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Banking Regulation and Policy Department
Bangladesh Bank
Head Office
Dhaka

BRPD Circular No. 13

Date: April 21, 2010
Boishakh 08, 1417

Chief Executives
All Scheduled Banks in Bangladesh

Dear Sir,

Guidelines on Supervisory Review Evaluation Process (SREP)

Please refer to BRPD Circular No. 20, dated December 29, 2009 regarding implementation of Risk Based Capital Adequacy (RBCA) for banks.

As per RBCA guidelines, banks are required to establish their own supervisory review process to ensure maintenance of sufficient capital to fully cover their risk exposure. Furthermore, determination of level of adequate capital will be subject to evaluation and dialogue between Bangladesh Bank (BB) and the well designated SRP team of banks'.

The guidelines on SREP that enumerated the process of aforesaid dialogue between Bangladesh Bank and compliant banks' SRP team are enclosed herewith for necessary action.

Please acknowledge receipt.

Yours sincerely,

(Md. Sohrawardy)
General Manager
Phone: 7117825

Encl: As above.

GUIDELINES ON
SUPERVISORY REVIEW EVALUATION PROCESS (SREP)

I. Introduction

Supervisory Review Process (SRP) includes regulations of bank's own supervisory review of capital positions, aiming to reveal whether a bank has prudent risk management and sufficient capital to cover the risk profile. The elements of the Supervisory Review Evaluation Process (SREP) include the evaluation of the bank's SRP by Bangladesh Bank (BB) along with dialogue between Bangladesh Bank (BB) and bank's exclusive SRP team.

SREP are based on four (4) internationally accepted principles:

1. Measurement of own Risk Management and Capital Adequacy of Banks: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

2. BB's review: BB should have an exclusive team and a process manual for assessing overall risk management of banking industry, capital adequacy in relation to their risk profile and a strategy for maintaining their capital base.

3. Capital above the regulatory minimum: Banks should have a process for assessing their overall capital adequacy in relation to their risk profile and a strategy for maintaining their capital levels.

4. Supervisory action: If the banks' capital falls short of regulatory requirement, Bangladesh Bank can intensify the monitoring of the banks, restricting payments of dividend and requiring the banks to prepare and implement a satisfactory capital adequacy restoration plan and to raise additional capital immediately.

SRP-SREP dialogue:

The assessment of capital adequacy should be the outcome of a dialogue between the Bank and BB. In other words, the two processes (bank's own assessment and BB's review) are linked up during this dialogue. The dialogue between BB and the bank is targeted at comparing BB's expectations to the risks and their management taken into consideration by the bank while executing the SRP. The intensity and frequency of the dialogue is a function of the level of complexity and magnitude of the bank's activities, plus the difference between the capital requirements assessed by the bank and BB.

A SREP team will be headed by the Executive Director of Banking Regulation and Policy Department (BRPD) and other members of the team will be General Managers of Banking Regulation and Policy Department (BRPD), Department of Offsite Supervision (DOS), Banking Inspection Departments (DBI) 1&2, Foreign Exchange Inspection & Vigilance Department (FEIVD), Foreign Exchange Policy Department and Deputy General Manager of Basel II Implementation Cell (Member Secretary).

Terms of reference of the SREP team will be arranging such dialogue and evaluation of the following components of the banks:

1) Minimum Capital Requirement (MCR) against Credit, Market & Operational risks
2) Risks not fully covered under MCR (e.g. residual risk of credit risk deriving from risk mitigation techniques, securitization risk, model risk)
3) Risks to be covered under SRP (Credit concentration risk, Country risk, Interest rate risk in the banking book, Liquidity risk, Settlement risk, Other material risks, Reputation risk, Strategic risk, etc.)

4) External factors (risks deriving from the economic and regulatory environment, risks resulting from the business performance of the institution)
5) Adequate capital against comprehensive risks.

In the course of the 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 and prudential problems. Banks will submit the results of their SRP to Department of Banking Regulation and Policy Department as per format attached at **Annexure-A**.

The SRP needs to be checked for the five following areas:

- A valid capital analysis – processes to establish correlation between risk management and required capital
- Comprehensive risk analysis – identification and assessment of relevant risks and their management
- Adequate oversight and governance by the board of directors and top management
- Monitoring and reporting – establishment of a structure of regular reporting on the bank's risk profile and capital position along with stress test findings.
- Internal audit mechanisms – independent review under the framework of the internal control system (Internal governance)

The supervisory review of internal procedures is focusing not only on capital calculation methodologies and the size of capital, as capital cannot substitute for prudential operations but also on the assessment of the adequacy of internal procedures. Therefore, this assessment will focus on the harmony and effectiveness of internal limits, control procedures, risk management and internal governance.

II. Risks not covered under MCR

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-

- The liquidation procedure of the collateral is difficult and time consuming,
- 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.

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.

Model risk

This risk comes out of under-estimation of credit risk under the IRB approaches (e.g. assessment procedure, valuation, strategic plan, introducing system etc.) and leads to the bank's financial losses. Model risk may be caused by the negligence, knowledge limits, insufficient data or changes which make approaches imperfect. It is rather difficult to quantify model risks. 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.

III. Risks to be covered under SRP

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:

- ❖ Concentration by economic sector or geographical location,
- ❖ Concentration in a specific foreign currency and
- ❖ 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:

- ❖ 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.
- ❖ Banks should apply internal methods/systems commensurate with their specific activities, size and complexity to identify and measure concentration risks.
- ❖ Banks should operate limit mechanisms for concentration risks and these mechanisms should match the bank's risk appetite and profile.
- ❖ 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.

- 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-

- counterparty level (i.e., large exposures),
- portfolio level (i.e., sectoral and geographical concentrations) and
- asset class level (i.e., liability and assets concentrations).

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

- To sort top 20 large exposures by size,
- To sort top ‘10’ connected exposures by size,
- To calculate portfolio concentration ratios,
- To measure portfolio correlations and variance/covariance,
- To reveal concentration vulnerability with stress tests.
- To use of limits based on concentration metrics.
- To allocate capital against the concentration risks.

Country risk

Country risk refers to potential losses that may be generated by an (economic, political, etc.) event that occurs in a specific country, where the event can be controlled by that country (government) but not by the bank. The issue of capital coverage for country risks has been a fully integrated element of SRP. The components of country risks are as follows:

- Transfer risk,
- Sovereign risk derives from the insolvency of the country,
- Collective debtor risk- a significant number of debtors in a single country being unable to meet their obligations owing to a specific cause Examples of such a cause are war, political or social unrest, natural disasters and national policy failures in achieving macro-economic and/or financial stability

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:

- Gap or mismatch risk
- Basis risk
- Net Interest position risk
- Embedded option risk etc.

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:

- ❖ Term liquidity risk (due to discrepancies between maturities),
- ❖ Withdrawal/call risk (mass disinvestment before maturity),
- ❖ Structural liquidity risk – when the necessary funding transactions cannot be carried out or only on less favorable terms,
- ❖ Market liquidity risk

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

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.

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.

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.

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.

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.

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:

- current capital requirement of the institution,
- planned capital consumption,

- the targeted and sustainable capital level (with a view to the institution's strategy and risk appetite),
- the means of capital management: internal and external resources that can be employed to increase capital (profit-generating capability),
- 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.

IV. 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 e.g. 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:

- Simple sensitivity tests determine the short-term sensitivity to a single risk factor,
- 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. Five different risk factors namely:

- interest rate,
- forced sale value of collateral,
- non-performing loans (NPLs),
- stock prices and
- foreign exchange rate

can be identified and used for the stress testing. 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:

- Minor Level Shocks: These represent small shocks to the risk factors. The level for different risk factors can, however, vary.
- Moderate Level Shocks: It envisages medium level of shocks and the level is defined in each risk factor separately.
- Major Level Shocks: It involves big shocks to all the risk factors and is also defined separately for each risk factor.

V. Internal Governance

In the course of the SREP, BB will evaluate the institution's internal governance. If it is found poor, it may deem it necessary to have the bank raise additional capital for covering its reported risks.

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

Supervisory Review Process (SRP) Findings

Dear Sir,

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

2. 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.

3. 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.

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

a) Risks not covered in Credit risk (s), Market risk (s) and Operational risk(s) under MCR
b) Liquidity risk
c) Residual risk
d) Credit Concentration risk
e) Interest Risk in the Banking Book
f) Legal Risk
g) Country risk
h) Strategic risk
i) Legal risk
j) Reputational risk, and
k) 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.