Guidelines on Risk Based Capital Adequacy

(Revised Regulatory Capital Framework for banks in line with Basel II)

Bangladesh Bank

December 2010

Guidelines on Risk Based Capital Adequacy (RBCA)

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Preface

To cope with the international best practices and to make the bank's capital more risk sensitive as well as more shock resilient, 'Guidelines on Risk Based Capital Adequacy (RBCA) for Banks' (Revised regulatory capital framework in line with Basel II) have been introduced from January 01, 2009 parallel to existing BRPD Circular No. 10, dated November 25, 2002. At the end of parallel run period, Basel II regime has been started and the guidelines on RBCA has come fully into force from January 01, 2010 with its subsequent supplements/revisions. Instructions regarding Minimum Capital Requirement (MCR), Adequate Capital, and Disclosure requirement as stated in these guidelines have to be followed by all scheduled banks for the purpose of statutory compliance.

With a view to ensuring transition to Basel II in a non-disruptive manner, Bangladesh Bank (BB) adopted a consultative approach. In this process, a high-level National Steering Committee (NSC) headed by a Deputy Governor of BB was formed comprising central bank and commercial banks' officials for working on the policy decisions. Furthermore, there is a Coordination Committee (CC) headed by an Executive Director of BB to assist the NSC in decision-making. An Implementation Cell under Banking Regulation and Policy Department (BRPD) has been formed to assist and carry out the instructions of NSC and CC on Basel II implementation. During the parallel run period, CC has collected feedback on these guidelines. The NSC in its 4th meeting held on December 22, 2009 has recommended for full enforcement of these guidelines as statutory compliance subject to some adjustment in MCR and Risk Weight (RW). The NSC has unanimously emphasized on drawing enforceable action plans for credit rating of the banks' counterparties, adopting Supervisory Review Process (SRP) for calculating adequate capital and a capital growth plan.

Accordingly, these guidelines have been reviewed on the basis of feedback received. Now, the required adjustments, revisions and supplements have been included in the guidelines. Scheduled banks will follow the instructions contained in the revised 'Guidelines on Risk Based Capital Adequacy for Banks'. These guidelines are articulated with the following areas, viz;

A) Introduction and constituents of Capital, B) Credit Risk, C) Market Risk, D) Operational Risk, E) Supervisory Review Process, F) Supervisory Review Evaluation 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 banks to follow the instructions more efficiently for smooth implementation of the Basel II framework in the banking sector of Bangladesh.

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List of Acronyms

ASA	Alternative Standardized Approach
BB	Bangladesh Bank
BCBS	Basel Committee on Banking Supervision
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
CAR	Capital Adequacy Ratio
CCF	Credit Conversion Factor
CRAB	Credit Rating Agency of Bangladesh Ltd.
CRISL	Credit Rating Information and Services Ltd.
CRM	Credit Risk Mitigation
ECAI	External Credit Assessment Institution
ECRL	Emerging Credit Rating Ltd.
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 Ratings Ltd.
NPAs	Non Performing Assets
OBS	Off-Balance Sheet
PSE	Public Sector Entity
RBCA	Risk Based Capital Adequacy
RWA	Risk Weighted Asset
SEC	Securities and Exchange Commission
SME	Small & Medium Enterprise
SREP	Supervisory Review Evaluation Process
SRP	Supervisory Review Process
TSA	The Standardized Approach

Chapter 1. Introduction and Constituents of Capital

1.1. Introduction

These guidelines are issued by Bangladesh Bank (BB) under section 13 and section 45 of 'ব্যাংক কোম্পানী আইন, ১৯৯১'[1]. BB has introduced these guidelines considering present complexity and diversity in the banking industry and to make the banks' capital more risk sensitive and shock absorbent. BB has made these guidelines as statutory compliance for all scheduled banks in Bangladesh from January 01, 2010.

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 'Guidelines on Risk Based Capital Adequacy (RBCA) for Banks'.

These guidelines are structured on following three aspects:

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

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

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

1.2. Scope of application

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

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

-'Consolidated Basis' refers to all position of the bank (including its local and overseas branches/offices) and its subsidiary company(ies) engaged in financial (excluding insurance) activities like merchant banks, brokerage firms, discount houses, etc (if any).

1.3. Capital base

Regulatory capital will be categorized into three tiers: Tier 1, Tier 2, and Tier 3.

1.3.1. Tier 1 capital

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

a) Paid up capital

[1] Bank Company Act, 1991 with subsequent revisions

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

1.3.2. 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 a bank and consists of:

a) General provision[2]

b) Revaluation reserves

- Revaluation reserve for fixed assets[3]
- Revaluation reserve for securities[4]
- Revaluation reserve for equity instrument

c) All other preference shares

d) Subordinated debt[5]

1.3.3. Tier 3 capital

Tier 3 capital called 'Additional Supplementary Capital', consists of short-term subordinated debt (original maturity less than or equal to five years but greater than or equal to two years) would be solely for the purpose of meeting a proportion of the capital requirements for market risk.

1.3.4. **For foreign banks** operating in Bangladesh, Tier 1 capital consists of the following items:

a) Funds from head office

b) Remittable profit retained as capital

[2] Maintained against Unclassified Loans/Advances, Special Mention Account & Off-balance sheet exposures
[3] Ref: BRPD Circular letter no.10/2002
[4] Ref: DOS Circular letter No. 05/2008
[5] Subordinated debt instruments, eligible to be considered as Tier 2 capital, shall comply with the regulatory requirements specified in **Annex A**.

c) Any other items approved by BB for inclusion in Tier 1 capital

Tier 2 capital consists of the following items:

a) General provision

b) Borrowing from head office in foreign currency in compliance with the regulatory requirement as specified in **Annex A**.

c) Revaluation reserve for securities

d) Any other items approved by BB for inclusion in Tier 2 capital

1.4. Conditions for maintaining regulatory capital

The calculation of Tier 1 capital, Tier 2 capital, and Tier 3 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 securities eligible for Tier 2 capital.

c) 10% of revaluation reserves for equity instruments eligible for Tier 2 capital.

d) Subordinated debt (definition and qualification is stated in **Annex A**) shall be limited to a maximum of 30% of the amount of Tier 1 capital.

e) Limitation of Tier 3: A minimum of about 28.5% of market risk needs to be supported by Tier 1 capital. Supporting of Market Risk from Tier 3 capital shall be limited up to maximum of 250% of a bank's Tier 1 capital that is available after meeting credit risk capital requirement[6].

1.5. Eligible regulatory capital

In order to obtain the eligible regulatory capital for the purpose of calculating Capital Adequacy Ratio (CAR), banks are required to make following deductions from their Tier-1 capital;

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

b) Shortfall in provisions required against classified assets

c) Shortfall in provisions required against investment in shares

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

[6] Example: Suppose a bank requires BDT 90 crore for capital charge against market risk, 28.5% of that amount i.e. (28.5% of 90)= BDT 25.65 crore needs to be supported from Tier-1 capital that is available after meeting credit risk capital requirement. Again, suppose the bank has Tier-1 Capital of BDT 120 crore and the capital requirement for credit risk is BDT 110 crore, the remaining Tier-1 Capital BDT 10 crore is available for market risk and thus the bank can have maximum eligible Tier-3 Capital is BDT (250% of 10) = 25 crore.

e) Reciprocal/crossholdings of bank's capital/subordinated debt artificially intended to inflate the capital position of banks

f) f) Holding of equity shares in any form exceeding the approved limit under section 26(2) of 'ব্যাংক কোম্পানী আইন, ১৯৯১' (Bank Company Act, 1991). The additional/unauthorized amount of holdings will be deducted at 50% from Tier 1 capital and 50% from Tier 2 capital.

g) Investments in subsidiaries which are not consolidated. The normal practice is to consolidate subsidiaries for the purpose of assessing the capital adequacy of banking groups. Where this is not done, deduction is essential to prevent the multiple uses of the same capital resources in different parts of the group. 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.

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, Tier 2 and Tier 3 capital.

1.6. Calculation of capital adequacy ratio

In order to calculate CAR, banks 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.

1.7. Minimum capital requirements

a) No Scheduled Bank 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 13 of 'ব্যাংক কোম্পানী আইন, ১৯৯১' (Bank Company Act, 1991).

b) Banks 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.

c) Banks have to maintain at least 50% of required capital as Tier 1 capital.

1.8. Reporting requirement

All banks are required to submit the RBCA report (according to the prescribed formats) on consolidated as well as on solo basis within the specified timeline to the Department of Off-site Supervision of BB.

1.9. Penalty for non-compliance

a) BB may impose penalty and/or punishment as per 'ব্যাংক কোম্পানী আইন, ১৯৯১' (Bank Company Act, 1991), if a bank fails to meet minimum capital or CAR within the stipulated period.

b) BB may impose penalty and/or punishment as per 'ব্যাংক কোম্পানী আইন, ১৯৯১' (Bank Company Act, 1991), if a bank willfully furnishes any false information in the reporting.

c) BB may impose penalty as per 'ব্যাংক কোম্পানী আইন, ১৯৯১' (Bank Company Act, 1991), if a bank fails to submit the RBCA report within stipulated time without any acceptable/ satisfactory reason.

Chapter 2. Credit Risk

2.1. Introduction

Credit risk is the potential that a bank borrower or counterparty fails to meet its obligation in accordance with agreed term.

2.2. Definitions

2.2.1. Claims: Exposures such as deposits (including foreign currency), placements, investments, loans and advances underlying with counterparties.

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

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

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

2.2.5. Claims on multilateral development banks (specific): Loans 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)

2.2.6. Claims on multilateral development banks (Others): Loans and advances to and investments in Multilateral Developments Banks (MDBs) other than those specified in 2.2.5 above.

2.2.7. Claims on government/ public sector entities (PSE): Loans 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 G**) by BB.

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

2.2.9. Claims on corporate: Loans 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 SME (having exposure within the limit stipulated in the section below).

2.2.10. 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;

e) Capital market exposures; and

f) Venture capital funds.

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).

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

2.2.11. Consumer finance: Loans 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.

2.2.12. 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.

2.2.13. 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.

2.2.14. 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 2. 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. General provision maintained against Special Mention Account (SMA) loan will not be eligible for such net off.

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

2.2.16. Venture capital: Venture capital is provided as funding to early-stage, high-potential, growth companies in the interest of generating a return through an eventual realization event. Venture capital investments are generally made in cash in exchange for shares in the invested company. Investment in equity of unlisted entities other than PSEs includes in this category.

2.2.17. All other assets :

a) Claims on GoB and BB other than those specified in 'section 2.2.2' 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 banks 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) Claims on Off-shore Banking Units (OBU);

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

2.3. 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. Banks 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.

2.3.1. External credit rating

Bangladesh Bank has recognized four credit rating agencies i. e. Credit Rating Agency of Bangladesh (CRAB) Ltd., Credit Rating Information and Services Limited (CRISL), National Credit Ratings Ltd. (NCRL) and Emerging Credit Rating Ltd. (ECRL) which met the eligibility criteria of ECAIs guidelines (BRPD Circular no. 7/2008) of BB. BB has also decided that banks may use the ratings (if available) of the following international credit rating agencies for the purposes of risk weighting their exposure at abroad:

a) Fitch,

b) Moody, and

c) Standard & Poor.

Rating categories of ECAIs are mapped with the rating grades of BB as per Table 1:

Table 1 : ECAI's Credit Rating Categories Mapped 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
1	AAA to AA	Aaa to Aa	AAA, AA+, AA, AA-	AAA, AA1, AA2, AA3	AAA, AA+, AA, AA-	AAA, AA+, AA, AA-
2	A	A	A+, A, A-	A1, A2, A3	A+, A, A-	A+, A, A-
3	BBB	Baa	BBB+, BBB, BBB-	BBB1, BBB2, BBB3	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-
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-
6			C+, C, C-, D	C, D	C+, C, C-, D	D
Short-Term Rating Category Mapping						
S1	F1+	P1	ST-1	ST-1	N1	ECRL-1
S2	F1	P2	ST-2	ST-2	N2	ECRL-2
S3	F2	P3	ST-3	ST-3	N3	ECRL-3
S4	F3	NP	ST-4	ST-4	N4	ECRL-4
S5,S6	B,C, D		ST-5, ST-6	ST-5, ST-6	N5	D

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.

2.3.1.2. Short term assessments: For risk-weighting purposes, short-term assessments may only be used for short-term claims against banks (local as well as foreign) and corporate. Otherwise, it will be considered as 'unrated' status.

2.3.1.3. Multiple assessments: If there are two assessments by ECAIs chosen by a bank 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.

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

2.4. Risk weight for balance sheet exposure

Exposure wise risk weights against different rating grades of BB are given in Table 2. 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 2 : 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 & Central Banks[1]		
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 Banks and NBFIs (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

[1] For the purpose of risk weighting claims on other Sovereigns & Central Banks, Banks 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:		
i	Claims categorized as retail portfolio & SME (excluding consumer finance and Staff loan)	75
j	Consumer Finance	100
k	Claims fully secured by residential property (excluding Staff loan/investment)	50
l	Claims fully secured by commercial real estate	100
m	Past Due Claims[2]	
	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 (Risk weights are to be assigned to the amount net of specific provision):	
	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 more than 50 percent of the outstanding amount of the past due claim.	50
	Claims fully secured against residential property that are past due for 90 days or more and/or impaired (gross of specific provision) -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 (gross of specific provision) -where specific provision held there-against is more than 20 percent of outstanding amount	75
n	Capital Market Exposures	125
o	Investments in venture capital	150
p	Unlisted equity investments and regulatory capital instruments issued by other banks (other than those deducted from capital) held in banking book	125
q	Investments in premises, plant and equipment and all other fixed assets	100
r	Claims on all fixed assets under operating lease	100
s	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) Claims on Off-shore Banking Units (OBU)	100
	v) Other assets (net off specific provision, if any)	100

[2] Past due for 90 days or more, this will include SMA, SS, DF & BL.

Table 3 : Risk Weight for Short Term Exposures

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

Table 4 : Risk Weight against ECA Score (Published by OECD)

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

2.5. 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 2) 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 - these include 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 - these include 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 similar nature;

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

- Other market-related contracts - these include 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.

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

The credit risk on OBS market-related transactions is the cost to a bank of 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;

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

c) Instruments traded on future and option exchanges, which are subject to daily mark-to-market and margin payment.

The credit equivalent amount of an OBS market-related transaction, whether held in the banking or trading 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.

2.5.1.2. 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 5 according to the nature and residual maturity of the instrument.

Table 5 : 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%

2.5.1.3. 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 6.

Table 6 : 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%

2.5.2. 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 7 gives the CCF associated with various types of non market related OBS transactions. Once the credit equivalent amount is obtained, it will be multiplied with the risk weight of respective counterparty.

Table 7 : 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 bank).	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.	20 %
Lending of securities or posting of securities as collateral The lending or posting of securities as collateral by banks. This includes repurchase/reverse repurchase agreements and securities lending/ borrowing transaction. (See Annex B)	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 a bank'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) A bank 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) A bank 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 bank'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.

2.6. Credit risk mitigation (CRM)

Banks 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 a bank. These effects may be considered in two aggregate heads i.e.

a) Collateral for Credit Risk Mitigation

b) Guarantee for Credit Risk Mitigation

2.6.1. Collateral for credit risk mitigation

Where a transaction is secured by eligible financial collateral and meets the eligibility criteria and minimum requirements, banks 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.

2.6.1.1. Eligible financial Collateral

a) Cash (as well as certificate of deposit or fixed deposit or comparable instruments of lending bank) on deposit with the bank, which is incurring the counterparty exposure[3]

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 banks 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 a bank;
- listed on a recognized exchange;
- classified as senior debt[4];
- all rated issues of the same seniority by the issuing bank are rated at least '3'/'S3' by a recognized ECAI; and
- the bank 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 computed on the basis of last 6 months daily average price.

f) Undertakings for Collective Investments in Transferable Securities (UCITS) and mutual funds where a price for the units is publicly quoted daily.

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

[4] 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.

2.6.1.2. 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 bank has the right to liquidate or take legal possession of it, in a timely manner, in the event of the default, insolvency or bankruptcy.

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

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

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

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.

2.6.1.3. Calculation of capital charge

Where transactions secured by eligible collateral, banks 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), bank 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 for the collateralized transactions.

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 C**.

Haircuts: Banks 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 8 : 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
Undertaking in collective Investment and transferable Securities (UCITS)/Mutual funds		15
Cash in same currency (as well as certificates of deposit or comparable instruments issued by the lending bank)		0
The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies		Same as minimum CAR

2.6.1.4. On balance sheet netting

On-balance sheet netting may be allowed where a bank,

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

b) is able at any time to determine 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.

2.6.2. Guarantee for credit risk mitigation

To reduce credit risk transactions may be secured by guarantees. Where guarantees are direct, explicit, irrevocable and unconditional banks 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.

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

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 bank must have the right to receive any such payments from the guarantor without first having to take legal actions in order to pursue the counterparty for payment.

2.6.2.2. 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 banks 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.

2.6.2.3. 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.

2.6.3. 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 bank and the guarantor share losses on a pro-rata basis capital relief will be afforded on a proportional basis: i.e. the protected portion of the exposure will receive the treatment applicable to eligible guarantees, with the remainder treated as unsecured.

2.6.4. 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.

2.6.5. **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.

2.6.6. **Treatment of pools of CRM techniques:** In the case where a bank has multiple CRM techniques covering a single exposure (e.g. a bank has both collateral and guarantee partially covering an exposure), the bank will be required to subdivide the exposure into portions covered by each type of CRM technique (e.g. portion covered by collateral, portion covered by guarantee) and the 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.

2.6.7. **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 7).

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 3. Market Risk

3.1. 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) Foreign exchange risk and commodities risk throughout the bank (both in the banking and in the trading book).

3.2. Definitions

3.2.1. 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. For valuation guidelines see **Annex H**.

3.2.2. 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.

3.2.3. 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.

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

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

3.3. 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 banks' trading book, in respect of exposure to risks deriving from changes in foreign exchange rates and commodity price in the overall banking activity.

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

d) Trading positions in derivatives and

e) Derivatives for the purpose of hedging trading book exposures

3.4. 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.

3.5. 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.

3.5.1. 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 9.

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 9 : Capital charge weight for specific risk

Categories	BB rating grade	Particulars	Capital Charge Weight (%)
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

3.5.2. 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) Bank'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 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 be calculated using Table 10 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 bank 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 10 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 10.

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 10 : Maturity Method - Time-bands and Weights

Zone	Time-bands for Coupon 3% or more	Time-bands for Coupon less than 3%	Capital charge 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 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%
* * 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% 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, banks 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)[1], 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.

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

Duration Method: Under the duration method, banks may use a more accurate method of measuring all of their general market risk by calculating the interest sensitivity of each position separately. The banks that decide to use this approach must do so on continuous basis. Banks shall calculate the capital charge for each position on the basis of estimated change in yield given in Table 11.

Table 11 : 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	Banks may use the following formula to measure interest rate sensitivity of the instrument: △MVE = -DGAP*[△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			

Table 12 : Horizontal disallowances

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 13 : 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) :		

3.5.3. Repo / reverse-repo transaction

A security, which is subject to a repurchase, or under 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.

3.5.4. 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.

3.5.4.1. 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, banks must use effective notional amount.

3.5.4.2. 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 bank 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.

3.5.4.3. Swaps

Swaps will be treated as two notional positions in government securities with the relevant maturities. For example, an interest rate swap under which a bank 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.

3.5.4.4. 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 14 : 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

3.5.5. Capital charges for equity position risk

The capital charge for equities would apply on their current market value in bank'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 behaviour similar to equities but not to non-convertible preference shares (which are covered by the interest rate risk requirements described earlier). The instruments covered include equity shares, whether voting or non-voting, convertible securities that behave like equities, for example: units of mutual funds, and commitments to buy or sell equity.

3.5.6. 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 bank'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 a bank's mix of long and short positions in different currencies.

3.5.6.1. Measuring the exposure in a single currency

The bank'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 bank);

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 banks have taken the opportunity to hedge them. If banks 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.

3.5.6.2. 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 a bank has long and short positions in Yen, Euro, GBP, Australian dollar and US dollar and the minimum capital adequacy ratio is 8% as given below in Table 15.

Table 15 : 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 8% of the higher of either the net long currency positions or the net short currency positions (i.e. 340)

Capital Requirement = 340 x 8% = 27.20

Chapter 4. Operational Risk

4.1. 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[1], but excludes strategic and reputational risk.

4.2. The measurement methodology

The framework outlined below presents two methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity: (i) the Basic Indicator Approach; and (ii) the Standardized Approach.

Banks are encouraged to move along the spectrum of available approaches as they develop more sophisticated operational risk measurement systems and practices. However, a bank 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 a bank using a more advanced approach no longer meets the qualifying criteria for this approach, it may require the bank 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.

4.3. 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 bank over the past three years (See Example in **Annex E**). 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[2] . 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.

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

2 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[3].

d) exclude extraordinary or irregular items as well as categorize

e) exclude income derived from insurance.

4.4. The standardized approach

Banks 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 F**.

[3] 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 5. Supervisory Review Process

5.1. Introduction

The key principle of the supervisory review process (SRP) is that **"***banks 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***".** Banks 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 enough capital to compensate all the risks in their business, and to develop and practice better risk management techniques in monitoring and managing their risks.

5.2. 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 be confident that banks have better risk management techniques in monitoring and managing their risks.

b) The supervisory review process recognizes the responsibility of bank management in developing an internal capital assessment process and setting capital targets that are commensurate with the bank's risk profile and control environment. Moreover, bank management continues to bear responsibility for ensuring that the bank 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 bank'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 bank (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. Bank 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.

5.3. Main features of a rigorous review process

Banks 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 bank should be performed. Bank management will clearly bear primary responsibility for ensuring that the bank 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.

5.3.1. Board and senior management oversight

Board and senior management will establish a responsible unit[1] that will exclusively be assigned for reviewing the nature and level of risk relates to banking 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 a bank'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 bank 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 bank'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 bank'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 bank's board of directors has responsibility for setting the bank's tolerance for risks. It should also ensure that management establishes a framework for assessing the various risks, develops a system to relate risk to the bank'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.

5.3.2. Sound capital assessment

The fundamental elements of sound capital assessment include:

[1] As per BRPD circular no.14/2007 banks have been suggested to form Basel II implementation unit at each bank level in order to establish strategic planning for capital adequacy and own supervisory review as required by pillar-2 of the capital framework.

a) Policies and procedures designed to ensure that the bank 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 bank'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.

5.3.3. Comprehensive assessment of risks

All material risks faced by the bank 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:

5.3.3.1. Credit risk

a) Banks 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 banks, 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.

5.3.3.2. Market risk

a) Banks 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 advance approaches for assessment of internal capital adequacy for market risk, at a minimum, banks 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. A bank's VaR model should be adequate to identify and measure risks arising from all its trading activities and should be integrated into the bank'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) Banks must supplement their VaR model with stress tests (factor shocks or integrated scenarios whether historic or hypothetical) and other appropriate risk management techniques. In the bank's internal capital assessment it must demonstrate that it has enough capital to not only meet the minimum capital requirements but also to withstand a range of severe but plausible market shocks. In particular, it must factor in, where appropriate:

- Illiquidity/gapping of prices;
- Concentrated positions (in relation to market turnover);
- One-way markets;
- Non-linear products/deep out-of-the money positions;
- Events and jumps-to-defaults;
- Significant shifts in correlations;
- Other risks that may not be captured appropriately in VaR (e.g. recovery rate uncertainty, implied correlations, or skew risk).

d) The stress tests applied by a bank 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 bank'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.

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

f) Banks 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.

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

5.3.3.3. Operational risk

a) Similar rigor should be applied to the management of operational risk, as is done for the management of other significant banking 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) A bank should develop a framework for managing operational risk and evaluate the adequacy of capital given this framework. The framework should cover the bank's appetite and 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 bank. It should also include policies outlining the bank's approach to identifying, assessing, monitoring and controlling/mitigating the risk.

5.3.3.4. Monitoring and reporting

The bank should establish an adequate system for monitoring and reporting risk exposures and assessing how the bank's changing risk profile affects the need for capital. The bank's senior management or board of directors should, on a regular basis, receive reports from the responsible unit regarding the bank'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 bank 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 bank's reported risk profile and make necessary adjustments to the bank's strategic plan accordingly.

5.3.3.5. Internal control review

The bank'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 bank'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 bank'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.

a) The bank 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 bank'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 bank's assessment process;

- Reasonableness and validity of scenarios used in the assessment process; and
- Stress testing and analysis of assumptions and inputs.

5.4. Recommendations for sound stress testing practices

5.4.1. 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 bank. 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) A bank 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) A bank should have written policies and procedures governing the stress testing program. The operation of the program should be appropriately documented.

e) A bank 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) A bank 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.

5.4.2. Stress testing methodology and scenario selection

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

b) 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.

c) 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 bank (reverse stress tests) and thereby uncover hidden risks and interactions among risks.

d) As part of an overall stress testing program, a bank 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.

5.4.3. Specific areas of focus

The following recommendations to banks 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. A bank should include such exposures in its stress tests regardless of their probability of being securitized.

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

e) A bank 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.

5.5. Risks to be covered under SRP

5.5.1. 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).

Banks 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 banks 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 bank not appropriate and comprehensive, it may require the banks to take specific action or raise additional capital determined through the SRP-SREP dialogue.

5.5.2. Securitization risk

Risks deriving from securitization deals should be evaluated and managed through appropriate procedures to ensure in particular that the actual economic content of the transaction is fully reflected in risk evaluation and management decisions. If there is a

securitization of revolving exposures subject to an early amortization provision, the originating bank will have liquidity plans that manage the impact of both scheduled and early amortization.

5.5.3. Evaluation of Core Risk Management

Core risk management guidelines are provided with the banks with a view to enhance knowledge, skill and to introduce uniform risk management system in the banks. No-compliance of core risk management comes out of under-estimation of assessment procedure, valuation, level of implementation etc. and leads to the bank'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 bank 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 bank calculated with the applied methods insufficient to cover its risks at the time of its review, it may require the banks to take specific action or raise additional capital determined through the SRP-SREP dialogue.

5.5.4. 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 a bank relative to its capital and can threaten the bank'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 bank 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 banks. Banks should clearly document the processes and procedures for addressing credit concentration risk. These documents should address at least the following:

a) Each bank 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 bank's risk appetite and in the external business environment.

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

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

d) Banks 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) Banks 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.

5.5.5. 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.

5.5.6. Liquidity risk

Liquidity risk occurs when a bank is unable to fulfill its commitments in time when payment falls due. Banks 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.

A bank can analyze the expected changes of its liquidity by comparing the maturity of its receivables and payables.

5.5.7. 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 banks pose to the risk when it fulfills its contractual obligations (payment or delivery), but the counterparty fails or defaults to do the same.

5.5.8. Other material risks

SRP requires that the bank'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 bank'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.

5.5.9. 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.

5.5.10. 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.

5.5.11. 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 banks 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

5.6. 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.

5.6.1. 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 bank'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.

5.6.2. Stress Testing

Impact on capital will be detected through stress testing, would be included in risk profile of a bank 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 6. Supervisory review evaluation process

6.1. Introduction

ICAAP includes regulations of a bank's own supervisory review of capital positions aiming to reveal whether it has prudent risk management and sufficient capital to cover its risk profile. Supervisory Review Evaluation Process (SREP) of BB includes dialogue between BB and the bank's SRP team followed by findings/evaluation of the bank's ICAAP.

6.2. Principles of SREP of BB

6.2.1. BB will review and evaluate banks' ICAAP and strategies, as well as their ability to monitor and ensure their compliance with CAR. BB will take appropriate supervisory action if they are not satisfied with the result of this process.

6.2.2. BB expects banks to operate above the minimum regulatory capital ratios and should have the ability to require banks to hold capital in excess of the minimum.

6.2.3. BB will intervene at an early stage to prevent capital from falling below the minimum levels required to support the risk profile of a particular bank and will take rapid remedial action if capital is not maintained or restored.

6.3. SRP – SREP dialogue

SRP – SREP dialogue stands for an exclusive meeting between the SREP team of BB and SRP team of a bank. The objective of the dialogue is to determine the adequate level of capital needed for a bank by reviewing the ICAAP and strategies of the bank. The dialogue target to review the process by which a bank assesses its capital adequacy, risk position, resulting capital levels, and quality of capital held. The intensity and frequency of the dialogue depends on the level of complexity and magnitude of the banks' activities as well as the difference between the capital requirements assessed by the bank and BB.

Prior to the dialogue, BB also evaluates the degree to which a bank has in place a sound internal process to assess capital adequacy. The emphasis of the review should be on the quality of the bank's risk management and controls and should not result in supervisors functioning as bank management. The periodic review can involve some combination of:

- On-site examinations or inspections;
- Off-site review;
- Discussions with bank management;
- Review of work done by external auditors (provided it is adequately focused on the necessary capital issues); and
- Periodic reporting.

6.3.1. SREP Team

A SREP team is headed by the Executive Director of Banking Regulation and Policy Department, and other members of the team are General Managers of Banking Regulation and Policy Department, Department of Off-site Supervision, Department of Banking Inspection 1 & 2, Foreign Exchange Inspection & Vigilance Department, Foreign Exchange Policy Department. Deputy General Manager of Basel II Implementation Cell officiates as the Member Secretary of the team.

6.3.2. Terms of reference of the dialogue

a) Minimum capital requirement against credit, market and operational risks.

b) Risks to be covered under SRP e.g. residual risk of credit risk deriving from risk mitigation techniques, securitization risk, evaluation of core risk management, credit concentration risk, interest rate risk in the banking book, liquidity risk, settlement risk, reputation risk, strategic risk, and other material risks etc.

c) External factors e.g. risks deriving from the economic and regulatory environment, risks resulting from the business performance of the institution.

d) Adequate capital against comprehensive risks.

e) Stress testing exercises and results

In course of SRP-SREP dialogue, BB will review the bank's internal governance after the examination of the above elements. BB will also evaluate the bank's SRP findings and may require additional capital under supervisory actions in respect of the bank's financial position. Banks will submit the results of their SRP to Banking Regulation and Policy Department as per format attached at **Annex I**.

6.4. Methodology in reviewing SRP

6.4.1. Review of adequacy of risk assessment

BB assesses the degree to which internal targets and processes incorporate the full range of material risks faced by the bank. BB also reviews the adequacy of risk measures used in assessing internal capital adequacy and the extent to which these risk measures are also used operationally in setting limits, evaluating business line performance, and evaluating and controlling risks more generally. BB may consider the results of sensitivity analyses and stress tests conducted by the bank and how these results relate to capital plans.

6.4.2. Assessment of capital adequacy

BB will review the bank's processes to determine that :

a) Target levels of capital chosen are comprehensive and relevant to the current operating environment;

b) These levels are properly monitored and reviewed by senior management; and

c) The composition of capital is appropriate for the nature and scale of the bank's business.

BB will also consider the extent to which the bank has provided for unexpected events in setting its capital levels. This analysis should cover a wide range of external conditions and scenarios, and the sophistication of techniques and stress tests used should be commensurate with the bank's activities.

6.4.3. Assessment of the control environment

BB will consider the quality of the bank's management information reporting and systems, the manner in which business risks and activities are aggregated, and management's record in responding to emerging or changing risks.

In all instances, the capital level of a bank may be determined according to its risk profile and adequacy of its risk management process and internal controls. External factors such as business cycle effects and the macroeconomic environment may also be considered.

6.4.4. Supervisory review of compliance with minimum standards

Bank needs to include risk management standards, credit risk mitigation techniques to meet its capital requirement and disclosures. In particular, bank will be required to disclose features of its internal methodologies used in calculating minimum capital requirements. BB will ensure that these conditions are being met on an ongoing basis.

BB will focus on capital calculation methodologies and the size of capital as well as on the assessment of the adequacy of internal procedures. BB's assessment will emphasize on the harmony and effectiveness of internal limits, control procedures, risk management and internal governance.

6.4.5. Supervisory response

Having carried out the review process described above, BB may take appropriate action if banks are not satisfied with the results of the bank's own risk assessment and capital allocation. BB will consider the following actions :

a) intensifying the monitoring of the bank e.g. monitoring under early warning system, problem bank category;

b) restricting the payment of dividends;

c) restrictions on the bank's activities;

d) the bank must prepare and implement a satisfactory capital adequacy restoration plan;

e) the bank has to raise additional capital immediately; and

f) imposing other restrictions suited to the circumstances of the bank and its operating environment.

The permanent solution to banks' difficulties is not always increased capital. However, some of the required measures (such as improving systems and controls) may take a period of time to implement. Therefore, increased capital might be used as an interim measure while permanent measures to improve the bank's position are being put in place. Once these permanent measures have been put in place and have been seen by BB to be effective, the interim increase in capital requirements can be removed.

Chapter 7. Market discipline

7.1. Scope and purpose

The purpose of Market discipline in the Revised Capital adequacy Framework is to complement the minimum capital requirements and the supervisory review process. The aim of introducing Market discipline in the revised framework is to establish more transparent and more disciplined financial market so that stakeholders can assess the position of a bank 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, banks 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.

Banks 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, banks' disclosures should be consistent with how senior management and the Board of directors assess and manage the risks of the bank.

b) Under Minimum Capital Requirement, banks 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 a bank'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

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

7.4. Frequency of disclosure

a) Banks should provide all required disclosures in both qualitative and quantitative form, as at end March of each year along with the annual financial statements. Banks have to submit a copy of their disclosures to Department of Off-site Supervision of BB. Banks 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 a bank'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 Risk Based Capital (Basel II)" and the link to this page should be prominently provided on the home page of the bank'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, banking book interest rate risk, equity) banks 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 set out in tabular form are the disclosure requirements.

a) Scope of application

b) Capital structure

c) Capital adequacy

d) Credit Risk

e) Equities: disclosures for banking book positions

f) Interest rate risk in the banking book (IRRBB)

g) Market risk

h) Operational risk

Table 16 : 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[1] 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[2] in all subsidiaries not included in the consolidation that are deducted and the name(s) of such subsidiaries.

Table 17 : 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

[1] Entity = securities, insurance and other financial subsidiaries, commercial subsidiaries, significant minority equity investments in insurance, financial and commercial entities.

[2] 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 and Tier 3 capital.
	(d)	Other deductions from capital.
	(e)	Total eligible capital.

Table 18: c) Capital Adequacy

Qualitative Disclosures	(a)	A summary discussion of the bank's approach to assessing the adequacy of its capital to support current and future activities.
Quantitative Disclosures	(b)	Capital 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 19 : 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 bank's credit risk management policy; and
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 20: e) Equities: Disclosures for 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. 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 bank's methodology, as well as the aggregate amounts and the type of equity investments subject to any supervisory provisions regarding regulatory capital requirements.

Table 21: f) Interest rate risk in the banking book (IRRBB)

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

Table 22: 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; foreign exchange risk; and Commodity risk.

Table 23: 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

Banks 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 ব্যাংক কোম্পানী আইন, ১৯৯১

CAPITAL ADEQUACY RATIO OF A SCHEDULE BANK

*SOLO/CONSOLIDATED RETURN

As on ……

* Delete which is not appropriate.

NAME OF BANK	DATE OF SUBMISSION

Information requested in this return is required under section 13 and section 45 of 'ব্যাংক কোম্পানী আইন, ১৯৯১'. 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 Risk Based Capital Adequacy

(Amount in crore taka)

Sl.	Particulars	Amount
A.	Eligible Capital :	
1	Tier-1 Capital	
2	Tier-2 Capital	
3	Tier-3 Capital	
4	Total Eligible Capital (1+2+3)	
B.	Total Risk Weighted Assets (RWA)	
C.	Capital Adequacy Ratio (CAR) (A_4 / 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.	
1.14	Reciprocal crossholdings of bank capital/subordinated debt	
1.15	Any investment exceeding the approved limit under section 26(2) of Bank Company Act, 1991.	
1.16	Investments in subsidiaries which are not consolidated - 50%	
1.17	Other if any	
1.18	Sub Total (1.11 to 1.18)	
1.19	Total Eligible Tier-1 Capital (1.10-1.18)	
	2 .Tier-2 (Supplementary Capital)	
2.1	General Provision (Unclassified loans + SMA + off Balance Sheet exposure)	
2.2	Assets Revaluation Reserves up to 50%	
2.3	Revaluation Reserve for Securities up to 50%	
2.4	Revaluation Reserve for equity instruments up to 10%	
2.5	All other preference shares	
2.6	Subordinated debt	
2.7	Other (if any item approved by Bangladesh Bank)	
2.8	Sub-Total (2.1 to 2.7)	
2.9	Deductions if any (e.g. Investments in subsidiaries which are not consolidated - 50%)	
2.10	Total Eligible Tier-2 Capital (2.8-2.9)	

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				
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 Banks and NBFIs				
	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.	Claims under Credit Risk Mitigation [From Work Sheet -1(a)]:	PSE	N/A		
		Banks & NBFIs	N/A		
		Corporate	N/A		
		Retail & Small	N/A		
		Consumer finance	N/A		
		Residential property	N/A		
		Commercial real estate	N/A		

(Amount in crore taka)

Sl.	Exposure type	Risk weight	Exposure	RWA
j.	Claims categorized as retail portfolio & SME (excluding consumer loan)	0.75		
k.	Consumer finance	1.00		
l.	Claims fully secured by residential property	0.50		
m.	Claims fully secured by commercial real estate	1.00		
n.	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 more than 50 percent of the outstanding amount of the past due claim.	0.50		
	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 more than 20% of outstanding amount	0.75		
o.	Capital Market Exposures	1.25		
p.	Unlisted equity investments and regulatory capital instruments issued by other banks (other than those deducted from capital) held in banking book	1.25		
q.	Investments in venture capital	1.50		
r.	Investments in premises, plant and equipment and all other fixed assets	1.00		
s.	Claims on all fixed assets under operating lease	1.00		
t.	All other assets	0.00		
		0.20		
		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 Banks & NBFIs				
	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.	Claims against retail portfolio & SME (excluding consumer loan)		0.75		
h.	Consumer finance		1.00		
i.	Claims fully secured by residential property		0.50		
j.	Claims fully secured by commercial real estate		1.00		
k.	Investments in venture capital		1.50		
l.	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)	Other commitments with certain drawdown	100%		
d)	Performance related contingencies	50%		
e)	Commitments with original maturity of over one year	50%		
f)	Trade related contingencies	20%		
g)	Commitments with original maturity of one year or less	20%		
h)	Other commitments that can be unconditionally cancelled by any time	0%		
i)	Foreign exchange contract	Note-1		
	Total			

Note-1: See Table 5 and Table 6

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	
D.	Commodities	
	Total	

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

(Amount in crore taka)

Categories	Market Value	Capital Charge Weights (%)	Capital Charge
Government (Domestic Currency)		0	
Government (Other than Domestic Currency)		0	
		0.25	
		1	
		1.60	
		10	
		12	
		10	
Qualifying		0.25	
		1	
		1.60	
Other		2	
		6	
		10	
		12	
		10	

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

(Amount in crore taka)

	Time band		Individual positions							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		Risk Weight							
			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 Banks)

(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: Guidelines on Subordinated Debt

1. Introduction

The scheduled banks in Bangladesh may issue Subordinated Debt to qualify as regulatory capital (Tier 2 or Tier 3) subject to the prior approval of Bangladesh Bank (BB).

2. Definition

- **Debt:** Debt will be defined as 'the selling or issuing debt securities by a banking company through public issue or private placement or combination of both, to collect fund on a long term basis. A debt will be generally a fixed interest-bearing debt instruments, implying that the issuer or borrower will pay the interest on predetermined time schedules but the principal will be repaid on maturity. The amount that will be repaid on maturity is called the bond's face value or par value. The number of years until the face value is paid will be called the bond's time to maturity. The debt can also be a 'zero-coupon debt' which will be issued at discount and redeemed at par value or face value.

- **Subordinated debt:** The Subordinated will be referred to the debt instruments which will be subordinated to deposits and other liabilities of the bank. It implies that the claims of the subordinated debt holders will be junior to the claims of the depositors and the other creditors.

- **Convertible subordinated debt:** Convertible bonds will be the bonds which will have a conversion provision. The conversion provision will give the holder the option to exchange the part or full of the bond for a number of ordinary shares of the issuing company according to the conversion ratio after a certain period. When first issued, they act just like regular subordinated debt with the promise to pay its obligation to its holders.

3. Qualifying criteria as regulatory capital

The subordinated debts must meet the following eligibility criteria of hybrid capital instruments to qualify as the Tier-2 Capital component:

Basic criteria:

(i) The debt will be unsecured and fully paid-up;

(ii) CAMELS rating of the banks should be at least '2' ; Issue/Debt/Instrument rating and Issuer's entity rating will be at least '3';

(iii) The debt may be convertible into Ordinary Shares in part or full according to the conversion ratio subject to the prior approval of BB;

(iv) It will be ineligible as collateral for a loan made by the issuing bank;

(v) This instrument will not be insured by the deposit insurance scheme.

Permanence:

(i) The debt must have a maturity of at least 05 (five)years;

(ii) The amount of subordinated debt in the regulatory capital will have to be reduced (amortized) in the last five (05) of the bond's life by 20% (Twenty percent) from the amount of the instrument at the beginning of each of the last five (05) years of the instrument's life.

(iii) In the last year of the instrument's life, the amount of subordinated debt will not be included bank's regulatory capital (Tier 2 or Tier 3).

(iv) Once any scheduled payments of principal begin, all payments shall be made at least annually and the amount repaid each year shall be no less than in the prior year;

(v) The approved redemption plan cannot be altered without the prior approval of BB.

Ranking among the claimants:

(i) The interest and the dividend payment policy must be well articulated in the debt indenture in such a manner that there will no scope to arise any conflict of interest between or among the ordinary shareholders and the subordinated debt holders;

(ii) In the event of the liquidation or winding up of the issuer's business and distribution of return on investment, the bond holders will be ranked after claims of the depositors and other creditors, i.e. it will be ranked immediately ahead of ordinary share holders;

Quantitative limits:

(i) Eligibility limit: The total amount of subordinated debt that a bank may consider as Tier 2 capital will be limited to a maximum of 30% of the amount of Tier 1 capital. The total amount of Tier 2 capital (supplementary capital) elements will be limited to a maximum of 100% of the total amount of Tier 1 capital (core capital);

(ii) Coupon/Interest Rate: Coupon/Interest rate and yield of the debt will be well-matched/compatible with the prevailing market condition.

(iii) BB may set any other quantitative limits if deem necessary applicable to the convertible bonds.

In addition to Tier 2 capital, certain subordinated debt may qualify as Tier 3 capital. Tier 3 capital will be limited to 250% of a bank's Tier 1 capital that is available after meeting credit risk capital requirement to support market risk. This means that a minimum of about 28.5% of market risk to be supported by Tier-1 capital. To be considered as Tier 3 capital, subordinated debt must:

- be unsecured and fully paid up;
- have an original maturity of at least 02 (two) years;
- will not redeemable before maturity without prior BB approval;

- include a lock-in clause precludes payment of either interest or principal (even at maturity), if the payment would cause the issuing bank's risk-based capital ratio to fall or remain below the minimum as required under Risk Based Capital Adequacy for bank (RBCA).
- neither contains nor is covered by any covenant, terms, or restrictions that are inconsistent with safe and sound banking practices.

4. Application process

The scheduled banks are required to comply the following procedures for obtaining approval to issue subordinated debt:

- **The application of issuing subordinated debt should include the following documents:**
  - Term sheet on the complete structure of subordinated debt by specifying the salient features of the bond,
  - Full version of bond indenture/agreement with prospective debt holders. The indenture will include:
    - Issue size
      - Amount of Issue,
      - Formation of lot,
      - Number of issuing units.
    - Coupon/Interest rate
    - Coupon/Interest payment schedule
    - Coupon determination methodology
    - Yield/Effective rate of return
    - Yield determination methodology
    - Maturity (Life) of the instrument and
    - Redemption schedule and redemption procedure
    - Transferability/Tradability
    - Tax aspects

- ❖ Lock-in provision (in case of public issue)
- ❖ Conversion
  - ▪ Date of conversion,
  - ▪ Detailed conversion methodology,
  - ▪ Conversion schedule,

- ➢ Credit rating report of the instrument and the issuer
- ➢ Trust deed (agreement document with trustee)
- ➢ Agreement document with the manager to the issue (in case of IPO issue)/lead arranger (in case of private placement)
- ➢ Agreement document with the underwriter (if there is any)
- ➢ Audited financial statements of the issuer for the previous 5 (five) years,
- ➢ Plan for the utilization of the proceeds collected from the issue/Capital plan
- ➢ Statement of changes in the bank's capital structure due to the issue of the debt
- ➢ SEC clearance certificate to issue the instrument

- The issuer must submit the list of the subscribers of the instrument to BB within 07 (seven) working days after closing of subscription of the debt.
- The issue of the debt must not violate the Bank Companies Act 1991.

5. Reciprocal holdings

In case of reciprocal holding/issue of subordinated debt by banks the amount of such holding/issuance will not be eligible for capital treatment.

6. Restriction on holdings

Sponsor shareholders of the issuing bank shall not be allowed to participate in or hold the subordinated debt instruments of the issuing bank directly or through their affiliates. The same restriction will also apply to the employees' retirement benefit funds of the issuing bank.

7. Mandatory provisions of the instrument

The following language, which has been drafted to comply with the requirements of applicable rules, regulations, and policies, must appear in every note, debenture, or note agreement.

A. On the face of the note: "THIS OBLIGATION IS NOT A DEPOSIT AND IS NOT INSURED BY ANY DEPOSIT INSURANCE SCHEME."

B. On the face of the note: "THIS OBLIGATION IS SUBORDINATED TO CLAIMS OF DEPOSITORS AND OTHER CREDITORS, IS UNSECURED, AND IS INELIGIBLE AS COLLATERAL FOR A LOAN BY THE (NAME OF ISSUING BANK)."

(Note: This clause may be combined with the required language set forth in (A), above.)

C. A general subordination clause must be added that specifies the subordination of the note. The clause must be in substantially the following form:

"The indebtedness of the bank evidenced by this note, including the principal and premium, if any, and interest shall be subordinate and junior in right of payment to its obligations to its depositors, its obligations under bankers' acceptances and letters of credit, and its obligations to its other creditors, including its obligations to the Bangladesh Bank, Deposit Insurance Trust Fund (DITF). In the event of any insolvency, receivership, conservatorship, reorganization, readjustment of debt or similar proceedings or any liquidation or winding up of or relating to the bank, whether voluntary or involuntary, all such obligations shall be entitled to be paid in full before any payment shall be made on account of the principal of, or premium, if any, or interest, on the note. In the event of any such proceedings, after payment in full of all sums owing on such prior obligations, the holder, of the note, together with any obligations of the bank ranking on a parity with the note, shall be entitled to be paid from the remaining assets of the bank the unpaid principal thereof and any unpaid premium, if any, and interest before any payment or other distribution, whether in cash, property, or otherwise, shall be made on account of any capital stock or any obligations of the bank ranking junior to the notes. Nothing herein shall impair the obligation of the bank, which is absolute and unconditional, to pay the principal of and any premium and interest on the note according to its terms."

8. Provision of protection and covenants

Subordinate debt will be supported by agreement of trust or warranties stating that the bank is a duly organized banking company, that there has been no material adverse change in its condition since the date of the agreement and is not in default on any agreement or in violation of its charter or by laws. The agreement will assure repayment of the benefit of the instrument holders. By their nature, subordinated debt must be subordinate to all but equity holders.

9. Reserve requirements

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

10. Disclosure

The total amount of subordinated debt shall be disclosed in the balance sheet under the head 'subordinated debt' in the nature of long term borrowings.

11. Head Office borrowings in foreign currency by Foreign Banks operating in Bangladesh

Foreign banks operating in Bangladesh may raise subordinated debt with prior approval of BB in the form of (i) subordinated debt in foreign currency and (ii) subordinated debt in the form of foreign currency borrowings from Head office for inclusion in Tier-2 capital.

a) Amount of borrowing: The total amount of HO borrowing in foreign currency will be at the discretion of the foreign bank. However, the amount eligible for inclusion in Tier-2 capital as subordinated debt will be subject to a maximum ceiling as stated above.

b) Maturity period: Head Office borrowings should have a minimum initial maturity of 5(five) years. If the borrowing is in tranches, each tranche will have to be retained in Bangladesh for a minimum period of five years.

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

d) Rate of interest: The rate of interest on HO borrowings should not exceed the on-going market rate. Interest should be paid at yearly basis.

e) Withholding tax: The interest payments to the HO will be subject to applicable withholding tax.

f) Repayment: All repayments of the principal amount will be subject to prior approval of BB

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

Annex B: 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 (Refer to Table 10)	3.25%

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 *(Refer to Table 7)*	100%	
3.	On balance sheet credit equivalent	1050 × 100%	1050
4.	Haircut	2%	
5.	Exposure adjusted for haircut *(Refer to Table 8)*	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 *(row 5 – row 8)*	1071 - 1000	71
10.	Risk weight (for bank)	20%	
11.	Risk weighted assets for CCR *(row 9 × row 10)*	71 × 20%	14.2
12.	Capital Charge for CCR *(row 11 × 10%)*	14.20 × 10%	1.42

Sl no	Items	Particulars	Amount (in Tk)
B.	**Capital charge for credit/market risk of security**		
1.	Capital for credit risk *(if the security is held under HTM)*	Credit risk	Zero *(Being Govt. security)*
2.	Capital charge 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 charge (for CCR + Credit risk + specific risk + general market risk) (1.42+0+0+34.13)			35.55

Annex C: 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 /27.27
Maturity of collateral (years)	2	3	6	-	-	12	1
Nature of collateral	T.Bill	Bank Bonds	Corp Bonds	Equity Listed in DSE & CSE	Equity Listed in DSE & CSE	T&T Bond	Corp Bonds
Currency	BDT	BDT	BDT	BDT	BDT	BDT	BDT
Rating of collateral (BB rating grade)	-	3	1	-	-	1	1
Haircut Weight (Hc)	0.02	0.06	0.08	0.25	0.25	0.08	0.01
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	75	93.75	92	27
Net Exposure (E*)	2	0	8	25	0	8	73
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 D: Calculation of Capital Charge for General Market Risk for Interest Rate Related Instruments: A Worked Example

Bank ABC 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 , bank 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)

	Time band		Individual positions							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		Risk Weight							
			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	75.00				75.00		0.20%	0.15		0.00	0.15	0.20	1.00	0.00
	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%							
	2 to 3 years	1.9 to 2.8 years			50.00		50.00		1.75%					0.00	1.13	1.13
	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%							
	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	0.00	-5.13	1.00
	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 E: An Example Calculation of Capital Charge on Operational Risk

(Basic Indicator Approach)

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

(Figure in Crore Taka)

Item	Dec 31, 2008	Dec 31, 2009	Dec 31, 2010
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 Bank'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, 2008	Dec 31, 2009	Dec 31, 2010
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, 2008	Dec 31, 2009	Dec 31, 2010
Total Profit/Loss before taxes	112.60	(1.58)	89.63
Add: Total Provision	29.00	0.00	45.00
Add: Total Operating Expenses	52.40	58.58	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 F: Capital charge against operational risk

The Standardized Approach: All the business activities of the banks 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 bank'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 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. Banks may use internal pricing methods to allocate gross income between business lines provided that total gross income for the bank (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 24 : 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

Bank may use the Alternative Standardized Approach (ASA) provided the bank is able to satisfy BB that this alternative approach provides an improved basis by, for example, avoiding double counting of risks. Once a bank 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 banks 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	$\mathbf{K_{RB} = \beta_3 \times m \times LA_{RB}}$
Commercial banking	$\mathbf{K_{CB} = \beta_4 \times m \times LA_{CB}}$

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 banking business line consists of the total drawn amounts in the following credit portfolios: retail and SMEs. For commercial banking, 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, banks may aggregate retail and commercial banking subject to using a beta of 15%. Similarly, those banks 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 bank 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 bank 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 bank 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 bank 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.

h) 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 G: 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/ District Commissioner
2. Directorate of Government Transport
3. Directorate of Relief and Rehabilitation
4. Bureau of Anti-Corruption
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 Labour
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 Expansion
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. Directorate 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. Privatisation 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 Authority (DESA)
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 mobilisation 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 H: Prudent Valuation Guidance

A framework for prudent valuation practices may at a minimum include the following:

1. Systems and controls

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

- Documented policies and procedures for the process of valuation. This includes clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and

- Clear and independent (i.e. independent of front office) reporting lines for the department accountable for the valuation process. The reporting line should ultimately be to a competent authority.

2. Valuation methodologies

(i) Marking to market

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

Banks must do marking-to-market as much as possible. The more prudent side of bid/offer must be used unless the bank is a significant market maker in a particular position type and it can close out at mid-market.

(ii) Marking to model

Where marking-to-market is not possible, banks may mark-to-model, where this can be demonstrated to be prudent. Marking-to-model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input. When marking to model, an extra degree of conservatism is appropriate. BB will consider the following in assessing whether a mark-to-model valuation is prudent:

- Senior management should be aware of the elements of the trading book which are subject to mark to model and should understand the materiality of the uncertainty this creates in the reporting of the risk/performance of the business.

- Market inputs should be sourced, to the extent possible, in line with market prices. The appropriateness of the market inputs for the particular position being valued should be reviewed daily.

- Where available, generally accepted valuation methodologies for particular products should be used as far as possible.

- Where the model is developed by the bank itself, it should be based on appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process. The model should be developed or approved independently of the front office. It should be independently tested. This includes validating the mathematics, the assumptions and the software implementation.

- There should be formal change control procedures in place and a secure copy of the model should be held and periodically used to check valuations.

- Risk management should be aware of the weaknesses of the models used and how best to reflect those in the valuation output.

- The model should be subject to periodic review to determine the accuracy of its performance (e.g. assessing continued appropriateness of the assumptions, analysis of P&L versus risk factors, comparison of actual close out values to model outputs).

(iii) Independent price verification

Independent price verification is distinct from daily mark-to-market. It is the process by which market prices or model inputs are regularly verified for accuracy. While daily marking-to-market may be performed by dealers, verification of market prices or model inputs should be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). It need not be performed as frequently as daily mark-to-market, since the objective, i.e. independent, marking of positions, should reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marks.

Independent price verification entails a higher standard of accuracy in that the market prices or model inputs are used to determine profit and loss figures, whereas daily marks are used primarily for management reporting in between reporting dates. For independent price verification, where pricing sources are more subjective, e.g. only one available broker quote, prudent measures such as valuation adjustments may be appropriate.

Annex I: Findings of Supervisory Review Process

General Manager
Banking Regulation and Policy Department
Bangladesh Bank, Head Office
Dhaka.

Findings of Supervisory Review Process (SRP)

Dear Sir,

Overview: The bank shall discuss its nature of business, risk appetite and philosophy to deal with major risks involved in its operations.

Summary of current and projected financial position: The bank shall provide the current financial results and the projections of financial position for the next three years. Main assumptions with appropriate explanation should also be given to support the growth prospects.

Summary of current and projected capital resources: The availability of capital resources (indicating the contribution of each component of Tier 1, Tier 2, and Tier 3) for the current operations and future needs should be spelt out. Capital contingency plan highlighting the sources of capital and/or alternative arrangements in the wake of sudden internal business shocks and/or external economic downturn, major investments, merger, acquisitions, sources to fund new ventures, etc.

Risk Assessment and Capital Adequacy: Discussion on the analysis of following risks and capital allocation against each category.

- Risks not covered in Credit risk(s), Market risk(s) and Operational risk(s) under MCR
- Liquidity risk
- Residual risk
- Evaluation of Core Risk Management
- Credit Concentration risk
- Interest Risk in the Banking Book
- Legal Risk
- Strategic risk
- Reputational risk, and
- Any other risk(s) associated with the business activities of the bank

(*Bank should describe the assessment procedures for these risks and rationale for selecting any particular method. The bank should discuss the assessment techniques used (model based, scenario analyses, and stress testing) and quantitative results of each risk. Qualitative measures, if any, should also be explained in the relevant risk class.*

The bank should explain present challenges faced by it to improve the risk management framework. The bank may develop action plans with suitable timeline to adopt/develop the sophisticated advanced techniques for assessment and measurement of all material risks.)

Yours sincerely,

( )
Managing Director/ Chief Executive Officer

Annex J: Risk Factors Relating to Islamic Mode of Investment

Introduction

All Islamic banks and Islamic branches of conventional banking are required to measure and apply capital charges against credit, market and operational risk**.**

Features of Islamic mode of investment

Islamic modes of investments are asset-based. Gross return of these investments is the spread between the cost of the asset to the bank and the amount that can be recovered from selling or leasing it. Some investments can be categorized as equity participation and based on profit and loss sharing. Quards are beneficence financing based on service charge only.

Bai-Murabaha : The seller informs the buyer of his cost of acquiring a specified product; then the profit margin (or mark up) is negotiated between the buyer and the seller. The total cost is usually paid in installments.

Bai-Salam: Purchase with deferred delivery. The buyer pays the seller the full negotiated price of a product that the seller promises to deliver at a future date. This mode only applies products whose quality and quantity can be fully specified at the time the contact is made. Usually, it applies to agricultural or manufactured product.

Bai-Istisna: The Istisna'a sale is a contract in which the price is paid in advance at the time of the contract and the objects of sale is manufactured and delivered later. The majority of the jurists consider Istisna'a as one of the division of 'Salam Sale'.

Bai Muajjal: Deferred payment sales. The seller can sell a product on the basis of a deferred payment in installments or in a lump sum payment. The price of the product is agreed upon between the buyers and the seller at the same time of the sale and cannot include any charge for deferring payments.

Ijārah: Leasing or lease purchase, A party leases a particular product for a specific sum and a specific period of time. In the case of a lease purchase, cash payment includes a portion that goes towards the final purchase and transfer of ownership of the product.

Higher Purchase under Sirkatul Melk : In this mode of investment Bank and borrower on the basis of contract purchase transport, machine & plant, building, apartment etc. Borrower uses it on the basis of rent and repays part of principal amount of bank. Thus borrower becomes owner of the property. In this process borrower deposit his equity to bank. Borrower pays the agreed rent and after full repayment bank handover the title to the borrower.

Quards al-Hasana: Beneficence loans. These are zero return loans that the Islamic principles exhort Muslims to make 'to those who need them'. Banks are allowed to charge the borrowers a service charge to cover the administrative expenses of handling the loan, provided that the charge is not related to the amount or maturity of the loan.

Jo'alah: Service charge. A party under take to pay another party a specified amount of money as a fee for rendering a specified service in accordance to the terms of the contract stipulated between the two parties. This mode usually applies to transactions such as consultations, and professional services, fund placements, and trust services.

Mushārakah: Equity participation contract. The bank is not the sole provider of funds to finance a project. Two or more partners contribute to the joint capital of an investment. Profit and losses are shared strictly in relation to the respective capital contributions. The kind of contract is usually employed to finance long-term projects.

Mudārabah : Trustee finance contract. Under this kind of contract, the bank provides the entire capital needed for financing a project, while the entrepreneur offers his labor and expertise. The profit from the project is shared between the bank and entrepreneur at a certain fixed ratio. Financial losses are borne exclusively by the bank. The liability of the entrepreneur is limited only to his time and efforts. However if the negligence or mismanagement of the entrepreneur is proven he may be held responsible for financial losses. Mudarabah is usually employed in investment project with short gestation periods and in trade and commerce.

Islamic banks mobilize funds on a profit sharing and loss bearing i.e. on Mudarabah basis (PLS). On the liability side, the contract between the bank and the depositors is known as unrestricted Mudaraba because depositors agree that their funds be used by the bank, at its discretion, to finance to finance an open ended list of profitable investments and expect to share with the bank the overall profits accruing to the bank business.

Certain risk are associated with such PLS accounts. These risks are referred to as fiduciary and displaced commercial risk.

Fiduciary Risk: The bank shall have in place appropriate mechanisms to safeguard the interests of all fund providers. Where Investment Account holder funds are commingled with the banks own funds, the bank shall ensure that the bases for asset, revenue, expense and profit allocations are established, applied and reported in a manner consistent with the bank's fiduciary responsibilities.

Rate of Return risk and Displaced Commercial Risk**:** Banks are exposed to rate of return risk in the context of their overall balance sheet exposures. An increase in benchmark rates may result in the investment Account holder having expectations of a higher rate of return. Rate of return risk differs from risk in that banks are concerned with the result of their investment activities at the end of the investment-holding period. Such results cannot be pre-determined exactly.

A consequence of rate of return risk may be displaced commercial risk. Banks may be under market pressure to pay a return that exceeds the rate that has been earned on assets financed by the investment account holder when the return on assets is under-performing as compared with the competitors' rates. In such case, banks may decide to waive their rights to part or its entire Mudarib share of profits in order to satisfy and retain its fund providers and dissuade them from withdrawing their funds.

Calculating risk weighted assets (RWA) for credit risk

Credit risk is defined as the potential that a bank's counterparty will fail to meet its obligations in accordance with agreed terms. Investment (Credit) risk exposures in Islamic financing arise in connection with accounts receivable in Murabaha Contracts, Counterparty risk in Salam Contracts, Account receivable and counter party risk in Istisna Contracts, and Lease payment receivables in Ijara Contracts, and Sukuk held to maturity (HTM) in the banking book. Bai-muazzal contract and Higher Purchase under Sirkatul Melk (HPSM) mode in connection with installment payment receivables under HPSM agreement/contract may be added for credit risk exposure in connection with account receivable. In these investments Credit risk will be measured according to the Standardized Approach of Basel II as discussed bellow except for certain exposures arising from investment by means of Musharaka or Mudaraba contracts in assets in the banking book.

The assignment of risk weight (RW) shall take into consideration the following components :

a) The credit risk rating of a debtor, counterparty, or the obligor, or a security, based on external credit assessment and their RW as stated in Table 2.

b) The credit risk mitigation (CRM)

c) Types of underlying assets that are sold and collateralized or leased by the Islamic banks

d) Amount of specific provisions made for the past-due portion of accounts receivable or leased payments receivables

The Islamic banks will nominate the external credit assessment institutions (ECAIs) recognized by BB.

Credit risk mitigation

The exposure in respect of a debtor, counterparty or other obligor can be further adjusted or reduced by taking into account the credit risk mitigation (CRM) techniques employed by the Islamic Bank while collateral received is eligible financial for mitigation on the basis of adopting haircut formula or a guarantee as described in the guidelines. The Islamic Bank may consider the resultant net exposure applying the haircut formula. The Standard Supervisory Haircuts weight to offset its credit exposure is stated in the guidelines.

Off-balance Sheet Exposures

Off-balance-sheet items under the standardized approach will be converted into credit exposure equivalents through the use of credit conversion factors (CCF) as stated in Table 5, Table 6, and Table 7. The resulting credit equivalent amount will be multiplied by the risk-weight associated with that counterparty credit rating as described in Table 2. Other clarifications and definitions in this regard are described in section 2.5.

Some fixed risk weights based on preference of underlying assets

The RW of a debtor, counterparty or other obligor shall be reduced and has been fixed by BB on the basis of preferential treatment for some underlying assets where counterparties could be categorized as Retail and Small, or assets could be defined as residential real estate or commercial real estate as clarified in the section 2.2. The RW will be assigned as stated in the Table 2.

Past due receivables

In the event that accounts receivable become past due, the exposure shall be risk-weighted in accordance with the statement of Table 2. The exposures should be risk weighted net of specific provisions.

Calculating capital charge for market risk

Market risk is defined as the risk of losses in on- and off-balance sheet positions arising from movements in market variables i.e. prices, foreign exchange rate etc. The risks in Islamic Bank that are subject to the market risk capital requirement are:

i) Trading positions in *Sukūk (securities)*;

ii) Investment in equity instrument in the trading book, and

iii) Foreign exchange related issues throughout the banking and trading book including gold; and

iv) Commodities /inventory throughout the banking and trading book.

(If there is no commodity/inventory under the ownership of the Bank, Market Risk will not applicable against Commodity/ inventory sold to the Counterparty)

(i) Sukūk (securities) held for trading (HFT) and equity position risk

The capital charge for securities in Banks' trading book comprises two charges that will be separately calculated for the following types of risk:

Specific risk: The capital charge for specific risk is 10% on all equity positions and Sukūk (securities) to be calculated on a mark to market basis.

General market risk: The capital charge for general market risk is 10% on all equity positions and Sukūk (securities). The value of the instrument will be calculated on mark to market basis of ***Sukūk*** held for trading**.** In the case of equity investments made by means of a *Mushārakah* or a *Mudārabah* contract where the underlying assets are commodities, the market risk provisions for commodities will be applicable according to statement as described in section (iii) below.

(ii) Measuring the foreign exchange risk in a portfolio

The Islamic Banks are allowed to calculate the risks inherent in mix of long and short foreign exchange positions including gold and silver in different foreign currencies through the banking and trading book. The capital charge is at rate of minimum CAR on the overall net position as described and calculated in the section 3.5.6.

(iii) Commodities and Inventory Risk

The minimum capital requirements to cover the risks of holding or taking long positions in commodities, including precious metals but excluding gold and silver (which falls under foreign exchange) as well as the inventory risk which results from holding assets with a view to re-selling or leasing them. A commodity is defined as a physical product, which is and can be traded on a secondary market, e.g. agricultural products, minerals (including oil) and precious metals. Inventory risk is defined as arising from holding items in inventory either for resale under a *Murābahah* contract, or with a view to leasing under an *Ijārah* contract. In the case of inventory risk the net position, long or shot, in each commodity requires a capital charge of 15% to cater for directional risk plus an additional capital charge of 3% of the gross positions, i.e. long plus short positions, to cater for basis risk. The capital charge of 15% applies to assets held by Islamic Banks in inventory with a view to resale or lease. For Istisnā work-in-process (WIP), WIP inventory belonging to the Islamic bank shall attract a capital charge of 8% (equivalent to a 100% RW). In the case of the balance of unbilled WIP inventory under Istisnā` without parallel Istisnā`, in addition to the RW for credit risk a capital charge of 1.6% is applied (equivalent to a 20% RW) to cater for market risk exposure. The funding of a commodities position that exposes the Islamic Banks to foreign exchange exposure is also subject to capital charge as measured under the foreign exchange risk.

Mode of investment wise clarification for credit and market risks

The minimum capital adequacy requirements for both credit and market risks are set out for each of the following Sharī`ah compliant financing and investment instruments:

a) Murābahah and Murābahah for the Purchase Orderer;

b) Salam and Parallel Salam;

c) Istisnā and Parallel Istisnā;

d) Ijārah and Ijārah Muntahia Bittamleek;

e) Mushārakah and Diminishing Mushārakah; and

f) Mudārabah.

a) Murabaha and murabaha for the purchase orderer (MPO)

1. Introduction

In Murābahah and MPO (Bai Murabaha***)***, the capital adequacy requirement for credit risk refers to the risk of a counterparty not paying the purchase price of an asset to the Islamic bank/branch. In the case of market (price) risk, the capital adequacy requirement is with respect to assets in the Islamic bank's possession which are available for sale either on the basis of Murābahah or MPO (Bai Murabaha), or also on assets which are in possession due to cancellation of Purchase Proposal (PP) in non-binding and binding MPO (Bai Murabaha).

***Murābahah* and Non-binding MPO**

In a *Murābahah* transaction, the Islamic bank sells an asset that is already available in its possession, whereas in a MPO transaction the Islamic bank acquires an asset in anticipation that the asset will be purchased by the orderer/customer. This price risk in *Murābahah* contracts ceases and is replaced by credit risk in respect of the amount receivable from the customer following delivery of the asset. Likewise, in a non-binding MPO transaction, the Islamic bank is exposed to credit risk on the amount receivable from the customer when the latter accepts delivery and assumes ownership of the asset.

Binding MPO

In a binding MPO (Bai Murabaha), the Islamic bank has no 'long' position in the asset that is the subject of the transaction, as there is a binding obligation on the customer to take delivery of the asset at a pre-determined price. The Islamic bank is exposed to counterparty risk in the event that the orderer in a binding MPO does not honour his/her obligations under the PP, resulting in the Islamic bank selling the asset to a third party at a selling price which may be lower than the cost to the Islamic bank. The risk of selling at a loss is mitigated by securing a Hamish Jiddiyyah (HJ) (a security deposit held as collateral) upon executing the PP with the customer, as commonly practiced in the case of binding MPO. The Islamic bank would have recourse to the customer for any shortfall in the HJ to compensate for the loss.

2. RW for credit risk in the murābahah contract

Murābahah and Non-binding MPO

The credit exposure shall be measured based on accounts receivable in *Murābahah* (the term used herein includes MPO), which is recorded at their cash equivalent value i.e. amount due from the customers at the end of the financial period less any provision for classified assets. The accounts receivable (net of specific provisions) amount arising from the selling of a Murābahah asset shall be assigned a RW as stated in Table 2 based on the credit standing of the obligor (purchaser or guarantor) as rated by an ECAI that is approved by BB.

Binding MPO

In a binding MPO, an Islamic bank is exposed to default on the purchase orderer's obligation to purchase the commodity in its possession. In the event of the orderer defaulting on its PP, the Islamic bank will dispose of the asset to a third party. The Islamic bank will have recourse to any HJ paid by the orderer, and (a) may have a right to recoup from the orderer any loss on disposing of the asset, after taking account of the HJ, or (b) may have no such legal rights. In both cases, this risk is mitigated by the asset in possession as well as any HJ paid by the purchase orderer. In case (a), the Islamic bank has the right to recoup any loss (as indicated in the previous paragraph) from the orderer, that right constitutes a claim receivable which is exposed to credit risk, and the exposure shall be measured as the amount of the asset's total acquisition cost to the Islamic bank, less the market value of the asset as collateral subject to any haircut, and less the amount of any HJ. The applicable RW as stated in Table 2 shall be based on the standing of the obligor as rated by a recognized ECAI.

3. Capital charge for the market risk in the murābahah contract:

Murābahah and Non-binding MPO

In the case of an asset in possession in a *Murābahah* transaction and an asset acquired specifically for resale to a customer in a non-binding MPO transaction, the asset would be treated as inventory of the Islamic bank and using the simplified approach the capital charge for such a market risk exposure would be 15% of the amount of the position (carrying value). The 15% capital charge is also applicable to assets held by an Islamic bank in respect of incomplete non-binding MPO transactions at the end of a financial period. Assets in possession on a 'sale or return' basis (with such an option included in the contract) are treated as accounts receivable from the vendor and as such would be offset against the related accounts payable to the vendor. If these accounts payable have been settled, the assets shall attract a capital charge of 10% subject to (a) the availability of documentation evidencing such an arrangement with the vendor, and (b) the period for returning the assets to the vendor not having been exceeded.

Binding MPO

In a binding MPO the orderer has the obligation to purchase the asset at the agreed price, and the Islamic bank as the seller is only exposed to credit risk as above.

1) Foreign exchange risk

The funding of an asset purchase or the selling of an asset may well open an Islamic bank to foreign exchange exposures; therefore, the relevant positions should be included in the measures of foreign exchange risk described in the section 3.5.6.

b) Salam and Parallel Salam:

1. Introduction

A Salam contract refers to an agreement to purchase, at a predetermined price, a specified kind of commodity, which is to be delivered on a specified future date in a specified quantity and quality. The Islamic bank as the buyer makes full payment of the purchase price upon execution of a Salam contract.

In certain cases, an Islamic bank enters into a back-to-back contract, namely Parallel Salam, to sell a commodity with the same specification as the purchased commodity under a Salam contract to a party other than the original seller. The Parallel Salam allows the Islamic bank to sell the commodity for future delivery at a predetermined price (thus hedging the price risk on the original Salam contract) and protects the Islamic bank from having to take delivery of the commodity and warehousing it.

The non-delivery of commodity by a Salam customer (i.e. counterparty risk) does not discharge the Islamic bank's obligations to deliver the commodity under a Parallel Salam contract, and thus exposes the Islamic bank to potential loss in obtaining the supply elsewhere.

The obligations of an Islamic bank under Salam and Parallel Salam are not inter-conditional or interdependent, which implies that there is no legal basis for offsetting credit exposures between the contracts.

In the absence of a Parallel Salam contract, an Islamic bank may sell the subject-matter of the original Salam contract in the spot market upon receipt, or, alternatively, the Islamic bank may hold the commodity in anticipation of selling it at a higher price. In the latter case, the Islamic bank is exposed to price risk on its position in the commodity until the latter is sold.

2. RW for Credit Risk in the Salam contract:

The receivable amount generated from the purchase of a commodity based on a Salam contract shall be assigned a RW based on the credit standing of a seller/counterparty as rated by an recognized ECAI as stated in the Table 2. The capital requirement is to be calculated on the

receivable amount, net of specific provisions, of any amount that is past due by more than 90 days. The credit RW is to be applied from the date of the contract made between both parties until the maturity of the Salam contract, which is upon receipt of the purchased commodity. The credit exposure amount of a Salam contract is not to be offset against the exposure amount of a Parallel Salam contract, as an obligation under one contract does not discharge an obligation to perform under the other contract.

3. Capital Charge for the Market Risk in the Salam contract:

Against the price risk on the commodity exposure in Salam contract capital charge will be equal to 15% of the net position in each commodity, plus an additional charge equivalent to 3% of the gross positions, long plus short, to cover basis risk and forward gap risk. The 3% capital charge is also intended to cater for potential losses in Parallel Salam when the seller in the original Salam contract fails to deliver and the Islamic bank has to purchase an appropriate commodity in the spot market to honour its obligation. The long and short positions in a commodity, which are positions of Salam and Parallel Salam, may be offset for the purpose of calculating the net open positions provided that the positions are in the same group of commodities.* The funding of a commodity purchase or selling of a commodity may well leave an Islamic bank open to foreign exchange exposures, and in that case the relevant positions should be included in the measures of foreign exchange risk described in the section 3.5.6.

If the Islamic Banks purchase Goods/ Commodities from the seller and simultaneously sell the same to the ultimate buyer and if the Islamic Banks do not hold the goods/ Commodities at any stage, in that case, Market Risk will not be applicable.

c) Istisnā`and Parallel Istisnā:

1. Introduction

An Istisnā` contract refers to an agreement to buy from a customer a non-existent asset which is to be manufactured or built according to the ultimate buyer's specifications and is to be delivered on a specified future date at a predetermined price. The exposures under Istisnā` involve credit and market risks, as describe below. Credit exposures arise once the work is billed to the customer, while market (price) exposures arise on unbilled work-in-process (WIP). There is a capital requirement to cater for the credit (counterparty) risk of the Islamic bank not receiving the price of the asset from the customer or project sponsor either in pre-agreed stages of completion and/or upon full completion of the manufacturing or construction process. The capital adequacy requirement for the market risk an Islamic bank incurs from the date of manufacturing or construction. Which is applicable throughout the period of the contract on unbilled WIP inventory.

2. Credit risk

The amount generated from buying of an asset based on an Istisna` contract shall be assigned a RW based on the credit standing of the customer as rated by an ECAI and as stated in Table 2.

(i) Exclusions: The capital requirement is to be calculated on the receivable amount, net of specific provisions, any amount that is secured by eligible collateral or any amount which is past due by more than 90 days.

(ii) Applicable period: The credit RW is to be applied from the date when the manufacturing or construction process commences and until the credit exposure amount is fully settled by the Islamic bank, either in stages and/or on the maturity of the Istisna` contract, which is upon delivery of the manufactured asset to the Istisna` ultimate buyer.

(iii) Offsetting arrangement between credit exposures of istisna` and parallel istisna`: The credit exposure amount of an Istisna` contract is not to be offset against the credit exposure amount of a Parallel Istisna` contract because an obligation under one contract does not discharge an obligation to perform under the other contract.

3. Market risk

(a) Istisna` with parallel istisna`: There is no capital charge for market risk to be applied in addition to provisions stated above, subject to there being no provisions in the Parallel Istisna` contract that allow the seller to increase or vary its selling price to the Islamic bank, under unusual circumstances. Any variations in a Parallel Istisna` contract that are reflected in the corresponding Istisna`contract which effectively transfers the whole of the price risk to an Istisna` customer (buyer), is also eligible for this treatment.

(b) Istisna` without parallel istisna`: A capital charge of 1.6% is to be applied to the balance of unbilled WIP inventory to cater for market risk, in addition to the credit RW stated above.

This inventory is held subject to the binding order of the Istisna` buyer and is thus not subject to inventory price. However this inventory is exposed to the price risk.

(If the Islamic Banks sell commodity simultaneously to the ultimate buyer, no Market Risk will be applicable).

Foreign exchange risk: Any foreign exchange exposures arising from the purchasing of input materials, or from Parallel Istisna` contracts made, or the selling of a completed asset in foreign currency should be included in the measures of foreign exchange risk.

d) Ijārah and Ijārah Muntahia Bittamleek:

1. Introduction

Bank leases a particular product for specific sum for specific period of time. Under the Shariah, substantial risk and rewards of ownership of assets may not be transferred to lessees in Ijarah Muntahia Bittamleek/ Hire Purchase under Shirkatul Melk (HPSM) contracts. This should be carried on the balance sheet of the lessor and assigned a risk weighting as per credit standing of the counterparty. All liabilities and risks pertaining to the leased asset are to be borne by the Islamic bank including obligations to restore any impairment and damage to the leased asset arising from wear and tear and natural causes which are not due to the lessee's misconduct or negligence. Thus, in both Ijarah and IMB/HPSM, the risks and rewards remain with the lessor, except for the residual value risk at the term of an IMB/HPSM which is borne by the lessee, the risks and rewards remain with the lessor, except for the residual value risk at the term of an IMB which is borne by the lessee. The lessor is exposed to price risk on the asset while it is in the lessor's possession prior to the signature of the lease contract, except where the asset is acquired following a binding promise to lease. In an IMB contract, the lessor promises to transfer to the lessee its ownership in the leased asset to the lessee at the end of the contract as a gift or as a sale at a specified consideration, provided that (a) the promise is separately expressed and independent of the underlying Ijarah; or (b) a gift **contract is** entered into conditional upon fulfillment of all the Ijarah obligations, and thereby ownership shall be automatically transferred thereupon.

2. Credit risk

The applicable RW as stated in Table-2 shall be based on the standing of the obligor as rated by an ECAI that is approved by the BB. The lessor is exposed to credit risk in respect of the estimated value of the lease payments in respect of the remaining period of the Ijarah. This exposure is mitigated by the market value of the leased asset which may be repossessed. The net credit risk exposure shall be assigned a RW as stated in the Table-2 based on the credit standing of the lessee/counterparty as rated by an ECAI that is approved by BB.

IMB: The capital requirement for IMB is based on the following two components:

(a) The total estimated future Ijarah receivable amount over the duration of the lease contract. This exposure is mitigated by the market value of the leased asset which may be repossessed. The net credit risk exposure shall be assigned a RW as sted in the Table-2 based on the credit standing of the lessee/counterparty as rated by an ECAI that is approved by BB; and

(b) The price risk attached to the expected residual fair value of a leased asset. The estimated future Ijarah receivable amount shall be risk-weighted based on the credit standing of the lessee as rated by an ECAI after deduction of the value of the leased asset as collateral (subject to any haircut).

Exclusions: The capital requirement is to be calculated on the receivable amount, net of specific provisions, of any amount that is secured by eligible collateral or any amount which is past due by more than 90 days. The portions that are collateralized and past due are subject to the relevant RW.

3. Market risk

In the case of an asset acquired and held for the purpose of either operating Ijarah or IMB, the capital charge to cater for market (price) risk in respect of the leased asset from its acquisition date until its disposal can be treated as inventory of the Islamic bank and the capital charge applicable to such a market risk exposure would be 15% of the amount of the asset's market value.

e) Mushārakah and diminishing mushārakah;

1. Introduction

A *Musharakah* is an agreement between the Islamic bank and a customer to contribute capital in various proportions to an enterprise, whether existing or new, or to ownership of a real estate or moveable asset, either on a permanent basis, or on a diminishing basis where the customer progressively buys out the share of the Islamic bank ("Diminishing *Musharakah*"). Profits generated by that enterprise or real estate/asset are shared in accordance with the terms of *Musharakah* agreement whilst losses are shared in proportion to the respective contributor's share of capital. An Islamic bank may enter into a *Musharakah* contract with a customer as a means of providing a financing to the latter on a profit sharing and loss bearing basis. In this case, the *Musharakah* is normally of the diminishing type, in which the customer gradually purchases the Islamic bank's partnership share over the life of the contract. This type of financing is one of the *Shari`ah* compliant alternatives to avoid a conventional term loan repayable by installments, and as such it is exposed to credit risk in respect of the customer's purchase payments as well as to the risk attaching to the Islamic bank's share of the underlying assets.

Musharakah:

For the purpose of determining the minimum capital adequacy requirement, this section makes distinctions between the three main categories of *Musharakah* as set out below:

(a) Private commercial enterprise to undertake trading activities in foreign exchange, Shares and/or Commodities: This type of *Musharakah* exposes the Islamic bank to the risk of underlying activities, namely foreign exchange, equities or commodities.

(b) **Private commercial enterprise to undertake a business venture other than (a):** This type of *Musharakah* exposes the Islamic bank to the risk as an equity holder, which is similar to the risk assumed by a partner in venture capital or a joint-venture, but not to market risk. As an

equity investor, the Islamic bank serves as the first loss position and its rights and entitlements are subordinated to the claims secured and unsecured creditors.

(c) Joint ownership of real estate or movable assets (such as cars) is divided into two sub-categories:

(i) Musharakah with ijarah sub-contract: Ownership of such assets can produce rental income for the partnership, through leasing the assets to third parties by means of *Ijarah* contracts. In this case, the risk of the *Musharakah* investment is essentially that of the underlying *Ijarah* contracts, i.e. credit risk mitigated by the collateral represented by the leased assets. However, in some cases the lessee is not a third party but the Islamic bank's partner as customer. The existence of such an *Ijarah* sub-contract in addition to a *Musharakah* exposes the Islamic bank to credit risk in respect of the partner's obligation to service the lease rentals.

(ii) Musharakah with Murabahah sub-contract: The IIFS is entitled to its share of revenue generated from selling the assets to third parties by means of *Murabahah* contracts that expose the Islamic bank to credit risk in respect of the *Murabahah* receivables from the buyer/counterparty.

Diminishing Musharakah:

This form of *Musharakah* is a means whereby an Islamic bank can provide term finance to a client on a profit and loss sharing basis. The Islamic bank enters into this type of *Musharakah* with the objective of transferring the ownership to the partner/customer, where the Islamic bank acts as a joint-owner of the asset with a promise by the partner to purchase the Islamic bank's share making a payment on one or more specified future dates. The Islamic bank's selling price is normally based on the fair value of the partnership share being transferred on the date of each purchase, which may expose the Islamic bank to the risk of selling its share of ownership below the acquisition price. As a joint-owner, the Islamic bank is also entitled to its share of revenue generated from the assets of the *Musharakah*, such as *Ijarah* lease rentals in which the rental entitlements to the Islamic bank shall be adjusted periodically according to the IIFS's share of ownership in the asset. The Islamic bank's position in a Diminishing *Musharakah* thus entails two kinds of exposure. The amounts due from the partner to purchase the agreed shares of the asset on the agreed dates are subject to credit risk in respect of the partner's ability and willingness to pay, with the shares of the partner in the asset providing credit risk mitigation as collateral. The capital invested by the Islamic bank is also subject to the risk that the amounts recoverable from the partner may be less than the amount invested because the value of the Musharakah assets has decreased (capital impairment risk).

f) Mudārabah:

A *Muḍārabah* is an agreement between the Islamic bank and a customer whereby the Islamic bank would contribute capital to an enterprise or activity which is to be managed by the customer

as the (labour provider or) *Muḍārib*. Profits generated by that enterprise or activity are shared in accordance with the terms of the *Muḍārabah* agreement whilst losses are to be borne solely by the Islamic bank unless the losses are due to the *Muḍārib*'s misconduct, negligence or breach of contracted terms. A *Muḍārabah* financing can be carried out on either:

(a) a restricted basis, where the capital provider allows the *Muḍārib* to make investments subject to specified investment criteria or certain restrictions such as types of instrument, sector or country exposures; or

(b) an unrestricted basis, where the capital provider allows the *Muḍārib* to invest funds freely based on the latter's skills and expertise.

As the fund provider, the Islamic bank is exposed to the risk of losing its capital investment or 'capital impairment risk' upon making payment of the capital to the *Muḍārib*. Any loss on the investment is to be borne solely by the capital provider, but is limited to the amount of his capital. Losses that are due to misconduct, negligence or breach of contractual terms, are to be borne by the *Muḍārib*.

However, it is not permissible for a *Muḍārib* to give a guarantee against such losses; such a guarantee may be given by a third party on the basis of *tabarru'* (donation). In such a case, the amount of the *Muḍārabah* capital so guaranteed may be considered as subject to credit risk with a risk weighting equal to that of the guarantor. In particular, such guarantees may be given when liquid funds are placed in an Islamic inter-bank market under a Mudārabah contract.

In assigning the RW, consideration is given to the intent of the *Muḍārabah* investment, and to the nature of the underlying assets. The intent may be either (a) the purchase of assets for trading; (b) investing on an equity basis in an ongoing business venture with the intention of holding the investment for an indefinite period perhaps with a view to eventual sale (e.g. venture capital investments); or (c) project finance. The underlying assets may be tradable assets such as commodities, foreign exchange or securities, or business assets such as real property, plant and equipment and working capital. Real property and moveable property may also be purchased with a view to generating rental income by means of *Ijārah* contracts.

For the purpose of calculating the minimum adequacy capital requirement, this section makes distinctions between the three main categories of *Muḍārabah* as set out below:

(a) Private commercial enterprise to undertake trading activities in foreign exchange, shares or commodities

This type of *Muḍārabah* exposes the Islamic bank to the risk of the underlying activities, namely foreign exchange, equity or commodities.

(b) Private commercial enterprise to undertake a business venture (other than (a))

This type of *Muḍārabah* exposes the Islamic bank to risk as an equity holder, which is similar to the risk assumed by a partner in venture capital or a joint-venture, but not to market risk. As an equity investor, the Islamic bank serves as the first loss position and its rights and entitlements are subordinated to the claims secured and unsecured creditors.

(c) Muḍārabah investments in project finance

An Islamic bank advances funds to a customer who acts as *Muḍārib* in a construction contract for a third-party customer (ultimate customer). The ultimate customer will make progress payments to the *Muḍārib* who in turn make payments to the Islamic bank. The essential role of the Islamic bank in this structure is to provide bridging finance to the *Muḍārib* pending its receipt of the progress payments. In this *Muḍārabah* structure:

(i) the Islamic bank has no direct or contractual relationship with the ultimate customer (but the Islamic bank may stipulate that payments by the ultimate customer to the *Muḍārib* be made to an account ("repayment account") with the Islamic bank which has been opened for the purpose of the *Muḍārabah* and from which the *Muḍārib* may not make withdrawals without the Islamic bank's permission); and

(ii) the Islamic bank as investor advances funds to the construction company as *Muḍārib* for the construction project and is entitled to a share of the profit of the project but must bear 100% of any loss.

The Islamic bank is exposed to the risk on the amounts paid to the *Muḍārib*, and as these amounts are made on a profit sharing and loss bearing basis they are treated under credit risk as "equity positions in the 'banking book'". In principle, the Islamic bank's credit exposure is to the *Muḍārib*, not to the ultimate customer; however, as described below, a structure may involve the "*Muḍārabah* repayment account" instead of making payments to the *Muḍārib,* which transfers much of the credit risk to the ultimate customer.

In addition to credit risk (i.e. that the *Muḍārib* has received payment from the ultimate customer but fails to pay the Islamic bank, or that the ultimate customer fails to pay) the IIFS is exposed to capital impairment in case the project results in a loss.

Direct payment by ultimate customer into account opened with the Islamic bank and effectively pledged to the Islamic bank

Much of the Islamic bank's credit exposure to the *Muḍārib* may be transferred to the ultimate customer under this structure involving the "repayment account". If the ultimate customer is a sovereign or otherwise has a very low risk weighting, this may affect the RW to be applied to the exposure, and other credit risk mitigants may be applied, as described below.

Provided the construction work proceeds normally and to the ultimate customer's satisfaction, the risk attaching to the progress payments due from the ultimate customer to the *Muḍārib* will be the credit risk of the ultimate customer. However, this does not per se constitute a mitigation of the credit risk of the Islamic bank's exposure to the *Muḍārib*. In such a case, if an independent engineer employed to certify that the work has reached a certain stage of completion has issued a certificate to that effect, so that a progress payment is due from the ultimate customer, from the point of view of the Islamic bank the amount of that progress payment due is no longer exposed to the risk of unsatisfactory performance by the *Muḍārib*, but only to the latter's failure to pay the Islamic bank (the *Muḍārib* being exposed to possible default by the ultimate customer). Such an amount might thus arguably bear a RW based entirely on the credit standing of the *Muḍārib*, i.e. say 100%, rather than 400%. However, if a binding agreement exists between the Islamic bank and the ultimate customer whereby the latter will make the payment into a "repayment account" with the Islamic bank, the latter's credit exposure in respect of the amount due is transferred from the *Muḍārib* to the ultimate customer.

Other structures may be used which have the effect of modifying the risk exposures of the investors in a *Muḍārabah*. The determination of the risk exposure (nature and amount) shall take into account any such structures and this shall also be reflected in the application of RW.

2. Equity Position Risk

The equity exposure can be measured based on the nature of the underlying investments as follows: (a) For investments held in the trading book, the exposure is equal to the fair value; or (b) For investments held to maturity, the exposure is equal to the historical cost less any provisions for impairment. The *Muḍārabah* exposures, net of specific provisions, shall be measured as follows:

The Capital Charge shall be based on the applicable underlying assets as set out in the market risk section 3.5.5.

The investment in foreign exchange and trading in gold/silver shall be measured according to the treatment of as set out in paragraphs 3.5.6, which requires at rate of minimum CAR capital charge on the greater of either net long or net short positions and at rate of minimum CAR capital charge on the net position of gold/silver.

The capital charge of a *Muḍārabah* that invests in quoted shares shall be measured according to equity position risk approach where positions in assets tradable in markets will qualify for treatment as equity position risk in the trading book, which would incur a total capital charge of 20% as set out in paragraphs 3.5.5.

Calculating capital charge for operational risk

Operational risk is defined as the risk of losses resulting from inadequate or failed internal processes, people and systems or from external events, which includes but is not limited to, legal risk and ***Sharī`ah*** compliance risk. This definition excludes strategic and reputational risks.

The proposed measurement of capital to cater for operational risk in Islamic Banks will be based on the Basic Indicator Approach as set out in the Basel II. Under the Basic Indicator Approach, a fixed percentage of 15% of annual average gross income, averaged over the previous three years. 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 [b]. The capital charge may be expressed as follows:

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

Where:-

K = the 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.

Gross income is defined as:

(a) Net income from financing activities which is gross of any provisions and operating expenses and of depreciation of Ijarah assets;

(b) Net income from investment activities; and

(c) Fee income (e.g. commission and agency fee)

Less:

Investment account holders' share of income i.e. Profit Paid on Mudaraba Deposits (PPD)

The gross income includes income attributable to restricted and unrestricted Profit Sharing Investment Accounts' funds, but excludes extraordinary or exceptional income. Net income from investment activities includes the Islamic Bank's share of profit from Mushārakah and Mudārabah financing activities.

Sharī`ah compliance risk is a type of operational risk facing the Islamic Banks which can lead to non-recognition of income and resultant losses.

Set out below are examples of Sharī`ah requirements that are to be complied with by the Islamic Banks in respect of the financing contracts. The list is not conclusive and may vary according to the views of the various Sharī`ah Supervisory Board (SSB):

(a) Murābahah and ijārah contracts

- The asset is in existence at the time of sale or lease or, in case of Ijārah, the lease contract should be preceded by acquisition of the usufruct of that asset except if the asset was agreed upon based on a general specification.
- The asset is legally owned by the Islamic Banks when it is offered for sale.
- The asset is intended to be used by the buyer/lessee for activities or businesses permissible by Sharī`ah; if the asset is leased back to its owner in the first lease period, it should not lead to contract of 'inah, by varying the rent or the duration.
- There is no late payment, penalty fee or increase in price in exchange for extending or rescheduling the date of payment of accounts receivable or lease receivable, irrespective of whether the debtor is solvent or insolvent.

(b) Salam and istisnā` contracts

- A sale and purchase contract cannot be inter-dependent and inter-conditional on each other, such as Salam and Parallel Salam; Istisnā` and Parallel Istisnā`.
- It is not allowed to stipulate a penalty clause in respect of delay in delivery of a commodity that is purchased under Salam contract, however it is allowed under Istisnā` or Parallel Istisnā`.
- The subject-matter of an Istisnā` contract may not physically exist upon entering into the contract.

(c) Mushārakah and mudārabah contracts

- The capital of the Islamic Banks is to be invested in Sharī`ah compliant investments or business activities.
- A partner in Mushārakah cannot guarantee the capital of another partner or a Mudārib guarantees the capital of the Mudārabah.
- The purchase price of other partner's share in a Mushārakah with a binding promise to purchase can only be set as per the market value or as per the agreement at the date of

buying. It is not permissible, however, to stipulate that the share be acquired at its face value.

The extent of losses arising from non-compliance with Sharī`ah rules and principles cannot be ascertained owing to lack of data. Therefore, the Islamic Banks is not required to set aside any additional amount over and above the 15% of average annual gross income over the preceding three years for operational risk. A higher capital charge may be imposed by Bangladesh Bank to fit to cater for the Sharī`ah compliance risk of a particular Islamic Banks.

Annex K: Guidelines for Recognition of eligible External Credit Assessment Institutions (ECAIs)

External Credit Assessment Institutions (ECAIs) duly recognized by Bangladesh Bank (BB) will be engaged in credit risk assessment under the Standardized Approach of the Risk Based Capital Adequacy framework (Basel II). On the basis of that assessment, risk weight will be mapped with the credit rating category and risk weighted assets (RWA) to be determined for calculating the capital requirement of banks against credit risk. The criteria of ECAI recognition and mapping process of risk weight (RW) has been developed in line with the "International Convergence of Capital Measurement and Capital Standards" (Basel II) issued by the Basel Committee on Banking Supervision (BCBS) in June 2006.

1. Recognition criteria

ECAIs that produce credit assessments of sufficiently high quality, uniformity and potency to be used by banks shall be eligible for recognition by BB for regulatory capital purpose. The following six criteria will be considered in determining the eligibility of an ECAI:

A) Objectivity:

The methodology for assigning credit assessments must be rigorous, systematic, and subject to validation based on historical experience. Moreover, assessments must be subject to ongoing review and responsive to changes in financial condition of the concerned entity. An assessment methodology for each market segment, including rigorous back-testing, must have been established for at least one year and preferably three years.

B) Independence:

An ECAI should be independent and free from political, social or economic pressure that may influence the rating. The assessment process should also be free from any such constraints that could arise in situations where the composition of the board of directors or the shareholder structure and the officials of the assessment team of the ECAIs may be seen as creating a conflict of interest.

C) International access / Transparency:

The individual assessment should be available to both domestic and foreign institutions with legitimate interests, and at equivalent terms. In addition, the rating methodology used by the ECAI should be publicly available.

D) Disclosure:

An ECAI should disclose its assessment methodologies, notch/notation to be used, definition of default rating category, the meaning of each rating, and its time horizon, actual default rates experienced in each assessment category; and the transitions of the assessment, e.g. the likelihood of AA ratings becoming A over time.

E) Resources:

An ECAI should have sufficient resources to carry out high quality credit assessments. These resources should allow for substantial ongoing contact with senior and operational level executives within the entities assessed in order to add value to the credit assessments. Such assessment methodologies should be based on both qualitative and quantitative approaches.

F) Credibility:

In addition to the above criteria, the reliance on an ECAI's credit assessments by independent parties (investors, insurers, trading partners) shall be evidences of the credibility of the assessments of an ECAI. The credibility of an ECAI is also underpinned by the existence of effective internal control to prevent the misuse of confidential information.

2. Mapping process

2.1 BB will assign risk weight to an eligible ECAI's rating categories i.e. deciding which rating categories correspond to which risk-weights. BB will evaluate each credit rating category of an eligible ECAI which will be mapped with the numerals 1 to 6, with 1 being the best and 6 being the worst and includes 'Default Rating Category'*. Each "short term credit rating category"** will be evaluated and mapped with category S1 to S4, with S1 being the best. BB will assign risk weight on the basis of evaluation of variety of qualitative and quantitative factors relate to ECAI's rating category.

2.2 BB will consider a variety of qualitative and quantitative factors to differentiate between the relative degrees of risk expressed by each rating category. Both quantitative and qualitative

parameters may help to promote a more consistent mapping of rating categories into the assigned risk-weights.

a) Quantitative factors:

i) BB will evaluate the consistency of an ECAI's rating category (Notch/Notation) through analysis of Cumulative Default Rate (CDR). CDR is the measure of movement of a rating category into 'Default Rating Category '* during a time period.

The following two measures of CDR may be considered in this regard:

- Ten-year average of the three-year CDR for evaluating the long-run default experience; and
- Most recent three-year CDR for evaluating the short-run default experience.

ii) The transition of individual notch/notation towards default rating category observed in a particular ECAI rating category will be compared to the standards available domestically/ regionally/ internationally.

ii) The long-run transition towards default category of the ECAI ratings will be compared with the reference values of CDRs available domestically/regionally/internationally. In this connection, internationally accepted long-run reference values are stated below for information:

Long-run "reference" three-year CDRs*

S&P assessment	**AAA-AA**	**A**	**BBB**	**BB**	**B**
Moody's	***Aaa-Aa***	***A***	***Baa***	***Ba***	***B***
20-year average of three year CDR	**0.10%**	**0.25%**	**1.00%**	**7.50%**	**20.00%**

*Ref. Table-2 Annexure-2 of International Convergence of Capital measurement and Capital standards, published by BCBS (June 2006)

* This rating is applicable for those counterparties who are in default position. A default is considered to have occurred with regard to a particular obligor when either or both of the two following events have taken place.
• The bank considers that the obligor is unlikely to pay its credit obligations to the banking company or syndicate banking group, without recourse by the bank to actions such as realizing security (if held).
• The obligor is past due for more than 90 days or more as defined by BB.

** Short-term ratings may only be used for short-term claims against banks and corporate counterparties.

iv) BB will use two benchmark CDRs namely "monitoring" level CDR and a "trigger" level CDR in interpreting whether a CDR falls within an acceptable range for a rating category to qualify for a particular risk-weight. BB will adopt the two benchmarks of CDR standard in line with domestic/regional/international standard. In this connection, Basel Committee standards are specified in the following table for information:

Three-year CDRs benchmark*

S&P assessment	**AAA-AA**	**A**	**BBB**	**BB**	**B**
Moody's	***Aaa-Aa***	***A***	***Baa***	***Ba***	***B***
Monitoring level	0.8%	1.0%	2.4%	11.0%	28.6%
Trigger level	1.2%	1.3%	3.0%	12.4%	35.0%

*Ref. Table-3 Annexure-2 of International Convergence of Capital measurement and Capital standards, published by BCBS (June 2006)

v) Exceeding the "monitoring" level CDR benchmark implies that a rating agency's transition to default rating for a particular notch/ notation is markedly higher than domestic/regional/international transition experience to default rating. A consultation process with a relevant ECAI will commence to understand why the default experience appears to be significantly worse. If the BB determines that the higher default experience is attributable to weaker standards in assessing credit risk, they would be expected to assign a higher risk category to ECAIs credit risk assessments.

vi) Exceeding the "trigger" level benchmark implies that transition of an ECAI's notch/notation towards default rating is considerably above the domestic/regional/international standards. If the observed three-year CDR exceeds the trigger level in two consecutive years, the ECAIs rating category shall be degraded.

vii) ECAIs who have only a short record of transition and default data will be required to provide a projection of the ten-year average of the three-year CDR on the basis of two most recent CDRs.

viii) Definition of 'Default Rating' has an impact on the assessment of CDR. ECAI will declare definition of 'default rating' at their website and submit a copy to BB. Subsequently, if any amendment on the same is made must be reported to BB with due justification thereof.

b) Qualitative factors

Criteria under qualitative factors will be set by BB's working group to assess different rating methodology and their scoring standard will form the necessary basis of the mapping process. Quantitative data may be inconclusive for mapping risk weights, in that situation qualitative criteria may be the only basis of mapping risk weight.

3. Application process

3.1 Credit Rating Companies (Domestic & International) that are registered under Credit Rating Companies Rules, 1996 of Securities and Exchange Commission (SEC), Bangladesh and meet the eligibility criteria may apply to General Manager, Banking Regulation and Policy Department, Bangladesh Bank, Head Office, Dhaka for the recognition as an ECAI (Application **Form-A** along with information stated in **Annexure-1).**

3.2 ECAIs will categorize their ratings into the following broad asset classes or market segments:

a) Sovereign (Government, Public Sector Corporations & Autonomous Bodies)

b) Financial Institutions (Banks, Insurances Co., Security firms and other Financial Institutions)

c)Corporate (other than Government & Financial Institutions)

d) Others (If any to be mentioned specifically)

3.3 A working group of BB will complete recognition process and follow a uniform minimum standard of the components are stated in annexure-1. They will define any required term(s), prepare check list and score list where necessary.

4. On-going recognition

Recognition of an ECAI will be reviewed annually until they reach the point where the robustness of system is assured to BB's satisfaction. It is expected that an ECAI will continue to meet the eligible criteria for recognition and its methodologies and credit assessments remain appropriate over different periods of time and through changes in market conditions:

(a) ECAIs ratings will be reviewed at least annually and may be revised in response to changes in financial conditions; and their ratings are subject to back-testing on an annual basis.

(b) If any material changes occur that alter a significant number of ratings, ECAIs will inform BB about the changes promptly (e.g. change of ownership or internal structure and major deterioration in financial positions etc.). ECAIs will maintain minimum standard of the rating methodology set by BB from time to time.

(c) BB will review the eligibility of an ECAI on continuous basis. If it comes to BB's attention that there is a noticeable deterioration in the performance and/or market acceptance of the ECAI, BB will review the eligibility of the ECAI immediately.

d) BB may withdraw the recognition of an eligible ECAI if it ceases to comply with any of the recognition criteria. Before taking such decision of derecognizing, BB will first notify the concerned ECAI mentioning the eligibility criteria which is found as non-compliant. The ECAI will also be allowed to clarify their position within a reasonable time. After which appropriate decision in this regard shall be taken.

e) If an ECAI is suspended or their registration is cancelled by SEC under Credit Rating Companies rules 1996, BB will treat the particular ECAI as derecognized.

5. Guidelines applicable to Banks regarding nomination of ECAIs

5.1. For the purpose of applying ECAI ratings to derive risk-weights for exposures under the portfolio of claims on sovereigns, claims on banks, claims on securities firms and claims on corporate, a bank should satisfy the following steps:

(i) Banks will nominate recognized ECAI for determining credit rating of banking book exposures and notify BB about the nominated ECAI.

(ii) Banks will use the ratings of the nominated ECAI for each of banking book portfolio constantly for a reasonable period. If they want to change the ECAI(s) must seek the consent from BB stating valid ground; and

iii) A client may be counter party of many banks or may change his bank in a particular year. In such cases, credit rating assigned by any recognized ECAI will be considered as valid for that year by the bank.

5.2 Banks will require maintaining track record of their counterparty ratings over the years.

5.3 If any bank or a client has reasonable ground sufficient to raise question about ECAIs assessment of the credit rating, they may inform BB in writing with valid explanation. BB shall look into the matter and take necessary step(s) as it deem fit.

5.4 Bangladeshi banks, having exposures abroad, may use the ratings assigned by ECAIs recognized through indirect recognition. Indirect recognition process is that where BB is satisfied that host country supervisor has recognized an ECAI on the basis of recognition criteria which are well matched with this guidelines.

5.5 Banks will follow Credit Risk Grading Manual (CRGM) for assessing a borrower and making decisions of disbursing loans and advances/ investments. CRG may be customized for internal rating in such a way that can help to derive parameters like probability of default (PD), exposure at default (EAD) and loss given to default (LGD) which will be required for determining risk weight under Internal Rating Based (IRB) approach of Basel II.

6. General Instructions:

6.1 The ECAI(s) will disclose credit ratings of related parties quarterly to BB after the assessment is finalized. All the rating will be supported by declaration (duly signed by CEO) that the rating is independent and free from conflict of interest. Such statement will be based upon the declaration made by each member/official related to rating activities.

6.2 The ECAIs should have a unique pricing system for credit rating. They should disclose their schedule of credit rating fees annually.

6.3 The ECAIs will follow the IOSCO/SEC Code of Conduct Fundamentals published for Credit Rating Agencies.

Form – A

FORM OF APPLICATION FOR RECOGNITION
AS AN EXTERNAL CREDIT ASSESSMENT INTITUTION

To
General Manager
Banking Regulation and Policy Department
Bangladesh Bank
Head Office
12th Floor (2nd annex building)
Motijheel,
Dhaka-1000.

Dear Sir,

We hereby apply for recognition as an External Credit Assessment Institution (ECAI). It is to mention that:

1. We are eligible for assessing credit standing of the Sovereign, Financial Institutions, Corporate and other clients.

2. We confirm that the credit assessments will be used for risk-weighting purposes under the Risk Based Capital Adequacy framework (Basel II).

3. Necessary information required for recognition listed as per annexure-1 (enclosed) is furnished herewith

4. We confirm that all the information outlined in this letter and the enclosed annexure are true and correct.

Yours Faithfully,

Signature of the Chairman/Managing Director/
Chief Executive Officer/ Executive Director/Director

List of information to be supported by document(s)

A) Regarding Objectivity	Supported Documents/ Statements required
1. Manuscript of Methodology	Manuscript of Methodology will cover at least those information as mentioned in the annexure - 1(a) along with weightage score.
- Risk area coverage	
- Importance/ Weightage on each risk area	
2. Internal Process	
- Analysis Team	List of Executives with qualification and experience
- Rating Committee	List of Members with qualification and experience
- Internal Verification system	Internally practiced Manual
3. Rating Scale and their sensitivity	
- Number of Notches/ Notations to be used for ratings	Statement of Notches/ Notations to be used for each rating and Scoring system. Demonstration of methodology: how it is aligned with international ratings of S&P.
- Scoring System for achieving the Notches/ Notation	
Demonstration of Alignment with international ratings of Standard & Poor (S&P)	
4. Validation system	Brief description on supported rules, regulation, techniques of the validation system used by an ECAI. (Minimum 150 words).
- Off-site analysis	
- On-site examination	
5. Ongoing Review	Brief description on Database Management system which includes all these components. (Minimum 100 words).
- Client wise yearly track record of rating	
- Solicited Review	
- Unsolicited Review	
6. Database Management	Brief description on this issue included in Database Management system. (Minimum 100 words).
- Assessment/disclosure of the depth of default data available/held by the ECAI	
- Transition matrices (Notch/Notation wise)	
7. System Back Testing	Brief description on this issue included in Database Management system. (Minimum 75 words).
- Comparative Analysis (three year's comparison)	

B) Regarding Independence	Copy of Certificate of Registration
1. Registration status with SEC	
- Registration No.	
- Date of Registration	
2. Ownership Quality	Memorandum of Association,

	- Nature of ownership	Articles of Association and Certificate of Commencement along with up to date information.
	- List of major share holders (holding shares over 5%)	
	- Voting power of each share holder	
3. Procedure to ensure Independence		Letter of undertaking for providing declaration of team members regarding activity which will be independent and free from conflict of interest.
	- Executives of analyst team is independent i.e. free from any political, social or economic pressure that may influence assessment/rating.	
	- Rating Committee is independent and free from any political, social or economic pressure that may influence assessment/rating.	
	- The names, profiles and backgrounds of each executive within the analyst teams.	Details C.V of each executive and members of the rating committee.
4. Board Members are free from influencing rating activities.		Letter of undertakings of Board Members
	- Board Members careful about influencing rating function.	
5. Solvency of the Company		Audited Balance Sheet and Income Statement, Cash flow statement for 3 years and Bank turnover statements for last 1 year.
	- Audited Balance Sheet and Income Statement	
	- Cash flow statement	
	- Net- worth	
	- Bank Solvency Certificate	
6. Schedule of credit assessment fees		Published/Disclosed List of fees to be charged for making assessment.
	- Published/Disclosed list of fees	

C) International Access/Transparency	Accreditation or membership Certificate. Evidence of overseas experience.
1. International Exposure	
- Accreditation or membership of international/ regional credit rating association	
- Evidence of overseas experience	
2. Accessibility of the ECAI's rating	
- Easy availability of credit rating to the public	Published Document
- Website containing track record & transition matrices of credit rating	Statement of Web-site Address

3. Availability of Assessment Methodology	
- Disclosure of assessment methodology to public	Published Document
- Website containing updated assessment methodology	Description on how to find out and consult with methodology placed in Web-site.
4. Nature of rating	Database Management system should have these sorts of declaration.
- Disclose whether the rating was Solicited or Unsolicited	

D) Disclosure	
1. Definition of Default Rating Category	Published Methodology should include this definition.
- The rating agency's definition regarding default rating category and specific definition of 'Default'	
The meanings of each rating and how they may be compared to standards of Moody's and S&P rating category.	Comparison statement with the standards of Moody's and S&P rating category.
2. Actual transition rate towards default rating (business category wise and notch wise)	Brief description on this issue (Minimum 75 words).
- Publish the transition of notches towards default rating periodically in the websites	
3. Disclosure of transition matrices	
- Publish the transition matrices regarding notches in the website	
4. Code of Conduct	
- Declaration of compliance with IOSCO/SEC Code of Conducts	Declaration of Compliance

E) Resources	Audited financial statements of last 3 years.
1. Capital Structure and Net Worth	
- Audited financial statements	
- Significant change in net-worth (if any)	
2. Hard and Soft Infrastructure	
- Office set up, support system and software system for rating	Brief description on these issues (Minimum 150 words).
3. Number of professional staffs	List of professional Staffs along with details of qualification and experience
- List of professional staffs along with details of qualification and experience	
4. Personnel Policy	
- Recruitment and training policy, Service Rules, Pay structure , staff regulations	Brief description and Supported by documents (Minimum 150 words).
- Employee Turnover Rate	Statement on this issue
5. Internal Work Relationship	Work flow chart and organogram
- Work flow chart and organogram	
6. Data ware housing	Brief description (Minimum 100 words).
- Data storing of rated entities	
- “Data Warehousing” could disclosures regarding the security system installed by the ECAI to protect confidential customer information.	

F) Credibility	
1. Degree of acceptance by the client	Study Report (If any)
- Evidence of dependability of rating by the client	
- Study report on " Degree of acceptance by the client" (if any)	Copy of the report
- Policy of maintaining secrecy of information	Policy paper
2. Market Share of the ECAI	Brief description and Study Report (If any)
- Record of the borrower's credit rating	
3. Handling Conflict of Interest	Brief description on this Policy issue (Minimum 150 words).
- Existence of Policy and procedures for handling conflict of interest	
4. Market Penetration Approach	Strategic Plan along with vision and mission of the ECAI.
- Business expansion strategy	

Annexure-1(a)

Methodology requires minimum information on following parameters

A. Corporate (other than Bank and Non-bank Financial Institution)

i) Financial Risk	
	Leverage
	Liquidity
	Profitability
	Coverage ratio
ii) Business/Industry Risk	
	Size of Business
	Age of Business
	Business Outlook
	Industry Growth
	Competition
	Entry/Exit Barriers to Business
iii) Management Risk	
	Experience
	Succession
	Team Work
iv) Security Risk	
	Security Coverage
	Collateral coverage
	Support/Guarantee
	legal intervention (If any)
v) Relationship Risk	
	Account Conduct
	Utilization of Limit –If any loan from bank
	Compliance of covenants/conditions with banks & other counterparty
	Deposit with bank or others

B. Bank and Non-bank Financial Institution

i) Quantitative Factors	
	Capital Adequacy
	Asset Quality
	Earning quality
	Liquidity and Capacity of External Fund Mobilization
	Size of the Bank and Market Presence

ii) Qualitative Factors	
	Management
	Regulatory Environment & Compliance
	Risk Management
	Sensitivity to Market Risk
	Ownership (Share holding pattern) and Corporate Governance
	Accounting Quality
	Franchise Value

C. Quantitative and Qualitative risk factors for other business segments i.e. Securitization exposure, Insurance Company, Autonomous Bodies etc. have to be enclosed.