

# Asian Resonance

## Key Role and Importance of Credit Risk & Insurance in Banking Sector

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### Abstract

The role of information's processing in bank intermediation is a crucial input. The bank has access to different types of information in order to manage risk through capital allocation for Value at Risk coverage. Hard information, contained in balance sheet data and produced with credit scoring, is quantitative and verifiable. Soft information, produced within a bank produces more precise estimation of the debtor's quality. So this article focuses on various types of credit risk and what kind of risk Governance process can be used for risk management. The paper checks the resilience of the commercial banks in India with respect of credit risk, interest rate risk and liquidity risk which were studied through stress testing by imparting extreme but plausible shocks.

Insurance is a way of reducing uncertainty of occurrence of an event. Insurance is an investment. Its basic purpose is to derive plans to counteract the financial consequences of unfavorable events. Insurance is a social device for eliminating or reducing the cost to society to certain types of risks.

Insurance is essentially a co-operative endeavor. It is the function of the insurance to protect the few against the heavy financial impact of anticipated misfortunes by spreading losses among many who are exposed to risks of similar misfortune.

In general, insurance can be broadly classified as Life Insurance and Non-Life Insurance. The term "Insurance Marketing" refers to the marketing of insurance services with the motto of customer - orientation and profit-generation. The insurance marketing focuses on the formulation of an ideal mix for the insurance business so that the insurance organizations survive and thrive in a right perspective. The quality of services can be improved by formulating a fair mix of the core and peripheral services.

The marketing concept in the insurance business is concerned with the expansion of insurance business in the best interest of society vis-a-vis the insurance organizations. The present day socio-economic scenario leads to the inevitable basic need for general insurance.

**Keywords:** Conventional banking, Factor analysis, Interactive banking, Service quality

### Introduction

Business is a tradeoff between risk and return. Risk can be defined as any uncertainty about a future event that threatens the organization's ability to accomplish its mission. There can be no risk-free or zero risk oriented business. Risk in its pragmatic sense, therefore, involves both threats that may be materialized and opportunities which can be exploited. In the present paper we are concentrating on Credit risk. Traditionally credit risk is of two types: Solvency aspects of the credit risk, and Liquidity aspects of the risk. The need for Credit Risk Rating has arisen due dismantling of State control, deregulation, globalization and allowing things to shape on the basis of market conditions; Indian Industry and Indian Banking face new risks and challenges. Competition results in the survival of the fittest. It is therefore necessary to identify these risks, measure them, monitor and control them. It provides a basis for Credit Risk Pricing i.e. fixation of rate of interest on lending to different borrowers based on their credit risk rating thereby balancing Risk & Reward for the Bank. The Basel Accord and consequent Reserve Bank of India guidelines requires that the level of capital required to be maintained by the Bank will be in proportion to the risk of the loan in Bank's Books for measurement of

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which proper Credit Risk Rating system is necessary. The credit risk rating can be a Risk Management tool for prospecting fresh borrowers in addition to monitoring the weaker parameters and taking remedial action. The objective of credit risk management is to minimize the risk and maximize bank's risk adjusted rate of return by assuming and maintaining credit exposure within the

acceptable parameters. Credit risk consists of primarily two components, viz Quantity of risk, and the Quality of risk. Thus credit risk is a combined outcome of Default Risk and Exposure Risk. The overall Rating is assigned on a 'A++' to 'C' scale presented below along with its meaning:

**Table: 1: Credit Rating Scale**

Rating Grade	Description	Meaning
A++	Exceptionally high position of strength. Very High degree of sustainability.	Minimum Risk
A+	High degree of strength on a factor among the peer group. High degree of sustainability.	Marginal Risk
A	Moderate degree of strength with positive outlook.	Modest Risk
B+	Moderate degree of strength with stable or marginally negative outlook.	Average Risk
B	Weakness on a parameter in comparison to peers. Unstable outlook.	Marginally Average Above Risk
C	A fundamental weakness with regard to the factor. Unlikely to improve under normal circumstances.	Caution
D	This denotes default category for companies defaulting as per the NPA guidelines. The underlying borrower or company being rated can be assigned a D rating only in the Management/Facility Module.	Default

## Insurance

In the present day insurance marketing scenario, the United India Insurance Company Limited plays a vital role supporting to the entrepreneurs, corporate sector, investors, government, and the general public.

Every risk involves the loss of one or the other kind. The function of insurance is to spread this loss over a large number of persons through the mechanism of co-operation. The persons who are exposed to a particular risk co-operate to share the loss caused by that risk whenever it takes place. Thus, the risk is not averted but the loss on its occurrence is shared by the members. Insurance not only equalizes losses and distributes heavy sudden losses over a long period of time, but it also takes the amount of loss from a business in such amounts and at such times that no vital want is left unsatisfied.

### Forms of Insurance

From the practical point of view the insurance can be classified into two broad categories such as:

1. Life Insurance
2. Non- Life Insurance

### Credit Appraisal System Used in Banks

Credit appraisal involves analysis of liquidity position/ financial soundness of the company. Although, the analysis also covers understanding growth trends in revenues and earnings, and profit margins, more emphasis is required to be placed on liquidity-both long term and short term. Credit analysis or credit appraisal typically involves micro-analysis of the key financial

statements ie Income Statement, Balance Sheet and Cash flow Statement. The important parameters that are to be looked while analyzing liquidity are:

1. Debt Equity Ratio,
2. Total Debt to Total Assets,
3. Current Ratio and Quick Ratio,
4. Sales to Working capital Ratio ,
5. Inventory Turnover Ratio.

### Credit Approval Process

Different credit approval processes exist for each customer type in order to ensure appropriate skills and resources are employed in credit assessment and approval whilst following the key principles relating to credit approval. Wholesale risk exposures are aggregated to determine the appropriate level of credit approval required and to facilitate consolidated credit risk management.

1. Assessments of corporate borrower and transaction risk are undertaken using a range of credit risk models supplemented, where appropriate, by management judgement. Specialist internal credit risk departments independently oversee the credit process and make credit decisions or recommendations to the appropriate credit committee.
2. Financial Markets counterparties are subject to similar modelling techniques but are approved by a dedicated credit function which specialises in traded market product risk. Consumer lending and personal businesses employ best practice credit scoring

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techniques to process small scale, large volume credit decisions. Scores from such systems are combined with management judgement to ensure an effective ongoing process of approval, review and enhancement. Credit decisions for loans above specified thresholds are individually assessed

## Credit Risk Measurement

The entire world is living on credit. Or it is more correct to say that the entire world lived on credit several years ago just before the financial meltdown. However, the banking sector seems to be gradually recovering, and some banks have already restored credit programs to millions of customers

Issuing a loan or a credit is also associated with certain amount of risk. Indeed, a bank gives money to a person or organization hoping to get money back (plus interest). If the bank does not get its money on time, it faces certain problems. Besides, it is a very painful situation for borrower as well. Credit risks need to be always measured, even if this is very difficult to do. Balanced Scorecard system is a great tool to be used by borrowers who might change their decision to ask for a credit if they see that there might be risks of possible insolvency. It is helpful for both parties, as failure to pay credit is unpleasant for both bank and borrower. As known, Balanced Scorecard system employs the principle of KPI evaluation. KPIs are key performance indicators, and they are different in different business spheres. Capital adequacy, Gross Debt Service Ratio, Customer credit quality, and many more KPIs which directly or indirectly evaluate loan risks. But with Balanced Scorecard you will be able to measure the most important ones, thus getting the most accurate results.

## Key Principles of Credit Risk Management

The objective of credit risk management is to achieve appropriate risk versus reward performance while maintaining credit risk exposure in line with approved risk appetite. This is achieved via a combination of governance structures, credit risk policies, control processes and credit systems collectively known as the Group's Credit Risk Management Framework (—CRMF||). The key principles for credit risk management are set out below.

Approval of all credit exposure is granted prior to any advance or extension of credit.

1. An appropriate credit risk assessment of the customer and credit facilities is undertaken prior to approval of credit exposure. This includes a review of, amongst other things, the purpose of the credit and sources of repayment, compliance with affordability tests, repayment history, capacity to repay, sensitivity to economic and market developments and risk-adjusted return.
2. The Board delegates authority to Advances Committee, Group Credit Committee and divisional credit committees.
3. Credit risk authority is specifically granted in writing to all individuals involved in the granting of credit approval, whether this is exercised personally or collectively as part of a credit committee. In exercising credit authority, the individuals act independently. 4) Where credit

authority is exercised personally, the individual has no responsibility or accountability for related business revenue generation.

4. All credit exposures, once approved, are effectively monitored and managed and reviewed periodically against approved limits. Lower quality exposures are subject to a greater frequency of analysis and assessment.
5. Customers with emerging credit problems are identified early and classified accordingly. Remedial actions are implemented promptly to minimise the potential loss to the Group.
6. Portfolio analysis and reporting is used to identify and manage credit risk concentrations and credit risk quality migration.

## Top 5 Risk Management Challenges At Global Bank

1. Dealing with regulatory uncertainty. Multiple regulatory proposals complicate planning as banks anticipate systemic reform.
2. Anticipating new capital requirements. Stricter regulatory proposals are driving banks to reallocate capital, rebalance portfolios and rethink market strategies.
3. Shifting the risk culture. Banks are strengthening their risk culture and governance processes with more senior management involvement and reinvigorated risk procedures.
4. Navigating the fluid economy. Uncertainty about the economy poses a challenge to long-term and short-term planning.
5. Repairing the balance sheets. Many banks are still dealing with fallout from the economic crisis.

## 3 Ways Banks are Rethinking Risk Strategies

1. Many executives believe that the industry's heightened focus on risk governance is one of the most positive outcomes of the crisis, forcing senior management to fundamentally rethink their strategic approach to risk. Below are three approaches global banks are taking.
1. **Reassessing and integrating risk appetite: Boards and senior management are clearly defining risk tolerance and limits**

The level of acceptable risk must be assessed and determined for each risk type and line of business. Disparate business goals, weak communication and spotty enforcement can cause a disconnection between the risk parameters set at the board and senior management level and the day-to-day management of the business. Cascading the risk parameters down to the business unit and desk level is critical to putting risk appetite into effect throughout the organization.

2. **Strengthening risk identification processes: Banks are looking at risk holistically and assuming a more vigilant stance on risk identification policies and procedures**

Improvements in this area include: daily real-time monitoring of risks; stricter portfolio risk-grading systems; and tighter screening of on-boarding procedures for new clients. Several institutions have formed new cross-functional risk identification committees composed of managers from finance, risk, technology, compliance, treasury,

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accounting and the business units. Many companies have upgraded their product approval policies and procedures, increasing the involvement of the risk group in developing, approving and monitoring products throughout their life cycle.

### 3. **Shifting focus on risk classes: new areas of risk are surfacing on senior management agendas**

As the focus on risk intensifies, companies are enhancing their management of key risks, including:

1. **Credit risk:** the top of the agenda. Banks are conducting stringent independent credit analysis both for borrowers and for credit providers and guarantors. They are deploying special workout teams that will manage loan portfolios more rigorously to resolve remnant structural credit positions and monitor deterioration in credit quality, charge-offs and related delinquencies. And they are strengthening their credit risk management function and team.
2. **Operational risk:** assessing the nuts and bolts. Initiatives include: standardizing documentation of processes and controls; improving data gathering, quality and timeliness; developing methodologies and metrics to quantify risks; and conducting scenario analysis by risk type.
3. **Liquidity risk:** the biggest lesson learned. There was still widespread agreement that the industry underestimated the difficulties of measuring and forecasting liquidity, and all concurred that liquidity must be factored more fully into risk management. New liquidity risk committees meet weekly in some institutions to track and monitor liquidity positions. Basic risk governance policies and procedures have been reviewed and strengthened, common terminology established, data quality and collection upgraded and reports improved.
4. **Market risk:** calming down. Market risk has been taken off the front burner on senior management risk agendas. The extreme volatility in the market is calming down and respondents are breathing a collective sigh of relief. But the contagion impact — the extent of the crisis and speed with which it swept through the industry — is very much on everyone's mind.
5. **Reputational risk:** an erosion of trust. Not surprisingly, effective management.

### **Other Strategies**

Initiatives are underway to achieve more comprehensive, integrated strategies for risk management. Reporting, forecasting and technology have been the primary target areas for improvement, and banks put in place the systems and people required for thorough, proactive approaches to managing and mitigating risk. Many are well along the path to building strong risk governance teams and processes. Below are three ways they're making improvements.

1. **Upgrading report analysis and delivery:** risk reporting is becoming more comprehensive, actionable and timely. Senior management, boards

and other stakeholders are beginning to receive management reports that deliver real, actionable value — a clear shift from the —data dump|| mode that often characterized risk reporting in the past. Once reports are upgraded to span a comprehensive set of information from across the organization, teams are turning their attention to delivering the information more quickly. Executives said that accelerating the reporting process to support real-time decisionmaking is one of their biggest challenges.

Many banks caution that aggregating risk is only the first hurdle, saying the more difficult step is reviewing, analyzing and synthesizing risk reports to understand the interrelationships across the organization.

2. **Upgrading and reinforcing forecasting:** improving systems and methods. Banks need more sophisticated predictive tools that will enable management to assess the implications of market events on and across categories of risk. They need to rely less on historical data and assumptions. It requires incorporated forward-looking scenario planning and stress testing that considers outcomes with extremely low probability but potentially high impact. But executives cautioned that forecasting models can get out of hand, becoming overly complex and too difficult for senior management to understand and use effectively as decision-making tools.
3. **Leveraging technology to support risk management** more effectively remains a work in progress for most banks. While executives seem to have a clear vision of how technology can be deployed to better support risk management, they reported ongoing challenges in implementing effective technology platforms.

Given the high costs involved, companies are approaching the IT challenge from several perspectives. Some have developed prototypes and are in the testing stage, others are organizing IT projects around specific systems or addressing system issues within business-units, and a small number have committed to major system overhauls, such as rebuilding the global market risk infrastructure.

### **Accountability for Risk Governance at Local Bank**

Boards and senior management, at the urging of regulators, are taking a fresh and far more rigorous approach to defining and institutionalizing a robust risk appetite. As they move through the process, they are discovering that risk appetite is a powerful management tool.

A bank's statement of risk appetite should complement the firm's vision and strategy and set the rules of the road for the entire organization, clarifying the board and senior management's overarching views on what constitutes acceptable risk at all levels within the business.



### Risk appetite governance responsibilities

Ownership of risk appetite starts at the very top of the organization and systematically cascades downward to the front line business managers. The key players in the risk appetite development and implementation process include:

1. Board of directors. The role of the board in risk management has evolved significantly post-crisis, from pure oversight to active participation in defining risk appetite and approving the broad risk parameters for the enterprise.
2. Risk committee. More and more banks are adding or strengthening the mandate of board risk committees to focus and enhance their risk oversight responsibilities, including active monitoring of the level of risk exposure for the institution versus the parameters set in the risk appetite.
3. CEO. Ultimately the CEO is responsible for managing risk throughout the organization. The CEO, together with the board, is responsible for creating the risk framework and articulating and enforcing the appropriate risk appetite.
4. CRO. The chief risk officer plays a central role in the risk appetite development and monitoring process — driving the discussions between the board, business management and independent control groups. The CRO is concerned with identifying disconnects between strategy and operations. This role owns the internal assessment of tolerances, limits and indicators to support measurement against the risk appetite, as well as plan development, execution and management.
5. Business unit leaders. Business unit leaders must communicate their business and competitive imperatives and related inherent risks to achieving those objectives during the risk appetite development phase. Once the risk parameters are formulated and communicated, business unit leaders are accountable for ensuring that limits, escalation triggers and other provisions are aligned

with the risk appetite and meticulously observed in the execution of strategy.

4. Independent risk management and control groups. Control and oversight groups must have sufficient knowledge of the business activities of the organization and have the clout to force a review or escalation when risk parameters have been breached. Issues within business-units, and a small number have committed to major system overhauls, such as rebuilding the global market risk infrastructure.

### Resilience of Indian Banking Sector: Credit Risk Management

The resilience of the commercial banks in respect of credit risk, interest rate risk and liquidity risk were studied through stress testing by imparting extreme but plausible shocks. For the credit risk stress test a sensitivity analysis of capital adequacy ratios has been done by imparting shocks to the NPA levels. The interest rate risk has been studied through the Duration of Equity (DoE) method. The liquidity stress tests assess the ability of a bank to withstand unexpected liquidity drain without taking recourse to any outside liquidity support. The credit risk of the commercial banks has also been tested through a macro stress test model which links measures of credit risk to the macroeconomic variables

Stress testing on the banking sector is undertaken on a continuous basis in the Reserve Bank to assess the resilience of the financial system to exceptional but plausible stress events. The stress testing undertaken normally uses single factor sensitivity analysis. In addition, a stress testing model which assesses the impact of macroeconomic variables on the financial soundness indicators of banks has also been attempted. In formulating the quantum of shocks, judicious criteria on selected indicators based on the experience of the Indian financial system are applied.

The stress tests currently being conducted by the Reserve Bank on regular basis cover the following risks:

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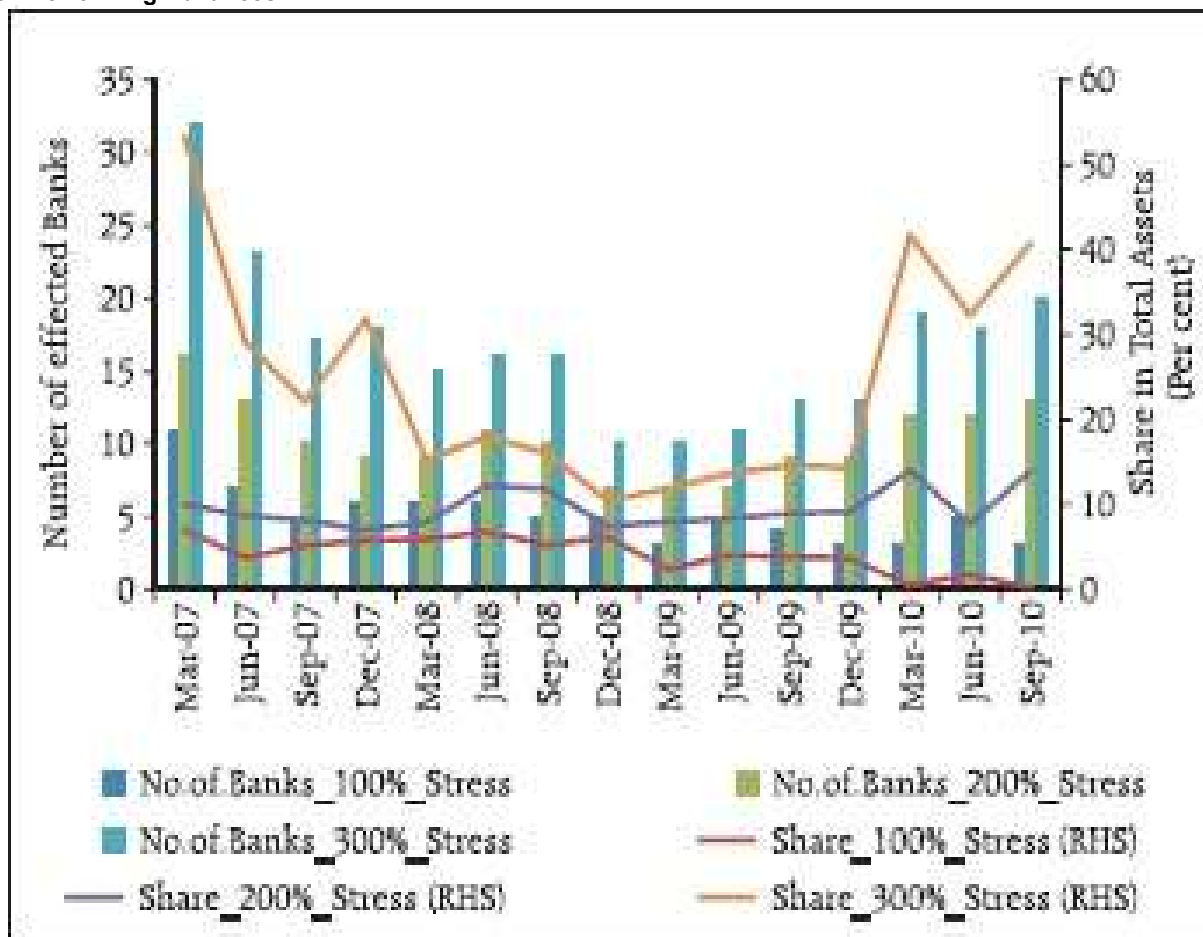
Credit risk, which estimates the impact on capital adequacy by stressing the Non-Performing Advances (NPAs) for the entire credit portfolio. Interest rate risk, which estimates the erosion in economic value of the balance sheet for a given interest rate shock using the duration of Equity method both at the system and the individual bank levels. Liquidity risk, under different scenarios, which include sudden withdrawal of deposits on account of loss of confidence due to adverse economic conditions

## 1. Credit Risk

The resilience of scheduled commercial banks to credit risk was tested by stressing the credit portfolio of banks with increases of 100 per cent, 200 per cent and 300 per cent in NPA levels as compared to the levels as at end-September 2010. At the aggregate level, a significant degree of resilience was observed

and system CRAR remained in excess of regulatory requirements even under the most stressed scenario (i.e. an assumed increase in NPAs by 300 per cent). At the individual level, little deterioration in the CRAR of banks was observed when NPAs were assumed to increase by 100 per cent though the CRAR of several banks fell below regulatory requirements in case of assumed increases in NPAs by 200 per cent and 300 per cent. In the extreme case of an assumed rise in the level of NPAs by 300 per cent, the CRAR of about 20 banks accounting for a share of around 40 per cent of the total assets of the banking sector would fall below the regulatory requirement of 9 per cent CRAR (FIG1). The credit risk stress tests, therefore, do not indicate any significant cause for concern except under extremely stressed scenarios.

**FIG 1: Commercial Banks Falling Below 9 % CRAR on Increase in Non Performing Advances**



Source: Supervisory Data and RBI staff calculations.

## 2. Interest Rate Risk

Duration of Equity (DoE) of commercial banks shows an increasing trend in the recent quarters, pointing towards greater interest rate risk being assumed by banks. This is also reflected at the level of individual banks with the number of banks with DoE

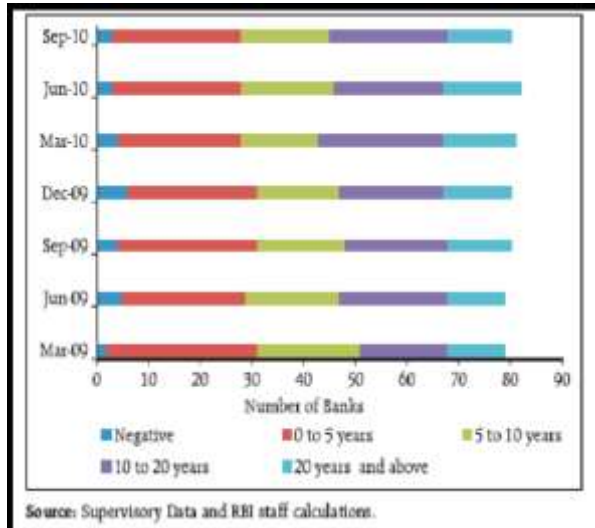
between 10 years and 20 years having increased under the two assumed stress scenarios<sup>4</sup> as compared to the position in December 2009, which was assessed in the last FSR (FIG11). The increased interest rate risk assumed by the bank warrant careful monitoring.

**FIG:II: Duration of Equity - Frequency on Time Buckets (Scenario I -II)**  
 Scenario: I

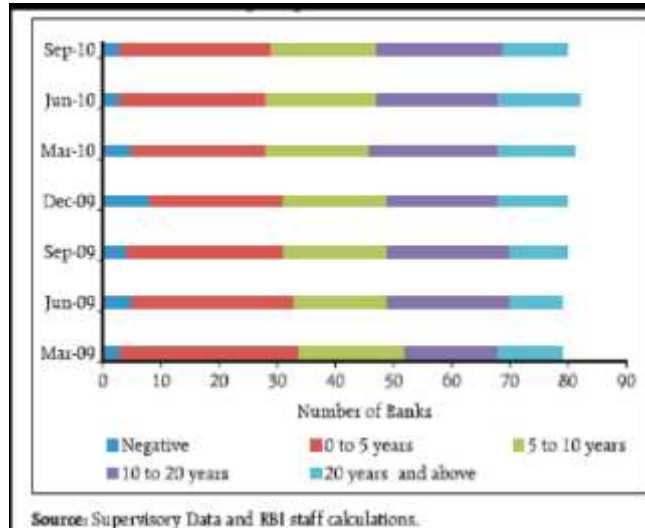
Savings Deposits withdrawal within 1 month

Scenario: II

Savings Deposits withdrawal within 3 month



Source: Supervisory Data and RBI staff calculations.



Source: Supervisory Data and RBI staff calculations.

### 3. Liquidity Risk

The liquidity stress tests assess the ability of a bank to withstand unexpected deposit withdrawal without recourse to any outside liquidity support. The scenarios have been developed based on stringent assumptions and assume unexpected deposit withdrawals in different proportions (depending on the type of deposits). The tests assess the adequacy of liquid assets available to fund these withdrawals. The deposit run is assumed to continue for five days.

The stress tests showed that some banks did not have adequate liquid assets to meet the withdrawals on the first day itself. The number of such banks was higher in September 2010 as compared to March 2009 and March 2010 though there was some improvement as compared to June 2010. However, the total number of banks unable to withstand the stress scenario was higher in September 2010 compared to all the previous.

#### Conclusion

Stress tests of the credit risk exposure of banks reveal a reasonably comfortable position and resilience of banks

to withstand unexpected deterioration in credit quality. However, some deterioration in the capital position of banks is seen in the assumed scenarios of doubling or tripling of the current NPA levels. The increasing trend in the Duration of Equity of commercial banks suggests more interest rate risk and therefore requires active monitoring. The liquidity stress test results show that some banks face liquidity constraints under the stringent stress scenarios both for commercial banks as well as UCBs. The liquid assets positions needs to be assessed and improved to meet any adverse economic condition.

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