हिमाचल प्रदेश राज्य सहकारी बैंक सीमित

H.P. State Co-operative Bank Ltd.

RISK MANAGEMENT POLICY

www.hpscb.com

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1. Introduction

Risk is an integral part of the banking business and aims at delivering superior shareholder value by achieving an appropriate trade-off between risk and returns. Risk management strategy is based on a clear understanding of various risks, disciplined risk assessment and measurement procedures and continuous monitoring. The key risks which a bank faces are credit risk, market risk and operational risk. The policies and procedures established for minimizing these risks are continuously benchmarked with best practices.

(i) Need for Risk Management in the bank

The bank has put forward this document for the purpose of providing guidelines on minimum requirements for risk management system. For the purpose of these guidelines, all risks in the bank are the possibility that the outcome of an action or event could bring about adverse impacts on the bank's capital or earnings. Such outcomes could either result in direct loss of earnings/capital or may result in imposition of restrictions on bank's ability to meet its business objectives.

(ii) Objectives of Risk Management Policy

The overall purpose of the risk management policy is to evaluate the potential losses for the bank in the future and to take precautions to deal with these potential problems when they occur. The main objectives of the Risk Management Policy are:

1. To ensure that all the current and future material risk exposures of the bank are identified, assessed, quantified, appropriately mitigated and managed.
2. To establish a framework for the bank's risk management process and to ensure bank wide implementation.
3. Protect the financial assets, physical assets, reputation, and interest of the members of the bank.
4. To enable compliance with RBI/NABARD regulations and guidelines and internal policies through the adoption of best practices.
5. Assist in fulfilling the cooperative principles.
6. To assure business growth with financial stability.

The bank will align all its policies including loan, investment, ALM, KYC, I.T. policy to Risk Management Policy. All policies including the bank's risk management policy shall

be reviewed/ updated once in two years. The bank will regularly review risk management approaches to better understand and manage bank's exposure to risks within risk appetite.

(iii) Coverage of the Risk Management Policy: - This policy covers the following risk categories:

1. **Financial Risk**
    a) Credit risk
    b) Liquidity risk
    c) Market risk
        i. Interest rate risk
        ii. Foreign exchange risk
        iii. Equity risk
        iv. Commodity risk
2. **Non-Financial Risk**
    a) Operational risk
    b) Compliance risk
    c) IT risk

1. Financial Risk

a) Credit Risk: - Credit risk is the current or prospective risk to the earnings and capital arising from the customer's failure to meet the terms of any contract with the bank or if the customer otherwise fails to perform as agreed. Credit risk can be small or big depending on the size of the portfolio and volume of the exposure to the segment by the bank.

b) Liquidity Risk: - Liquidity risk is the potential inability to generate cash or have access to liquid assets to cope with deposit withdrawals, payment commitments or fund increase in business. This risk arises due to mismatches in maturity pattern of assets and liabilities, mainly in short term.

c) Market Risk: - Market risk is the risk that the value of on and off-balance sheet positions of a bank/ financial institution will be adversely affected by movements in market rates or prices such as interest rates, foreign exchange rates, equity prices, credit spreads and/or commodity prices resulting in a loss to earnings and capital.

2. Non-Financial Risks

a) **Operational Risk: -** Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people, and systems or from external events. It seeks to identify why a loss happened and at the broadest level includes the breakdown by four causes: processes, people, systems, and external factors.

b) **Compliance Risk: -** Compliance risk is the current or prospective risk arising from violations or non-compliance with laws, rules, regulations, agreements, prescribed practices, or ethical standards, as well as from the possibility of incorrect interpretation of effective laws or regulations. Non-compliance with the legal and regulatory and other orders could result in financial losses on account of penalties, etc.

c) **IT Risk:-** The motive of Information Technology risk management is to assist bank to establish an effective mechanism that can identify, measure, monitor, and control the risks inherent in bank's IT systems, ensure data integrity, availability, confidentiality, and consistency and provide the relevant early warning mechanism.

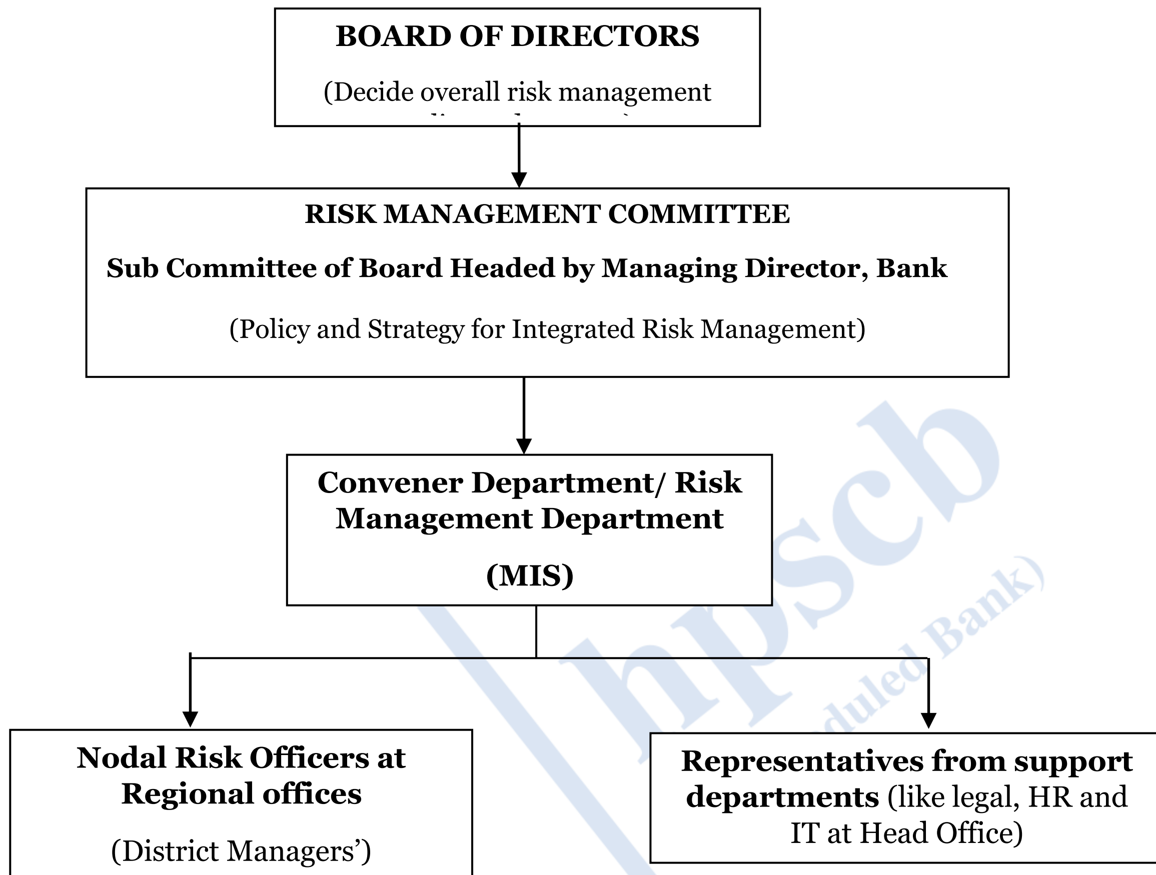
(iv) Risk Management Framework

For successful implementation of risk management framework, it is essential to nominate senior management individuals to lead the risk management teams. Periodic workshops must be conducted to ensure awareness of the policy and the benefits of following them. This will ensure that risk management is fully embedded in management processes. Senior management involvement will ensure active review and monitoring of risks on a constructive 'no-blame' basis.

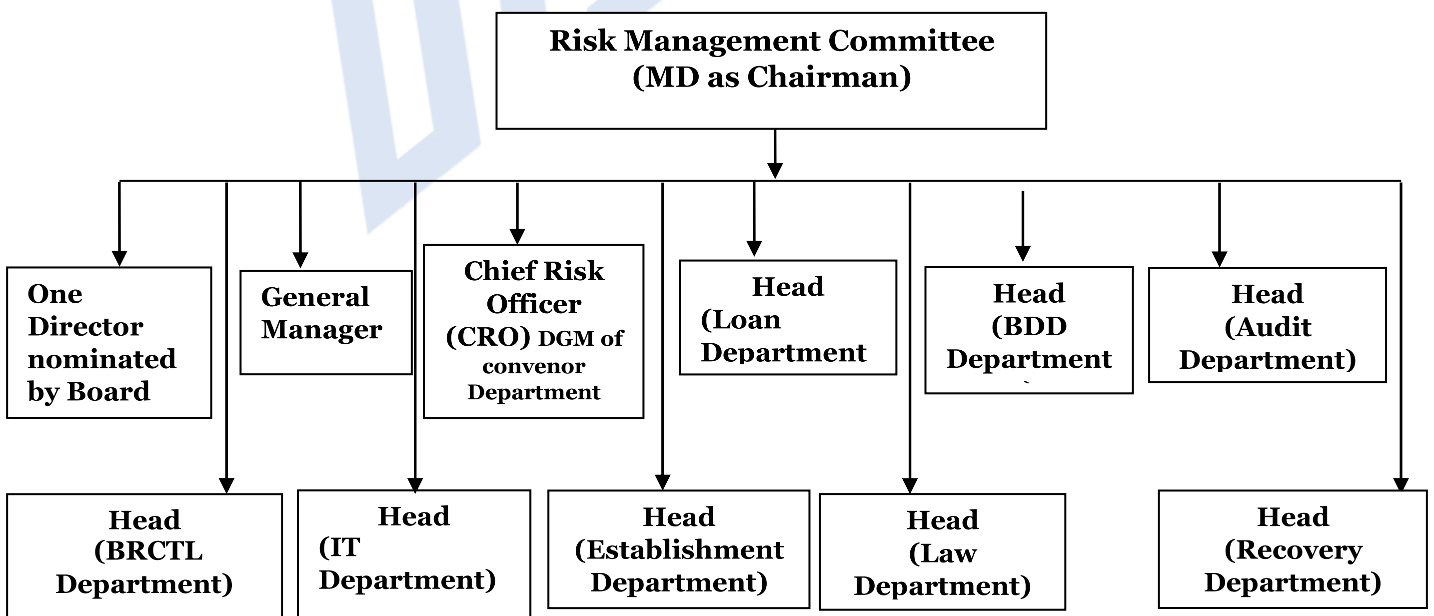
The board of directors, through the bank's risk management committee, will be responsible for risk oversight. This includes reviewing and approving risk management policies, risk exposures and limits, whilst ensuring the necessary infrastructure and resources are in place.

For overseeing the effective Risk Management function in the bank, the bank will constitute "Risk Management Committee" and the organizational set-up for Risk Management shall include the following:

a) Organizational Structure for Risk Management:-



b) Risk Management Committee Structure:-



(i) Roles and Responsibility of Board of Directors & Management:-

a) Board of Directors

1. Approve and periodically review the Risk Management framework and Risk Policy.
2. Approve the Bank wide risk tolerance; review the Bank's exposure to its key Risks.
3. Assess the effectiveness of risk mitigation plan implemented by the Bank to manage all Risks.
4. Provide strategic guidance on various initiatives undertaken by the Bank towards management and mitigation of all Risks.

b) Risk Management Committee (RMC)

1. Risk Management Committee (RMC) will be primarily responsible for ensuring effective management of all Risks in the Bank.
2. Review various Risk related issues and incidents and focus on important issues requiring attention at the policy or process level.
3. Review the risk profile, understand future changes and threats, and prioritize action steps.
4. Review and approve the development and implementation of Risk methodologies and tools, including assessments, reporting, etc.
5. Monitor and oversee the implementation of the Risk Management framework in the Bank.
6. Review the results of 'root cause analysis' of loss events and approve changes in the internal control mechanism.
7. Approve risk capital methodology.

c) Quorum and mandatory members

Quorum will be a minimum of SIX members with Managing Director, as Chairman, in the absence of MD, General Manager (Admin) will act as Chairman of the meeting. In the absence of both, General Manager (Banking) will act as Chairman of the meeting and the convener department being mandatory.

The committee shall be assisted by the staff possessing requisite skills and they would be trained periodically.

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d) Risk Management Department (RMD)/Convenor Department (MIS)

1. Under the leadership of the CRO, the department supports the Board and the Risk Management Committee in management of the Risk Management Framework and setting of the relevant Risk Management Policies and Risk Appetite / Tolerance limits.
2. Responsible for developing and updating the risk management framework of the bank and related policies, procedures, and methodologies.
3. Based on the framework and policies, the RMD is responsible for coordinating the process to identify, measure, control or mitigate, treat, monitor, and report on risk exposures.
4. Coordinate the development of Business Continuity Plan which is ready to invoke in response to natural or man-made events that may lead to business interruption and/or losses to the Bank.
5. Supporting management to inculcate a Risk Culture throughout the Bank.
6. Coordinate and provide technical support to the business units with respect to risk management and check that the Risk Management Policy is properly implemented.

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e) Chief Risk Officer (Convener of RMC)

1. Deputy General Manager of Convenor Department is Chief Risk Officer of the Bank.
2. To coordinate meeting of RMC at least once in a half year or earlier, as and when required.
3. All key risks identified shall be documented in the Consolidated Risk Register maintained at convener department will be authenticated by Chief Risk Officer.
4. To monitor the mitigation plan for the risks identified in the consolidated risk register and place it for review of Risk Management Committee in the meeting.
5. To circulate Agenda for the RMC meeting.
6. To attend all RMC meetings.
7. To maintain Minutes of all RMC meetings
8. To propose periodic updates in risk management policy.
9. To facilitate the analysis of risks and interrelationships of risks across credit, market, and operational risks.
10. He will be a member of all Risk Management Committees viz., Credit Risk Management Committee, ALCO, Operational Risk Management Committee,

Inspection Committee, Capital Planning Committee and Committee of Executives on fraud risk reporting and management.

11. He will also present the memorandum relating to Risk Management to Risk Management Committee, Board of Directors, ALCO and Audit Committee of the Board and Special Committee of the Board for large value frauds.

f) Nodal Risk Officers (District Managers')

Nodal Risk Officers are responsible for implementation of sound risk management practices at their respective areas. They will have the following responsibilities.

1. Create and promote risk awareness across all members of the Circle/Region.
2. Ensure that all the branches are carrying out the responsibility relating to risk management.
3. Evaluate the risk and mitigation plan recommended by branch heads.
4. Direct branch heads for mitigating the risks identified.

g) Monitoring and Review

The Policy shall be reviewed once in two years or more frequently if there is a major change to the Bank's risk management framework. Changes to the Policy must be approved by the Risk Management Committee before seeking approval of the Board of Directors. Structured agenda covering credit risk, market risk, operational risk, compliance risk and other risks impacting the bank will be placed before the committee for discussions and follow-up action.

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Financial Risks

- Credit Risk
- Liquidity Risk
- Market Risk
  - Interest Rate Risk

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1. Introduction

Banks are exposed to credit risk as and when banks' funds are extended, committed, invested, or otherwise exposed through actual or implied contractual agreements, whether recorded on the Banks' balance sheet or off the balance sheet.

Credit risk refers to the risk that a borrower will default on any type of debt by failing to make required payments. Or Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with the agreed terms. Credit risk may also arise in the situation where the performance of guarantors is required to fulfil the debt obligation.

Credit risk or default risk involves inability or unwillingness of a customer or counterparty to meet commitments (with agreed terms) in relation to lending, trading, hedging, and other financial transactions. Credit risk, therefore, arises from the banks' dealings with or lending to a corporate, individual, another bank, financial institution, or a country.

Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, bonds, equities, and in the extension of commitments and guarantees, and the settlement of transactions. The Credit Risk is generally made up of transaction risk or default risk and portfolio risk.

Credit risk may take various forms, such as:

- **in the case of direct lending,** that funds will not be repaid as per agreed terms,
- **in the case of guarantees or letters of credit**, that funds will not be forthcoming from the customer upon crystallisation of the liability as per the contract,
- **in the case of treasury products,** that the payment or series of payments due from the counterparty under the respective contract is not forthcoming or ceases,
- **in the case of securities trading businesses,** that settlement will not be affected,
- **in the case of cross-border exposure,** that the availability and free transfer of

currency is restricted or ceases.

The risk is primarily that of the bank (lender) and includes lost principal and interest, disruption to cash flows, and increased realisation costs. The loss may be complete or partial and the collaterals provided to the bank do not cover the bank's claims.

2. Types of Credit Risk

1. Credit default risk

The risk of loss arising from a debtor being unlikely to pay its loan obligations in full or the debtor is more than 90 days past due on any credit obligation, default risk may impact all credit-sensitive transactions, including loans, securities, and derivatives.

2. Concentration risk

The risk associated with any single exposure or group of exposures with the potential to produce large losses to threaten a bank's core operations. It may arise in the form of single name or group or inter- connected party concentration or industry concentration.

3. Country risk

The risk of loss arising from a sovereign state freezing foreign currency payments (transfer/conversion risk) or when it defaults on its obligations (sovereign risk), this type of risk is prominently associated with the country's macroeconomic performance and its political stability.

Credit Risk at HPSCB

Credit risk is bank's main financial risk. Most of the credit risk arises in the Bank's lending operations. The Bank is also exposed to credit risk in its treasury activities. Despite a reasonably well-diversified portfolio, the Bank is subject to concentration risk due to its regional focus, i.e., in the state of Himachal Pradesh, and major lending to agriculture sector.

Credit Risk Management in the Bank

The goal of credit risk management is to maximise a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Bank will manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. The bank's comprehensive credit risk management policy will address these six areas,

i. Establishing an appropriate credit risk environment

ii. Operating under a sound credit granting process

iii. Maintaining an appropriate credit administration, measurement, and monitoring process

iv. Credit risk assessment

v. Credit Risk Mitigation and

vi. Role of Board of Directors and Senior Management

These practices will also be applied in conjunction with sound practices related to the assessment of asset quality, the adequacy of provisions and reserves, and the disclosure of credit risk, as addressed in Basel Committee documents and RBI/ NABARD regulations and guidelines.

1. Credit Risk Environment

The board of directors should have responsibility for approving and periodically (at least once in two years) reviewing the credit risk strategy and significant credit risk policy of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring, and controlling credit risk. Such policies and procedures should address credit risk in all the bank's activities and at both the individual credit and portfolio levels.

Bank should identify and manage credit risk inherent in all products and activities. Bank should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken and approved by the board of directors.

2. Credit Granting (Sanction) Process

2.1 Credit assessment and granting process

Credit granting includes – origination, assessment, and sanction.

Bank must operate under sound, well-defined, effective, and efficient credit-granting process as per the Loan Policy of the Bank. The credit granting criteria should set out who is eligible for credit and for how much, what types of credit are available, and under what terms and conditions the credits should be granted.

These criteria should further include:

- a thorough understanding of the borrower or counterparty,
- understanding the purpose and structure of the credit, and its source of repayment.

Bank must ensure that:

- there are well defined and clear eligibility norms and processes for credit appraisal,
- credit-granting function is being effectively managed,
- the credit exposures are within levels consistent with prudential standards and internal limits,
- systems to assign a risk rating to each customer/borrower (above a certain limit) to whom credit facilities have been sanctioned,
- credit rating mechanism to price credit facilities depending on the risk grading of the customer,
- that exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action,
- the staff involved in credit sanction/ review/ renewal activities are fully capable, experienced, and trained for conducting the loan activity to the highest standards and in compliance with the bank's policies and procedures,
- bank imparts training to officers dealing with credit from time to time.

Delegation of credit sanctioning authority to various levels including board committees, senior management, and staff (including authority to approve deviations and exceptions), is well documented and strictly followed.

Reporting procedures of sanction of credit of various committees (RO and HO level) and branch managers, as documented in Loan Policy of the Bank, are strictly followed.

Depending on the type of credit exposure and the nature of the credit relationship, the following factors documented in loan policy for approving credits are considered while sanctioning credit limits:

- the purpose of the credit and sources of repayment,

- the current risk profile (including the nature and aggregate amounts of risks) of the borrower or counterparty and available collateral security,
- the borrower's repayment history and current capacity to repay, based on historical financial trends and future cash flow projections, under various scenarios,
- for commercial credits, the borrower's business expertise,
- the proposed terms and conditions of the credit, including covenants, and
- where applicable, the adequacy and enforceability of collateral or guarantees, including under various scenarios.

2.1.1 Credit Concentration and Credit Exposure limits as per RBI and CMA norms defined by NABARD

- The bank shall have sound and well-defined policies and procedures incorporating credit concentrations limits to ensure that credit activities are adequately diversified.
- The policy on large exposures shall be well documented in bank's Loan Policy document, to enable the bank to take adequate measures to ensure that concentration risk is limited.

The bank will monitor the exposure levels carefully such that the limits are not breached. An appropriate MIS about this issue will be created for the board review.

The following RBI guidelines on Managing Credit Risk should be scrupulously followed:

- Not to grant loans against security of its own shares
- Remission of debts for other Cooperative Banks without prior approval of RBI
- Follow restrictions on loans and advances to Directors and their relatives**
- To observe ceiling on advances to Nominal Members – With deposits up to 50 crore (50,000/- per borrower) and 1,00,000/- for above 50 crore.
- Not to sanction bridge loans including that against capital / debenture issues
- Bank not to extend any facilities to stock – brokers.
- Loans under Real Estate Sector to be provided only for genuine construction and not for speculative purposes.
- Not to lend more than 15% of **Tier -I capital** to individual borrower#
- Not to lend more than 25% of **Tier – I capital** to a group of borrowers# The bank shall have at least 50 per cent of their aggregate loans and advances comprising loans

of not more than ₹25 lakh or 0.2% of their Tier I capital, whichever is higher, subject to a maximum of Rs.1 crore, per borrower/party.

*** (amended by RBI circular RBI/2020-21/89 dated the February 5, 2021, as under: Cooperative Banks shall not make, provide, or renew any loans and advances or extend any other financial accommodation to or on behalf of their directors or their relatives, or to the firms / companies / concerns in which the directors or their relatives are interested (collectively called as "director related loans").*

Further, the directors or their relatives or the firms / companies / concerns in which the directors or their relatives are interested shall also not stand as surety/guarantor to the loans and advances or any other financial accommodation sanctioned by Cooperative Banks.

'Advances' for the purpose shall include all types of funded / working capital limits such as cash credits, overdrafts, credit cards, etc).

The following categories of director-related loans shall, however, be excluded from "loans and advances" for the purpose of these directions:

i. *Regular employee-related loans to staff directors, if any, on the Boards of Cooperative banks.*

ii. *Normal employee-related loans to Managing Directors / Chief Executive Officers of Cooperative banks.*

iii. *Loans to directors or their relatives against Government Securities, Fixed Deposits and Life Insurance Policies standing in their own name.)*

 # (Reduced from 40% to 25% by RBI, Circular No. RBI/2019-20/171 dated the March 13, 2020, capital funds have been replaced with Tier – 1 capital).

 # (The revised exposure limits shall apply to all types of fresh exposures taken by the bank. Bank shall bring down their existing exposures which are in excess of the revised limits to within the aforesaid revised limits by March 31, 2023. However, where the existing exposure comprises only term loans and non-fund-based facilities, while no further exposure shall be taken on such borrowers, these facilities may be allowed to continue as per their respective repayment schedule / till maturity).

2.1.2 Sanction of Credit Limits beyond the Exposure Limit:

Prior Authorization from NABARD to be obtained for lending by the Bank beyond Certain Limits and to Certain Categories of Borrowers.

i). The bank shall obtain prior authorization of NABARD for sanction of credit limits by the bank on its own or in consortium with other banks to the following categories of borrowers, where the aggregate amount of sanction is beyond the prescribed cut-off limits:

I. Cooperative marketing societies

II. Consumer stores societies

III. State level cooperative federations in respect of purchase / procurement schemes of the State Government / Union territory outside PDS (other than food credit)

ii) The bank shall obtain prior authorization of NABARD for financing State level Marketing Federations for procurement of food grains at Government support price on commercial basis outside PDS where the aggregate amount of sanction is beyond the cut-off limits as prescribed by NABARD from time to time.

2.2 Inter-Bank Exposure limit

The interbank exposure is applicable in terms of market operations, investments, and treasury operations, and are covered in detail in the Investment Policy of the Bank duly approved by the Board.

2.3 Approving Large credits for first time

In approving large credits – over a limit of Rs. 25 lakhs – to borrowers or counterparties for the first time, consideration should be given to the integrity and reputation of the borrower or counterparty as well as their legal capacity to assume the liability. Prior to entering any new credit relationship, the bank must be confident that they are dealing with an individual or organisation of sound repute and creditworthiness.

A comprehensive assessment of the risk profile of the customer will include the purpose of the loan, repayment sources, financial statements, integrity and reputation of the borrower or counterparty.

Bank may introduce a Loan Appraisal Committee (LAC) at Head Office (with senior officers from Loan, Planning, Risk Management, Credit Monitoring & Recovery department) for granting "in principle" approval to a new business connection above a

limit of Rs. 25 lakhs. Only after this approval, the proposal may be accepted for processing and sanction.

Once new credit connection is approved "in principle", it is essential for the bank to ensure that the information received from the applicant is sufficient to make proper credit-granting decisions. This information will also serve as the basis for rating the credit under the bank's internal credit rating system.

2.4 Analyse Non-financial Risks in case of large borrowers (over a limit of Rs. 25 lakhs)

In addition to financial risks assessment including creditworthiness, qualitative criteria such as management, competitive situation, and market position (local competitors, market share, competitiveness of services,) industry, etc. should be assessed qualitatively.

2.5 Know Your Customer

Know your customer (KYC) is an integral part of the credit risk management process and forms the basis for all subsequent steps in the lending process. This involves mandatory verification of new and existing customers' credentials to prevent money laundering. Strict policies must be in place and followed to avoid association with individuals involved in fraudulent activities and other crimes.

2.6 Policy Relating to Credit Products

- Bank shall maintain adequate documentation relating to various types of loan products.
- New credit products must be introduced after a careful review of the existing and potential risks inherent in the products.
- The pricing of these products should be included and periodically reviewed.
- Prior approval for all new products shall be obtained from the Board after their clearance from Risk Management Committee.
- All material risks arising from new products shall be assessed before introduction to customers.
- All credit products introduced by the bank should be periodically reviewed based on their performance and achievement of objectives of introducing such products.
- If possible, the expiry date of product may be specified.

2.7 Credits to Related Companies and Individuals

Credits to related companies and individuals must be authorised on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks.

Extension of credit to directors, management, and other influential members, should be as per the established credit granting and monitoring processes.

2.8 Unsecured Exposure

Unsecured exposure is an exposure comprising all funded and non-funded exposures (including underwriting and similar commitments) where the realisable value of security, as assessed by the Bank/ approved valuers/ Reserve Banks Inspecting Officers, is not more than 10 percent, ab-initio, of the outstanding exposure.

But the classification of advances as secured or unsecured should be revisited at the time of review of advances and also as part of preparation of final statements.

Security will mean tangible security properly charged to the Bank and will not include intangible securities like guarantees (including State Government Guarantees), comfort letters, charge on rights, licenses, authorisations etc.

Unsecured advances shall include clean overdrafts, loans against personal security, clean bills or Multani hundies purchased or discounted, cheques purchased and drawals allowed against cheques sent for collection.

As per RBI guidelines, Cooperative Bank, whose priority sector loan portfolio is not less than 90% of the gross loans may grant unsecured advances to the extent of 35 % of their total assets as per the audited balance sheet at the end of the preceding financial year, subject to the following conditions:

a. The entire unsecured loan portfolio in excess of the normally permitted 10%, shall comprise of priority sector loans and the exposure to any individual borrower shall not exceed ₹ 40,000/-.
b. The bank complies with the eligibility criteria of:
    i. CRAR of not less than 9%.
    ii. Gross NPAs of not more than 7%.

3.0 Credit Administration, Measurement and Monitoring Process

3.1 Credit Administration

The bank shall have a system for the on-going administration of its various loans accounts. The internal auditors and concurrent auditors (wherever applicable) will ensure that loan portfolios are properly maintained and administered. This will include record keeping, preparation of the terms and conditions as well as perfection and safe custody of the securities. Credit files shall, at a minimum, contain the following information:

i. Loan application
ii. Evidence of sanction with terms and conditions
iii. Acceptance of terms and conditions by counter party
iv. Latest financial information
v. Record of dates of all credit reviews and renewals
vi. Record of all guarantees and securities
vii. Evidence of securities validation function including legal validity (legal opinion and non - encumbrance report by bank empaneled advocate), existence (physical verification report), valuation (valuation report by bank empaneled valuer), registration of charge and safekeeping.
viii. Credit score report of CIBIL or any other similar agency approved by the bank.

3.1.1. Loan Review/ Renewal Mechanism

Loan review/ renewal shall take place in each and every loan facility once in a year. In case submission of financial statements and other information is delayed by the borrower, the bank shall undertake a "ad-hoc/ short review" of the account based on the conduct of account, available information and compliance status of terms and conditions of sanction. Such "ad-hoc/ short review" shall not be valid for more than **THREE** months.

As per RBI circular No. RBI/2020-21/27 dated the August 21, 2020, on Ad-hoc/Short Review/Renewal of Credit Facilities

Quote*:*

... timely and comprehensive review/renewal of credit facilities should be an integral part of the Board approved loan policy and credit risk management framework, and banks should avoid frequent and repeated ad-hoc/short review/renewal of credit facilities without justifiable reasons. Banks are also advised to capture all the data relating to regular as well as ad-hoc/short review/renewal of credit facilities in their core banking systems/management information systems and make the same available for scrutiny as

and when required by any audit or inspection by Auditors/RBI. Further, the processes governing review/renewal of credit facilities should be brought under the scope of concurrent/internal audit/internal control mechanism of banks with immediate effect.

Unquote

The main objectives of Loan Review Mechanism could be: ·

i. to identify promptly loans which develop credit weaknesses and initiate timely corrective action, ·
ii. to evaluate portfolio quality and identify potential problem areas, ·
iii. to provide information for determining adequacy of loan loss provision, ·
iv. to assess the adequacy of and adherence to, loan policies and procedures,
v. to monitor compliance with relevant laws and regulations, and ·
vi. to provide senior management with information on credit administration, including credit sanction process, risk evaluation and post-sanction follow-up.

3.1.2 Watch listed Exposure

After the identification of a seriously deteriorated debt repayment capacity and/or a serious deterioration in the financial standing, the counterparty is placed on the watchlist and becomes subject to specific watch-list monitoring. The Credit Committee decides on the watch-listing of all loans, borrowers, and Treasury counterparties.

Watch-listed counterparties are reviewed by the Credit Committee at agreed intervals and reported to the Board of Directors.

3.1.3 Dealing with Problem Credits

- Early recognition of weaknesses in the credit portfolio is important and allows for effective determination of loan loss potential.
- The bank must have clearly articulated and documented policies in respect of past due credit facilities and shall at a minimum have approval levels and reporting requirements in respect of granting extensions, deferrals, renewals, and additional credit facilities to existing accounts.
- The policy shall define a follow-up procedure for all loans and identify the reports to be submitted both to senior management and board of directors.

3.2 Measurement of Credit Risk

As per RBI guidelines, measurement of Credit Risk could be:

1. **Through Credit scoring / Credit rating:**

   Credit rating is done with primary objective to determine whether the account after the expiry of a given period will be able to meet its obligation to its creditors, including bank and would not be in default.

2. **Quantifying risk through estimating loan losses:**

   The amount of loan losses that bank would experience over a chosen time horizon (through tracking portfolio behaviour over 5 or more years) and unexpected loan losses i.e., the amount by which actual losses exceed the expected loss (through standard deviation of losses or the difference between expected loan losses and some selected target credit loss quintile)

3. **Risk pricing** –Base lending rate which also accounts for risk.
4. **Risk control** through effective Loan Review Mechanism and Portfolio Management.

The measurement of credit risk should consider:

i. the specific nature of the credit, maturity, exposure profile, existence of collateral or guarantees and potential for default and environmental circumstances and its contractual and financial conditions

ii. the existence and value of security (collateral or guarantees), and

iii. the potential for default based on the internal risk rating.

The bank can have procedures for measuring its overall exposure to credit risk including exposure to related parties, products, customers, market segments and industries for appropriate risk management decisions to be made.

The analysis of credit risk data should be undertaken at an appropriate interval (monthly/ quarterly/ half- yearly) with the results reviewed against relevant limits.

3.3 Monitoring of Credit Risk

The Bank puts strong emphasis on continuous monitoring of the credit risk in its lending and treasury operations. Credit risk is monitored both at counterparty level and at portfolio level.

The primary responsibility for credit risk monitoring resides with the functionaries (branches and regional offices) responsible for the client relationship. Risk Management Department is responsible for regular reporting to the Board of Directors and Senior Management on the Bank's risk position in relation to established limits.

3.3.1 Monitoring credit exposures

All credit exposures are subject to continuous monitoring. As per Loan Policy, an annual review/ renewal is conducted on the entire loan portfolio. The annual review/ renewal includes a follow-up of the customer relationship, compliance of sanctioned terms and conditions, conduct of account, as well as a credit risk review.

All exposures are subject to continuous monitoring of events/ identifying early warning signals (EWS) / Red Flags, that could potentially lead to or indicate a material change in risk. Monitoring of compliance with limits for counterparty credit exposure is carried out by Risk Management Department on a daily/ weekly/ monthly basis against applicable limits. Limit breaches are reported to senior management and the Finance Committee.

3.3.2 Portfolio level Monitoring

Monitoring of the credit risk development at portfolio level is carried out regularly by Risk Management Department which is responsible for analysing and reporting the development to the Risk Management Committee, ALCO, and the Board of Directors. The reporting includes, among others, an analysis of the aggregate credit risk exposure, credit risk concentrations, changes in the risk profile, exposure against portfolio risk limits.

3.3.3 Management Information System (MIS)

Bank's Management Information System must provide reports for monitoring the condition of individual credits, and loan portfolio, including determining the adequacy of provisions and reserves.

Bank must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. Bank must have in place a system for monitoring the overall composition and quality of the credit portfolio.

The Management Information System should provide:

- adequate and timely information on the composition of the credit portfolio and
- identification of any concentrations of risk.

Bank should also be able to analyse credit risk at the product and portfolio level to identify any sensitivities or concentrations.

An effective monitoring system shall ensure that the branch level functionaries and credit monitoring department in ROs and HO:

i. Understand the current financial condition of the borrower

ii. Monitor compliance with the existing terms and conditions

iii. Assess the collateral in relation to the borrower's current condition, and

iv. Identify non-performing accounts and enforces proper classification and loan loss provisioning.

3.3.4 Internal Controls and Audit

a) The bank shall have an independent internal system for assessment of the credit risk management process to assist the board to review its effectiveness.

b) A review of the lending process shall include analysis of the Loan Policy of the bank and actual performance of all functionaries involved in the credit function. It shall also cover origination, appraisal, sanction, disbursement, monitoring, collection, and handling procedures for the various credit functions provided by the bank.

c) Internal audit reviews, through a designated Committee, shall assess compliance with the institution's credit policies and procedures.

This will require confirming the following:

i. The credit granting function is carried out effectively,

ii. The credit exposures are within the prudential and internal limits set by the Board of Directors,

iii. Identification of areas of weaknesses in the credit risk management process, and

iv. Exceptions to the policies, procedures, and limits.

d) Such internal reviews shall be conducted periodically and ideally once a year.

4.0 Credit Risk Mitigation

Banks/Lenders mitigate credit risk by using several methods.

a) In controlling credit risk, the bank can use a variety of mitigating techniques which include collateral, guarantees and netting off loans against deposits (exercising right of set-off) of the same counterparty. While the use of these techniques will reduce or transfer credit risk, other risks may arise which include legal, operational, liquidity and market risks.

b) Therefore, the bank should have comprehensive procedures and processes to control these risks and have them well documented in the policies.

4.1 Collateral Security

Security held by the institution to mitigate against credit risk should satisfy the following conditions:

i. Regular monitoring of all collateralised transactions

ii. All documentation used for lending against collateral securities must be binding to all parties and be legally enforceable

iii. Necessary steps must be taken for obtaining and maintaining an enforceable security, for example registration, right of set-off or transfer of title must meet all the legal requirements

iv. Procedures for timely possession and liquidation of collateral (in the event of default) as per SARFAESI Act should be in place

v. Periodic valuations (once in three years) of the collateral should be undertaken to confirm that its value is adequate, and it remains realisable, and

vi. Guidelines on various acceptable forms of collateral should be documented.

4.2 Other methods employed by banks to mitigate credit risk are:

a) Risk-based pricing: Risk based pricing of the loan is important for the bank to earn profits for reasonable return on capital. Loans and guarantees are priced to cover the

Bank's cost of funds, administration costs, the cost of the risk involved in the transaction and the cost of capital employed.

Bank, generally, charges a higher interest rate to borrowers who are more likely to default, by considering factors relating to the loan such as loan purpose, credit rating and loan-to-value ratio (LTV) and estimate the effect on yield (credit spread).

b) Covenants: Incorporating certain special stipulations on the borrower, who have lower ratings, into terms of sanction and loan agreements.

4.3 Credit Risk Scoring / Rating Framework

A Credit-risk Rating Module/ Framework is necessary to avoid the limitations associated with a simplistic and broad classification of loans/exposures into a "good" or a "bad" category.

Broadly, Credit Risk Rating System can be used for the following purposes:

i. Individual credit selection, wherein either a borrower or a particular exposure/ facility is rated as per the Credit Rating module/ Framework.

ii. Pricing (credit spread) and specific features of the loan facility.

iii. Portfolio-level analysis.

iv. Surveillance, monitoring and internal MIS.

v. Assessing the aggregate risk profile of bank. These would be relevant for portfolio-level analysis.

Bank should utilise the internal risk rating system in managing credit risk. The credit risk rating system should be consistent with the nature and size of loan.

Large Credit limits (Rs.25 lakhs and above) decisions may be based on credit risk ratings with an equal emphasis on qualitative elements such as the competence of management, experience, etc. After analysis, structuring, and pricing are completed, the loan proposal should be considered for sanction.

4.4 Credit Audit

The following needs to be in place for credit audit:

Compliance with pre-sanction and post-sanction processes set by the external and internal audit committee and compliance requirement by the credit risk management committee of the Board of Directors of the bank.

Bank credit audit could include:

i. Quality of credit portfolio
ii. Review of loan process
iii. Compliance status of large value loans (above Rs. 25 lakhs)
iv. Report on regulatory compliance
v. Identification of loan distress signals
vi. Review of loan restructuring decisions in terms of distress loans
vii. Review of credit quality
viii. Review of credit administration
ix. Review of employees' credit skills especially at branch level

Credit audit may be conducted once in a year after the finalisation of the annual accounts of the bank and a report of findings to be placed to the Audit Committee of the Board.

Credit audit of large value loans (above Rs. 25 lakhs)

In case of large value loans, following are the action points for credit audit (review) of the account:

i. Verify compliance of bank's laid down policies and regulatory compliance with regard to sanction.
ii. Examine adequacy of documentation.
iii. Conduct the credit risk assessment.
iv. Examine the conduct of account and follow up looked at by branch/ RO.
v. Oversee action taken by branch/ RO in respect of serious irregularities.
vi. Detect early warning signals and suggest remedial measures thereof.

Frequency of such credit audit of individual accounts may be fixed depending on the risk rating of the account.

4.5 Adequate Levels of Provisioning

The credit policy must clearly outline the provisioning procedures for all credit facilities and the capital charge to be held.

The spread of the portfolio credit-risk and the trends in credit migration would help the bank to determine the level of provisioning required to absorb unanticipated erosions in the credit quality of exposures.

In most cases, provisions for expected loan losses are based on the prevailing regulatory, statutory, and accounting directives. However, the management may consider a certain prudent level of "over-provisioning" facilitated by factors like the volume and the spread of credit-exposures in the "average" and "below average but acceptable" risk-rating categories or SMA-1 and SMA-2 categories.

4.6 Asset Quality evaluation

The asset portfolio in its entirety should be evaluated and should include an assessment of both funded and off-balance sheet items. The quality of the loan portfolio will be reflected in the non-performing assets and provisioning ratios, whilst exposure to the capital market and sensitive sectors will be indicated by the high volatility, affecting both valuations and earnings.

The key ratios to be analysed are Non-performing Loans/Gross Loans ratio, Provisions/Gross Loans ratio and Provisions/Non-Performing Loans ratio.

Some issues which should be taken cognisance of, and which require further critical examination are:

a. where exposure to a particular sector is above 10% of total assets,

b. where non-performing advances which are not provided for are above 5% of the loan assets,

c. where loan loss provision is less than 50% of the Gross NPA,

d. rapid rates of loan growth. These can be a precursor to reducing asset quality as periods of rapid expansion are often followed by slowdowns which make the bank vulnerable,

e. net impact of mark-to-market values of treasury transactions,

f. correlation between the off-balance sheet items to the total assets.

Investments should be reflected on mark-to market basis and sticky investments should be treated as "non-performing".

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5.0 Managing Credit Risk in Inter-bank Exposure

During its business, the bank may assume exposures on other banks, arising from trade transactions, money placements for liquidity management purposes, hedging, trading, and transactional banking services such as clearing and custody, etc. Such transactions entail a credit risk. Therefore, it is important that a proper credit evaluation of the banks is undertaken especially in case of money placement with other banks. Bank-wise exposure limits should be set considering the counter party and country risks. The credit risk management of exposure to banks should be centralized on a bank-wide basis.

The bank may evaluate the key financial parameters of the bank, such as:

a) Capital Adequacy

b) Asset Quality

c) Liquidity

d) Profitability

6.0 Credit risk assessment and mitigation

For credit risk assessment bank may adopt any of the following three approaches:

- development of statistical models through analysis of historical data,
- distribution of the firm's asset-value over a period of time (This model is based on the expected default frequency (EDF) model) and
- portfolio risk model.

The bank may follow any of these models and it should achieve the following:

i. All credit exposure of the bank should be rated i.e., transaction – based and borrower based.

ii. Identify concentration in the portfolios.

iii. Identify problem credits before they become NPAs.

iv. Identify adequacy/ inadequacy of loan provisions.

v. Help in pricing of credit.

vi. Determine the impact on profitability of transactions and relationship.

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The bank shall undertake risk assessment based on the inputs from the following sources:

i. Internal inspection (audit) reports and compliance reports.

ii. Reports of Concurrent Auditors

iii. Reports of Statutory Auditors.

iv. Latest inspection report of NABARD

v. Any changes in loan policy or change in focus/ priority areas.

vi. Significant change in key personnel in branches and administrative offices.

vii. Sectorial trends and other environmental factors.

viii. Volume of business and risk prone credit.

ix. Substantial variations in performance vis-à-vis budget in terms of business and profitability.

7.0 Off-balance sheet Exposures (Contingent Liabilities)

7.1 Risk Identification and Assessment of Limits

Credit Risk in non-fund based business of banks need to be assessed in a manner similar to the assessment of fund based business since it has the potential to become a funded liability in case the customer is not able to meet his commitments. Financial guarantees are generally long term in nature, and assessment of these requirements should be similar to the evaluation of requests for term loans. As contracts are generally for a term of 2-3 years, banks must obtain cash flows over this time horizon, arising from the specific contract they intend to support, and determine the viability of financing the contract.

7.2 Risk Monitoring and Control

For reducing credit risk on account of such off balance sheet exposures, banks may adopt the following measures:

i) Banks must ensure that the security, which is available to the fund based credit facilities, also covers the LC and the guarantee facilities. It will be appropriate to take a charge over the fixed assets as well, especially in the case of long-term guarantees.

ii) In the case of guarantees covering contracts, banks must ensure that the clients have the requisite technical skills and experience to execute the contracts. The value of the contracts must be determined on a case-by-case basis, and separate limits should be

set up for each contract. The progress vis-à-vis physical and financial indicators should be monitored regularly, and any slippages should be highlighted in the credit review.

iii) The strategy to sanction non-fund facilities with a view to increase earnings should be balanced vis-à-vis the risk involved and extended only after a thorough assessment of credit risk is undertaken.

8.0 Roles and Responsibility of Board of Directors & Senior Management

8.1 Board of Directors

The board of directors shall be ultimately responsible for providing overall strategic direction to the Bank through approving and reviewing the credit risk management policy.

The board shall ensure that:

i. An appropriate committee (Risk Management Committee) is in place to oversee the credit risk management.

ii. The Credit Risk Management (as part of Risk Management Policy) and Credit Policy are reviewed, approved, and effectively communicated throughout the institution.

iii. There is an internal audit function capable of assessing compliance with the credit policies and management of the entire credit portfolio,

iv. The delegation of authority and approval levels of credits are clearly defined, and

v. Management provides reliable and appropriate reports on loans, provisioning and write-offs on credit loan losses and audit findings on the credit granting and monitoring processes with sufficient frequency.

8.2 Senior Management

Management shall implement the credit strategy and policies approved by the board of directors and develop procedures for effective management of credit risk.

Management shall ensure that:

i. The credit granting functions conform to the laid down systems and procedures,

ii. written policies and procedures are developed, implemented and responsibilities of the various functions are clearly defined,

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iii. The credit policies are communicated throughout the institution, implemented, monitored, and reviewed periodically to address any changes,

iv. Compliance with internal exposure limits, prudential limits and regulatory requirements is enforced,

v. The development and implementation of appropriate reporting systems with respect to the content, format and frequency of information concerning the credit portfolio,

vi. Internal audit reviews of the credit risk management system and credit portfolio are undertaken regularly, and

vii. Adequate research is undertaken for any new products or activities to ensure risks are appropriately identified and managed. These products must receive prior board approval.

Conclusion

The risk management is a complex and tedious process. The bank must follow the RBI's and NABARD's guidelines. There are benefits from having risk management system in place, which can help control the menace of rising NPAs.

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Liquidity Risk

1. Introduction

Liquidity risk is defined as the risk to bank's earnings or capital arising from its inability to meet its obligations as they fall due, without incurring significant costs or unacceptable losses.

It also arises from the Bank's failure to recognize or address changes in market conditions that affect the ability to liquidate assets quickly with minimal loss in value.

Impact of liquidity risk could be in the form of penalties, loss of funds, loss of business and reputational damage due to the bank's inability to meet the funding requirements of its customers.

Liquidity risk management systems involve analysing Bank's on and off-balance sheet positions to forecast future cash flows but also how the funding requirements could be met.

The main objectives of liquidity risk management processes and strategies are:

- To ensure that bank's balance sheet earns a desired net interest margin (NIM), without exposing the bank to undue risks due to interest rate volatility.
- To plan and structure a balance sheet with a proper mix of assets and liabilities, to optimize the risk/return profile of the bank
- To appraise its ability to meet its cash flow and collateral needs (under both normal and stressed conditions) without having a negative impact on day-to-day operations or its overall financial position.

To mitigate that risk by developing strategies and taking appropriate actions designed to ensure that necessary funds and collateral are available when needed.

2. Identification of Liquidity Risk

The bank should define and identify the liquidity risk to which it is exposed for each major on and off-balance sheet position, and other contingent exposures that may affect the bank's sources and uses of funds and for all currencies in which the bank is active.

3. Measuring and Managing Liquidity Risk

Measuring and managing liquidity needs are vital for effective operation of the bank. The bank should measure not only liquidity position on an on-going basis but also examine how liquidity requirements are likely to evolve under different assumptions or scenarios.

Liquidity measurement involves assessing the bank's cash inflows against its outflows to identify the potential for future net funding shortfalls. An effective liquidity risk measurement and monitoring system in place, helps in managing liquidity in times of crisis and also optimize return through efficient utilization of available funds. Key elements of an effective risk management process include an efficient Management Information System (MIS), systems to measure, monitor and control risks.

4. Measurement of liquidity position

The bank must establish appropriate internal guidelines on the level of different ratios and ensure prompt corrective actions are undertaken to address any liquidity shortfall.

5. Minimum Liquidity Ratio

Currently banks are required to maintain a minimum of 18.00 % (from 11 April, 2020) as Statutory Liquidity Ratio, and 3.00% as Cash Reserve Ratio of their total net demand and time liabilities as on the last Friday of the second preceding fortnight, valued in accordance with the method of valuation specified by the Reserve Bank of India from time to time, in liquid assets. The bank can however develop its own higher minimum liquidity ratio based on its own risk appetite.

6. Loan to Deposit Ratio

Bank should compute at month end, a loan to deposit ratio. Such ratio provides a simplified indication of the extent to which the bank is funding illiquid assets by stable liabilities. The bank may set a trigger loan-deposit ratio above which liquidity risk management should be enhanced.

7. Maturity Profile

Analysing funding requirements involves the construction of a maturity profile. A cash flow projection estimates the bank's inflows and outflows and thus establishes net deficit or surplus (GAP) over different time bands/ buckets.

The focus of the bank should be on short term mismatch i.e. 1-14, and 15-28 days' time band. The mismatches (negative gap between cash inflows and outflows) during 1-14, and 15-28 days' time band in normal course should not exceed a certain percentage (say 20%) of the cash outflows in each time band. The ceiling for the other time buckets must be fixed by ALCO.

Bank should review the assumptions utilized in managing liquidity frequently to determine that it continues to be valid, since the bank's future liquidity position will be affected by factors that cannot always be forecast with precision given the rapidity of change in financial markets.

The ALCO will prepare cash flow analysis i.e. outgoing commitments compared with inflow of funds, in different time maturity bands/ buckets, identifying net position or mismatches, etc. and will take necessary measures to overcome liquidity risk.

8. Liquidity Risk Monitoring

A monitoring system shall consist of limits, guidelines and trend development that will enable the management to monitor compliance with approved risk limits/tolerance and track variances.

9. Key Liquidity Factors

The following key liquidity factors should be monitored closely:

- Seasonal pattern of accretion of deposits and disbursement of loans
- The maturity profile of cash flows under varying scenarios
- Potential liquidity needs for meeting new loan demands, availment of unavailed credit limits, devolvement of contingent liabilities (letters of credit and bank guarantees), potential deposit losses, investment obligations, statutory obligations, etc.

- Economic and money market trends
- Monitoring flow of high value deposits say, of Rs. 1.00 crore and above, to track the volatile liabilities
- Tracking the impact of prepayments of loans, premature closure of deposits
- Analyzing the behavioral maturity profile of various components of on/off- balance sheet items on the basis of assumptions and trend analysis.

10. Liquidity Management Tools

- **Funding strategy:** The bank shall focus on CASA deposits, term deposits from large number of small depositors thereby reducing dependency on few large depositors; minimize ALM mismatch position, etc.
- **Funds deployment strategy:** The bank shall deploy the raised funds in various instruments, subject to overall guidelines issued by NABARD in permitted markets with focus on liquidity, marketability, and optimum yield.
- **Contingency plan:** The bank will build up contingency plans leading to most effective funding strategy depending upon the timing, urgency, duration for which funds are required, availability of funds, seasonality etc. on an ongoing basis.
- **Internal control:** The bank shall have an adequate system of internal controls over its liquidity risk management process.
- **Asset Liability Committee (ALCO):** ALCO is responsible for ensuring that the bank's operations lie within the parameters set by RBI/ NABARD and by its Board of Directors.

11. Roles and Responsibility of Board of Directors & Senior Management

The prerequisites of an effective liquidity risk management include an informed board, capable management, staff with relevant expertise and efficient systems and procedures. It is the responsibility of the bank's board and management to ensure that the bank has sufficient liquidity to meet its obligations as and when they fall due.

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a). Board of Directors

The board shall:

- Approve and review significant policies that govern bank's liquidity risk
- Establish an appropriate structure for the management of liquidity risk and identify lines of authority and responsibility for managing liquidity risk exposures
- Take appropriate steps to ensure that liquidity risk is adequately identified, measured, monitored and controlled, and
- Monitor the bank's overall current and prospective liquidity risk profile on a regular basis and
- Review adequacy of the contingency plans of the bank

b). Senior Management

The bank shall have an appropriate management structure to oversee the day to day and long term management of liquidity risk in line with the approved strategy, policies, and procedures. The senior management shall:

- Periodically review risk taking limits,
- Implement management information systems and standards for measuring liquidity risk,
- Convert board's approved strategies and policies and risk tolerances into operational standards, and
- Immediately communicate any material changes in bank's current or prospective liquidity position to the board.

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Market Risk

Introduction

Traditionally, credit risk management was the primary challenge for the banks. With progressive deregulation of interest rates and foreign exchange, market risk arising from adverse changes and fluctuations in market variables, such as interest rate, foreign exchange rate, credit spreads, equity price and commodity price, has become relatively more important. Even a small change in market variables causes substantial changes in income and economic value of banks.

Market risk is the risk of loss resulting from changes in the value of assets and liabilities (including off-balance sheet assets and liabilities) due to fluctuations in risk factors such as interest rates, foreign exchange rates and stock prices and the risk of loss resulting from changes in earnings generated from assets and liabilities. Market Risk can also be defined as the risk to the bank's earnings and capital due to changes in the market level of interest rates or prices of securities, foreign exchange, and equities, as well as the volatilities of those prices.

The bank places the safety and security of investments ahead of the potential for return, as such it is only willing to take on a low level of exposure to market risk.

Market risk takes the form of:

1. Interest Rate Risk
2. Foreign Exchange Risk
3. Equity Price Risk
4. Commodity Risk

1. Interest Rate Risk

Changes in interest rates affect the bank's earnings by changing its net interest income and the level of other interest sensitive income and operating expenses. Changes in interest rates thus can have adverse effects both on the bank's earnings, and its capital.

Interest rate risk is the risk where changes in market interest rates might adversely affect a bank's financial condition. The regulatory restrictions in the past had greatly reduced many of the risks in the banking system. Deregulation of interest rates has, however, exposed the banks to the adverse impacts of interest rate risk. The Net Interest Income (NII) or Net Interest Margin (NIM) of banks is dependent on the movements of interest rates. Any mismatches in the cash flows (fixed assets or liabilities) or repricing dates (floating assets or liabilities), expose banks' NII or NIM to variations. The earning of interest on loans and advances, and the interest cost on deposits are now closely related to market interest rate volatility. The Bank measures its net interest income risk by estimating the sensitivity of the accumulated net interest income during the next twelve months to changes in the level of interest rates.

a) Interest Rate Identification and Risk Measurement

An asset or liability is normally classified as rate sensitive if

- Within the time interval under consideration, there is a cash in -flow for instance, repayment of installments of term loans etc.
- The interest rate resets/reprices contractually during the interval. For instance, changes made in the interest on CC accounts, term loan accounts during the repayment period (before maturity).
- Changes in the administered interest rates by the Reserve Bank of India

The risk from earning perspective can be measured as changes in the Net Interest Income. The traditional gap analysis will be considered as a suitable method to measure the interest rate risk for the bank. The risk gap will be measured by calculating gaps over different time intervals as at a given date (usually one year). It will monitor the mismatches between rate sensitive liabilities and rate sensitive assets (including off-balance sheet positions) by preparing the gap report. The bank should have a forecast regarding the interest rates in the market and accordingly fix up gap limits for various time buckets. The ALCO may be authorized for the same.

b) Risk/Exposure Limits for Investments

The risk/exposure limits for Investments shall be as per the Investment policy of the Bank. All deviations shall be reported to the Risk Management Committee of the Bank.

c) Interest rate risk in Trading Book

Currently, the bank is not doing any trading in the securities. Therefore, the modified duration analysis, earnings at risk analysis for measuring and monitoring of interest rate risk will be taken up in due course.

d) Management of Interest Rate Risk

The management of Interest Rate Risk should be one of the critical components of market risk management in bank.

The Bank's strategy is to obtain cost-efficient funding, CASA deposits as well as low cost deposits, refinance, from diversified sources and provide lending that is tailored to the needs of its customers

e) Reporting

While ALCO will have track on liquidity and interest rate on an on-going basis, the Risk Management Committee shall be kept informed about the deviations and review the liquidity position of the bank in all meetings of the Risk Management Committee.

f) Roles and Responsibility of Board of Directors & Senior Management

i. Board of Directors

The responsibilities of the board of directors include the following:

- reviewing the overall objectives of the bank with respect to interest rate risk and ensuring that management takes the steps necessary to identify, measure, monitor and control these risks,
- review periodically, at least once a year, the interest rate risk management policy,
- to annually review and approve maximum limits for exposure to market risk,
- approving policies that identify lines of authority and responsibility for managing interest rate risk.

ii. Senior Management

The senior management has the responsibility of implementing all approved policies that govern Market Risk and developing procedures for effective management of the market risks.

It is the responsibility of senior management to maintain:

- Appropriate limits on risk taking
- Adequate management information systems (MIS) and standards for measuring interest rate risk are in place
- A comprehensive interest rate risk reporting and management review process, and effective internal controls are there.

To fulfil the above responsibilities, management shall periodically review the bank's interest rate risk management policies and procedures to ensure that they remain appropriate and sound. It shall also periodically update the board of directors regarding interest rate risk measurement, reporting and management procedures.

2. Foreign Exchange Risk

Foreign exchange risk is the current or prospective risk to earnings and capital arising from adverse movements in currency exchange rates. The potential for loss arises from the process of revaluing foreign currency positions on both on- and off- balance sheet items. Changes in the exchange rate of currencies can lead to a loss in the value of investments denominated in foreign currencies.

Presently, the bank is mainly confined to domestic operations.

1. Equity Price Risk

If the price of equities listed and traded on the major stock exchanges changes, then the bank's balance sheet may be affected by a fall in the value of its equities or bonds.

This is not applicable to the bank.

2. Commodity Risk

Since bank is not dealing in commodities, this is not applicable to the bank.

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Non - Financial Risks

- Operational Risk
- Compliance Risk
- IT Risk

1. Introduction

Growing number of high-profile operational loss events worldwide have led the banks to increasingly view operational risk management as an integral part of the risk management activity. Management of specific operational risks is not a new practice, it has always been important for the banks to prevent frauds, maintain the integrity of internal controls, reduce errors in transaction processing, etc. Unlike market and credit risk, which tend to be in specific areas of business, operational risk is inherent in all business processes.

The Bank's operational risk management focuses on proactive measures in order to ensure business continuity as well as the accuracy of information used internally and reported externally, a competent and well-informed staff, and its compliance with RBI/NABARD regulations and guidelines and internal policies as well as on security arrangements to protect the physical and ICT infrastructure of the Bank.

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2. Operational Risk Defined

The common industry definition as defined in the RBI guidelines and the Basel II Accord for Operational Risk is–

"as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk but excludes strategic and reputational risk."

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

This definition is based on the underlying causes of operational risk. It seeks to identify why a loss happened and at the broadest level it includes mainly four causes:

- people,
- processes,
- systems and
- external factors.

3. Operational Risk Loss

An Operational Risk Loss is defined as loss from inadequate or failed internal processes, people and/or systems, or from external events causing any of the following adverse impact:

- Events constituting actual loss.
- Events with future impact.
- Events without loss (or accidental gain)
- Events which seriously jeopardize the business operations (example: System downtime, strike etc.)
- Events caused / causing threat to employee life

4. Objectives of Operational Risk Management Policy

The main objectives of Operational Risk Management Policy are:

- To meet Basel-II requirements on Operational Risk Management
- To identify and introduce operational risk management function across the entire bank, so as to assess exposure with respect to Operational Risks and take appropriate actions
- To establish a management structure with clear lines of responsibility, accountability and reporting with respect to operational risk
- To strengthen the internal control environment reducing the probability and potential impact of Operational Risk losses

5. Categories (risk events) of Operational Risk Relevant to the Bank

Seven categories of Operational risk (risk events) having the potential to result in substantial losses to the bank includes:

1. **Internal fraud:** Losses due to intentional misreporting of positions, employee theft, and insider trading on an employee's own account.
2. **External fraud:** Losses due to robbery, forgery, cheque kiting, misrepresenting information to obtain financial benefits/ loans, and damage from hacking of computer.

3. **Employment practices and workplace safety:** Losses arising from workers compensation claims, violation of employee health and safety rules, discrimination claims, and general liability.

4. **Clients, products, and business practices:** Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a product. For example, fiduciary breaches, misuse of confidential customer information, money laundering, and sale of unauthorized products and/ or mis-selling various products.

5. **Damage to physical assets:** Losses arising from loss or damage to physical assets from a natural disaster or other events. For example, terrorism, vandalism, earthquakes, fire, and floods.

6. **Business disruption and system failures:** Losses arising from disruption of business or system failures. For example, hardware and software failures, telecommunication problems, and utility outages.

7. **Execution, delivery, and process management:** Losses from failed transaction processing or process management, from relations with trade counterparties and vendors. For example, data entry errors, collateral management failures, incomplete legal documentation, unapproved access given to client accounts, and vendor disputes.

6. Main Factors/Causes Generating Operational Risk

The events mentioned above may occur due to both, internal and external factors in the following areas:

1. Internal factors

i. **People (Employees):** The risk occurring from the deliberate or unintentional actions or treatment of employees and/or management. Bank can achieve significant improvements in its control of operational risk and reduce exposure if it creates an appropriate risk culture, in which employees are aware of operational risks and are encouraged to learn from their mistakes.

ii. **Processes and systems:** Bank's operations are supported by different systems and processes, such as IT systems, human resource management systems, credit, market, insurance, liquidity risk management, hardware, software, communications, and their interfaces.

2. External factors

External events can have a major impact on the bank. The expected and unexpected changes to its operations can be major sources of operational risk. The Bank should have in place appropriate arrangements, having regard to the nature, scale, and complexity of its business, to ensure that it can continue to function and meet its regulatory obligations in the event of an unforeseen interruption. These arrangements should be regularly updated and tested to ensure their effectiveness.

i. Disruptive events include fire, flooding, earthquakes, terrorist actions, vandalism, power failures, etc. The Bank should assess the potential risk for such events to happen, design and put in place disaster recovery systems and procedures, with a view to ensuring continuity of activity. Against the monetary loss derived from such events the Bank should evaluate potential cost and acquire proper insurance.

ii. Use of Consultants and Outsourcing of Services Outsourcing arrangements require careful management to drive benefits, and where they are not managed adequately the degree of operational risk faced by the Bank may increase. The excessive use and dependency on consultants can be reduced for activities that may be more effectively developed internally.

7. Operational Risk Management Process

Operational Risk Management consists of sequence of activities and decisions involved to manage operational risk. The key elements in Operational Risk Management process would include:

- Risk identification – Identification of Operational Risks across various products and processes of the Bank
- Risk Assessment – Assessing the potential likelihood and impact caused by Operational Risk events and the quality of the control environment.
- Risk Categorization – Common language for risk / loss classification

- Risk Monitoring-Monitoring unacceptable changes in the risk profile over a period of time.
- Risk Mitigation – Various measures adopted by the Bank to mitigate / manage key Operational Risks and tracking of mitigation mechanism put in place so that the risk levels stay within acceptable tolerance levels.
- Risk Reporting – Providing a snapshot of key operational risks and the internal control environment.
- Performance Management – Aligning reward structure to management of risks subsequent development of feasible operational risk measurement, monitoring and control.

8. Identification and Risk Assessment

- The bank must identify and assess the operational risk inherent in all material products, activities, processes, and systems.
- It should also ensure that before new products, activities, processes, and systems are introduced or undertaken, the operational risk inherent in them is identified clearly and subjected to adequate assessment procedures.
- The bank must consider both internal factors such as,
    - nature of bank's activities, organizational changes, quality of personnel, employee turnover and the complexity of computer systems and processes, etc.

and external factors such as

- economic conditions, fraud, robbery, changes in industry and technological advances etc. that could adversely affect the achievement of the bank's objectives.

Other external risks also to be considered include

- natural disaster (earthquake, flood, etc.), fire and power breakdown, terrorism, security breaches, database corruption, virus and malware attacks and system configuration failure.

In identifying and assessing operational risk, the bank shall:

Collect and analyse loss data: Internal operational loss data provide meaningful information for the assessment of bank's exposure to operational risk and the effectiveness of its internal controls. The bank will build up a loss database of the bank as one of the operational risk management measures.

In addition, bank shall use all or some of the following tools as the case may be:

- **Audit findings:** While audit findings primarily focus on control weaknesses and vulnerabilities, they can also provide insight into inherent risk due to internal or external factors
- **Self - Risk-Assessment:** The bank shall assess its operations and activities through a menu of operational risk events.

The bank can use one or more of the following tools to evaluate Self or Risk-Assessments:

- workshops in which various business units assess their risk exposures,
- checklists on which managers are asked to fill in questionnaires that identify the levels of risk and the related controls.

9. Key Risk Indicators: Risk indicators are statistics or metrics, often financial, which can provide insight into bank's financial position. These indicators should be reviewed periodically (often monthly or quarterly) to alert the bank regarding changes that may be indicative of risk concerns. Examples of such indicators are the number of failed trades, staff turnover rates and frequency of errors and omissions.

10. Risk taking ability or appetite

Risk appetite is a function of risk taking ability of the bank. The bank will decide the level of appetite by estimating its capacity to manage the risk taken and the possible impact if the risk were to turn true.

The table below details the risk appetite of the bank under the broad categories of risk. The risk appetite under each category will be reviewed and revised by the board following material changes to the internal or external environment of the bank.

11. Broad Categories of Risk Events and Acceptable Level of Risk Appetite in Bank

Operational Risk Category (Risk Event)	Risk Appetite	Details
a. Internal and external fraud	Zero risk appetite	Due to potential for significant financial loss and reputational damage, the bank will not accept any exposure to risk in this area. Bank will therefore have good systems and procedures internal control systems to avoid and manage fraud proactively.
b. Clients, products and business practices	Zero risk appetite	Due to potential damage to the reputation, the bank will not take on any exposure to risk in this area. Bank will have strict systems and procedures which will ensure that KYC is implemented correctly, and that Money Laundering is avoided.
c. Employment practices and workplace safety	Low risk appetite	As the bank employs officers and other staff, it cannot avoid some degree of exposure in this risk area. HR policies will be designed to reduce the risk as much as possible. Imparting training to all employees will also help to reduce the risk as much as possible.
d. Damage to physical assets	Low risk appetite	The assets required to operate the business are subject to damage, the bank cannot avoid accepting a low level of Exposure to risk in this area. Insurance of assets will be one of the primary means of managing risk. The Administration will effectively supervise the assets. Proper record on maintenance of all assets will be done to avoid this risk.
e. IT systems and software failures	Low risk appetite	Due to its larger dependence on the IT infrastructure for the continued operation of the business, the bank will only accept a low level of risk in this area.
f. Execution, delivery, and process management	Moderate risk appetite	The board is willing to accept exposure to a moderate level of risk in this area. The processes will however be reviewed frequently to keep it up to date and effective.

12. Risk Measurement

The tracking of individual risk incident data is an essential pre-requisite to the development and functioning of a robust operational risk management measurement system. For this purpose

1. Bank shall constitute a structured process for reporting operational risk incidents on a regular basis.
2. Each business unit must ensure that the operational risk incident data is submitted to the risk management department (collecting and processing data collected from various sources and reporting the same) and that the required data meets all established standards for timeliness and integrity.
3. A 'root cause and lessons learnt' analysis can be drafted for each risk incident by the reporting unit. Risk Management Committee centrally would compile all the 'lessons learnt' analysis and ensure that the same is circulated on a periodic interval.
4. Risk Management Department would circulate these incidents/reports to all levels in the bank, including all branches.

13. Risk Monitoring

Based on the Risk or Self Assessments and other risk analyses, the Risk Management Committee in close coordination with various departments (Functional / Support/ Regional Offices) would identify and monitor Key Risk Indicators (KRI), reporting of which enables the management to monitor and mitigate risks that are exceeding acceptable levels.

Some of the Operational Risk limits (in KRI) which are proposed include the following:

Sr. No.	Item	Risk TRIGGER limit
1	Excess CRR	If actual CRR of the Bank exceeds 1 % over the Prescribed CRR limit
2	Cash retention limit	Aggregate cash holding level of branches exceeding the limit prescribed.
3	Non-working ATMs	5% of the total number of ATMs in the Bank

4	Pending reconciliations of ATM transactions	Reconciliations pending beyond one month
5	Incomplete KYC	KYC incomplete even in one of deposit + loan Accounts in operation
6	Penalties levied on the bank (at the branch) by the Income tax dept., Banks' Ombudsman, local authorities	Even if one penalty levied in any branch.

14. Risk Mitigation/Controls of operational risk

Several methods may be adopted for mitigating the operational risk:

1. Bank must have policies, processes, and procedures to control and/ or mitigate operational risks.
2. Bank should ensure that internal controls are in place as appropriate to address operational risk including:
   - Clearly established authorities and/ or processes for approval
   - Close monitoring of assigned risks limits.
   - Safeguard for access to, and use of, bank assets and records.
   - Appropriate staffing and training to maintain expertise.
   - Regular verification and reconciliation of transactions and accounts and so on.
3. Regarding fraud prevention, detection and investigation, bank must ensure following:
   - Strong KYC Policy and process
   - Training of staff on preventing and detecting frauds.
   - Root cause analysis of fraud events
   - Annual review on frauds
   - Exemplary punishment on intolerance to frauds
   - Regular security audits
   - Process specific fraud risk controls including maker & checker control.
   - Controlling fraud risks in - Phishing, skimming, hacking, identity theft, spam

mail, virus.
- Timely detection and reporting
- Strengthening and clearly spell out of internal control systems.
- Compliance with the provisions of Income Tax and GST.

4. For managing human resource Risk in the Bank, the Bank shall ensure:
   - Recruitment of qualified and skilled staff (including specialist officers for specialized functions such as IT, Law, Security, etc) on continuous basis without leaving any gaps.
   - Maintaining a healthy age profile combining young age group with skill competence and experience in the higher age group
   - Optimal deployment of human resources with the right person for the right job
5. Training and placement activities covering new staff and existing staff will include:
   - Knowledge and skills relating to the area of risk management.
   - System of internal controls including effectively communicating significant changes to controls to all affected officers.
   - Risks in bank's products and processes along with transparent rules and regulations with updated manuals covering different areas of bank's working.
   - Job Rotation on regular basis
   - Succession planning
6. Losses that might arise from business disruptions due to telecommunication or electrical failures can be mitigated by establishing backup facilities.
7. Loss due to internal factors, like employee fraud or product flaws, which may be difficult to identify and insure against, must be mitigated through strong internal auditing procedures.
8. The bank should have a system for ensuring compliance with RBI/NABARD regulations and guidelines and internal policies.
9. New products or major changes in existing products must be introduced after all relevant risks are analysed and processed and controls established to manage those risks.

10. Bank must have a sound technology infrastructure (relating to the physical and logical structure of information technology and communication systems, individual hardware and software components, data, and the operational environment) that meets current and long-term business requirements by:

    - providing sufficient capacity for normal activity levels as well as peaks during periods of market stress,
    - ensuring data and system integrity, security, and availability, and
    - supporting integrated and comprehensive risk management.

11. Outsourcing arrangements should be based on robust contracts and/or service level agreements that ensure a clear allocation of responsibilities between external service provider and the bank.

12. Losses that might arise on account of natural disasters can be insured against. It should periodically review its disaster recovery and business continuity plans so that they are consistent with the bank's current operations and business strategies.

15. Risk Reporting

To reinforce Operational Risk culture and provide periodic updates to the Risk Management Committee and on the Operational Risk Profile of the Bank and various departments, Risk Management Committee would design a Risk Reporting framework listing the reporting requirements from various departments, its periodicity and responsibility. Chief Risk Officer/ Head of Risk Management Department shall be responsible for providing the data and information to the Risk Management Committee.

An illustrative example of reports that would be placed to the Risk Management Committee would be as follows:

- Reporting of Operational Risk Losses by departments/branches
- Trends of Losses by business line over a period of time.
- Key Operational Risks by departments/branches
- Summary of Self or Risk Assessment results for various department, overall residual risk and aggregate Risk Profile of the department/branches

- ► Key control improvement opportunities, progress and implementation plan
- ► KRIs for various departments/branches including their trends over a period of time.

16. Roles and Responsibility of Board of Directors & Senior Management

a). Board of Directors

- Define the operational risk strategy and ensure that the strategy is aligned with the co-operative's overall business objectives.
- Approve and periodically review the Operational Risk Management framework and Operational Risk Policy developed by the management of the bank.
- Approve the Bank wide risk tolerance and review the Bank's exposure to its key Operational Risk.
- The Board of Directors shall review, at least annually, the appropriateness of the limits and the overall operational risk appetite and tolerance.
- Assess the effectiveness of risk mitigation plan implemented by the Bank to manage Operational Risk.
- Provide strategic guidance on various initiatives undertaken by the Bank towards management and mitigation of Operational Risk.
- Establish a management structure with clear lines of responsibilities, accountability, and reporting.
- Ensure compliance with regulatory disclosure requirements on operational risk.

b). Senior Management

Senior management shall be responsible for implementing the operational risk management framework approved by the Board of Directors.

- To translate operational risk management framework established by the Board of Directors into specific policies, processes, and procedures.
- To clearly assign authority, responsibility, and reporting relationships to encourage accountability.

- To ensure that the necessary resources are available to manage operational risk effectively.
- To ensure that bank's activities are conducted by competent staff with necessary experience and technical capabilities.
- Ensure that policies have been clearly communicated to staff at all levels.
- Pay particular attention to the quality of documentation controls and to transaction-handling practices.
- To ensure that the bank's HR policies are consistent with its appetite for risk and are not aligned to rewarding staff that deviate from the policies.

c). Audit and Inspection Department

- Provide assurance on the reporting quality of data on Key Risk Indicators, Self or Risk Assessment and Loss data reported by various reporting departments as well as on the quality of operational risk management in the bank.
- Share audit findings and observations with Risk Management Committee as a background for facilitating risk assessments.
- Report to senior management, Risk Management Committee and Audit Committee the results of their independent reviews of the operational risk management processes both at the level of corporate office and branches.

d). Compliance Function

- The Chief Compliance Officer or Officer in - charge looking after Compliance functions of the Bank, shall be the member of the committee for operational risk management.
- The bank to ensure that compliance risk in new products and processes being introduced get identified and appropriate risks mitigates are put in place before launching the same.

e). Risk Management Committee (RMC)

- Risk Management Committee (RMC), will be primarily responsible for ensuring effective management of the Operational Risks in the Bank

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- Review various Operational Risk related issues and incidents and focus on any important issues requiring attention at the policy or process level.
- Review the risk profile, understand future changes and threats, and prioritize action steps.
- Review and approve the development and implementation of Operational Risk methodologies and tools, including assessments, reporting, etc.,
- Monitor and oversee the implementation of the Operational Risk Management framework in the Bank.
- Review the results of root cause analysis of loss events and approve changes in the internal control mechanism.
- Approve Operational risk capital methodology.

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Compliance Risk

1. Introduction

In July 2005 Reserve Bank of India (RBI) set up a working group with participation from banks to review the present system of compliance functions and recommend measures to strengthen it. Based on the recommendation of the group, in April 2007 RBI issued comprehensive guidelines on Compliance and Compliance Functions in Banks. Banks were directed to put in place a robust compliance system for strict observance of all statutory provisions contained in various legislations such as Banking Regulation Act, Reserve Bank of India Act, Foreign Exchange Management Act, Prevention of Money Laundering Act etc. as well as to ensure observance of other regulatory guidelines issued from time to time, standards and codes prescribed by BCSBI, IBA, FEDAI, FIMMDA etc., and also each bank's internal policies and fair practices code.

Non-compliance of statutory provisions, regulatory guidelines and internal policies can give rise to various risks including legal problems, material financial loss, loss of reputation and regulatory sanctions.

Compliance functions are one of the key elements in the Bank's Corporate Governance Structure, which must be adequately enabled and made sufficiently independent so that it is capable of identifying, evaluating & addressing Legal and Reputation Risks.

"The Basel Committee on Banking Supervision (BCBS) paper defines Compliance risk as "the risk of legal or regulatory sanctions, material financial loss, or loss to reputation a bank may suffer as a result of its failure to comply with laws, regulations, rules, related self-regulatory organization standards, and codes of conduct applicable to its banking activities".

Banking compliance can be broadly segregated in three parts

a) Internal compliance

b) Regulatory Compliance

c) Legal Compliance

The internal compliance means adherence to the internal policies formulated by the bank's Board. Thus, internal compliance would be applicable to all employees of the bank.

The regulatory and legal compliance, on the other hand, is applicable to the bank as a whole. The Bank itself would be responsible for ensuring adherence to the extant statutory and regulatory instructions and also, for abiding by the laws of the land, both in letter and spirit.

The compliance area is critically important in identifying, evaluating, and addressing legal and reputational risks.

2. Objective of Compliance Risk Management

The objective of the compliance function is to minimize the deviations, or in the event of occurrence, to ensure that there is a process to promptly respond to and redress the anomalies and to tighten the compliance regime in the Bank.

Other objectives of the Compliance Risk Management include:

- to establish pro-active compliance management culture, which includes measures to identify, monitor and control compliance risk inherent in various business lines and activities of the bank,
- to develop a comprehensive database on various compliance areas to monitor and improve compliance functions,
- to Improve confidence of all customers, counterparties, shareholders, investors, debt holders, regulators, government bodies and all other stake holders in operational and financial integrity.

3. Fall-out/ consequences of non-compliance

The consequences of certain non-compliances and non-fulfilment of compliance responsibilities could be critical for the bank such as:

- Legal Problems
- Imposition of penalties on the bank
- Regulatory sanctions and
- Loss of reputation for the bank

4. Risk Control

Risk Management Department at Head Office shall continue to play the central role in the area of identifying the level of compliance risk.

The Risk Management Department can provide vital inputs on possible breaches of regulatory guidelines and appropriate risk mitigating checks and balances, if required:

- By screening of prospective products and services before they are launched, and
- By pointing out deficiencies in documentation.

5. Implementing Compliance Risk Management

In the process of implementing compliance risk management, the Bank will cover the following:

- At least once a year, identify and assess the main compliance risks facing the bank and formulate plans to manage them.
- Develop compliance program to identify, evaluate, and address legal and reputational risks.
- Focus of the Compliance Function on regulatory compliance, statutory compliance, compliance with fair practice codes and other codes prescribed / suggested by self-regulatory organizations, government policies, bank and internal policies and prevention of money laundering and funding of illegal activities.
- Compliance risks in all new products and processes shall be thoroughly analysed and appropriate risk mitigation put in place before launching new products, services and processes
- Training of staff and enhancing awareness on Compliance on ongoing basis
- To circulate the instances of compliance failures among staff along with preventive instructions
- Checklist on the compliance aspects may be made part of the inspection report for the inspectors / concurrent auditors to verify the level of compliance.

- In case of compliance failures staff accountability to be fixed and appropriate remedial or disciplinary action is to be taken
- Non-compliance with any regulatory guidelines and administrative actions initiated against the bank and or corrective steps taken to avoid recurrence of the lapses shall be disclosed in the annual report of the bank.
- Ensure that the bank reports promptly to the Board of Directors, Risk Management Committee and Audit committee of Board on any material, compliance failure (e.g., failure that may attract a significant risk of legal or regulatory sanctions, material financial loss, or loss to reputation).

6. Disclosures

The bank will ensure that all mandated disclosures will be made within the time limit as mandated by the regulators – NABARD, RBI, and RCS. Illustratively the current mandated disclosures include:

- Balance sheet disclosures on various aspects including off balance sheet items
- Maintenance of CRR and SLR
- KYC compliances
- Recovery and remittance of TDS / service tax as applicable and filing of returns from time to time.
- Reporting of suspicious Transaction Report (STR) and Cash Transaction Report (CTR) to Financial Intelligence Unit (FIU)
- CRAR disclosures
- Penalties levied on the bank
- Complying with court orders failing which contempt of court could arise
- Complying with statutory and regulatory restrictions and ensuring no violation
- Complying with IRAC norms
- Adherence to the prudential norms for classification, valuation, operation of investment portfolio for cooperative banks as prescribed by RBI / NABARD

7. Structural Framework for Compliance Risk

The Broad framework for compliance risk would inter-alia include:

- Designating a senior officer as independent Compliance Officer
- Formulating a Compliance Policy for the Bank
- Monitoring compliance guidelines in consultation with the Audit Committee of the Board or any other Specific Board Committee constituted for the purpose by the Board

8. Roles and Responsibility of Board of Directors & Senior Management

a). Board of Directors

The Board would be responsible for ensuring that

- An appropriate compliance policy is in place in the bank to manage compliance risk and shall be overseeing its implementation.
- Compliance issues are resolved effectively and expeditiously by Senior Management with the assistance of Compliance Officer.
- There is no potential for any conflict of interest and that the activities of the compliance function are subject to independent review.
- Review compliance functions itself or through Audit Committee of Board (ACB) or a specific Board level Committee constituted for the purpose, on a half yearly basis and annual review of status in implementation of compliance functions.
- Invite Compliance Officer to the meetings of the Board/ACB or a specific Board level Committee constituted for the purpose, wherein half yearly/ Annual review is undertaken.

b). Senior Management

Compliance is the function of the Bank as a whole. General Managers and the Deputy General Managers in-charge of the corporate departments and Regional Heads and Head of the Branches shall be responsible for managing the compliance risk pertaining to their functional areas.

The bank's Senior Management with the participation of the Compliance Officer shall:

- Ensure that appropriate remedial action is taken if breaches are identified.
- The disciplinary action on such breaches is initiated in terms of "Discipline & Appeal Regulations".
- Ensure that Compliance officer identifies & compiles list of compliance failure and the concerned departments to formulate plans to mitigate such failures.
- Submit to the Board/ ACB/ Specific Board Committee constituted for the purpose, half yearly and annual reviews, and
- report promptly to the board of directors or the ACB or Specific Board Committee constituted for the purpose, on any material compliance failure (e.g. failure that may attract a significant risk of legal or regulatory sanctions, material financial loss, or loss to reputation).

9. Conclusion

Compliance function is to be fully cognizant of the "compliance risk" and the reputational risk arising out of compliance failures causing huge economic costs.

Compliance efforts can only succeed if all concerned work in harmony and maintain good mutual relationships with the aim to establish good compliance culture by understanding and performing the defined roles and responsibilities of compliance functionaries in various departments / offices / levels to catch "Noncompliance" in business.

Information Technology (IT) Risk

Bank already has an Information Security Policy in place. In this section Risks related to Information Technology (IT) are covered.

1. Introduction

These days technology enables virtually all the activities in the bank and consumes a huge portion of capital investment and operational expenses. The performance of the bank depends on the reliability and security of its technology. The bank's business relies on accuracy and timely availability of data. Weak controls in technology can lead to processing errors or unauthorised transactions.

The effective management and governance of IT risk depends both on the senior management team including the head of the IT department (the GM/ DGM in charge of IT) and the field functionaries across the bank.

2. Top IT Risk Defined

The main IT risk includes unauthorised access to systems, use, disclosure, disruption, modification, recording or destruction of customer and bank's data. Technology risk holds strategic, financial, operational, regulatory, and reputational implications.

Some of the most significant risks in technology in financial services include:

i). IT Environment Risk

- Regulatory Risk

ii). Strategic risk

- Organisation Risk
- Location Risk
- Technology vendor and third-party risk (Outsourcing Risk)

iii). Technology operations risk

- Data management risk including data disclosure risk
- IT resiliency and continuity risk (Interruption Risk)

- Product/ Services Risk

iv). Computer Fraud Risk

3. Risks and Control Measures

1. IT Environment Risk

- Regulatory risk includes non -compliance / violations of Regulations.
- Management of assets (Hardware) and software.
- Weak incident management.

1.1 Control Measure

- All IT products and services to comply with RBI and NABARD guidelines and regulations.
- All IT systems and procedures, products, and processes to comply with financial and business regulations.
- Data management capabilities should be as per regulatory guidelines.
- IT department should manage capacity, hardware, and software license agreements.
- Internal audit on the effectiveness of risk management and compliance functions of IT department may be carried out to provide assurances. The report may be put up to the senior management and the board.

2. Strategic Risk

- The IT systems and procedures are not aligned to the strategic objectives and business priorities of the bank.
- Location chosen for usage and storage of hardware may be susceptible to unforeseen events such as riots, floods, earthquake, and sabotage.
- There are outsourcing risks for data processing and data management.
- Poor management of the contract terms (with the suppliers/ vendors) can lead to disputes between suppliers and the bank.

2.1 Control measures

- The IT systems and procedures must meet the Strategic Objectives of the bank.

- The head of IT department (GM / DGM -in charge) should be involved in the formulation of business strategy.
- Business objectives and IT strategies should be aligned to avoid inappropriate investments and misaligned expectations.
- Bank should periodically review the existing policies on IT strategy covering IT planning, resourcing, budgeting, future requirements, costs, and timelines.
- The responsibilities and liabilities of vendors and customers should be clearly defined.
- Over reliance on a single supplier should be avoided.

3. Technology operations risk

IT operations risk relates to those risks arising from day to day transaction processing on computer systems, data processing errors, interruptions.

- Data processing errors not being detected and corrected on a timely basis resulting in unreliable information.
- Unauthorised access to data on the computer system can put the bank to risk.
- Inadequate disposable techniques for hardware including CPUs, storage media such as disks, CD-ROMs etc., can lead to data falling into undesirable hands.
- Information System (MIS) fails to provide complete, accurate and timely information to the senior management for decision making.

3.1 Control Measures

- The branches and offices to ensure that data is correctly and accurately entered in the computer system.
- All transactions are accurately updated to the General Ledger and database files on day - to - day basis.
- IT department should exercise effective control over the data processes.
- Adequate contingency arrangements should be in place for difficulties faced in case of supplier, building and staff issues.

- Proper hierarchy to be advised to all staff members and field functionaries for escalating system failures, staff shortages, vendor issues, software, and hardware related issues.
- Proper contracts to be drawn with the suppliers to avoid any disputes between the bank and the supplier.
- Due diligence must be performed on the vendors engaged by IT department for their reputation, financial viability, compliance, and other attributes.
- The IT department should regularly monitor the service delivery (by the vendors) against targets and timelines.
- Bank should conduct regular review of the location of IT resources to ensure that the location is appropriate.
- The disruption and/ or happening of any event prejudicial to the interest of the bank should be promptly reported to the head of IT department.
- Access to computer systems, servers should be restricted to authorised personnel only.
- The management should ensure that sufficient audit trails are designed into the system and there are security procedures around those trails so that they cannot be altered.

4. Computer Fraud Risk

- There are number of opportunities to fraudsters to commit fraud with ease and speed.
- The fraudsters can successfully hide their fraudulent activities for some time.
- There are risks associated when a new product or a process is implemented.

4.1 Control Measure

- Bank should have a system of generation of reports for detection and prevention of frauds.
- The access to computer terminals and files should be documented and strictly monitored.

- The incidence of occurrence of a fraud or a breach along with the measures adopted by the IT department should be promptly reported to the senior management and the board.
- The modus operandi of operation of fraud to be shared with the field functionaries to avoid such incidents in future.

4. Emerging Products and Services

4.1 Internet Banking

Reserve Bank of India, vide its Circular No RBI/2015-16/229 dated the November 05, 2015, issued detailed guidelines on 'Internet Banking Facility for Customers of Cooperative Banks'. The revised guidelines for implementation by all cooperative banks cover:

i. Technology and Security Standards
ii. Legal Issues
iii. Internal Control System

4.2 Third party transfer of funds through ATMs

RBI, vide its Circular No DBOD.No.BL.BC 5/22.01.001/2003 dated the July 23, 2003, allowed banks to provide the facility of transfer of funds from one customer's account to another customer's account of the same bank within the country, through ATMs.

'The mandate and related documentation which forms the basis for effecting payments for such transactions carried out over the ATMs should be settled bilaterally between the bank and customers and the rights and obligations of each party should be clearly stated in the mandate and should be valid in the court of law. The bank should take appropriate steps for securing discharge of their liability while permitting third party payments through ATMs.'

4.3 Mobile Banking transactions in India

RBI has issued 'Operative Guidelines for Banks' on mobile banking transactions in India. The banks must obtain RBI approval, (after seeking their Board approval), to start this facility for their customers. "Mobile banking transactions" is undertaking banking transactions using mobile phones by bank customers that involve credit/debit to their accounts.

Guidelines issued by RBI cover the following areas:

i. Regulatory & Supervisory Issues
ii. Registration of customers for mobile service

iii. Technology and Security Standards
iv. Inter-operability
v. Clearing and Settlement for inter-bank funds transfer transactions
vi. Customer Complaints and Grievance Redressal Mechanism
vii. Transaction limit

RBI has also advised the 'Technology and Security Standards' covering the technology to be deployed and the security control to be exercised by the banks.
Banks are required to put in place appropriate risk mitigation measures like transaction limit (per transaction, daily, weekly, monthly), transaction velocity limit, fraud checks, AML checks etc. depending on the bank's own risk perception, unless otherwise mandated by the Reserve Bank.

5. Roles and Responsibility of Board of Directors & Senior Management

i. The Risk Management Committee may review the IT risks in the bank once in a year.

ii. The focus of the Committee should be on traditional IT projects and IT risk events.

iii. The Board may define certain thresholds that can come to their attention such as significant IT investments, certain risk events such as cyber breaches, system outages, or regulatory notifications.

iv. Board/ Senior Management may also consider laying down policy for career path and talent development in IT department.

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Abbreviations Used	
ACB	Audit Committee of Board
AGM	Assistant General Manager
ALCO	Asset Liability Committee
BG	Bank Guarantee
CC	Cash Credit
CIBIL	Credit Information Bureau of India Limited
CM	Chief Manager
CORM	Committee on Operational Risk Management
CRAR	Capital to Risk (weighted) Asset Ratio
CRO	Chief Risk Officer
CRR	Cash Reserve Ratio
CTR	Cash Transaction Report
DGM	Deputy General Manager
FIU	Financial Intelligence Unit
GM	General Manager
HPSCB	HP State Cooperative Bank Ltd.
ICT	Information & Communication Technology
IRAC	Income Recognition, Asset Classification & Provisioning Requirements
KYC	Know Your Customer
LC	Letter of Credit
MD	Managing Director
MIS	Management Information System
NABARD	National Bank of Agriculture and Rural Development
NII	Net Interest Income
NIM	Net Interest Margin
ORMC	Operational Risk Management Committee
RBI	Reserve Bank of India
RM	Risk Management
RMC	Risk Management Committee

RMD	Risk Management Department
RO	Regional Office
SARFAESI Act	Securitisation & Reconstruction of Financial Assets & Enforcement of Security Interest Act, 2002
SLR	Statutory Liquidity Ratio
STR	Suspicious Transaction Report
TL	Term Loan

Notes:

1. 'Loans' for the purpose shall include all types of funded and non-funded exposures in the nature of credit.

2. Tier-I capital as on March 31 of the preceding financial year shall be reckoned for the purpose of fixing the exposure limits.

hpscb
(Scheduled Bank)

Annexure – I

RBI/2014-2015/278
RPCD.RCB.BC.No.37/07.51.012/2014-15

October 29, 2014

All State / Central Cooperative Banks (St CBs/CCBs)

Madam / Dear Sir,

Risk Weights for calculation of CRAR

Please refer to our circular RPCD.CO.RF.BC.40/07.38.03/2007-08 dated December 4, 2007 advising StCBs/CCBs to compute CRAR and disclose it as 'Notes on Accounts'. Risk weights to be allotted to various items of assets were enclosed as annex I to the above mentioned circular.

2. In the light of the circular RPCD.RCB.BC.73 /07.51.012 /2013-14 dated January 7, 2014 on 'Application of Minimum Capital Adequacy Norms', the risk weights on various assets have since been reviewed and revised instructions on risk weights are annexed.

3. The other contents of our circular dated December 7, 2007 remain unchanged.

4. Please acknowledge receipt of this circular to our Regional Office concerned.

Yours faithfully,

(A. Udgata)
Principal Chief General Manager

Encl. as above

Prudential Norms - Risk Weights for Computation of CRAR (StCBs/CCBs)

I. Domestic Operations

A. Funded Risk Assets

		Items of Assets	Risk weight
I	**Balances**		
	1	Cash (including foreign currency notes) & balances with RBI	0
	2	Balances in current account with other banks	20
II	**Investments**		
	1	Investments in Government Securities	2.5
	2	Investment in other approved securities guaranteed by Central Government / State Governments	2.5
	3	Investments in other securities where payment of interest and repayment of principal are guaranteed by Central Govt. (include investment in Indira / Kisan Vikas Patras (IVP/KVP) and investments in bonds and debentures where payment of interest and repayment of principal is guaranteed by Central Government / State Governments)	2.5
	4	Investments in other securities where payment of interest and repayment of principal are guaranteed by State Governments *Note: Investment in securities where payment of interest or repayment of principal is guaranteed by State Government and which has become a non-performing investment, will attract 102.5 percentage risk weight*	2.5
	5	Investments in other approved securities where payment of interest and repayment of principal are not guaranteed by Central / State Governments.	22.5
	6	Investments in government guaranteed securities of government undertakings which do not form part of the approved market borrowing program	22.5

	7	Claims on commercial banks, District Central Cooperative Banks and State Cooperative Banks, such as fixed deposits, certificates of deposits, money at call and short notice, etc.	22.5
	8	Investments in bonds issued by All India Public Financial Institutions	102.5
	9	Investments in bonds issued by Public Financial Institutions (PFIs) for their Tier-II Capital	102.5
	10	All other investments ***Note:*** *Intangible assets and losses deducted from Tier I capital should be assigned zero weight*	102.5
	11	Off-balance sheet (net) position in 'When Issued' securities, scrip-wise	2.5
III	**Loans and advances including bills purchased and discounted and other credit facilities**		
	1	Loans and advances guaranteed by Government of India	0
	2	Loans guaranteed by State Governments	0
	3	State Government guaranteed advance which has become a non performing asset	100
	4	Loans granted to Public Sector Undertakings (PSUs) of Government of India	100
	5	Loans granted to PSUs of State Governments	100
	6	Housing Loans (i) Loans to individuals (fully secured by mortgage of residential properties) up to Rs 30 lakh a. LTV ratio is equal to or less than 75% b. LTV ratio is more than 75%	50 100
		(ii) Housing – others	100

		** LTV ratio should be computed as a percentage of total outstanding in the account (viz. "principal + accrued interest + other charges pertaining to the loan" without any netting) in the numerator and the realizable value of the residential property mortgaged to the bank in the denominator*	
	7	Consumer credit including Personal loan	125
	8	Loans up to Rs. 1 lakh against gold and silver ornaments *Note : Where the loan amount exceeds Rs. 1 lakh, the entire loan amount has to be assigned the risk weight applicable for the purpose for which the loan has been sanctioned.*	50
	9	All other loans and advances including Education loan	100
	10	Loans extended against primary / collateral security of shares / debentures	125
	11	Leased assets	100
	12	Advances covered by DICGC / ECGC *Note: The risk weight of 50% should be limited to the amount guaranteed and not the entire outstanding balance in the accounts. In other words, the outstanding in excess of the amount guaranteed, will carry 100% risk weight.*	50
	13	Advances against term deposits, Life policies, NSCs, IVPs and KVPs where adequate margin is available	0
	14	Loans and advances granted by State/Central cooperative banks to their own staff, which are fully covered by superannuation benefits and mortgage of flat/house	20
		Notes: While calculating the aggregate of funded and non-funded exposure of a borrower for the purpose of assignment of risk weight, banks may 'net-off' against the total outstanding exposure of the borrower –	
		(a) advances collateralized by cash margins or deposits,	
		(b) credit balances in current or other accounts of the borrower which are not earmarked for specific purposes and free from any lien,	

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		(c) in respect of any assets where provisions for depreciation or for bad debts have been made,	
		(d) claims received from DICGC / ECGC and kept in a separate a/c pending adjustment in case these are not adjusted against the dues outstanding in the respective a/cs,	
		(e) Subsidies received under various schemes and kept in a separate account	
IV	**Other Assets**		
	1	Premises, furniture, and fixtures	100
	2	Interest due on Government securities	0
	3	Accrued interest on CRR balances maintained with RBI and claims on RBI on account of Government transactions (net of claims of government / RBI on banks on account of such transactions)	0
	4	Interest receivable on staff loans	20
	5	Interest receivable from banks	20
	6	All other assets	100
V	**Market Risk on Open Position**		
	1	Market risk on foreign exchange open position (Applicable to Authorised Dealers only)	100
	2	Market risk on open gold position	100

B. Off-Balance Sheet Items

The credit risk exposure attached to off-Balance Sheet items has to be first calculated by multiplying the face amount of each of the off-Balance Sheet items by 'credit conversion factors' as indicated in the table below. This will then have to be again multiplied by the weights attributable to the relevant counter-party as specified above.

Sl. No	Instruments	Credit Conversion Factor (%)
1	Direct credit substitutes e.g., general guarantees of indebtedness (including stand L/Cs serving as financial guarantees for loans and securities) and acceptances (including endorsements with character of acceptance)	100

2	Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby L/Cs related to particular transactions)	50
3	Short-term self-liquidating trade-related contingencies (such as documentary credits collateralized by the underlying shipments)	20
4	Sale and repurchase agreement and asset sales with recourse, where the credit risk remains with the bank.	100
5	Forward asset purchase, forward deposit and partly paid shares and securities, which represent commitments with certain draw down	100
6	Note issuance facilities and revolving underwriting facilities	50
7	Other commitments (e.g., formal standby facilities and credit lines) with an original maturity of over one year	50
8	Similar commitments with an original maturity up to one year, or which can be unconditionally cancelled at any time	0
9	(i) Guarantees issued by banks against the counter guarantees of other banks	20
	(ii) Rediscounting of documentary bills accepted by banks (Bills discounted by banks which have been accepted by another bank will be treated as a funded claim on a bank) ***Note :*** In these cases, banks should be fully satisfied that the risk exposure is, in fact, on the other bank. Bills purchased / discounted / negotiated under LC (where the payment to the beneficiary is not made 'under reserve') will be treated as an exposure on the LC issuing bank and not on the borrower. All clean negotiations as indicated above, will be assigned the risk weight normally applicable to inter-bank exposures, for capital adequacy purposes. In the case of negotiations 'under reserve' the exposure should be treated as on the borrower and risk weight assigned accordingly.	20
10	Aggregate outstanding foreign exchange contracts of original maturity –	
	(a) less than 14 calendar days	0
	(b) more than 14 days but less than one year	2

	(c) for each additional year or part thereof	3
	Notes:	
	While calculating the aggregate of funded and non-funded exposure of a borrower for the purpose of assignment of risk weight, bank may 'net-off' against the total outstanding exposure of the borrower credit balances in current or other accounts which are not earmarked for specific purposes and free from any lien.	
	After applying the conversion factor as indicated above, the adjusted off-balance sheet value shall again be multiplied by the weight attributable to the relevant counter-party as specified.	

Note : *At present, State and District Central Cooperative Banks may not be undertaking most of the off-balance sheet transactions. However, keeping in view their potential for expansion, risk- weights are indicated against various off-balance sheet items, which, perhaps banks may undertake in future.*

II. Additional risk weights in respect of overseas operations of Indian banks (applicable to Authorised Dealers only)

1. Foreign Exchange and Interest Rate related Contracts

(i) Foreign exchange contracts include the following:

a. Cross currency interest rate swaps
b. Forward foreign exchange contracts
c. Currency futures
d. Currency options purchased
e. Other contracts of a similar nature

(ii) As in the case of other off-Balance Sheet items, a two stage calculation prescribed below shall be applied:

(a) Step 1 - The notional principal amount of each instrument is multiplied by the conversion factor given below:

Original Maturity	Conversion Factor
Less than one year	2%

One year and less than two years	5% (i.e. 2% + 3%)
For each additional year	3%

(b) Step 2 - The adjusted value thus obtained shall be multiplied by the risk weight allotted to the relevant counter-party as given in A above.

2. Interest Rate Contracts

(iii) Interest rate contracts include the following:

a. Single currency interest rate swaps
b. Basic swaps
c. Forward rate agreements
d. Interest rate futures
e. Interest rate options purchased
f. Other contracts of a similar nature

(iv) As in the case of other off-Balance Sheet items, a two stage calculation prescribed below shall be applied:

(a) Step 1 - The notional principal amount of each instrument is multiplied by the percentages given below:

Original Maturity	**Conversion Factor**
Less than one year	0.5%
One year and less than two years	1.0%
For each additional year	1.0%

Annexure - II

Extracts from RBI circular No. RBI/2015-16/45 dated the July 1, 2015, on 'Exposure Norms and Statutory / Other Restrictions'

As a prudential measure aimed at better risk management and avoidance of concentration of credit risk, the banks have been advised by RBI to fix limits on their exposure -

- to individual borrowers and group borrowers,
- to specific sectors, and
- towards unsecured advances and unsecured guarantees

In addition, these banks are also required to observe certain statutory and regulatory restrictions in respect of:

(i) advances against shares, debentures, and bonds

(ii) investments in shares, debentures, and bonds

Currently operative instructions on all these aspects are:

Exposure Ceiling to Individual / Group Borrowers

(i) the exposure to an individual borrower does not exceed 15 per cent of Tier – 1 capital, and

(ii) the exposure to a group of borrowers does not exceed 25 per cent of Tier – 1 capital.

The exercise of computing the exposure ceilings may be conducted every year after the finalisation and audit of balance sheet of the bank and the exposure ceilings may be advised to the loan sanctioning authorities and the investment department in the bank.

(Tier-I capital as on March 31 of the preceding financial year shall be reckoned for the purpose of fixing the exposure limits. Tier-I capital for the purpose will be the same as that prescribed for computation of capital adequacy.)

Credit Exposure

(i) Credit exposure **shall include** -

(a) **funded** and **non-funded** credit limits and **underwriting** and similar commitments,

(b) facilities extended by way of equipment leasing and hire purchase financing, and

(c) ad hoc limits sanctioned to the borrowers to meet the contingencies.

(ii) **Credit exposure shall not include** loans and advances granted against the security of bank's own term deposits.

(iii) **The sanctioned limit or outstanding** whichever is higher shall be reckoned for arriving at credit exposure limit. Further, in case of fully drawn term loans, where there is no scope of re-drawal of any portion of the sanctioned limit, banks may reckon the outstanding for arriving at credit exposure limit.

(iv) **In respect of non-funded credit limit**, 100% of such limit or outstanding, whichever is higher, need be considered for the purpose.

(v) **Consortium / Multiple Banking / Syndication** - the level of individual bank's share shall be governed by single borrower / group exposure.

Exposure to Housing, Real Estate and Commercial Real Estate

The bank should frame, with the approval of their Board of Directors, comprehensive prudential norms relating to the ceiling on the total amount of real estate loans, keeping in view the Reserve Bank of India guidelines to ensure that bank credit is used for construction activity and not for activity connected with speculation in real estate subject to the following:

1. The exposure of bank to housing (including individual loans for house repairs, additions, and alteration), real estate and commercial real estate loans (including Commercial Real Estate –Residential Housing) would be limited to 10 per cent of their total assets.

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2. The above ceiling of 10 per cent of total assets can be exceeded by an additional limit of 5 per cent of total assets for the purpose of grant of housing loans to individuals for purchase or construction of dwelling units costing up to ₹25 lakh.

Note:

- The total assets may be reckoned based on the audited balance sheet as on March 31 of the preceding financial year. For reckoning total assets, losses, intangible assets, contra items like bills receivables etc. would be excluded.
- Working capital loans given by the bank against hypothecation of construction materials provided to the contractors who undertake comparatively small construction on their own without receiving advance payments is exempted from the prescribed limit.

Tenor-wise exposure limits for different types of funded facilities

For Asset-Liability Management, the maturity period of Term Loan will be defined on remaining of loan tenure as under:

Advances with a maturity of less than 3 years as short Term Loan, 3 years and up to 7 years as Medium Term Loan and Loans with maturity period above 7 years as Long Term Loan.

The Long Term Loan and financing of infrastructure projects may lead to Asset Liability Mismatches, particularly when such financing is not in conformity with the maturity profile of the bank's liabilities. Therefore, before financing, asset-liability position of bank should be examined so that Bank does not run into liquidity mismatches on account of lending to such projects.

For Asset-Liability Management, the maturity period of Term Loan will be defined on remaining of loan tenure as under:

Advances with a maturity of less than 3 years	Short Term Loan
Maturity period of 3 years and up to 7 years	Medium Term Loan
Loans with maturity period above 7 years	Long Term Loan

Bank may delegate sanctioning powers for sanctioning term loans of at various maturities:

Repayment period including moratorium	Sanctioning Authority
Up to 07 years	Respective sanctioning authority up to Regional Office level
Above 7 Years	Head Office

Inter-bank Exposure Limit

The total amount of deposits placed by the bank with other banks (inter-bank) for all purposes including call money / notice money, and deposits, if any, placed for availing clearing facility, CSGL facility, currency chest facility, remittance facility and non-fund based facilities like Bank Guarantee (BG), Letter of Credit (LC), etc **shall not exceed 20% of its total deposit liabilities** as on March 31 of the previous year.

Note: The balances held in deposit accounts with commercial banks and in permitted scheduled Cooperative Banks and investments in Certificate of Deposits issued by commercial banks, being inter -bank exposures, will be included in this 20% limit.

Prudential Inter-bank Counter Party Limit

Within the prudential inter-bank (gross) exposure limit, deposits with any single bank **should not exceed 5% of the depositing bank's total deposit liabilities** as on March 31 of the previous year.

Exposure in Non-SLR investment

Investments in non-SLR securities should be limited to **10% of a bank's total deposits** as on March 31 of the previous year.

b) Investments in unlisted securities **should not exceed 10% of the total non-SLR investments at any time.** Where banks have already exceeded the said limit, no incremental investment in such securities will be permitted.

Note: All investments as above will be subject to the prescribed prudential individual / group exposure limits.

Unsecured advances

Ceiling on Unsecured Advances (with Surety & without Surety)

3.1 The limits on unsecured advances (with or without surety) are as under:

Limits for Individual Borrower and Group Borrower				
Criteria	**UCBs with DTL up to ₹ 10 Crore**	**UCBs with DTL above ₹ 10 crore & up to ₹ 50 Crore**	**UCBs with DTL above ₹ 50 Crore & up to ₹ 100 Crore**	**UCBs with DTL above ₹ 100 Crore**
UCBs having CRAR equal to or more than 9%	₹ 1.00 lakh	₹ 2.00 lakh	₹ 3.00 lakh	₹ 5.00 lakh
UCBs having CRAR less than 9%	₹ 0.25 lakh	₹ 0.50 lakh	₹ 1.00 lakh	₹ 2.00 lakh

Aggregate Ceiling on Unsecured Advances

The total unsecured loans and advances (with surety or without surety or for cheque purchase) granted by the bank to its members **should not exceed 10 per cent of its total assets** as per the audited balance-sheet as on 31 March of the preceding financial year.

Investment Exposure (Non SLR)

Banks are allowed to invest in 'A' or equivalent and higher rated Commercial Papers (CPs), debentures, and bonds that are redeemable in nature. Investments in perpetual debt instruments are, however, not permitted. Banks are also allowed to invest in Units of Debt Mutual Funds and Money Market Mutual Funds.

Annexure – III

Excerpts from RBI Guidance Note _ Credit Risk _ October_ 2002

New Capital Accord: Implications for Credit Risk Management

10.1 The Basel Committee on Banking Supervision had released in June 1999 the first Consultative Paper on a New Capital Adequacy Framework with the intention of replacing the current broad-brush 1988 Accord. The Basel Committee has released a Second Consultative Document in January 2001, which contains refined proposals for the three pillars of the New Accord – Minimum Capital Requirements, Supervisory Review and Market Discipline.

10.2 The Committee proposes two approaches, viz., Standardised and Internal Rating Based (IRB) for estimating regulatory capital. Under the standardised approach, the Committee desires neither to produce a net increase nor a net decrease, on an average, in minimum regulatory capital, even after accounting for operational risk. Under the IRB approach, the Committee's ultimate goals are to ensure that the overall level of regulatory capital is sufficient to address the underlying credit risks and also provides capital incentives relative to the standardised approach, i.e., a reduction in the risk weighted assets of 2% to 3% (foundation IRB approach) and 90% of the capital requirement under foundation approach for advanced IRB approach to encourage banks to adopt IRB approach for providing capital.

10.3 The minimum capital adequacy ratio would continue to be 8% of the risk-weighted assets, which cover capital requirements for market (trading book), credit and operational risks. For credit risk, the range of options to estimate capital extends to include a standardised, a foundation IRB and an advanced IRB approaches.

10.4.1 Standardised Approach

Under the standardised approach, preferential risk weights in the range of 0%, 20%, 50%, 100% and 150% would be assigned on the basis of ratings given by external credit assessment institutions.

Orientation of the IRB Approach

Banks' internal measures of credit risk are based on assessments of the risk characteristics of both the borrower and the specific type of transaction. The probability of default (PD) of a borrower or group of borrowers is the central measurable concept on which the IRB approach is built. The PD of a borrower does not, however, provide the complete picture of the potential credit loss. Banks should

also seek to measure how much they will lose should a borrower default on an obligation. This is contingent upon two elements. First, the magnitude of likely loss on the exposure: this is termed the Loss Given Default (LGD), and is expressed as a percentage of the exposure. Secondly, the loss is contingent upon the amount to which the bank was exposed to the borrower at the time of default, commonly expressed as Exposure at Default (EAD). These three components (PD, LGD, EAD) combine to provide a measure of expected intrinsic, or economic, loss. The IRB approach also takes into account the maturity (M) of exposures. Thus, the derivation of risk weights is dependent on estimates of the PD, LGD and, in some cases, M, that are attached to an exposure. These components (PD, LGD, EAD, M) form the basic inputs to the IRB approach, and consequently the capital requirements derived from it.

10.4.2 IRB Approach

The Committee proposes two approaches – foundation and advanced – as an alternative to standardised approach for assigning preferential risk weights.

Under the foundation approach, banks, which comply with certain minimum requirements viz. comprehensive credit rating system with capability to quantify Probability of Default (PD) could assign preferential risk weights, with the data on Loss Given Default (LGD) and Exposure at Default (EAD) provided by the national supervisors. In order to qualify for adopting the foundation approach, the internal credit rating system should have the following parameters/conditions:

Ø Each borrower within a portfolio must be assigned the rating before a loan is originated.

Ø Minimum of 6 to 9 borrower grades for performing loans and a minimum of 2 grades for non-performing loans.

Ø Meaningful distribution of exposure across grades and not more than 30% of the gross exposures in any one borrower grade.

Ø Each individual rating assignment must be subject to an independent review or approval by the Loan Review Department.

Ø Rating must be updated at least on annual basis.

Ø The Board of Directors must approve all material aspects of the rating and PD estimation.

Ø Internal and External audit must review annually, the banks' rating system including the quantification of internal ratings.

Ø Banks should have individual credit risk control units that are responsible for the design, implementation and performance of internal rating systems. These units should be functionally independent.

Ø Members of staff responsible for rating process should be adequately qualified and trained.

Ø Internal rating must be explicitly linked with the banks' internal assessment of capital adequacy in line with requirements of Pillar 2.

Ø Banks must have in place sound stress testing process for the assessment of capital adequacy.

Ø Banks must have a credible track record in the use of internal ratings at least for the last 3 years.

Ø Banks must have robust systems in place to evaluate the accuracy and consistency with regard to the system, processing and the estimation of PDs.

Ø Banks must disclose in greater detail the rating process, risk factors, validation etc. of the rating system.

Under the advanced approach, banks would be allowed to use their own estimates of PD, LGD and EAD, which could be validated by the supervisors. Under both the approaches,

risk weights would be expressed as a single continuous function of the PD, LGD and EAD. The IRB approach, therefore, does not rely on supervisory determined risk buckets as in the case of standardised approach. The Committee has proposed an IRB approach for retail loan portfolio, having homogenous characteristics distinct from that for the corporate portfolio. The Committee is also working towards developing an appropriate IRB approach relating to project finance.

The adoption of the New Accord, in the proposed format, requires substantial up gradation of the existing credit risk management systems.

The New Accord also provided in-built capital incentives for banks, which are equipped to adopt foundation or advanced IRB approach. Banks may, therefore, upgrade the credit risk management systems for optimising capital.

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Annexure – IV

Principles for the Management of Credit Risk

Basel Committee on Banking Supervision

Basel

September 2000

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Risk Management Group
of the Basel Committee on Banking Supervision

Chairman:
Mr Roger Cole – Federal Reserve Board, Washington, D.C.

Banque Nationale de Belgique, Brussels Ms Ann-Sophie Dupont

Commission Bancaire et Financière, Brussels Mr Jos
Meuleman Office of the Superintendent of Financial Institutions, Ottawa
Ms Aina Liepins

Commission Bancaire, Paris Mr Olivier Prato

Deutsche Bundesbank, Frankfurt am Main Ms Magdalene Heid
Bundesaufsichtsamt für das Kreditwesen, Berlin Mr Uwe Neumann
Banca d'Italia, Rome Mr Sebastiano
Laviola
Bank of Japan, Tokyo Mr Toshihiko Mori

Financial Services Agency, Tokyo Mr Takushi
Fujimoto Mr
Satoshi Morinaga

Commission de Surveillance du Secteur Financier,Luxembourg Mr Davy Reinard

De Nederlandsche Bank, Amsterdam Mr Klaas Knot

Finansinspektionen, Stockholm Mr Jan Hedquist

Sveriges Riksbank, Stockholm Ms Camilla Ferenius

Eidgenössiche Bankenkommission, Bern Mr Martin Sprenger

Financial Services Authority, London Mr Jeremy Quick
Mr Michael Stephenson

Bank of England, London Ms Alison
EmblowFederal Deposit Insurance Corporation, Washington, D.C. Mr

Mark Schmidt Federal Reserve Bank of New York Mr Stefan Walter
Federal Reserve Board, Washington, D.C. Mr David
Elkes Office of the Comptroller of the Currency, Washington, D.C. Mr
Kevin Bailey

European Central Bank, Frankfurt am Main Mr Panagiotis Strouzas

European Commission, Brussels Mr Michel Martino

Secretariat of the Basel Committee on Banking Supervision,Bank for International Settlements Mr Ralph Nash
Mr Guillermo RodriguezGarcia

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Principles for the Management of Credit Risk

I. Introduction

1. While financial institutions have faced difficulties over the years for a multitude of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers and counterparties, poor portfolio risk management, or a lack of attention to changes in economic or other circumstances that can lead to a deterioration in the credit standing of a bank's counterparties. This experience is common in both G-10 and non-G-10 countries.

2. Credit risk is most simply defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximise a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks should also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organisation.

3. For most banks, loans are the largest and most obvious source of credit risk; however, other sources of credit risk exist throughout the activities of a bank, including in the banking book and in the trading book, and both on and off the balance sheet. Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions.

4. Since exposure to credit risk continues to be the leading source of problems in banks world-wide, banks and their supervisors should be able to draw useful lessons from past experiences. Banks should now have a keen

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awareness of the need to identify, measure, monitor and control credit risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred. The Basel Committee is issuing this document in order to encourage banking supervisors globally to promote sound practices for managing credit risk. Although the principles contained in this paper are most clearly applicable to the business of lending, they should be applied to all activities where credit risk is present.

5. The sound practices set out in this document specifically address the following areas:

(i) establishing an appropriate credit risk environment; (ii) operating under a sound credit- granting process; (iii) maintaining an appropriate credit administration, measurement and monitoring process; and (iv) ensuring adequate controls over credit risk. Although specific credit risk management practices may differ among banks depending upon the nature and complexity of their credit activities, a comprehensive credit risk management program will address these four areas. These practices should also be applied in conjunction with sound practices related to the assessment of asset quality, the adequacy of provisions and reserves, and the disclosure of credit risk, all of which have been addressed in other recent BaselCommittee documents.[1]

6. While the exact approach chosen by individual supervisors will depend on a host of factors, including their on-site and off-site supervisory techniques and the degree to which external auditors are also used in the supervisory function, **all members of the Basel Committee agree that the principles set out in this paper should be used in evaluating a bank's credit risk management system**. Supervisory expectations for the credit risk management approach used by individual banks should be commensurate with the scope and sophistication of the bank's activities. For smaller or less sophisticated banks, supervisors need to determine that the credit risk management approach used is sufficient for their activities and that they have instilled sufficient risk-return discipline in their credit risk management processes. The Committee stipulates in Sections II to VI of the paper, principles for banking supervisory authorities to apply in assessing bank's credit risk management systems. In addition, the appendix provides an overview of credit

problems commonly seen by supervisors.

7. A further particular instance of credit risk relates to the process of settling financial transactions. If one side of a transaction is settled but the other fails, a loss may be incurred that is equal to the principal amount of the transaction. Even if one party is simply late in settling, then the other party may incur a loss relating to missed investment opportunities. Settlement risk (i.e. the risk that the completion or settlement of a financial transaction will fail to take place as expected) thus includes elements of liquidity, market, operational and reputational risk as well as credit risk. The level of risk is determined by the particular arrangements for settlement. Factors in such arrangements that have a bearing on credit risk include: the timing of the exchange of value; payment/settlement finality; and the role of intermediaries and clearing houses.[2]

8. This paper was originally published for consultation in July 1999. The Committee is grateful to the central banks, supervisory authorities, banking associations, and institutions that provided comments. These comments have informed the production of this final version of the paper.

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[1] See in particular *Sound Practices for Loan Accounting and Disclosure* (July 1999) and *Best Practices for Credit Risk Disclosure* (September 2000).

[2] See in particular *Supervisory Guidance for Managing Settlement Risk in Foreign Exchange Transactions* (September 2000), in which the annotated bibliography (annex 3) provides a list of publications related to various settlement risks.

Principles for the Assessment of Banks' Management of Credit Risk

A. Establishing an appropriate credit risk environment

Principle 1: The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

Principle 2: Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Such policies and procedures should address credit risk in all of the bank's activities and at both the individual credit and portfolio levels.

Principle 3: Banks should identify and manage credit risk inherent in all products and activities. Banks should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken, and approved in advance by the board of directors or its appropriate committee.

B. Operating under a sound credit granting process

Principle 4: Banks must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the bank's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

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Principle 5: Banks should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

Principle 6: Banks should have a clearly-established process in place for approving new credits as well as the amendment, renewal and re-financing of existing credits.

Principle 7: All extensions of credit must be made on an arm's-length basis. In particular, credits to related companies and individuals must be authorized on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks of non-arm's length lending.

C. Maintaining an appropriate credit administration, measurement andmonitoring process

Principle 8: Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolios.

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Principle 9: Banks must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves.

Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size andcomplexity of a bank's activities.

Principle 11: Banks must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of any concentrations of risk.

Principle 12: Banks must have in place a system for monitoring the overall composition and quality of the credit portfolio.

Principle 13: Banks should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions.

D. Ensuring adequate controls over credit risk

Principle 14: Banks must establish a system of independent, ongoing assessment of the bank's credit risk management processes and the results of such reviews should be communicated directly to the board of directors and senior management.

Principle 15: Banks must ensure that the credit-granting function is being properly managed and that credit exposures are within levels consistent with prudential standards and internal limits. Banks should establish and enforce internal controls and other practices to ensure that

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exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action.

Principle 16: Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations.

E. The role of supervisors

Principle 17: Supervisors should require that banks have an effective system in place to identify measure, monitor and control credit risk as part of an overall approach to risk management. Supervisors should conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the granting of credit and the ongoing management of the portfolio. Supervisors should consider setting prudential limits to restrict bank exposures to single borrowers or groups of connected counterparties.

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II. Establishing an Appropriate Credit Risk Environment

Principle 1: The board of directors should have responsibility for approving and periodically (at least annually) reviewing the credit risk strategy and significant credit risk policies of the bank. The strategy should reflect the bank's tolerance for risk and the level of profitability the bank expects to achieve for incurring various credit risks.

9. As with all other areas of a bank's activities, the board of directors[3] has a critical role to play in overseeing the credit-granting and credit risk management functions of the bank. Each bank should develop a credit risk strategy or plan that establishes the objectives guiding the bank's credit-granting activities and adopt the necessary policies and procedures for conducting such activities. The credit risk strategy, as well as significant credit risk policies, should be approved and periodically (at least annually) reviewed by the board of directors. The board needs to recognise that the strategy and policies must cover the many activities of the bank in which credit exposure is a significant risk.

10. The strategy should include a statement of the bank's willingness to grant credit based on exposure type (for example, commercial, consumer, real estate), economic sector, geographical location, currency, maturity and anticipated profitability. This might also include the identification of target markets and the overall characteristics that the bank would want to achieve in its credit portfolio (including levels of diversification and concentration tolerances).

11. The credit risk strategy should give recognition to the goals of credit quality, earnings and growth. Every bank, regardless of size, is in business to be profitable and, consequently, must determine the acceptable risk/reward trade-off for its activities, factoringin the cost of capital. A bank's board of directors should approve the bank's strategy for selecting risks and maximising profits. The board should periodically review the financial results of the bank and, based on these results, determine if changes need to be made to the strategy. The board must also determine that the bank's capital level is adequate for the risks assumed throughout the entire organisation.

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12. The credit risk strategy of any bank should provide continuity in approach. Therefore, the strategy will need to take into account the cyclical aspects of any economy and the resulting shifts in the composition and quality of the overall credit portfolio. Although the strategy should be periodically assessed and amended, it should be viable in the long-run and through various economic cycles.

13. The credit risk strategy and policies should be effectively communicated throughout the banking organisation. All relevant personnel should clearly understand the bank's approach to granting and managing credit and should be held accountable for complying with established policies and procedures.

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[3] This paper refers to a management structure composed of a board of directors and senior management. The Committee is aware that there are significant differences in legislative and regulatory frameworks across countries as regards the functions of the board of directors and senior management. In some countries, the board has the main, if not exclusive, function of supervising the executive body (senior management, general management) so as to ensure that the latter fulfils its tasks. For this reason, in some cases, it is known as a supervisory board. This means that the board has no executive functions. In other countries, by contrast, the board has a broader competence in that it lays down the general framework for the management of the bank. Owing to these differences, the notions of the board of directors and senior management are used in this paper not to identify legal constructs but rather to label two decision-making functions within a bank.

14. The board should ensure that senior management is fully capable of managing the credit activities conducted by the bank and that such activities are done within the risk strategy, policies and tolerances approved by the board. The board should also regularly (i.e. at least annually), either within the credit risk strategy or within a statement of credit policy, approve the bank's overall credit granting criteria (including general terms and conditions). In addition, it should approve the manner in which the bank will organise its credit-granting functions, including independent

review of the credit granting and management function and the overall portfolio.

15. While members of the board of directors, particularly outside directors, can be important sources of new business for the bank, once a potential credit is introduced, the bank's established processes should determine how much and at what terms credit is granted. In order to avoid conflicts of interest, it is important that board members not override the credit-granting and monitoring processes of the bank.

16. The board of directors should ensure that the bank's remuneration policies do not contradict its credit risk strategy. Remuneration policies that reward unacceptable behaviour such as generating short-term profits while deviating from credit policies or exceeding established limits weaken the bank's credit processes.

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Principle 2: Senior management should have responsibility for implementing the credit risk strategy approved by the board of directors and for developing policies and procedures for identifying, measuring, monitoring and controlling credit risk. Suchpolicies and procedures should address credit risk in all of the bank's activities and at both the individual credit and portfolio levels.

17. Senior management of a bank is responsible for implementing the credit risk strategy approved by the board of directors. This includes ensuring that the bank's credit-granting activities conform to the established strategy, that written procedures are developed and implemented, and that loan approval and review responsibilities are clearly and properly assigned. Senior management must also ensure that there is a periodic independent internal assessment of the bank's credit-granting and management functions.[4]

18. A cornerstone of safe and sound banking is the design and implementation of written policies and procedures related to identifying, measuring, monitoring and controlling credit risk. Credit policies establish the framework for lending and guide the credit-granting activities of the bank. Credit policies should address such topics as target markets, portfolio mix, price and non-price terms, the structure of limits, approval authorities, exception procesing/reporting, etc. Such policies should be clearly defined, consistent with prudent banking practices and relevant regulatory requirements, and adequate for the nature and complexity of the bank's activities. The policies should be designed and implemented within the context of internal and external factors such as the bank's market position, trade area, staff capabilities and technology. Policies and procedures that are properly developed and implemented enable the bank to: (i) maintain sound credit-granting standards; (ii) monitor and control credit risk; (iii) properly evaluate new business opportunities; and (iv) identify and administer problem credits.

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[4] This may be difficult for very small banks; however, there should be adequate checks and balances in place to promote sound credit decisions.

19. As discussed further in paragraphs 30 and 37 through 41 below, banks should develop and implement policies and procedures to ensure that the credit portfolio is adequately diversified given the bank's target markets and overall credit strategy. In particular, such policies should establish targets for portfolio mix as well as set exposure limits on single counterparties and groups of connected counterparties, particular industries or economic sectors, geographic regions and specific products. Banks should ensure that their own internal exposure limits comply with any prudential limits or restrictions set by the banking supervisors.

20. In order to be effective, credit policies must be communicated throughout the organisation, implemented through appropriate procedures, monitored and periodically revised to take into account changing internal and external circumstances. They should be applied, where appropriate, on a consolidated bank basis and at the level of individualaffiliates. In addition, the policies should address equally the important functions of reviewing credits on an individual basis and ensuring appropriate diversification at the portfolio level.

21. When banks engage in granting credit internationally, they undertake, in addition to standard credit risk, risk associated with conditions in the home country of a foreign borrower or counterparty. Country or sovereign risk encompasses the entire spectrum of risks arising from the economic, political and social environments of a foreign country that may have potential consequences for foreigners' debt and equity investments in that country. Transfer risk focuses more specifically on a borrower's capacity to obtain the foreign exchange necessary to service its cross-border debt and other contractual obligations. In all instances of international transactions, banks need to understand the globalisation of financial markets and the potential for spill over effects from one country to another or contagion effects for an entire region.

22. Banks that engage in granting credit internationally must therefore have adequate policies and procedures for identifying, measuring, monitoring and controlling country risk and transfer risk in their international lending and investment activities. The monitoring of country risk factors should incorporate (i)

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the potential default of foreign private sector counterparties arising from country-specific economic factors and (ii) the enforceability of loan agreements and the timing and ability to realise collateral under the national legal framework. This function is often the responsibility of a specialist team familiar with the particular issues.

Principle 3: Banks should identify and manage credit risk inherent in all products and activities. Banks should ensure that the risks of products and activities new to them are subject to adequate risk management procedures and controls before being introduced or undertaken and approved in advance by the board of directors or its appropriate committee.

23. The basis for an effective credit risk management process is the identification and analysis of existing and potential risks inherent in any product or activity. Consequently, it is important that banks identify all credit risk inherent in the products they offer and the activities in which they engage. Such identification stems from a careful review of the existing and potential credit risk characteristics of the product or activity.

24. Banks must develop a clear understanding of the credit risks involved in more complex credit-granting activities (for example, loans to certain industry sectors, asset securitisation, customer-written options, credit derivatives, credit-linked notes). This is particularly important because the credit risk involved, while not new to banking, may be less obvious and require more analysis than the risk of more traditional credit-granting activities. Although more complex credit-granting activities may require tailored procedures and controls, the basic principles of credit risk management will still apply.

25. New ventures require significant planning and careful oversight to ensure the risksare appropriately identified and managed. Banks should ensure that the risks of new products and activities are subject to adequate procedures and controls before being introduced or undertaken. Any major new activity should be approved in advance by the board of directors or its appropriate delegated committee.

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26. It is critical that senior management determine that the staff involved in any activity where there is borrower or counterparty credit risk, whether established or new, basic or more complex, be fully capable of conducting the activity to the highest standards and in compliance with the bank's policies and procedures.

III. Operating under a Sound Credit Granting Process

Principle 4: Banks must operate within sound, well-defined credit-granting criteria. These criteria should include a clear indication of the bank's target market and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

27. Establishing sound, well-defined credit-granting criteria is essential to approving credit in a safe and sound manner. The criteria should set out who is eligible for credit and for how much, what types of credit are available, and under what terms and conditions the credits should be granted.

28. Banks must receive sufficient information to enable a comprehensive assessment of the true risk profile of the borrower or counterparty. Depending on the type of credit exposureand the nature of the credit relationship to date, the factors to be considered and documented in approving credits include:

- the purpose of the credit and sources of repayment;
- the current risk profile (including the nature and aggregate amounts of risks) of the borrower or counterparty and collateral and its sensitivity to economic and market developments;
- the borrower's repayment history and current capacity to repay, based on historical financial trends and future cash flow projections, under various scenarios;

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- for commercial credits, the borrower's business expertise and the status of theborrower's economic sector and its position within that sector;

- the proposed terms and conditions of the credit, including covenants designed tolimit changes in the future risk profile of the borrower; and

- where applicable, the adequacy and enforceability of collateral or guarantees, including under various scenarios.

In addition, in approving borrowers or counterparties for the first time, consideration should be given to the integrity and reputation of the borrower or counterparty as well as their legal capacity to assume the liability. Once credit-granting criteria have been established, it is essential for the bank to ensure that the information it receives is sufficient to make proper credit-granting decisions. This information will also serve as the basis for rating the credit under the bank's internal rating system.

29. Banks need to understand to whom they are granting credit. Therefore, prior to entering into any new credit relationship, a bank must become familiar with the borrower or counterparty and be confident that they are dealing with an individual or organisation ofsound repute and creditworthiness. In particular, strict policies must be in place to avoid association with individuals involved in fraudulent activities and other crimes. This can be achieved through a number of ways, including asking for references from known parties, accessing credit registries, and becoming familiar with individuals responsible for managing a company and checking their personal references and financial condition. However, a bank should not grant credit simply because the borrower or counterparty is familiar to the bank or is perceived to be highly reputable.

30. Banks should have procedures to identify situations where, in considering credits, it is appropriate to classify a group of obligors as connected counterparties and, thus, as a single obligor. This would include aggregating exposures to groups of accounts exhibiting financial interdependence, including corporate or non-corporate, where they are under common ownership or control or with strong

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connecting links (for example, common management, familial ties).[5] Banks should also have procedures for aggregating exposures to individual clients across business activities.

31. Many banks participate in loan syndications or other such loan consortia. Some institutions place undue reliance on the credit risk analysis done by the lead underwriter or on external commercial loan credit ratings. All syndicate participants should perform their own due diligence, including independent credit risk analysis and review of syndicate terms prior to committing to the syndication. Each bank should analyse the risk and return on syndicated loans in the same manner as directly sourced loans.

32. Granting credit involves accepting risks as well as producing profits. Banks should assess the risk/reward relationship in any credit as well as the overall profitability of the

[5] Connected counterparties may be a group of companies related financially or by common ownership, management, research and development, marketing or any combination thereof. Identification of connected counterparties requires a careful analysis of the impact of these factors on the financial interdependency of the parties involved.

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account relationship. In evaluating whether, and on what terms, to grant credit, banks need to assess the risks against expected return, factoring in, to the greatest extent possible, price and non-price (e.g., collateral, restrictive covenants, etc.) terms. In evaluating risk, banks should also assess likely downside scenarios and their possible impact on borrowers or counterparties. A common problem among banks is the tendency not to price a credit or overall relationship properly and therefore not receive adequate compensation for the risks incurred.

33. In considering potential credits, banks must recognise the necessity of establishing provisions for identified and expected losses and holding adequate capital to absorb unexpected losses. The bank should factor these considerations into credit-granting decisions, as well as into the overall portfolio risk management process.[6]

34. Banks can utilise transaction structure, collateral and guarantees to help mitigate risks (both identified and inherent) in individual credits but transactions should be entered into primarily on the strength of the borrower's repayment capacity. Collateral cannot be a substitute for a comprehensive assessment of the borrower or counterparty, nor can it compensate for insufficient information. It should be recognised that any credit enforcement actions (e.g. foreclosure proceedings) can eliminate the profit margin on the transaction. In addition, banks need to be mindful that the value of collateral may well be impaired by the same factors that have led to the diminished recoverability of the credit. Banks should have policies covering the acceptability of various forms of collateral, procedures for the ongoing valuation of such collateral, and a process to ensure that collateral is, and continues to be, enforceable and realisable. With regard to guarantees, banks should evaluate the level of coverage being provided in relation to the credit-quality and legal capacity of the guarantor. Banks should be careful when making assumptions about implied support from third parties such as the government.

35. Netting agreements are an important way to reduce credit risks, especially in interbank transactions. In order to actually reduce risk, such agreements need to be sound and legally enforceable.[7]

36. Where actual or potential conflicts of interest exist within the bank, internal

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confidentiality arrangements (e.g. “Chinese walls”) should be established to ensure that there is no hindrance to the bank obtaining all relevant information from the borrower.

Principle 5: Banks should establish overall credit limits at the level of individual borrowers and counterparties, and groups of connected counterparties that aggregate in a comparable and meaningful manner different types of exposures, both in the banking and trading book and on and off the balance sheet.

37. An important element of credit risk management is the establishment of exposure limits on single counterparties and groups of connected counterparties. Such limits are frequently based in part on the internal risk rating assigned to the borrower or counterparty, with counterparties assigned better risk ratings having potentially higher exposure limits. Limits should also be established for particular industries or economic sectors, geographic regions and specific products.

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[6] Guidance on loan classification and provisioning is available in the document *Sound Practices for Loan Accounting andDisclosure* (July 1999).

[7] Guidance on netting arrangements is available in the document *Consultative paper on on-balance sheet netting* (April1998).

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38. Exposure limits are needed in all areas of the bank's activities that involve credit risk. These limits help to ensure that the bank's credit-granting activities are adequately diversified. As mentioned earlier, much of the credit exposure faced by some banks comes from activities and instruments in the trading book and off the balance sheet. Limits on such transactions are particularly effective in managing the overall credit risk profile or counterparty risk of a bank. In order to be effective, limits should generally be binding and not driven by customer demand.

39. Effective measures of potential future exposure are essential for the establishment of meaningful limits, placing an upper bound on the overall scale of activity with, and exposure to, a given counterparty, based on a comparable measure of exposure across a bank's various activities (both on and off-balance-sheet).

40. Banks should consider the results of stress testing in the overall limit setting and monitoring process. Such stress testing should take into consideration economic cycles, interest rate and other market movements, and liquidity conditions.

41. Bank's credit limits should recognise and reflect the risks associated with the near- term liquidation of positions in the event of counterparty default.[8] Where a bank has several transactions with a counterparty, its potential exposure to that counterparty is likely to vary significantly and discontinuously over the maturity over which it is calculated. Potential future exposures should therefore be calculated over multiple time horizons. Limits should also factor in any unsecured exposure in a liquidation scenario.

Principle 6: Banks should have a clearly-established process in place for approving new credits as well as the amendment, renewal and re-financing of existing credits.

42. Many individuals within a bank are involved in the credit-granting process. These include individuals from the business origination function, the credit analysis function and thecredit approval function. In addition, the same counterparty may be approaching several different areas of the bank for various forms of credit. Banks

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may choose to assign responsibilities in different ways; however, it is important that the credit granting process coordinate the efforts of all of the various individuals in order to ensure that sound credit decisions are made.

43. In order to maintain a sound credit portfolio, a bank must have an established formal transaction evaluation and approval process for the granting of credits. Approvals should be made in accordance with the bank's written guidelines and granted by the appropriate level of management. There should be a clear audit trail documenting that the approval process was complied with and identifying the individual(s) and/or committee(s) providing input as well as making the credit decision. Banks often benefit from the establishment of specialist credit groups to analyse and approve credits related to significant product lines, types of credit facilities and industrial and geographic sectors. Banks should invest in adequate credit decision resources so that they are able to make sound credit decisions consistent with their credit strategy and meet competitive time, pricing and structuring pressures.

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[8] Guidance is available in the documents *Banks' Interactions with Highly Leveraged Institutions* and *Sound Practices for Banks' Interactions with Highly Leveraged Institutions* (January 1999).

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44. Each credit proposal should be subject to careful analysis by a qualified credit analyst with expertise commensurate with the size and complexity of the transaction. An effective evaluation process establishes minimum requirements for the information on which the analysis is to be based. There should be policies in place regarding the information and documentation needed to approve new credits, renew existing credits and/or change the terms and conditions of previously approved credits. The information received will be the basis for any internal evaluation or rating assigned to the credit and its accuracy and adequacy is critical to management making appropriate judgements about the acceptability of the credit.

45. Banks must develop a corps of credit risk officers who have the experience, knowledge and background to exercise prudent judgement in assessing, approving and managing credit risks. A bank's credit-granting approval process should establish accountability for decisions taken and designate who has the absolute authority to approve credits or changes in credit terms. Banks typically utilise a combination of individual signature authority, dual or joint authorities, and a credit approval group or committee,depending upon the size and nature of the credit. Approval authorities should be commensurate with the expertise of the individuals involved.

Principle 7: All extensions of credit must be made on an arm's-length basis. In particular, credits to related companies and individuals must be authorised on an exception basis, monitored with particular care and other appropriate steps taken to control or mitigate the risks of non-arm's length lending.

46. Extensions of credit should be made subject to the criteria and processes described above. These create a system of checks and balances that promote sound credit decisions. Therefore, directors, senior management and other influential parties (e.g. shareholders) should not seek to override the established credit-granting and monitoring processes of the bank.

47. A potential area of abuse arises from granting credit to non-arms-length and related parties, whether companies or individuals.[9] Consequently, it is important that banks grant credit to such parties on an arm's-length basis and that the amount of credit granted is suitably monitored. Such controls are most easily implemented by requiring that the terms and conditions of such credits not be more favourable than

credit granted to non-related borrowersunder similar circumstances and by imposing strict absolute limits on such credits. Another possible method of control is the public disclosure of the terms of credits granted to related

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[9] Related parties can include the bank's subsidiaries and affiliates, its major shareholders, directors and senior management, and their direct and related interests, as well as any party that the bank exerts control over or that exerts control over the bank.

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parties. The bank's credit-granting criteria should not be altered to accommodate relatedcompanies and individuals.

48. Material transactions with related parties should be subject to the approval of the board of directors (excluding board members with conflicts of interest), and in certain circumstances (e.g. a large loan to a major shareholder) reported to the banking supervisory authorities.

IV. Maintaining an Appropriate Credit Administration, Measurement and Monitoring Process

Principle 8: Banks should have in place a system for the ongoing administration of their various credit risk-bearing portfolios.

49. Credit administration is a critical element in maintaining the safety and soundness of a bank. Once a credit is granted, it is the responsibility of the business unit, often in conjunction with a credit administration support team, to ensure that the credit is properly maintained. This includes keeping the credit file up to date, obtaining current financial information, sending out renewal notices and preparing various documents such as loan agreements.

50. Given the wide range of responsibilities of the credit administration function, its organisational structure varies with the size and sophistication of the bank. In larger banks, responsibilities for the various components of credit administration are usually assigned to different departments. In smaller banks, a few individuals might handle several of the functional areas. Where individuals perform such sensitive functions as custody of key documents, wiring out funds, or entering limits into the computer database, they should reportto managers who are independent of the business origination and credit approval processes.

51. In developing their credit administration areas, banks should ensure:

- the efficiency and effectiveness of credit administration operations,

includingmonitoring documentation, contractual requirements, legal covenants, collateral, etc.;

- the accuracy and timeliness of information provided to management informationsystems;
- adequate segregation of duties;
- the adequacy of controls over all "back office" procedures; and
- compliance with prescribed management policies and procedures as well as applicable laws and regulations.

52. For the various components of credit administration to function appropriately, senior management must understand and demonstrate that it recognises the importance of this element of monitoring and controlling credit risk.

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53. The credit files should include all of the information necessary to ascertain the current financial condition of the borrower or counterparty as well as sufficient information totrack the decisions made and the history of the credit. For example, the credit files should include current financial statements, financial analyses and internal rating documentation, internal memoranda, reference letters, and appraisals. The loan review function should determine that the credit files are complete and that all loan approvals and other necessary documents have been obtained.

Principle 9: Banks must have in place a system for monitoring the condition of individual credits, including determining the adequacy of provisions and reserves.

54. Banks need to develop and implement comprehensive procedures and information systems to monitor the condition of individual credits and single obligors across the bank's various portfolios. These procedures need to define criteria for identifying and reporting potential problem credits and other transactions to ensure that they are subject to morefrequent monitoring as well as possible corrective action, classification and/or provisioning.[10]

55. An effective credit monitoring system will include measures to:

- ensure that the bank understands the current financial condition of the borrower orcounterparty;
- monitor compliance with existing covenants;
- assess, where applicable, collateral coverage relative to the obligor's currentcondition;
- identify contractual payment delinquencies and classify potential problem credits ona timely basis; and
- direct promptly problems for remedial management.

56. Specific individuals should be responsible for monitoring credit quality, including ensuring that relevant information is passed to those responsible for

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assigning internal risk ratings to the credit. In addition, individuals should be made responsible for monitoring on an ongoing basis any underlying collateral and guarantees. Such monitoring will assist the bank in making necessary changes to contractual arrangements as well as maintaining adequate reserves for credit losses. In assigning these responsibilities, bank management should recognise the potential for conflicts of interest, especially for personnel who are judged and rewarded on such indicators as loan volume, portfolio quality or short-term profitability.

Principle 10: Banks are encouraged to develop and utilise an internal risk rating system in managing credit risk. The rating system should be consistent with the nature, size andcomplexity of a bank's activities.

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[10] See footnote 6.

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57. An important tool in monitoring the quality of individual credits, as well as the total portfolio, is the use of an internal risk rating system. A well-structured internal risk rating system is a good means of differentiating the degree of credit risk in the different credit exposures of a bank. This will allow more accurate determination of the overall characteristics of the credit portfolio, concentrations, problem credits, and the adequacy of loan loss reserves. More detailed and sophisticated internal risk rating systems, used primarily at larger banks, can also be used to determine internal capital allocation, pricing of credits, and profitability oftransactions and relationships.

58. Typically, an internal risk rating system categorises credits into various classes designed to take into account gradations in risk. Simpler systems might be based on several categories ranging from satisfactory to unsatisfactory; however, more meaningful systems will have numerous gradations for credits considered satisfactory in order to truly differentiate the relative credit risk they pose. In developing their systems, banks must decide whether to rate the riskiness of the borrower or counterparty, the risks associated with a specific transaction, or both.

59. Internal risk ratings are an important tool in monitoring and controlling credit risk. In order to facilitate early identification of changes in risk profiles, the bank's internal risk rating system should be responsive to indicators of potential or actual deterioration in credit risk. Credits with deteriorating ratings should be subject to additional oversight and monitoring, for example, through more frequent visits from credit officers and inclusion on a watch list that is regularly reviewed by senior management. The internal risk ratings can be used by line management in different departments to track the current characteristics of the credit portfolio and help determine necessary changes to the credit strategy of the bank. Consequently, it is important that the board of directors and senior management also receive periodic reports on the condition of the credit portfolios based on such ratings.

60. The ratings assigned to individual borrowers or counterparties at the time the credit is granted must be reviewed on a periodic basis and individual credits should be assigned a new rating when conditions either improve or deteriorate. Because of the importance of ensuring that internal ratings are consistent and accurately reflect

the quality of individual credits, responsibility for setting or confirming such ratings should rest with a credit review function independent of that which originated the credit concerned. It is also important that the consistency and accuracy of ratings is examined periodically by a function such as an independent credit review group.

Principle 11: Banks must have information systems and analytical techniques that enable management to measure the credit risk inherent in all on- and off-balance sheet activities. The management information system should provide adequate information on the composition of the credit portfolio, including identification of any concentrations of risk.

61. Banks should have methodologies that enable them to quantify the risk involved in exposures to individual borrowers or counterparties. Banks should also be able to analyse credit risk at the product and portfolio level in order to identify any particular sensitivities or concentrations. The measurement of credit risk should take account of (i) the specific nature of the credit (loan, derivative, facility, etc.) and its contractual and financial conditions (maturity, reference rate, etc.); (ii) the exposure profile until maturity in relation to potential market movements; (iii) the existence of collateral or guarantees; and (iv) the potential for default based on the internal risk rating. The analysis of credit risk data should be undertaken at an appropriate frequency with the results reviewed against relevant limits. Banks should use measurement techniques that are appropriate to the complexity and level of the risks involved in their activities, based on robust data, and subject to periodic validation.

62. The effectiveness of a bank's credit risk measurement process is highly dependent on the quality of management information systems. The information generated from such systems enables the board and all levels of management to fulfil their respective oversight roles, including determining the adequate level of capital that the bank should be holding. Therefore, the quality, detail and timeliness of information are critical. In particular, information on the composition and quality of the various portfolios, including on a consolidated bank basis, should permit management to assess quickly and accurately the levelof credit risk that the bank has incurred through its various activities and determine whether the bank's performance is meeting the credit risk strategy.

63. Banks should monitor actual exposures against established limits. It is important that banks have a management information system in place to ensure that exposures approaching risk limits are brought to the attention of senior management. All exposures should be included in a risk limit measurement system. The bank's information system should be able to aggregate credit exposures to individual borrowers and counterparties and report on exceptions to credit risk limits on a meaningful and timely basis.

64. Banks should have information systems in place that enable management to identify any concentrations of risk within the credit portfolio. The adequacy of scope of information should be reviewed on a periodic basis by business line managers and senior management to ensure that it is sufficient to the complexity of the business. Increasingly, banks are also designing information systems that permit additional analysis of the credit portfolio, includingstress testing.

Principle 12: Banks must have in place a system for monitoring the overall composition and quality of the credit portfolio.

65. Traditionally, banks have focused on oversight of contractual performance of individual credits in managing their overall credit risk. While this focus is important, banks also need to have in place a system for monitoring the overall composition and quality of the various credit portfolios. This system should be consistent with the nature, size and complexity of the bank's portfolios.

66. A continuing source of credit-related problems in banks is concentrations within the credit portfolio. Concentrations of risk can take many forms and can arise whenever a significant number of credits have similar risk characteristics. Concentrations occur when, among other things, a bank's portfolio contains a high level of direct or indirect credits to (i) asingle counterparty, (ii) a group of connected counterparties[11], (iii) a particular industry or economic sector, (iv) a geographic region, (v) an individual foreign country or a group of countries whose economies are strongly interrelated, (vi) a type of credit facility, or (vii) a type of collateral. Concentrations also occur in credits with the same maturity. Concentrationscan stem from more complex or subtle linkages among credits in the portfolio. The

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[11] See footnote 5.

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concentration of risk does not only apply to the granting of loans but to the whole range of banking activities that, by their nature, involve counterparty risk. A high level of concentration exposes the bank to adverse changes in the area in which the credits are concentrated.

67. In many instances, due to a bank's trade area, geographic location or lack of access to economically diverse borrowers or counterparties, avoiding or reducing concentrations maybe extremely difficult. In addition, banks may want to capitalise on their expertise in a particular industry or economic sector. A bank may also determine that it is being adequately compensated for incurring certain concentrations of risk. Consequently, banks should not necessarily forego booking sound credits solely on the basis of concentration. Banks may need to make use of alternatives to reduce or mitigate concentrations. Such measures can include pricing for the additional risk, increased holdings of capital to compensate for the additional risks and making use of loan participations in order to reduce dependency on a particular sector of the economy or group of related borrowers. Banks must be careful not to enter into transactions with borrowers or counterparties they do not know or engage in credit activities they do not fully understand simply for the sake of diversification.

68. Banks have new possibilities to manage credit concentrations and other portfolio issues. These include such mechanisms as loan sales, credit derivatives, securitisation programs and other secondary loan markets. However, mechanisms to deal with portfolio concentration issues involve risks that must also be identified and managed. Consequently, when banks decide to utilise these mechanisms, they need to first have policies and procedures, as well as adequate controls, in place.

Principle 13: Banks should take into consideration potential future changes in economic conditions when assessing individual credits and their credit portfolios, and should assess their credit risk exposures under stressful conditions.

69. An important element of sound credit risk management involves discussing what could potentially go wrong with individual credits and within the various credit portfolios,and factoring this information into the analysis of the adequacy of capital and provisions. This"what if" exercise can reveal previously undetected areas

of potential credit risk exposure for the bank. The linkages between different categories of risk that are likely to emerge in times of crisis should be fully understood. In case of adverse circumstances, there may be a substantial correlation of various risks, especially credit and market risk. Scenario analysis and stress testing are useful ways of assessing areas of potential problems.

70. Stress testing should involve identifying possible events or future changes in economic conditions that could have unfavourable effects on a bank's credit exposures and assessing the bank's ability to withstand such changes. Three areas that banks could usefully examine are: (i) economic or industry downturns; (ii) market-risk events; and (iii) liquidity conditions. Stress testing can range from relatively simple alterations in assumptions about one or more financial, structural or economic variables to the use of highly sophisticated financial models. Typically, the latter are used by large, internationally active banks.

71. Whatever the method of stress testing used, the output of the tests should be reviewed periodically by senior management and appropriate action taken in cases where the results exceed agreed tolerances. The output should also be incorporated into the process for assigning and updating policies and limits.

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72. The bank should attempt to identify the types of situations, such as economic downturns, both in the whole economy or in particular sectors, higher than expected levels of delinquencies and defaults, or the combinations of credit and market events, that could produce substantial losses or liquidity problems. Such an analysis should be done on a consolidated bank basis. Stress-test analyses should also include contingency plans regarding actions management might take given certain scenarios. These can include such techniques as hedging against the outcome or reducing the size of the exposure.

V. Ensuring Adequate Controls over Credit Risk

Principle 14: Banks must establish a system of independent, ongoing assessment of the bank's credit risk management processes and the results of such reviews should be communicated directly to the board of directors and senior management.

73. Because various appointed individuals throughout a bank have the authority to grant credit, the bank should have an efficient internal review and reporting system in order to manage effectively the bank's various portfolios. This system should provide the board of directors and senior management with sufficient information to evaluate the performance of account officers and the condition of the credit portfolio.

74. Internal credit reviews conducted by individuals independent from the business function provide an important assessment of individual credits and the overall quality of the credit portfolio. Such a credit review function can help evaluate the overall credit administration process, determine the accuracy of internal risk ratings and judge whether the account officer is properly monitoring individual credits. The credit review function should report directly to the board of directors, a committee with audit responsibilities, or senior management without lending authority (e.g., senior management within the risk control function).

Principle 15: Banks must ensure that the credit-granting function is being properly managed and that credit exposures are within levels consistent with prudential standards and internal limits. Banks should establish and enforce internal controls

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and other practices to ensure that exceptions to policies, procedures and limits are reported in a timely manner to the appropriate level of management for action.

75. The goal of credit risk management is to maintain a bank's credit risk exposurewithin parameters set by the board of directors and senior management. The establishment and enforcement of internal controls, operating limits and other practices will help ensure that credit risk exposures do not exceed levels acceptable to the individual bank. Such a system will enable bank management to monitor adherence to the established credit risk objectives.

76. Limit systems should ensure that granting of credit exceeding certain predetermined levels receive prompt management attention. An appropriate limit system should assist management in controlling credit risk exposures, initiating discussion about opportunities and risks, and monitoring actual risk taking against predetermined credit risk tolerances.

77. Internal audits of the credit risk processes should be conducted on a periodic basis to determine that credit activities are in compliance with the bank's credit policies and procedures, that credits are authorised within the guidelines established by the bank's board of

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directors and that the existence, quality and value of individual credits are accurately being reported to senior management. Such audits should also be used to identify areas of weakness in the credit risk management process, policies and procedures as well as any exceptions to policies, procedures and limits.

Principle 16: Banks must have a system in place for early remedial action on deteriorating credits, managing problem credits and similar workout situations.

78. One reason for establishing a systematic credit review process is to identify weakened or problem credits.[12] A reduction in credit quality should be recognised at an early stage when there may be more options available for improving the credit. Banks must have a disciplined and vigorous remedial management process, triggered by specific events, that is administered through the credit administration and problem recognition systems.

79. A bank's credit risk policies should clearly set out how the bank will manage problem credits. Banks differ on the methods and organisation they use to manage problem credits. Responsibility for such credits may be assigned to the originating business function, a specialised workout section, or a combination of the two, depending upon the size and nature of the credit and the reason for its problems.

80. Effective workout programs are critical to managing risk in the portfolio. When a bank has significant credit-related problems, it is important to segregate the workout function from the area that originated the credit. The additional resources, expertise and more concentrated focus of a specialised workout section normally improve collection results. A workout section can help develop an effective strategy to rehabilitate a troubled credit or to increase the amount of repayment ultimately collected. An experienced workout section can also provide valuable input into any credit restructurings organised by the business function.

VI. The Role of Supervisors

Principle 17: Supervisors should require that banks have an effective system in place to identify, measure, monitor and control credit risk as part of an overall approach to risk management. Supervisors should conduct an independent evaluation of a bank's strategies, policies, procedures and practices related to the

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granting of credit and the ongoing management of the portfolio. Supervisors should consider setting prudential limits to restrict bank exposures to single borrowers or groups of connectedcounterparties.

81. Although the board of directors and senior management bear the ultimate responsibility for an effective system of credit risk management, supervisors should, as part of their ongoing supervisory activities, assess the system in place at individual banks to identify, measure, monitor and control credit risk. This should include an assessment of any measurement tools (such as internal risk ratings and credit risk models) used by the bank. In addition, they should determine that the board of directors effectively oversees the credit risk

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[12] See footnote 6.

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management process of the bank and that management monitors risk positions, andcompliance with and appropriateness of policies.

82. To evaluate the quality of credit risk management systems, supervisors can take a number of approaches. A key element in such an evaluation is the determination by supervisors that the bank is utilising sound asset valuation procedures. Most typically, supervisors, or the external auditors on whose work they partially rely, conduct a review of the quality of a sample of individual credits. In those instances where the supervisory analysis agrees with the internal analysis conducted by the bank, a higher degree of dependence can be placed on the use of such internal reviews for assessing the overall quality of the credit portfolio and the adequacy of provisions and reserves[13]. Supervisors or external auditors should also assess the quality of a bank's own internal validation process where internal risk ratings and/or credit risk models are used. Supervisors should also review the results of any independent internal reviews of the credit-granting and credit administration functions. Supervisors should also make use of any reviews conducted by the bank's external auditors, where available.

83. Supervisors should take particular note of whether bank management recognises problem credits at an early stage and takes the appropriate actions.[14] Supervisors should monitor trends within a bank's overall credit portfolio and discuss with senior management any marked deterioration. Supervisors should also assess whether the capital of the bank, in addition to its provisions and reserves, is adequate related to the level of credit risk identified and inherent in the bank's various on- and off-balance sheet activities.

84. In reviewing the adequacy of the credit risk management process, home country supervisors should also determine that the process is effective across business lines, subsidiaries and national boundaries. It is important that supervisors evaluate the credit risk management system not only at the level of individual businesses or legal entities but also across the wide spectrum of activities and subsidiaries within the consolidated banking organisation.

85. After the credit risk management process is evaluated, the supervisors should

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address with management any weaknesses detected in the system, excess concentrations, the classification of problem credits and the estimation of any additional provisions and the effect on the bank's profitability of any suspension of interest accruals. In those instances where supervisors determine that a bank's overall credit risk management system is not adequate or effective for that bank's specific credit risk profile, they should ensure the bank takes the appropriate actions to improve promptly its credit risk management process.

86. Supervisors should consider setting prudential limits (e.g., large exposure limits) that would apply to all banks, irrespective of the quality of their credit risk management process. Such limits would include restricting bank exposures to single borrowers or groups of connected counterparties. Supervisors may also want to impose certain reporting requirementsfor credits of a particular type or exceeding certain established levels. In particular, special attention needs to be paid to credits granted to counterparties "connected" to the bank, or to each other.

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[13] The New Capital Adequacy Framework anticipates that, subject to supervisory approval, banks' internal rating methodologies may be used as a basis for regulatory capital calculation. Guidance to supervisors specific to this purpose will be published in due course.

[14] See footnote 6.

Appendix

Common Sources of Major Credit Problems

1. Most major banking problems have been either explicitly or indirectly caused by weaknesses in credit risk management. In supervisors' experience, certain key problems tend to recur. Severe credit losses in a banking system usually reflect simultaneous problems in several areas, such as concentrations, failures of due diligence and inadequate monitoring. This appendix summarises some of the most common problems related to the broad areas of concentrations, credit processing, and market- and liquidity-sensitive credit exposures.

Concentrations

2. Concentrations are probably the single most important cause of major credit problems. Credit concentrations are viewed as any exposure where the potential losses are large relative to the bank's capital, its total assets or, where adequate measures exist, the bank's overall risk level. Relatively large losses[15] may reflect not only **large exposures**, but also the potential for **unusually high percentage losses given default**.

3. Credit concentrations can further be grouped roughly into two categories:

- **Conventional credit concentrations** would include concentrations of credits to single borrowers or counterparties, a group of connected counterparties, and sectors or industries, such as commercial real estate, and oil and gas.

- **Concentrations based on common or correlated risk factors** reflect subtler or more situation-specific factors, and often can only be uncovered through analysis. Disturbances in Asia and Russia in late 1998 illustrate how close linkages among emerging markets under stress conditions and previously undetected correlations between market and credit risks, as well

as between those risks and liquidity risk, canproduce widespread losses.

4. Examples of concentrations based on the potential for unusually deep losses often embody factors such as leverage, optionality, correlation of risk factors and structured financings that concentrate risk in certain tranches. For example, a highly leveraged borrower will likely produce larger credit losses for a given severe price or economic shock than a less leveraged borrower whose capital can absorb a significant portion of any loss. The onset of exchange rate devaluations in late 1997 in Asia revealed the correlation between exchange rate devaluation and declines in financial condition of foreign exchange derivative counterparties resident in the devaluing country, producing very substantial losses relative to notional amounts of those derivatives. The risk in a pool of assets can be concentrated in a

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[15] Losses are equal to the exposure times the percentage loss given the event of default.

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securitisation into subordinated tranches and claims on leveraged special purpose vehicles, which in a downturn would suffer substantial losses.

5. The recurrent nature of credit concentration problems, especially involving conventional credit concentrations, raises the issue of why banks allow concentrations to develop. First, in developing their business strategy, most banks face an inherent trade-off between choosing to specialise in a few key areas with the goal of achieving a market leadership position and diversifying their income streams, especially when they are engaged in some volatile market segments. This trade-off has been exacerbated by intensified competition among banks and non-banks alike for traditional banking activities, such as providing credit to investment grade corporations. Concentrations appear most frequently to arise because banks identify "hot" and rapidly growing industries and use overly optimistic assumptions about an industry's future prospects, especially asset appreciation and the potential to earn above-average fees and/or spreads. Banks seem most susceptible to overlooking the dangers in such situations when they are focused on asset growth or market share.

6. Banking supervisors should have specific regulations limiting concentrations to one borrower or set of related borrowers, and, in fact, should also expect banks to set much lower limits on single-obligor exposure. Most credit risk managers in banks also monitor industry concentrations. Many banks are exploring techniques to identify concentrations based on common risk factors or correlations among factors. While small banks may find it difficult not to be at or near limits on concentrations, very large banking organisations must recognise that, because of their large capital base, their exposures to single obligors can reach imprudent levels while remaining within regulatory limits.

Credit Process Issues

7. Many credit problems reveal basic weaknesses in the credit granting and monitoring processes. While shortcomings in underwriting and management of market-related credit exposures represent important sources of losses at banks, many credit problems would have been avoided or mitigated by a strong internal credit

process.

8. Many banks find carrying out **a thorough credit assessment** (or basic due diligence)a substantial challenge. For traditional bank lending, competitive pressures and the growth of loan syndication techniques create time constraints that interfere with basic due diligence. Globalisation of credit markets increases the need for financial information based on sound accounting standards and timely macroeconomic and flow of funds data. When this information is not available or reliable, banks may dispense with financial and economic analysis and support credit decisions with simple indicators of credit quality, especially if theyperceive a need to gain a competitive foothold in a rapidly growing foreign market. Finally, banks may need new types of information, such as risk measurements, and more frequent financial information, to assess relatively newer counterparties, such as institutional investors and highly leveraged institutions.

9. The absence of **testing and validation of new lending techniques** is another important problem. Adoption of untested lending techniques in new or innovative areas of the market, especially techniques that dispense with sound principles of due diligence or traditional benchmarks for leverage, have led to serious problems at many banks. Sound practice calls for the application of basic principles to new types of credit activity. Any new

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technique involves uncertainty about its effectiveness. That uncertainty should be reflected in somewhat greater conservatism and corroborating indicators of credit quality. An example of the problem is the expanded use of credit-scoring models in consumer lending in the United States and some other countries. Large credit losses experienced by some banks for particular tranches of certain mass-marketed products indicates the potential for scoring weaknesses.

10. Some credit problems arise from **subjective decision-making by senior management** of the bank. This includes extending credits to companies they own or with which they are affiliated, to personal friends, to persons with a reputation for financial acumen or to meet a personal agenda, such as cultivating special relationships with celebrities.

11. Many banks that experienced asset quality problems in the 1990s lacked an **effective credit review process** (and indeed, many banks had no credit review function). Credit review at larger banks usually is a department made up of analysts, independent of the lending officers, who make an independent assessment of the quality of a credit or a credit relationship based on documentation such as financial statements, credit analysis provided by the account officer and collateral appraisals. At smaller banks, this function may be more limited and performed by internal or external auditors. The purpose of credit review is to provide appropriate checks and balances to ensure that credits are made in accordance with bank policy and to provide an independent judgement of asset quality, uninfluenced by relationships with the borrower. Effective credit review not only helps to detect poorlyunderwritten credits, it also helps prevent weak credits from being granted, since credit officers are likely to be more diligent if they know their work will be subject to review.

12. A common and very important problem among troubled banks in the early 1990s wastheir failure to **monitor borrowers or collateral values**. Many banks neglected to obtain periodic financial information from borrowers or real estate appraisals in order to evaluate the quality of loans on their books and the adequacy of collateral. As a result, many banks failed to recognise early signs that asset quality was deteriorating and missed opportunities to work with borrowers to stem their financial deterioration and to protect the bank's position. This lack of monitoring led

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to a costly process by senior management to determine the dimension and severity of the problem loans and resulted in large losses.

13. In some cases, the failure to perform adequate due diligence and financial analysis and to monitor the borrower can result in a breakdown of **controls to detect credit-related fraud**. For example, banks experiencing fraud-related losses have neglected to inspect collateral, such as goods in a warehouse or on a showroom floor, have not authenticated or valued financial assets presented as collateral, or have not required audited financial statements and carefully analysed them. An effective credit review department and independent collateral appraisals are important protective measures, especially to ensure that credit officers and other insiders are not colluding with borrowers.

14. In addition to shortcomings in due diligence and credit analysis, bank credit problems reflect other recurring problems in credit-granting decisions. Some banks analyse credits and decide on appropriate non-price credit terms, but do not use **risk-sensitive pricing**. Banks that lack a sound pricing methodology and the discipline to follow consistently such a methodology will tend to attract a disproportionate share of under-priced risks. These banks will be increasingly disadvantaged relative to banks that have superior pricing skills.

15. Many banks have experienced credit losses because of the failure to use sufficient **caution with certain leveraged credit arrangements**. As noted above, credit extended to highly leveraged borrowers is likely to have large losses in default. Similarly, leveraged structures such as some buyout or debt restructuring strategies, or structures involving customer-written options, generally introduce concentrated credit risks into the bank's credit portfolio and should only be used with financially strong customers. Often, however, such structures are most appealing to weaker borrowers because the financing enables a substantial upside gain if all goes well, while the borrower's losses are limited to its net worth.

16. Many banks' credit activities involve **lending against non-financial assets**. In such lending, many banks have failed to make an adequate assessment of the correlation between the financial condition of the borrower and the price changes and liquidity of the market for the collateral assets. Much asset-based business lending (i.e. commercial finance, equipment leasing, and factoring) and commercial real estate lending appear to involve a relatively high correlation between borrower creditworthiness and asset values. Since the borrower's income,the principal source of repayment, is generally tied to the assets in question, deterioration in the borrower's income stream, if due to industry or regional economic problems, may be accompanied by declines in asset values for the collateral. Some asset based consumerlending (i.e. home equity loans, auto financing) exhibits a similar, if weaker, relationship between the financial health of consumers and the markets for consumer assets.

17. A related problem is that many banks do not take **sufficient account of business cycle effects** in lending. As income prospects and asset values rise in the ascending portion of the business cycle, credit analysis may incorporate overly optimistic assumptions. Industries such as retailing, commercial real estate and real estate investment trusts, utilities, and consumer lending often experience strong cyclical effects. Sometimes the cycle is less related to general business conditions than the product cycle in a relatively new, rapidly growing sector, such as health care and telecommunications. Effective stress testing which takes account of business or product cycle effects is one approach to incorporating into credit decisions a fuller understanding of a borrower's credit risk.

18. More generally, many underwriting problems reflect the absence of a **thoughtful consideration of downside scenarios**. In addition to the business cycle, borrowers may be vulnerable to changes in risk factors such as specific commodity prices, shifts in the competitive landscape and the uncertainty of success in business strategy or management direction. Many lenders fail to “stress test” or analyse the credit using sufficiently adverse assumptions and thus fail to detect vulnerabilities.

Market and Liquidity-Sensitive Credit Exposures

19. Market and liquidity-sensitive exposures pose special challenges to the credit processes at banks. Market-sensitive exposures include foreign exchange and financial derivative contracts. Liquidity-sensitive exposures include margin and collateral agreements with periodic margin calls, liquidity back-up lines, commitments and some letters of credit, and some unwind provisions of securitisations. The contingent nature of the exposure in these instruments requires the bank to have the ability to assess the probability distribution of the size of actual exposure in the future and its impact on both the borrower’s and the bank’s leverage and liquidity.

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20. An issue faced by virtually all financial institutions is the need to develop **meaningful measures of exposure** that can be compared readily with loans and other credit exposures. This problem is described at some length in the Basel Committee's January 1999 study of exposures to highly leveraged institutions.[16]

21. Market-sensitive instruments require a **careful analysis of the customer's willingness and ability to pay.** Most market-sensitive instruments, such as financial derivatives, are viewed as relatively sophisticated instruments, requiring some effort by both the bank and the customer to ensure that the contract is well understood by the customer. The link to changes in asset prices in financial markets means that the value of such instruments can change very sharply and adversely to the customer, usually with a small, but non-zero probability. Effective stress testing can reveal the potential for large losses, which sound practice suggests should be disclosed to the customer. Banks have suffered significant losses when they have taken insufficient care to ensure that the customer fully understood the transaction at origination and subsequent large adverse price movements left the customer owing the bank a substantial amount.

22. Liquidity-sensitive credit arrangements or instruments require a **careful analysis of the customer's vulnerability to liquidity stresses**, since the bank's funded credit exposure can grow rapidly when customers are subject to such stresses. Such increased pressure to have sufficient liquidity to meet margin agreements supporting over-the-counter trading activities or clearing and settlement arrangements may directly reflect market price volatility. In other instances, liquidity pressures in the financial system may reflect credit concerns and a constricting of normal credit activity, leading borrowers to utilise liquidity backup lines or commitments. Liquidity pressures can also be the result of inadequate liquidity risk management by the customer or a decline in its creditworthiness, making an assessment of a borrower's or counterparty's liquidity risk profile another important element of credit analysis.

23. Market- and liquidity-sensitive instruments change in riskiness with changes in the underlying distribution of price changes and market conditions. For market-sensitive instruments, for example, increases in the volatility of price changes effectively increases potential exposures. Consequently, banks should conduct **stress testing of volatility assumptions**.

24. Market- and liquidity-sensitive exposures, because they are probabilistic, can be correlated with the creditworthiness of the borrower. This is an important insight gained from the market turmoil in Asia, Russia and elsewhere in the course of 1997 and 1998. That is, the same factor that changes the value of a market- or liquidity-sensitive instrument can also influence the borrower's financial health and future prospects. Banks need to **analyse the relationship between market- and liquidity-sensitive exposures and the default risk of the borrower**. Stress testing ¾ shocking the market or liquidity factors — is a key element ofthat analysis.

[16] See *Banks' Interactions with Highly Leveraged Institutions* and *Sound Practices for Banks' Interactions with Highly Leveraged Institutions* (January 1999)

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