PRUDENTIAL GUIDELINES ON

CAPITAL ADEQUACY AND MARKET DISCIPLINE FOR FINANCIAL INSTITUTIONS

DEPARTMENT OF FINANCIAL INSTITUTIONS AND MARKETS

DECEMBER 2011

Preface

Basel Accords are the international standards for creating regulations about how much capital is needed to put aside to guard against the types of financial and operational risks that Financial Institutions (FIs) face. Such standard can help protect the financial system from the types of problems that might arise should a major FI or a series of FIs collapse. In theory, Basel Accord attempted to accomplish this by setting up risk and capital management requirements designed to ensure that an FI holds capital reserves appropriate to the risk the FI exposes itself to through its lending and investment practices. These rules mean that the greater risk to which the FI is exposed, the greater the amount of capital the FI needs to hold to safeguard its solvency and financial stability.

With a view to ensuring proper implementation of Basel Accord in the financial sector of the country, Bangladesh Bank has adopted a consultative approach. Beside the Banking companies, Basel Accords are being used as equally important to the FIs, crafting some relative adjustments in the guidelines. A high-level Steering Committee headed by a Deputy Governor of BB was formed, comprising Chief Executive Officers of the FIs, for working on the policy decisions. A Working Group headed by an Executive Director of Bangladesh Bank assists the Steering Committee in decision-making. Basel Implementation Cell under the Department of Financial Institutions and Markets has been continuously assisting and carrying out the functions of Basel implementation.

To cope up with the international best practices and to make the capital more risks sensitive as well as more shock resilient, a Road Map was issued in August 2010 on Implementation of Basel Accord in the FIs. Being well pursuant with the Road Map guidelines namely 'Prudential Guidelines on Capital Adequacy and Market Discipline (CAMD) for Financial Institutions' had been introduced from January 01, 2011 on test basis. During the test process, several Quantitative Impact Studies were conducted, which validated the well of position of the FIs for implementing Basel Accord. As per the Road Map and as per the preparedness of the FIs, Basel Accord regime will be started and the guidelines on CAMD will come fully into force from January 01, 2012. Instructions regarding Minimum Capital Requirement, Adequate Capital, and Disclosure requirement as stated in these guidelines have to be followed by all FIs as statutory compliance. FIs are advised follow the instructions contained in these guidelines. The guidelines are articulated with the following areas, viz;

A) Overview, B) Introduction, Constituents of Capital and Organizational Structure of BIU, C) Credit Risk, D) Market Risk, E) Operational Risk, F) Supervisory Review Process, G) Market Discipline, H) Reporting Formats, and I) Annexure.

These guidelines will be able to make the regulatory requirements more appropriate and will also assist the FIs to follow the instructions more efficiently for smooth implementation of the Basel Accords in the Financial Institutions of Bangladesh.

Sd/-
Executive Director
Bangladesh Bank

Members of the Steering Committee

Serial No.	Name	Position	Organization
1.	Mr. Md. Nazrul Huda	Chairman	Bangladesh Bank
2.	Mr. A. H. M. Kai Khasru	Member	Bangladesh Bank
3.	Mr. Md. Sohrawardy	Member	Bangladesh Bank
4.	Mr. Md. Anwarul Islam	Member-secretary	Bangladesh Bank
5.	Mr. Asad Khan	Member	Prime Finance & Investment Limited
6.	Mr. Mafizuddin Sarker	Member	Bangladesh Finance and Investment Company Limited
7.	Mr. Selim R F Hussain	Member	IDLC Finance Limited
8.	Mr. Syed Ehsan Quadir	Member	United Leasing Company Limited
9.	Mr. Md. Abdur Rob	Member	National Housing Finance and Investment Limited

Members of the Working Group

Serial No.	Name	Position	Organization
1.	Mr. A. H. M. Kai Khasru	Chairman	Bangladesh Bank
2.	Mr. Md. Sohrawardy	Member	Bangladesh Bank
3.	Mr. Md. Anwarul Islam	Member	Bangladesh Bank
4.	Mr. Md. Nurul Alam	Member	Bangladesh Bank
5.	Mr. Mohammad Abul Hashem	Member	Bangladesh Bank
6.	Mr. Md. Iqbal Hossain	Member	Bangladesh Bank
7.	Mr. Mohammad Ashfaqur Rahman	Member	Bangladesh Bank
8.	Mr. S. Tawhid	Member	Uttara Finance and Investment Limited
9.	Mr. H. M. Ziaul Haque Khan	Member	IDLC Finance Limited
10.	Mr. Nehal Ahmed	Member	International Leasing and Financial Services Limited
11.	Mr. Mohammad Hafizour Rahman	Member	Fareast Finance and Investment Limited
12.	Mr. Mushfiqul Quayoom	Member	Union Capital Limited
13.	Mr. Quamrul Islam	Member	Lanka-Bangla FinanceLimited
14.	Mr. Mohammad Abul Ahsan	Member	United Leasing Company Limited

Members of the Basel Implementation Cell

Serial No.	Name	Designation	Organization
1.	Mr. Md. Anwarul Islam	Deputy General Manager	Bangladesh Bank
2.	Mr. Mohammad Abul Hashem	Deputy Director	Bangladesh Bank
3.	Mr. Md. Iqbal Hossain	Assistant Director	Bangladesh Bank
4.	Mr. Mohammad Ashfaqur Rahman	Assistant Director	Bangladesh Bank

Table of Contents

List of Tables

List of Acronyms

ACRSL	ARGUS Credit Rating Services Ltd.
BB	Bangladesh Bank
BCBS	Basel Committee on Banking Supervision
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
CAMD	Prudential Guidelines on **C**apital **A**dequacy and **M**arket **D**iscipline for Financial Institutions
CAR	Capital Adequacy Ratio
CCF	Credit Conversion Factor
CRAB	Credit Rating Agency of Bangladesh Ltd.
CRISL	Credit Rating Information and Services Ltd.
DFIM	Department of Financial Institutions and Markets
CRM	Credit Risk Mitigation
ECAI	External Credit Assessment Institution
ECRL	Emerging Credit Rating Ltd.
FI	Financial Institution
FRA	Forward Rate Agreement
GoB	Government of Bangladesh
ICAAP	Internal Capital Adequacy Assessment Process
IRRBB	Interest Rate Risk in the Banking Book
MCR	Minimum Capital Requirement
MDB	Multilateral Development Bank
NCRL	National Credit Rating Ltd.
NPAs	Non Performing Assets
OBS	Off-Balance Sheet
PSE	Public Sector Entity
RWA	Risk Weighted Asset
SEC	Securities and Exchange Commission
SRP	Supervisory Review Process
TSA	The Standardized Approach

Chapter 1. Overview

Business of Financial Institutions (FIs) has become more complex and risks inherent with their activities require to be addressed properly for smooth functioning of the industry. With a view to identifying and managing these risks, a robust risk management as a strong capital base is vital. Bangladesh Bank (BB) has decided to implement Basel Accord for the FIs so to address risks in a more prudent way. The Basel II Accord is based on three mutually reinforcing pillars. The First pillar is about Minimum Capital Requirement (MCR), second is about Supervisory Review Process (SRP) and the last is about Market Discipline. This accord outlines the level of capital required by an FI against various types of risks including credit, market and operational risk based on the risk profile of the organization.

Capital requirements for a specific FI may increase or decrease depending upon its risk profile. An FI's MCR will be calculated by dividing the total capital by the sum of risk-weighted assets against credit risk, market risk and operational risk under Pillar I, Adequate Capital Requirement will be determined under Pillar II and transparency of the activities of financial institutions towards stakeholders will be ensured through Pillar III.

Pillar - 1 Minimum Capital Requirement:

Credit Risk

The calculation of capital requirement against credit risk is more elaborate and risk sensitive. The Accord gives a choice of some sophisticated approaches to address risks, and adoption of a particular approach depends on the risk measurement capabilities and robustness of the systems in place in an FI. A Standardized Approach will be the preliminary choice of FIs for the credit risk calculation.

Market Risk

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

• The risks pertaining to interest rate related instruments and equities in the trading book;

• Foreign exchange risk and commodities risk throughout the FI.

The capital charges for interest rate related instruments and equities will apply to the current trading book items prudently valued by FIs. The capital charges for foreign exchange risk and for commodities risk will apply to FIs' total currency and commodity positions, subject to some discretion to exclude structural foreign exchange positions.

Operational Risk

The accord introduces for the first time a capital charge for operational risk. The framework presents three methods for calculating operational risk capital charges in a continuum of increasing complexity and risk sensitivity. These methods are the Basic Indicator approach (a fixed percentage of gross income amount), Standardized approach (sum of a certain percentage of FI's income in each business line) and Internal Measurement approach

(Statistical measure of FIs operational loss based on its historical loss data).But initially, Basic Indicator Approach will be applicable for calculating the capital charge against operational risk.

Pillar - 2 Supervisory Review Process:

This pillar is based on the principle that capital adequacy is not just a compliance matter and it is equally important that the FI should have a robust risk management framework. The pillar 2 has two key elements:

a. An FI specific internal assessment and management of capital adequacy.
b. Supervisory review of this internal capital assessment and the robustness of risk management processes, systems and controls.

Four key principles of supervisory review have been identified through which supervisors can ensure that each FI has sound internal processes in place to assess the adequacy of its capital and set targets for capital that are commensurate with the FI's specific risk profile and control environment:

Pillar - 3 Market Discipline:

Bolstering market discipline through enhanced disclosure is a fundamental part of the accord. Effective disclosure is essential to ensure that market participants can better understand FIs' risk profiles and the adequacy of their capital. The accord provides detailed guidance on the disclosure required for each of the methodology given in pillar I.

Chapter 2. Introduction, Constituents of Capital and Organizational Structure

2.1 Introduction

These guidelines are issued by Bangladesh Bank (BB) under section 6 of Financial Institutions Act 1993[1] , Section 4(Gha) of Financial Institutions Regulations 1994[2] . BB has introduced these guidelines considering present complexity and diversity in the business of Financial Institution (FI) and to make the FIs' capital more risk sensitive and shock absorbent.

These guidelines have been prepared in accordance with "International Convergence of Capital Measurement and Capital Standards: A Revised Framework" of June, 2006 (popularly known as 'Basel II Capital Adequacy Framework') released by Basel Committee on Banking Supervision (BCBS). These guidelines will be called as 'Prudential Guidelines on Capital Adequacy and Market Discipline (CAMD) for Financial Institutions'.

These guidelines are structured on following three aspects:

a) Minimum capital requirements to be maintained by an FI against credit, market, and operational risks.

b) Process for assessing the overall capital adequacy aligned with risk profile of an FI as well as capital growth plan.

c) Framework of public disclosure on the position of FI's risk profiles, capital adequacy, and risk management system.

2.2 Scope of application

These guidelines apply to all FIs on 'Solo' basis as well as on 'Consolidated' basis where-

-'Solo Basis' refers to all position of the FI and its local and overseas branches/offices; and

-'Consolidated Basis' refers to all position of the FI (including its local and overseas branches/offices) and its subsidiary company(ies).

আর্থিক প্রতিষ্ঠান আইন, ১৯৯৩[1] with subsequent revisions
আর্থিক প্রতিষ্ঠান প্রবিধানমালা, ১৯৯৪[2] with subsequent revisions

2.3 Capital base

Regulatory capital of an FI will be categorized into two tiers: Tier 1 and Tier 2 Capital.

2.3.1. Tier 1 capital

Tier 1 capital called 'Core Capital' comprises of highest quality of capital elements that consists of :

a) Paid up capital
b) Non-repayable share premium account
c) Statutory reserve
d) General reserve
e) Retained earnings
f) Minority interest in subsidiaries
g) Non-cumulative irredeemable preference shares
h) Dividend equalization account

2.3.2. Tier 2 capital

Tier 2 capital called 'Supplementary Capital' represents other elements which fall short of some of the characteristics of the core capital but contribute to the overall strength of an FI and consists of:

a) General provision[3] up to a limit of 1.25%" of Risk Weighted Asset (RWA) for Credit Risk

b) Revaluation reserves

- Revaluation reserve for fixed assets
- Revaluation reserve for securities

c) All other preference shares

2.4 Conditions for maintaining regulatory capital

The calculation of Tier 1 capital, and Tier 2 capital, shall be subject to the following conditions:

a) The amount of Tier 2 capital will be limited to 100% of the amount of Tier 1 capital.

b) 50% of revaluation reserves for fixed assets and 45% of revaluation reserves for securities eligible for Tier 2 capital.

[3] Maintained against Unclassified Loans/Advances, Special Mention Account & Off-balance sheet exposures

2.5 Eligible regulatory capital

In order to obtain the eligible regulatory capital for the purpose of calculating Capital Adequacy Ratio (CAR), FIs are required to make following deductions:

a) From their Tier-1 capital:

   (i) Intangible asset e.g., book value of goodwill and value of any contingent assets, etc. which are shown as assets

   (ii) Shortfall in provisions required against classified assets

   (iii) Shortfall in provisions required against investment in shares

   (iv) Remaining deficit on account of revaluation of investments in securities after netting off from any other surplus on the securities

   (v) Increase in equity capital resulting from a securitization exposure

b) Investment in an individual commercial entity exceeding 15% of the FI's capital. Any amount of investment exceeding the approved limit under related section of Financial Institutions Act, 1993. The additional/unauthorized amount of investment will be deducted at 50% from Tier 1 capital and 50% from Tier 2 capital.

c) Majority-owned or –controlled entities should generally be fully consolidated. If any majority-owned subsidiaries are not consolidated for capital purposes, all equity and other regulatory capital investments in those entities will be deducted, and the assets and liabilities, as well as third-party capital investments in the subsidiary will be removed from the FI's balance sheet. The deduction for such investments will be 50% from Tier 1 capital and 50% from Tier 2 capital. The assets representing the investments in subsidiary companies whose capital had been deducted from that of the parent would not be included in total assets for the purposes of computing the CAR

d) When an FI is required (when the rating of the exposure is equivalent to BB rating grade 5 and 6 or the exposure remains unrated) to deduct a securitization exposure from regulatory capital, the deduction must be taken 50% from Tier 1 and 50% from Tier 2 with the exception noted in *a(v)*. Deductions from capital may be calculated net of any specific provisions taken against the relevant securitization exposures.

Eligible Tier 2 capital will be derived after deducting components (if any) qualified for deduction.

Total eligible regulatory capital will be calculated by summing up the eligible Tier 1 and Tier 2 Capital.

2.6 Calculation of Capital Adequacy Ratio (CAR)

In order to calculate CAR, FIs are required to calculate their Risk Weighted Assets (RWA) on the basis of credit, market, and operational risks. Total RWA will be determined by multiplying the amount of capital charge for market risk and operational risk by the reciprocal of the minimum CAR and adding the resulting figures to the sum of risk weighted assets for credit risk. The CAR is then calculated by taking eligible regulatory capital as numerator and total RWA as denominator. An FI should maintain a CAR of minimum 10%.

2.7 Minimum capital requirements

a) No FI in Bangladesh shall commence and carry on its business unless it has the minimum required capital fixed by BB from time to time as per section 6 of আর্থিক প্রতিষ্ঠান আইন, ১৯৯৩[4] , Section 4(Gha) of আর্থিক প্রতিষ্ঠান প্রবিধানমালা, ১৯৯৪[5]

b) FIs have to maintain minimum CAR on 'Solo' basis as well as on 'Consolidated' basis as per instruction(s) given by BB from time to time.

2.8 Reporting requirement

All FIs are required to submit the CAMD report (according to the prescribed formats) on consolidated as well as on solo basis within the specified timeline to the Department of Financial Institutions and Markets (DFIM) of BB.

2.9 Penalty for non-compliance

a) BB may impose penalty and/or punishment if an FI fails to meet minimum capital or CAR within the stipulated period.

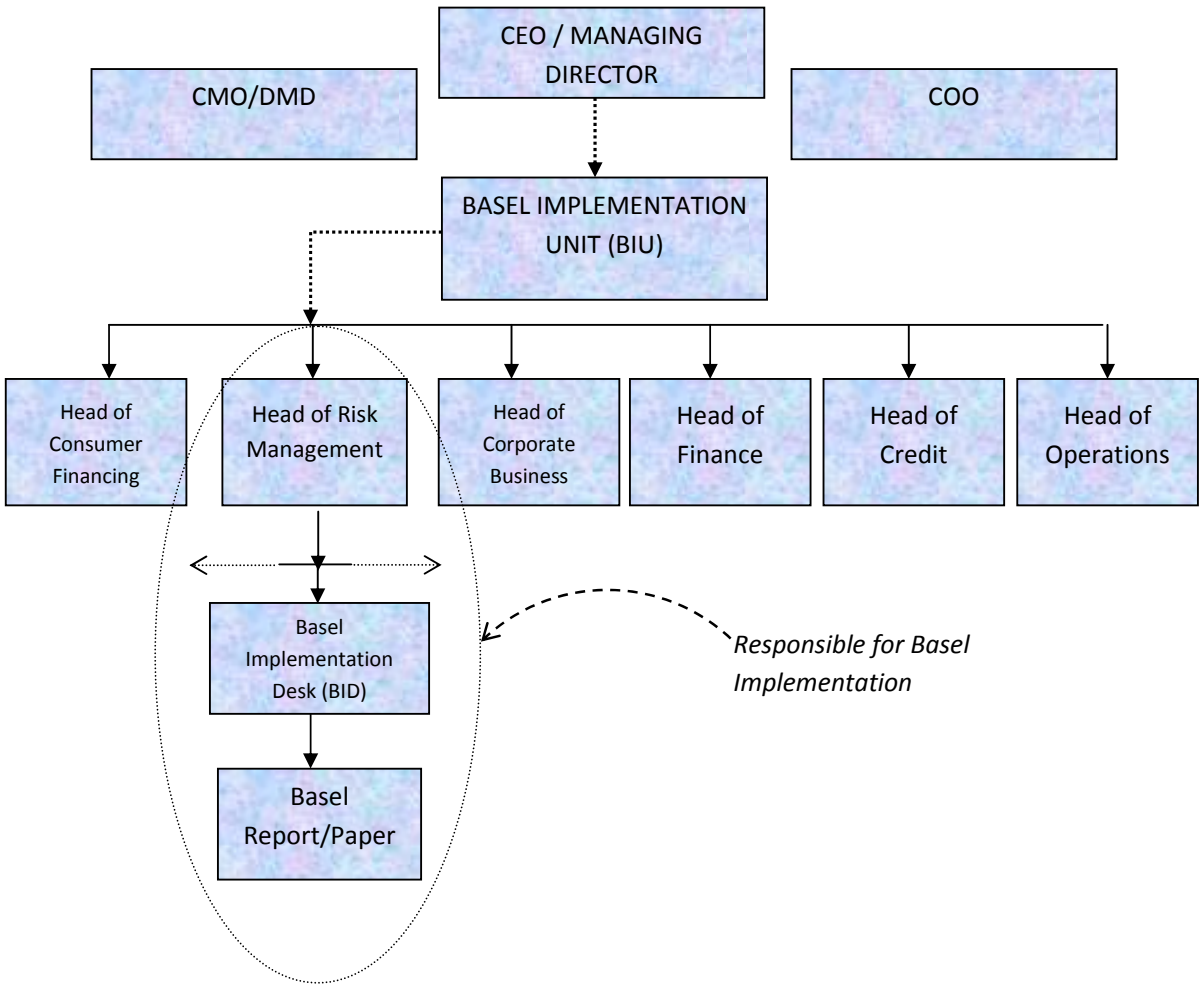
b) BB may impose penalty and/or punishment if an FI willfully furnishes any false information in the reporting.

c) BB may impose penalty if an FI fails to submit the CAMD report within stipulated time without any acceptable/ satisfactory reason.

4Financial Institutions Act 1993 with subsequent revisions
5Financial Institutions Regulations 1994 with subsequent revisions

2.10 Organizational structure of BIU

The Basel Implementation Unit (BIU) is responsible for the implementation of CAMD instructions in the FI. Managing risk based capital adequacy is the most important responsibility of an FI as it runs the risks. Specifically, the Basel Implementation Desk (BID) of the Risk Management Department manages the Basel activities. The results of risk based capital analysis along with recommendation is placed in the BIU meeting by the BID where important decisions are made to maintain Minimum/Regulatory Capital and manage related risk. Organizational structure in **Financial Institution** for Basel Implementation Unit (BIU) is as under:



2.10.1 The Committee

Each FI will form a **Basel Implementation Unit (BIU)** headed by MD/CEO comprising at least 3 (three) members. The committee consists of the following key personnel of an FI:

- Chief Executive Officer / Managing Director
- Head of Risk Management
- Head of Finance

The committee shall call for a meeting once every month to set and review strategies on Basel Implementation.

2.10.2 Key Agenda

BIU attends the following issues while managing Prudential Guidelines on Capital Adequacy and Market Discipline for Financial Institutions (CAMD):

(i) Review of actions taken in previous BIU meeting.

(ii) Economic and Market Status and Outlook.

(iii) Credit, Market and Operational Risk related to the capital adequacy.

(iv) Review of the Basel implementation status.

(v) Actions to be taken.

2.10.3 Roles and Responsibilities of BIU

The role and responsibilities of BIU are as follows:

(i) Apply the action plan of Basel II in their FIs and review there-of.

(ii) Communicate issues related to Basel II implementation to their Management.

(iii) Help carry out QIS (if necessary).

(iv) Capacity Building program and training according to Training Need Assessment (TNA) for the concerned officials

(v) Establish planning and supervisory review as required by pillar-II of Basel II framework.

2.10.4 Basel Paper

Basel Implementation Unit (BIU) produces a Basel paper every month covering various issues as per Guideline. The Basel paper is prepared before the BIU meeting as the committee reviews the Basel paper to set strategies.

Chapter 3. Credit Risk

3.1. Introduction

Credit risk is the probability that a counterparty fails to meet obligation in accordance with agreed term.

3.2. Definitions

3.2.1. **Claims:** Exposures such as deposits, placements, investments, loans, leases and advances underlying with counterparties.

3.2.2. **Claims on sovereign and central bank:** Loans, leases and advances to the Government of Bangladesh (GoB), and investments in GoB securities, BB securities, and Development Bonds including Foreign Currency Bonds. All deposits and reserves including foreign currency (if any) maintained with BB.

3.2.3. **Claims on other sovereigns and central banks:** Loans, leases and advances to and investments in securities of governments and central banks except GoB and BB.

3.2.4. **Claims on the Bank for International Settlements (BIS), the International Monetary Fund (IMF), European Central Bank and the European Community:** Loans, leases and advances to and investments in BIS, IMF, European Central Bank, and the European Community.

3.2.5. **Claims on multilateral development banks (specific):** Loans, leases and advances to and investments in the following:

a) The World Bank Group comprising of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC)

b) The Asian Development Bank (ADB)

c) The African Development Bank (AfDB)

d) The European Bank for Reconstruction and Development (EBRD)

e) The Inter-American Development Bank (IADB)

f) The European Investment Bank (EIB)

g) The European Investment Fund (EIF)

h) The Nordic investment Bank (NIB)

i) The Caribbean Development Bank (CDB)

j) The Islamic Development Bank (IDB)

k) The Council of Europe Development Bank (CEDB)

3.2.6. **Claims on multilateral development banks (Others):** Loans, leases and advances to and investments in Multilateral Developments Banks (MDBs) other than those specified in 3.2.5 above.

3.2.7. Claims on government/ public sector entities (PSE): Loans, leases and advances to and investments (excluding equity exposure) in all public corporations, statutory boards and authorities, local government bodies etc. owned or controlled by GoB or any entity categorized as PSE (See **Annex E**) by BB.

3.2.8. Claims on banks and non-bank financial institutions (NBFIs): Loans, leases and advances, placements, deposits, debentures (which are not treated as capital of the issuing NBFI), dues on various trade bills, repurchase agreement and investments (excluding equity exposure) in all NBFIs.

3.2.9. Claims on corporate: Loans, leases and advances to and investments (excluding equity exposure) in corporate. "Corporate" refers to any proprietorship, partnership or limited company that is neither PSE, Bank, NBFI nor borrower within the definition of retail portfolio and small enterprises (having exposure within the limit stipulated in the section below).

3.2.10. Securitization Exposures: The risk-weighted asset amount of a securitization exposure is computed by multiplying the amount of the position by the appropriate risk weight. The use of CRM techniques (i.e. collateral, guarantees and credit derivatives) for synthetic securitizations, for hedging the underlying exposure may be recognized for risk-based capital purposes only if the conditions outlined below are satisfied:

a) Credit risk mitigants must comply with the requirements as set out in paragraph 3.6.1.1 of this Framework.

b) Eligible collateral is limited to that specified in paragraphs 3.6.1.1. Eligible collateral pledged by SPEs may be recognized.

c) Eligible guarantors are defined in paragraph 3.6.2.2. Banks may not recognize SPEs as eligible guarantors in the securitization framework.

d) FIs must transfer significant credit risk associated with the underlying exposure to third parties.

e) The instruments used to transfer credit risk may not contain terms or conditions that limit the amount of credit risk transferred, such as those provided below:

- Clauses that materially limit the credit protection or credit risk transference (e.g. significant materiality thresholds below which credit protection is deemed not to be triggered even if a credit event occurs or those that allow for the termination of the protection due to deterioration in the credit quality of the underlying exposures);
- Clauses that require the originator to alter the underlying exposures to improve the pool's weighted average credit quality;
- Clauses that increase the FIs' cost of credit protection in response to deterioration in the pool's quality;
- Clauses that increase the yield payable to parties other than the originating FI, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the reference pool; and
- Clauses that provide for increases in a retained first loss position or credit enhancement provided by the originating FI after the transaction's inception.

f) An opinion must be obtained from a qualified legal counsel that confirms the enforceability of the contracts in all relevant jurisdictions.

3.2.11. Claims categorized as retail portfolio and SME: Qualifying criteria for the retail portfolio and SME are as follows:

Orientation criterion: The exposure to an individual person or persons or to SME (The definition of SME will be the same as defined by BB from time to time).

Product criterion: The exposure takes the form of any of the following product types:

a) Revolving credit and lines of credit (including overdrafts)

b) Term loans and leases (e.g. installment loans, vehicle loans for manufacturing/production and leases, student and educational loans, micro business facilities and commitments)

The following claims, both fund based and non fund based, will be excluded from retail portfolios:

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 (section 2.2.12) or claims secured by commercial real estate (section 2.2.13);

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

d) Consumer finance; and

e) Capital market exposures.

Granularity criterion: Exposures under this category must be sufficiently diversified to a degree that reduces the risks. In order to meet this criterion, aggregate exposure without considering Credit Risk Mitigation (CRM), to one counterpart should not exceed 0.2% of the overall exposures under this category excluding past due loans. 'To one counterpart' means one or several entities that may be considered as a single beneficiary (e.g. in the case of SME that is affiliated to another SME, the limit would apply to the banks' aggregate exposure on both businesses).

3.2.12. Exposure limit: The maximum aggregate exposure to a person(s) or entity (ies) will be limited to BDT 1.00 (One) crore.

3.2.13. Consumer finance: Loans, leases and advances to individuals for meeting their personal, family or household needs that includes credit cards, auto/vehicle loans for personal use, personal loans, and any purpose loan etc.

3.2.14. Claims secured by residential property: Lending fully secured by mortgages on residential property that is or will be occupied by the borrower or that is or will be rented. Loans for the purpose of constructing/purchasing/renovating of house/apartment provided to individuals will fall under this category. Loans secured by residential real estate for business purpose will not fall under this category.

3.2.15. Claims secured by commercial real estate: Lending fully secured by mortgages on commercial real estate that will be occupied or rented or sold by the borrower. The mortgages may be used for office and/or multipurpose commercial premises and/or multi-tenanted commercial premises etc. Industrial or warehouse space, hotels, land acquisition for/development/construction of residential real estate by real estate companies, and exposures to entities for setting up special economic zones will also be treated as commercial real estate.

3.2.16. Past due claims: The unsecured portion of any claim or exposure (other than claims secured by residential property) that is past due for 90 days or more, net of specific provisions (including partial write-off) will be risk weighted as per Table 1. For the purpose of defining the net exposure of the past due loan, eligible financial collateral (if any) may be considered for Credit Risk Mitigation.

3.2.17. Capital market exposures: Claims against investor account holder or margin account holder of the subsidiary companies (Merchant banking/Brokerage house) of the FI will fall under this category.

3.2.18. Venture capital: Venture capital is provided as funding to early-stage, high-potential, growth in the interest of generating a return through an eventual realization event such as an IPO or trade sale of the company. Venture capital investments are generally made in cash in exchange for shares in the invested company.

3.2.19. Unlisted equity investments: All unlisted equity investments, except those stated in paragraph 3.2.18, including investment(s) in subsidiary, if unlisted, will fall under this category.

3.2.20. All other assets :

a) Claims on GoB and BB other than those specified in 'section 3.2.2' above;

b) All staff loan secured by residential property/and superannuation benefit;

c) **Cash items in process of collection:** Cheques, drafts and other cash items, such as money orders, postal orders drawn on the FIs and other authorized institutions and paid immediately on presentation. Trade Bills, such as import bills and export bills, in the process of collection should be excluded from this item.

d) Other asset (if any other items which are not specified above).

3.3. Methodology

The capital requirement for credit risk is based on the risk assessment made by External Credit Assessment Institutions (ECAIs) recognized by BB for capital adequacy purposes. FIs are required to assign a risk weight to all their on-balance sheet and off-balance sheet exposures. Risk weights are based on external credit rating (solicited) which mapped with the BB rating grade or a fixed weight that is specified by BB.

3.3.1. External credit rating

Bangladesh Bank has recognized five credit rating agencies i. e. Credit Rating Agency of Bangladesh (CRAB) Ltd., Credit Rating Information and Services Limited (CRISL), National Credit Rating Ltd (NCRL), Emerging Credit Rating Ltd (ECRL), ARGUS Credit Rating Services Limited (ACRSL) which meet the eligibility criteria of ECAIs guidelines of BB. BB has also decided that FIs may use the ratings (if available) of the following international credit rating agencies for the purposes of risk weighting their exposure abroad:

a) Fitch,

b) Moody, and

c) Standard & Poor.

Rating categories of ECAIs are mapped with the rating grades of BB as per **Annex: F** which will be subject to any subsequent amendment(s) made by Banking Regulation and Policy Department (BRPD) of BB.

For risk weighting purpose, the rating of a client by any recognized ECAI is valid for one year. Credit rating for one entity within a corporate group cannot be used to risk weight other entities within the same group i.e. each entity within a same corporate group needs to get credit rating individually.

3.3.1.2. Short term assessments: For risk-weighting purposes, short-term assessments may only be used for short-term claims against FIs and corporate. Otherwise, it will be considered as 'unrated' status.

3.3.1.3. Multiple assessments: If there are two assessments by ECAIs chosen by an FI which map into different risk weights, the higher risk weight will be applied. If there are three or more assessments with different risk weights, the assessments corresponding to the two lowest risk weights should be referred to and the higher of those two risk weights will be applied.

3.3.1.4. Issuer vs. issue assessment: Where an FI invests in a particular issue that has an issue-specific assessment the risk weight of the claim will be based on this assessment. Otherwise, FI may use issuer rating for that specific issue.

3.4. Risk weight for balance sheet exposure

Exposure wise risk weights against different rating grades of BB are given in Table 1 Where an exposure is secured by guarantee or eligible financial collateral; it may reduce its capital charge by taking benefit of credit risk mitigation.

Table 1 : Risk Weights for Balance Sheet Exposure

Sl.	Exposure Type	BB's Rating Grade	Risk Weight (%)
a.	Cash		0
b.	Claims on Bangladesh Government (other than PSEs) and BB (denominated in domestic and foreign currency)		0
c.	Claims on other Sovereigns and Central Banks[6]		0
d	Claims on Bank for International Settlements, International Monetary Fund and European Central Bank		0
e	Claims on Multilateral Development Banks (MDBs)		
	i) IBRD , IFC, ADB, AfDB, EBRD, IADB, EIB, EIF, NIB, CDB, IDB, CEDB		0
	ii) Other MDBs	1	20
		2,3	50
		4,5	100
		6	150
		Unrated	50
f	Claims on public sector entities (excluding equity exposure)	1	20
		2,3	50
		4,5	100
		6	150
		Unrated	50
g	Claims on NBFIs and Banks (denominated in domestic as well as foreign currency)		
	i) Original maturity over 3 months	1	20
		2,3	50
		4,5	100
		6	150
		Unrated	100
	ii) Original maturity up to 3 months		20
h	Claims on Corporate (excluding equity exposures)	1	20
		2	50
		3, 4	100
		5, 6	150
		Unrated	125
i	Securitization Exposures	1	20
		2	50
		3	100
		4	350

[6] For the purpose of risk weighting claims on other Sovereigns & Central Banks, FIs may use the rating & risk weight as recognized by their home supervisors(if any) or risk-scores published by the consensus risk scores of export credit agencies(ECAs) participating in the "Arrangement on Officially Supported Export Credits". These scores are available on the OECD's website (http://www.oecd.org) and extracted in the table 4 below.

Note: Unrated : Counterparty/Instruments those are not rated by any recognized ECAI

Sl.	Exposure Type	Risk Weight (%)
Fixed Risk Weight Groups:		
j	Claims categorized as retail portfolio & SME (excluding consumer finance and Staff loan)	75
k	Consumer Finance	100
l	Claims fully secured by residential property (excluding Staff loan/investment)	50
m	Claims fully secured by commercial real estate	100
n	Past Due Claims (Risk weights are to be assigned to the amount net of specific provision):	
	The claim (other than claims secured by eligible residential property) that is past due for 90 days or more and/or impaired will attract risk weight as follows	
	Where specific provisions are less than 20 percent of the outstanding amount of the past due claim ;	150
	Where specific provisions are no less than 20 percent of the outstanding amount of the past due claim.	100
	Where specific provisions are no less than 50 percent of the outstanding amount of the past due claim.	100
	Claims fully secured against residential property that are past due for 90 days or more and/or impaired -where specific provision held there-against is less than 20 percent of outstanding amount	100
	Loans and claims fully secured against residential property that are past due for 90 days or more and /or impaired -where specific provision held there-against is no less than 20 percent of outstanding amount	75
o	Capital Market Exposures	125
P	Investments in venture capital	150
q	Unlisted equity investments and regulatory capital instruments (other than those deducted from capital) held in banking book	150
r	Investments in premises, plant and equipment and all other fixed assets	100
s	Claims on all fixed assets under operating lease	100
t	All other assets	
	i) Claims on GoB & BB (eg. advanced income tax, reimbursement of patirakkha/shadharon shanchay patra, etc.)	0
	ii) Staff loan/Investment	20
	iii) Cash items in Process of Collection	20
	iv) Other assets (net off specific provision, if any)	100

Table 2 : Risk Weight for Short Term Exposures

BB's Rating Grade	S1	S2, S3	S4	S5, S6
Risk Weight (%)	20	50	100	150

Table 3 : Risk Weight against ECA Score (Published by OECD)

ECA Score	1	2, 3	4, 5 & 6	7
Risk Weight (%)	20	50	100%	150%

3.5. Risk weight for off-balance sheet exposure

The total risk weighted assets for off-balance sheet (OBS) exposure will be the sum of risk-weighted assets for market related and non-market related OBS transactions. The risk-weighted amount of the OBS transaction that gives rise to credit exposure is generally calculated by means of a two-step process :

- First, the notional amount of a transaction is converted into a balance sheet equivalent (i.e. credit equivalent amount or potential exposure) by multiplying the amount with an appropriate credit conversion factor (CCF).

- Second, the resulting credit equivalent amount will be multiplied by the risk weight (as per Table 1) associated with the credit rating of that counterparty.

Where OBS item is secured by eligible collateral or guarantee, the credit risk mitigation facility may be applied.

The Market-related OBS transactions include the following:

- Interest rate contracts - this includes single currency interest rate swaps, basis swaps, forward rate agreements, interest rate futures, interest rate options purchased and any other instruments of a similar nature;

- Foreign exchange contracts - this includes cross currency swaps (including cross currency interest rate swaps), forward foreign exchange contracts, currency futures, currency options purchased, hedge contracts and any other instruments of a similar nature;

- Equity contracts - this includes swaps, forwards, purchased options and similar derivative contracts based on individual equities or equity indices;

- Other market-related contracts - this includes any contracts covering other items, which give rise to credit risk.

The Non-market related OBS exposure includes direct credit substitutes, trade and performance related contingent items, and other commitments.

3.5.1. Risk weights for market-related OBS transactions: To calculate the risk weighted assets for market related OBS, an FI must include all of their market-related transactions held in the banking book and trading book which give rise to OBS credit risk.

The credit risk on OBS market-related transactions is the cost to an FI replacing the cash flow specified by the contract in the event of counterparty default. This will depend, among other things, on the maturity of the contract and on the volatility of rates underlying that type of instrument. Exemption from capital charge is permitted for:

a) Foreign exchange contracts with BB;(if any)

b) Foreign exchange contract which have an original maturity of 14 calendar days or less (if any); and

c) Instruments traded on futures and options exchanges, which are subject to daily mark-to-market and margin payments (if any).

The credit equivalent amount of an OBS market-related transaction, whether held in the trading book or banking book, will be determined as follows:

a) In the case of interest rate and foreign exchange contracts:

- by mark-to-market (also known as current exposure) method; or
- by the original exposure (notional amount) method (with BB's prior approval); and

b) In all other cases, by mark-to-market (current exposure) method.

3.5.1.2. Current exposure method: In current exposure method, credit equivalent amount would be calculated by multiplying current market value of each of the contracts with the appropriate credit conversion factor specified in Table 4 according to the nature and residual maturity of the instrument.

Table 4 : Credit Conversion Factor under Current Exposure Method

Residual Maturity	Interest rate contracts	Foreign exchange contracts	Equity
1 year or less	0.0%	1.0%	6.0%
> 1 year to 5 years	0.5%	5.0%	8.0%
>5 year	1.5%	7.5%	10.0%

3.5.1.3. Original exposure method: Where the original exposure method is used, the credit equivalent amount of an OBS market-related contract is determined by multiplying the notional principal amount of the contract with an appropriate credit conversion factor specified in Table 5.

Table 5 : Credit Conversion Factor under Original Exposure method

Original maturity	Interest rate contracts	Foreign exchange contracts
1 year or less	0.5%	2.0%
> 1 year to 2 years	1.0% (i.e. 0.5%+0.5%)	5.0% (i.e. 2% + 3%)
For each additional year	1.0%	3.0%

3.5.2. Risk weight for non-market-related OBS transactions: The exposure amount of non market related OBS transaction is to be converted into credit equivalent by multiplying it with an appropriate credit conversion factor (CCF) for calculating the risk weighted assets. Table 6 gives the CCF associated with various types of OBS Non Market related transactions. Once the credit equivalent amount is obtained, it will be multiplied with the risk weight of respective counterparty.

Table 6 : Credit Conversion Factor for Non-market-related OBS transactions

Nature of transaction	CCF
Direct credit substitutes Any irrevocable off-balance sheet obligation which carries the same credit risk as a direct extension of credit, such as an undertaking to make a payment to a third party in the event that a counterparty fails to meet a financial obligation or an undertaking to a counterparty to acquire a potential claim on another party in the event of default by that party, constitutes a direct credit substitute (i.e. the risk of loss depends on the creditworthiness of the counterparty or the party against whom a potential claim is acquired). This includes potential credit exposures arising from the issue of guarantees and credit derivatives (selling credit protection), confirmation of letters of credit, issue of standby letters of credit serving as financial guarantees for loans, securities and any other financial liabilities, and bills endorsed under bill endorsement lines (but which are not accepted by, or have the prior endorsement of, another FI).	100 %
Performance-related contingencies Contingent liabilities, which involve an irrevocable obligation to pay a third party in the event that counterparty fails to fulfill or perform a contractual non-monetary obligation, such as delivery of goods by a specified date etc (i.e. the risk of loss depends on a future event which need not necessarily be related to the creditworthiness of the counterparty involved). This includes issue of performance bonds, bid bonds, warranties, indemnities, and standby letters of credit in relation to a non-monetary obligation of counterparty under a particular transaction.	50%
Short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralized by the underlying shipment), for both issuing and confirming banks/FIs.	20 %
Lending of securities or posting of securities as collateral The lending or posting of securities as collateral by FI. This includes repurchase/reverse repurchase agreements and securities lending/ borrowing transaction.	100 %
Commitments with certain drawdown	100 %
Other commitments (a) Commitments (e.g. undrawn formal standby facilities and credit lines) with an original maturity of: (i) one year or less. (ii) over one year. (b) Commitments that can be unconditionally cancelled at any time without notice or effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness.	 20 % 50% 0%

Where the non-market-related OBS transaction is an un-drawn or partially un-drawn facility, the amount of un-drawn commitment to be included in calculating an FI's 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 part of on-balance sheet credit exposure and will be subject to the requirements laid down earlier in this chapter.

With regard to irrevocable commitments to provide OBS facilities, the original maturity will be measured from the commencement of the commitment until time of the associated facility expires. For example, an irrevocable commitment, with an original maturity of six months, to provide finance with a nine-month term, is deemed to have an original maturity of 15 months.

Irrevocable commitments to provide OBS facilities should be assigned the lower of the two applicable credit conversion factors. For example, an irrevocable commitment with an original maturity of six months to provide a guarantee in support of counterparty for a period of nine months attracts the 50 per cent credit conversion factor applicable to the commitment.

For example: (a) An FI sanctioned a cash credit facility for Tk.10 lac (which is not unconditionally cancelable) where the drawn portion is Tk. 6 lac, the undrawn portion of Tk. 4 lac 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 Tk 0.8 lac (20 % of Tk. 4 lac) 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 (Tk. 6 lac) will attract a risk weight as applicable to the counterparty / rating.

(b) An FI sanctioned a Term Loan of Tk. 700 crore 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 – Tk. 150 crore in Stage I, Tk. 200 crore in Stage II and Tk. 350 crore in Stage III, where the borrower needs the FI's explicit approval for draw down under Stages II and III after completion of certain formalities. If the borrower has drawn already Tk. 50 crore under Stage I, then the undrawn portion would be computed with reference to Stage I alone i.e., it will be Tk.100 crore. 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.

3.6. Credit Risk Mitigation (CRM)

FIs may use a number of techniques to reduce their credit risk to which they are exposed to. This framework considers that effect in calculating risk based capital requirement by an FI. These effects may be considered in two aggregate heads i.e.

a) Collateral for Credit Risk Mitigation

b) Guarantee for Credit Risk Mitigation

3.6.1. Collateral for credit risk mitigation

Where a transaction is secured by eligible financial collateral and meets the eligibility criteria and minimum requirements, FIs are allowed to reduce their credit exposure or potential credit exposure to cover exposure under that particular transaction (except claims against investor account/margin account holder) by taking into account the risk mitigating effect of the collateral for the calculation of capital charge.

3.6.1.1. Eligible financial Collateral

a) Cash (as well as certificate of deposit or fixed deposit or comparable instruments of lending FI) on deposit with the FI, which is incurring the counterparty exposure[7]

b) Gold

c) Securities rated by a recognized ECAI where these are either:

- at least rated '4' when issued by sovereigns or PSEs that are treated as sovereigns by BB
- at least rated '3' when issued by other entities (including FIs and securities firms); or
- at least rated 'S3' for short-term debt instruments.

d) Debt securities not rated by a recognized ECAI where these are:

- issued by an FI;
- listed on a recognized exchange;
- classified as senior debt[8];
- all rated issues of the same seniority by the issuing FI are rated at least '3'/'S3' by a recognized ECAI; and
- the FI holding the security as collateral has no information to suggest that issue justifies a rating below '3'/'S3' and BB views such securities as liquid and marketable.

e) Equities (including convertible bonds) those are enlisted and regularly traded in Dhaka Stock Exchange (DSE) and Chittagong Stock Exchange (CSE). The value of the equity will be 50% of face value or 50% of last 6 months daily average price, whichever is lower.

f) Undertakings for Collective Investments in Transferable Securities (UCITS) and 50% of face value or 50% of last 6 months daily average price, whichever is lower for mutual funds which are publicly quoted daily.

[7] The exposure amount covered by cash on deposit, certificates of deposit or fixed deposit or comparable instruments issued by third party FI as collateral (after any necessary haircuts for currency risk) will receive the risk weight of the third-party FI.

[8] A bond or other form of debt that takes priority over other debt securities sold by the issuer. In the event the issuer goes bankrupt, senior debt must be repaid before other creditors receive any payment.

3.6.1.1. Eligibility criteria and minimum requirements

For recognizing eligible financial collateral following criteria and minimum requirements should be met:

a) Legal certainty, the legal mechanism by which collateral is pledged or transferred must ensure that the FI has the right to liquidate or take legal possession of it, in a timely manner, in the event of the default, insolvency or bankruptcy.

b) In order for collateral to provide protection, between the counterparty and issuer of collateral must not have a material positive correlation.

c) FIs must have clear and robust procedures for the timely liquidation of collateral.

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

e) Mismatches in the maturity of the underlying exposure and the collateral will be considered as CRM only when residual maturity of the collateral are greater than or equal to one year.

3.6.1.2. Calculation of capital charge

Where transactions secured by eligible collateral, FIs need to first calculate the net exposure amount by taking into account the effect of collateral. The net exposure amount (if positive) is then weighted according to risk-weight of the counterparty to obtain the risk-weighted asset amount for the collateralized transaction.

In calculating the adjusted exposure amount after risk mitigation, adjustments (hereinafter called "haircuts") are applied to both the collateral and the exposure to take into account possible future price fluctuations. Where the exposure and collateral are held in different currencies an additional downward haircuts must be made to the volatility adjusted collateral amount to take account of possible future fluctuations in exchange rates.

Where the volatility-adjusted exposure amount is greater than the volatility-adjusted collateral amount (including any further adjustment for foreign exchange risk), FI will calculate their risk-weighted assets with the difference between the two multiplied by the risk weight of the counterparty. The framework for performing these calculations is as follows:

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

Where:

E^* = the exposure value after risk mitigation

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

He = haircut weight appropriate to the exposure

C = the current value of the collateral received

Hc = haircut weight appropriate to the collateral

Hfx = haircut weight 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 collateralized transaction.

Where the collateral is a basket of assets, the haircut on the basket will be:

$H = \sum a_i H_i$

Where a_i is the weight of the asset (as measured by unit of currency) in the basket and H_i is the haircut applicable to that asset.

A worked out example for calculating the effect of CRM is furnished in **Annex B**.

Haircuts: FIs will use the standard supervisory haircuts for both the exposure as well as the collateral. The standard supervisory haircuts expressed as percentages are as follows:

Table 7 : Supervisory Haircut weights

Counterparty Rating /Issue rating for debt securities (excluding convertible bonds) (BB Rating Grade)	Residual Maturity	Haircut (%)
Securities issued by GoB/ BB		
-	≤ 1 year	0.5
	>1 year, ≤ 5 years	2
	> 5 years	4
Counterparty rating/Debt Securities issued by other than GoB/BB		
1 & S1	≤ 1 year	1
	>1 year, ≤ 5 years	4
	> 5 years	8
2, 3 , S2 & S3	≤ 1 year	2
	>1 year, ≤ 5 years	6
	> 5 years	12
4, 5,6, S4 & Unrated	All	15
Equities listed in DSE /CSE		25
Convertible bonds		15
Mutual funds		15
Cash in same currency (as well as certificates of deposit or comparable instruments issued by the lending FI)		0
The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies		Same as minimum CAR

3.6.1.3. On balance sheet netting

On-balance sheet netting may be allowed where an FI:

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 those assets and liabilities with the same counterparty that are subject to the netting agreement;

c) monitors and controls its roll-off risks; and

d) monitors and controls the relevant exposures on a net basis, it may use the net exposure of loans and deposits as the basis for its capital adequacy calculation.

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 above paragraph. 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 CRM technique will also apply.

3.6.2. Guarantee for credit risk mitigation

To reduce credit risk, transactions may be secured by guarantees. Where guarantees are direct, explicit, irrevocable and unconditional, FIs may consider such credit protections in calculating capital requirements through a substitution approach. Only guarantees issued by or protection provided 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 or protection provider, whereas the uncovered portion retains the risk weight of the underlying counterparty.

3.6.2.1. Guarantees eligible for being treated as a CRM

a) 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 indisputable. 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 FI 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.

b) 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 CRM in the form of guarantees. The entire outstanding, net of specific provision and net of realizable value of eligible collaterals / credit risk mitigants will attract the appropriate risk weight.

c) The legal certainty requirements to be recognized in case of guarantee for CRM. The FI 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.

3.6.2.2. Range of eligible guarantors/counter-guarantors

Credit protection given by the following entities will be recognized eligible guarantor:

a) Sovereigns, sovereign entities (including BIS, IMF, European Central Bank and European Community as well as MDBs), PSEs, and FIs with a lower risk weight than the counterparty.

b) Other entities rated equivalent to 1 and 2. This would include guarantee cover provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.

c) 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:

- the sovereign counter-guarantee covers all credit risk elements of the claim;
- 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
- 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.

3.6.2.3. Risk weights: The protected portion is assigned the risk weight of the protection provider. Exposures covered by Government, and MDBs (specific) guarantees will attract a risk weight of 20%. The uncovered portion of the exposure is assigned the risk weight of the underlying counterparty.

3.6.3. 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 FI 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.

3.6.4. 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 Hfx, i.e.

$G_A = G \times (1 - Hfx)$

Where: G = nominal amount of the credit protection

H_{fx} = haircut appropriate for currency mismatch between the credit protection and underlying obligation. For currency mismatch, the rate of supervisory haircut will be the same as minimum CAR.

3.6.5. **Maturity mismatch:** For the purposes 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 collateral has a residual maturity of less than one year, the CRM is not recognized for capital purposes except those instruments holding under auto renewal instructions. In other cases where there is a maturity mismatch, partial recognition is given to the CRM for regulatory capital purposes as detailed in the following paragraphs.

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

$P_a = P \times (t - 0.25) / (T - 0.25)$

Where:

P_a = 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

Definition of maturity: Both the maturity of the underlying exposure and the maturity of the collateral should be defined conservatively. The effective maturity of the underlying exposure should be measured as the longest possible remaining time before the counterparty is scheduled to fulfill its obligation, taking into account any applicable grace period. The maturity relevant here is the residual maturity.

3.6.6. **Treatment of pools of CRM techniques:** In the case where an FI has multiple CRM techniques covering a single exposure (e.g. an FI has both collateral and guarantee partially covering an exposure), the FI 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 RWA 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.

3.6.7. **CRM techniques for off balance sheet transaction:** In case of non-market related OBS transactions in foreign currency, the notional amount will be adjusted by an add-on factor of 5% for exchange rate fluctuation. The CRM will be applicable on the notional amount (will be adjusted by the exchange rate add-on factor). The notional amount is converted into a balance sheet equivalent by multiplying the amount by the specified CCF (see Table 6).

For example, in case of a short term self liquidating letter of credit in USD equivalent to BDT 50 lac with cash margin BDT 5 lac, the notional amount will be BDT 52.5 lac [i.e. BDT 50 lac × (1+5%)], and the net notional amount will be BDT 47.5 lac [i.e. BDT 52.5 lac - BDT 5 lac]. So the on balance sheet equivalent will be BDT 9.5 lac [i.e. BDT 47.5 lac × 20%] as the CCF for this transaction is 20%.

Chapter 4. Market Risk

4.1. Introduction

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

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

b) Commodities risk (if any) throughout the FI (both in the trading book and banking book).

4.2. Definitions

4.2.1. Trading book consists of positions in financial instruments held with trading intent or in order to hedge other elements of the trading book. A capital charge will be applicable for financial instruments which are free from any restrictive covenants on tradability, or able to be hedged completely. Generally, investments which are held for trading and readily available for sale are major parts of the trading book. To be mentioned that all listed shares have to be included in the trading book. In addition, positions should be prudently and accurately valued, and the portfolio should be actively managed.

4.2.2. Financial instrument is any contract that provides financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments include primary financial instruments or cash instruments and derivative financial instruments.

4.2.3. Financial asset is any asset that is cash, the right to receive cash or another financial asset; or the contractual right to exchange financial assets on potentially favorable terms, or an equity instrument.

4.2.4. Financial liability is the contractual obligation to deliver cash or another financial asset or to exchange financial liabilities under conditions that are potentially unfavorable.

4.2.5. Hedge is a position that materially or entirely offset the risk elements of another position in the trading book portfolio.

4.3. Scope and coverage of the capital charges

The requirement to allocate capital is in respect of the exposure to risks deriving from changes in interest rates and equity prices, in the FIs' trading book, in respect of exposure to risks deriving from changes in foreign exchange rates and commodity price in the overall activity of an FI.

a) On balance sheet assets held in the trading book are subject to only market risk capital requirements and will not be subject to credit risk capital requirement.

b) On balance sheet assets funded in foreign currency will be subject to both credit and market risk capital requirement.

c) Derivatives, unless they are contracted to hedge positions in the banking book will be considered part of trading book and will be subject to both credit and market risk capital requirement.

d) Repurchase/reverse repurchase, securities lending held in trading book will be subject to both credit and market risk capital requirement.

For the purpose of capital charge for market risk will include:

a) Securities included under the HFT category

b) Equity position and commodity position

c) Overall foreign exchange exposure (if any)

d) Trading positions in derivatives and

e) Derivatives for the purpose of hedging trading book exposures

4.4. Methodology

In Standardized Approach, the capital requirement for various market risks (interest rate risk, equity price risk, commodity price risk, and foreign exchange risk) is determined separately. The total capital requirement in respect of market risk is the sum of capital requirement calculated for each of these market risk sub-categories. The methodology to calculate capital requirement under Standardized Approach for each of these market risk categories is as follows:

4.5. Capital charges for interest rate risk

The minimum capital requirement is expressed in terms of two separately calculated capital charges for "specific risk" and "general market risk". Specific risk is applicable for each security, whether it is a short or a long position, and general market risk is applicable for the interest rate risk in the portfolio where long and short positions in different securities or instruments can be offset.

4.5.1. Capital charges for specific risk

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. It will be calculated on gross position. The capital charges for following categories are set out in Table 8.

a) Government category: This category will include all the securities of GoB and foreign government.

b) Qualifying category: The qualifying category will include :

- debt securities issued by public sector entities and multilateral development banks, and other securities that are recognized by BB for including in this category.
- debt securities rated by at least two credit rating agencies of the approved panel of BB, neither rating to be worse than an equivalent BB Ratings Grade 3.

c) Other category: This category will include those instruments which are not included in 'Government' or 'Qualifying category' above.

Table 8 : Capital charge weight for specific risk

Categories	BB rating grade	Particulars	Capital Charge Weights (%)
Government	--	--	0
Government (Other than Domestic Currency)	1		0
	2 , 3	Residual term to final maturity 6 months or less	0.25
		Residual term to final maturity greater than 6 and up to and including 24 months	1
		Residual term to final maturity exceeding 24 months	1.60
	4 , 5	--	10
	6	--	12
	Unrated	--	10
Qualifying	--	Residual term to final maturity 6 months or less	0.25
		Residual term to final maturity greater than 6 and up to and including 24 months	1
		Residual term to final maturity exceeding 24 months	1.60
Other	1	--	2
	2 , 3	--	6
	4	--	10
	Below 4	--	12
	Unrated	--	10

4.5.2. Capital charges for general market risk

Maturity Method: The capital requirement for general market risk is designed to capture the risk of loss arising from changes in market interest rates. Positions are allocated across a maturity ladder and the capital charge is then calculated as a sum of following four components :

a) The net short or long position in the whole trading book;

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

c) A larger proportion of the matched positions across different time-bands (the "horizontal disallowance");

d) A net charge for positions in options, where appropriate.

In this regard, the capital charge will be calculated on the basis of the following considerations:

a) FI's underlying trading issues may exist in long or short and both (i.e., related to interest rate derivative/hedge). Where trading issues relate to only long position, then total capital charge is to be calculated using the capital charge weight as stated in Table 9 and Table 10; and

b) Where any transaction relates to both long and short position (i.e., related to interest rate derivative/hedge) then total capital charges is to calculated using Table 10, Table 11 and Table 12.

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, separate maturity ladders for each currency are not required. Rather, the FI may construct a single maturity ladder and slot, within each appropriate time-band, the net long or short position for each currency. However, these individual net positions are to be summed within each time-band, irrespective of whether they are long or short positions, to produce a gross position figure.

In the maturity method, long or short positions in debt securities and other sources of interest rate exposures, including derivative instruments, are slotted into a maturity ladder comprising 13 time-bands (or 15 time-bands in case of low coupon instruments). Fixed-rate instruments should be allocated according to the residual term to maturity and floating-rate instruments according to the residual term to the next re-pricing date.

The capital charge for the securities is the resultant figure found by multiplying market value of the securities by the capital charge weight set out in Table 9 below. Zero-coupon bonds and deep-discount bonds (defined as bonds with a coupon of less than 3%) should be slotted according to the time-bands set out in the second column of Table 9.

Securities, which have already matured and remain unpaid for more than 90 days should be treated as Non-performing Assets. Therefore, it should attract relevant risk weight.

Table 9 : Maturity Method - Time-bands and Weights

Zone	Time-bands for Coupon 3% or more	Time-bands for Coupon less than 3%	Risk weight
1	2	3	4
Zone 1	1 month or less	1 month or less	0.00%
	1 to 3 months	1 to 3 months	0.20%
	3 to 6 months	3 to 6 months	0.40%
	6 to 12 months	6 to 12 months	0.70%
Zone 2	1 to 2 years	1.0 to 1.9[9] years	1.25%
	2 to 3 years	1.9 to 2.8 years	1.75%
	3 to 4 years	2.8 to 3.6 years	2.25%
Zone 3	4 to 5 years	3.6 to 4.3 years	2.75%
	5 to 7 years	4.3 to 5.7 years	3.25%
	7 to 10 years	5.7 to 7.3 years	3.75%
	10 to 15 years	7.3 to 9.3 years	4.50%
	15 to 20 years	9.3 to 10.6 years	5.25%
	Over 20 years	10.6 to 12 years	6.00%
		12 to 20 years	8.00%
		Over 20 years	12.50%

Duration Method: Under the duration method, FIs may use a more accurate method of measuring all of their general market risk by calculating the interest sensitivity of each position separately. The FIs that decide to use this approach must do so on continuous basis. FIs shall calculate the capital charge for each position on the basis of estimated change in yield given in Table 10.

Table 10 : Duration Method - Time-bands and Assumed Changes in Yield

Time Bands	Time Zones	Estimated Change in yield (y)	Calculation of price sensitivity
1	2	3	4
1 month or less	**Time Zone -1**	1.00	FIs may use the following formula to measure interest rate sensitivity of the instrument: $\triangle MVE = -DGAP*[\triangle i/(1+y)]*$Total Assets Where, MVE = Market value of equity y = yield to maturity $\triangle_i$=Change in interest rate DGAP=Calculated duration gap on the basis of residual maturity
1 to 3 months		1.00	
3 to 6 months		1.00	
6 to 12 months		1.00	
1.0 to 1.9 years	**Time Zone -2**	0.90	
1.9 to 2.8 years		0.80	
2.8 to 3.6 years		0.75	
3.6 to 4.3 years		0.75	
4.3 to 5.7 years	**Time Zone -3**	0.70	
5.7 to 7.3 years		0.65	
7.3 to 9.3 years		0.60	
9.3 to 10.6 years		0.60	
10.6 to 12 years		0.60	
12 to 20 years		0.60	
Over 20 years		0.60	
* * Time bands after decimal represents months i.e. 1.9 to be read as 1 year 9 months			

The next step in the calculation is to offset the weighted longs and shorts in each time-band, resulting in a single short or long position for each band. Since, however, each band would include different instruments and different maturities, a 10% (say, minimum

[9] Time bands after decimal represents months i.e. 1.9 to be read as 1 year 9 months.

CAR is 10%) capital charge to reflect basis risk and gap risk will be levied on the smaller of the offsetting positions, be it long or short. Thus, if the sum of the weighted longs in a time-band is $100 million and the sum of the weighted shorts BDT 90 million, the so-called "vertical disallowance" for that time band would be 10% of BDT 90 million (i.e. BDT 9.0 million).

The result of the above calculations is to produce two sets of weighted positions, the net long or short positions in each time-band (BDT 10 million long in the example above) and the vertical disallowances, which have no sign. In addition, however, FIs will be allowed to conduct two rounds of "horizontal offsetting", first between the net positions in each of three zones (zero to one year, one year to four years and four years and over)[10], and subsequently between the net positions in the three different zones. The offsetting will be subject to a scale of disallowances expressed as a fraction of the matched positions, as set out in the table below. The weighted long and short positions in each of three zones may be offset, subject to the matched portion attracting a disallowance factor that is part of the capital charge. The residual net position in each zone may be carried over and offset against opposite positions in other zones, subject to a second set of disallowance factors.

[10] The zones for coupons less than 3% are 0 to 1 year, 1 to 3.6 years, and 3.6 years and over.

Table 11 : Horizontal disallowances

Chapter 2.

Zone	Within the Zone	Between Adjacent zones	Between zones 1 and 3
Time Zone 1	40%	}40%	100%
Time Zone 2	30%		
Time Zone 3	30%	}40%	

Techniques of calculating capital charge where any transaction relates to both long and short position (e.g. relate to interest rate derivative/hedge):

a) Carry forward the net positions in each time-band for 10% vertical disallowance designed to capture basis risk;

b) Carry forward the net positions in each time-band for horizontal offsetting subject to the disallowances set out in Table 12.

Then the capital charge will be a sum of following components:

Table 12 : Calculation of general market risk

a) Net weighted position	100% of Net short or long weighted position	100%
b) Vertical disallowances	Sum of 10% of Matched weighted positions in each time bands	10%
c) Horizontal disallowances (Using table no. 12)	Matched weighted position within Time Zone 1	40%
	Matched weighted position within Time Zone 2	30%
	Matched weighted position within Time Zone 3	30%
	Matched weighted position between Time zone 1 & 2	40%
	Matched weighted position between Time zone 2 & 3	40%
	Matched weighted position between Time zone 1 & 3	100%
Total Capital Charge (a+ b + c) :		

4.5.3. Repo / reverse-repo transaction

A security, which is the subject of a repurchase, or securities lending agreement will be treated as if it were still owned by the lender of the security, i.e. it shall be treated in the same manner as other securities positions.

4.5.4. Interest rate derivatives

The measurement system should include all interest rate derivatives and off-balance sheet instruments in the trading book, which are interest rate sensitive. These include forward rate agreement, interest rate and cross currency swaps and forward foreign exchange contracts. Options are also subject to capital charge; however the calculation of capital requirement for options is set out separately in this section.

4.5.4.1. Calculation of positions

The derivatives should be converted into positions in the relevant underlying and become subject to specific and general market risk charges. In order to compute the standard calculations, the amounts reported should be the market value of the principal amount of the underlying or of the notional underlying. For instruments where the apparent notional amount differs from the effective notional amount, FIs must use effective notional amount.

4.5.4.2. Forward rate agreements (FRAs)

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

4.5.4.3. Swaps

Swaps will be treated as two notional positions in government securities with the relevant maturities. For example, an interest rate swap under which an FI is receiving floating rate and paying fixed rate will be treated as a long position in floating rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed rate instrument of maturity equivalent to the residual life of the swap. Both legs of swap are to be reported at their market values (or face value of the notional underlying position where market value is not available). The separate legs of cross-currency swaps are to be reported in the relevant maturity ladders for the currencies concerned.

4.5.4.4. Calculation of capital charge for derivatives

Specific risk

Interest rate and currency swaps, FRAs, forward foreign exchange contracts and interest rate futures will not be subject to a specific risk charge. This exemption also applies to futures on an interest rate index. However, in the case of futures contracts where the underlying is a debt security, or an index representing a basket of debt securities, a specific risk charge will apply according to the credit risk of the issuer as mentioned earlier.

General market risk

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

Table 13 : Summary of Treatment of Interest Rate Derivatives

Instrument		Specific risk charge	General market risk charge
Exchange-traded future			
	Government debt security	No	Yes as two positions
	Corporate debt security	Yes	Yes as two positions
OTC forward			
	Government debt security	No	Yes, as two positions
	Corporate debt security	Yes	Yes, as two positions
FRAs, Swaps		No	Yes, as two positions
Forward foreign exchange		No	Yes, as one position in each currency

4.5.5. Capital charges for equity position risk

The capital charge for equities would apply on their current market value in FI's trading book. This capital charge for both specific risk and the general market risk will be at the rate of the required minimum capital adequacy ratio. This is applied to all instruments that exhibit market behavior 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.

4.5.6. Capital charges for foreign exchange risk

The capital charge for foreign exchange risk will be at the rate of the required minimum capital adequacy ratio of FI's overall foreign exchange exposure including gold. The calculation of foreign exchange exposure should be done on consolidated basis including subsidiaries. For less than wholly owned subsidiaries the relevant accounting rules will apply.

Two processes are needed to calculate the capital requirement for foreign exchange risk

a) The first is to measure the exposure in a single currency position.

b) The second is to measure the risks inherent in an FI's mix of long and short positions in different currencies.

4.5.6.1. Measuring the exposure in a single currency

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

a) the net spot position (i.e. all asset items less all liability items, including accrued interest, denominated in the currency in question);

b) 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);

c) guarantees (and similar instruments) that are certain to be called and are likely to be irrecoverable;

d) net future income/expenses not yet accrued but already fully hedged (at the discretion of the reporting FI);

e) any other item representing a profit or loss in foreign currencies;

The treatment of interest, other income and expenses; the measurement of forward currency positions; are described below :-

The treatment of interest, other income and expenses: Interest accrued (i.e. earned but not yet received) should be included as a position. Accrued expenses should also be included. Unearned but expected future interest and anticipated expenses may be excluded unless the amounts are certain and FIs have taken the opportunity to hedge them. If FIs include future income/expenses, they should do so on a consistent basis, and not be permitted to select only those expected future flows, which reduce their position.

The measurement of forward currency positions: Forward currency positions will normally be valued at current spot market exchange rates. Using forward exchange rates would be inappropriate since it would result in the measured positions reflecting current interest rate differentials to some extent.

4.5.6.2. Measuring the foreign exchange risk in a portfolio of foreign currency positions.

The overall foreign exchange exposure is measured by aggregating the sum of the net short positions or the sum of the net long positions; whichever is the greater, regardless of sign. The capital charge will be at the rate of the required minimum capital adequacy ratio of the overall net open position.

For example, we may assume that an FI has long and short positions in Yen, Euro, GBP, Australian dollar and US dollar as given below in Table 14:

Table 14 : Example (foreign exchange risk)

Currency	YEN	Euro	GBP	AUD	USD
Position in BDT	+40	+300	-130	-20	-150
Absolute Value	+340		-300		

The capital charge would be 10% (say, the required MCR is 10%) of the higher of either the net long currency positions or the net short currency positions (i.e. 340)

Capital Requirement = 340 x 10% = 34.00

Chapter 5. Operational Risk

5.1. Introduction

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[11], but excludes strategic and reputational risk.

5.2. The measurement methodology

The framework outlined below presents the method for calculating operational risk capital charges. The method is known as the Basic Indicator Approach.

FIs are encouraged to move along the spectrum of available approaches as they develop more sophisticated operational risk measurement systems and practices. However, an FI will not be allowed to choose to revert to a simpler approach once it has been approved for a more advanced approach without supervisory approval. However, if a supervisor determines that an FI using a more advanced approach no longer meets the qualifying criteria for this approach, it may require the FI to revert to a simpler approach for some or all of its operations, until it meets the conditions specified by the supervisor for returning to a more advanced approach.

5.3. The basic indicator approach

Under the Basic Indicator Approach (BIA), the capital charge for operational risk is a fixed percentage (denoted by alpha) of average positive annual gross income of the FI over the past three years (See Example in **Annex D**). 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[12] . The capital charge may be expressed as follows:

$$K = [(GI_1 + GI_2 + GI_3) \times \alpha]/n$$

where,

K = capital charge under the Basic Indicator Approach

GI = only positive annual gross income over the previous three years (i.e. negative or zero gross income if any shall be excluded)

α = 15%

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

[11] Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

[12] If all of the three years gross income become negative, BB will consider appropriate action under Supervisory Review Process

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

a) be gross of any provisions (includes interest suspense)

b) be gross of operating expenses, including fees paid to outsourcing service providers

c) exclude realized profits/losses from the sale of securities held to maturity in the banking book[13].

d) exclude extraordinary or irregular items as well as categorize

e) exclude income derived from insurance.

5.4. The standardized approach

FIs may follow the Standardized Approach (TSA) for calculating capital charge against operational risk subject to prior approval of BB. Measurement methodology of computing capital charge against operation risk under TSA along with qualifying criteria is provided in the **Annex E**.

[13] Realized profits/losses from securities classified as "held to maturity", which typically constitute items of the banking book (e.g. under certain accounting standards), are also excluded from the definition of gross income.

Chapter 6. Supervisory Review Process

6.1. Introduction

The key principle of the supervisory review process (SRP) is that **"***FIs have a process for assessing overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital at an adequate level***".** FIs should have an exclusive body (called SRP team) where **risk management unit** is an integral part, and a process document (called Internal Capital Adequacy Assessment Process-ICAAP) for assessing their overall risk profile, and a strategy for maintaining adequate capital. Adequate capital means the amount of capital to compensate all the risks in their business, and to develop and practice better risk management techniques in monitoring and managing their risks.

6.2. Importance of supervisory review process

a) The supervisory review process is planned not only to ensure adequate capital to compensate all the risks in their business, but also to become confident that FIs have better risk management techniques in monitoring and managing their risks.

b) The supervisory review process recognizes the responsibility of management in developing an internal capital assessment process and setting capital targets that are commensurate with the FI's risk profile and control environment. Moreover, the management of the FI continues to bear responsibility for ensuring that the FI has adequate capital to support its risks beyond the minimum regulatory requirements.

c) The supervisory review process will establish relationship between the planning of adequate capital against all risks and the strength and effectiveness of the FI's risk management and internal control processes. Maintaining adequate capital should not be regarded as a substitute for addressing fundamentally inadequate control or risk management processes.

d) The supervisory review process will consider the following three main areas:

- risks considered under Pillar 1 that are not fully captured by the MCR process (e.g. credit concentration risk);
- risk factors not taken into account by the MCR process (e.g. interest rate risk in the banking book, business and strategic risk); and
- Risk factors external to the FI (e.g. business cycle effects).

e) A further important aspect of supervisory review process is that the assessment of compliance with the minimum standards and disclosure requirements. FI management including SRP body will be responsible to move gradually towards more advance approaches of calculating RWA against credit risk, capital charge against market risk and operational risk.

6.3. Main features of a rigorous review process

FIs must be able to demonstrate that chosen internal capital targets are well founded and that these targets are consistent with their overall risk profile and current operating environment. Rigorous, forward-looking stress testing that identifies possible events or changes in market conditions that could adversely impact the FI should be performed. FI authority will clearly bear primary responsibility for ensuring that the FI has adequate capital to support its risks.

The five main features of a rigorous process are as follows:

i) Board and senior management oversight;

ii) Sound capital assessment;

iii) Comprehensive assessment of risks;

iv) Monitoring and reporting; and

v) Internal control review.

6.3.1. Board and senior management oversight

Board and senior management will establish a responsible unit[14] that will exclusively be assigned for reviewing the nature and level of risk relates to assets and planning for adequate capital framework. For this, the unit may develop their own review process document. A sound risk management process is the foundation for an effective assessment of the adequacy of an FI's capital position. Board and senior management will be responsible for the following factors:

a) Understanding the nature and level of risk being taken by the FI and how this risk relates to adequate capital levels. It is also responsible for ensuring that the formality and sophistication of the risk management processes are appropriate in light of the risk profile and business plan.

b) The analysis of a FI's current and future capital requirements in relation to its strategic objectives is a vital element of the strategic planning process. The strategic plan should clearly outline the FI's capital needs, anticipated capital expenditures, desirable capital level, and external capital sources. Senior management and the board should view capital planning as a crucial element in being able to achieve its desired strategic objectives.

c) The FI's board of directors has responsibility for setting the risk tolerance for the FI. It should also ensure that management establishes a framework for assessing the various risks, develops a system to relate risk to the FI's capital level, and establishes a method for monitoring compliance with internal policies. It is likewise important that the board of directors adopts and supports strong internal controls and written policies and procedures and ensures that management effectively communicates these throughout the organization.

[14] As per DFIM circular no.08/2010 FIs have been suggested to form Basel II implementation unit at each FI level in order to establish strategic planning for capital adequacy and own supervisory review process as required by the capital framework.

6.3.2. Sound capital assessment

The fundamental elements of sound capital assessment include:

a) Policies and procedures designed to ensure that the FI identifies, measures, and reports all material risks;

b) A process that relates capital to the level of risk;

c) A process that states capital adequacy goals with respect to risk, taking account of the FI's strategic focus and business plan; and

d) A process of internal control, review and audit to ensure the integrity of the overall management process.

6.3.3. Comprehensive assessment of risks

All material risks faced by the FIs should be addressed in the capital assessment process. It is recognized that all risks could not be measured precisely but a process should be developed to estimate risks. Therefore, the following risk exposures, which by no means constitute a comprehensive list of all risks, should be taken into consideration:

6.3.3.1. Credit risk

a) FIs should have methodologies that enable them to assess adequate capital for the credit risk exposures to individual borrowers or counterparties as well as at the whole portfolio level. For more sophisticated FIs, the credit review assessment of capital adequacy, at a minimum, should cover four areas: risk rating systems, portfolio analysis/aggregation, securitization/complex credit derivatives, and large exposures and risk concentrations.

b) Internal risk rating is an important tool in monitoring credit risk. Internal risk ratings should be adequate to support the identification and measurement of risk from all credit exposures, and should be integrated into an institution's overall analysis of credit risk and capital adequacy. The ratings system should provide detailed ratings for all assets, not only for classified or problem assets. Loan loss reserves should be included in the credit risk assessment for capital adequacy.

c) The analysis of credit risk should adequately identify any weaknesses at the portfolio level, including any concentrations of risk. It should also adequately take into consideration the risks involved in managing credit concentrations and other portfolio issues through such mechanisms as securitization programs and complex credit derivatives.

6.3.3.2. Market risk

a) FIs should have methodologies that enable them to assess and actively manage all material market risks, wherever they arise, at position, desk, business line and firm-wide level. For moving towards advanced approaches for assessment of internal capital adequacy for market risk, at a minimum, FIs will be prepared for both VaR modeling and stress testing, including an assessment of concentration risk and the assessment of illiquidity under stressful market scenarios.

b) VaR is an important tool in monitoring aggregate market risk exposures and provides a common metric for comparing the risk being run by different desks and business lines. An FI's VaR model should be adequate to identify and measure risks arising from all its trading activities and should be integrated into the FI's overall internal capital assessment as well as subject to rigorous on-going validation. A VaR model estimates should be sensitive to changes in the trading book risk profile.

c) The stress tests applied by an FI and, in particular, the calibration of those tests (e.g. the parameters of the shocks or types of events considered) should be reconciled back to a clear statement setting out the premise upon which the FI's internal capital assessment is based (e.g. ensuring there is adequate capital to manage the traded portfolios within stated limits through what may be a prolonged period of market stress and illiquidity, or that there is adequate capital to ensure that, over a given time horizon to a specified confidence level, all positions can be liquidated or the risk hedged in an orderly fashion). The market shocks applied in the tests must reflect the nature of portfolios and the time it could take to hedge out or manage risks under severe market conditions.

d) Concentration risk should be pro-actively managed and assessed by firms and concentrated positions should be routinely reported to senior management.

e) FIs should design their risk management systems, including the VaR methodology and stress tests, to properly measure the material risks in instruments they trade as well as the trading strategies they pursue. As their instruments and trading strategies change, the VaR methodologies and stress tests should also evolve to accommodate the changes.

f) FIs must demonstrate how they combine their risk measurement approaches to arrive at the overall internal capital for market risk.

6.3.3.3. Operational risk

a) Similar rigor should be applied to the management of operational risk, as is done for the management of other significant risks. The failure to properly manage operational risk can result in a misstatement of an institution's risk/return profile and expose the institution to significant losses.

b) An FI should develop a framework for managing operational risk and evaluate the adequacy of capital given this framework. The framework should cover the FI's tolerance for operational risk, as specified through the policies for managing this risk, including the extent and manner in which operational risk is transferred outside the FI. It should also include policies outlining the FI's approach to identifying, assessing, monitoring and controlling/mitigating the risk.

6.3.3.4. Monitoring and reporting

The FI should establish an adequate system for monitoring and reporting risk exposures and assessing how the FI's changing risk profile affects the need for capital. The FI's senior management or board of directors should, on a regular basis, receive reports from the responsible unit regarding the FI's branch wise risk profile and capital needs. These reports should allow senior management to:

a) Evaluate the level and trend of material risks and their effect on capital levels;

b) Evaluate the sensitivity and reasonableness of key assumptions used in the capital assessment measurement system;

c) Determine that the FI holds sufficient capital against the various risks and is in compliance with established capital adequacy goals; and

d) Assess its future capital requirements based on the FI's reported risk profile and make necessary adjustments to the FI's strategic plan accordingly.

6.3.3.5. Internal control review

The FI's internal control structure is essential to the capital assessment process. Effective control of the capital assessment process includes an independent review and, where appropriate, the involvement of internal or external audits. The FI's board of directors has a responsibility to ensure that management establishes a system for assessing the various risks, develops a system to relate risk to the FI's capital level, and establishes a method for monitoring compliance with internal policies. The board should regularly verify whether its system of internal controls is adequate to ensure well-ordered and prudent conduct of business.

The FI should conduct periodic reviews of its risk management process to ensure its integrity, accuracy, and reasonableness. Areas that should be reviewed include:

- Appropriateness of the FI's capital assessment process given the nature, scope and complexity of its activities;
- Identification of large exposures and risk concentrations;
- Accuracy and completeness of data inputs into the FI's assessment process;
- Reasonableness and validity of scenarios used in the assessment process; and
- Stress testing and analysis of assumptions and inputs.

6.4. Recommendations for sound stress testing practices

6.4.1. Use of stress testing and integration in risk governance

a) Stress testing should form an integral part of the overall governance and risk management culture of the FI. Stress testing should be actionable, with the results from stress testing analyses impacting decision making at the appropriate management level, including strategic business decisions of the board and senior management. Board and senior management involvement in the stress testing program is essential for its effective operation.

b) An FI should operate a stress testing program that promotes risk identification and control; provides a complementary risk perspective to other risk management tools;

improves capital and liquidity management; and enhances internal and external communication.

c) Stress testing programs should take account of views from across the organization and should cover a range of perspectives and techniques.

d) An FI should have written policies and procedures governing the stress testing program. The operation of the program should be appropriately documented.

e) An FI should have a suitably robust infrastructure in place, which is sufficiently flexible to accommodate different and possibly changing stress tests at an appropriate level of granularity.

f) An FI should regularly maintain and update its stress testing framework. The effectiveness of the stress testing program, as well as the robustness of major individual components, should be assessed regularly and independently.

6.4.2. Stress testing methodology and scenario selection

g) Stress tests should cover a range of risks and business areas, including at the firm-wide level. An FI should be able to integrate effectively across the range of its stress testing activities to deliver a complete picture of firm-wide risk.

h) Stress testing program should cover a range of scenarios, including forward-looking scenarios, and aim to take into account system-wide interactions and feedback effects.

i) Stress tests should be geared towards the events capable of generating most damage whether through size of loss or through loss of reputation. A stress testing program should also determine what scenarios could challenge the viability of the FI (reverse stress tests) and thereby uncover hidden risks and interactions among risks.

j) As part of an overall stress testing program, an FI should aim to take account of simultaneous pressures in funding and asset markets, and the impact of a reduction in market liquidity on exposure valuation.

6.4.3. Specific areas of focus

The following recommendations to FIs focus on the specific areas of risk mitigation and risk transfer that have been highlighted by the financial crisis.

a) The effectiveness of risk mitigation techniques should be systematically challenged.

b) The stress testing program should explicitly cover complex and bespoke products such as securitized exposures. Stress tests for securitized assets should consider the underlying assets, their exposure to systematic market factors, relevant contractual arrangements and embedded triggers, and the impact of leverage, particularly as it relates to the subordination level in the issue structure.

c) The stress testing program should cover pipeline and warehousing risks. An FI should include such exposures in its stress tests regardless of their probability of being securitized.

d) An FI should enhance its stress testing methodologies to capture the effect of reputational risk. The FI should integrate risks arising from off-balance sheet vehicles and other related entities in its stress testing program.

e) An FI should enhance its stress testing approaches for highly leveraged counterparties in considering its vulnerability to specific asset categories or market movements and in assessing potential wrong-way risk related to risk mitigating techniques.

6.5. Risks to be covered under SRP

6.5.1. Residual risks

As institutions mitigate risks by way of collaterals, the collaterals can pose additional risks (legal and documentation risks), which may deteriorate the impact of risk mitigation. For example :

a) The liquidation procedure of the collateral is difficult and time consuming,

b) The valuation of the collateral is inappropriate (e.g. overvaluation).

FIs must be able to prove that they have proper risk management procedures in place to control the risks that result from the use of credit risk mitigating techniques, including residual operational and legal risks. The FIs should have appropriate governing and control systems, valuation procedures, internal regulations and responsible individuals assigned for the prudent handling of risks. A regular review must be conducted to ensure the reliability, accuracy, authenticity of data, and check effectiveness and integrity of the procedures. If BB finds theses procedures and methodologies employed by the FI not appropriate and comprehensive, it may require the FIs to take specific action or raise additional capital determined through the SRP-SREP dialogue.

6.5.2. Evaluation of Core Risk Management

Core risk management guidelines are provided with the FIs with a view to enhance knowledge, skill and to introduce uniform risk management system in the FIs. No-compliance of core risk management comes out of under-estimation of assessment procedure, valuation, level of implementation etc. and leads to the FI's financial losses. It may be caused by the negligence, knowledge limits, insufficient data or changes which make approaches imperfect. To check these issues management of core risks and its rating could be evaluated and disregard of core risks management may be linked with the additional capital requirement. The FI should assess the potential deficiencies of the applied methods and take them into consideration during the SRP. If BB finds the capital requirement of the FI calculated with the applied methods insufficient to cover its risks at the time of its review, it may require the FIs to take specific action or raise additional capital determined through the SRP-SREP dialogue.

6.5.3. Credit concentration risk

Credit concentration risk may arise from exposure to a single entity/group and/or exposures in the same economic or geographic sector and/or credit concentration in dependent industries. Downturn in concentrated activities and/or areas may cause huge losses to an FI relative to its capital and can threaten the FI's health or ability to

maintain its core operations. Concentration will be used in a broader sense and also include the following criteria:

a) Concentration by economic sector or geographical location;

b) Concentration in a specific foreign currency; and

c) Concentration of credit-risk mitigating techniques (concentration of collaterals or the type or issuer of such assets).

All above cases may require additional capital charge against credit concentration risk under SRP. The level of additional capital will be determined through the SRP-SREP dialogue with the FI and its internal procedure of risk measurement and risk management.

BB's outlook concerning risk measurement and risk management

As credit concentration risk has the potential to be a source of extensive losses, the policy to handle this risk should always be an integral part of risk management system of FIs. FIs should clearly document the processes and procedures for addressing credit concentration risk. These documents should address at least the following:

a) Each FI should have policies and procedures for managing credit concentration risk approved by top management for both types of concentration risks (single name and sensitivity to a common underlying risk factor). The policies should be reviewed regularly and the review should always observe changes in the FI's risk appetite and in the external business environment.

b) FIs should apply internal methods/systems commensurate with their specific activities, size and complexity to identify and measure concentration risks.

c) FIs should operate limit mechanisms for concentration risks and these mechanisms should match the FI's risk appetite and profile.

d) FIs should have adequate action schemes which would enable them to monitor, assess and handle the policies, procedures and limits for mitigating the credit concentration risks.

e) FIs should be in a position to evaluate the adequacy of assumptions which they use in their internal capital allocation processes employed to cover concentration risks.

Quantitative criteria for managing credit concentration risk

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-

a) counterparty level (i.e., large exposures),

b) portfolio level (i.e., sectoral and geographical concentrations), and

c) asset class level (i.e., liability and assets concentrations).

For performing credit concentration risk calculations, the following information is to be outlined at each of the above stated level:

a) To sort top 20 large exposures by size,

b) To sort top 10 connected exposures by size,

c) To calculate portfolio concentration ratios,

d) To measure portfolio correlations and variance/covariance,

e) To reveal concentration vulnerability with stress tests.

f) To use limits based on concentration metrics.

g) To allocate capital against the concentration risks.

6.5.4. Interest rate risk in the banking book

Interest rate risk in the banking book has to be taken into account as a potential risk. Sources and types of interest rate risks in banking book are:

a) Gap or mismatch risk

b) Basis risk

c) Net interest position risk

d) Embedded option risk etc.

6.5.5. Liquidity risk

Liquidity risk occurs when an FI is unable to fulfill its commitments in time when payment falls due. FIs should come up with estimates on their liquidity risk, comparing their liquid assets to short-term liabilities. The purpose of daily liquidity measurements is to ensure that the institution remains solvent in its day-to-day operations at all times. In order to maintain immediate liquidity, analyses are to be carried out concerning future liquidity as well. Regulations and procedures are to be implemented which serve the ongoing and forward-looking measurement and management of the institution's financing position. Alternative scenarios are to be developed and decisions on net financing positions should be reviewed on a regular basis. Contingency plans should be available for handling a potential liquidity crisis. Liquidity risks can be classified into four categories:

a) Term liquidity risk (due to discrepancies between maturities),

b) Withdrawal/call risk (mass disinvestment before maturity),

c) Structural liquidity risk – when the necessary funding transactions cannot be carried out or only on less favorable terms, and

d) Market liquidity risk.

An FI can analyze the expected changes of its liquidity by comparing the maturity of its receivables and payables.

6.5.6. Settlement risk

Settlement risk arises when an executed transaction is not settled as the standard settlement system. Settlement risk addresses to the credit risk and liquidity risk elements. Treasury transactions, trading book items (deals) and capital market dealings concluded as part of investment services convey a settlement risk that is a specific mix of credit and liquidity risk. The FIs pose to the risk when it fulfills its contractual obligations (payment or delivery), but the counterparty fails or defaults to do the same.

6.5.7. Reputation risk

Reputation risk is the current or prospective indirect risk to earnings and capital arising from adverse perception of the image of the financial institution on the part of customers, counterparties, shareholders, investors or regulators. Reputation risk may originate from the lack of compliance with industry service standards, failure to deliver on commitments, lack of customer-friendly service and fair market practices, low or inferior service quality, unreasonably high costs, a service style that does not harmonize with market benchmarks or customer expectations, inappropriate business conduct or unfavorable authority opinion and actions. Signs of significant reputation risk include the extensive and repeated voicing of a negative opinion on the institution's performance and overall quality by external persons or organizations, especially if such negative opinion receives broad publicity along with poor performance by the institution which may lay the grounds for such opinions.

6.5.8. Strategic risk

Strategic risk means the current or prospective risk to earnings and capital arising from changes in the business environment and from adverse business decisions, or from the overlooking of changes in the business environment. Typical sources of strategic risk are e.g. endeavors to achieve a growth rate or market share that does not synchronize with the market environment, lack of timely and proper adherence to environmental changes, assignment of inappropriate means to correctly chosen objectives, poorly timed alignment to changes in the business environment, or specific actions that do not comply with strategic objectives. It may be a strong indication of strategic risk if the institution persistently proceeds against the clearly articulated requirements and trends of the economic environment in matters which exercise a substantial influence on its services and business performance, or if the institution fails to revise its strategy despite clearly identifiable and substantial changes in the environment.

6.5.9. Environmental risk

Environmental and climate change risk refers to the uncertainty or probability of losses that originates from any adverse environmental or climate change events (natural or man-made) and/or the non-compliance of the prevailing national/BB environmental regulations. Environmental and climate change risk can hamper the business stability of the borrowers in respect of both- i) profitability and ii) reputation. Consequentially, the extent of risk for the FIs will be higher. Sources of Environmental and climate change risk can be:

- Natural Disasters (Flood, Cyclone, Earthquake, Climate change impacts etc.)

- Manmade Disasters (Fire, Deforestation, Illegal land/river acquisition)
- Land location
- Regulatory non-compliance
- Labor/social risks
- Community/public opposition

Environmental and climate change risk can be of following types:

- Direct Risk
- Security / collateral risk
- Indirect Risk
- Business / industry risk
- Management risk

6.5.10. Other material risks

SRP requires that the FI's internal capital allocation process should cover all risks which have not been identified earlier but are material for the institution. Such risks may include e.g. strategic risk or reputation risk, but the institution needs to consider all risks not specified in case it can be captured in the institution's operation and can be regarded as material. Risks may appear which are specific to the institution and derive from its non-standard activities or clientele but fall outside the scope of usual risk definitions. The institution is free to use its own terminology and definitions for other material risks, although it should be able to explain these to BB in detail, along with the related risk measurement and management procedures. BB is not providing a detailed list and definitions of other risks. It is the FI's responsibility to map out other relevant risks for which it has to elaborate an adequate risk identification mechanism. The institution needs to examine the materiality of the identified risk and the result of the assessment. Furthermore, it has to be able to explain these satisfactorily to the BB.

Materiality: In the context of an institution's activities, all risks which affect the achievement of business objectives should be considered material. Other risks are usually difficult or impossible to quantify, thus their measurement and management typically call for qualitative methods. Therefore, institutions are advised to elaborate detailed methodologies for their evaluation and management which enable the revealing of risks and help to keep them under control. There might be a strong link between these risks and other risks, either because the former may amplify the latter (e.g. strategic risk can increase credit risk) or because they stem from the escalation of basic risks (e.g. IT problems carrying a high operational risk may also result in the fast increase of reputation risk if they impact customer systems). Thus the assessment of the materiality of other risks is a highly subjective exercise. BB would take a stand on this matter in the course of the SREP process, during the dialogue with the institution and on the basis of submitted documentation.

6.6. Consideration of external factors in Capital planning

The capital requirement of assumed risks that have been examined in a static manner so far is now put in a dynamic context through the observation of external factors. The level of capital has to be adequate on an ongoing basis, not only at specific times, so that sound operations can be sustained even under potentially adverse turns in the economic or business environment. The capital requirement is affected by the economic environment (e.g. recessions), the regulatory environment and by risks arising from the institution's activities (profitability, business performance). These factors are taken into consideration through capital planning which ensures that the institution calculates its adequate capital with a sufficiently forward-looking outlook. Stress tests enable the identification of necessary capital for times of economic recession. The adequate capital should be corrected with a view to additional capital requirements based on this outlook.

6.6.1. Capital planning

The purpose of capital planning is to enable the institution to ensure capital adequacy under changing economic conditions, even at times of economic recession. In the capital planning process, the following items should be reviewed:

a) current capital requirement of the institution,

b) the targeted and sustainable capital level (with a view to the institution's strategy and risk appetite),

c) the means of capital management: internal and external resources that can be employed to increase capital (profit-generating capability),

d) other employable means of ensuring capital adequacy (e.g. budgeting of dividend payments and balance sheet items, etc.),

The assessment of the internal sources of capital planning calls for the review of risk arising from the FI's financial management (actual performance versus business plans, profitability and profit generating capability). Concerning the timeline of the capital plan, BB expects a 3 to 5 year outlook, depending on the complexity of the institution. For smaller institutions, a three-year outlook is sufficient, but large institutions are required to work with a 5-year outlook. The capital plan should be revised on an as-needed basis but at least once in every three years and it should also be aligned to circumstances. In the capital planning process, it is advised to use stress test to reveal the impacts of unfavorable changes in circumstances.

6.6.2. Stress Testing

Impact on capital will be detected through stress testing, would be included in risk profile of an FI and needs maintaining shock absorbent fund in the form of regulatory capital. Stress test is a general term covering the techniques and methodologies which financial institutions can employ to measure their vulnerability or exposure to the impacts of exceptional, rare but potentially occurring events. Such events can be the following: interest rate changes, exchange rate fluctuations, changes in credit rating, events which influence liquidity, etc. There are various methods for measuring the impact of the above factors. In an SRP context, they are as follows:

a) Simple sensitivity tests determine the short-term sensitivity to a single risk factor,

b) Scenario analyses involve risk parameters (with low but positive probability) which change along a pre-defined scenario and examine the impact of these parameters.

Out of these methods, the sensitivity test is the simpler one and institutions with a simple portfolio can use it best. A scenario analysis is somewhat more complicated and requires more resources. Still, institutions with a complex portfolio use this approach to assess risk factors which they consider material – after the proper calibration of scenario parameters. The time horizon of the analysis should be set in accordance with the composition of the portfolio. The institution should verify regularly that the assumed risk profile used during the stress test is in harmony with the external factors.

As a starting point the scope of the stress test may be limited to simple sensitivity analysis. Following five different risk factors can be identified and used for the stress testing :

a) interest rate,

b) forced sale value of collateral,

c) non-performing loans (NPLs),

d) share prices, and

e) foreign exchange rate.

Moreover, the liquidity position of the institutions has to be stressed separately. Though the decision of creating different scenarios for stress testing is a difficult one, however, to start with, certain levels of shocks to the individual risk components to be specified considering the historical as well as hypothetical movement in the risk factors.

Stress test shall be carried out assuming three different hypothetical scenarios:

a) Minor level shocks: These represent small shocks to the risk factors. The level for different risk factors can, however, vary.

b) Moderate level shocks: It envisages medium level of shocks and the level is defined in each risk factor separately.

c) Major level shocks: It involves big shocks to all the risk factors and is also defined separately for each risk factor.

Chapter 7. Market discipline

7.1. Scope and purpose

The purpose of Market discipline in the CAMD is to complement the minimum capital requirements and the supervisory review process. The aim of introducing Market discipline in this framework is to establish more transparent and more disciplined financial market so that stakeholders can assess the position of an FI regarding holding of assets and to identify the risks relating to the assets and capital adequacy to meet probable loss of assets. For the said purpose, FIs will develop a set of disclosure containing the key pieces of information on the assets, risk exposures, risk assessment processes, and hence the capital adequacy to meet the risks.

FIs should have a formal disclosure framework approved by the Board of Directors/Chief Executive Officer. The process of their disclosures will include validation and frequency.

7.2. Relations with accounting disclosures

a) It is expected that the disclosure framework does not conflict with requirements under accounting standards as set by Bangladesh Bank from time to time. Moreover, FIs' disclosures should be consistent with how senior management and the Board of directors assess and manage the risks of the FI.

b) Under Minimum Capital Requirement, FIs will 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 stakeholders about an FI's exposure to those risks and provides a consistent and comprehensive disclosure framework of risks and its management that enhances comparability.

c) The disclosures should be subject to adequate validation. Since information in the annual financial statements would generally be audited, the additionally published with such statements must be consistent with the audited statements.

7.3. Materiality of disclosure

An FI should decide which disclosures are relevant for it based on the materiality concept. Information would be considered as material if its omission or misstatement could change or influence the assessment or decision of a user relying on that information.

7.4. Frequency of disclosure

a) FIs should provide all required disclosures in both qualitative and quantitative form, as at end March of each year along with the annual financial statements. FIs have to submit a copy of their disclosures to Department of Financial Institutions and Markets (DFIM) of BB. FIs may make their annual disclosures both in their annual reports as well as their respective web sites. Qualitative disclosures will provide a general summary of an FI's risk management objectives and policies, reporting system and definitions.

b) The disclosure on the websites should be made in a web page titled "Disclosures on CAMD" and the link to this page should be prominently provided on the home page of the FI's website. Each of these disclosures pertaining to a financial year should be available on the websites until disclosure of the 4th subsequent annual (as on March 31) disclosure is made.

7.5. Disclosure framework

7.5.1. The general qualitative disclosure requirement:

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

- strategies and processes;
- the structure and organization of the relevant risk management function;
- the scope and nature of risk reporting and/or measurement systems;
- policies for hedging and/or mitigating risk and strategies and processes for monitoring the continuing effectiveness of hedges/mitigants.

7.5.2. The following components are the disclosure requirements:

a) Scope of application

b) Capital structure

c) Capital adequacy

d) Credit Risk

e) Equities: banking book positions

f) Interest rate risk in the banking book positions

g) Market risk

h) Operational risk

Table 15 : a) Scope of application

Qualitative Disclosures	(a)	The name of the top corporate entity in the group to which this guidelines applies.
	(b)	An outline of differences in the basis of consolidation for accounting and regulatory purposes, with a brief description of the entities[15] within the group (a) that are fully consolidated; (b) that are given a deduction treatment; and (c) that are neither consolidated nor deducted (e.g. where the investment is risk-weighted).
	(c)	Any restrictions, or other major impediments, on transfer of funds or regulatory capital within the group.
Quantitative Disclosures	(d)	The aggregate amount of capital deficiencies[16] in all subsidiaries not included in the consolidation that are deducted and the name(s) of such subsidiaries.

Table 16 : b) Capital structure

Qualitative Disclosures	(a)	Summary information on the terms and conditions of the main features of all capital instruments, especially in the case of capital instruments eligible for inclusion in Tier 1 or in Tier 2.
Quantitative Disclosures	(b)	The amount of Tier 1 capital, with separate disclosure of: Paid up capital Non-repayable share premium account Statutory reserve General reserve Retained earnings Minority interest in subsidiaries Non-cumulative irredeemable preference shares Dividend equalization account

[15] Entity = securities, financial subsidiaries , commercial subsidiaries, significant minority interest in subsidiaries,
equity investments in insurance, financial and commercial entities.
[16] A capital deficiency is the amount by which actual capital is less than the regulatory capital requirement. Any deficiencies which have been deducted on a group level in addition to the investment in such subsidiaries are not to be included in the aggregate capital deficiency.

	(c)	The total amount of Tier 2 capital.
	(d)	Other deductions from capital.
	(e)	Total eligible capital.

Table 17: c) Capital Adequacy

Qualitative Disclosures	(a)	A summary discussion of the FI's approach to assessing the adequacy of its capital to support current and future activities.
Quantitative Disclosures	(b)	Capital requirement for Credit Risk
	(c)	Capital requirement for Market Risk
	(d)	Capital requirement for Operational Risk
	(e)	Total and Tier 1 capital ratio: • For the consolidated group; and • For stand alone

Table 18 : d) Credit Risk

Qualitative Disclosures	(a)	The general qualitative disclosure requirement with respect to credit risk, including: • Definitions of past due and impaired (for accounting purposes); • Description of approaches followed for specific and general allowances and statistical methods; • Discussion of the FI's credit risk management policy.
Quantitative Disclosures	(b)	Total gross credit risk exposures broken down by major types of credit exposure.
	(c)	Geographica1 distribution of exposures, broken down in significant areas by major types of credit exposure.
	(d)	Industry or counterparty type distribution of exposures, broken down by major types of credit exposure.
	(e)	Residual contractual maturity breakdown of the whole portfolio, broken down by major types of credit exposure.

	(f)	By major industry or counterparty type: • Amount of impaired loans and if available, past due loans, provided separately; • Specific and general provisions; and • Charges for specific allowances and charge-offs during the period.
	(g)	Gross Non Performing Assets (NPAs) Non Performing Assets (NPAs) to Outstanding Loans & advances **Movement of Non Performing Assets (NPAs)** Opening balance Additions Reductions Closing balance **Movement of specific provisions for NPAs** Opening balance Provisions made during the period Write-off Write-back of excess provisions Closing balance

Table 19: e) Equities: banking book positions

Qualitative Disclosures	(a)	The general qualitative disclosure requirement with respect to equity risk, including: • differentiation between holdings on which capital gains are expected and those taken under other objectives including for relationship and strategic reasons; and • discussion of important policies covering the valuation and accounting of equity holdings in the banking book positions. This includes the accounting techniques and valuation methodologies used, including key assumptions and practices affecting valuation as well as significant changes in these practices.
Quantitative Disclosures	(b)	Value disclosed in the balance sheet of investments, as well as the fair value of those investments; for quoted securities, a comparison to publicly quoted share values where the share price is materially different from fair value.
	(c)	The cumulative realized gains (losses) arising from sales and liquidations in the reporting period.
	(d)	• Total unrealized gains (losses) • Total latent revaluation gains (losses) • Any amounts of the above included in Tier 2 capital.
	(e)	Capital requirements broken down by appropriate equity groupings, consistent with the FI's methodology, as well as the aggregate amounts and the type of equity investments subject to any supervisory provisions regarding regulatory capital requirements.

Table 20: f) Interest rate in the banking book

Qualitative Disclosures	(a)	The general qualitative disclosure requirement including the nature of interest risk and key assumptions, including assumptions regarding loan prepayments and behavior of non-maturity deposits.
Quantitative Disclosures	(b)	The increase (decline) in earnings or economic value (or relevant measure used by management) for upward and downward rate shocks according to management's method for measuring interest rate risk broken down by currency (as relevant).

Table 21: g) Market risk

Qualitative Disclosures	(a)	Views of BOD on trading/investment activities Methods used to measure Market risk Market Risk Management system Policies and processes for mitigating market risk
Quantitative Disclosures	(b)	The capital requirements for: interest rate risk; equity position risk; and Foreign Exchange Position and Commodity risk (if any).

Table 22: h) Operational risk

Qualitative Disclosures	(a)	Views of BOD on system to reduce Operational Risk Performance gap of executives and staffs Potential external events Policies and processes for mitigating operational risk Approach for calculating capital charge for operational risk
Quantitative Disclosures	(b)	The capital requirements for operational risk

Chapter 8. Reporting format

8.1. Reporting cover letter

FIs have to submit their reporting as per formats mentioned in section 8.2 along with the following cover letter as well as send an electronic report as per prescribed format in a compact disc.

CONFIDENTIAL

UNDER SECTION 6 OF FINANACIAL INSTITUTIONS ACT 1993

CAPITAL ADEQUACY RATIO OF A FINANCIAL INSTITUTION

*SOLO/CONSOLIDATED RETURN

As on ……

* Delete which is not appropriate.

NAME OF FI	DATE OF SUBMISSION

Information requested in this return is required under section 6 of Financial Institutions Act 1993 The return should be submitted to Bangladesh Bank not later than 1 (One) month after the end of each quarter, unless otherwise advised by Bangladesh Bank.
Note. This return is to be prepared in accordance with the completion instructions issued by Bangladesh Bank.

We certify that this return is, to the best of our knowledge and belief, correct.

……..	……..
Managing Director/Chief Executive Officer	Chief Financial Officer
……..	……..
Name	Name

Name and telephone number of responsible person who may be contacted by Bangladesh Bank in case of any query.

……..	……..
Name	Telephone Number

8.2. Reporting forms

Minimum Capital Requirement (MCR) under Prudential Guidelines on Capital Adequacy and Market Discipline for Financial Institutions (CAMD)

(Amount in crore taka)

Sl.	Particulars	Amount
A.	Eligible Capital :	
1	Tier-1 Capital	
2	Tier-2 Capital	
3	Total Eligible Capital (1+2)	
B.	Total Risk Weighted Assets (RWA)	
C.	Capital Adequacy Ratio (CAR) (A_3 / B)*100	
D.	Core Capital to RWA (A_1 / B)*100	
E.	Supplementary Capital to RWA (A_2 / B)*100	
F.	Minimum Capital Requirement (MCR)	

Eligible Capital

(Amount in crore taka)

Sl.	Particulars	Amount
	Tier-1 (Core Capital)	
1.1	Fully Paid-up Capital/Capital lien with BB	
1.2	Statutory Reserve	
1.3	Non-repayable Share premium account	
1.4	General Reserve	
1.5	Retained Earnings	
1.6	Minority interest in Subsidiaries	
1.7	Non-Cumulative irredeemable Preferences shares	
1.8	Dividend Equalization Account	
1.9	Other (if any item approved by Bangladesh Bank)	
1.10	Sub-Total: (1.1 to 1.9)	
	Deductions from Tier-1 (Core Capital)	
1.11	Book value of goodwill and value of any contingent assets which are shown as assets	
1.12	Shortfall in provisions required against classified assets	
1.13	Shortfall in provisions required against investment in shares	
1.14	Remaining deficit on account of revaluation of investments in securities after netting off from any other surplus on the securities.	
1.15	Any investment exceeding the approved limit.	
1.16	Investments in subsidiaries which are not consolidated	
1.17	Increase in equity capital resulting from a securitization exposure	
1.18	Other (if any)	
1.19	Sub Total (1.11 to 1.18)	
1.20	Total Eligible Tier-1 Capital (1.10-1.19)	
	2 .Tier-2 (Supplementary Capital)	
2.1	General Provision (Unclassified loans up to specified limit + SMA + off Balance Sheet exposure)	
2.2	Assets Revaluation Reserves up to 50%	
2.3	Revaluation Reserve for Securities up to 45%	
2.4	Revaluation reserve for Equity Instruments up to 10%	
2.5	All other preference shares	
2.6	Other (if any item approved by Bangladesh Bank)	
2.7	Sub-Total (2.1 to 2. 6)	
2.8	Applicable Deductions if any	
2.9	Total Eligible Tier-2 Capital (2.7-2.8)	

Risk Weighted Assets

(Amount in crore taka)

Sl.	Particulars	Amount
A.	Credit Risk	
	On- Balance sheet (From WS-1)	
	Off-Balance sheet (From WS-2)	
B.	Market Risk (From WS-3)	
C.	Operational Risk (From WS-4)	
	Total: RWA (A+B+C)	

Work Sheet – 1: Risk Weighted Asset for Credit Risk Balance Sheet Exposure

(Amount in crore taka)

Sl.	Exposure type	Rating	Risk weight	Exposure	RWA
a.	Cash		0.00		
b.	Claims on Bangladesh Government and Bangladesh Bank		0.00		
c.	Claims on other Sovereigns & Central Banks		0.00		
d.	Claims on Bank for International Settlements, International Monetary Fund and European Central Bank		0.00		
e.	Claims on Multilateral Development Banks (MDBs)				
	i) IBRD , IFC, ADB, AfDB, EBRD, IADB, EIB, EIF, NIB, CDB, IDB, CEDB		0.00		
	ii) Other MDBs	1	0.20		
		2,3	0.50		
		4,5	1.00		
		6	1.50		
		Unrated	0.50		
f.	Claims on Public Sector Entities (other than Government) in Bangladesh	1	0.20		
		2,3	0.50		
		4,5	1.00		
		6	1.50		
		Unrated	0.50		
g.	Claims on NBFIs and Banks				
	i) Original maturity over 3 months	1	0.20		
		2,3	0.50		
		4,5	1.00		
		6	1.50		
		Unrated	1.00		
	ii) Original maturity less than 3 months		0.20		
h.	Claims on Corporate	1	0.20		
		2	0.50		
		3,4	1.00		
		5,6	1.50		
		Unrated	1.25		
i	Securitization Exposures	1	0.20		
		2	0.50		
		3	1.00		
		4	3.50		

Sl.	Exposure type	Rating	Risk weight	Exposure	RWA
j.	Claims under Credit Risk Mitigation [From Work Sheet -1(a)]:	PSE	N/A		
		NBFIs and Banks	N/A		
		Corporate	N/A		
		Retail & Small	N/A		
		Consumer finance	N/A		
		Residential property	N/A		
		Commercial real estate	N/A		
k.	Claims categorized as retail portfolio & SME (excluding consumer finance)		0.75		
l.	Consumer finance		1.00		
m.	Claims fully secured by residential property		0.50		
n.	Claims fully secured by commercial real estate		1.00		
o.	1.Past Due Claims (Risk weights are to be assigned net of specific provision):				
	Where specific provisions are less than 20 percent of the outstanding amount of the past due claim ;		1.50		
	Where specific provisions are no less than 20 percent of the outstanding amount of the past due claim		1.00		
	Where specific provisions are no less than 50 percent of the outstanding amount of the past due claim.		1.00		
	2. Claims fully secured against residential property that are past due for more than 90 days and/or impaired specific provision held there-against is less than 20% of outstanding amount		1.00		
	3. Loans and claims fully secured against residential property that are past due for more than 90 days and /or impaired and specific provision held there-against is than 20% of outstanding amount		0.75		
p.	Capital Market Exposure		1.25		
q.	Investments in venture capital		1.50		
r.	Unlisted equity investments and regulatory capital instruments (other than those deducted from capital) held in the banking book		1.50		
s.	Investments in premises, plant and equipment and all other fixed assets		1.00		
t.	Claims on all fixed assets under operating lease		1.00		
u.	All other assets				
	i) Claims on GoB & BB (eg. advanced income tax, reimbursement of patirakkha/shadharon shanchay patra, etc.)		0.00		
	ii) Staff loan/Investment		0.20		
	iii) Cash items in Process of Collection		0.20		
	iv) Other assets (net off specific provision, if any)		1.00		
	Total				

Work Sheet -1(a)

(Amount in crore taka)

Sl.	Claims on	**Exposure**					**Collateral**						E* = Net Exposure = (EAH – CAH)	RW	RWA
		Exposure Amount (E)	Maturity	Rating of Counter Party	Haircut of exposure (He)	Exposure after haircut EAH = E × (1 + He)	Nature of Collateral (C)	Maturity	Rating of issuer/ Issue	Haircut of collateral (Hc)	Haircut on currency mismatch (H_{fx})	Collateral after haircut CAH= C × (1 – Hc- Hfx)			
1															
2															
3															
4															
5															
6															
7															
8															
9															

Work Sheet – 2: Risk Weighted Asset for Credit Risk Off-Balance Sheet Exposure

(Amount in crore taka)

Sl.	Exposure type	**Rating**	**Risk weight**	**Exposure**	**RWA**
a.	Claims on Bangladesh Government and Bangladesh Bank		0.00		
b.	Claims on other Sovereigns & Central Banks				
c.	Claims on Bank for International Settlements, International Monetary Fund and European Central Bank		0.00		
	Claims on Multilateral Development Banks (MDBs):		0.00		
	i) IBRD , IFC, ADB, AfDB, EBRD, IADB, EIB, EIF, NIB, CDB, IDB, CEDB		0.00		
	ii) Other MDBs	1	0.20		
		2,3	0.50		
		4,5	1.00		
		6	1.50		
		Unrated	0.50		
d.	Claims on Public Sector Entities (other than Government) in Bangladesh	1	0.20		
		2,3	0.50		
		4,5	1.00		
		6	1.50		
		Unrated	0.50		
e.	Claims on NBFIs and Banks				
	i) Maturity over 3 months	1	0.20		
		2,3	0.50		
		4,5	1.00		
		6	1.50		
		Unrated	1.00		
	ii) Maturity less than 3 months		0.20		
f.	Claims on Corporate	1	0.20		
		2	0.50		
		3,4	1.00		
		5,6	1.50		
		Unrated	1.25		
g.	Securitization Exposures	1	0.20		
		2	0.50		
		3	1.00		
		4	3.50		
h.	Claims against retail portfolio & small enterprise (excluding consumer loan)		0.75		
i.	Consumer finance		1.00		
j.	Claims fully secured by residential property		0.50		
k.	Claims fully secured by commercial real estate		1.00		
l.	Investments in venture capital		1.50		
m.	All other assets		1.00		
	Total				

Work Sheet - 2(a): Credit Conversion Factors Off-Balance Sheet Exposures

(Amount in crore taka)

Sl.	Exposures Types	CCF	Notional Amount	Credit Exposure
a)	Direct Credit Substitutes	100%		
b)	Lending of Securities or posting of securities as collateral	100%		
c)	Securitization Exposures	100%		
d)	Other commitments with certain drawdown	100%		
e)	Performance related contingencies	50%		
f)	Commitments with original maturity of over one year	50%		
g)	Trade related contingencies	20%		
h)	Commitments with original maturity of one year or less	20%		
i)	Other commitments that can be unconditionally cancelled by any time	0%		
j)	Foreign exchange contract	Note-1		
	Total			

Note-1: See Table 4 and Table 5

Work Sheet – 3: Risk Weighted Asset for Market Risk Balance Sheet Exposures

(Amount in crore taka)

Sl.	**Market Risk**	Total Capital Charge
A.	Interest Rate Related instruments	
B.	Equities	
C.	Foreign Exchange Position (if any)	
D.	Commodities (if any)	
	Total	

Work Sheet – 3 (a) Specific Market Risk on Interest Rate Related Instruments

(Amount in crore taka)

Categories	BB rating grade	Particulars	Market Value	Capital Charge Weights (%)	Capital Charge
Government (Domestic Currency)	--	--		0	
Government (Other than Domestic Currency)	1			0	
	2 , 3	Residual term to final maturity 6 months or less		0.25	
		Residual term to final maturity greater than 6 and up to and including 24 months		1	
		Residual term to final maturity exceeding 24 months		1.60	
	4 , 5	--		10	
	6	--		12	
	Unrated	--		10	
Qualifying	--	Residual term to final maturity 6 months or less		0.25	
		Residual term to final maturity greater than 6 and up to and including 24 months		1	
		Residual term to final maturity exceeding 24 months		1.60	
Other	1	--		2	
	2 , 3	--		6	
	4	--		10	
	Below 4	--		12	
	Unrated	--		10	

Work Sheet – 3 (b) General Market Risk on Interest Rate Related Instruments

(Amount in crore taka)

	Time band		Individual positions						Risk Weight	Weighted positions		By band		By zone		Between zones
Zone	Coupon 3% or more	Coupon less than 3%	Debt securities & debt derivatives		Interest rate derivatives		Total									
			Long	Short	Long	Short	Long	Short		Long	Short	Matched	Unmatched	Matched	Unmatched	Matched
1	1 month or less	1 month or less							0.00%							
	1 to 3 months	1 to 3 months							0.20%							
	3 to 6 months	3 to 6 months							0.40%							
	6 to 12 months	6 to 12 months							0.70%							
2	1 to 2 years	1.0 to 1.9 years							1.25%							
	2 to 3 years	1.9 to 2.8 years							1.75%							
	3 to 4 years	2.8 to 3.6 years							2.25%							
3	4 to 5 years	3.6 to 4.3 years							2.75%							
	5 to 7 years	4.3 to 5.7 years							3.25%							
	7 to 10 years	5.7 to 7.3 years							3.75%							
	10 to 15 years	7.3 to 9.3 years							4.50%							
	15 to 20 years	9.3 to 10.6 years							5.25%							
	Over 20 years	10.6 to 12 years							6.00%							
		12 to 20 years							8.00%							
		over 20 years							12.50 %							
TOTAL																
OVERALL NET OPEN POSITION																

Calculation	Vertical disallowance	Horizontal Disallowance in			Horizontal Disallowance between			Overall net open position	TOTAL GENERAL MARKET RISK CAPITAL CHARGE
		Zone 1	Zone 2	Zone 3	Zones 1 & 2	Zones 2 & 3	Zones 1 & 3		
GENERAL MARKET RISK CAPITAL CHARGE									

Work Sheet – 3 (c): Capital Charge on Equities

(Amount in crore taka)

Sl.	**Particulars**	Amount (Market Value)	RW	Capital Charge
a	Specific Risk			
b	General Market Risk			
	Total			

Work Sheet – 3 (d): Capital Charge on Foreign Exchange Position

(Amount in crore taka)

Sl.	**Particulars**	Amount	RW	Capital Charge
a	Sum of Net Short Position			
b	Sum of Net Long Position			

Work Sheet – 3(e): Capital Charge for Commodities

(Amount in crore taka)

Sl.	**Particulars**	Amount	RW	Capital Charge
a	Directional Risk			
b	Basis Risk			
	Total			

Work Sheet - 4: Capital Charge for Operational Risk (Basic Indicator Approach)

(Amount in crore taka)

Sl.	**Operational Risk**	year1	year2	year3	Capital Charge
	Gross Income				

Miscellaneous-1

(Amount in crore taka)

Sl.	**Particulars**	Cost price	Market Price
	Total Equity Investment in Unquoted Share		
	Total Investment in Quoted Share excluding Director Equity Shares		
	Total Equity Investment in Quoted Share as Director Share		

Miscellaneous-2

(Amount in crore taka)

Sl.	**Particulars**	Amount
	Total Staff Loan	
	Advance Government Tax	
	Actuarial Gain/(Loss)	
	Cumulative Loss	
	Special Mentioned Account (SMA)	
	Substandard (SS)	
	Doubtful (DF)	
	Bad/Loss(BL)	
	Total Retail Loan	
	Maximum amount of the Individual Retail Loan	
	Foreign currency contract	
	Total margin in Off-Balance Sheet Item	

Miscellaneous-3: Capital Maintained with Bangladesh Bank (Applicable for Foreign FIs)

(Amount in crore taka)

Sl.	**Particulars**	Amount
	Foreign Currency Lien with Bangladesh Bank	
	Local Currency Lien with Bangladesh Bank	
	Approved Securities Lien with Bangladesh Bank (Net Present Value)	
	Total	

Annex A: Example of charge for Repo transactions

Computation of total capital charge for a repo transaction comprising the capital charge for CCR and Credit/Market risk for the underlying security, under Basel -II is furnished below:

A. Particulars of Repo Transaction :

Type of Security	GOB Treasury Bill
Residual Maturity	>1 year, ≤ 5 years (1 & S1)
Coupon	6%
Current Market Value	Tk. 1050
Cash Borrowed	Tk. 1000
Haircut for security	2%
Haircut on cash	0
Minimum holding period	5 Business day
Capital charges for general market risk	3.25% (Table 17)

B. Computation of total capital charge comprising the capital charge for Counterparty Credit Risk (CCR) and credit /Market risk for the underlying security

In the book of the borrower of funds (for the off-balance sheet exposure due to lending of the security under repo)
(In this case, the security lent is the exposure of the security lender while cash borrowed is the collateral)

Sl no	Items	Particulars	Amount (in Tk)
A	Capital Charge for CCR		
1.	Exposure	Current market value of the security	1050
2.	CCF	100%	
3.	On balance sheet credit equivalent	1050 × 100%	1050
4.	Haircut	2% @	
5.	Exposure adjusted for haircut as per Table 7	1050 × 1.02	1071
6.	Collateral	Cash	1000
7.	Haircut for exposure	0%	
8.	Collateral adjusted for haircut	1000 × 1.00	1000
9.	Net exposure (5 - 8)	1071 - 1000	71
10.	Risk weight (for FI)	20%	
11.	Risk weighted assets for CCR (9 × 10)	71 × 20%	14.2

12.	Capital Charge for CCR (11 × 10%)	14.20 × 10%	1.42
B.	Capital for Credit/market of security		
1.	Capital for credit risk (if the security is held under HTM)	Credit risk	Zero (Being Govt. security)
2.	Capital for market risk (if the security is held under HFT)	Specific risk	Zero (Being Govt. security)
		General Market risk (Risk weight × market value of security) (3.25% × 1050)	34.13
Total capital required (for CCR + Credit risk + specific risk + general market risk) (1.42+0+0+34.13)			35.55

Annex B: A worked out example on Credit risk mitigation (CRM)

E* = [E x (1 + He) - C x (1 - Hc - Hfx) ≥ 0

Where,
E* = Exposure value after risk mitigation
E = Current value of the exposure
He = Haircut weight appropriate to the exposure
C = Current value of the collateral received
Hc = Haircut weight appropriate to the collateral
Hfx = Haircut weight appropriate for currency mismatch between the collateral and exposure

	Cases						
	1	**2**	**3**	**4**	**5**	**6**	**7**
Credit Exposures (E)	100	120	90	100	70	100	100
Maturity of exposures (years)	2	3	6	2	3	3	3
Nature of exposure	Corp	Corp	Corp	PSE	NBFI	Corp	Corp
Currency	BDT	BDT	USD	BDT	BDT	BDT	BDT
Rating of Exposure (BB rating grade)	4	2	3	Unrated	1	5	3
Haircut Weight (He)	0	0	0	0	0	0	0
Collaterals:							
Value of Collateral (C/Pa)	100	130	100	100	125	100	100 /27.1
Maturity of collateral (years)	2	3	6	-	-	12	1
Nature of collateral	T.Bill	Bonds	Corp Bonds	Equity - other than DSE-20	Equity - in DSE-20	T&T Bond	Corp Bonds
Currency	BDT	BDT	BDT	BDT	BDT	BDT	BDT
Rating of collateral (BB rating grade)	1	3	1	-	-	1	1
Haircut Weight (Hc)	0.02	0.06	0.08	0.15	0.12	0.08	0.08
Haircut for currency mismatch (Hfx)			0.10				
Exposure after haircut E × (1 + He)	100	120	90	100	70	100	100
Collateral after haircut C × (1 – Hc- Hfx)	98	122.2	82	85	110	92	25.1
Net Exposure (E*)	2	0	8	15	0	8	74.9
Case 5: As value of the collateral is higher than the exposure after haircuts, the exposure is zero. Case 7: Maturity mismatch between exposure and collateral. So the protecting value of exposure is calculated as per function Pa = P × (t – 0.25) / (T – 0.25).							

Annex C: Calculation of Capital Charge for General Market Risk for Interest Rate Related Instruments: A Worked Example

ABC Finance Ltd has the following positions:

- Qualifying bond: BDT 13.33 crore market value, residual maturity 8 years, coupon 8%;
- Government bond: BDT 75 crore market value, residual maturity 2 months, coupon 7%;
- Interest rate swap, BDT 150 crore , FI receives floating rate interest and pays fixed, next interest fixing after 9 months, residual life of swap 8 years;
- Long position in interest rate future, BDT 50 crore, delivery date after 6 months, life of underlying government security 3.5 years.

The calculation under the maturity method is as follows:

a) The overall net position (+ 0.15 - 0.20 + 1.05 + 1.125 - 5.625 + 0.5) is -3.00 leading to a capital charge of 3.00.

b) The *vertical disallowance* in time-band 7-10 years has to be calculated. The matched position in this time-band is 0.5 (the lesser of the absolute values of the added (weighted) long and (weighted) short positions in the same time band), which leads to a capital charge of 10% of 0.5 = 0.05 (BDT50,000). The remaining net (short) position is -5.125. Since there are no positions in other zone 3 time -bands, this is the net position in zone 3.

c) The *horizontal disallowances within the zones* have to be calculated. As there is more than one position in zone 1 only, a horizontal disallowance need only be calculated in this zone. In doing this, the matched position is calculated as 0.2 (the lesser of the absolute values of the added long and short positions in the same zone). The capital charge for the horizontal disallowance within zone 1 is 40% of 0.2 = 0.08 = BDT 80,000. The remaining net (long) position in zone 1 is +1.00.

d) The *horizontal disallowances between adjacent zones* have to be calculated. After calculating the net position within zone 1 the following positions remain: zone 1 +1.00, zone 2 +1.125, zone 3 -5.125. The matched position between zones 2 and 3 is 1.125 (the lesser of the absolute values of the long and short positions between adjacent zones). The capital charge in this case is 40% of 1.125 = 0.45.

e) The horizontal disallowance between zones 1 and 3 has to be calculated. After offsetting the +1.125 in zone 2 against the -5.125 in zone 3, this leaves -4.00 in zone 3 which can be offset against the +1.00 in zone 1. The horizontal disallowance between the two zones is 100 per cent of the matched position, which leads to a capital charge of 100 per cent of 1.00 = 1.00. The total capital charge (BDT crore) in this example is:
    - for the overall net open position = 3.00
    - for the vertical disallowance = 0.05
    - for the horizontal disallowance in zone 1 = 0.08
    - for the horizontal disallowance between adjacent zones = 0.45
    - for the horizontal disallowance between zones 1 and 3 = 1.00

Total Capital Charge = 4.58

Calculation of Capital Charge for General Market Risk on Interest Rate Related Instruments (Refer to Work Sheet – 3 (b))

(Amount in crore taka)

Zone	Time band		Individual positions						Risk Weight	Weighted positions		By band		By zone		Between zones
	Coupon 3% or more	Coupon less than 3%	Debt securities & debt derivatives		Interest rate derivatives		Total									
			Long	Short	Long	Short	Long	Short		Long	Short	Matched	Unmatched	Matched	Unmatched	Matched
1	1 month or less	1 month or less							0.00 %					0.20	1.00	0.00
	1 to 3 months	1 to 3 months	75.00				75.00		0.20 %	0.15		0.00	0.15			
	3 to 6 months	3 to 6 months				50.00		50.00	0.40 %		0.20	0.00	-0.20			
	6 to 12 months	6 to 12 months			150.00		150.00		0.70 %	1.05		0.00	1.05			
2	1 to 2 years	1.0 to 1.9 years							1.25 %					0.00	1.13	1.13
	2 to 3 years	1.9 to 2.8 years			50.00		50.00		1.75 %							
	3 to 4 years	2.8 to 3.6 years							2.25 %	1.13		0.00	1.13			
3	4 to 5 years	3.6 to 4.3 years							2.75 %					0.00	-5.13	1.00
	5 to 7 years	4.3 to 5.7 years							3.25 %							
	7 to 10 years	5.7 to 7.3 years	13.33			150.00	13.33	150.00	3.75 %	0.50	5.63	0.50	-5.13			
	10 to 15 years	7.3 to 9.3 years							4.50 %							
	15 to 20 years	9.3 to 10.6 years							5.25 %							
	Over 20 years	10.6 to 12 years							6.00 %							
		12 to 20 years							8.00 %							
		over 20 years							12.50%							
TOTAL			88.33		200.00	200.00	288.33	200.00		2.83	5.83	0.50			3.00	
OVERALL NET OPEN POSITION										**3.00**						

Calculation	Vertical disallowance	Horizontal Disallowance in			Horizontal Disallowance between			Overall net open position	TOTAL GENERAL MARKET RISK CAPITAL CHARGE
		Zone 1	Zone 2	Zone 3	Zones 1 & 2	Zones 2 & 3	Zones 1 & 3		
GENERAL MARKET RISK CAPITAL CHARGE	**0.05**	**0.08**	**0.00**	**0.00**	**0.00**	**0.45**	**1.00**	**3.00**	**4.58**

Annex D: An Example Calculation of Capital Charge on Operational Risk

(Basic Indicator Approach)

XYZ Leasing Limited
Profit and Loss Account
For the year ended 31 December

(Figure in Crore Taka)

Item	Dec 31, 2007	Dec 31, 2006	Dec 31, 2005
i. Interest Income[1]	368.00	303.00	295.00
ii. Interest paid on Deposits and Borrowings etc	336.00	283.00	245.00
iii. Net Interest Income (i-ii)	**32.00**	**20.00**	**50.00**
Non Interest Income:			
Net Income from investment **	50.00	15.00	35.00
Net Commission, Exchange earnings and Brokerage	80.00	10.00	55.00
Other net operating Income	32.00	12.00	30.00
iv Total Non Interest Income:	**162.00**	**37.00**	**120.00**
Total Operating Income (a) = (iii+iv)	**194.00**	**57.00**	**170.00**
Total Operating Expenses			
Salaries and Allowance	30.00	20.00	19.00
Rent, Taxes, Insurance, Lighting etc.	5.00	4.00	4.00
Legal expenses	0.05	0.04	0.05
Postage, stamps, Telecommunication etc.	1.00	1.00	1.00
Stationary, Printing, Advertisement etc.	2.34	2.23	1.15
Managing Directors Salary and Fees	0.50	0.50	0.50
Director's Fees and Meeting Expenses	0.30	0.25	0.20
Depreciation and Repair of FI's Assets	1.89	1.59	0.96
Other Expenses	11.32	28.97	8.51
Total Operating Expenses (b)	**52.40**	**58.58**	**35.37**
Profit/Loss before Provision (c) = (a-b)	**141.60**	**(1.58)**	**134.63**
Provision for Loan	20.00	0	30.00
Provision for diminution in value of Investments	5.00	0	8.00
Other provision	4.00	0	7.00
Total Provision (d)	**29.00**	**0.00**	**45.00**
Total Profit/Loss before taxes (c-d)	**112.60**	**(1.58)**	**89.63**

**** Note -1**

[1] Including interest suspense

Net Income from Investment (net of charges & taxes, etc. if any)	**50.00**	**15.00**	**35.00**
Interest/Profit on Bills and Bonds	37.00	11.00	23.00
Interest /Profit on Bills & Bonds- HTM Interest /Profit on Bills & Bonds- HFT	20.00 17.00	5.00 6.00	15.00 8.00
Interest on Debenture	10.00	3.00	7.00
Dividend Received on Share	3.00	1.00	5.00

Calculation of Gross Income (GI) from the above example:

(Figure in Crore Taka)

Item	Dec 31, 2007	Dec 31, 2006	Dec 31, 2005
Net Interest Income[2]	32.00	20.00	50.00
Total Net Non Interest Income:	162.00	37.00	120.00
Total Operating Income	**194.00**	**57.00**	**170.00**
Less: Realized profits/losses from sale of securities from banking book (HTM)	20.00	5.00	15.00
Less: Extra ordinary/irregular items	0	0	0
Less: Income derived from insurance	0	0	0
Gross Income (GI)	**174.00**	**52.00**	**155.00**

Alternative Calculation:

(Figure in Crore Taka)

Item	Dec 31, 2007	Dec 31, 2006	Dec 31, 2005
Total Profit/Loss before taxes	112.60	(1.58)	89.63
Add: Total Provision	29.00	0.00	45.00
Add: Total Operating Expenses	141.60	0.0	35.37
Less: Realized profits/losses from sale of securities (HTM)	20.00	5.00	15.00
Less: Extra ordinary/irregular items	0	0	0
Less: Income derived from insurance	0	0	0
Gross Income (GI)	**174.00**	**52.00**	**155.00**

Capital charge for Operational Risk:

$$\mathbf{K = [(GI_1 + GI_2 + GI_3) \times \alpha\ ]/n}$$

$$= [(\mathbf{174.00} + \mathbf{52.00} + \mathbf{155.00}) \times 15\%]/3$$

$$= [(381.00) \times 15\%]/3$$

$$= 57.15/3$$

$$= \mathbf{19.05\ Crore}$$

[2] Including interest suspense

Annex E: Capital charge against operational risk

The Standardized Approach: All the business activities of the FIs in the Standardized Approach (TSA**)** will be divided into following eight business lines.

Mapping of Business Lines

LEVEL 1	LEVEL 2	ACTIVITY GROUPS
Corporate finance	Corporate finance	Mergers and acquisitions, underwriting, privatizations, securitization, research, debt (government, high yield), equity, syndications, IPO, secondary private placements
Finance	Municipal/government	
	Merchant banking	
	Advisory services	
Trading and sales	Sales	Fixed income, equity, foreign exchanges, commodities, credit, Funding, own position securities, lending and Repos, brokerage, debt, prime brokerage
	Market making	
	Proprietary positions	
	Treasury	
Retail banking	Retail banking	Retail lending and deposits, banking services, trust and estates
	Private banking	Private lending and deposits, banking services, trust and estates, investment advice
	Card services	Merchant/commercial/corporate cards, private labels and retail
Commercial banking	Commercial banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange
Payment and settlement[1]	External clients	Payments and collections, funds transfer, clearing and settlement
Agency services	Custody	Escrow, depository receipts, securities lending (customers) corporate actions
	Corporate agency	Issuer and paying agents
	Corporate trust	
Asset management	Discretionary fund management	Pooled, segregated, retail, institutional, closed, open, private equity
	Non-discretionary fund management	Pooled, segregated, retail, institutional, closed, open
Retail brokerage	Retail brokerage	Execution and full service

[1] Payment and settlement losses related to a FI's own activities would be incorporated in the loss experience of the affected business line

Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines.

The capital charge for each business line is calculated by multiplying gross income by a factor (denoted Beta) assigned to that business line. The values of Beta for the eight business lines are given in Table 24 below:

Principles for business line mapping

a. All activities must be mapped into the eight level-1 business lines in a mutually exclusive and jointly exhaustive manner.

b. Any banking or non-banking financial activity which cannot be readily mapped into the business line framework, but which represents an ancillary function to an activity included in the framework, must be allocated to the business line it supports. If more than one business line is supported through the ancillary activity, an objective mapping criteria must be used.

c. When mapping gross income, if an activity cannot be mapped into a particular business line then the business line yielding the highest charge must be used. The same business line equally applies to any associated ancillary activity.

d. FIs may use internal pricing methods to allocate gross income between business lines provided that total gross income for the FI (as would be recorded under the Basic Indicator Approach) still equals the sum of gross income for the eight business lines.

e. The mapping of activities into business lines for operational risk capital purposes must be consistent with the definitions of business lines used for regulatory capital calculations in other risk categories, i.e. credit and market risk. Any deviations from this principle must be clearly motivated and documented.

f. The mapping process used must be clearly documented. In particular, written business line definitions must be clear and detailed enough to allow third parties to replicate the business line mapping. Documentation must, among other things, clearly motivate any exceptions or overrides and be kept on record.

g. Processes must be in place to define the mapping of any new activities or products.

h. Senior management is responsible for the mapping policy (which is subject to the approval by the board of directors).

i. The mapping process to business lines must be subject to independent review.

Business Lines Beta Factors

Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line.

The total capital charge may be expressed as:

Table 23 : Business Lines Beta Factors

Business Lines	**Beta Factors**	
1. Corporate finance	β_1	0.18
2. Trading and sales	β_2	0.18
3. Retail banking	β_3	0.12
4. Commercial banking	β_4	0.15
5.Payment and settlement	β_5	0.18
6. Agency services	β_6	0.15
7. Asset management	β_7	0.12
8. Retail brokerage	β_8	0.12

1. Corporate finance	$\mathbf{K_1 = [(GI_1 + GI_2 + GI_3) \times \beta_1]/n}$
2. Trading and sales	$\mathbf{K_2 = [(GI_1 + GI_2 + GI_3) \times \beta_2]/n}$
3. Retail banking	$\mathbf{K_3 = [(GI_1 + GI_2 + GI_3) \times \beta_3]/n}$
4. Commercial banking	$\mathbf{K_4 = [(GI_1 + GI_2 + GI_3) \times \beta_4]/n}$
5. Payment and settlement	$\mathbf{K_5 = [(GI_1 + GI_2 + GI_3) \times \beta_5]/n}$
6. Agency services	$\mathbf{K_6 = [(GI_1 + GI_2 + GI_3) \times \beta_6]/n}$
7. Asset management	$\mathbf{K_7 = [(GI_1 + GI_2 + GI_3) \times \beta_7]/n}$
8. Retail brokerage	$\mathbf{K_8 = [(GI_1 + GI_2 + GI_3) \times \beta_8]/n}$
Total capital charge	$\mathbf{K_{TSA}} = \Sigma K_{1-8}$

	Where $\mathbf{K_{TSA}}$ = Total capital charge under TSA $\mathbf{K_{1-8}}$ = the capital charge under TSA for the specified business line $\mathbf{GI_{1-3}}$ = only positive annual gross income over the previous three years (i.e. negative or zero gross income if any shall be excluded) $\mathbf{\beta_{1-8}}$ = as declared in Table 24 **n** = number of the previous three years for which gross income is positive

Alternative standardized approach

FI may use the Alternative Standardized Approach (ASA) provided the FI is able to satisfy BB that this alternative approach provides an improved basis by, for example, avoiding double counting of risks. Once a FI has been allowed to use the ASA, it will not be allowed to revert to use of the Standardized Approach without the permission of its supervisor. It is not envisaged that large diversified FIs in major markets would use the ASA.

Under the Alternative Standardized Approach (ASA), the operational risk capital charge and measurement methodology is the same as stated in TSA except for two business lines i.e. retail banking and commercial banking. For these business lines, loans and advances to be multiplied by a fixed factor '**m**' which will replace gross income as the exposure indicator. The **β**s for retail and commercial banking will remain unchanged declared in the TSA. The ASA operational risk capital charge for retail banking can be expressed as:

Retail banking	$\mathbf{K_{RB} = \beta_3 \text{ x } m \text{ x } LA_{RB}}$
Commercial banking	$\mathbf{K_{CB} = \beta_4 \text{ x } m \text{ x } LA_{CB}}$

Where:-

$\mathbf{K_{RB}}$ is the capital charge for the retail banking business line

$\mathbf{K_{CB}}$ is the capital charge for the commercial banking business line

$\mathbf{LA_{RB}}$ is total outstanding retail loans and advances (non-risk weighted and gross of provisions), averaged over the past three years

$\mathbf{LA_{CB}}$ is total outstanding commercial loans and advances (non-risk weighted and gross of provisions), averaged over the past three years and

m is constant and its value is **0.035**

For the purposes of the ASA, total loans and advances in the retail business line consists of the total drawn amounts in the following credit portfolios: retail and SMEs. Total loans and advances consist of the drawn amounts in the following credit portfolios: corporate, sovereign, bank and specialized lending. The book value of securities held in the banking book should also be included.

Under the ASA, FIs may aggregate retail and commercial financing subject to using a beta of 15%. Similarly, those FIs that are unable to separate their gross income into the other six business lines can aggregate the total gross income for these six business lines subject to using a beta of 18%. Negative or zero gross income if any shall be excluded.

Qualifying criteria for TSA/ASA

In order to qualify for use of the TSA or ASA, a FI must satisfy BB that, at a minimum:

a) Its board of directors and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;
b) It has an operational risk management system with clear responsibilities assigned to an operational risk management function. The operational risk management function is responsible for developing strategies to identify, assess, monitor and control/mitigate operational risk; implementation of the firm's operational risk assessment methodology; and for the design and implementation of a risk-reporting system for operational risk.
c) As part of the internal operational risk assessment system, the FI has a system to systematically track relevant operational risk data including material losses by business line. Its operational risk assessment system must be closely integrated into the risk management processes.
d) It has a system of reporting of operational risk exposures, including material operational losses, to business unit management, senior management, and to the board of directors. The FI must have procedures for taking appropriate action according to the information within the management reports.
e) Its operational risk management systems are well documented. The FI must have a routine in place for ensuring compliance with a documented set of internal policies, controls and procedures concerning the operational risk management system, which must include policies for the treatment of noncompliance issues.

f) Its operational risk management processes and assessment system are subject to validation and regular independent review. These reviews must include both the activities of the business units and of the operational risk management function.

g) Its operational risk assessment system (including the internal validation processes) is subject to regular review by external auditors.

BB, before granting permission to use TSA or ASA, may require a parallel run for a period of at least one year during which it will closely monitor the capital allocation under intended approach.

Annex F: List of Government and other Public Sector Entities

The domestic sectors of the economy are grouped into the following mutually exclusive institutional units.

A. GOVERNMENT

The Government sector is divided into three categories

a) Food Ministry (Including directorate of food)

b) Government other than Food Ministry

(i) President and PM's offices, Parliament, Judiciary, All other Ministries and related Directorates/Departments and All other govt. offices.

All Directorates, Directorate General and Departments etc. of the Government which are not stated in any other sectors should be included under this head. Detail names of the above are given in Establishment Ministries Memo No.BA: SA: MU: 2002/2003-4407KA MA (B). A list of Directorate, Directorate General and Departments are given below: -

1. Office of the Divisional/ Deputy Commissioner
2. Directorate of Government Transport
3. Directorate of Relief and Rehabilitation
4. Anti-Corruption Commission
5. Directorate of Arm-force Medical Service
6. Marine Academy
7. Directorate of Primary Education
8. Office of the Comptroller and Auditor-general of Bangladesh
9. National Board of Revenue
10. Department of National Savings
11. Office of the Commissioner of Taxes
12. Bangladesh Bureau of Statistics
13. Bangladesh Civil Service (Administration) Academy
14. Bangladesh Diplomatic Mission
15. Directorate of Health Services
16. Directorate of Jute
17. Directorate of Textiles
18. Department of Labor
19. National Broadcasting Authority
20. Directorate of Land Records and Survey
21. Directorate of Bangladesh Geological Survey
22. Directorate of Public Works
23. Department of Women's Affairs

24. Directorate of Registration
25. Directorate of Agricultural Extension
26. Directorate of Public Health & Engineering
27. Directorate of Co-operatives
28. Department of Railroad Inspector
29. Directorate of Roads & Highways
30. Office of the Boiler Inspection
31. Directorate of Bangladesh Post Office
32. Directorate of Insurance
33. Directorate of Social Welfare
34. Headquarters of Police
35. Directorate of Secondary & Higher Secondary Education
36. Directorate of Livestock
37. Hajj Office
38. Department of Sports
39. Directorate of Archaeology
40. Office of the Dhaka Malaria Eradication
41. Directorate of Bangladesh Family Planning
42. Department of Printing, Stationary, Forms and Publications
43. Department of Local Government & Engineering
44. Office of the Thana Executive Officer
45. Other Directorates/Departments and Government Offices

(**ii) Bangladesh Post Office (excluding Savings Bank Scheme)**

(iii) Bangladesh Post Office (Savings Bank Scheme)

c) Autonomous and Semi autonomous bodies

The sector of Autonomous and Semi autonomous bodies used by the Ministry of Finance for presentation of Government accounts has, for the purpose of this return, been redefined. **The bodies that are substantially financed by the Government and do not produce goods or services for sale are defined as** Autonomous and Semi-Autonomous bodies. List of different institutions as defined as Autonomous & Semi-Autonomous bodies are given below: -

1. Bangla Academy
2. Bangladesh Agricultural Development Corporation
3. Bangladesh Atomic Energy Commission
4. Bangladesh Agricultural Research Council
5. Bangladesh Agricultural Research Institute
6. Bangladesh Agricultural University, Mymensingh

7. Bangladesh College of Physicians and Surgeons
8. Bangladesh Council of Scientific and Industrial Research
9. Bangladesh Export Processing Zone Authority
10. Bangladesh Folk Art and Crafts foundation, Sonargaon
11. Bangladesh Homeopathic Board
12. Bangladesh Handloom Board
13. Bangladesh Sericulture Board
14. Bangladesh Insurance Academy
15. Bangladesh Institute of Development Studies
16. Bangladesh Institute of International Strategic studies
17. Bangladesh Institute of Technology (Engineering Colleges)
18. Bangladesh Industrial Technical Assistance Certre
19. Bangladesh Jatiya Jadughar
20. Bangladesh Jute Research Institute
21. Bangladesh Medical and Dental Council
22. Bangladesh Madrasha Education Board
23. Bangladesh Institute of Management
24. Bangladesh Medical Research Council
25. Bangladesh National Book Certre
26. Bangladesh Nursing Council
27. Bangladesh Rice Research Institute
28. Bangladesh Shilpakala Academy
29. Bangladesh Shishu Academy
30. Bangladesh Standard Testing Institutions
31. Bangladesh Sangbad Sangstha
32. Bangladesh Technical Education Board
33. Bangladesh University of Engineering and Technology
34. Bangladesh Sugar Research & Training Institute
35. Pharmacy Council of Bangladesh
36. Press Institute of Bangladesh
37. Bangladesh Nuclear Agricultural Research Institute, Mymensingh
38. Office of the Waqf Administration
39. Bangladesh National Medical Board.
40. Bangladesh Tea Garden Staff Providend Fund Trust Board
41. Bangladesh Rural Development Academy, Comilla
42. Bangladesh Rural Development Training Institute, Sylhet
43. Bangladesh National Science & Technical Data Collection & Distribution Centre
44. Bangladesh Institute of Livestock Research, Savar

45. Bangladesh Girls Guide
46. Bangladesh Scouts
47. Bangladesh Computer Council
48. Board of Intermediate and Secondary Education
49. Bangladesh Unani and Ayurvedic Board
50. Cadet colleges
51. Chittagong Development Authority
52. Chittagong Hill Tracts Development Board
53. Export Promotion Bureau
54. House Building Research Institute
55. Privatization Commission
56. River Research Institute
57. Water Resources Planning Corporation
58. Institute of Chartered Accountants of Bangladesh
59. Institute of Cost and Management Accounts of Bangladesh
60. Bangladesh National Social Welfare Council
61. Institute of National Sports Education, Savar
62. Nazrul Institute
63. Islamic Foundation, Bangladesh
64. Islamic University, Kushtia
65. Jahangir Nagar University,Savar
66. Khulna Development authority
67. National Museum of Science and Technology
68. National Curriculum and Text Book Board
69. National Institute of Local Government
70. National Sports Council
71. Public Administration Training Centre, Savar & Iskaton
72. Press Council
73. Rajdhani Unnayan Kartripakha (RAJUK)
74. Bogra Development Academy
75. Bangladesh Rural Development Board
76. Rajshahi town Development Authority
77. Rajshahi University
78. Space Research and Remote Sensing Organisation (Sparso), Agargaon, Dhaka
79. Tribal Curtural Academy, Birisiri
80. Tribal Culture Institute, Rangamati
81. Tribal Culture Institute, Bandarban
82. Hindu Welfare Trust

83. Buddist Welfare Trust
84. Government Medical Colleges
85. Jamuna Multipurpose Bridge Authority
86. National Mohila Sangstha
87. Fisheries Research Institute, Mymensingh
88. Marine Fisheries Academy, Chittagong
89. Council of Bangladesh Institute of Technology
90. National Polyglottee Typing Training Centre,Bogra
91. Residential Model College
92. Planning and Development Academy
93. University of Chittagong
94. University of Dhaka
95. Bangladesh University Grants' Commission
96. Shah Jalal University of Science & Technology
97. University of Khulna
98. Bangladesh National University
99. Bangladesh Open University
100. Government School & Colleges (including University colleges)
101. Barendra Multinational Development Authority, Rajshahi
102. Security Printing Press Corporation
103. Bangabandhu Medical University
104. Fund, Benevolent
105. Fund, Prime Minister's Relief
106. Bangladesh Forest Research Institute
107. Non Government BEPZA Executive Cell
108. Hotex Foundation
109. Bangladesh Applied Nutrition and Human Resource Development Board
110. Bangladesh Teriff Commission
111. Bangladesh Veterinary Council
112. Bangladesh Pally Unnayan Board
113. Foreign Service Academy
114. Chittagong Hill Tracts Local Council
115. Coxes Bazar Cultural Centre
116. Bangladesh Overseas Employment Services Ltd.(BOESEL)
107. Other Autonomous and Semi-Autonomous Institutions

B. PUBLIC SECTOR ENTITIES (Other than Government)

a) Public Non financial Corporations;

Public non financial corporations are resident non financial corporations. These corporations /enterprises **owned or controlled by the Government that produce goods or services for sale to the public .**These corporations have a complete set of accounts that allow operating surpluses, savings, assets and liabilities to be separately identified. The following corporations / enterprises should be included in this sector

1. Bangladesh Textile Mills Corporation
2. Bangladesh Sugar & Food Industries Corporation
3. Bangladesh Chemical Industries Corporation
4. Bangladesh Steel & Engineering Corporation
5. Bangladesh Petroleum Corporation
6. Bangladesh Power Development Board
7. Bangladesh Biman Corporation
8. Trading Corporation of Bangladesh
9. Bangladesh Oil, Gas and Mineral Corporation Comprising of
   i) Petrobangla
   ii) Others
10. Bangladesh Jute Mills Corporation
11. Bangladesh Road Transport Corporation
12. Bangladesh Forest Industries Development Corporation
13. Bangladesh Water Transport Corporation
14. Bangladesh Railway
15. Bangladesh Telegraph and Telephone Board
16. Bangladesh Shipping Corporation
17. Bangladesh Fisheries Development Corporation
18. Bangladesh Tea Board
19. Bangladesh Parjatan Corporation
20. Bangladesh Inland Water Transport Corporation
21. Bangladesh Inland Water Transport Authority
22. Bangladesh Water Development Board
23. Dhaka WASA
24. Chittagong WASA
25. Rural Electrification Board
26. Dhaka Electric Supply Company (DESCO)
27. Chittagong Port Authority
28. Mongla Port Authority
29. Civil Aviation Authority of Bangladesh

30. Bangladesh Small & Cottage Industries Corporation
31. Bangladesh Film Development Corporation
32. Bangladesh Freedom Fighter Welfare Trust
33. Telephone Shilpa Sangstha
34. Bangladesh Cable Industries Limited
34. Dock Labour Management Board, Chittagong
34. Mongla Dock Labour Management Board, Bagerhat
35. Bangladesh Tannery Industries Corporation
36. Bangladesh Services Limited
37. Hotels International Limited. (Hotels having status three star and above)
38. Others

b) Local Authorities

1. City Corporations
2. Zila Parisad
3. Municipalities
4. Thana/Upazila Parishad
5. Union Parishad
6. Gram Parishad

c) Non Bank Depository Corporation - Public

Government owned financial institutions that take term deposits and takes part in deposit mobilization is specified as Public Non bank Depository Corporations. List of such institutions is given below :

1. Ansar-VDP Development Bank
2. Karmasangsthan Bank
3. Others.

d) Other Financial Intermediaries -Public (OFIs-Public)

Other financial intermediaries (Public) comprise of bank-like institutions other than Deposit Money Banks, that are deemed to create liquidity. The following institutions should be included in this sector:

1. House Building Finance Corporation
2. Investment Corporation of Bangladesh
3. Others.

e) Insurance Companies and Pension Funds-Public

1. Jiban Bima Corporation
2. Sadharan Bima Corporation etc.

Annex G: Mapping of ECAIs rating with BB Rating Grade

BB Rating Grade	Equivalent Rating of S&P and Fitch	Equivalent Rating of Moody	Equivalent Rating of CRISL	Equivalent Rating of CRAB	Equivalent Rating of NCRL	Equivalent Rating of ECRL	Equivalent Rating of ACRSL
1	AAA to AA	Aaa to Aa	AAA	AAA	AAA	AAA	AAA
			AA+, AA, AA-,	AA1, AA2, AA3	AA+, AA, AA-	AA+, AA, AA-	AA+, AA, AA-
2	A	A	A+, A, A-	A1, A2, A3	A+, A, A-	A+, A, A-	A+, A, A-
3	BBB	Baa	BBB+, BBB, BBB-	BBB1, BBB2, BBB3	BBB+, BBB, BBB-	BBB+, BBB, BBB-	BBB+, BBB, BBB-
4	BB to B	Ba to B	BB+, BB, BB-	BB1, BB2, BB3	BB+, BB, BB-	BB+, BB, BB-	BB+, BB, BB-
5	Below B	Below B	B+, B, B-, CCC+, CCC, CCC-, CC+, CC, CC-	B1, B2, B3, CCC1, CCC2, CCC3, CC	B+, B, B-	B+, B, B-	B+, B, B- ,CC+,CC,CC-
6			C+, C, C-, D	C, D	C+, C, C-, D	C, D	C+, C, C-, D
Short-Term Rating Category Mapping							
S1	F1+	P1	ST-1	ST-1	N1	ECRL-1	ST-1
S2	F1	P2	ST-2	ST-2	N2	ECRL-2	ST 2
S3	F2	P3	ST-3	ST-3	N3	ECRL-3	ST 3
S4	F3	NP	ST-4	ST-4	N4, N5	ECRL-4	ST 4
S5, S6	B, C, D		ST-5, ST-6	ST-5		D	ST-5, ST-6
				ST-6			