Compensation Practices in April 2009.

A bank's board of directors must actively oversee the compensation system's design and operation, which should not be controlled primarily by the chief executive officer and management team. Relevant board members and employees must have independence and expertise in risk management and compensation. In addition, the board of directors must monitor and review the compensation system to ensure the system includes adequate controls and operates as intended. The practical operation of the system should be regularly reviewed to ensure compliance with policies and procedures. Compensation outcomes, risk measurements, and risk outcomes should be regularly reviewed for consistency with intentions.

Staff that are engaged in the financial and risk control areas must be independent, have appropriate authority, and be compensated in a manner that is independent of the business areas they oversee and commensurate with their key role in the firm. Effective independence and appropriate authority of such staff is necessary to preserve the integrity of financial and risk management's influence on incentive compensation.

Compensation must be adjusted for all types of risk so that remuneration is balanced between the profit earned and the degree of risk assumed in generating the profit. In general, both quantitative measures and human judgment should play a role in determining the appropriate risk adjustments, including those that are difficult to measure such as liquidity risk and reputation risk.

Compensation outcomes must be symmetric with risk outcomes and compensation systems should link the size of the bonus pool to the overall performance of the firm. Employees' incentive payments should be linked to the contribution of the individual and business to the firm's overall performance.

Compensation payout schedules must be sensitive to the time horizon of risks. Profits and losses of different activities of a financial firm are realised over different periods of time. Variable compensation payments should be deferred accordingly. Payments should not be finalised over short periods where risks are realised over long periods. Management should question payouts for income that cannot be realised or whose likelihood of realisation remains uncertain at the time of payout.

The mix of cash, equity and other forms of compensation must be consistent with risk alignment. The mix will vary depending on the employee's position and role. The firm should be able to explain the rationale for its mix.

RBI will review compensation practices in a rigorous and sustained manner and deficiencies, if any, will be addressed promptly with the appropriate supervisory action.

**13.14** The risk factors discussed above should not be considered an exhaustive list of those affecting any given bank. All relevant factors that present a material source of risk to capital should be incorporated in a well-developed ICAAP. Furthermore, banks should be mindful of the capital adequacy effects of concentrations that may arise within each risk type.

### **13.15 Quantitative and Qualitative Approaches in ICAAP**

(a) All measurements of risk incorporate both quantitative and qualitative elements, but to the extent possible, a quantitative approach should form the foundation of a bank's measurement framework. In some cases, quantitative tools can include the use of large

historical databases; when data are more scarce, a bank may choose to rely more heavily on the use of stress testing and scenario analyses. Banks should understand when measuring risks that measurement error always exists, and in many cases the error is itself difficult to quantify. In general, an increase in uncertainty related to modeling and business complexity should result in a larger capital cushion.

(b) Quantitative approaches that focus on most likely outcomes for budgeting, forecasting, or performance measurement purposes may not be fully applicable for capital adequacy because the ICAAP should also take less likely events into account. Stress testing and scenario analysis can be effective in gauging the consequences of outcomes that are unlikely but would have a considerable impact on safety and soundness.

(c) To the extent that risks cannot be reliably measured with quantitative tools – for example, where measurements of risk are based on scarce data or unproven quantitative methods – qualitative tools, including experience and judgment, may be more heavily utilised. Banks should be cognisant that qualitative approaches have their own inherent biases and assumptions that affect risk assessment; accordingly, banks should recognise the biases and assumptions embedded in, and the limitations of, the qualitative approaches used.

### **13.16 Risk Aggregation and Diversification Effects**

(a) An effective ICAAP should assess the risks across the entire bank. A bank choosing to conduct risk aggregation among various risk types or business lines should understand the challenges in such aggregation. In addition, when aggregating risks, banks should ensure that any potential concentrations across more than one risk dimension are addressed, recognising that losses could arise in several risk dimensions at the same time, stemming from the same event or a common set of factors. For example, a localised natural disaster could generate losses from credit, market, and operational risks at the same time.

(b) In considering the possible effects of diversification, management should be systematic and rigorous in documenting decisions, and in identifying assumptions used in each level of risk aggregation. Assumptions about diversification should be supported by analysis and evidence. The bank should have systems capable of aggregating risks based on the bank's selected framework. For example, a bank calculating correlations within or among risk types should consider data quality and consistency, and the volatility of correlations over time and under stressed market conditions.

## **Part C: Market Discipline**

### **14. Guidelines for Market Discipline**

#### **14.1 General**

14.1.1 The purpose of Market discipline 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.

14.1.2 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.

## **14.2 Achieving Appropriate Disclosure**

14.2.1 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.

14.2.2 In addition to the general intervention measures, the Basel Capital Adequacy 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).

## **14.3 Interaction with Accounting Disclosures**

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.

## **14.4 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.

## **14.5 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.

## **14.6 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.

#### **14.7 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.

#### **14.8 Implementation Date**

In terms of **Guidelines on Composition of Capital Disclosure Requirements** issued vide [circular DBOD.No.BP.BC.98/21.06.201/2012-13 dated May 28, 2013](#), Pillar 3 disclosures as introduced under Basel III have become **effective from July 1, 2013**. The first set of disclosures as required by these guidelines was to be made by banks as on September 30, 2013 (with the exception of the Post March 31, 2017 template described in paragraph 14.12).

#### **14.9 Scope and Frequency of Disclosures**

14.9.1 Pillar 3 applies at the top consolidated level of the banking group to which the Capital Adequacy Framework applies. 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 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 stand-alone basis when they are not the top consolidated entity in the banking group.

14.9.2 Banks are required to make Pillar 3 disclosures<sup>94</sup> at least on a half yearly basis, irrespective of whether financial statements are audited, with the exception of following disclosures:

- (i) Table DF-2: Capital Adequacy;
- (ii) Table DF-3: Credit Risk: General Disclosures for All Banks; and
- (iii) Table DF-4: Credit Risk: Disclosures for Portfolios Subject to the Standardised Approach.

The disclosures as indicated at (i), (ii) and (iii) above will be made at least on a quarterly basis by banks.

14.9.3 All disclosures must either be included in a bank's published financial results / statements or, at a minimum, must be disclosed on bank's website. If a bank finds it operationally inconvenient to make these disclosures along with published financial results / statements, the bank must provide in these financial results / statements, a direct link to where the Pillar 3 disclosures can be found on the bank's website. The Pillar 3 disclosures should be made concurrent with publication of financial results / statements<sup>95</sup>.

14.9.4 However, banks may note that in the case of main features template (as indicated in paragraph 14.14.7) and provision of the full terms and conditions of capital instruments (as indicated in paragraph 14.14.8), banks are required to update these disclosures concurrently whenever a new capital instrument is issued and included in capital or whenever there is a redemption, conversion / write-down or other material change in the nature of an existing capital instrument.

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<sup>94</sup> Please refer to Annex 18 for detailed Pillar 3 disclosure templates.

<sup>95</sup> It may be noted that Pillar 3 disclosures are required to be made by all banks including those which are not listed on stock exchanges and / or not required to publish financial results / statement. Therefore, such banks are also required to make Pillar 3 disclosures at least on their websites within reasonable period.

## **14.10 Regulatory Disclosure Section**

14.10.1 Banks are required to make disclosures in the format as specified in **Annex 18** of this Master Circular. Banks have to maintain a 'Regulatory Disclosures Section' on their websites, where all the information relating to disclosures will be made available to the market participants. The direct link to this page should be prominently provided on the home page of a bank's website and it should be easily accessible. This requirement is essentially to ensure that the relevance / benefit of Pillar 3 disclosures is not diminished by the challenge of finding the disclosure in the first place.

14.10.2 An archive for at least three years of all templates relating to prior reporting periods should be made available by banks on their websites.

## **14.11 Pillar 3 under Basel III Framework<sup>96</sup>**

14.11.1 The Basel Committee on Banking Supervision (BCBS) has released the rules text on 'composition of capital disclosure requirements'<sup>97</sup>. Accordingly, Pillar 3 disclosure requirements as introduced under Basel III along with previous disclosure requirements with suitable modifications / enhancements are detailed in the subsequent paragraphs.

14.11.2 In order to ensure comparability of the capital adequacy of banks across jurisdictions, it is important to disclose details of items of regulatory capital and various regulatory adjustments to it. Further, to improve consistency and ease of use of disclosures relating to the composition of capital and to mitigate the risk of inconsistent reporting format undermining the objective of enhanced disclosures, banks across Basel member jurisdictions are required to publish their capital positions according to common templates. The disclosure requirements are set out in the form of following templates:

### **(i) Post March 31, 2017 Disclosure Template**

A common template which will be used by banks to report the details of their regulatory capital after March 31, 2017 i.e. after the transition period for the phasing-in of deductions is over. It is designed to meet the Basel III requirement to disclose all regulatory adjustments. The template enhances consistency and comparability in the disclosure of the elements of capital between banks and across jurisdictions.

### **(ii) Template during the Transitional Period**

During the transition period of phasing-in of regulatory adjustments under Basel III in India i.e. from April 1, 2013 to March 31, 2017, banks will use a modified version of the post March 31, 2017 template. This template is designed to meet the Basel III requirement for banks to disclose the components of capital which will benefit from the transitional arrangements.

### **(iii) Reconciliation Requirements**

In order to meet the reconciliation requirements as envisaged under Basel III, a three-step approach has been devised. This step-by-step approach to reconciliation ensures that the Basel III requirement to provide a full reconciliation of all regulatory capital elements back to the published financial statements is met in a consistent manner.

### **(iv) Main Features Template**

A common template has been designed to capture the main features of all regulatory capital instruments issued by a bank at one place. This disclosure requirement is intended to meet the Basel III requirement to provide a description of the main features of capital instruments.

### **(v) Other Disclosure Requirements**

This disclosure enables banks in meeting the Basel III requirement to provide the full terms and conditions of capital instruments on their websites.

**(vi)** Pillar 3 disclosure requirements also include certain aspects that are not specifically required to compute capital requirements under Pillar 1<sup>98</sup>. It may be noted that beyond disclosure requirements as set forth in these guidelines, banks are responsible for conveying

<sup>96</sup> Pillar 3 requirements as introduced vide [circular DBOD.No.BP.BC.98/21.06.201/2012-13 dated May 28, 2013](#) on Guidelines on Composition of Capital Disclosure Requirements. These guidelines would become effective from July 1, 2013. Therefore, the first set of disclosures as required by these guidelines will be made by banks as on September 30, 2013. The new disclosure requirements are in addition to the Pillar 3 guidance contained in NCAF.

<sup>97</sup> The rules text is at <http://www.bis.org/publ/bcbs221.htm>

<sup>98</sup> [Master Circular DBOD.No.BP.BC.73/21.06.001/2009-10 dated Feb 8, 2010](#).

their actual risk profile to market participants. The information banks disclose must be adequate to fulfill this objective. In addition to the specific disclosure requirements as set out in the guidelines, banks operating in India should also make additional disclosures in the following areas:

- (i) Securitisation exposures in the trading book;
- (ii) Sponsorship of off-balance sheet vehicles;
- (iii) Valuation with regard to securitisation exposures; and
- (iv) Pipeline and warehousing risks with regard to securitisation exposures.

#### **14.12 Post March 31, 2017 Disclosure Template**

14.12.1 The common template which banks should use is set out in **Table DF-11, Part I of Annex 18**, along with explanations. The template is designed to capture the capital positions of banks after the transition period for phasing-in of deductions is over as on March 31, 2017. This template has to be used by banks for all reporting periods after March 31, 2017.

14.12.2 It may be noted that banks should not add or delete any rows / columns from the common reporting template. This is essential to ensure that there is no divergence in reporting templates across banks and across jurisdictions which could undermine the objectives of consistency and comparability of a bank's regulatory capital. The template will retain the same row numbering used in its first column such that market participants can easily map the Indian version of templates to the common version designed by the Basel Committee.

14.12.3 The Basel Committee has suggested that in cases where the national implementation of Basel III rules<sup>99</sup> applies a more conservative definition of an element (e.g. components and criteria of regulatory capital, regulatory adjustments etc.), national authorities may choose between one of two approaches listed below for the purpose of disclosure:

*Approach 1:* In the national version of the template, banks are required to maintain the same definitions<sup>100</sup> of all rows. Further, banks will have to report the impact of the more conservative national definition in the rows exclusively designated for national specific adjustments.

*Approach 2:* In the national version of the template, banks are required to use the definitions of elements as implemented in that jurisdiction<sup>101</sup>, clearly labelling them as being different from the Basel III minimum definition<sup>102</sup>, and banks are required to separately disclose the impact of each of these different definitions in the notes to the template.

14.12.4 The aim of both the approaches is to provide all the information necessary to enable market participants to calculate the capital of banks on a common basis. In the Indian context, Approach 2 appears to be more practical and less burdensome for banks than the Approach 1. Under the Approach 2, banks have to furnish data based on the definition of capital / regulatory adjustments as implemented in India. The difference with the Basel III minimum can be separately disclosed and explained in notes to the templates. This way of disclosure will be more relevant and comprehensible to a larger number of users of disclosures more specifically, the domestic users. At the same time, information provided in the notes to the templates to indicate differences from Basel III minimum will help facilitate cross-jurisdictional comparison of banks' capital, should users desire. Accordingly, the

<sup>99</sup> As defined in the [DBOD.No.BP.BC.98/21.06.201/2011-12 dated May 2, 2012](#) on Guidelines on Implementation of Basel III Capital Regulations in India.

<sup>100</sup> Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010 (rev June 2011).

<sup>101</sup> As defined in the [DBOD.No.BP.BC.98/21.06.201/2011-12 dated May 2, 2012](#) on Guidelines on Implementation of Basel III Capital Regulations in India.

<sup>102</sup> Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010 (rev June 2011).

disclosure templates have been customised, keeping in view the consistency and comparability of disclosures.

#### **14.13 Template during the Transitional Period**

14.13.1 The transitional arrangements (refer to paragraph 4.5) create an additional layer of complexity in the composition of capital during the period from April 1, 2013 to March 31, 2017, especially due to pre-Basel III treatments<sup>103</sup> (based on Basel II framework) of the residual regulatory adjustments. This necessitates setting out detailed disclosure requirements during this period in a manner which is comprehensible and beneficial for all users of the disclosures.

14.13.2 Accordingly, banks will be required to use a modified version of the Post March 31, 2017 disclosure template (set out in paragraph 14.12 above). This modified template captures the existing treatments for the regulatory adjustments during the transition period. The Post March 31, 2017 template is modified in two ways:

- (i) an additional column is inserted to indicate the amount of regulatory adjustments which will be subject to the existing treatment; and
- (ii) additional rows are inserted in four separate places to indicate where the adjustment amount reported in the additional column actually affects capital during the transition period.

14.13.3 The common template which banks must use during the transition period is set out in **Table DF-11, Part II of Annex 18**. If a bank decides to make full transition to Basel III capital regulations before March 31, 2017, such bank may begin disclosure as set out in **Table DF-11, Part I of Annex 18**. However, the bank should clearly state the reasons for using **Table DF-11, Part I** (i.e. Post March 31, 2017 template) in the disclosure.

#### **14.14 Reconciliation Requirements**

14.14.1 Banks will be required to disclose a full reconciliation of all regulatory capital elements back to the balance sheet in the audited (or unaudited) financial statements. This requirement aims to address disconnect, if any, present in a bank's disclosure between the numbers used for the calculation of regulatory capital and the numbers used in the balance sheet.

14.14.2 Banks will have to follow a three step approach to show the link between their balance sheet and the numbers which are used in the composition of capital disclosure template set out in **Annex 18 (Table DF-11, Part I / Part II, whichever applicable)**. The three steps are explained below and also illustrated in **Table DF-12 of Annex 18**:

Step 1: banks are required to disclose the reported balance sheet under the regulatory scope of consolidation<sup>104</sup> (**Table DF-12 of Annex 18**);

Step 2: banks will have to expand the lines of the balance sheet under regulatory scope of consolidation (**Table DF-12 of Annex 18**) to display all components which are used in the composition of capital disclosure template (**Table DF-11 Part I / Part II of Annex 18**); and

Step 3: finally, banks will have to map each of the components that are disclosed in Step 2 to the composition of capital disclosure template set out in **Table DF-11 Part I / Part II of Annex 18** whichever, applicable.

14.14.3 *Step 1: Disclose the reported balance sheet under the regulatory scope of consolidation*

- (i) The scope of consolidation for accounting purposes is often different from that applied for the regulatory purposes. Usually, there will be difference between the financial statements of a bank specifically, the bank's balance sheet in published financial statements

<sup>103</sup>Existing treatment means treatment based on guidelines applicable before April 1, 2013. In this context, please refer to [Master Circular DBOD.No.BP.BC.4/21.06.001/2015-16 dated July 1, 2015](#).

<sup>104</sup> Regulatory scope of consolidation is explained in paragraph 3 of this Master Circular.

and the balance sheet considered for the calculation of regulatory capital. Therefore, the reconciliation process involves disclosing how the balance sheet changes when the regulatory scope of consolidation is applied for the purpose of calculation of regulatory capital on a consolidated basis.

(ii) Accordingly, banks are required to disclose the list of the legal entities which have been included within accounting scope of consolidation but excluded from the regulatory scope of consolidation. This is intended to enable market participants and supervisors to investigate the risks posed by unconsolidated entities (e.g. unconsolidated subsidiaries). Similarly, banks are required to list the legal entities which have been included in the regulatory consolidation but not in the accounting scope of consolidation. Finally, it is possible that some entities are included in both the regulatory scope of consolidation and accounting scope of consolidation, but the method of consolidation differs between these two scopes. In such cases, banks are required to list these legal entities and explain the differences in the consolidation methods.

(iii) If the scope of regulatory consolidation and accounting consolidation is identical for a particular banking group, it would not be required to undertake Step 1. The banking group would state that there is no difference between the regulatory consolidation and the accounting consolidation and move to Step 2.

(iv) In addition to the above requirements, banks must disclose for each legal entity, its total balance sheet assets, total balance sheet equity (as stated on the accounting balance sheet of the legal entity), method of consolidation and a description of the principle activities of the entity. These disclosures are required to be made as indicated in the revised templates namely **Table DF-1: Scope of Application of Annex 18**.

**14.14.4 Step 2: Expand the lines of the regulatory balance sheet to display all of the components used in the definition of capital disclosure template (Table DF-11 Part I / Part II of Annex 18)**

(i) Many of the elements used in the calculation of regulatory capital may not be readily identified from the face of the balance sheet. This requires that banks should expand the rows of the balance sheet under regulatory scope of consolidation such that all the components used in the definition of capital disclosure template (**Table DF-11 Part I / Part II of Annex 18**) are displayed separately.

(ii) For example, paid-up share capital may be reported as one line on the balance sheet. However, some elements of this may meet the requirements for inclusion in Common Equity Tier 1 (CET1) capital and other elements may only meet the requirements for Additional Tier 1 (AT1) or Tier 2 (T2) capital, or may not meet the requirements for inclusion in regulatory capital at all. Therefore, if a bank has some amount of paid-up capital which goes into the calculation of CET1 and some amount which goes into the calculation of AT1, it should expand the 'paid-up share capital' line of the balance sheet in the following way:

Paid-up share capital		Ref
of which amount eligible for CET1		e
of which amount eligible for AT1		f

(ii) In addition, as illustrated above, each element of the expanded balance sheet must be given a reference number / letter for use in Step 3.

(iv) Another example is regulatory adjustments of the deduction of intangible assets. *Firstly*, there could be a possibility that the intangible assets may not be readily identifiable in the balance sheet. There is a possibility that the amount on the balance sheet may combine goodwill and other intangibles. *Secondly*, the amount to be deducted is net of any related deferred tax liability. This deferred tax liability is likely to be reported in combination with other deferred tax liabilities which have no relation to goodwill or intangibles. Therefore, the bank should expand the balance sheet in the following way:

Goodwill and intangible assets		Ref
of which goodwill		a
of which other intangibles		b

Current and deferred tax liabilities (DTLs)		Ref
of which DTLs related to goodwill		c
of which DTLs related to other intangible assets		d

(v) Banks will need to expand elements of the balance sheet only to the extent required to reach the components which are used in the definition of capital disclosure template. For example, if entire paid-up capital of the bank met the requirements to be included in CET1, the bank would not need to expand this line.

#### 14.14.5 Step 3: Map each of the components that are disclosed in Step 2 to the composition of capital disclosure templates

(i) When reporting the disclosure template (i.e. **Table DF-11 Part I / Part II of Annex 18**), a bank is required to use the reference numbers / letters from Step 2 to show the source of every input.

(ii) For example, if the composition of capital disclosure template (**Part I / Part II**) includes the line 'goodwill net of related deferred tax liability', then next to this item the bank should put 'a - c'. This is required to illustrate that how these components of the balance sheet under the regulatory scope of consolidation have been used to calculate this item in the disclosure template.

#### 14.14.6 The three step approach is flexible and offers the following benefits:

(i) the level of disclosure is proportionate, varying with the complexity of the balance sheet of the reporting bank (i.e. banks are not subject to a fixed template. A bank may skip a step if there is no further information added by that step);

(ii) supervisors and market participants can trace the origin of the elements of the regulatory capital back to their exact location on the balance sheet under the regulatory scope of consolidation; and

(iii) the approach is flexible enough to be used under any accounting standards. Banks are required to map all the components of the regulatory capital disclosure templates back to the balance sheet under the regulatory scope of consolidation, regardless of where the accounting standards require the source to be reported on the balance sheet.

#### 14.14.7 Main Features Template

14.14.7.1 Banks are required to complete a 'main features template' to ensure consistency and comparability of disclosures of the main features of capital instruments. Banks are required to disclose a description of the main features of capital instruments issued by them. Besides, banks will also be required to make available the full terms and conditions of their capital instruments (paragraph 14.14.8 below). The requirement of separately disclosing main features of capital instruments is intended to provide an overview of the capital structure of a bank. Many times, it may not be possible for the users to extract key features of capital instruments with ease from the full disclosure of terms and conditions of capital instruments made by banks.

14.14.7.2 This template represents the minimum level of summary disclosure which banks are required to report in respect of **each** regulatory capital instrument issued. The main feature disclosure template is set out in **Table DF-13 of Annex 18** along with a

description of each of the items to be reported. Some of the key aspects of the 'Main Features Template' are as under:

- (i) it is designed to be completed by banks from when the Basel III capital regulations come into effect i.e. as on April 1, 2013. Therefore, it includes disclosure relating to instruments which are subject to the transitional arrangements.
- (ii) banks are required to report each capital instrument (including common shares) in a separate column of the template, such that the completed template would provide a 'main features report' that summarises all of the regulatory capital instruments of the banking group.

14.14.7.3 Banks are required to keep the completed main features report up-to-date. Banks should ensure that the report is updated and made publicly available, whenever a bank issues or repays a capital instrument and whenever there is redemption, conversion / write-down or other material change in the nature of an existing capital instrument.

#### 14.14.8 **Other Disclosure Requirements**

In addition to the disclosure requirements set out in above paragraphs, banks are required to make the following disclosure in respect of the composition of capital:

(i) Full Terms and Conditions: banks are required to make available on their websites<sup>105</sup> the full terms and conditions of all instruments included in regulatory capital. The requirement for banks to make available the full terms and conditions of instruments on their websites will allow supervisors and market participants to investigate the specific features of individual capital instruments.

(ii) Banks are required to keep the terms and conditions of all capital instruments up-to-date (**Table DF-14 of Annex 18**). Whenever there is a change in the terms and conditions of a capital instrument, banks should update them promptly and make publicly available such updated disclosure.

### **14.15 The Disclosure Templates**

All Pillar 3 disclosure templates as set out in these guidelines are furnished in tabular form in **Annex 18**. Additional relevant definitions and explanations are also provided for the Pillar 3 disclosures.

## **Part D: Capital Conservation Buffer Framework<sup>106</sup>**

### **15. Capital Conservation Buffer**

#### **15.1 Objective**

15.1.1 The capital conservation buffer (CCB) is designed to ensure that banks build up capital buffers during normal times (i.e. outside periods of stress) which can be drawn down as losses are incurred during a stressed period. The requirement is based on simple capital conservation rules designed to avoid breaches of minimum capital requirements.

15.1.2 Outside the period of stress, banks should hold buffers of capital above the regulatory minimum. When buffers have been drawn down, one way banks should look to rebuild them is through reducing discretionary distributions of earnings. This could include reducing dividend payments, share buybacks and staff bonus payments. Banks may also choose to raise new capital from the market as an alternative to conserving internally generated capital. However, if a bank decides to make payments in excess of the constraints imposed as explained above, the bank, with the prior approval of RBI, would have to use the option of raising capital from the market equal to the amount above the constraint which it wishes to distribute.

<sup>105</sup> Please refer to paragraph 14.10 of this Master Circular.

<sup>106</sup> Annex 4 of Guidelines on Implementation of Basel III Capital Regulations in India issued vide [circular DBOD.No.BP.BC.98/21.06.201/2011-12 dated May 2, 2012](#).

15.1.3 In the absence of raising capital from the market, the share of earnings retained by banks for the purpose of rebuilding their capital buffers should increase the nearer their actual capital levels are to the minimum capital requirement. It will not be appropriate for banks which have depleted their capital buffers to use future predictions of recovery as justification for maintaining generous distributions to shareholders, other capital providers and employees. It is also not acceptable for banks which have depleted their capital buffers to try and use the distribution of capital as a way to signal their financial strength. Not only is this irresponsible from the perspective of an individual bank, putting shareholders' interests above depositors, it may also encourage other banks to follow suit. As a consequence, banks in aggregate can end up increasing distributions at the exact point in time when they should be conserving earnings.

15.1.4 The capital conservation buffer can be drawn down only when a bank faces a systemic or idiosyncratic stress. A bank should not choose in normal times to operate in the buffer range simply to compete with other banks and win market share. This aspect would be specifically looked into by Reserve Bank of India during the Supervisory Review and Evaluation Process. If, at any time, a bank is found to have allowed its capital conservation buffer to fall in normal times, particularly by increasing its risk weighted assets without a commensurate increase in the Common Equity Tier 1 Ratio (although adhering to the restrictions on distributions), this would be viewed seriously. In addition, such a bank will be required to bring the buffer to the desired level within a time limit prescribed by Reserve Bank of India. The banks which draw down their capital conservation buffer during a stressed period should also have a definite plan to replenish the buffer as part of its Internal Capital Adequacy Assessment Process and strive to bring the buffer to the desired level within a time limit agreed to with Reserve Bank of India during the Supervisory Review and Evaluation Process.

15.1.5 The framework of capital conservation buffer will strengthen the ability of banks to withstand adverse economic environment conditions, will help increase banking sector resilience both going into a downturn, and provide the mechanism for rebuilding capital during the early stages of economic recovery. Thus, by retaining a greater proportion of earnings during a downturn, banks will be able to help ensure that capital remains available to support the ongoing business operations / lending activities during the period of stress. Therefore, this framework is expected to help reduce pro-cyclicality.

## 15.2 The Framework

15.2.1 Banks are required to maintain a capital conservation buffer of 2.5%, comprised of Common Equity Tier 1 capital, above the regulatory minimum capital requirement<sup>107</sup> of 9%. Capital distribution constraints will be imposed on a bank when capital level falls within this range. However, they will be able to conduct business as normal when their capital levels fall into the conservation range as they experience losses. Therefore, the constraints imposed are related to the distributions only and are not related to the operations of banks. The distribution constraints imposed on banks when their capital levels fall into the range increase as the banks' capital levels approach the minimum requirements. The **Table 24** below shows the minimum capital conservation ratios a bank must meet at various levels of the Common Equity Tier 1 capital ratios.

<b>Table 24: Minimum capital conservation standards for individual bank</b>	
Common Equity Tier 1 Ratio after including the current periods retained earnings	Minimum Capital Conservation Ratios (expressed as a percentage of earnings)
5.5% - 6.125%	100%

<sup>107</sup>Common Equity Tier 1 must first be used to meet the minimum capital requirements (including the 7% Tier 1 and 9% Total capital requirements, if necessary), before the remainder can contribute to the capital conservation buffer requirement.

>6.125% - 6.75%	80%
>6.75% - 7.375%	60%
>7.375% - 8.0%	40%
>8.0%	0%

For example, a bank with a Common Equity Tier 1 capital ratio in the range of 6.125% to 6.75% is required to conserve 80% of its earnings in the subsequent financial year (i.e. payout no more than 20% in terms of dividends, share buybacks and discretionary bonus payments is allowed).

15.2.2 Basel III minimum capital conservation standards apply with reference to the applicable minimum CET1 capital and applicable CCB. Therefore, during the Basel III transition period, banks may refer to the **Table 25** for meeting the minimum capital conservation ratios at various levels of the Common Equity Tier 1 capital ratios:

<b>Table 25: Minimum capital conservation standards for individual bank</b>			
Common Equity Tier 1 Ratio after including the current periods retained earnings			Minimum Capital Conservation Ratios (expressed as % of earnings)
As on March 31, 2016	As on March 31, 2017	As on March 31, 2018	
5.5% - 5.65625%	5.5% - 5.8125%	5.5% - 5.96875%	100%
>5.65625% - 5.8125%	>5.8125% - 6.125%	>5.96875% - 6.4375%	80%
>5.8125% - 5.96875%	>6.125% - 6.4375%	>6.4375% - 6.90625%	60%
>5.96875% - 6.125%	>6.4375% - 6.75%	>6.90625% - 7.375%	40%
>6.125%	>6.75%	>7.375%	0%

15.2.3 The Common Equity Tier 1 ratio includes amounts used to meet the minimum Common Equity Tier 1 capital requirement of 5.5%, but excludes any additional Common Equity Tier 1 needed to meet the 7% Tier 1 and 9% Total Capital requirements. For example, a bank maintains Common Equity Tier 1 capital of 9% and has no Additional Tier 1 or Tier 2 capital. Therefore, the bank would meet all minimum capital requirements, but would have a zero conservation buffer and therefore, the bank would be subjected to 100% constraint on distributions of capital by way of dividends, share-buybacks and discretionary bonuses.

15.2.4 The following represents other key aspects of the capital conservation buffer requirements:

- (i) **Elements subject to the restriction on distributions:** Dividends and share buybacks, discretionary payments on other Tier 1 capital instruments and discretionary bonus payments to staff would constitute items considered to be distributions. Payments which do not result in depletion of Common Equity Tier 1 capital, (for example certain scrip dividends<sup>108</sup>) are not considered distributions.
- (ii) **Definition of earnings:** Earnings are defined as distributable profits before the deduction of elements subject to the restriction on distributions mentioned at (i) above. Earnings are calculated after the tax which would have been reported had none of the distributable items been paid. As such, any tax impact of making such distributions are reversed out. If a bank does not have positive earnings and has a Common Equity Tier 1 ratio less than 8%, it should not make positive net distributions.
- (iii) **Solo or consolidated application:** Capital conservation buffer is applicable both at the solo level (global position) as well as at the consolidated level, i.e. restrictions

<sup>108</sup>A scrip dividend is a scrip issue made in lieu of a cash dividend. The term 'scrip dividends' also includes bonus shares.

would be imposed on distributions at the level of both the solo bank and the consolidated group. In all cases where the bank is the parent of the group, it would mean that distributions by the bank can be made only in accordance with the lower of its Common Equity Tier 1 Ratio at solo level or consolidated level<sup>109</sup>. For example, if a bank's Common Equity Tier 1 ratio at solo level is 6.8% and that at consolidated level is 7.4%. It will be subject to a capital conservation requirement of 60% consistent with the Common Equity Tier 1 range of >6.75% - 7.375% as per Table 24 in paragraph 15.2.1 above. Suppose, a bank's Common Equity Tier 1 ratio at solo level is 6.6% and that at consolidated level is 6%. It will be subject to a capital conservation requirement of 100% consistent with the Common Equity Tier 1 range of >5.5% - 6.125% as per Table 24 on minimum capital conservation standards for individual bank.

**15.3** Banks which already meet the minimum ratio requirement during the transition period as indicated in paragraph 4.5, but remain below the target of 8% Common Equity Tier 1 capital ratio (minimum of 5.5% plus conservation buffer of 2.5%) should maintain prudent earnings retention policies with a view to meeting the conservation buffer as soon as possible. However, RBI may consider accelerating the build-up of the capital conservation buffer and shorten the transition periods, if the situation warrants so.

## **Part E: Leverage Ratio Framework<sup>110</sup>**

### **16. Leverage Ratio**

#### **16.1 Rationale and Objective**

An underlying cause of the global financial crisis was the build-up of excessive on- and off-balance sheet leverage in the banking system. In many cases, banks built up excessive leverage while apparently maintaining strong risk-based capital ratios. During the most severe part of the crisis, the banking sector was forced by the market to reduce its leverage in a manner that amplified downward pressure on asset prices. This deleveraging process exacerbated the feedback loop between losses, falling bank capital and contraction in credit availability. Therefore, under Basel III, a simple, transparent, non-risk based leverage ratio has been introduced. The leverage ratio is calibrated to act as a credible supplementary measure to the risk based capital requirements and is intended to achieve the following objectives:

- (a) constrain the build-up of leverage in the banking sector to avoid destabilising deleveraging processes which can damage the broader financial system and the economy; and
- (b) reinforce the risk-based requirements with a simple, non-risk based "backstop" measure.

#### **16.2 Definition, Minimum Requirement and Scope of Application of the Leverage Ratio**

##### ***Definition and minimum requirement***

The Basel III leverage ratio is defined as the capital measure (the numerator) divided by the exposure measure (the denominator), with this ratio expressed as a percentage

$$\text{Leverage Ratio} = \frac{\text{Capital Measure}}{\text{Exposure Measure}}$$

<sup>109</sup> If a subsidiary is a bank, it will naturally be subject to the provisions of capital conservation buffer. If it is not a bank, even then the parent bank should not allow the subsidiary to distribute dividend which are inconsistent with the position of CCB at the consolidated level.

<sup>110</sup> Please refer to Annex 5 of Guidelines on Implementation of Basel III Capital Regulations in India issued vide [circular DBOD.No.BP.BC.98/21.06.201/2011-12 dated May 2, 2012](#).

16.2.1 The Basel Committee will use the revised framework<sup>111</sup> for testing a minimum Tier 1 leverage ratio of 3% during the parallel run period up to January 1, 2017. The Basel Committee will continue to track the impact of using either Common Equity Tier 1 (CET1) or total regulatory capital as the capital measure for the leverage ratio. The final calibration, and any further adjustments to the definition, will be completed by 2017, with a view to migrating to a Pillar 1 treatment on January 1, 2018.

16.2.2 Currently, Indian banking system is operating at a leverage ratio of more than 4.5%. The final minimum leverage ratio will be stipulated taking into consideration the final rules prescribed by the Basel Committee by end-2017. In the meantime, these guidelines will serve as the basis for parallel run by banks and also for the purpose of disclosures as outlined in paragraph 16.6 below. During this period, Reserve Bank will monitor individual banks against an indicative leverage ratio of 4.5%. Additional transitional arrangements are set out in paragraph 16.5 below.

### **Scope of consolidation**

16.2.3 The Basel III leverage ratio framework follows the same scope of regulatory consolidation as is used for the risk-based capital framework<sup>112</sup>.

16.2.4 *Treatment of investments in the capital of banking, financial, insurance and commercial entities that are outside the regulatory scope of consolidation:* in cases where a banking, financial, insurance or commercial entity is outside the scope of regulatory consolidation, only the investment in the capital of such entities (i.e. only the carrying value of the investment, as opposed to the underlying assets and other exposures of the investee) is to be included in the leverage ratio exposure measure. However, investments in the capital of such entities that are deducted from Tier 1 capital (i.e. either deduction from Common Equity Tier 1 capital or deduction from Additional Tier 1 capital following corresponding deduction approach) as set out in paragraph 4.4 - Regulatory Adjustments / Deductions<sup>113</sup> of the Master Circular on Basel III Capital regulations may be excluded from the leverage ratio exposure measure.

## **16.3 Capital Measure**

The capital measure for the leverage ratio is the Tier 1 capital of the risk-based capital framework<sup>114</sup>, taking into account various regulatory adjustments / deductions and the transitional arrangements. In other words, the capital measure used for the leverage ratio at any particular point in time is the Tier 1 capital measure applying at that time under the risk-based framework.

## **16.4 Exposure Measure**

### **16.4.1 General Measurement Principles**

- (i) The exposure measure for the leverage ratio should generally follow the accounting value, subject to the following:
  - on-balance sheet, non-derivative exposures are included in the exposure measure net of specific provisions or accounting valuation adjustments (e.g. accounting credit valuation adjustments, e.g. prudent valuation adjustments for AFS and HFT positions);
  - netting of loans and deposits is not allowed.
- (ii) Unless specified differently below, banks must not take account of physical or financial collateral, guarantees or other credit risk mitigation techniques to reduce the exposure measure.
- (iii) A bank's total exposure measure is the sum of the following exposures:

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<sup>111</sup> Please refer to 'Basel III leverage ratio framework and disclosure requirements' issued by the Basel Committee on Banking Supervision in January 2014. These requirements supersede those in Section V of Basel III: A global regulatory framework for more resilient banks and banking systems, December 2010 (rev June 2011).

<sup>112</sup> Please refer to paragraph 3: Scope of Application of Capital Adequacy Framework. Please also refer to [circulars DBOD.No.BP.BC.72/21.04.018/2001-02 dated February 25, 2003](#) and [DBOD.No.FSD.BC.46/24.01.028/2006-07 dated December 12, 2006](#).

<sup>113</sup> Regulatory adjustments / deductions as indicated in paragraph 4.4.

<sup>114</sup> Tier 1 capital as defined in paragraph 4: Composition of regulatory capital.

- (a) on-balance sheet exposures;
- (b) derivative exposures;
- (c) securities financing transaction (SFT) exposures; and
- (d) off-balance sheet (OBS) items.

The specific treatments for these four main exposure types are defined in paragraphs 16.4.2 to 16.4.5 below.

## 16.4.2 On-balance sheet exposures

16.4.2.1 Banks must include all balance sheet assets in their exposure measure, including on-balance sheet derivatives collateral and collateral for SFTs, with the exception of on-balance sheet derivative and SFT assets that are covered in paragraph 16.4.3 and 16.4.4 below<sup>115</sup>.

16.4.2.2 However, to ensure consistency, balance sheet assets deducted from Tier 1 capital as set out in paragraph 4.4 - Regulatory Adjustments / Deductions may be deducted from the exposure measure. Following are the two examples:

- Where a banking, financial or insurance entity is not included in the regulatory scope of consolidation (as set out in paragraph 16.2.3), the amount of any investment in the capital of that entity that is totally or partially deducted from CET1 capital or from Additional Tier 1 capital of the bank (in terms of paragraphs 3.3.2 and 4.4.9.2(C) of the Master Circular on Basel III Capital Regulations) may also be deducted from the exposure measure.
- For banks using the internal ratings-based (IRB) approach to determining capital requirements for credit risk, paragraph 4.4.4 requires any shortfall in the stock of eligible provisions relative to expected losses to be deducted from CET1 capital. The same amount may be deducted from the exposure measure.

16.4.2.3 Liability items must not be deducted from the exposure measure. For example, gains/losses on fair valued liabilities or accounting value adjustments on derivative liabilities due to changes in the bank's own credit risk as described in paragraph 4.4.6 must not be deducted from the exposure measure.

## 16.4.3 Derivative exposures

16.4.3.1 **Treatment of derivatives:** Derivatives create two types of exposure:

- (a) an exposure arising from the underlying of the derivative contract; and
- (b) a counterparty credit risk (CCR) exposure.

The leverage ratio framework uses the method set out below to capture both of these exposure types.

16.4.3.2 Banks must calculate their derivative exposures<sup>116</sup>, including where a bank sells protection using a credit derivative, as the replacement cost (RC)<sup>117</sup> for the current

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<sup>115</sup> Where a bank according to its operative accounting framework recognises fiduciary assets on the balance sheet, these assets can be excluded from the leverage ratio exposure measure provided that the assets meet the IAS 39 criteria for derecognition and, where applicable, IFRS 10 for deconsolidation. When disclosing the leverage ratio, banks must also disclose the extent of such de-recognised fiduciary items as set out in paragraph 16.7.4.

<sup>116</sup> This approach makes reference to the Current Exposure Method (CEM) to calculate CCR exposure amounts associated with derivative exposures. The Basel Committee will consider whether the recently released Standardised Approach for measuring exposure at default (EAD) for CCR known as SA-CCR is appropriate in the context of the need to capture both types of exposures created by derivatives as described in paragraph 16.4.3.1. Banks operating in India may continue to use CEM until advised otherwise by the Reserve Bank.

<sup>117</sup> If, under the relevant accounting standards, there is no accounting measure of exposure for certain derivative instruments because they are held (completely) off-balance sheet, the bank must use the sum of positive fair values of these derivatives as the replacement cost.

exposure plus an add-on for potential future exposure (PFE), as described in paragraph 16.4.3.3 below. If the derivative exposure is covered by an eligible bilateral netting contract as specified in the Annex 20 (part B)<sup>118</sup>, an alternative treatment as indicated in paragraph 16.4.3.4 below may be applied<sup>119</sup>. Written credit derivatives are subject to an additional treatment, as set out in paragraphs 16.4.3.11 to 16.4.3.14 below.

16.4.3.3 For a single derivative contract, the amount to be included in the exposure measure is determined as follows:

exposure measure = replacement cost (RC) + add-on

where;

RC = the replacement cost of the contract (obtained by marking to market), where the contract has a positive value.

add-on = an amount for PFE over the remaining life of the contract calculated by applying an add-on factor to the notional principal amount of the derivative. The add-on factors are given in Table 9 of paragraph 5.15.3.5 and Tables 22 & 23 of paragraph 8.6.3.

16.4.3.4 **Bilateral netting:** when an eligible bilateral netting contract is in place as specified in paragraph 5.15.3.9(i) and Annex 20 (part B), the RC for the set of derivative exposures covered by the contract will be the sum of net replacement cost and the add-on factors as described in paragraph 16.4.3.3 above.

16.4.3.5 **Treatment of related collateral:** collateral received in connection with derivative contracts has two countervailing effects on leverage:

- it reduces counterparty exposure; but
- it can also increase the economic resources at the disposal of the bank, as the bank can use the collateral to leverage itself.

16.4.3.6 Collateral received in connection with derivative contracts does not necessarily reduce the leverage inherent in a bank's derivatives position, which is generally the case if the settlement exposure arising from the underlying derivative contract is not reduced. As a general rule, collateral received may not be netted against derivative exposures whether or not netting is permitted under the bank's operative accounting or risk-based framework. Therefore, it is advised that when calculating the exposure amount by applying paragraphs 16.4.3.2 to 16.4.3.4 above, a bank must not reduce the exposure amount by any collateral received from the counterparty.

16.4.3.7 Similarly, with regard to collateral provided, banks must gross up their exposure measure by the amount of any derivatives collateral provided where the effect of providing collateral has reduced the value of their balance sheet assets under their operative accounting framework.

16.4.3.8 **Treatment of cash variation margin:** in the treatment of derivative exposures for the purpose of the leverage ratio, the cash portion of variation margin exchanged between counterparties may be viewed as a form of pre-settlement payment, if the following conditions are met:

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<sup>118</sup> Currently, relevant only in case of banks' exposures to Qualifying Central Counterparties (QCCPs) subject to conditions mentioned in paragraph 5.15.3.9. In case of OTC derivatives, please refer to [circular DBOD.No.BP.BC.48/21.06.001/2010-11 dated October 1, 2010](#) on Prudential Norms for Off-Balance Sheet Exposures of Banks – Bilateral netting of counterparty credit exposures. As indicated therein, bilateral netting of mark-to-market (MTM) values arising on account of derivative contracts is not permitted.

<sup>119</sup> These netting rules are with the exception of cross-product netting i.e. cross-product netting is not permitted in determining the leverage ratio exposure measure.

- (i) For trades not cleared through a qualifying central counterparty (QCCP)<sup>120</sup>, the cash received by the recipient counterparty is not segregated<sup>121</sup>.
- (ii) Variation margin is calculated and exchanged on a daily basis based on mark-to-market valuation of derivatives positions<sup>122</sup>.
- (iii) The cash variation margin is received in the same currency as the currency of settlement of the derivative contract<sup>123</sup>.
- (iv) Variation margin exchanged is the full amount that would be necessary to fully extinguish the mark-to-market exposure of the derivative subject to the threshold and minimum transfer amounts applicable to the counterparty<sup>124</sup>.
- (v) Derivatives transactions and variation margins are covered by a single master netting agreement (MNA)<sup>125,126</sup> between the legal entities that are the counterparties in the derivatives transaction. The MNA must explicitly stipulate that the counterparties agree to settle net any payment obligations covered by such a netting agreement, taking into account any variation margin received or provided if a credit event occurs involving either counterparty. The MNA must be legally enforceable and effective<sup>127</sup> in all relevant jurisdictions, including in the event of default and bankruptcy or insolvency.

16.4.3.9 If the conditions in paragraph 16.4.3.8 are met, the cash portion of variation margin received may be used to reduce the replacement cost portion of the leverage ratio exposure measure, and the receivables assets from cash variation margin provided may be deducted from the leverage ratio exposure measure as follows:

- In the case of cash variation margin received, the receiving bank may reduce the replacement cost (but not the add-on portion) of the exposure amount of the derivative asset by the amount of cash received if the positive mark-to-market value of the derivative contract(s) has not already been reduced by the same amount of cash variation margin received under the bank's operative accounting standard.
- In the case of cash variation margin provided to a counterparty, the posting bank may deduct the resulting receivable from its leverage ratio exposure measure, where the cash variation margin has been recognised as an asset under the bank's operative accounting framework.

<sup>120</sup> A QCCP is as defined in the paragraph 5.15.3.3.

<sup>121</sup> Cash variation margin would satisfy the non-segregation criterion if the recipient counterparty has no restrictions on the ability to use the cash received (i.e. the cash variation margin received is used as its own cash). Further, this criterion would be met if the cash received by the recipient counterparty is not required to be segregated by law, regulation, or any agreement with the counterparty.

<sup>122</sup> To meet this criterion, derivative positions must be valued daily and cash variation margin must be transferred daily to the counterparty or to the counterparty's account, as appropriate.

<sup>123</sup> For this paragraph, currency of settlement means any currency of settlement specified in the derivative contract, governing qualifying master netting agreement (MNA), or the credit support annex (CSA) to the qualifying MNA. The Basel Committee will review the issue further for an appropriate treatment in this regard.

<sup>124</sup> Cash variation margin exchanged on the morning of the subsequent trading day based on the previous, end-of-day market values would meet this criterion, provided that the variation margin exchanged is the full amount that would be necessary to fully extinguish the mark-to-market exposure of the derivative subject to applicable threshold and minimum transfer amounts.

<sup>125</sup> A Master MNA may be deemed to be a single MNA for this purpose.

<sup>126</sup> To the extent that the criteria in this paragraph include the term "master netting agreement", this term should be read as including any "netting agreement" that provides legally enforceable rights of offsets. This is to take account of the fact that no standardisation has currently emerged for netting agreements employed by CCPs.

<sup>127</sup> A master netting agreement (MNA) is deemed to meet this criterion if it satisfies the conditions as specified in paragraph 5.15.3.9(i) and Annex 20 (part B).

Cash variation margin may not be used to reduce the PFE amount.

16.4.3.10 **Treatment of clearing services:** where a bank acting as clearing member (CM)<sup>128</sup> offers clearing services to clients, the clearing member's trade exposures<sup>129</sup> to the central counterparty (CCP) that arise when the clearing member is obligated to reimburse the client for any losses suffered due to changes in the value of its transactions in the event that the CCP defaults, must be captured by applying the same treatment that applies to any other type of derivatives transactions. However, if the clearing member, based on the contractual arrangements with the client, is not obligated to reimburse the client for any losses suffered due to changes in the value of its transactions in the event that a QCCP defaults, the clearing member need not recognise the resulting trade exposures to the QCCP in the leverage ratio exposure measure<sup>130</sup>.

16.4.3.11 Where a client enters directly into a derivatives transaction with the CCP and the CM guarantees the performance of its clients' derivative trade exposures to the CCP, the bank acting as the clearing member for the client to the CCP must calculate its related leverage ratio exposure resulting from the guarantee as a derivative exposure as set out in paragraphs 16.4.3.2 to 16.4.3.9, as if it had entered directly into the transaction with the client, including with regard to the receipt or provision of cash variation margin.

16.4.3.12 **Additional treatment for written credit derivatives:** in addition to the CCR exposure arising from the fair value of the contracts, written credit derivatives create a notional credit exposure arising from the creditworthiness of the reference entity. It is therefore appropriate to treat written credit derivatives consistently with cash instruments (e.g. loans, bonds) for the purposes of the exposure measure.

16.4.3.13 In order to capture the credit exposure to the underlying reference entity, in addition to the above CCR treatment for derivatives and related collateral, the effective notional amount<sup>131</sup> referenced by a written credit derivative is to be included in the exposure measure. The effective notional amount of a written credit derivative may be reduced by any negative change in fair value amount that has been incorporated into the calculation of Tier 1 capital with respect to the written credit derivative<sup>132</sup>. The resulting amount may be further reduced by the effective notional amount of a purchased credit derivative on the same

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<sup>128</sup> A Clearing Member (CM) is as defined in the paragraph 5.15.3.3.

<sup>129</sup> For the purposes of paragraphs 16.4.3.9 and 16.4.3.10, "trade exposures" includes initial margin irrespective of whether or not it is posted in a manner that makes it remote from the insolvency of the CCP.

<sup>130</sup> An affiliated entity to the bank acting as a clearing member (CM) may be considered a client for the purpose of this paragraph of the Basel III leverage ratio framework if it is outside the relevant scope of regulatory consolidation at the level at which the Basel III leverage ratio is applied. In contrast, if an affiliate entity falls within the regulatory scope of consolidation, the trade between the affiliate entity and the CM is eliminated in the course of consolidation, but the CM still has a trade exposure to the qualifying central counterparty (QCCP), which will be considered proprietary and the exemption in this paragraph no longer applies.

<sup>131</sup> The effective notional amount is obtained by adjusting the notional amount to reflect the true exposure of contracts that are leveraged or otherwise enhanced by the structure of the transaction.

<sup>132</sup> A negative change in fair value is meant to refer to a negative fair value of a credit derivative that is recognised in Tier 1 capital. This treatment is consistent with the rationale that the effective notional amounts included in the exposure measure may be capped at the level of the maximum potential loss, which means the maximum potential loss at the reporting date is the notional amount of the credit derivative minus any negative fair value that has already reduced Tier 1 capital. For example, if a written credit derivative had a positive fair value of 20 on one date and has a negative fair value of 10 on a subsequent reporting date, the effective notional amount of the credit derivative may be reduced by 10. The effective notional amount cannot be reduced by 30. However, if at the subsequent reporting date the credit derivative has a positive fair value of 5, the effective notional amount cannot be reduced at all.

reference name<sup>133,134</sup> provided:

- the credit protection purchased is on a reference obligation which ranks *pari passu* with or is junior to the underlying reference obligation of the written credit derivative in the case of single name credit derivatives<sup>135</sup>; and
- the remaining maturity of the credit protection purchased is equal to or greater than the remaining maturity of the written credit derivative.

16.4.3.14 Since written credit derivatives are included in the exposure measure at their effective notional amounts, and are also subject to add-on amounts for PFE, the exposure measure for written credit derivatives may be overstated. Banks may therefore choose to deduct the individual PFE add-on amount relating to a written credit derivative (which is not offset according to paragraph 16.4.3.13 and whose effective notional amount is included in the exposure measure) from their gross add-on in paragraphs 16.4.3.2 to 16.4.3.4<sup>136</sup>.

#### 16.4.4 Securities financing transaction exposures

16.4.4.1 SFTs<sup>137</sup> are included in the exposure measure according to the treatment described in the following paragraphs. The treatment recognises that secured lending and borrowing in the form of SFTs is an important source of leverage, and ensures consistent international implementation by providing a common measure for dealing with the main differences in the operative accounting frameworks.

16.4.4.2 **General treatment (bank acting as principal):** the sum of the amounts in sub-paragraphs (A) and (B) below are to be included in the leverage ratio exposure measure:

(A) Gross SFT assets<sup>138</sup> recognised for accounting purposes (i.e. with no recognition of accounting netting),<sup>139</sup> adjusted as follows:

- (i) excluding from the exposure measure the value of any securities received under an SFT, where the bank has recognised the securities as an asset on its balance sheet,<sup>140</sup> and
- (ii) cash payables and cash receivables in SFTs with the same counterparty may be measured net if all the following criteria are met:

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<sup>133</sup> Two reference names are considered identical only if they refer to the same legal entity. For single-name credit derivatives, protection purchased that references a subordinated position may offset protection sold on a more senior position of the same reference entity as long as a credit event on the senior reference asset would result in a credit event on the subordinated reference asset.

<sup>134</sup> The effective notional amount of a written credit derivative may be reduced by any negative change in fair value reflected in the bank's Tier 1 capital provided the effective notional amount of the offsetting purchased credit protection is also reduced by any resulting positive change in fair value reflected in Tier 1 capital.

<sup>135</sup> For tranching products if applicable, the purchased protection must be on a reference obligation with the same level of seniority.

<sup>136</sup> The PFE add-on may be set to zero in order to avoid the double-counting described in this paragraph.

<sup>137</sup> SFTs are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing, and margin lending transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements.

<sup>138</sup> For SFT assets subject to novation and cleared through QCCPs, "gross SFT assets recognised for accounting purposes" are replaced by the final contractual exposure, given that pre-existing contracts have been replaced by new legal obligations through the novation process.

<sup>139</sup> Gross SFT assets recognised for accounting purposes must not recognise any *accounting* netting of cash payables against cash receivables (e.g. as currently permitted under the IFRS and US GAAP accounting frameworks). This regulatory treatment has the benefit of avoiding inconsistencies from netting which may arise across different accounting regimes.

<sup>140</sup> This may apply, for example, under US GAAP where securities received under an SFT may be recognised as assets if the recipient has the right to rehypothecate but has not done so.

- (a) Transactions have the same explicit final settlement date;
- (b) The right to set off the amount owed to the counterparty with the amount owed by the counterparty is legally enforceable both currently in the normal course of business and in the event of: (i) default; (ii) insolvency; and (iii) bankruptcy; and
- (c) The counterparties intend to settle net, settle simultaneously, or the transactions are subject to a settlement mechanism that results in the functional equivalent of net settlement, that is, the cash flows of the transactions are equivalent, in effect, to a single net amount on the settlement date. To achieve such equivalence, both transactions are settled through the same settlement system and the settlement arrangements are supported by cash and/or intraday credit facilities intended to ensure that settlement of both transactions will occur by the end of the business day and the linkages to collateral flows do not result in the unwinding of net cash settlement<sup>141, 142</sup>.

(B) A measure of CCR calculated as the current exposure without an add-on for PFE, calculated as follows:

- (i) Where a qualifying MNA<sup>143</sup> is in place, the current exposure ( $E^*$ ) is the greater of zero and the total fair value of securities and cash lent to a counterparty for all transactions included in the qualifying MNA ( $\sum E_i$ ), less the total fair value of cash and securities received from the counterparty for those transactions ( $\sum C_i$ ). This is illustrated in the following formula:

$$E^* = \max \{0, [\sum E_i - \sum C_i]\}$$

- (ii) Where no qualifying MNA is in place, the current exposure for transactions with a counterparty must be calculated on a transaction by transaction basis: that is, each transaction is treated as its own netting set, as shown in the following formula:

$$E_i^* = \max \{0, [E_i - C_i]\}$$

**16.4.4.3 Sale accounting transactions:** leverage may remain with the lender of the security in an SFT whether or not sale accounting is achieved under the operative accounting framework. As such, where sale accounting is achieved for an SFT under the bank's operative accounting framework, the bank must reverse all sales-related accounting entries, and then calculate its exposure as if the SFT had been treated as a financing transaction under the operative accounting framework (i.e. the bank must include the sum of amounts in sub-paragraphs (A) and (B) of paragraph 16.4.4.2 for such an SFT) for the purposes of determining its exposure measure.

<sup>141</sup> This latter condition ensures that any issues arising from the securities leg of the SFTs do not interfere with the completion of the net settlement of the cash receivables and payables.

<sup>142</sup> To achieve functional equivalence, all transactions must be settled through the same settlement mechanism. The failure of any single securities transaction in the settlement mechanism should delay settlement of only the matching cash leg or create an obligation to the settlement mechanism, supported by an associated credit facility. Further, if there is a failure of the securities leg of a transaction in such a mechanism at the end of the window for settlement in the settlement mechanism, then this transaction and its matching cash leg must be split out from the netting set and treated gross for the purposes of the Basel III leverage ratio exposure measure. Specifically, the criteria in this paragraph are not intended to preclude a Delivery-versus-Payment (DVP) settlement mechanism or other type of settlement mechanism, provided that the settlement mechanism meets the functional requirements set out in this paragraph. For example, a settlement mechanism may meet these functional requirements if any failed transaction (that is, the securities that failed to transfer and the related cash receivable or payable) can be re-entered in the settlement mechanism until they are settled.

<sup>143</sup> A "qualifying" MNA is one that meets the requirements under paragraph 5.15.3.9 (exposures to CCCPs) and Annex 20 part A.

16.4.4.4 **Bank acting as agent:** a bank acting as agent in an SFT generally provides an indemnity or guarantee to only one of the two parties involved, and only for the difference between the value of the security or cash its customer has lent and the value of collateral the borrower has provided. In this situation, the bank is exposed to the counterparty of its customer for the difference in values rather than to the full exposure to the underlying security or cash of the transaction (as is the case where the bank is one of the principals in the transaction). Where the bank does not own/control the underlying cash or security resource, that resource cannot be leveraged by the bank.

16.4.4.5 Where a bank acting as agent in an SFT provides an indemnity or guarantee to a customer or counterparty for any difference between the value of the security or cash the customer has lent and the value of collateral the borrower has provided, then the bank will be required to calculate its exposure measure by applying only subparagraph (B) of paragraph 16.4.4.2<sup>144</sup>.

16.4.4.6 A bank acting as agent in an SFT and providing an indemnity or guarantee to a customer or counterparty will be considered eligible for the exceptional treatment set out in paragraph 16.4.4.5 only if the bank's exposure to the transaction is limited to the guaranteed difference between the value of the security or cash its customer has lent and the value of the collateral the borrower has provided. In situations where the bank is further economically exposed (i.e. beyond the guarantee for the difference) to the underlying security or cash in the transaction<sup>145</sup>, a further exposure equal to the full amount of the security or cash must be included in the exposure measure.

16.4.4.7 An illustrative example of exposure measure for SFT transactions are furnished in **Annex 14**.

#### **16.4.5 Off-balance sheet items**

16.4.5.1 This paragraph explains the treatment of off-balance sheet (OBS) items into the leverage ratio exposure measure. OBS items include commitments (including liquidity facilities), whether or not unconditionally cancellable, direct credit substitutes, acceptances, standby letters of credit, trade letters of credit, etc.

16.4.5.2 In the risk-based capital framework, OBS items are converted under the standardised approach into credit exposure equivalents through the use of credit conversion factors (CCFs)<sup>146</sup>. For the purpose of determining the exposure amount of OBS items for the leverage ratio, the CCFs set out in the following paragraphs must be applied to the notional amount<sup>147</sup>.

- (i) Commitments other than securitisation liquidity facilities with an original maturity up to one year and commitments with an original maturity over one year will receive a CCF of 20% and 50%, respectively. However, any 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

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<sup>144</sup> Where, in addition to the conditions in paragraphs 16.4.4.4 to 16.4.4.6, a bank acting as an agent in an SFT does not provide an indemnity or guarantee to any of the involved parties, the bank is not exposed to the SFT and therefore need not recognise those SFTs in its exposure measure.

<sup>145</sup> For example, due to the bank managing collateral received in the bank's name or on its own account rather than on the customer's or borrower's account (e.g. by on-lending or managing unsegregated collateral, cash or securities).

<sup>146</sup> Please refer to paragraph 5.15.1.

<sup>147</sup> These correspond to the CCFs of the standardised approach for credit risk under paragraph 5.15.2 (including Table 8), subject to a floor of 10%. The floor of 10% will affect 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 creditworthiness. These may receive a 0% CCF under the risk-based capital framework. For any OBS item not specifically mentioned under paragraph 16.4.5.2, the applicable CCF for that item will be as indicated in the paragraph 5.15.2 above.

creditworthiness, will receive a 10% CCF.

(ii) Direct credit substitutes, e.g. general guarantees of indebtedness (including standby letters of credit serving as financial guarantees for loans and securities) and acceptances (including endorsements with the character of acceptances) will receive a CCF of 100%.

(iii) Forward asset purchases, forward deposits and partly paid shares and securities, which represent commitments with certain drawdown, will receive a CCF of 100%.

(iv) Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions) will receive a CCF of 50%.

(v) Note issuance facilities (NIFs) and revolving underwriting facilities (RUFs) will receive a CCF of 50%.

(vi) For short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralised by the underlying shipment), a 20% CCF will be applied to both issuing and confirming banks.

(vii) Where there is an undertaking to provide a commitment on an OBS item, banks should apply the lower of the two applicable CCFs.

(viii) All off-balance sheet securitisation exposures will receive a CCF of 100% conversion factor. All eligible liquidity facilities will receive a CCF of 50%.

## **16.5 Transitional arrangements**

16.5.1 The Basel Committee is monitoring banks' leverage data on a semi-annual basis in order to assess the design and calibration of the leverage ratio over a full credit cycle and for different types of business models. The Committee will also closely monitor accounting standards and practices to address any differences in national accounting frameworks that are material to the definition and calculation of the leverage ratio. The public disclosure requirements of leverage ratio have begun from January 1, 2015 and the Basel Committee will monitor the impact of these disclosure requirements.

16.5.2 Accordingly, banks operating in India are required to make disclosure of the leverage ratio and its components from April 1, 2015 on a quarterly basis and according to the disclosure templates as indicated in paragraph 16.7 along with Pillar 3 disclosures. Banks should also report their leverage ratio to the RBI (Department of Banking Regulation and Department of Banking Supervision) along with detailed calculations of capital and exposure measures on a quarterly basis, until further advice.

## **16.6 Disclosure requirements**

16.6.1 Banks are required to publicly disclose their Basel III leverage ratio on a consolidated basis from April 1, 2015.

16.6.2 To enable market participants to reconcile leverage ratio disclosures with banks' published financial statements from period to period, and to compare the capital adequacy of banks, it is important that banks adopt a consistent and common disclosure of the main components of the leverage ratio, while also reconciling these disclosures with their published financial statements.

16.6.3 To facilitate consistency and ease of use of disclosures relating to the composition of the leverage ratio, and to mitigate the risk of inconsistent formats undermining the objective of enhanced disclosure, banks should publish their leverage ratio according to a common set of templates.

16.6.4 The public disclosure requirements include:

- a **summary comparison table** that provides a comparison of banks' total accounting assets amounts and leverage ratio exposures;
- a **common disclosure template** that provides a breakdown of the main leverage ratio regulatory elements;
- a **reconciliation requirement** that details the source(s) of material differences between banks' total balance sheet assets in their financial statements and on-balance sheet exposures in the common disclosure template; and
- **other disclosures** as set out below.

#### 16.6.5 Implementation date, frequency and location of disclosure

16.6.5.1 Banks operating in India are required to make disclosure of the leverage ratio and its components from the date of publication of their first set of financial statements / results on or after April 1, 2015. Accordingly, the first such disclosure should be made for the quarter ending June 30, 2015.

16.6.5.2 With the exception of the mandatory quarterly frequency requirement in paragraph 16.6.5.3 below, detailed disclosures required according to paragraphs 16.7 must be made by banks, irrespective of whether financial statements are audited, at least on a half yearly basis (i.e. as on September 30 and March 31 of a financial year), along with other Pillar 3 disclosures as required in terms of paragraph 14.9.

16.6.5.3 As the leverage ratio is an important supplementary measure to the risk-based capital requirements, the same Pillar 3 disclosure requirement also applies to the leverage ratio. Therefore, banks, at a minimum, must disclose the following three items on a quarterly basis, irrespective of whether financial statements are audited:

- (i) Tier 1 capital (as per paragraph 16.3);
- (ii) Exposure measure (as per paragraph 16.4); and
- (iii) Leverage ratio (as per paragraph 16.2).

At a minimum, these disclosures should be made on a quarter-end basis (i.e. as on June 30, September 30, December 31 and March 31 of a financial year), along with the figures of the prior three quarter-ends.

16.6.5.4 The location of leverage ratio disclosures should be as stipulated for Pillar 3 disclosures in terms of paragraphs 14.9.3 and 14.10. However, specific to leverage ratio disclosures, banks have to make available on their websites, an ongoing archive of all reconciliation templates, disclosure templates and explanatory tables relating to prior reporting periods, instead of an archive for at least three years as required in case of Pillar 3 disclosures.

### 16.7 Disclosure templates

16.7.1 The summary comparison table (Table: DF-17), common disclosure template (Table: DF-18) and explanatory table, qualitative reconciliation and other requirements are set out in the Annex 18: Pillar 3 disclosure requirements. Together, these ensure transparency between the values used for the calculation of the Basel III leverage ratio and the values used in banks' published financial statements.

#### **Part F: Countercyclical Capital Buffer Framework**

### **17. Countercyclical Capital Buffer**

#### **17.1 Objective**

The aim of the Countercyclical Capital Buffer (CCCB) regime is twofold. Firstly, it requires banks to build up a buffer of capital in good times which may be used to maintain flow of credit to the real sector in difficult times. Secondly, it achieves the broader macro-prudential goal of restricting the banking sector from indiscriminate lending in the periods of excess credit growth that have often been associated with the building up of system-wide risk.

## 17.2 The Framework

17.2.1 The CCCB may be maintained in the form of Common Equity Tier 1 (CET 1) capital only, and the amount of the CCCB may vary from 0 to 2.5% of total risk weighted assets (RWA) of the banks. If, as per the Reserve Bank of India directives, banks are required to hold CCCB at a given point in time, the same may be disclosed at table DF-11 of Annex 18 as indicated in Basel III Master Circular.

17.2.2 The CCCB decision would normally be pre-announced with a lead time of 4 quarters. However, depending on the CCCB indicators, the banks may be advised to build up requisite buffer in a shorter span of time.

17.2.3 The credit-to-GDP gap<sup>148</sup> shall be the main indicator in the CCCB framework in India. However, it shall not be the only reference point and shall be used in conjunction with GNPA growth. The Reserve Bank of India shall also look at other supplementary indicators for CCCB decision such as incremental C-D ratio for a moving period of three years (along with its correlation with credit-to-GDP gap and GNPA growth), Industry Outlook (IO) assessment index (along with its correlation with GNPA growth) and interest coverage ratio (along with its correlation with credit-to-GDP gap). While taking the final decision on CCCB, the Reserve Bank of India may use its discretion to use all or some of the indicators along with the credit-to-GDP gap.

17.2.4 The CCCB framework shall have two thresholds, viz., lower threshold and upper threshold, with respect to credit-to-GDP gap.

- a. The lower threshold (L) of the credit-to-GDP gap where the CCCB is activated shall be set at 3 percentage points, provided its relationship with GNPA remains significant. The buffer activation decision will also depend upon other supplementary indicators as detailed in paragraph 4.
- b. The upper threshold (H) where the CCCB reaches its maximum shall be kept at 15 percentage points of the credit-to-GDP gap. Once the upper threshold of the credit-to-GDP gap is reached, the CCCB shall remain at its maximum value of 2.5 per cent of RWA, till the time a withdrawal is signalled by the Reserve Bank of India.
- c. In between 3 and 15 percentage points of credit-to-GDP gap, the CCCB shall increase gradually from 0 to 2.5 per cent of the RWA of the bank but the rate of increase would be different based on the level/position<sup>149</sup> of credit-to-GDP gap between 3 and 15 percentage points. If the credit-to-GDP gap is below 3 percentage points then there will not be any CCCB requirement.

17.2.5 The same set of indicators that are used for activating CCCB (as mentioned in paragraph 4) may be used to arrive at the decision for the release phase of the CCCB. However, discretion shall be with the Reserve Bank of India for operating the release phase of CCCB. Further, the entire CCCB accumulated may be released at a single point in time but the use of the same by banks will not be unfettered and will need to be decided only after discussion with the Reserve Bank of India.

17.2.6 For all banks operating in India, CCCB shall be maintained on a solo basis as well as on consolidated basis.

17.2.7 All banks operating in India (both foreign and domestic banks) should maintain capital

<sup>148</sup> Credit-to-GDP gap is the difference between credit-to-GDP ratio and the long term trend value of credit-to-GDP ratio at any point in time.

<sup>149</sup> The CCCB requirement shall increase linearly from 0 to 20 basis points when credit-to-GDP gap moves from 3 to 7 percentage points. Similarly, for above 7 and up to 11 percentage points range of credit-to-GDP gap, CCCB requirement shall increase linearly from above 20 to 90 basis points. Finally, for above 11 and up to 15 percentage points range of credit-to-GDP gap, the CCCB requirement shall increase linearly from above 90 to 250 basis points. However, if the credit-to-GDP gap exceeds 15 percentage points, the buffer shall remain at 2.5 per cent of the RWA.

for Indian operations under CCCB framework based on their exposures in India.

17.2.8 Banks incorporated in India having international presence have to maintain adequate capital under CCCB as prescribed by the host supervisors in respective jurisdictions. The banks, based on the geographic location of their private sector credit exposures (including non-bank financial sector exposures), shall calculate their bank specific CCCB requirement as a weighted<sup>150</sup> average of the requirements that are being applied in respective jurisdictions. The Reserve Bank of India may also ask Indian banks to keep excess capital under CCCB framework for exposures in any of the host countries they are operating if it feels the CCCB requirement in host country is not adequate.

17.2.9 Banks will be subject to restrictions on discretionary distributions (may include dividend payments, share buybacks and staff bonus payments) if they do not meet the requirement on countercyclical capital buffer which is an extension of the requirement for capital conservation buffer (CCB). Assuming a concurrent requirement of CCB of 2.5% and CCCB of 2.5% of total RWAs, the required conservation ratio (restriction on discretionary distribution) of a bank, at various levels of CET1 capital held is illustrated in Table-26.

<b>Table 26: Individual bank minimum capital conservation ratios, assuming a requirement of 2.5% each of capital conservation buffer and CCCB</b>	
Common Equity Tier 1 Ratio bands	Minimum Capital Conservation Ratios (expressed as % of earnings)
>5.5% - 6.75%	100%
>6.75% - 8.0%	80%
>8.0% - 9.25%	60%
>9.25% - 10.50%	40%
>10.50%	0%

The CET 1 ratio bands are structured in increments of 25% of the required CCB and CCCB prescribed by the Reserve Bank of India at that point in time<sup>151</sup>. A separate illustrative table is given below with an assumption of CCCB requirement at 1%.

<b>Table 27: Individual bank minimum capital conservation standards, when a bank is subject to a 2.5% CCB and 1% CCCB</b>		*(
Common Equity Tier 1 Ratio bands	Minimum Capital Conservation Ratios (expressed as % of earnings)	3
> 5.5% - 6.375%*	100%	5
> 6.375% - 7.25%	80%	0
> 7.25% - 8.125%	60%	5.
> 8.125% - 9.00%	40%	0.
> 9.00%	0%	2
		+
		2
		0.
		2
		0)

As the total requirement of CCB and CCCB is 2.5% and 1% respectively, at each band, 0.625% and 0.250% of RWA are being added for CCB and CCCB respectively.

17.2.10 Banks must ensure that their CCCB requirements are calculated and publicly disclosed with at least the same frequency as their minimum capital requirements as applicable in various jurisdictions. The buffer should be based on the latest relevant jurisdictional CCCB requirements that are applicable on the date that they calculate their minimum capital requirement. In addition, when disclosing their buffer requirement, banks must also disclose the geographic breakdown of their private sector credit exposures used in the calculation of the buffer requirement.

<sup>150</sup> Weight = (bank's total credit risk charge that relates to private sector credit exposures in that jurisdiction/ bank's total credit risk charge that relates to private sector credit exposures across all jurisdictions), where credit includes all private sector credit exposures that attract a credit risk capital charge or the risk weighted equivalent trading book capital charges for specific risk, IRC and securitisation.

**17.3** The CCCB decisions may form a part of the first bi-monthly monetary policy statement of the Reserve Bank of India for the year. However, more frequent communications in this regard may be made by the Reserve Bank of India, if warranted by changes in economic conditions. **17.4** The indicators and thresholds for CCCB decisions mentioned above shall be subject to continuous review and empirical testing for their usefulness and other indicators may also be used by the Reserve Bank of India to support CCCB decisions.